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**CATALOGUE OF  
TYPE INVERTEBRATE FOSSILS  
OF THE  
GEOLOGICAL SURVEY OF CANADA**

**Volume IV**

**Thomas E. Bolton**

**1968**

**CATALOGUE OF  
TYPE INVERTEBRATE FOSSILS  
OF THE  
GEOLOGICAL SURVEY OF CANADA**

**Volume IV**

Catalogue of type invertebrate fossils of  
the Geological Survey of Canada,  
*by* Thomas E. Bolton, Vol. I (1960), Vol. II (1965), Vol. III (1966)

Catalogue of types and figured specimens of  
fossil plants in the Geological Survey of  
Canada collections *by* W. A. Bell (1962)



GEOLOGICAL SURVEY  
OF CANADA

*Volume IV*

CATALOGUE OF  
TYPE INVERTEBRATE FOSSILS  
OF THE  
GEOLOGICAL SURVEY OF CANADA

By

Thomas E. Bolton

DEPARTMENT OF  
ENERGY, MINES AND RESOURCES  
CANADA

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## INTRODUCTION

Volume I (1960) of the *Catalogue of Type Invertebrate Fossils* listed all fossil types from FORAMINIFERA to BRACHIOPODA in the Geological Survey of Canada collection as of mid-1959, and Volume II (1965) included all MOLLUSCA in the collection as of mid-1963. Volume III contained all the remaining groups in the collection as of mid-1963, namely ARTHROPODA, WORMS-SCOLOCODONTS, CONODONTS, INCERTAE SEDIS, and an INDEX for all three volumes.

The format of Volume IV is similar to that adopted for the previous three volumes. The original reference for each species is cited as well as subsequent reviews directly related to the forms listed. Once again, no complete synonymy for each or any species is intended or attempted. Representatives of all phyla described subsequent to mid-1959, not included in Volumes I-III, are listed in the present catalogue. Some earlier described fossil types either refigured or recently located in the Survey collections also are recorded.

Primary type categories *Holotype*, *Paratype*, *Syntype*, *Lectotype*, *Neotype*, and secondary type terms *Hypotype*, *Plastotype*, *Topotype*, and Figured specimen (*Fig. spec.*) are used with the same connotations as in Volumes I, II, and III.

All type specimens in the four volumes are cited as objectively as possible. A specimen is listed as a holotype only where there was definite evidence that a single specimen was the basis for the original description of the species or where there was an original designation of such (i.e., the type). Where no original type was designated but a specimen within a type lot was figured, the present writer has attempted to identify the figured specimen within the lot, but such specimens are not cited in this catalogue as holotypes. Type designations of earlier described forms by subsequent investigations are listed wherever possible. Some fossils in the type collection bear labels showing different localities from those cited in the original description and in some instances the number of specimens in a particular syntypic lot is greater than originally listed. Such extraneous specimens are omitted from the catalogue unless they have a direct bearing on the status of the species.

In recent years there has been a growing tendency for individuals and organizations to deposit types with the Geological Survey of Canada. Many such specimens are listed in all four volumes. Such donations make the specimens readily accessible under proper storage and curatorial supervision and greatly enhance the value of the National Type Collection.



## F O R A M I N I F E R A

### *Allomorphina* sp.

Fig. spec. 21038

Wickenden, R.T.D., 1951, Geol. Surv., Canada, Paper 51-16, p. 42, pl. 1A, figs. 32a-c.  
Basal member, Peace River Formation or Falher Member, Spirit River Formation, Lower  
Cretaceous, SE. side Peace River, SW. 1/4 sec. 28, tp. 93, rge. 20, W. 5th mer., Alberta.

### *Ammobaculites* sp. A

Fig. spec. 21012

Wickenden, R.T.D., 1951, Geol. Surv., Canada, Paper 51-16, p. 35, pl. 1A, fig. 6.  
Loon River Formation or Falher Member, Spirit River Formation, Lower Cretaceous, SE.  
side Peace River, SW. 1/4 sec. 28, tp. 93, rge. 20, W. 5th mer., Alberta.

### *Ammobaculites* sp. B

Fig. spec. 21013

Wickenden, R.T.D., 1951, Geol. Surv., Canada, Paper 51-16, p. 35, pl. 1A, fig. 7.  
Loon River Formation or Falher Member, Spirit River Formation, Lower Cretaceous, SE. side  
Peace River, SW. 1/4 sec. 28, tp. 93, rge. 20, W. 5th mer., Alberta.

### *Ammobaculites* sp. C

Fig. spec. 21055

Wickenden, R.T.D., 1951, Geol. Surv., Canada, Paper 51-16, p. 46, pl. 1B, figs. 13a, b.  
Cadotte Formation, Lower Cretaceous, E. side Peace River, NW. 1/4 sec. 13, tp. 91, rge. 21,  
W. 5th mer., Alberta.

### *Ammobaculites* sp. D

Fig. spec. 21056

Wickenden, R.T.D., 1951, Geol. Surv., Canada, Paper 51-16, p. 46, pl. 1B, figs. 14a, b.  
Cadotte Formation, Lower Cretaceous, E. side Peace River, NW. 1/4 sec. 13, tp. 91, rge. 21,  
W. 5th mer., Alberta.

### *Ammobaculites* sp. E

Fig. spec. 21057

Wickenden, R.T.D., 1951, Geol. Surv., Canada, Paper 51-16, p. 46, pl. 1B, fig. 15.  
Cadotte Formation, Lower Cretaceous, E. side Peace River, NW. 1/4 sec. 13, tp. 91, rge. 21,  
W. 5th mer., Alberta.

### *Ammodiscus* sp. A

Fig. spec. 21008

Wickenden, R.T.D., 1951, Geol. Surv., Canada, Paper 51-16, p. 34, pl. 1A, fig. 2.  
Loon River Formation or Falher Member, Spirit River Formation, Lower Cretaceous, SE. side  
Peace River, SW. 1/4 sec. 28, tp. 93, rge. 20, W. 5th mer., Alberta.

## FORAMINIFERA

### *Ammodiscus* sp. B

Fig. spec. 21047

Wickenden, R.T.D., 1951, Geol. Surv., Canada, Paper 51-16, p. 43, pl. 1B, fig. 5. Harmon Formation, Lower Cretaceous, N. side Peace River, NE. 1/4 sec. 13, tp. 89, rge. 21, W. 5th mer., Alberta.

### *Anomalina* sp.

Fig. specs. 21040, 21041

Wickenden, R.T.D., 1951, Geol. Surv., Canada, Paper 51-16, p. 42, pl. 1A, figs. 34a-c, 35a, b.

Loon River Formation or Falher Member, Spirit River Formation, Lower Cretaceous, SE. side Peace River, SW. 1/4 sec. 28, tp. 93, rge. 20, W. 5th mer., Alberta.

### *Boultonia yukonensis* Ross

Holotype 22143; paratypes 22139-22142, 22144-22150

Ross, C.A., 1967, J. Pal., vol. 41, No. 3, p. 717, pl. 83, figs. 8-19.

Permian, east limit of syncline along Tatonduk River, approx. lat. 65°N, long. 140°51'W, Yukon.

### *Brunisia* sp.

Fig. spec. 22116

Ross, C.A., 1967, J. Pal., vol. 41, No. 3, p. 714, pl. 81, fig. 12.

Pennsylvanian, Keele Range area 24 miles south-southeast of Old Crow Lake, lat. 66°59'N, long. 139°38'W, Yukon.

### *Bulimina* sp. A

Fig. spec. 21035

Wickenden, R.T.D., 1951, Geol. Surv., Canada, Paper 51-16, p. 40, pl. 1A, fig. 29. Loon River Formation or Falher Member, Spirit River Formation, Lower Cretaceous, E. side Peace River, NW. 1/4 sec. 13, tp. 91, rge. 21, W. 5th mer., Alberta.

### *Bulimina* sp. B

Fig. spec. 21034

Wickenden, R.T.D., 1951, Geol. Surv., Canada, Paper 51-16, p. 41, pl. 1A, fig. 28. Loon River Formation or Falher Member, Spirit River Formation, Lower Cretaceous, SE. side Peace River, SW. 1/4 sec. 28, tp. 93, rge. 20, W. 5th mer., Alberta.

### *Conorbina* sp.

Fig. spec. 21039

Wickenden, R.T.D., 1951, Geol. Surv., Canada, Paper 51-16, p. 41, pl. 1A, figs. 33a-c. Loon River Formation or Falher Member, Spirit River Formation, Lower Cretaceous, SE. side Peace River, SW. 1/4 sec. 28, tp. 93, rge. 20, W. 5th mer., Alberta.

### *Eggerella?* sp.

Fig. spec. 21058

Wickenden, R.T.D., 1951, Geol. Surv., Canada, Paper 51-16, p. 46, pl. 1B, figs. 16a, b. Cadotte Formation, Lower Cretaceous, E. side Peace River, NW. 1/4 sec. 13, tp. 91, rge. 21, W. 5th mer., Alberta.

### *Endothyra arctica* Ross

Holotype 22074; paratypes 22071-22073

Ross, C.A., 1967, J. Pal., vol. 41, No. 3, p. 714, pl. 79, figs. 1-4.

Pennsylvanian, near headwaters of Ettrain and Jungle Creeks, lat. 65°25'N, long. 140°40'W, Yukon.

*Endothyra* sp.

Fig. spec. 22075

Ross, C.A., 1967, J. Pal., vol. 41, No. 3, p. 714, pl. 79, fig. 5.

Pennsylvanian, Keele Range area 24 miles south-southeast of Old Crow Lake, lat. 66°59'N, long. 139°38'W, Yukon.

*Eoparafusulina yukonensis* (Skinner and Wilde)

Hypotypes 22155–22161, 22165–22172

Ross, C.A., 1967, J. Pal., vol. 41, No. 3, p. 720, pl. 84, figs. 7–14; pl. 85, figs. 1–10.

Permian, west limb of syncline along Tatonduk River, approx. 64°58'N, long. 140°54'W, Yukon.

## ? Foraminifera sp.

Fig. specs. 15173, a

Copeland, M.J., 1960, Trans. Roy. Soc. Can., ser. 3, vol. 54, sec. 4, pl. 1, figs. 25, 26.

Exshaw Formation, Mississippian, Crowsnest Pass, sec. 8, tp. 8, rge. 5, W. 5th mer., Alberta.

*Fusulinella crowensis* Ross

Holotype 22094; paratypes 22091–22093, 22095, 22096

Ross, C.A., 1967, J. Pal., vol. 41, No. 3, p. 717, pl. 80, figs. 1–8.

Pennsylvanian, Keele Range area 24 miles south-southeast of Old Crow Lake, lat. 66°59'N, long. 139°38'W, Yukon.

*Gaudryina* sp. A

Fig. spec. 21015

Wickenden, R.T.D., Geol. Surv., Canada, Paper 51-16, p. 36, pl. 1A, fig. 9.

Loon River Formation or Falher Member, Spirit River Formation, Lower Cretaceous, SE. side Peace River, SW. 1/4 sec. 28, tp. 93, rge. 20, W. 5th mer., Alberta.

*Gaudryina* sp. B

Fig. spec. 21049

Wickenden, R.T.D., 1951, Geol. Surv., Canada, Paper 51-16, p. 44, pl. 1B, fig. 7.

Harmon Formation, Lower Cretaceous, tributary creek W. side Peace River, NE. 1/4 sec. 25, tp. 85, rge. 21, W. 5th mer., Alberta.

*Gaudryina* sp. C

Fig. spec. 21048

Wickenden, R.T.D., 1951, Geol. Surv., Canada, Paper 51-16, p. 44, pl. 1B, fig. 6.

Harmon Formation, Lower Cretaceous, N. side Peace River, NE. 1/4 sec. 13, tp. 89, rge. 21, W. 5th mer., Alberta.

*Globulina* sp.

Fig. spec. 21033

Wickenden, R.T.D., 1951, Geol. Surv., Canada, Paper 51-16, p. 40, pl. 1A, fig. 27.

Basal member, Peace River Formation or Notikewin Member, Spirit River Formation, Lower Cretaceous, SE. side Peace River, SW. 1/4 sec. 28, tp. 93, rge. 20, W. 5th mer., Alberta.

*Glomospira* sp.

Fig. spec. 21051

Wickenden, R.T.D., 1951, Geol. Surv., Canada, Paper 51-16, p. 45, pl. 1B, fig. 9.

Cadotte Formation, Lower Cretaceous, E. side Peace River, NW. 1/4 sec. 13, tp. 91, rge. 21, W. 5th mer., Alberta.

## FORAMINIFERA

### *Gyroidina* sp. A

Fig. spec. 21036

Wickenden, R.T.D., 1951, Geol. Surv., Canada, Paper 51-16, p. 41, pl. 1A, figs. 30a-c.  
Loon River Formation or Falher Member, Spirit River Formation, Lower Cretaceous, SE. side  
Peace River, SW. 1/4 sec. 28, tp. 93, rge. 20, W. 5th mer., Alberta.

### *Gyroidina* sp. B

Fig. spec. 21037

Wickenden, R.T.D., 1951, Geol. Surv., Canada, Paper 51-16, p. 41, pl. 1A, figs. 31a-c.  
Loon River Formation or Falher Member, Spirit River Formation, Lower Cretaceous, SE. side  
Peace River, SW. 1/4 sec. 28, tp. 93, rge. 20, W. 5th mer., Alberta.

### *Haplophragmoides* sp. A

Fig. spec. 21009

Wickenden, R.T.D., 1951, Geol. Surv., Canada, Paper 51-16, p. 34, pl. 1A, fig. 3.  
Loon River Formation or Falher Member, Spirit River Formation, Lower Cretaceous, SE. side  
Peace River, SW. 1/4 sec. 28, tp. 93, rge. 20, W. 5th mer., Alberta.

### *Haplophragmoides* sp. B

Fig. spec. 21010

Wickenden, R.T.D., 1951, Geol. Surv., Canada, Paper 51-16, p. 34, pl. 1A, fig. 4.  
Loon River Formation or Falher Member, Spirit River Formation, Lower Cretaceous, SE. side  
Peace River, SW. 1/4 sec. 28, tp. 93, rge. 20, W. 5th mer., Alberta.

### *Haplophragmoides* sp. C

Fig. spec. 21011

Wickenden, R.T.D., 1951, Geol. Surv., Canada, Paper 51-16, p. 35, pl. 1A, fig. 5.  
Loon River Formation or Falher Member, Spirit River Formation, Lower Cretaceous, SE. side  
Peace River, SW. 1/4 sec. 28, tp. 93, rge. 20, W. 5th mer., Alberta.

### *Halophragmoides* sp. D

Fig. spec. 21043

Wickenden, R.T.D., 1951, Geol. Surv., Canada, Paper 51-16, p. 43, pl. 1B, fig. 1.  
Harmon Formation, Lower Cretaceous, NW. side Peace River, NE. 1/4 sec. 13, tp. 89, rge. 21,  
W. 5th mer., Alberta.

### *Haplophragmoides* sp. E

Fig. spec. 21044

Wickenden, R.T.D., Geol. Surv., Canada, Paper 51-16, p. 43, pl. 1B, fig. 2.  
Harmon Formation, Lower Cretaceous, NW. side Peace River, NE. 1/4 sec. 13, tp. 89, rge. 21,  
W. 5th mer., Alberta.

### *Haplophragmoides* sp. F

Fig. specs. 21045, 21046

Wickenden, R.T.D., 1951, Geol. Surv., Canada, Paper 51-16, p. 44, pl. 1B, figs. 3, 4.  
Harmon Formation, Lower Cretaceous, tributary creek W. side Peace River, NE. 1/4 sec. 25,  
tp. 85, rge. 21, W. 5th mer., Alberta.

### *Haplophragmoides* sp. G

Fig. spec. 21050

Wickenden, R.T.D., 1951, Geol. Surv., Canada, Paper 51-16, p. 45, pl. 1B, figs. 8a-c.  
Cadotte Formation, Lower Cretaceous, E. side Peace River, NW. 1/4 sec. 13, tp. 91, rge. 21,  
W. 5th mer., Alberta.

*Haplophragmoides* sp. H

Fig. spec. 21054

Wickenden, R.T.D., 1951, Geol. Surv., Canada, Paper 51-16, p. 45, pl. 1B, figs. 12a-c.  
 Cadotte Formation, Lower Cretaceous, E. side Peace River, NW. 1/4 sec. 13, tp. 91, rge. 21,  
 W. 5th mer., Alberta.

*Lenticulina* sp.

Fig. specs. 21018, 21019

Wickenden, R.T.D., 1951, Geol. Surv., Canada, Paper 51-16, p. 37, pl. 1A, figs. 12, 13.  
 Loon River Formation or Falher Member, Spirit River Formation, Lower Cretaceous, SE. side  
 Peace River, SW. 1/4 sec. 28, tp. 93, rge. 20, W. 5th mer., Alberta.

*Leptodermella?* sp.

Fig. spec. 21007

Wickenden, R.T.D., 1951, Geol. Surv., Canada, Paper 51-16, p. 34, pl. 1A, fig. 1.  
 Loon River Formation or Falher Member, Spirit River Formation, Lower Cretaceous, SE. side  
 Peace River, SW. 1/4 sec. 28, tp. 93, rge. 20, W. 5th mer., Alberta.

*Lingulina* sp.

Fig. spec. 21032

Wickenden, R.T.D., 1951, Geol. Surv., Canada, Paper 51-16, p. 40, pl. 1A, figs. 26a, b.  
 Basal member, Peace River Formation or Notikewin Member, Spirit River Formation, Lower  
 Cretaceous, SE. side Peace River, SW. 1/4 sec. 28, tp. 93, rge. 20, W. 5th mer., Alberta.

*Marginulina* sp. A

Fig. specs. 21020-21022

Wickenden, R.T.D., 1951, Geol. Surv., Canada, Paper 51-16, p. 37, pl. 1A, figs. 14-16.  
 Loon River Formation or Falher Member, Spirit River Formation, Lower Cretaceous, SE. side  
 Peace River, SW. 1/4 sec. 28, tp. 93, rge. 20, W. 5th mer., Alberta.

*Marginulina* sp. B

Fig. specs. 21023, 21024

Wickenden, R.T.D., 1951, Geol. Surv., Canada, Paper 51-16, p. 37, pl. 1A, figs. 17, 18.  
 Loon River Formation or Falher Member, Spirit River Formation, Lower Cretaceous, SE. side  
 Peace River, SW. 1/4 sec. 28, tp. 93, rge. 20, W. 5th mer., Alberta.

*Marginulina* sp. C

Fig. spec. 21026

Wickenden, R.T.D., 1951, Geol. Surv., Canada, Paper 51-16, p. 38, pl. 1A, figs. 20a-c.  
 Loon River Formation or Falher Member, Spirit River Formation, Lower Cretaceous, SE. side  
 Peace River, SW. 1/4 sec. 28, tp. 93, rge. 20, W. 5th mer., Alberta.

*Marginulina* sp. D

Fig. spec. 21025

Wickenden, R.T.D., 1951, Geol. Surv., Canada, Paper 51-16, p. 38, pl. 1A, figs. 19a, b.  
 Basal member, Peace River Formation or Notikewin Member, Spirit River Formation, Lower  
 Cretaceous, SE. side Peace River, SW. 1/4 sec. 28, tp. 93, rge. 20, W. 5th mer., Alberta.

*Miliammina* sp. A

Fig. spec. 21053

Wickenden, R.T.D., 1951, Geol. Surv., Canada, Paper 51-16, p. 47, pl. 1B, fig. 11.  
 Cadotte Formation, Lower Cretaceous, E. side Peace River, NW. 1/4 sec. 13, tp. 91, rge. 21,  
 W. 5th mer., Alberta.

## FORAMINIFERA

### *Miliammina* sp. B

Fig. spec. 21052

Wickenden, R.T.D., 1951, Geol. Surv., Canada, Paper 51-16, p. 47, pl. 1B, figs. 10a, b.  
Cadotte Formation, Lower Cretaceous, E. side Peace River, NW. 1/4 sec. 13, tp. 91, rge. 21,  
W. 5th mer., Alberta.

### *Millerella porcupinensis* Ross

Holotype 22137; paratypes 22089, 22090, 22105

Ross, C.A., 1967, J. Pal., vol. 41, No. 3, p. 715, pl. 79, figs. 19, 20; pl. 80, fig. 17; pl. 83,  
fig. 6.

Pennsylvanian, Keele Range area south of Old Crow Lake, lat. 67°07'N, long. 139°10'W,  
Yukon.

### *Millerella?* sp.

Fig. spec. 22138

Ross, C.A., 1967, J. Pal., vol. 41, No. 3, pl. 83, fig. 7.  
Permian, east limb of syncline along Tatonduk River, approx. lat. 65°N, long. 140°51'W,  
Yukon.

### *Nodosaria* sp.

Fig. specs. 21029, 21030

Wickenden, R.T.D., 1951, Geol. Surv., Canada, Paper 51-16, p. 39, pl. 1A, figs. 23, 24.  
Loon River Formation or Falher Member, Spirit River Formation, Lower Cretaceous, SE. side  
Peace River, SW. 1/4 sec. 28, tp. 93, rge. 20, W. 5th mer., Alberta.

### *Parafusulina belcheri* Thorsteinsson

Holotype 13974; paratypes 13970–13973, 13975–13982

Harker, P. and Thorsteinsson, R., 1960, Geol. Surv., Canada, Mem. 309, p. 29, pl. 9,  
figs. 1–5; pl. 10, figs. 1–5.

Belcher Channel Formation, Permian, talus lower reaches Lyall River, Grinnell Peninsula,  
northwest Devon Island, Arctic.

### *Profusulinella* cf. *P. copiosa* Thompson

Hypotype 22136

Ross, C.A., 1967, J. Pal., vol. 41, No. 3, p. 718, pl. 83, fig. 5.  
Pennsylvanian, near headwaters of Ettrain and Jungle Creeks, lat. 65°25'N, long. 140°40'W,  
Yukon.

### *Pseudoendothyra britishensis* Ross

Holotype 22078; paratypes 22076, 22077, 22079, 22080

Ross, C.A., 1967, J. Pal., vol. 41, No. 3, p. 715, pl. 79, figs. 6–10.

Mississippian–Pennsylvanian, British Mountains 9 miles south of Trout Lake, lat. 68°42'N, long.  
138°W, Yukon.

### *Pseudoendothyra keelensis* Ross

Holotype 22097; paratypes 22098–22104

Ross, C.A., 1967, J. Pal., vol. 41, No. 3, p. 716, pl. 80, figs. 9–16.

Pennsylvanian, Keele Range area 24 miles south-southeast of Old Crow Lake, lat. 66°59'N, long.  
139°38'W, Yukon.

### *Pseudofusulinella utahensis* Thompson and Bissel

Hypotypes 13917–13929

Harker, P. and Thorsteinsson, R., 1960, Geol. Surv., Canada, Mem. 309, p. 23, pl. 2,  
figs. 9, 10; pl. 3, figs. 1–6.

Belcher Channel Formation, Permian, lower reaches Lyall River, Grinnell Peninsula, northwest  
Devon Island, Arctic.

*Pseudaoglandulina* sp.

Fig. spec. 21031

Wickenden, R.T.D., 1951, Geol. Surv., Canada, Paper 51-16, p. 39, pl. 1A, fig. 25.

Loon River Formation or Falher Member, Spirit River Formation, Lower Cretaceous, SE. side Peace River, SW. 1/4 sec. 28, tp. 93, rge. 20, W. 5th mer., Alberta.

*Pseudoschwagerina grinnelli* Thorsteinsson

Holotype 13958; paratypes 13954–13957, 13959–13969

Harker, P. and Thorsteinsson, R., 1960, Geol. Surv., Canada, Mem. 309, p. 28, pl. 7, figs. 4–8; pl. 8, figs. 1–8.

Belcher Channel Formation, Permian, lower reaches Lyall River, Grinnell Peninsula, northwest Devon Island, Arctic.

*Pseudostaffella ettrainensis* Ross

Holotype 22117; paratypes 22106–22115, 22118–22126

Ross, C.A., 1967, J. Pal., vol. 41, No. 3, p. 719, pl. 81, figs. 1–11; pl. 82, figs. 1–10.

Pennsylvanian, near headwater of Ettrain and Jungle Creeks, lat. 62°25'N, long. 140°40'W, Yukon.

*Pseudostaffella yukonensis* Ross

Holotype 22084; paratypes 22082, 22083, 22085, 22086

Ross, C.A., 1967, J. Pal., vol. 41, No. 3, p. 718, pl. 79, figs. 12–16.

Pennsylvanian, Keele Range area south of Old Crow Lake, lat. 67°07'N, long. 139°10'W, Yukon.

*Pseudostaffella* sp.

Fig. specs. 22087, 22088, 22186, 22187

Ross, C.A., 1967, J. Pal., vol. 41, No. 3, p. 720, pl. 79, figs. 17, 18; pl. 86, figs. 10, 11.

Pennsylvanian, Keele Range area 24 miles south-southeast of Old Crow Lake, lat. 66°59'N, long. 139°38'W and south of Old Crow Lake, lat. 67°07'N, long. 139°10'W, Yukon.

*Quadriflorina* sp.

Fig. spec. 21042

Wickenden, R.T.D., 1951, Geol. Surv., Canada, Paper 51-16, p. 42, pl. 1A, figs. 36a–c.

Loon River Formation or Falher Member, Spirit River Formation, Lower Cretaceous, SE. side Peace River, SW. 1/4 sec. 28, tp. 93, rge. 20, W. 5th mer., Alberta.

*Quinqueloculina* sp.

Fig. spec. 21016

Wickenden, R.T.D., 1951, Geol. Surv., Canada, Paper 51-16, p. 36, pl. 1A, figs. 10a–c.

Basal member, Peace River Formation or Notikewin Member, Spirit River Formation, Lower Cretaceous, SE. side Peace River, SW. 1/4 sec. 28, tp. 93, rge. 20, W. 5th mer., Alberta.

*Robulus* sp.

Fig. spec. 21017

Wickenden, R.T.D., 1951, Geol. Surv., Canada, Paper 51-16, p. 36, pl. 1A, fig. 11.

Loon River Formation or Falher Member, Spirit River Formation, Lower Cretaceous, SE. side Peace River, SW. 1/4 sec. 28, tp. 93, rge. 20, W. 5th mer., Alberta.

*Saracenaria* sp. A

Fig. spec. 21027

Wickenden, R.T.D., 1951, Geol. Surv., Canada, Paper 51-16, p. 38, pl. 1A, figs. 21a–c.

Loon River Formation or Falher Member, Spirit River Formation, Lower Cretaceous, SE. side Peace River, SW. 1/4 sec. 28, tp. 93, rge. 20, W. 5th mer., Alberta.

## FORAMINIFERA

### *Saracenaria* sp. B

Fig. spec. 21028

Wickenden, R.T.D., 1951, Geol. Surv., Canada, Paper 51-16, p. 39, pl. 1A, figs. 22a, b.

Basal member, Peace River Formation or Notikewin Member, Spirit River Formation, Lower Cretaceous, SE. side Peace River, SW. 1/4 sec. 28, tp. 93, rge. 20, W. 5th mer., Alberta.

### *Schubertella kingi* Dunbar and Skinner

Hypotypes 13909–13916

Harker, P. and Thorsteinsson, R., 1960, Geol. Surv., Canada, Mem. 309, p. 22, pl. 2, figs. 1–8.

Belcher Channel Formation, Permian, lower reaches Lyall River, Grinnell Peninsula, northwest Devon Island, Arctic.

### *Schwagerina hyperborea* (Salter)

Paratypes 13476, a, b; hypotypes 13947–13953

Harker, P. and Thorsteinsson, R., 1960, Geol. Surv., Canada, Mem. 309, p. 26, pl. 6, figs. 1–6; pl. 7, figs. 1–3.

Belcher Channel Formation, Permian loose blocks at Depot Point and lower reaches Lyall River, Grinnell Peninsula, northwest Devon Island, Arctic.

### *Schwagerina hyperborea* (Salter)

Hypotypes 22162–22164

Ross, C.A., 1967, J. Pal., vol. 41, No. 3, p. 721, pl. 84, figs. 15–18.

Permian, east limb of syncline along Tatonduk River, approx. lat. 65°N, long. 140°51'W, Yukon.

### *Schwagerina jenkinsi* Thorsteinsson

Holotype 13940; paratypes 13939, 13941–13946

Harker, P. and Thorsteinsson, R., 1960, Geol. Surv., Canada, Mem. 309, p. 25, pl. 4, figs. 9–12; pl. 5, figs. 1–4.

Belcher Channel Formation, Permian, lower reaches Lyall River, Grinnell Peninsula, northwest Devon Island, Arctic.

### *Schwagerina jenkinsi* Thorsteinsson

Hypotypes 22173–22183

Ross, C.A., 1967, J. Pal., vol. 41, No. 3, p. 722, pl. 85, figs. 11–17; pl. 86, figs. 1–7.

Permian, east limb of syncline along Tatonduk River, approx. lat. 65°N, long. 140°51'W, Yukon.

### *Schwagerina parolinearis* Thorsteinsson

Holotype 13931; paratypes 13930, 13932–13938

Harker, P. and Thorsteinsson, R., 1960, Geol. Surv., Canada, Mem. 309, p. 24, pl. 4, figs. 1–8.

Belcher Channel Formation, Permian, lower reaches Lyall River, Grinnell Peninsula, northwest Devon Island, Arctic.

### *Schwagerina* sp. A, B

Fig. specs. 22133–22135, 22151–22154

Ross, C.A., 1967, J. Pal., vol. 41, No. 3, pp. 723, 724, pl. 83, figs. 1–4; pl. 84, figs. 1–6.

Tahkandit Formation, Permian, west limit of syncline along Tatonduk River, approx. lat. 64°58'N, long. 140°54'W, Yukon.

*Staffella junglensis* Ross

Holotype 22128; paratypes 22127, 22129–22132, 22184

Ross, C.A., 1967, J. Pal., vol. 31, No. 4, p. 716, pl. 82, figs. 11–16; pl. 86, fig. 8.

Pennsylvanian, near headwaters of Ettrain and Jungle Creeks, lat. 65°25'N, long. 140°40'W,  
Yukon.

*Staffella* sp.

Fig. specs. 22081, 22185

Ross, C.A., 1967, J. Pal., vol. 41, No. 3, p. 717, pl. 79, fig. 11; pl. 86, fig. 9.

Pennsylvanian, Keele Range area 24 miles south-southeast of Old Crow Lake, lat. 66°59'N, long.  
139°38'W, Yukon.

*Verneuilina* sp. A

Fig. spec. 21014

Wickenden, R.T.D., 1951, Geol. Surv., Canada, Paper 51-16, p. 35, pl. 1A, figs. 8a, b.

Loon River Formation or Falher Member, Spirit River Formation, Lower Cretaceous, SE. side  
Peace River, SW. 1/4 sec. 28, tp. 93, rge. 20, W. 5th mer., Alberta.

## P O R I F E R A

### *Calycocoelia solenos* Rigby

Holotype 22601; paratype 22602, a-j

Rigby, J.K., 1967, J. Pal., vol. 41, No. 3, p. 767, pl. 102, figs. 1-5.

Whitehead Formation, Ordovician, Grande Coupe, Percé, Quebec.

### *Caryomanon parvulum* (Billings)

Hypotype 17694

Wilson, A.E., 1948, Geol. Surv., Canada, Bull. 11, p. 17, pl. 7, fig. 3.

Cobourg Beds, Ottawa Formation, Middle Ordovician, small exposure at Lakeside Park between Carling and Bronson Avenue, Ottawa, Ontario.

## A R C H A E O C Y A T H A

### *Acanthopyrgus yukonensis* Handfield

Holotype 21059; paratypes 21060-21063

Handfield, R.C., 1967, J. Pal., vol. 41, No. 1, p. 209, pl. 23, figs. 1-8; text-figs. 1 a-s.

Lower Cambrian, Mackenzie Mountains, lat.  $61^{\circ}35'30''$ N, long.  $128^{\circ}11'W$ , Yukon.

### *Archaeocyathus atlanticus* Billings

Walcott, C.D., 1886, United States Geol. Surv., Bull. 30, p. 73, pl. 2, fig. 1a [holotype 369]

=*Spirocyathus atlanticus*, Hinde, G.J., 1889, Quart. J. Geol. Soc. London, vol. 45, p. 136, pl. 5, figs. 8 [thin section 369a], 10 [thin section 369b].

### *Archaeocyathus profundus* Billings

Hinde, G.J., 1889, Quart. J. Geol. Soc. London, vol. 45, p. 131, pl. 5, figs. 3 [thin section

373 e' of hypotype 373 d, e (specimen halved)], 4 [thin section 341 b of syntype 341, a (specimen halved)].

## STROMATOPOROIDEA

### *Actinostroma clathratum* Nicholson

Hypotypes 18678, a, b, 18686, a, b

Stearn, C.W., 1966, Geol. Surv., Canada, Bull. 133, p. 47, pl. 13, figs. 4, 5; pl. 16, figs. 3, 4.  
Escarpment Member, Hay River Formation, and Twin Falls Formation, Upper Devonian, scarp  
4 miles northwest of Desmarais Lake and 1 3/4 miles above second island above Alexandra  
Falls, Hay River, Northwest Territories.

### *Actinostroma clathratum* Nicholson

Hypotypes 19836, a, b, 19837, a, b

Klovan, J.E., 1966, Geol. Surv., Canada, Bull. 133, p. 18, pl. 5, figs. 2a, b, 3a, b.  
Leduc Formation, Upper Devonian, 4227', Saltwater Disposal Well #4, 13-16-58-22 W. 4th mer.  
and 4112', Imperial Eastgate #1-22 well, 1-22-57-22 W. 4th mer., Alberta.

### *Actinostroma* cf. *A. crassepilatum* Lecompte

Hypotype 19840, a, b

Klovan, J.E., 1966, Geol. Surv., Canada, Bull. 133, p. 20, pl. 6, figs. 2a, b.  
Leduc Formation, Upper Devonian, 3431', Saltwater Disposal Well #5, 5-36-56-21 W. 4th mer.,  
Alberta.

### *Actinostroma devonense* Lecompte

Hypotype 15319

Stearn, C.W., 1961, J. Pal., vol. 35, No. 5, p. 941, pl. 106, figs. 5, 6.  
Cairn Formation, Upper Devonian, where Ram River flows through Second Range of the  
Rockies, sec. 8, tp. 35, rge. 15, W. 5th mer., Alberta.

### *Actinostroma inflectum* Parks

Holotype 17738 [specimen]

Parks, W.A., 1898, Ottawa Naturalist, vol. 23, p. 27.  
Middle Silurian, Pagwachuan River, Ontario.

=*Actinostroma tenuifilatum* var. *inflectum*, Parks, W.A., 1909, Univ. Toronto Studies,  
Geol. Ser., No. 6, p. 25.

### *Actinostroma matutinum* Nicholson

Hypotype 19835, a, b

Klovan, J.E., 1966, Geol. Surv., Canada, Bull. 133, p. 17, pl. 5, figs. 1a, b.  
Leduc Formation, Upper Devonian, 3717', Saltwater Disposal Well #4, 13-16-58-22 W. 4th mer.,  
Alberta.

### *Actinostroma pachypilatum* Klovan

Holotype 19838, a, b

Klovan, J.E., 1966, Geol. Surv., Canada, Bull. 133, p. 19, pl. 5, figs. 4a, b.  
Leduc Formation, Upper Devonian, 3980', Saltwater Disposal Well #5, 5-36-56-21 W. 4th mer.,  
Alberta.

## STROMATOPOROIDEA

### *Actinostroma redwaterense* Klovan

Holotype 19839, a, b

Klovan, J.E., 1966, Geol. Surv., Canada, Bull. 133, p. 19, pl. 6, figs. 1a, b.

Leduc Formation, Upper Devonian, 3845', Saltwater Disposal Well #4, 13-16-58-22 W. 4th mer., Alberta.

### *Amphipora ramosa* (Phillips)

Hypotypes 15326, 15327

Stearn, C.W., 1961, J. Pal., vol. 35, No. 5, p. 946, pl. 107, figs. 9, 10.

Uppermost Cairn and Flume Formations, Upper Devonian, headwaters of small creek flowing northwest into Job Creek near its junction with Brazeau River, lat. 52°26'N, long. 116°41'W, and unknown locality, Alberta.

### *Amphipora ramosa* (Phillips)

Hypotype 18705, a

Stearn, C.W., 1966, Geol. Surv., Canada, Bull. 133, p. 63, pl. 24, fig. 2.

Escarment Member, Hay River Formation, Upper Devonian, Louise Falls, Hay River left bank at Twin Falls Creek, Northwest Territories.

### *Amphipora* sp.

Fig. spec. 13831

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 14, pl. 6, fig. 8.

605 feet below top of Southesk Formation, Upper Devonian, south end of Ancient Wall, Jasper National Park, Alberta.

### *Amphipora* sp.

Fig. specs. 19855–19858

Klovan, J.E., 1966, Geol. Surv., Canada, Bull. 133, p. 30, pl. 10, figs. 1–6.

Leduc Formation, Upper Devonian, 3919', 4290', 3601', and 3506', Imperial Eastgate #1-22 well, 1-22-57-22 W. 4th mer., Alberta.

### *Anostylostroma bailliei* McCammon

Holotype 14767, a; paratypes 14768, a, 14769, a

McCammon, H., 1960, Manitoba Dept. Mines Natural Res., Mines Branch, Publ. 59-6, p. 27, pl. 1, figs. 1–3.

Dawson Bay Formation, Middle Devonian, Snake Island, Lake Winnipegosis, Manitoba.

### *Anostylostroma intermedium* Klovan

Holotype 19823, a, b

Klovan, J.E., 1966, Geol. Surv., Canada, Bull. 133, p. 6, pl. 1, figs. 2a, b.

Leduc Formation, Upper Devonian, 3370', Imperial Egremont #1 well, 3-14-58-22 W. 4th mer., Alberta.

### *Anostylostroma laxum* (Nicholson)

Hypotype 19822, a, b

Klovan, J.E., 1966, Geol. Surv., Canada, Bull. 133, p. 6, pl. 1, figs. 1a, b.

Leduc Formation, Upper Devonian, 4033', Imperial Eastgate #1 well, 1-22-57-22 W. 4th mer., Alberta.

### *Anostylostroma phricum* Stearn

Holotype 18679, a, b; paratypes 18680, a, 18681, a

Stearn, C.W., 1966, Geol. Surv., Canada, Bull. 133, p. 42, pl. 14, figs. 1–4; pl. 26, fig. 8.

Kakisa Formation, Upper Devonian, upper rapids, at main falls, and below falls on Middle Kakisa River, Northwest Territories.

*Anostylostroma ponderosum* (Nicholson)

Hypotypes 15956, 15957

Fagerstrom, J.A., 1962, J. Pal., vol. 36, No. 3, p. 425.

Anderdon limestone, Middle Devonian, Sibley quarry near Trenton, Michigan, U.S.A.

*Anostylostroma sibleyense* Fagerstrom

Paratype 15960

Fagerstrom, J.A., 1962, J. Pal., vol. 36, No. 3, p. 426.

Anderdon limestone, Middle Devonian, Sibley quarry near Trenton, Michigan, U.S.A.

*Anostylostroma vesiculosum* Stearn

Holotype 15313; hypotype 15314

Stearn, C.W., 1961, J. Pal., vol. 35, No. 5, p. 935, pl. 105, figs. 3-5.

Cairn and Southesk Formations, Upper Devonian, south side Isaac Creek at Sawtooth Mountain, Jasper National Park and Saracen Head Mountain south of intersection of Southesk and Cairn Rivers, sec. 35, tp. 42, rge. 21, W. 5th mer., Alberta.

*Atelodictyon ordinatum* Stearn

Holotype 15317

Stearn, C.W., 1961, J. Pal., vol. 35, No. 5, p. 937, pl. 105, fig. 8; pl. 106, fig. 1.

Cairn Formation, Upper Devonian, south end of Ram Range at second major creek tributary to Hummingbird Creek, sec. 19, tp. 36, rge. 14, W. 5th mer., Alberta.

*Atelodictyon stelliferum* Stearn

Holotype 15315; hypotype 15316

Stearn, C.W., 1961, J. Pal., vol. 35, No. 5, p. 937, pl. 105, figs. 6-8.

Cairn and Flume Formations, Upper Devonian, south end of Ram Range at second major creek tributary to Hummingbird Creek, sec. 19, tp. 36, rge. 14, W. 5th mer., and 2 miles north of Clearwater River, Second Range of the Rockies, lat. 51°54'N, long. 115°56'W, Alberta.

*Atelodictyon stelliferum* Stearn

Hypotypes 18683, a, b, 18684, a

Stearn, C.W., 1966, Geol. Surv., Canada, Bull. 133, p. 46, pl. 15, figs. 4-6; pl. 26, fig. 6.

Mikkwa Formation, Upper Devonian, southeast bank of Peace River approximately 1/4 mile above Little Red River settlement and northeast bank Mikkwa River 1 1/8 mile above mouth, Northwest Territories.

*Atelodictyon cf. A. stelliferum* Stearn

Hypotype 19824, a, b

Klovan, J.E., 1966, Geol. Surv., Canada, Bull. 133, p. 7, pl. 1, figs. 3a, b.

Leduc Formation, Upper Devonian, 3237', Saltwater Disposal Well #1, 12-28-5'-21 W. 4th mer., Alberta.

*Beatricea clarkei* Nelson

Holotype 10555; paratype 10556

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 27, pl. 4, figs. 1a-c, 2.

Chasm Creek Formation, Upper Ordovician, left bank Churchill River, 2-2 1/2 miles above Red Head Rapids and right bank Nelson River, approximately 3 miles above mouth Angling River, Manitoba.

*Beatricea nodulosa* Billings

Hypotype 10557

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 27, pl. 4, fig. 3.

Member 5, Surprise Creek Formation, Upper Ordovician, Churchill River, 1/3 mile up Hidden Creek, Manitoba.

## STROMATOPOROIDEA

### *Beatricea undulata* Billings

Hypotype 18673

Liberty, B.A., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 53, pl. 6, fig. 10.

Meaford Formation, Upper Ordovician, Rabbit Island, Georgian Bay, Ontario.

### *Clathrocoilona inconstans* Stearn

Holotype 16447, a, b [specimen and thin sections]; paratypes 16448–16451, a, b [specimens and slides]

Stearn, C.W., 1962, Geol. Surv., Canada, Bull. 92, p. 15, pl. 7, figs. 1–5; pl. 8, figs. 6, 7.

Moberly Member, Waterways Formation, Upper Devonian, opposite Tar Island, east bank Athabasca River below McMurray; west bank Athabasca River 1.4 miles downstream from north end Tar Island and 24 miles downstream from Wing Dam at Waterways; east bank Athabasca River 1.3 miles upstream from mouth Clarke Creek and 5.4 miles downstream from Wing Dam at Waterways; and west bank Athabasca River opposite north end Inglis Island and 18.1 miles downstream from Wing Dam at Waterways, Alberta.

### *Clathrocoilona inconstans* Stearn

Hypotypes 18682, a, 18713, a, b

Stearn, C.W., 1966, Geol. Surv., Canada, Bull. 133, p. 45, pl. 15, figs. 1–3.

Escarpment Member, Hay River Formation and Heart Lake reef, Upper Devonian, Hay River left bank at Twin Falls Creek and Porcupine Falls on Beaver Creek, Northwest Territories.

### *Clathrocoilona cf. spissa* Lecompte

Hypotype 15325

Stearn, C.W., 1961, J. Pal., vol. 35, No. 5, p. 945, pl. 107, figs. 7, 8.

Southesk Formation, Upper Devonian, Saracen Head Mountain south of intersection of Southesk and Cairn Rivers, sec. 35, tp. 42, rge. 21, W. 5th mer., Alberta.

### *Clathrodictyon crickmayi* Parks

Stearn, C.W. and Hubert, C., 1966, Can. J. Earth Sci., vol. 3, No. 1, p. 35, pl. 1, fig. 7 [holotype 9147 – specimen and 3 thin sections].

### *Clathrodictyon cystosum* var. *lineatum* Parks

Hypotype 17740, a, b [specimen and thin sections]

Parks, W.A., 1909, Univ. Toronto Studies, Geol. Ser., No. 6, p. 29, pl. 20, fig. 9.

Upper Silurian, Beechey Island, Arctic.

### *Cryptophragmus antiquatus* Raymond

Sinclair, G.W., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 39, pl. 3, fig. 1 [paratype 7832].

### *Euryamphipora platyformis* Klovan

Holotype 19834, a–f

Klovan, J.E., 1966, Geol. Surv., Canada, Bull. 133, p. 15, pl. 3, figs. 4a, b; pl. 4, figs. 1–7.

Leduc Formation, Upper Devonian, 4278', Imperial Eastgate #1-22 well, 1-22-57-22 W. 4th mer., Alberta.

### *Euryamphipora?* sp.

Fig. spec. 18708, a–c

Stearn, C.W., 1966, Geol. Surv., Canada, Bull. 133, p. 64, pl. 24, figs. 6, 7; pl. 25, fig. 3.

Escarpment Member, Hay River Formation, Upper Devonian, Louise Falls, Hay River left bank at Twin Falls Creek, Northwest Territories.

*Ferestromatopora contexta* Stearn

Holotype 16856, a-f

Stearn, C.W.,

1963, J. Pal., vol. 37, No. 3, p. 666, pl. 88, figs. 3, 4; text-fig. 3B.

1966, Geol. Surv., Canada, Bull. 133, p. 57, pl. 26, fig. 5.

Upper Devonian, near mouth of Mikkwa River, southeast bank Peace River, northern Alberta.

*Ferestromatopora contexta* Stearn

Topotype 18700, a; hypotype 18701, a

Stearn, C.W., 1966, Geol. Surv., Canada, Bull. 133, p. 57, pl. 22, figs. 5-7.

Mikkwa Formation, Upper Devonian, southeast bank Peace River at mouth of Mikkwa River, Northwest Territories and north bank Mikkwa River about 3/16 mile upstream, northern Alberta.

*Ferestromatopora convergens* McCammon

Holotype 14868a; paratype 14770, a-c

McCammon, H., 1960, Manitoba Dept. Mines Natural Res., Mines Branch, Publ. 59-6, p. 29, pl. 2, figs. 2a, b, 3a, b.

Dawson Bay Formation, Middle Devonian, Snake Island, Lake Winnipegosis, Manitoba.

*Ferestromatopora dubia* (Lecompte)

Hypotype 19847, a, b

Klovan, J.E., 1966, Geol. Surv., Canada, Bull. 133, p. 25, pl. 8, figs. 1a, b.

Leduc Formation, Upper Devonian, 4146', Imperial Eastgate #1-22 well, 1-22-57-22 W. 4th mer., Alberta.

*Ferestromatopora jacquensis* Galloway

Hypotype 15323

Stearn, C.W., 1961, J. Pal., vol. 35, No. 5, p. 943, pl. 107, figs. 4, 5.

210-220 feet above base Flume Formation, Upper Devonian, 2 miles north of Clearwater River, Second Range of the Rockies, lat. 51°54'N, long. 115°56'W, Alberta.

= *Ferestromatopora parksi*, Stearn, C.W., 1966, Geol. Surv., Canada, Bull. 133, p. 58, pl. 23, fig. 5; pl. 24, fig. 1 [holotype].*Ferestromatopora parksi* Stearn

Hypotypes 18677, 18702, a, b, 18703, a, b, 18704, a

Stearn, C.W., 1966, Geol. Surv., Canada, Bull. 133, p. 45, pl. 13, fig. 3; pl. 23, figs. 1-4, 6; pl. 26, fig. 7.

Twin Falls and Mikkwa Formations, Upper Devonian, 1 mile upstream from second island above Alexandra Falls, Hay River, Northwest Territories; southeast bank of Peace River, approximately 1/4 mile above Little Red River Settlement and end of outcrop northeast bank of Mikkwa River, 1 1/8 miles up from mouth, northern Alberta.

*Gerronostroma cf. gromotuchense* Yavorsky

Hypotype 14776, a-c

McCammon, H., 1960, Manitoba Dept. Mines Natural Res., Mines Branch, Publ. 59-6, p. 28, pl. 2, figs. 1a, b.

Souris River Formation, Upper Devonian, abandoned quarry 1 1/2 miles west of town of Winnipegosis. 50 feet south of Camperville road, NW. 1/4 l.s.d. 9, tp. 31, rge. 18, W. Prin. mer., Manitoba.

## STROMATOPOROIDEA

### *Hammatostroma albertense* Stearn

Holotype 15318

Stearn, C.W.,

1961, J. Pal., vol. 35, No. 5, p. 940, pl. 106, figs. 2, 4.

1966, Geol. Surv., Canada, Bull. 133, p. 45, pl. 26, fig. 3.

Cairn Formation, Upper Devonian, south side Isaac Creek at Sawtooth Mountain, Jasper National Park, Alberta.

### *Hammatostroma albertense* Stearn

Hypotype 18677

Stearn, C.W., 1966, Geol. Surv., Canada, Bull. 133, p. 45, pl. 13, fig. 3.

Twin Falls Formation, Upper Devonian, 1 mile upstream from second island above Alexandra Falls, Hay River, Northwest Territories.

### *Hammatostroma albertense* Stearn

Hypotype 19831, a, b

Klovan, J.E., 1966, Geol. Surv., Canada, Bull. 133, p. 12, pl. 3, figs. 1a, b.

Leduc Formation, Upper Devonian, 3892', Saltwater Disposal Well #4, 13-16-58-22 W. 4th mer., Alberta.

### *Hammatostroma cf. H. albertense* Stearn

Hypotype 19830, a, b

Klovan, J.E., 1966, Geol. Surv., Canada, Bull. 133, p. 11, pl. 2, figs. 5a, b.

Leduc Formation, Upper Devonian, 3230', Saltwater Disposal Well #1, 12-28-57-21 W. 4th mer., Alberta.

### *Hammatostroma delicatulum* Klovan

Holotype 19832, a, b

Klovan, J.E., 1966, Geol. Surv., Canada, Bull. 133, p. 12, pl. 3, figs. 2a, b.

Leduc Formation, Upper Devonian, 3197', Imperial Opal #38 well, 11-20-58-22 W. 4th mer., Alberta.

### *Hammatostroma nodosum* Klovan

Holotype 19833, a, b

Klovan, J.E., 1966, Geol. Surv., Canada, Bull. 133, p. 13, pl. 3, figs. 3a, b.

Leduc Formation, Upper Devonian, 4135.5', Imperial Eastgate #1-22 well, 1-22-57-22 W. 4th mer., Alberta.

### *Hermatostroma maillieuxi* (Lecompte)

Hypotype 18706, a, b

Stearn, C.W., 1966, Geol. Surv., Canada, Bull. 133, p. 60, pl. 24, figs. 3, 4.

Kakisa Formation, Upper Devonian, above Coral Falls, Trout River, Northwest Territories.

### *Idiostroma mclareni* Stearn

Holotype 16436a, b [specimen and thin sections]

Stearn, C.W., 1962, Geol. Surv., Canada, Bull. 92, p. 7, pl. 2, figs. 4, 5; pl. 3, figs. 2-4.

Moberly Member, Waterways Formation, Upper Devonian, 1/2 mile below Poplar Island, east bank Athabasca River below McMurray, Alberta.

### *Idiostroma* sp.

Fig. spec. 14869, a

McCammon, H., 1960, Manitoba Dept. Mines Natural Res., Mines Branch, Publ. 59-6, p. 30, pl. 3, figs. 5a, b.

Dawson Bay Formation, Middle Devonian, north bank 1 3/5 miles up Red Deer River, l.s.d. 6, sec. 21, tp. 45, rge. 25, W. Prin. mer., Manitoba.

*Labechia palliseri* Stearn

Holotype 15311; hypotype 15312

Stearn, C.W., 1961, J. Pal., vol. 35, No. 5, p. 935, pl. 105, figs. 1, 2.

Palliser Formation, Upper Devonian, loose below cliff, Bighorn Range at Wapiabi Gap, sec. 21, tp. 41, rge. 17, W. 5th mer., Alberta and on south side of Mount Fox above Elk Lakes, British Columbia.

*Parallelopora* cf. *P. dartingtonensis* (Carter)

Hypotype 18707, a, b

Stearn, C.W., 1966, Geol. Surv., Canada, Bull. 133, p. 61, pl. 24, fig. 5; pl. 25, fig. 4.

Mikkwa Formation, Upper Devonian, 200 yards up north bank of Mikkwa River from mouth, Little Red River Settlement, northern Alberta.

*Pseudoactinodictyon athabascense* Stearn

Holotype 16454, a-c [specimen and thin sections]; paratype 16455, a, b [specimen and thin sections]

Stearn, C.W., 1962, Geol. Surv., Canada, Bull. 92, p. 18, pl. 4, figs. 4, 7, 8; pl. 6, fig. 3.

Moberly Member, Waterways Formation, Upper Devonian, below 'Dogrib' Island, west bank Athabasca River below McMurray and 1/4 mile south of south tip of Poplar Island, east bank Athabasca River, Alberta.

*Pseudoactinodictyon bellulosum* Stearn

Holotype 18695, a, b; paratypes 18696, a, 18697a

Stearn, C.W., 1966, Geol. Surv., Canada, Bul. 133, p. 53, pl. 21, figs. 1-3; pl. 22, fig. 4; pl. 26, fig. 1.

Mikkwa Formation, Upper Devonian, south bank Mikkwa River between 0.1-0.2 mile above upper end of outcrop 1 1/2 miles above mouth and north bank Mikkwa River about 3/16 mile upstream; northern Alberta.

*Pseudoactinodictyon norrisi* Stearn

Holotype 16452, a, b [specimen and thin sections]; paratype 16453, a, b [specimen and thin sections]

Stearn, C.W., 1962, Geol. Surv., Canada, Bull. 92, p. 17, pl. 8, figs. 1-5.

Moberly Member, Waterways Formation, Upper Devonian, 1 mile below 'Dogrib' Island, east bank Athabasca River below McMurray, Alberta.

*Stachyodes costulata* Lecompte

Hypotypes 19859, a - 19862, a

Klovan, J.E., 1966, Geol. Surv., Canada, Bull. 133, p. 31, pl. 11, figs. 1-3, 5, 6.

Leduc Formation, Upper Devonian, 3350' and 3353', Saltwater Disposal Well #1, 12-28-57-21 W. 4th mer.; 4005', Imperial Egremont #1 well, 3-14-58-22 W. 4th mer.; and 3192', Imperial Simmons #72 well, 11-19-56-20 W. 4th mer., Alberta.

*Stachyodes crebrum* Stearn

Holotype 16438, a, b [specimen and thin sections]; paratypes 16439, a-c, 16440. a, b, 16441, a [specimens and thin sections]

Stearn, C.W., 1962, Geol. Surv., Canada, Bull. 92, p. 9, pl. 4, figs. 1-3, 5, 6.

Moberly Member, Waterways Formation, Upper Devonian, 1 mile below 'Dogrib' Island, east bank Athabasca River below McMurray; east bank Athabasca River 7.5 miles downstream from north end Inglis Island and 19 miles downstream from Wing Dam at Waterways; and 3/4 mile above 'Dogrib' Island, west bank Athabasca River below McMurray, Alberta.

## STROMATOPOROIDEA

### *Stachyodes* sp.

Fig. spec. 19863

Klovan, J.E., 1966, Geol. Surv., Canada, Bull. 133, pl. 11, fig. 4.

Leduc Formation, Upper Devonian, 3339', Imperial Egremont #60 well, 11-14-58-22 W. 4th mer., Alberta.

### *Stictostroma maclareni* Stearn

Holotype 18674, a, b; paratypes 18675, a, b, 18676, a, 18712, a, b

Stearn, C.W., 1966, Geol. Surv., Canada, Bull. 133, p. 43, pl. 12, figs. 1-4; pl. 13, figs. 1, 2; pl. 26, fig. 2.

Kakisa Formation, Upper Devonian, Coral Falls, Trout River; north shore, east end and east arm, south shore of Deep Lake, Northwest Territories.

### *Stromatopora carteri* Nicholson

Hypotype 17739

Parks, W.A., 1909, Univ. Toronto Studies, Geol. Ser., No. 6, p. 38.

Silurian, Pagwachuan River, Ontario.

### *Stromatopora cf. cooperi* Lecompte

Hypotype 15324

Stearn, C.W., 1961, J. Pal., vol. 35, No. 5, p. 944, pl. 107, fig. 6.

Cairn Formation, Upper Devonian, headwaters east branch of first tributary Job Creek from the east, sec. 16, tp. 40, rge. 19, W. 5th mer., Alberta.

### *Stromatopora cygnea* Stearn

Hypotypes 18710, a, 18711, a

Stearn, C.W., 1966, Geol. Surv., Canada, Bull. 133, p. 54, pl. 18, figs. 5, 6.

Mikkwa Formation, Upper Devonian, northwest bank Mikkwa River about 1/2 mile upstream and southwest bank Mikkwa River 7/8 mile upstream, northern Alberta.

### *Stromatopora cygnea* Stearn

Hypotype 19848, a, b

Klovan, J.E., 1966, Geol. Surv., Canada, Bull. 133, p. 26, pl. 8, figs. 2a, b.

Leduc Formation, Upper Devonian, 3342', Imperial Egremont #94 well, 11-7-58-21 W. 4th mer., Alberta.

### *Stromatopora mikkwaensis* Stearn

Holotype 18693, a, b; paratypes 18694, a, b, 18811, a

Stearn, C.W., 1966, Geol. Surv., Canada, Bull. 133, p. 55, pl. 19, fig. 5; pl. 20, figs. 1-4.

Mikkwa Formation, Upper Devonian, northeast bank Mikkwa River, 1 1/8 miles upstream, northern Alberta; southeast bank Peace River approximately 1/4 mile above Little Red River Settlement, Northwest Territories; and southwest bank Mikkwa River 7/8 mile upstream, northern Alberta.

### *Stromatopora cf. S. mononensis* Galloway & St. Jean

Hypotypes 18698, a, 18699, a, b

Stearn, C.W., 1966, Geol. Surv., Canada, Bull. 133, p. 56, pl. 22, figs. 1-3.

Twin Falls and Mikkwa Formations, Upper Devonian, 10 miles west-northwest of Kakisa road crossing, Northwest Territories, and northeast bank Mikkwa River, 1 1/8 miles upstream, northern Alberta.

### *Stromatoporella cf. crassa* Parks

Hypotype 17723

Parks, W.A., 1933, Univ. Toronto Studies, Geol. Ser., No. 33, p. 30.

West Point Formation, Middle Silurian, Alan Mahan's farm, Indian Point, Port Daniel, Quebec.

*Stromatoporella damnoniensis* Nicholson

Hypotypes 19826a, b, 19827, a, b

Klovan, J.E., 1966, Geol. Surv., Canada, Bull. 133, p. 9, pl. 2, figs. 1a, b, 2.

Leduc Formation, Upper Devonian, 3610', Saltwater Disposal Well #1, 12-28-57-21 W. 4th mer., and 3310', Imperial Redwater #95 well, 11-33-57-21 W. 4th mer., Alberta.

*Stromatoporella cf. S. mirabilis* Yavorsky

Hypotypes 19828, a, b, 19829, a, b

Klovan, J.E., 1966, Geol. Surv., Canada, Bull. 133, p. 10, pl. 2, figs. 3, 4a, b.

Leduc Formation, Upper Devonian, 4042' and 4034', Imperial Eastgate #1-22 well, 1-22-57-22 W. 4th mer., Alberta.

*Stromatoporella cf. S. subvesiculosa* (Lecompte)

Hypotype 19825, a, b

Klovan, J.E., 1966, Geol. Surv., Canada, Bull. 133, p. 8, pl. 1, figs. 4a, b.

Leduc Formation, Upper Devonian, 3254', Imperial Egremont #60 well, 11-14-58-22 W. 4th mer., Alberta.

*Stromatoporella* sp.

Hypotype 14867, a

McCammon, H., 1961, Manitoba Dept. Mines Natural Res., Mines Branch, Publ. 59-6, p. 28, pl. 1, fig. 4.

Dawson Bay Formation, Middle Devonian, Snake Island, Lake Winnipegosis, Manitoba.

*Synthetostroma vesiculosum* (Lecompte)

Hypotype 19854, a, b

Klovan, J.E., 1966, Geol. Surv., Canada, Bull. 133, p. 29, pl. 9, figs. 4a, b.

Leduc Formation, Upper Devonian, 4259', Imperial Eastgate #1-22 well, 1-22-57-22 W. 4th mer., Alberta.

*Syringostroma bifurcum* Stearn

Holotype 16443, a [specimen and thin section]; paratype 16437, a [specimen and thin section]

Stearn, C.W., 1962, Geol. Surv., Canada, Bull. 92, p. 12, pl. 5, figs. 4, 5; pl. 6, figs. 1, 2.

Moberly Member, Waterways Formation, Upper Devonian, 3/4 mile above 'Dogrib' Island, west bank Athabasca River below McMurray, Alberta.

*Syringostroma? confertum* (Stearn)

Hypotype 18709, a, b

Stearn, C.W., 1966, Geol. Surv., Canada, Bull. 133, p. 62, pl. 25, figs. 1, 2.

Mikkwa Formation, Upper Devonian, southwest bank Mikkwa River, 7/8 mile upstream, northern Alberta.

*Syringostroma densum* Nicholson

Hypotypes 15958, 15959

Fagerstrom, J.A., 1962, J. Pal., vol. 36, No. 3, p. 427.

Anderdon limestone, Middle Devonian, Sibley quarry near Trenton, Michigan, U.S.A.

*Syringostroma fenestratum* Stearn

Holotype 16444, a, b [specimen and thin sections]; paratypes 16445, a, b, 16446, a, b [specimens and thin sections]

Stearn, C.W., 1962, Geol. Surv., Canada, Bull. 92, p. 13, pl. 6, figs. 4-7.

Moberly Member, Waterways Formation, Upper Devonian, 1 mile below 'Dogrib' Island, east bank Athabasca River below McMurray; southeast bank Stony Island 13.2 miles downstream from Wing Dam at Waterways; and east bank Athabasca River opposite north half Poplar Island and 9 miles downstream from Wing Dam at Waterways, Alberta.

## STROMATOPOROIDEA

### *Syringostroma* cf. *S. perfuscum* Galloway and St. Jean

Hypotypes 19849, a, b, 19850, a, b

Klovan, J.E., 1966, Geol. Surv., Canada, Bull. 133, p. 27, pl. 8, figs. 3a, b, 4a, b.

Leduc Formation, Upper Devonian, 3410', Saltwater Disposal Well #5, 5-36-56-21 W. 4th mer., and 3287', Imperial Egremont #1 well, 3-14-58-22 W. 4th mer., Alberta.

### *Syringostroma sherzeri* (Grabau)

Hypotypes 15961, 15962

Fagerstrom, J.A., 1962, J. Pal., vol. 36, No. 3, p. 428.

Anderdon limestone, Middle Devonian, Sibley quarry near Trenton, Michigan, U.S.A.

### *Syringostroma?* sp.

Fig. specs. 19851, a, b – 19853, a, b

Klovan, J.E., 1966, Geol. Surv., Canada, Bull. 133, p. 28, pl. 9, figs. 1a–3b.

Leduc Formation, Upper Devonian, 3212', Imperial Redwater #95 well, 11-33-57-21 W. 4th mer.; 3311', Imperial Redwater #101 well, 15-33-57-21 W. 4th mer.; and 3220', Imperial Egremont #94 well, 11-7-58-21 W. 4th mer., Alberta.

### *Taleastroma? confertum* Stearn

Holotype 16442, a, b [specimen and thin sections]; paratype 16456, a, b [specimen and thin sections]

Stearn, C.W., 1962, Geol. Surv., Canada, Bull. 92 p. 10, pl. 5, figs. 1–3.

Moberly Member, Waterways Formation, Upper Devonian, 1 1/2 miles below Tar Island, west bank Athabasca River below McMurray, Alberta.

### *Taleastroma lenzi* Galloway

Hypotype 15320

Stearn, C.W., 1961, J. Pal., vol. 35, No. 5, p. 944, pl. 106, figs. 3, 7.

Alexo Formation, Upper Devonian, 3 miles west of Cairn Pass near headwaters Medicine Tent River, sec. 25, tp. 43, rge. 23, W. 5th mer., Alberta.

### *Trupetostroma* cf. *T. coalescens* Galloway and St. Jean

Hypotype 19844, a, b

Klovan, J.E., 1966, Geol. Surv., Canada, Bull. 133, p. 23, pl. 7, figs. 2a, b.

Leduc Formation, Upper Devonian, 3182', Imperial Simmons #72 well, 11-19-56-20 W. 4th mer., Alberta.

### *Trupetostroma hayense* Stearn

Holotype 18688, a–c; paratypes 18689, a–d, 18690, a, b

Stearn, C.W., 1966, Geol. Surv., Canada, Bull. 133, p. 50, pl. 17, figs. 3–5; pl. 18, figs. 1–4.

Twin Falls and Kakisa Formations, Upper Devonian, 1 mile upstream from second island above Alexandra Falls, Hay River; 9 miles south of crossing of Mackenzie Highway over creek that drains Heart Lake, 13 miles west of Escarpment Lake; and Coral Falls, Trout River, Northwest Territories.

### *Trupetostroma kakisaense* Stearn

Holotype 18691, a–c; paratype 18692, a, b

Stearn, C.W., 1966, Geol. Surv., Canada, Bull. 133, p. 51, pl. 19, figs. 1–4.

Kakisa and Mikwia Formations, Upper Devonian, Blackstone River, 13 miles upstream and southeast bank Peace River approximately 1/4 mile above Little Red River Settlement, Northwest Territories.

STROMATOPOROIDEA

*Trupetostroma* aff. *T. laceratum* Lecompte

Hypotype 19843, a-c

Klovan, J.E., 1966, Geol. Surv., Canada, Bull. 133, p. 22, pl. 6, fig. 5; pl. 7, figs. 1a, b.  
Leduc Formation, Upper Devonian, 3175', Imperial Amelia #84 well, 11-11-57-21 W. 4th  
mer., Alberta.

*Trupetostroma lecomptei* Stearn

Holotype 15321

Stearn, C.W., 1961, J. Pal., vol. 35, No. 5, p. 942, pl. 106, figs. 8, 9.  
47 feet above base Flume Formation, Upper Devonian, 2 miles north of Clearwater River,  
Second Range of the Rockies, lat. 51°54'N, long. 115°56'W, Alberta.

*Trupetostroma papulosum* Stearn

Holotype 15328, a, b [specimen and thin sections]; paratypes 15329, a, b, 15330, a, b  
[specimens and thin sections]

Stearn, C.W., 1962, Geol. Surv., Canada, Bull. 92, p. 4, pl. 1, figs. 1-5.

Moberly Member, Waterways Formation, Upper Devonian, 1 1/2 miles below Tar Island,  
west bank Athabasca River below McMurray and east bank Athabasca River 7.5 miles  
downstream from north end of Inglis Island and 19 miles downstream from Wing Dam  
at Waterways, Alberta.

*Trupetostroma pycnostylotum* Stearn

Holotype 16434, a-c [specimen and thin sections]; paratype 16435, a [specimen and thin  
section]

Stearn, C.W., 1962, Geol. Surv., Canada, Bull. 92, p. 5, pl. 2, figs. 1-3; pl. 3, fig. 1.

Moberly Member, Waterways Formation, Upper Devonian, 1 mile below 'Dogrib' Island,  
east bank Athabasca River below McMurray, Alberta.

*Trupetostroma saintjeani* Stearn

Holotype 18685, a, b; paratype 18687, a, b

Stearn, C.W., 1966, Geol. Surv., Canada, Bull. 133, p. 49, pl. 16, figs. 1, 2; pl. 17, figs. 1, 2;  
pl. 26, fig. 4.

Kakisa Formation, Upper Devonian, north of Foetus Lake and Trout River above second falls,  
Northwest Territories.

*Trupetostroma tenue* Stearn

Holotype 15322

Stearn, C.W., 1961, J. Pal., vol. 35, No. 5, p. 943, pl. 107, figs. 1-3.  
180-200 feet above base Cairn Formation, Upper Devonian, 2 miles southeast of Obstruction  
Mountain, Fourth Range, lat. 52°22'N, long 116°52'W, Alberta.

*Trupetostroma warreni* Parks

Hypotypes 19841, a, b, 19842, a

Klovan, J.E., 1966, Geol. Surv., Canada, Bull. 133, p. 21, pl. 6, figs. 3a, b, 4.  
Leduc Formation, Upper Devonian, 3966' and 3957', Saltwater Disposal well #1, 12-28-57-21  
W. 4th mer., Alberta.

*Trupetostroma?* sp.

Fig. specs. 19845, a, b, 19846, a, b

Klovan, J.E., 1966, Geol. Surv., Canada, Bull. 133, p. 24, pl. 7, figs. 3a, b, 4a, b.  
Leduc Formation, Upper Devonian, 3935' and 3795', Saltwater Disposal well #1, 12-28-57-21  
W. 4th mer., Alberta.

## A N T H O Z O A

### *Acanthohalysites encrustans* (Buehler)

Hypotypes 20511, 20512, 20517

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 4, figs. 12-14; pl. 5, fig. 5.  
Fossil Hill Formation, Middle Silurian, ridges along con. VIII-IX road, Carnarvon tp., 1/2 mile  
east of main highway; shore section northwest bay of Martin Lake, north of Providence  
Bay; and top of plateau at end of Sandfield - Tehkummahs tps. boundary road, lots 3-4,  
con. I, Sandfield tp., southeast of Sandfield, Manitoulin Island, Ontario.

### *Acinophyllum camselli* (Smith)

Hypotype 13829a, b

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 14, pl. 6, figs. 5, 6.  
210 feet above base of Mount Hawk Formation, Upper Devonian, North Ram River Group,  
north side, Front Range, Alberta.

### *Acinophyllum* sp. D

Fig. spec. 16543, a, b [specimen and thin sections]

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 16, pl. 7, figs. 11, 12.  
65 feet below top of Kakisa Formation, Upper Devonian, Middle Kakisa River, District of  
Mackenzie.

### *Alaiophyllum mackenziense* Pedder

Holotype 16850; paratypes 16851, 16852

Pedder, A.E.H., 1963, Palaeontology, vol. 6, pt. 1, p. 133, pl. 19, figs. 1-6.  
Kee Scarp Formation, lower 140 feet, Middle-Upper Devonian, Kee Scarp 6 miles ENE. of  
Norman Wells, District of Mackenzie.

### *Alveolites multiperforatus* Salée

Hypotypes 14787, a

McCammon, H., 1960, Manitoba Dept. Mines Natural Res., Mines Branch, Publ. 59-6,  
p. 41, pl. 6, figs. 4a, b.  
Dawson Bay Formation, Middle Devonian, north bank 1 3/5 miles up Red Deer River, l.s.d. 6,  
sec. 21, tp. 45, rge. 25, W. Prin. mer., Manitoba.

### *Alveolites undosus* Miller

Hypotypes 20506, 20546

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 4, fig. 6; pl. 8, fig. 6.  
Fossil Hill Formation, Middle Silurian, ridge at southern edge of Sandfield and Big Lake -  
Sandfield road, southeast of Big Lake, lots 15-16, con. VI-VII, Sandfield tp., Manitoulin  
Island, Ontario.

### *Alveolites* sp. D

Fig. specs. 16546, a, b [specimen and thin sections], 16557

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 10, pl. 4, figs. 7, 8; p. 26,  
pl. 12, fig. 23.  
160 feet from top of Escarpment Member, Hay River Formation, Upper Devonian, left bank Hay  
River at mile 29 on Mackenzie Highway, District of Mackenzie.

*Amplexiphyllum salinensis* McCammon

Holotype 14771, a, b [specimen and thin sections]

McCammon, H., 1960, Manitoba Dept. Mines Natural Res., Mines Branch, Publ. 59-6, p. 30, pl. 3, figs. 1a-e.

Dawson Bay Formation, Middle Devonian, north bank 1 3/5 miles up Red Deer River, l.s.d. 6, sec. 21, tp. 45, rge. 25, W. Prin. mer., Manitoba.

*Amplexus* or *Diphyphyllum* sp.

Fig. spec. 3882

Whiteaves, J.F., 1892, Geol. Surv., Canada, Contr. Can. Pal., vol. 1, p. 270, pl. 35, figs. 2, a. Middle Devonian, first small point north of Red Deer River, western shore Dawson Bay, Lake Winnipegosis. Manitoba.

*Arachnophyllum mammillare* (Owen)

Hypotype 20534

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 6, fig. 15.

Fossil Hill Formation, Middle Silurian, corner on road boundary con. XIV-XV, lot 9, Assiginack tp., Manitoulin Island, Ontario.

*Arachnophyllum pentagonum* (Goldfuss)

Hypotype 20550

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 9, fig. 4.

Fossil Hill Formation, Middle Silurian, ridge in Long Bay Lodge area, southwest bay of Lake Manitou, Manitoulin Island, Ontario.

*Arachnophyllum striatum* (D'Orbigny)

Hypotype 20547

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 9, fig. 1.

Fossil Hill Formation, Middle Silurian, 0.3 mile south of Manitowaning-South Baymouth road, lot 9, con. I, Assiginack tp., Ontario.

*Arcturia complexa* Wilson

=*Labyrinthites* (*Arcturia*) *complexus*, Bolton, T.E., 1965, Geol. Surv., Canada, Bull. 134, p. 19, pl. 4, figs. 4-6 [syntype 6505a — designation of holotype and paratype in vol. I not intended]

*Asthenophyllum* cf. *A. occidentale* (Whiteaves)

Hypotype 15847

Norford, B.S., 1962, Geol. Surv., Canada, Bull. 78, p. 40, pl. 13, figs. 5, 6.

Coralline Member, Sandpile Group, Middle Silurian, elevation 6300 feet, just north of high point 1.4 miles northwest of north end of lower Sandpile Lake, lat. 59°04'N, long. 128°11'W, British Columbia.

*Atelophyllum nebracis* McLaren

Holotype 16485, a-d; paratypes 16486, a, b, 16487, a-d, 16488, a-e, 16500, a, c-e [specimens and slides]

McLaren, D.J., 1964, Geol. Surv., Canada, Bull. 114, p. 25, pl. 10, figs. 1a-c, 2a, b; pl. 11, figs. 1, 2a-d; pl. 12, figs. 1a-d.

Horn Plateau Formation, Middle Devonian, east flank Horn Plateau, 2.9 miles west of southwest tip Fawn Lake, lat. 62°08.2'N, long. 117°39'W, District of Mackenzie.

*Aulocystis flabellata* (Greene)

Hypotype 14794, a

McCammon, H., 1960, Manitoba Dept. Mines Natural Res., Mines Branch, Publ. 59-6, p. 43, pl. 7, figs. 1a, b.

Dawson Bay Formation, Middle Devonian, north bank 1 3/5 miles up Red Deer River, l.s.d. 6, sec. 21, tp. 45, rge. 25, W. Prin. mer., Manitoba.

## ANTHOZOA

### *Aulopora conferta* Winchell

#### Hypotype 14795

McCammon, H., 1960, Manitoba Dept. Mines Natural Res., Mines Branch, Publ. 59-6, p. 43, pl. 4, fig. 6a.

Dawson Bay Formation, Middle Devonian, north bank 1 3/5 miles up Red Deer River, l.s.d. 6, sec. 21, tp. 45, rge. 25, W. Prin. mer., Manitoba.

### "*Aulopora*" *wilsonae* see *Fletcheria incerta*

### *Aulopora* sp.

#### Fig. specs. 14876, 14877

McCammon, H., 1960, Manitoba Dept. Mines Natural Res., Mines Branch, Publ. 59-6, p. 44, pl. 7, fig. 3.

Dawson Bay Formation, Middle Devonian, north shore Red Deer River at bend in river, first outcrop below Highway 10 bridge, l.s.d. 10, sec. 17, tp. 45, rge. 25, W. Prin. mer. and Snake Island, Lake Winnipegosis, Manitoba.

### *Auloporella* cf. *A. typa* Grubbs

#### Hypotypes 15764a, 15851

Norford, B.S., 1962, Geol. Surv., Canada, Bull. 78, p. 37, pl. 13, figs. 1-3.

Coralline Member, Sandpile Group, Middle Silurian, elevation 6300 feet, just north of high point 1.4 miles northwest of north end of lower Sandpile Lake, lat. 59°04'N, long. 128°11'W, British Columbia.

### *Australophyllum hyperbolicum* (Crickmay)

#### Hypotype 16539, a-c [specimen and thin sections]

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 8, pl. 3, figs. 5, 6.

McDame Group, Middle Devonian, elevation 4400 feet on south-facing ridge, 7 1/2 miles northwest of French River bridge, McDame map-area, British Columbia.

### *Australophyllum?* cf. *A.?* *thomasae* (Hill and Jones)

#### Hypotype 16497, a-c [specimen and slides]

McLaren, D.J., 1964, Geol. Surv., Canada, Bull. 114, p. 13, pl. 4, figs. 3a-c.

Horn Plateau Formation, Middle Devonian, east flank Horn Plateau, 2.9 miles west of southwest tip Fawn Lake, lat. 62°08.2'N, long. 117°39'W, District of Mackenzie.

### *Bethanyphyllum praecursor* (Frech)

#### Hypotypes 14774, a, b, 14775, a-e

McCammon, H., 1960, Manitoba Dept. Mines Natural Res., Mines Branch, Publ. 59-6, p. 32, pl. 3, figs. 4a, b.

Dawson Bay Formation, Middle Devonian, salt flats 1 mile west of mouth Red Deer River and Snake Island, Lake Winnipegosis, Manitoba.

### *Bethanyphyllum* cf. *praecursor* (Frech)

#### Hypotypes 14870, a, b, 14871, a, b

McCammon, H., 1960, Manitoba Dept. Mines Natural Res., Mines Branch, Publ. 59-6, p. 32, pl. 4, figs. 1, 2a, b.

Dawson Bay Formation, Middle Devonian, north bank 1 3/5 miles up Red Deer River, l.s.d. 6, sec. 21, tp. 45, rge. 25, W. Prin. mer., Manitoba.

### *Bighornia bottei* Nelson

Holotype 10898a-g, 10899 [thin sections and plaster cast]; paratypes 10875-10882 [thin and polished sections and plaster casts]

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 41, pl. 5, fig. 6; pl. 9, figs. 5, 6a-d; pl. 11, figs. 5a, b, 6a-c, 7, 8; pl. 12, figs. 1, 2a-g, 3a, b, 4a-c.

Chasm Creek Formation, Upper Ordovician, Churchill River, 2-2 1/2 miles, 6-7 miles and 9 1/4-10 miles above Red Head Rapids; Nelson River, for 1/4 mile up Angling River; Chasm Creek for about 1/2 mile up Churchill River, Manitoba.

*Bighornia patella* (Wilson)

Hypotypes 10872–10874

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 40, pl. 11, figs. 1a–c, 2, 3a–d.

Caution Creek and Chasm Creek Formations, Upper Ordovician, right bank Churchill River, about 1/3 mile above mouth Hidden Creek and 1/2 mile up Chasm Creek, Manitoba.

*Bighornia solearis* (Ladd)

Hypotype 10870

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 41, pl. 11, figs. 4a–d.

Member 1, Chasm Creek Formation, Upper Ordovician, 1/2 mile up Chasm Creek, Churchill River, Manitoba.

*Boreaster lowi* Lambe= *Fossopora lowi*, Bolton, T.E., 1965, Geol. Surv., Canada, Bull. 134, p. 29, pl. 10, figs. 1, 5 [syntype 7849].*Breviphyllum cf. richardsoni* (Meek)

Hypotype 14779, a–d

McCammon, H., 1960, Manitoba Dept. Mines Natural Res., Mines Branch, Publ. 59-6, p. 34, pl. 4, figs. 6a–c.

Dawson Bay Formation, Middle Devonian, north bank 1 3/5 miles up Red Deer River, l.s.d. 6, sec. 21, tp. 45, rge. 25, W. Prin. mer., Manitoba.

*Breviphyllum waskasense* (Whiteaves)

Hypotypes 3868a, b, 14777, a, 14778, a, b

McCammon, H., 1960, Manitoba Dept. Mines Natural Res., Mines Branch, Publ. 59-6; p. 33, pl. 4, figs. 4a–c, 5.

Dawson Bay Formation, Middle Devonian, north bank 1 3/5 miles up Red Deer River, l.s.d. 6, sec. 21, tp. 45, rge. 25, W. Prin. mer., Manitoba.

*Buschophyllum minutum* McCammon

Holotype 14772, a–c [specimen and thin sections]; paratype 14773, a

McCammon, H., 1960, Manitoba Dept. Mines Natural Res., Mines Branch, Publ. 59-6, p. 31, pl. 3, figs. 2a–d, 3.

Dawson Bay Formation, Middle Devonian, north bank 1 3/5 miles up Red Deer River, l.s.d. 6, sec. 21, tp. 45, rge. 25, W. Prin. mer., Manitoba.

*Calapoecia anticostiensis* Billings

Hypotypes 10380, 10502

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 49, pl. 8, fig. 5; pl. 10, fig. 4.

Chasm Creek Formation, Upper Ordovician, left bank Churchill River, approximately 7 1/2 miles and 9 1/4–10 miles above Red Head Rapids, Manitoba.

*Calapoecia canadensis* var. *ungava* Cox

Hypotype 10503

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 50, pl. 10, fig. 3.

Caution Creek Formation, Upper Ordovician, South Knife River, about 2 2/5 miles due east of line of long. 95°, approximately 2 miles northeast of Herriot Lake, Manitoba.

*Cambrotrypa montanensis* Fritz & Howell

Hypotypes 14593–14595, a

Bolton, T.E. and Copeland, M.J., 1963, J. Pal., vol. 37, No. 5, p. 1069, pl. 143, figs. 1–4.

Middle Cambrian, headwaters south of Lost Creek and north ridge Windsor Mountain, Alberta.

## ANTHOZOA

### *Caninia belcheri* Harker

Holotype 13502, a, b [specimen and thin sections]; paratypes 13503, a, b, 13504.  
Harker, P. and Thorsteinsson, R., 1960, Geol. Surv., Canada, Mem. 309, p. 43, pl. 12,  
figs. 1-5.  
Belcher Channel Formation, Permian, lower reaches Lyall River, Grinnell Peninsula, northwest  
Devon Island, Arctic.

### *Caninia ovibos* (Salter)

Hypotypes 13500, a, b, 13501, a, b  
Harker, P. and Thorsteinsson, R., 1960, Geol. Surv., Canada, Mem. 309, p. 41, pl. 11,  
figs. 1-8.  
Belcher Channel Formation, Permian, lower reaches Lyall River, Grinnell Peninsula, northwest  
Devon Island, Arctic.

### *Catenipora aequabilis* (Teichert)

Hypotypes 10539, 10888  
Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 57, pl. 14, figs. 8, 9.  
Portage Chute Formation, Upper Ordovician, left bank South Knife River, approximately 2  
miles WNW. of northeast end of Herriot Lake, and right bank North Knife River,  
approximately 4 1/4 miles below Teepee Falls, Manitoba.

### *Catenipora agglomeratiformis* (Whitfield)

Hypotypes 10886, 10889  
Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 58, pl. 14, figs. 10, 11.  
Portage Chute Formation, Upper Ordovician, right and left banks South Knife River, approx.  
6 1/4 and 5 miles west of northwest end of Herriot Lake, Manitoba.

### *Catenipora foerstei* Nelson

Holotype 10892; paratype 10893  
Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 59, pl. 14, figs. 16, 17.  
Caution Creek Formation, Upper Ordovician, left bank South Knife River, 2 miles north of  
middle part of north shore Herriot Lake, 1 1/4 miles downstream from line of longitude  
95°, Manitoba.

### *Catenipora huronensis* (Teichert)

Hypotype 20524  
Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 5, fig. 12.  
Fossil Hill Formation, Middle Silurian, northeast of Bothwell Corners, east of Owen Sound,  
Ontario.

### *Catenipora robusta* (Wilson)

Hypotypes 10368, 10890, 10891  
Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 56, pl. 14, figs. 3-5.  
Portage Chute Formation, Upper Ordovician, right bank Nelson River from First Upper  
Limestone Rapids down to about 1 mile below Third Upper Limestone Rapids; South  
Knife River, approximately 6 miles west of northwest end of Herriot Lake; and left bank  
Churchill River at Portage Chute, Manitoba.

### *Catenipora robustus* (Wilson)

Hypotypes 16906, a, 16907  
Norford, B.S., 1962, Geol. Surv., Canada, Paper 62-14, p. 16, pl. 6, figs. 2, 3.  
Beaverfoot-Brisco Formation, Upper Ordovician, Cirrus Mountain, Banff Park, Alberta.

*Catenipora rubra* Sinclair and Bolton

Hypotype 16905, a [specimen and thin section]

Norford, B.S., 1962, Geol. Surv., Canada, Paper 62-14, p. 16, pl. 6, fig. 1.

Upper Ordovician, Carcajou River Canyon, District of Mackenzie.

*Catenipora rubra* Sinclair and Bolton

Hypotypes 10896, 10897

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 55, pl. 14, figs. 1, 2.

Portage Chute and Chasm Creek Formations, Upper Ordovician, right bank Nelson River,  
3-3 1/2 miles below Long Spruce Rapids and approximately 3 miles above mouth  
Angling River, Manitoba.*Catenipora simplex* (Lambe)

Hypotypes 15752, a, 15829, a [specimens and thin sections]

Norford, B.S., 1962, Geol. Surv., Canada, Bull. 78, p. 33, pl. 10, figs. 1-3.

Coralline Member, Sandpile Group, Middle Silurian, elevation 4800 feet, ridge face 1 1/2  
miles northeast of north end of upper Sandpile Lake, lat. 59°02' 1/2"N, long. 128°07' 1/2"W  
and elevation 5400 feet, ridge crest 1 1/2 miles north of upper Sandpile Lake, lat.  
59°03' 1/2"N, long. 128°10' W, British Columbia.*Catenipora stearni* Nelson

Holotype 10895; paratype 10369

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 57, pl. 14, figs. 6, 7.

Caution Creek and Portage Chute Formations, Upper Ordovician, for 1/2 mile up Surprise  
Creek and 2 miles below Portage Chute, Churchill River, Manitoba.*Catenipora* sp.

Fig. specs. 16908, 16909

Norford, B.S., 1962, Geol. Surv., Canada, Paper 62-14, p. 16, pl. 6, figs. 4, 10.

Upper Ordovician, ridge north of lower part of Point Creek, lat. 55°27' N, long. 123°18' W,  
Pine Pass map-area, British Columbia.*Cayugaea whiteavesiana* LambeStumm, C.E., 1961, Contr. Mus. Pal. Univ. Michigan, vol. 16, No. 2, p. 228, pl. 4, figs. 8, 9  
[holotype 4690].*Ceratophyllum?* sp.

Fig. spec. 14872 a-g

McCammon, H., 1960, Manitoba Dept. Mines Natural Res., Mines Branch, Publ. 59-6, p. 33,  
pl. 4, figs. 3a-e.Dawson Bay Formation, Middle Devonian, north bank 1 3/5 miles up Red Deer River, l.s.d. 6,  
sec. 21, tp. 45, rge. 45, W. Prin. mer., Manitoba.*Charctophyllum* cf. *C. nanum* (Hall and Whitfield)

Hypotype 16527, a, b [specimen and thin sections]

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 10, pl. 4, figs. 14, 15.

Basal beds of Escarpment Member, Hay River Formation, Upper Devonian, Hay River at Mile 26  
on Mackenzie Highway, District of Mackenzie.*Coenites hadrus* McCammon

Holotype 14789, a [specimen and thin section]; paratypes 14790-14793a

McCammon, H., 1960, Manitoba Dept. Mines Natural Res., Mines Branch, Publ. 59-6, p. 42,  
pl. 6, figs. 5-9.Dawson Bay Formation, Middle Devonian, north bank 1 3/5 miles up Red Deer River, l.s.d. 6,  
sec. 21, tp. 45, rge. 25, W. Prin. mer., Manitoba.

## ANTHOZOA

### *Coenites laminatus* (Hall)

Hypotype 15824

Norford, B.S., 1962, Geol. Surv., Canada, Bull. 78, p. 29, pl. 7, figs. 10, 12.

Coralline member, Sandpile Group, Middle Silurian, elevation 4800 feet, ridge face 1 1/2 miles northeast of north end of upper Sandpile Lake, lat. 59°02' 1/2'N, long. 128°07' 1/2'W, British Columbia.

### *Coenites rectilineatus* (Simpson)

Hypotypes 15733a, b, 15821

Norford, B.S.,

1962, Geol. Surv., Canada, Bull. 78, p. 30, pl. 7, figs. 11, 13, 14.

1962, ibid., Paper 62-14, p. 22, pl. 9, fig. 10 [15821].

Coralline member, Sandpile Group, Middle Silurian, elevation 4800 feet, ridge face 1 1/2 miles northeast of north end of upper Sandpile Lake, lat. 59°02' 1/2'N, long. 128°17' 1/2'W, British Columbia.

### *Coenites?* sp. and *Thamnopora* sp.

Fig. specs. 13830

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 14, pl. 6, fig. 7.

170 feet above base Mount Hawk Formation, Upper Devonian, north side North Ram River Cap, Front Range, Alberta.

### *Coenites* sp. C

Fig. spec. 16549a, b [thin sections]

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 8, pl. 3, figs. 7, 8.

Upper beds Pine Point Formation, Middle Devonian, 5 miles north of Sulphur Bay, Great Slave Lake, District of Mackenzie.

### *Coenites* sp. D

Fig. spec. 16556

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 26, pl. 12, fig. 22.

160 feet below top of Escarpment Member, Hay River Formation, Upper Devonian, left bank Hay River at mile 29 on Mackenzie Highway, District of Mackenzie.

### *Columnaria calicina* (Nicholson)

=*Favistina calicina*, Liberty, B.A., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 53, pl. 6, fig. 9 [hypotype 2054].

### *Columnaria columbia* Norford

Holotype 16524, a-c [specimen and thin sections]; paratypes 10788, 16525, a, b [specimen and thin sections]

Norford, B.S., 1962, Geol. Surv., Canada, Bull. 92, p. 28, pl. 10, figs. 1, 2; pl. 11, fig. 1; pl. 12, fig. 1.

Silurian, second ridge east of Selwyn Creek, lat. 55°59'N, long. 123°29'W, and ridge southwest of Ducette Peak and west of Clearwater Creek, lat. 55°48'N, long. 123°13'W, Pine Pass map-area; and talus at 6500 feet on southwest slope of 7190-foot peak near Needham Creek, lat. 56°31'N, long. 123°32'W, Halfway River map-area, British Columbia.

### *Columnaria erratica* Billings

=*Eofletcheria? erratica*, Sinclair, G.W., 1962, Geol. Surv., Canada, Bull. 80 (1961), p. 15, pl. 6, figs. 1-4 [lectotype 1380].

### *Columnaria incerta* Billings

=*Eofletcheria incerta*, Sinclair, G.W., 1962, Geol. Surv., Canada, Bull. 80 (1961), p. 13, pl. 5, figs. 1-3  
[lectotype 1014c; syntypes 1014, a, b, d-g; hypotype 14596].

*Cyathophyllum (Peripaedium) greteneri* McLaren

Holotype 16479, a, b; paratypes 16480, a, b, 16481, a [specimens and slides]  
 McLaren, D.J., 1964, Geol. Surv., Canada, Bull. 114, p. 16, pl. 6, figs. 2a, b, 3; pl. 7,  
 figs. 1a, b.  
 Horn Plateau Formation, Middle Devonian, east flank Horn Plateau, 2.9 miles west of southwest  
 tip Fawn Lake, lat. 62°08.2'N, long. 117°39'W, District of Mackenzie.

*Cyathophyllum pelagicum* Billings – holotype 2351 located.*"Cyathophyllum" aff. "C." pennanti* Billings

Hypotypes 15769, a, 15844, a, b [specimens and thin sections]  
 Norford, B.S., 1962, Geol. Surv., Canada, Bull. 78, p. 42, pl. 16, figs. 1–4, 8.  
 Coralline member, Sandpile Group, Middle Silurian, elevation 5550 feet, ridge crest 1.7  
 miles NNW. of north end of upper Sandpile Lake, lat. 59°03 1/2'N, long. 128°12'W,  
 British Columbia.

*Cyathophyllum petraoides* Whiteaves

=*Kunthia?* *petraoides*, McCammon, H., 1960, Manitoba Dept. Mines Natural Res.,  
 Mines Branch, Publ. 59-6, p. 35 [holotype 3867, a].

*'Cyathophyllum' thoroldense* Lambè

Hypotype 20572  
 Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 12, fig. 9.  
 Eramosa Member, Lockport Formation, Middle Silurian, A. Cope and Sons Limited quarry,  
 lots 27-28, con. VI, Saltfleet tp., south of Stoney Creek, Ontario.

*Cyathophyllum waskasense* Whiteaves

=*Breviphyllum waskasense*, McCammon, H., 1960, Manitoba Dept. Mines Natural Res.,  
 Mines Branch, Publ. 59-6, p. 33 [lectotype 3868d, d'; paratypes 3868c, e, f, g].

*Cylindrophyllum gruensis* McLaren

Holotype 16495, a, b; paratype 16496, a, b [specimens and slides]  
 McLaren, D.J., 1964, Geol. Surv., Canada, Bull. 114, p. 9, pl. 3, figs. 1a, b, 2a, b.  
 Horn Plateau Formation, Middle Devonian, east flank Horn Plateau. 2.9 miles west of southwest  
 tip Fawn Lake, lat. 62°08.2'N, long. 117°39'W, District of Mackenzie.

*Cystihalyrites magnitubus* (Buehler)

Hypotypes 15754, a, 15757, a–c, 15848 [specimens and thin sections]  
 Norford, B.S..  
 1962, Geol. Surv., Canada, Bull. 78, p. 34, pl. 10, figs. 4–8.  
 1962, ibid., Paper 62-14, p. 22, pl. 9, fig. 4 [15757c].  
 Coralline member, Sandpile Group, Middle Silurian, elevation 6200 feet, ridge crest 3.3 miles  
 southeast of 6543-foot cairn, lat. 58°59'N, long. 128°W; elevation 5550 feet, ridge crest  
 1.7 miles NNW. of north end of upper Sandpile Lake, lat. 59°03 1/2'N, long. 128°12'W;  
 and elevation 6300 feet, just north of high point 1.4 miles northwest of north end of lower  
 Sandpile Lake, lat. 59°04'N, long. 128°11'W, British Columbia.

*Cystihalyrites* spp. 1 and 2

Fig. specs. 15830, a–c, 15831, a, b, 15763, a [specimens and thin sections]  
 Norford, B.S., 1962, Geol. Surv., Canada, Bull. 78, p. 36, pl. 11, figs. 1–9.  
 Coralline member, Sandpile Group, Middle Silurian, elevation 5550 feet, ridge crest 1.7 miles  
 NNW. of north end of upper Sandpile Lake, lat. 59°03 1/2'N, long. 128°12'W and elevation  
 5100 feet, ridge crest 1.4 miles NNW. of north end of upper Sandpile Lake, lat. 59°03'N,  
 long. 128°11'W, British Columbia.

## ANTHOZOA

### *Cystiphyloides spinosum* McLaren

Holotype 16489, a, b; paratypes 16490, a, b, 16491, a-c, 16492, a-c [specimens and slides]

McLaren, D.J., 1964, Geol. Surv., Canada, Bull. 114, p. 24, pl. 9, figs. 1-4.

Horn Plateau Formation, Middle Devonian, east flank Horn Plateau, 2.9 miles west of southwest tip Fawn Lake, lat. 62°08.2'N, long. 117°39'W, District of Mackenzie.

### *Cystiphyllum niagarensis* (Hall)

Hypotypes 20543, 20544

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 8, figs. 2, 3.

Fossil Hill Formation, Middle Silurian, road exposures 3/4 mile east of Snowville, northwest of Tehkummah, Manitoulin Island, Ontario.

### *Cystiphyllum cf. C. tubiforme* Poulsen

Hypotypes 15766, a, 15838, a, b [specimens and thin sections]

Norford, B.S., 1962, Geol. Surv., Canada, Bull. 78, p. 43, pl. 13, figs. 8-11.

Coralline member, Sandpile Group, Middle Silurian, elevation 5100 feet, ridge crest 1.4 miles NNW. of north end of upper Sandpile Lake, lat. 59°03'N, long. 128°11'W and elevation 5800 feet, mountain top 4 1/2 miles WNW. of junction Dall and Turnagain Rivers, lat. 58°48'N, long. 127°57'W, British Columbia.

### *Cystiphyllum* sp. 1

Hypotypes 15770, a, 15846, a, b [specimens and thin sections]

Norford, B.S.,

1962, Geol. Surv., Canada, Bull. 78, p. 44, pl. 16, figs. 5-7.

1962, ibid., Paper 62-14, p. 22, pl. 9, fig. 2 [15770a].

Coralline member, Sandpile Group, Middle Silurian, elevation 6100 feet, mountain top 1.8 miles north of north end of upper Sandpile Lake, lat. 59°04'N, long. 128°11'W, British Columbia.

### *Deiracorallium giganteum* Nelson

Holotype 10848a-c, 10849 [thin section and plaster cast]; paratypes 10850, 10851

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 38, pl. 13, figs. 4a, b, 5, 6a-c.

Member 2, Chasm Creek Formation, Upper Ordovician, left bank Churchill River, approximately 7 1/2 miles and 9 1/4-10 miles above Red Head Rapids, Manitoba.

### *Deiracorallium manitobense* Nelson

Holotype 10844; paratypes 10355, 10845, 10846

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 37, pl. 13, figs. 1, 2a, b.

Caution Creek and Chasm Creek Formations, Upper Ordovician, right bank Churchill River, about 1/3 mile above mouth Hidden Creek; 2 3/4 miles below mouth Chasm Creek; for 1/2 mile up Chasm Creek; and 1/2-1 mile up Caution Creek, Manitoba.

### *Deiracorallium manitobense* var. *churchillense* Nelson

Holotype 10847

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 38, pl. 13, figs. 3a, b.

Member 1, Chasm Creek Formation, Upper Ordovician, Churchill River, for 1/2 mile up Chasm Creek, Manitoba.

### *Dendrostella rhenana* (Frech)

Hypotype 16553, a, b [specimen and thin sections]

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 6, pl. 2, figs. 1, 2.

600 feet above base of Nahanni Formation, Middle Devonian, Nahanni Range, south of Little Doctor Lake, District of Mackenzie.

*Dendrostella trigemme* (Quenstedt)

Hypotypes 16984–16986

Pedder, A.E.H., 1964, Palaeontology, vol. 7, pt. 3, p. 434, pl. 62, figs. 1–11.  
 Hume Formation, Middle Devonian, east end of Carcajou Ridge about lat. 65°30'N. long. 128°30'W, Northwest Territories.

*Digonophyllum rectum* (Meek)

Hypotype 16529, a–d [specimen and thin sections]

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 8, pl. 3, figs. 1–4.  
 Upper few feet of Hume Formation, Middle Devonian, Anderson River, approximately lat. 68°31'N, long. 127°20'W, District of Mackenzie.

*Digonophyllum* sp. A

Fig. spec. 16534, a, b [specimen and thin sections]

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 4, pl. 1, figs. 3, 4.  
 Middle Devonian, Hart River, lat. 65°26'N, long. 137°07'W, Yukon.

*Dinophyllum (?) umbonata* (Rominger)

Hypotype 20521

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 5, fig. 9.  
 Fossil Hill Formation, Middle Silurian, Manitowaning-South Baymouth highway 1 mile west of Fossil Hill at junction of south road, Manitoulin Island, Ontario.

*Diphyphyllum astraeiforme* Warren

=*Thysanophyllum astraeiforme*, Crickmay, C.H., 1955, "The Minnewanka Section of the Mississippian", p. 13.

=*Lithostrotionella (Thysanophyllum) astraeiformis*, Nelson, S.J., 1960, J. Pal., vol. 34, No. 1, p. 115, pl. 22, fig. 7 [syntypes 8911, a–c].

=*Thysanophyllum astraeiforme*, Bamber, E.W., 1966, Geol. Surv., Canada, Bull. 135, p. 23, pl. 4, figs. 3a, b [lectotype 8911 (2 pieces), d–g (thin sections), h, i (peels); syntypes 8911a–c].

*Diphyphyllum mutabile* Kelley

=*Lithostrotion mutabile*, Nelson, S.J., 1960, J. Pal., vol. 34, No. 1, p. 120 [holotype 9642].

=*Lithostrotion (Siphonodendron) mutabile*, Bamber, E.W., 1966, Geol. Surv., Canada, Bull. 135, p. 4, pl. 1, figs. 1a–e [holotype 9642 (five pieces), a–g (thin sections)].

*Diphyphyllum stokesi* (Milne-Edwards and Haime)

=*Palaeophyllum argus*, Sinclair, G.W., 1962, Geol. Surv., Canada, Bull. 80 (1961), p. 12 [paratype 6877].

*Disphyllum salicis* McLaren

Holotype 16469, a, b; paratype 16470, a–c [specimens and slides]

McLaren, D.J., 1964, Geol. Surv., Canada, Bull. 114, p. 7, pl. 2, figs. 1a, b, 2a, b.  
 Horn Plateau Formation, Middle Devonian, east flank Horn Plateau, 2.9 miles west of southwest tip Fawn Lake, lat. 62°08.2'N, long. 117°39'W, District of Mackenzie.

*Dohmophyllum* sp. A

Fig. spec. 16533, a, b [specimen and thin sections]

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 4, pl. 1, figs. 1, 2.  
 Middle Devonian, Hart River, lat. 65°26'N, long. 137°07'W, Yukon.

## ANTHOZOA

### ?*Entelophyllum* sp.

Fig. spec. 15839, a, b [specimen and thin sections]

Norford, B.S., 1962, Geol. Surv., Canada, Bull. 78, p. 40, pl. 14, figs. 1-4.

Coralline member, Sandpile Group, Middle Silurian, elevation 4800 feet, ridge face 1 1/2 miles northeast of north end of upper Sandpile Lake, lat. 59°02' 1/2'N, long. 128°07' 1/2'W, British Columbia.

### *Favistella alveolata* var. *stellaris* (Wilson)

Hypotype 10843

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 44, pl. 5, fig. 2.

Chasm Creek Formation, Upper Ordovician, right bank Nelson River, approximately 3 miles above mouth Angling River, Manitoba.

### *Favistina alveolata stellaris* (Wilson)

Hypotype 16886

Norford, B.S., 1962, Geol. Surv., Canada, Paper 62-14, p. 14, pl. 5, fig. 2.

Beaverfoot-Brisco Formation, Upper Ordovician, ridge 2 1/2 miles north of mouth of Quinn Creek, lat. 49°48.5'N, long. 115°10.1'W, British Columbia.

### *Favosites cf. F. brownsportensis* Amsden

Hypotypes 15817-15819

Norford, B.S., 1962, Geol. Surv., Canada, Bull. 78, p. 27, pl. 6, figs. 1-6.

Coralline member, Sandpile Group, Middle Silurian, elevation 5400 feet, ridge crest 1 1/2 miles north of upper Sandpile Lake, lat. 59°03' 1/2'N, long. 128°10'W and elevation 6100 feet, mountain top 1.8 miles north of north end of upper Sandpile Lake, lat. 59°04'N, long. 128°11'W, British Columbia.

### *Favosites discoideus* (Roemer)

Hypotypes 15732, a, b, 15820, 15822 [specimens and thin sections]

Norford, B.S.,

1962, Geol. Surv., Canada, Bull. 78, p. 28, pl. 7, figs. 1-7.

1962, ibid., Paper 62-14, p. 22, pl. 9, fig. 11.

Coralline member, Sandpile Group, Middle Silurian, elevation 5400 feet, ridge crest 1 1/2 miles north of upper Sandpile Lake, lat. 59°03' 1/2'N, long. 128°10'W, British Columbia.

### *Favosites favosus* (Goldfuss)

Hypotypes 15730, a, b, 15840 [specimens and thin sections]

Norford, B.S.,

1962, Geol. Surv., Canada, Bull. 78, p. 28, pl. 5, figs. 6, 7, 11.

1962, ibid., Paper 62-14, p. 22, pl. 9, fig. 13.

Coralline member, Sandpile Group, Middle Silurian, elevation 5100 feet, ridge crest 1.4 miles NNW. of north end of upper Sandpile Lake, lat. 59°03'N, long. 128°11'W, British Columbia.

### *Favosites favosus* (Goldfuss)

Hypotypes 20532, 20542

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 6, fig. 12; pl. 8, figs. 1, 5.

Fossil Hill Formation, Middle Silurian, road section 1/2 mile east of church, east of Elizabeth Bay and corner on road boundary con. XIV-XV, lot 9, Assiginack tp., Manitoulin Island, Ontario.

### *Favosites cf. hamiltoniae* Hall

Hypotype 14874, a [specimen and thin section]

McCammon, H., 1960, Manitoba Dept. Mines Natural Res., Mines Branch, Publ. 59-6, p. 38, pl. 5, fig. 3.

Dawson Bay Formation, Middle Devonian, Bell River outlet, Dawson Bay, Lake Winnipegosis, Manitoba.

*Favosites hispidus* Rominger

Hypotypes 20548, 20549, 20551

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 9, figs. 2, 3, 5.

Fossil Hill Formation, Middle Silurian, ridge in Long Bay Lodge area, southwest bay of Lake Manitou and road exposures 3/4 mile east of Snowville, northwest of Tehkummah, Manitoulin Island, Ontario.

*Favosites pachymuralis* McCammon

Holotype 14875, a-c [specimen and thin sections]

McCammon, H., 1960, Manitoba Dept. Mines Natural Res., Mines Branch, Publ. 59-6, p. 38, pl. 5, figs. 5a-c.

Dawson Bay Formation, Middle Devonian, Snake Island, Lake Winnipegosis, Manitoba.

*Favosites wilsonae* Nelson

Holotype 10350; paratypes 10348, 10349

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 54, pl. 7, figs. 1, 2a, b, 3.

Caution Creek Formation, Upper Ordovician, left bank South Knife River, about 3 1/4 miles due east of line of long. 95°; right bank Churchill River, 2 3/4 miles below mouth Chasm Creek; and left side Churchill River 2 1/2-3 miles below Bad Cache Rapids, Manitoba.

*Favosites* sp.

Fig. spec. 16498, a-c [specimen and slides]

McLaren, D.J., 1964, Geol. Surv., Canada, Bull. 114, p. 6, pl. 2, figs. 4a-c.

Horn Plateau Formation, Middle Devonian, east flank Horn Plateau, 2.9 miles west of southwest tip Fawn Lake, lat. 62°08.2'N, long. 117°39'W, District of Mackenzie.

*Favosites* sp. C

Fig. spec. 16544a, b [thin sections]

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 8, pl. 3, figs. 11, 12.

240 feet below top unnamed Middle Devonian unit, mountainside west of Clearwater Creek, Pine Pass map-area, lat. 55°47'N, long. 123°14'W, British Columbia.

*Favosites* sp.

Fig. specs. 20535, 20545.

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 6, fig. 16; pl. 8, fig. 4.

Fossil Hill Formation, Middle Silurian, escarpment section Squire road west of Ingis Falls road, outskirts of Owen Sound, and ridge in Long Bay Lodge area, southwest bay of Manitou Lake, Manitoulin Island, Ontario.

*Fletcheria deadwoodensis* Norford

Holotype 14488, a, b [specimen and thin sections]; paratypes 15750, a, 15751, a, 15834, 15835, 15843 [specimens and thin sections]

Norford, B.S., 1962, Geol. Surv., Canada, Bull. 78, p. 41, pl. 15, figs. 1-4, 6, 7, 9-11.

Coralline member, Sandpile Group, Middle Silurian, elevation 4800 feet, ridge face 1 1/2 miles northeast of north end of upper Sandpile Lake, lat. 59°02 1/2'N, long. 128°07 1/2'W, and elevation 6200 feet, ridge crest 3.3 miles southeast of 6543-foot cairn, lat. 58°59'N, long. 128°W, British Columbia.

*Fletcheria incerta* (Billings)

= "Aulopora" wilsonae, Sinclair, G.W., 1962, Geol. Surv., Canada, Bull. 80 (1961), p. 16, pl. 7, figs. 1-3 [holotype 7399].

## ANTHOZOA

### *Fletcheria major* Norford

Holotype 14489, a, b [specimen and thin sections]; paratype 15746, a [specimen and thin section]  
Norford, B.S., 1962, Geol. Surv., Canada, Bull. 78, p. 42, pl. 15, figs. 5, 8, 12–14.  
Coralline member, Sandpile Group, Middle Silurian, elevation 5100 feet, ridge crest 1.4 miles  
NNW. of north end of upper Sandpile Lake, lat. 59°03'N, long. 128°11'W, British  
Columbia.  
= *Fletcheria* sp. 1, Norford, B.S., 1962, ibid., Paper 62-14, p. 22, pl. 10, figs. 5, 9 [14489a, b].

### *Fletcheria* sp. 2

Fig. spec. 16904  
Norford, B.S., 1962, Geol. Surv., Canada, Paper 62-14, p. 22, pl. 9, fig. 8.  
Middle Silurian, elevation 6200 feet, lat. 58°59'N, long. 128°W, Cry Lake map-area, British  
Columbia.

### *Foerstiphyllum halli* (Nicholson)

Hypotype 18649  
Sinclair, G.W., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook,  
p. 39, pl. 3, fig. 6.  
'Leray' beds, Ottawa Formation, Middle Ordovician, road-cut 5 miles west of Almonte, Ontario.

### *Goniophyllum pyramidale* (Hisinger)

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 7, fig. 1 [hypotype 11065].

### *Goniophyllum pyramidale* (Hisinger)

Hypotypes 20536, 20538  
Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 7, figs. 2, 4.  
Fossil Hill Formation, Middle Silurian, southwest corner and upper section at junction of  
Manitowaning-South Baymouth and The Slash roads, lot 4, con. II, Assiginack tp.,  
Manitoulin Island, Ontario.

### *Grewingkia robusta* (Whiteaves)

Hypotypes 10358, 10797, 10807  
Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 33, pl. 8, figs. 1a, b, 2, 3a–f.  
Member 2, Portage Chute Formation, Upper Ordovician, left side Churchill River, about  
2 1/2–3 miles below Bad Cache Rapids and left bank Nelson River, for about 1 mile  
above Third Upper Limestone Rapids, Manitoba.

### *Grypophyllum cornus* McLaren

Holotype 16482, a–c [specimen and slides]  
McLaren, D.J., 1964, Geol. Surv., Canada, Bull. 114, p. 10, pl. 3, figs. 3a–c.  
Horn Plateau Formation, Middle Devonian, east flank Horn Plateau, 2.9 miles west of south-  
west tip Fawn Lake, lat. 62°08.2'N, long. 117°39'W, District of Mackenzie.

### *Grypophyllum cf. G. gracile* Wedekind

Hypotype 16532, a, b [specimen and thin sections]  
McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 10, pl. 4, figs. 5, 6.  
Kee Scarp Formation, Middle Devonian, west side of Cleaver Mountain, 2 miles north of  
Mackenzie River, west of Oscar Creek, District of Mackenzie.

### *Grypophyllum graciliseptatum* Pedder

Holotype 17003; paratypes 17004, 17005  
Pedder, A.E.H., 1964, Palaeontology, vol. 7, pt. 3, p. 441, pl. 67, figs. 1–19.  
Nahanni and Hume Formations, Middle Devonian, northeastern part of Nahanni Plateau, lat.  
61°53'N, long. 124°25'W and Schooner Creek, about lat. 64°18'N, long. 126°34'W,  
Northwest Territories.

*Halysites labyrinthicus* (Goldfuss)

Hypotype 20523

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 5, fig. 11.

Fossil Hill Formation, Middle Silurian, 0.3 mile south of Manitowaning-South Baymouth highway, lot 9, con. I, Assiginack tp., Manitoulin Island, Ontario.

*Halysites nitida* Lambe

Hypotype 15825, a [specimen and thin section]

Norford, B.S.,

1962, Geol. Surv., Canada, Bull. 78, p. 31, pl. 8, figs. 1-3.

1962, ibid., Paper 62-14, p. 22, pl. 9, figs. 7, 12.

Sandpile Group, Middle Silurian, elevation 5800 feet, mountain top 4 1/2 miles WNW. of junction Dall and Turnagain Rivers, lat. 58°48'N, long. 127°57'W, British Columbia.

*Halysites occidens* Norford

Holotype 14484, a, b [specimen and thin sections]; paratype 15828

Norford, B.S., 1962, Geol. Surv., Canada, Bull. 78, p. 32, pl. 9, figs. 1-5.

Coralline member, Sandpile Group, Middle Silurian, elevation 5100 feet, ridge crest 1.4 miles NNW. of north end of upper Sandpile Lake, lat. 59°03'N, long. 128°11'W and elevation 6100 feet, mountain top 1.8 miles north of north end of upper Sandpile Lake, lat. 59°04'N, long. 128°11'W, British Columbia.

= *Halysites* sp. 1, Norford, B.S., 1962, ibid., Paper 62-14, p. 22, pl. 9, fig. 1 [14484].*Halysites sandpilensis* Norford

Holotype 14485, a, b [specimen and thin sections]; paratypes 15734, a, 15826

Norford, B.S., 1962, Geol. Surv., Canada, Bull. 78, p. 32, pl. 8, figs. 4-8.

Coralline member, Sandpile Group, Middle Silurian, elevation 6200 feet, ridge crest 3.3 miles southeast of 6543-foot cairn, lat. 58°59'N, long. 128°W and elevation 6100 feet, mountain top 1.8 miles north of north end of upper Sandpile Lake, lat. 59°04'N, long. 128°11'W, British Columbia.

= *Halysites* sp. 2, Norford, B.S., 1962, ibid., Paper 62-14, p. 22 pl. 9, fig. 6 [14485].*Heliolites affinis* Billings= *Lyellia affinis*, Lambe, L.M., 1900, Geol. Surv., Canada, Contr. Can. Pal., vol. 4, pt. 1, 1899, p. 84, pl. 5, fig. 1. [syntype 2340b - Gun River or Jupiter Formation].*Heliolites interstincta* (Linnaeus)

Hypotype 17721

Lambe, L.M., 1900, Geol. Surv., Canada, Contr. Can. Pal., vol. 4, pt. 1, 1899, p. 79, pl. 2, figs. 6, a.

Middle Silurian, west of l'Anse à la Barbe, Gaspé, Quebec.

*Heliolites* cf. *H. megastoma* (M'Coy)

Hypotypes 15729, a, b [specimen and thin sections], 15815, 15816

Norford, B.S.,

1962, Geol. Surv., Canada, Bull. 78, p. 26, pl. 5, figs. 1-5.

1962, ibid., Paper 62-14, p. 22, pl. 9, fig. 4 [15816].

Coralline member, Sandpile Group, Middle Silurian, elevation 5100 feet, ridge crest 1.4 miles NNW. of north end of upper Sandpile Lake, lat. 59°03'N, long. 128°11'W; elevation 5550 feet, ridge crest 1.7 miles NNW. of north end of upper Sandpile Lake, lat. 59°03'1/2"N, long. 128°12'W; and elevation 4800 feet, ridge face 1 1/2 miles northeast of north end of upper Sandpile Lake, lat. 59°02'1/2"N, long. 128°07'1/2"W, British Columbia.

## ANTHOZOA

### *Heliolites subtubulata* (McCoy)

#### Hypotype 17722

Lambe, L.M., 1900, Geol. Surv., Canada, Contr. Can. Pal., vol. 4, pt. 1, 1899, p. 80, pl. 2, fig. 7.

Middle Silurian, l'Anse à la Vieille, Gaspé, Quebec.

### *Heliophyllum borealis* McLaren

#### Holotype 16483, a-c; paratype 16484, a, b [specimens and slides]

McLaren, D.J., 1964, Geol. Surv., Canada, Bull. 114, p. 15, pl. 5, figs. 1a-c; pl. 6, figs. 1a, b. Horn Plateau Formation, Middle Devonian, east flank Horn Plateau, 2.9 miles west of southwest tip Fawn Lake, lat. 62°08.2'N, long. 117°39'W, District of Mackenzie.

### *Hexagonaria cf. arctica* (Meek)

#### Hypotype 14873

McCammon, H., 1960, Manitoba Dept. Mines Natural Res., Mines Branch, Publ. 59-6, p. 36, pl. 5, fig. 2.

Dawson Bay Formation, Middle Devonian, Snake Island, Lake Winnipegosis, Manitoba.

### *Hexagonaria bompassi* (Smith)

#### Hypotype 16552, a, b [specimen and thin sections]

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 10, pl. 4, figs. 16, 17. 164 feet above base Twin Falls Formation, left bank Hay River, 3 1/2 miles upstream from Alexandra Falls, District of Mackenzie.

### *Hexagonaria caurus* Smith

#### Hypotype 16536, a, b [specimen and thin sections]

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 16, pl. 7, figs. 3, 4. 60 feet down from top of Kakisa Formation, Upper Devonian, left bank Trout River, 500 yards upstream from Whittaker (the Main) Falls, District of Mackenzie.

### *Hexagonaria reticulata* (Smith)

#### Hypotype 16548, a, b [specimen and thin section]

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 12, pl. 5, figs. 1, 2. Highest beds of Twin Falls Formation, Upper Devonian, right bank of Hay River, 1 mile downstream from Grumbler Rapid, District of Mackenzie.

### *Hexagonaria* sp. A

#### Fig. spec. 16550, a, b [specimen and thin sections]

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 6, pl. 2, figs. 3, 4. Nahanni Formation, Middle Devonian, mountain north of Bluefish Lake, Nahanni Range, District of Mackenzie.

### *Hexagonaria* sp. H

#### Fig. spec. 16551, a, b [specimen and thin sections]

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 4, pl. 1, figs. 5, 6. Middle Devonian, Hart River, lat. 65°21'N, long. 137°03'W, Yukon.

### *Keriophyllum* sp. F

#### Fig. spec. 16528, a-e [specimen and thin sections]

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 10, pl. 4, figs. 1-4. Middle Presqu'ile Formation, Middle Devonian, northeast side of Presqu'ile Point, south shore of Great Slave Lake, District of Mackenzie.

*Kionelasma spongaxis* (Rominger)

## Hypotype 20516

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 5, fig. 4.  
 Fossil Hill Formation, Middle Silurian, east-central Otter Lake south of West Bay village, Manitoulin Island, Ontario.

*Kunthia? petraoides* (Whiteaves)

## Hypotypes 14780, 14781, a

McCammon, H., 1960, Manitoba Dept. Mines Natural Res., Mines Branch, Publ. 59-6, p. 35, pl. 4, figs. 7a, b, 8.  
 Dawson Bay Formation, Middle Devonian, north bank 1 3/5 miles up Red Deer River, l.s.d. 6, sec. 21, tp. 45, rge. 25, W. Prin. mer., Manitoba.

*Labyrinthites chidlensis* Lambe

= *Labyrinthites (Labyrinthites) chidlensis*, Bolton, T.E., 1965, Geol. Surv., Canada, Bull. 134, p. 18, pl. 4, figs. 3, 7; pl. 6, fig. 4 [lectotype 7933 – Middle Ordovician].

*Labyrinthites (Labyrinthites) chidlensis* Lambe

## Hypotypes 14494, 18728–18736

Bolton, T.E., 1965, Geol. Surv., Canada, Bull. 134, p. 18, pl. 4, figs. 1, 2; pl. 5, figs. 1–3; pl. 6, figs. 1, 5 [No. 18728, not No. 15728]; pl. 7, figs. 1, 6.  
 Middle Ordovician, Vendom Fiord along crest of ridge extending north from "Meadow" River 6 1/2 miles east of its mouth [14494], eastern Darling Peninsula [18735], and 8 miles northwest of sharp bend in southern part of Canyon Fiord, 2 miles from north shore, Ellesmere Island [18736]; south of southern boundary of Quertier tp., northwest shore [18728], northern end and centre of exposure along eastern shore of a long peninsula, west-central shore [18729–18731], and east shore large bay, southwestern shore [18732–18734], Lake Manicouagan, Quebec.

*Labyrinthites (Labyrinthites) chidlensis* Lambe

## Hypotypes 15307–15310

Bolton, T.E., 1965, Geol. Surv., Canada, Bull. 134, pp. 22–23.  
 Long Point Group, Middle Ordovician, 1 1/2 miles east of Portage Road junction, east coast of Long Point Peninsula, Port au Port Peninsula, western Newfoundland.

*Lekanophyllum cf. L. punctatum* Wedekind

## Hypotypes 16493, a, b, 16494, a, b [specimens and slides]

McLaren, D.J., 1964, Geol. Surv., Canada, Bull. 114, p. 23, pl. 8, figs. 3a, b, 4a, b.  
 Horn Plateau Formation, Middle Devonian, east flank Horn Plateau. 2.9 miles west of southwest tip Fawn Lake, lat. 62°08.2'N, long. 117°39'W, District of Mackenzie.

*Lichenaria typa* Winchell and Schubert

Sinclair, G.W., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 39, pl. 3, figs. 4, 5 [hypotype 13205].

*Lithostrotion banffense* Warren

Crickmay, C.H., 1955, "The Minnewanka Section of the Mississippian", p. 12, pl. 1, figs. 13, 14 [holotype 8912].

= *Lithostrotionella banffense*, Nelson, S.J., 1960, J. Pal., vol. 34, No. 1, p. 119, pl. 23, figs. 4, 5 [lectotype 8912].

= *Lithostrotionella astraeiformis*, Nelson, S.J., 1960, ibid., pp. 116, 119 [homeotype 8912a].

= *Lithostrotionella banffensis*, Nelson, S.J., 1961, Geol. Assoc. Can., Sp. Paper 2, pl. 17, figs. 1, 2 [lectotype 8912].

Bamber, E.W., 1966, Geol. Surv., Canada, Bull. 135, p. 17, pl. 3, fig. 5 [lectotype 8912 (5 pieces), b–f (thin sections)].

= *Thysanophyllum astraeiforme*, Bamber, E.W., 1966, ibid., p. 23, pl. 4, figs. 4a–c [hypotype 8912a (2 pieces), g–i, 1 (thin sections), j, k (peels)].

## ANTHOZOA

### *Lithostrotion flexuosum* Warren

- = *Lithostrotion sinuosum*, Nelson, S.J., 1960, J. Pal., vol. 34, No. 1, p. 121, pl. 24, figs. 4, 5 [holotype 8913].  
Nelson, S.J., 1961, Geol. Assoc. Can., Sp. Paper 2, pl. 11, figs. 1, 2 [holotype 8913].  
= *Lithostrotion (Siphonodendron) sinuosum*, Bamber, E.W., 1966, Geol. Surv., Canada, Bull. 135, p. 7, pl. 1, fig. 3 [lectotype 8913 (1 piece), b, c (thin sections); syntype 8913a (3 pieces), d (peel), e (thin section)].

### *Lithostrotion grandis* (Heritsch)

Hypotype 13505, a, b [specimen and thin section]

Harker, P. and Thorsteinsson, R., 1960, Geol. Surv., Canada, Mem. 309, p. 45, pl. 14, figs. 1–3.

Belcher Channel Formation, Permian, lower reaches Lyall River, Grinnell Peninsula, northwest Devon Island, Arctic.

### *Lithostrotion kunthi* (Stuckenbergs)

Hypotype 13506, a, b [specimen and thin sections]

Harker, P. and Thorsteinsson, R., 1960, Geol. Surv., Canada, Mem. 309, p. 46, pl. 13, figs. 5, 6.

Belcher Channel Formation, Permian, lower reaches Lyall River, Grinnell Peninsula, northwest Devon Island, Arctic.

### *Lithostrotion macouni* Lambe

= *Lithostrotion (?) macouni*, Nelson, S.J., 1960, J. Pal., vol. 34, No. 1, p. 122, pl. 23, figs. 1, 2 [syntypes 4327, a, b].

### *Lithostrotion [Diphyphyllum] aff. mutabile* Kelly

= *Lithostrotion (Siphonodendron) mutabile*, Bamber, E.W., 1966, Geol. Surv., Canada, Bull. 135, p. 4 [hypotypes 10654, 10655].

### *Lithostrotion cf. pauciradiale* (McCoy)

= *Lithostrotion (Siphonodendron) sinuosum*, Bamber, E.W., 1966, Geol. Surv., Canada, Bull. 135, p. 7 [hypotypes 10649–10651].

### *Lithostrotion pennsylvanicum* Shimer

= *Lonsdaleia pennsylvanica*, Crickmay, C.H., 1955, "The Minnewanka Section of the Mississippian", p. 13, pl. 1, figs. 11, 12 [holotype 4459a].

= *Lithostrotionella pennsylvanicum*, Nelson, S.J., 1960, J. Pal., vol. 34, No. 1, p. 117, pl. 22, fig. 4 [lectotype 4459a].

= *Lithostrotionella shimeri*, Nelson, S.J., 1960, ibid., pp. 114, 117, pl. 21, figs. 9, 10 [homeotype 4459d].

Nelson, S.J., 1961, Geol. Assoc. Can., Sp. Paper 2, pl. 18, figs. 4, 5 [homeotype 4459d].

= *Lithostrotionella pennsylvanica*, Bamber, E.W., 1966, Geol. Surv., Canada, Bull. 135, p. 19, pl. 4, figs. 1, 2 [lectotype 4459a, b (pieces), o, p (thin sections), q, r (peels); syntypes 4459 (piece), s, t (thin sections), 4462b (3 pieces), d–g (thin sections)].

= *Lithostrotionella shimeri*, Bamber, E.W., 1966, ibid., p. 22 [hypotypes 4459d–f, 4462, 4463, a, b, d, f–h, 4464a, c].

= *Lithostrotionella cf. bailliei*, Bamber, E.W., 1966, ibid., p. 22 [hypotype 4464].

= *Lithostrotionella cf. banffensis*, Bamber, E.W., 1966, ibid., p. 22 [hypotype 4464b].

### *Lithostrotion cf. L. portlocki* Milne-Edwards and Haime

Hypotype 13507, a, b [specimen and thin sections]

Harker, P. and Thorsteinsson, R., 1960, Geol. Surv., Canada, Mem. 309, p. 46, pl. 12, figs. 6, 7.

Belcher Channel Formation, Permian, lower reaches Lyall River, Grinnell Peninsula, northwest Devon Island, Arctic.

*Lithostrotion (Siphonodendron) sinuosum* (Kelly)

Hypotype 18813 (8 pieces), a–g (thin sections), h–j (peels)

Bamber, E.W., 1966, Geol. Surv., Canada, Bull. 135, p. 7, pl. 1, figs. 4a–i.

Prophet Formation, Mississippian, just north of Peace River, lat. 56°02'N, long. 123°12'W, northeastern British Columbia.

*Lithostrotion (Siphonodendron) warreni* Nelson

Bamber, E.W., 1966, Geol. Surv., Canada, Bull. 135, p. 6, pl. 1, fig. 2 [thin section GSC No. 16838 of holotype, Univ. Alberta No. 338].

*Lithostrotion?* sp.

Hypotype 13508, a, b [specimen and thin sections]

Harker, P. and Thorsteinsson, R., 1960, Geol. Surv., Canada, Mem. 309, p. 47, pl. 14, figs. 4, 5.

Belcher Channel Formation, Permian, Lyall River, Grinnell Peninsula, northwest Devon Island, Arctic.

*Lithostrotionella jasperensis* Kelly

=*Lithostrotionella microstylum*, Bamber, E.W., 1966, Geol. Surv., Canada, Bull. 135, p. 9, pl. 2, figs. 1a, b [holotype 9647 (thin section); hypotype 9646 (3 pieces), c, d (thin sections)].

*Lithostrotionella micra* Kelly

Bamber, E.W., 1966, Geol. Surv., Canada, Bull. 135, p. 14, pl. 3, figs. 4a–e [holotype 9648 (1 piece), a–h (thin sections)].

*Lithostrotionella microstylum* (White)

Bamber, E.W., 1966, Geol. Surv., Canada, Bull. 135, p. 9, pl. 3, figs. 2a, b [thin sections GSC Nos. 16840, a of hypotype, Univ. Alberta No. 340].

*Lithostrotionella microstylum* (White)

Hypotype 18812 (10 pieces), a–e (thin sections)

Bamber, E.W., 1966, Geol. Surv., Canada, Bull. 135, p. 9, pl. 3, figs. 3a, b.

Banff Formation, Mississippian, northwest side of The Rajah, lat. 53°16'N, long. 118°36'W, Jasper Park, Alberta.

*Lobocorallium hayssi goniophylloides* (Teichert)

Hypotypes 10793–10795

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 35, pl. 9, figs. 1a, b, 2a–c, 3a, b, 4.

Surprise Creek Formation, Upper Ordovician, right bank Churchill River, 1/2 mile above and below Bad Cache Rapids, Manitoba.

*Lobocorallium trilobatum* var. *major* Nelson

Holotype 10796a–m, 10797 [thin sections and plaster cast]; paratypes 10356, 10811

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 35, pl. 5, fig. 1; pl. 8, fig. 4; pl. 10, figs. 1, 2a–h.

Chasm Creek Formation, Upper Ordovician, left bank Churchill River, 2–2 1/2 miles above Red Head Rapids and for 1/2 mile up Chasm Creek, Manitoba.

*Lophophyllum? cascadense* Warren

=*Ektasophyllum cascadense*, Crickmay, C.H., 1955, "The Minnewanka Section of the Mississippian", p. 10, pl. 1, fig. 8 [holotype 8910].

*Lyellia affinis* (Billings)

Norford, B.S., 1962, Geol. Surv., Canada, Paper 62-14, p. 20, pl. 8, fig. 17 [hypotype 10413].

## ANTHOZOA

### *Lyopora churchillensis* Nelson

Holotype 10335; paratype 10336

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 47, pl. 6, figs. 2, 4a, b.

Chasm Creek Formation, Upper Ordovician, left bank Churchill River, from 10 miles above Red Head Rapids downriver for about 3/4 mile and approximately 7 1/2 miles above Red Head Rapids, Manitoba.

### *Lyopora manitobensis* Nelson

Holotype 10339; paratype 10340

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 47, pl. 5, figs. 3a, b, 5a, b.

Chasm Creek Formation, Upper Ordovician, left bank Churchill River, from 10 miles above Red Head Rapids downriver for about 3/4 mile and 2-2 1/2 miles above Red Head Rapids, Manitoba.

### *Macgeea proteus* Smith

Hypotype 16540, a, b [specimen and thin sections]

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 10, pl. 4, figs. 9, 10.

33 feet down in Escarpment Member, Hay River Formation, Upper Devonian, Louise Falls, Hay River, District of Mackenzie.

### *Manipora amicarum* Sinclair

Hypotypes 10373-10375

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 60, pl. 15, figs. 1-3.

Portage Chute and Chasm Creek Formations, Upper Devonian, left bank South Knife River, approximately 5 miles west of northwest end of Herriot Lake; right bank Churchill River, 1/2 mile above to 1/2 mile below Bad Cache Rapids; and left bank, 2-2 1/2 miles above Red Head Rapids, Manitoba.

### *Manipora feildeni* (Etheridge)

Hypotypes 10353, 10357

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 61, pl. 14, figs. 14, 15.

Member 2, Portage Chute Formation, Upper Ordovician, left bank Nelson River, 1 mile above and below Third Upper Limestone Rapids and right bank, 3-3 1/2 miles below Long Spruce Rapids, Manitoba.

### *Manipora irregularis* (Teichert)

Hypotypes 10560, 10894

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 60, pl. 14, figs. 12, 13.

Portage Chute and Chasm Creek Formations, Upper Ordovician, right bank Nelson River, from First Upper Limestone Rapids down to about 1 mile below Third Upper Limestone Rapids and left bank Churchill River, 9 1/4-10 miles above Red Head Rapids, Manitoba.

### *Manipora* sp.

Fig. specs. 16914-16916

Norford, B.S., 1962, Geol. Surv., Canada, Paper 62-14, p. 16, pl. 6, figs. 8, 11, 15.

Whittaker and Mount Kindle Formations, Upper Ordovician, 10 miles west of Iverson Lake and Mount Kindle, District of Mackenzie.

### *Mictophyllum modicum* Smith

Hypotype 16526a-c [thin sections]

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 12, pl. 5, figs. 3-5.

Twin Falls Formation, Upper Devonian, right bank of Hay River, 1 mile upstream from Grumbler Rapid, District of Mackenzie.

*Multisolenia confluens* Stearn

Norford, B.S., 1962, Geol. Surv., Canada, Paper 62-14, p. 20, pl. 8, fig. 5 [holotype 10412].

*Multisolenia tortuosa* Fritz

Norford, B.S., 1962, Geol. Surv., Canada, Paper 62-14, p. 20, pl. 8, fig. 9 [hypotype 10485].

*Multisolenia tortuosa* Fritz

Hypotypes 18739–18741

Bolton, T.E.,

1965, Geol. Surv., Canada, Bull. 134, p. 26, pl. 6, figs. 2, 3; pl. 8, figs. 1–4.

1966, ibid., Paper 66-5, pl. 18, figs. 1, 2 [18739, 18740].

Thornloe Formation, Middle Silurian, Mann Island and north end of Lake Timiskaming, Quebec–Ontario.

*Neostringophyllum craigi* McLaren

Holotype 16477a–c; paratype 16478, a–c [specimens and slides]

McLaren, D.J., 1964, Geol. Surv., Canada, Bull. 114, p. 11, pl. 4, figs. 1a–c, 2a–c.

Horn Plateau Formation, Middle Devonian, east flank Horn Plateau, 2.9 miles west of southwest tip Fawn Lake, lat. 62°08.2'N, long. 117°39'W, District of Mackenzie.

*Nyctopora billingsi* Nicholson

Hill, D., 1962, Geol. Surv., Canada, Bull. 80 (1961), p. 6, pl. 2, figs. 1–4 [6689, a].

*Nyctopora mackenziei* Nelson

Holotype 10376; paratype 10377

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 45, pl. 6, figs. 3, 5.

Surprise Creek and Portage Chute Formations, Upper Ordovician, left bank Nelson River, about 3 miles below Third Upper Limestone Rapids and right bank North Knife River, approximately 4 1/4 miles below Teepee Falls, Manitoba.

*Pachyphyllum cinctum* (Smith)

=*Phillipsastraea cincta*, McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 24, pl. 11, figs. 28, 29 [hypotype 13826a, b].

*Pachyphyllum nevadense magnum* (Stumm)

=*Phillipsastraea nevadensis magna*, McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 14, pl. 6, figs. 1, 2 [hypotype 13827a, b].

*Pachyphyllum* cf. *P. woodmani* (White)

=*Phillipsastraea* cf. *P. woodmani*, McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 14, pl. 6, figs. 3, 4 [hypotype 13828a, b].

*Palaeofavosites alveolaris* (Lonsdale) (?)

Hypotype 10331

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 51, pl. 7, fig. 9.

Chasm Creek Formation, Upper Ordovician, outcrops for about 1/4 mile from mouth along Angling River, Nelson River, Manitoba.

*Palaeofavosites asper* (D'Orbigny)

Hypotype 17961

Bolton, T.E.,

1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 77, pl. 7, figs. 17, 18.

1966, Geol. Surv., Canada, Paper 66-5, pl. 1, fig. 26.

Manitoulin Formation, Cataract Group, Lower Silurian, south of Kemble, Ontario.

## ANTHOZOA

### *Palaeofavosites asper* (D'Orbigny)

Hypotype 20481

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 1, fig. 25.  
Manitoulin Formation, Lower Silurian, north end of exposure on first road west of Kagawong village extending to Kagawong Lake, 1 mile south of main highway, Manitoulin Island, Ontario.

### *Palaeofavosites capax* Billings

Hypotype 10330

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 52, pl. 7, fig. 4.  
Member 1, Caution Creek Formation, Upper Ordovician, right bank Churchill River, 2 3/4 miles below mouth Chasm Creek, Manitoba.

### *Palaeofavosites okulitchi* Stearn

Hypotype 10351

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 53, pl. 7, fig. 6.  
Member 2, Chasm Creek Formation, Upper Ordovician, left bank Churchill River, from 10 miles above Red Head Rapids downriver about 3/4 mile, Manitoba.

### *Palaeofavosites prolificus* (Billings)

Hypotype 10329

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 52, pl. 7, fig. 5.  
Member 1, Chasm Creek Formation, Upper Ordovician, banks of Chasm Creek for about 1/2 mile up from mouth, Churchill River, Manitoba.

### *Palaeophyllum argus* Sinclair

Holotype 6878

Sinclair, G.W., 1962, Geol. Surv., Canada, Bull. 80 (1961), p. 12, pl. 4, figs. 1-4; pl. 7, fig. 4.

Dog Head Member, Red River Formation, Ordovician, Lower Fort Garry, Manitoba.

See *Diphyphyllum stokesii*

### *Palaeophyllum halysitoides* (Wilson)

Hypotype 10370

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 31, pl. 5, fig. 4.  
Portage Chute Formation, Upper Ordovician, left bank Churchill River, 2 miles below Portage Chute, Manitoba.

### *Palaeophyllum humei* Sinclair

Holotype 13627; paratypes 13628-13631; hypotype 14597

Sinclair, G.W., 1962, Geol. Surv., Canada, Bull. 80 (1961), p. 11, pl. 3, figs. 1-6.  
Liskeard Formation, Ordovician, north end lot 4, con. 1, Dymond tp., 2 miles west of New Liskeard, Ontario.

### *Palaeophyllum multicaule* (Hall)

Hypotype 17092

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 12, figs. 1, 3.  
'Upper Lockport' Formation, Middle Silurian, Battle's old cement quarry, Thorold, Ontario.

### *Palaeophyllum raduguini* Nelson

Hypotype 10371

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 32, pl. 6, fig. 7.  
Member 2, Chasm Creek Formation, Upper Ordovician, right bank Churchill River, 6-7 miles above Red Head Rapids, Manitoba.

*Palaeophyllum rugosum* Billings

Hill, D., 1962, Geol. Surv., Canada, Bull. 80 (1961), p. 1, pl. 1, figs. 1–6 [lectotype 1379, a–e].

*Palaeophyllum stokesi* (Milne-Edwards and Haime)

Hypotype 10372

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 31, pl. 6, fig. 6.

Portage Chute Formation, Upper Ordovician, left bank South Knife River, approximately 2 miles WNW. of northwest end of Herriot Lake, Manitoba.

*Palaeophyllum umbellif crescens* Chadwick

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 2, fig. 21 [syntype 13592].

*Palaeophyllum umbellif crescens* Chadwick

Hypotypes 20493, 20495

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 2, figs. 16, 19.

Manitoulin Formation, Lower Silurian, west of Manitowaning village (?) and 2 miles west of "The Rock", Manitoulin Island, Ontario.

*Palaeophyllum (Cyathophylloides) williamsi* Chadwick

=*Palaeophyllum williamsi*, Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 2, fig. 20 [holotype 4508].

*Palaeophyllum williamsi* Chadwick

Hypotype 20494

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 2, figs. 17, 18.

Manitoulin Formation, Lower Silurian, ridge on Bidwell road, con. I-II, Assiginack tp., 3/4 mile east of Manitou Lake, Manitoulin Island, Ontario.

*Palaeophyllum* sp.

Fig. spec. 16899

Norford, B.S., 1962, Geol. Surv., Canada, Paper 62-14, p. 18, pl. 7, fig. 36.

Beaverfoot-Brisco Formation, Upper Ordovician, Cirrus Mountain, Banff Park, Alberta.

*Palaeophyllum* sp.

Fig. specs. 16910, 16911

Norford, B.S., 1962, Geol. Surv., Canada, Paper 62-14, p. 16, pl. 6, figs. 5, 9.

Mount Kindle Formation, Upper Ordovician, Mount Kindle, District of Mackenzie.

*Phaulactis stummi* Nelson

Holotype 10862a–d [specimen and thin sections]; paratypes 10379, 10806, 10863, 10900

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 43, pl. 13, figs. 7, 8a–d, 9–12.

Member 3, Chasm Creek Formation, Upper Ordovician, left bank Churchill River, 2–2 1/2 miles above Red Head Rapids, Manitoba.

*Phillipsastraea affinis* Billings

=*Billingsastraea affinis*,

Ethers, G.M. and Stumm, E.C., 1953, Bull. Buffalo Soc. Natural Sci., vol. 21, No. 2, p. 6, pl. 2, fig. 4 [holotype 3270].

Stumm, E.C., 1955, Wagner Free Instit. Sci., "Type Invertebrate Fossils of North America (Devonian)", Tetracoralla cards 231, 23.1, figs.

Oliver, W.A., Jr., 1964, U.S. Prof. Paper 483-B, p. 3, pl. 1, figs. 1–5; pl. 2, figs. 1–4.

## ANTHOZOA

### "*Phillipsastraea exigua* Lambe"

Hypotype 16537, a, b [specimen and thin sections]

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 16, pl. 7, figs. 5, 6.

60 feet down from top of Kakisa Formation, Upper Devonian, left bank Trout River, 500 yards upstream from Whittaker (the Main) Falls, District of Mackenzie.

### *Phillipsastraea vesiculosa* Smith

Hypotype 16538, a, b [specimen and thin sections]

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 16, pl. 7, figs. 1, 2.

60 feet down from top of Kakisa Formation, Upper Devonian, left bank Trout River, 500 yards upstream from Whittaker (the Main) Falls, District of Mackenzie.

### *Plasmopora follis* Milne-Edwards and Haime

Hypotype 17720

Lambe, L.M., 1900, Geol. Surv., Canada, Contr. Can. Pal., vol. 4, pt. 1, 1899, p. 82, pl. 2, fig. 8.

Middle Silurian, 1 mile east of mouth of Little Cascapedia River, Gaspé, Quebec.

### *Plasmopora lambei* Schuchert

Hypotypes 10378, 10379

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 50.

Member 2, Portage Chute Formation, Upper Ordovician, left bank Churchill River, 2 1/2-3 miles below Bad Cache Rapids and 2 miles below Portage Chute, Manitoba.

### *Plasmopora petaliformis* (Lonsdale)

Hypotype 17719

Lambe, L.M., 1900, Geol. Surv., Canada, Contr. Can. Pal., vol. 4, pt. 1, 1899, p. 83, pl. 2, fig. 9.

Middle Silurian [Chicotte Formation], 2 miles west of Chicotte River, Anticosti Island, Quebec.

### *Plexituba contexta* Stainbrook

Hypotypes 14878, 14879

McCammon, H., 1960, Manitoba Dept. Mines Natural Res., Mines Branch, Publ. 59-6, p. 44, pl. 4, fig. 8; pl. 7, fig. 2.

Dawson Bay Formation, Middle Devonian, north bank 1 3/5 miles up Red Deer River, l.s.d. 6, sec. 21, tp. 45, rge. 25, W. Prin. mer., Manitoba.

### *Protrochiscolithus kiaeri* Troedsson

Hypotypes 10853, 10859

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 50, pl. 7, figs. 7, 8.

Member 2, Chasm Creek Formation, Upper Ordovician, right and left banks Churchill River, approx. 4 1/2 miles and 9 1/4-10 miles above Red Head Rapids, Manitoba.

### *Ptychophyllum? kindlei* Smith

Hypotypes 16530, a, b, 16554, a, b [specimens and thin sections]

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 12, pl. 5, figs. 6, 7; p. 16, pl. 7, figs. 7, 8.

About 400 feet below top and upper part of Southesk Formation, Upper Devonian, Bosche Range, 1 mile south of Moosehorn Lake, Alberta, and Bouvier River, District of Mackenzie.

### *Ptychophyllum stokesi* Edwards and Haime

Hypotype 20522

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-2, pl. 5, fig. 10.

Fossil Hill Formation, Middle Silurian, road section 1/2 mile east of church, east of Elizabeth Bay, Manitoulin Island, Ontario.

*Ptychophyllum* sp.

Fig. specs. 15767, a [specimen and thin section], 15840, 15845

Norford, B.S., 1962, Geol. Surv., Canada, Bull. 78, p. 41, pl. 14, figs. 5–8.

Coralline member, Sandpile Group, Middle Silurian, elevation 6100 feet, mountain top 1.8 miles north of north end of upper Sandpile Lake, lat. 59°04'N, long. 128°11'W and elevation 6200 feet, ridge crest 3.3 miles southeast of 6543-foot cairn, lat. 58°59'N, long. 128°W, British Columbia.

*Pycnostylus guelphensis* Whiteaves

Syntypes 2789, a, b, 2793, 2932, a

Whiteaves, J.F., 1884, Geol. Surv., Canada, Palaeoz. Fossils, vol. 3, pt. 1, p. 3, pl. 1, figs. 1 [2932a], a [2789a], b [2793].

Williams, M.Y., 1919, ibid., Mem. 111, pl. 22, fig. 1 [2789].

Guelph Formation, Middle Silurian, New Hope [2789], Hespeler, and Durham [2793], Ontario.

*Radiastrea arachne* Stumm

Hypotype 17541

Pedder, A.E.H., 1964, Palaeontology, vol. 7, pt. 3, p. 447, pl. 73, figs. 1, 5.

Nevada Formation, Lower Devonian, Lone Mountain, 18 miles northwest of Eureka, Nevada, U.S.A.

*Radiastrea verrilli* (Meek)

Hypotypes 16981–16983

Pedder, A.E.H., 1964, Palaeontology, vol. 7, pt. 3, p. 447, pl. 71, figs. 1, 2, 4, 5; pl. 72, figs. 4, 5.

Nahanni and Hume Formations, Middle Devonian, Deceiver Creek about lat. 62°19'N, long. 123°37'W and Anderson River about lat. 68°30'N, long. 127°25'W., Northwest Territories.

*Roemeripora wimani* Heritsch

Hypotype 13509, a, b [specimen and thin sections]

Harker, P. and Thorsteinsson, R., 1960, Geol. Surv., Canada, Mem. 309, p. 48, pl. 14, figs. 6, 7.

Belcher Channel Formation, Permian, lower reaches Lyall River, Grinnell Peninsula, northwest Devon Island, Arctic.

*Romingerella major* (Rominger)

Hypotype 20537

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 7, fig. 3.

Fossil Hill Formation, Middle Silurian, corner of Windfall Lake and Big Lake roads, northwest of Sandfield, Manitoulin Island, Ontario.

*Romingeria niagarensis* (Rominger)

Hypotypes 15832, 15833

Norford, B.S., 1962, Geol. Surv., Canada, Bull. 78, p. 37, pl. 12, figs. 4–6.

Coralline member, Sandpile Group, Middle Silurian, elevation 5550 feet, ridge crest 1.7 miles NNW. of north end of upper Sandpile Lake, lat. 59°03'N, long. 128°12'W, British Columbia.

*Romingeria* cf. *R. vannula* Davis

Hypotypes 15836, 15841

Norford, B.S., 1962, Geol. Surv., Canada, Bull. 78, p. 38, pl. 12, figs. 7–9.

Coralline member, Sandpile Group, Middle Silurian, elevation 5550 feet, ridge crest 1.7 miles NNW. of north end of upper Sandpile Lake, lat. 59°03 1/2'N, long. 128°12'W. British Columbia.

## ANTHOZOA

### *Saffordophyllum (?) portagechutense* Nelson

Holotype 10327

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 46, pl. 6, fig. 1.

Member 2, Portage Chute Formation, Upper Ordovician, right bank South Knife River, about 3 miles west of northwest end of Herriot Lake, Manitoba.

### *Sarcinula* sp.

Fig. specs. 16912, 16913

Norford, B.S., 1962, Geol. Surv., Canada, Paper 62-14, p. 16, pl. 6, figs. 5, 9.

Mount Kindle Formation, Upper Ordovician, Mount Kindle, District of Mackenzie.

### *Sinospongophyllum cf. S. planotabulatum* Yoh

Hypotype 16476, a-c [specimen and slides]

McLaren, D.J., 1964, Geol. Surv., Canada, Bull. 114, p. 19, pl. 7, figs. 2a-c.

Horn Plateau Formation, Middle Devonian, east flank Horn Plateau, 2.9 miles west of southwest tip Fawn Lake, lat. 62°08.2'N, long. 117°39'W, District of Mackenzie.

### *Siphonophrentis?* sp.

Fig. spec. 16499, a, b [specimen and slides]

McLaren, D.J., 1964, Geol. Surv., Canada, Bull. 114, p. 7, pl. 2, figs. 3a, b.

Horn Plateau Formation, Middle Devonian, east flank Horn Plateau, 2.9 miles west of southwest tip Fawn Lake, lat. 62°08.2'N, long. 117°39'W, District of Mackenzie.

### *Smithiphyllum imperfectum* (Smith)

Hypotype 17543

Pedder, A.E.H., 1965, Palaeontology, vol. 8, pt. 4, p. 622, pl. 88, fig. 7; pl. 89, figs. 1-3, 10-12; text-figs. 2E, F, 4D, F, I.

Kakisa or Redknife Formation, Upper Devonian, 4 miles (direct) above mouth of Poplar River, Northwest Territories.

### *Smithiphyllum kindlei* Pedder

Holotype 17544

Pedder, A.E.H., 1965, Palaeontology, vol. 8, pt. 4, p. 625, pl. 88, fig. 6; pl. 89, figs. 5, 7-9, 14, 15, 17, 18; text-figs. 6A, B.

Mount Hawk Formation, Upper Devonian, Roche Ronde, Bosche Range, Jasper National Park, lat. 53°14'N, long. 118°01'W, Alberta.

### *Smithiphyllum whittakeri* Pedder

Holotype 17545; paratype 17546

Pedder, A.E.H., 1965, Palaeontology, vol. 8, pt. 4, p. 626, pl. 88, fig. 4; pl. 89, figs. 4, 6, 19, 20; text-figs. 7A, B.

Redknife Formation, Upper Devonian, Middle Jean Marie Gorge, lat. about 60°24'N, long. 121°10'W, Northwest Territories.

### *Sociophyllum glomerulatum* (Crickmay)

Hypotypes 16994-17002

Pedder, A.E.H., 1964, Palaeontology, vol. 7, pt. 3, p. 445, pl. 69, figs. 1-13; pl. 70, figs. 1-12.

Hume Formation, Middle Devonian, east end of Carcajou Ridge about lat. 65°30'N, long. 128°30'W and East Mountain, about lat. 65°41'N, long. 128°42'W, Northwest Territories.

### *Spongophyllum imperfectum* Smith

=*Smithiphyllum imperfectum*,

Birenheide, R., 1962, Senckenbergiana Lethaea, vol. 43, No. 1, p. 81, pl. 12, figs. 15a, b [holotype 6307].

Pedder, A.E.H., 1965, Palaeontology, vol. 8, pt. 4, p. 622, text-figs. 4A-C, E.

*Spongophyllum pax* Smith

= *Columnaria pax*, Norford, B.S., 1962, Geol. Surv., Canada, Bull. 92, p. 28, pl. 9, figs. 1-3; pl. 10, fig. 3 [holotype 3588, a-d - specimen and thin sections: Silurian age].

*Streptelasma prolongatum* Wilson

## Hypotype 16917

Norford, B.S., 1962, Geol. Surv., Canada, Paper 62-14, p. 16, pl. 6, figs. 13, 14.

Beaverfoot-Brisco Formation, Upper Ordovician, Cirrus Mountain, Banff Park, Alberta.

*Streptelasma* sp.

## Fig. spec. 20480

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 1, figs. 22, 27.

Manitoulin Formation, Lower Silurian, Gore Bay-Kagawong Lake road, 3/4 mile south of main highway, Manitoulin Island, Ontario.

? *Striatopora* sp. cf. *S. gwenensis* Amsden

## Hypotype 15823

Norford, B.S., 1962, Geol. Surv., Canada, Bull. 78, p. 29, pl. 7, figs. 8, 9.

Coralline member, Sandpile Group, Middle Silurian, elevation 5550 feet, ridge crest 1.7 miles NNW. of north end of upper Sandpile Lake, lat. 50°03' 1/2'N, long. 128°12'W, British Columbia.

*Stringophyllum (Neospongophyllum)* sp. J

## Fig. spec. 16535, a, b [specimen and thin sections]

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 4, pl. 1, figs. 7, 8.

Middle Devonian, Hart River, lat. 65°21'N, long. 137°03'W, Yukon.

*Stringophyllum (Sociophyllum) redactum* McLaren

Holotype 16471, a, b; paratypes 16472a, b, 16473, a, b, 16474, a-c, 16475a, b [specimens and slides]

McLaren, D.J., 1964, Geol. Surv., Canada, Bull. 114, p. 20, pl. 7, figs. 3a, b, 4a-c, 5a, b; pl. 8, figs. 1a, b, 2a, b.

Horn Plateau Formation, Middle Devonian, east flank Horn Plateau, 2.9 miles west of southwest tip Fawn Lake, lat. 62°08.2'N, long. 117°39'W, District of Mackenzie.

*Syringopora dalmanii* Billings

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 18, fig. 11 [holotype 2618].

*Syringopora pennsylvanica* Shimer

Nelson, S.J., 1962, J. Pal., vol. 36, No. 3, p. 455, pl. 71, fig. 20 [holotype 4451].

*Syringopora timiskamingensis* Hume

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 18, fig. 4 [holotype 9103].

*Syringopora verticillata* Goldfuss

Hypotypes 15827, a, b [specimen and thin sections], 15837

Norford, B.S.,

1962, Geol. Surv., Canada, Bull. 78, p. 39, pl. 13, figs. 1-4, 7.

1962, ibid., Paper 62-14, p. 24, pl. 10, figs. 11, 12 [15837].

Coralline member, Sandpile Group, Middle Silurian, elevation 6200 feet, ridge crest 3.3 miles southeast of 6543-foot cairn, lat. 58°59'N, long. 128°W, British Columbia.

*Syringopora verticillata* Goldfuss

## Hypotype 20505

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 4, fig. 5.

Fossil Hill Formation, Middle Silurian, ridge section at corner of lot 15, cons. VIII-IX boundary, Carnarvon tp., south of Lake Mindemoya, Manitoulin Island, Ontario.

## ANTHOZOA

### *Syringopora* sp.

Fig. specs. 15765, a [specimen and thin section], 15849

Norford, B.S., 1962, Geol. Surv., Canada, Bull. 78, p. 39, pl. 12, figs. 10, 11.

Coralline member, Sandpile Group, Middle Silurian, elevation 5100 feet, ridge crest 1.4 miles NW. of north end of upper Sandpile Lake, lat. 59°03'N, long. 128°11'W, British Columbia.

### *Syringopora* sp. B

Fig. spec. 16547, a, b [specimen and thin sections]

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 12, pl. 5, figs. 8, 9.

About 100 feet below top of Southesk Formation, Upper Devonian, southeast side of mountain, 2 miles northwest of Mount Kephala, Boule Range, Alberta.

### *Tabulophyllum gallina* McCammon

Holotype 14782, a-d [specimen and thin sections]

McCammon, H., 1960, Manitoba Dept. Mines Natural Res., Mines Branch, Publ. 59-6, p. 35, pl. 5, figs. 1a-c.

Dawson Bay Formation, Middle Devonian, Snake Island, Lake Winnipegosis, Manitoba.

### *Tabulophyllum mconnelli* (Whiteaves)

Hypotype 16531, a-d [specimen and thin sections]

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 10, pl. 4, figs. 11-13.

Basal beds of Escarpment Member, Hay River Formation, Upper Devonian, Hay River at mile 26 on the Mackenzie Highway, District of Mackenzie.

### *Tabulophyllum mconnelli* (Whiteaves)

Hypotypes 17547, 17548

Pedder, A.E.H., 1965, Palaeontology, vol. 8, pt. 4, p. 620, text-figs. 2B, D.

Escarpe and Ferques Formations, Upper Devonian, Louise Falls on Hay River, Northwest Territories, and Parisienne quarry near Ferques, Boulogne region, France.

### *Tabulophyllum rotundum* Fenton and Fenton

Hypotype 17549

Pedder, A.E.H., 1965, Palaeontology, vol. 8, pt. 4, p. 620, text-figs. 3A, B.

Cerro Gordo Member, Lime Creek Formation, Devonian, Rockford Brick and Tile Co. pit, Rockford, Iowa, U.S.A.

### *Taimyrophyllum triadorum* Pedder

Holotype 16987; paratype 16988

Pedder, A.E.H., 1964, Palaeontology, vol. 7, pt. 3, p. 437, pl. 62, figs. 12, 13; pl. 64, fig. 5; pl. 65, figs. 1, 2.

Hume Formation, Middle Devonian, Anderson River about lat. 68°30'N, long. 127°25'W and about lat. 68°30'N, long. 127°12'W, Northwest Territories.

### *Taimyrophyllum vescibalteatum* Pedder

Holotype 16989; paratypes 16990-16992

Pedder, A.E.H., 1964, Palaeontology, vol. 7, pt. 3, p. 438, pl. 65, fig. 3; pl. 66, figs. 1-6.

Nahanni Formation, Middle Devonian, northern Funeral Range, lat. 61°41'30"N, long. 125°05'W and upper Prairie Creek, lat. 61°42'N, long. 124°58'W, Northwest Territories.

### *Thamnophyllum tructense* (McLaren)

Hypotype 16542, a, b [specimen and thin sections]

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 16, pl. 7, figs. 9, 10.

Upper part of Kakisa Formation, Upper Devonian, Redknife River, District of Mackenzie.

*Thamnopora cervicornis* (de Blainville)

Hypotype 14784, a

McCammon, H., 1960, Manitoba Dept. Mines Natural Res., Mines Branch, Publ. 59-6, p. 39, pl. 6, figs. 1a, b.

Dawson Bay Formation, Middle Devonian, north bank 1 3/5 miles up Red Deer River, l.s.d. 6, sec. 21, tp. 45, rge. 25, W. Prin. mer., Manitoba.

*Thamnopora dumosa* var. *tabulata* McCammon

Holotype 14783, a

McCammon, H., 1960, Manitoba Dept. Mines Natural Res., Mines Branch, Publ. 59-6, p. 39, pl. 5, figs. 6a, b.

Dawson Bay Formation, Middle Devonian, north bank 1 3/5 miles up Red Deer River, l.s.d. 6, sec. 21, tp. 45, rge. 25, W. Prin. mer., Manitoba.

*Thamnopora polyforata* (Schlotheim)

Hypotypes 14785, a, 14786

McCammon, H., 1960, Manitoba Dept. Mines Natural Res., Mines Branch, Publ. 59-6, p. 40, pl. 6, figs. 2a, b.

Dawson Bay Formation, Middle Devonian, north bank 1 3/5 miles up Red Deer River, l.s.d. 6, sec. 21, tp. 45, rge. 25, W. Prin. mer. and Snake Island, Lake Winnipegosis, Manitoba.

*Thamnopora* sp.

Fig. specs. 15731, a [specimen and thin sections], 15852

Norford, B.S., 1962, Geol. Surv., Canada, Bull. 78, p. 29, pl. 5, figs. 8-10.

Coralline member, Sandpile Group, Middle Silurian, elevation 5100 feet, ridge crest 1.4 miles NNW. of north end of upper Sandpile Lake, lat. 59°03'N, long. 128°11'W and elevation 4700 feet, ridge face 2 miles north of Major Hart River, lat. 58°58'N, long. 128°14'W, British Columbia.

*Thamnopora* sp. F

Fig. spec. 16545, a, b [thin sections]

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 8, pl. 3, figs. 9, 10.

Middle part of Presqu'ile Formation, Middle Devonian, northeast side of Presqu'ile Point, south shore of Great Slave Lake, District of Mackenzie.

“*Tollina feildeni* (Etheridge)”

Hypotype 18738

Bolton, T.E., 1965, Geol. Surv., Canada, Bull. 134, p. 25, pl. 9, figs. 2, 3.

Upper Ordovician, 5 miles northeast of sharp bend in southern part of Canyon Fiord, 1 mile from north shore, west-central Ellesmere Island, Arctic.

*Trachypora* cf. *neglecta* (Rominger)

Hypotypes 14788, a

McCammon, H., 1960, Manitoba Dept. Mines Natural Res., Mines Branch, Publ. 59-6, p. 41, pl. 6, figs. 3a, b.

Dawson Bay Formation, Middle Devonian, north bank 1 3/5 miles up Red Deer River, l.s.d. 6, sec. 21, tp. 45, rge. 25, W. Prin. mer., Manitoba.

*Troedssonites conspiratus* (Troedsson)

Hypotypes 14495, 18737

Bolton, T.E., 1965, Geol. Surv., Canada, Bull. 134, p. 24, pl. 9, figs. 1, 4.

Cornwallis Formation, Upper Ordovician, 2 miles east of southeast corner of lake at head of Strathcona Fiord and Darling Peninsula, west-central and east-central Ellesmere Island, Arctic.

ANTHOZOA

*Utaratuia laevigata* Crickmay

Hypotype 16541, a, b [specimen and thin sections]

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 6, pl. 2, figs. 5, 6.

300 feet below top of Nahanni Formation, Middle Devonian, Nahanni Range south of Little Doctor Lake, District of Mackenzie.

*Utaratuia laevigata* Crickmay

Hypotype 17539

Pedder, A.E.H., 1964, Palaeontology, vol. 7, pt. 3, p. 443, pl. 68, figs. 6, 7.

Hume Formation, Middle Devonian, east end of Carcajou Ridge, lat. about 65°30'N, long. 128°30'W, Northwest Territories [locality reversed in text].

*Utaratuia* sp. cf. *U. laevigata* Crickmay

Hypotype 17540

Pedder, A.E.H., 1964, Palaeontology, vol. 7, pt. 3, p. 443, pl. 68, figs. 4, 5.

Nahanni Formation, Middle Devonian, Nahanni Butte, lat. 65°05'N, long. 123°21'W, Northwest Territories [locality reversed in text].

*Zaphrentis bellistriata* Billings

Syntypes 2244, a, b [parts of one specimen], 2349, a [parts of one specimen]

Billings, E.,

1865, Can. Naturalist Geol., n. ser., vol. 2, p. 430.

1886, Geol. Surv., Canada, Cat. Sil. Fossils Anticosti, p. 8.

Upper Ordovician [Vauréal Formation] and Middle Silurian [Gun River Formation], Wreck Point and one mile east of Otter River, Anticosti Island, Quebec.

=*Zaphrentis affinis*, Lambe, L.M., 1901, ibid., Contr. Can. Pal., vol. 4, pt. 2, 1900, p. 119.

*Zaphrentis canadensis* Billings

Syntypes 1983, a [parts of one specimen], b, c, e [parts of one specimen], f, g [parts of one specimen], h, i [parts of one specimen], d

Billings, E.,

1862, "New Species of Lower Silurian Fossils", p. 105, figs. 93b [1983h], c [1983c, e].

1865, Geol. Surv., Canada, Palaeoz. Fossils, vol. 1, p. 105, figs. 93b, c.

Upper Ordovician, Drummond Island, Michigan, U.S.A.

=*Streptelasma rusticum*, Lambe, L.M., 1901, ibid., Contr. Can. Pal., vol. 4, pt. 2, p. 111.

=*Grewingkia rustica*, Liberty, B.A., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 53, pl. 6, fig. 8 [hypotype 1983b].

## E C H I N O D E R M A T A

*Apiocystites canadensis* Billings

= *Callocystites canadensis*,

Bolton, T.E., 1964, "Geology of Central Ontario", Am. Assoc.  
Petrol. Geol., Guidebook, p. 79, pl. 8, figs. 9, 10 [holotype 2655].  
1966, Geol. Surv., Canada, Paper 66-5, pl. 10, figs. 2,3.

*Astrocystites ottawaensis* Whiteaves

Fay, R.O., 1962, J. Pal., vol. 36, No. 2, p. 202, pl. 34, figs. 1-5;  
text-figs. 1A, B, 2, 3 [holotype 752].

*Astroporites ottawaensis* Lambe

Holotype 7803

Lambe, L.M., 1896, Can. Record Sci., vol. 7, Nos. 1 and 2, p.1, pl. 1.  
Middle Ordovician, Hull quarry, Hull, Quebec.

*Bolboporites americanus* Billings

Syntypes 1013, a-e

Billings, E., 1859, Can. Naturalist Geol., vol. 4, p. 429, figs. 3,4.  
Logan, W.E., 1863, "Geology of Canada", Geol. Surv., Canada, Rept. Prog., p. 124, fig. 46a  
[1013d].  
'Chazy', Middle Ordovician, Island of Montreal, Quebec.

*Brockocystis tecumseth* (Billings)

Hypotype 20468

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 1, fig. 1.  
Manitoulin Formation, Lower Silurian, main highway 3/4 mile east of eastern entrance to Gore  
Bay village, Manitoulin Island, Ontario.

*Calceocrinus chrysalis* (Hall)

Hypotype 20553

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 10, fig. 9.  
29 feet above base of Rochester Formation, Middle Silurian, DeCew Falls, Ontario.

*Callocystites jewetti* Hall

Hypotype 14686

Sinclair, C.W., 1948, J. Pal., vol. 22, No. 3, p. 307, pl. 43, fig. 6.  
Rochester Formation, Middle Silurian, Lockport, New York, U.S.A.

*Callocystites jewetti* Hall

Hypotype 2657

Bolton, T.E.,  
1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol.,  
Guidebook, p. 79, pl. 8, figs. 15, 16.  
1966, Geol. Surv., Canada, Paper 66-5, pl. 10, figs. 4, 5.  
Rochester Formation, Clinton Group, Middle Silurian, Grimsby, Ontario.

## ECHINODERMATA

### *Carabocrinus huronensis* Foerste

Sinclair, G.W., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 39, pl. 3, fig. 20 [hypotype 11082].

### *Caryocrinites ornatus* Say

Hypotypes 2656d, i

Bolton, T.E.,

1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 79, pl. 8, figs. 11–13 [2656d], 14 [2656i].

1966, Geol. Surv., Canada, Paper 66–5, pl. 10, figs. 1, 7, 8 [2656d].

Rochester Formation, Clinton Group, Middle Silurian, Grimsby, Ontario.

### *Cheirocrinus logani* (Billings)

Hypotype 12393

Sinclair, G.W., 1945, Am. Midland Naturalist, vol. 34, No. 3, pl. 1, fig. 11. Tetreauville Formation, Middle Ordovician, Montreal East, Quebec.

### *Codaster canadensis* Billings

= *Trionablastus canadensis*, Fay, R.O., 1961, Univ. Kansas,

Paleo. Contr., Echinodermata, Art. 3, p. 48, pl. 4, figs. 4–6; text-fig. 63 [hypotype 3664 – 3 specimens].

### *Comptonia? stelcki* McLearn

McLearn, F.H., 1945, Geol. Surv., Canada, Paper 44–17 (2nd ed.), pl. 8, fig. 5 [holotype 8992].

### Crinoid of the *Homocrinus* type

Fig. spec. 20471

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66–5, pl. 1, fig. 13.

Manitoulin Formation, Lower Silurian, top of escarpment on road directly west of Collingwood, Ontario.

### *Cupulocrinus iewetti* (Billings)

Sinclair, G.W., 1964, "Geology of Central Ontario", Am. Assoc.

Petrol. Geol., Guidebook, p. 39, pl. 3, fig. 19 [hypotype 7784z].

### *Edrioaster laevis* Bather

Hypotype 18659

Sinclair, G.W., 1964, "Geology of Central Ontario", Am. Assoc.

Petrol. Geol., Guidebook, p. 39, pl. 3, fig. 21.

Kirkfield Formation, Middle Ordovician, quarry at Kirkfield, Ontario.

### *Eleutherocrinus cassedaiyi* Shumard and Yandell

Fay, R.O., 1961, Univ. Kansas, Paleo. Contr., Echinodermata,

Art. 3, p. 69, pl. 27, figs. 9–11; text-figs. 130, 131 [hypotype 3665].

### *Eucalyptocrinites caelatus* (Hall)

Hypotype 2661

Bolton, T.E.,

1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 79, pl. 8, fig. 17.

1966, Geol. Surv., Canada, Paper 66–5, pl. 10, fig. 10.

Rochester Formation, Clinton Group, Middle Silurian, Grimsby, Ontario.

*Glyptocystites grandis* Sinclair

Sinclair, G.W., 1948, J. Pal., vol. 22, No. 2, p. 311, pl. 43, figs. 1, 2 4 [holotype 11080].

*Granatocrinus leda* (Hall)

= *Devonoblastus whiteavesi*, Fay, R.O., 1961, Univ. Kansas, Paleo. Contr., Echinodermata, Art. 3, p. 62, pl. 24, figs. 3–5; text-fig. 105 [hypotype 3661].

*Hemicystites pleiadae* Sinclair and Bolton

Holotype and paratypes 14680 [group of seven specimens]

Sinclair, G.W., and Bolton, T.E., 1965, Geol. Surv., Canada.

Bull. 134, p. 37, pl. 11, figs. 1–6.

Vauréal Formation, Upper Ordovician, road-cut in escarpment at south end of Princeton Lake, 9 miles northeast of Port Menier, Anticosti Island, Quebec.

*Lecanocrinus macropetalus* Hall

Hypotype 20552

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66–5, pl. 10, fig. 6.

29 feet above base of Rochester Formation, Middle Silurian, DeCew Falls, Ontario.

*Lophidiaster silentiensis* McLearn

McLearn, F.H., 1945, Geol. Surv., Canada, Paper 44–17 (2nd ed.), pl. 5, fig. 1 [8995a mould].

*Lophidiaster cf. silentiensis* McLearn

McLearn, F.H., 1945, Geol. Surv., Canada, Paper 44–17 (2nd ed.), pl. 6, fig. 5 [8994a mould].

*Nucleocrinus elegans* Conrad

= *Nucleocrinus meloniformis*, Fay, R.O., 1961, Univ. Kansas, Paleo. Contr., Echinodermata, Art. 3, p. 84, pl. 30, figs. 1, 2; text-figs. 169–171 [hypotypes 3662, a].

*Pentremites grandis* Warren

= *Ambolostoma baileyi*, Fay, R.O., 1961, Univ. Kansas, Paleo. Contr., Echinodermata, Art. 3, p. 50, pl. 53, fig. 1; text-fig. 1 [hypotype 8914].

*Pentremites perelongatus* Warren

= *Ambolostoma baileyi*, Fay, R.O., 1961, Univ. Kansas, Paleo. Contr., Echinodermata, Art. 3, p. 50, pl. 53, figs. 2, 3 [hypotype 8915].

*Pentremitidea filosa* Whiteaves

= *Hyperoblastus filosus*, Fay, R.O., 1961, Univ. Kansas, Paleo. Contr., Echinodermata, Art. 3, pl. 7, fig. 9; pl. 8, figs. 1–6, 10, 11; text-figs. 29, 30 [holotype 3660; syntypes 3660 a–f].

*Petalocrinus mirabilis* Weller and Davidson

Hypotypes 15813, 15814

Norford, B.S., 1962, Geol. Surv., Canada, Bull. 78, p. 25, pl. 4, figs. 25–27.

Sandpile Group, Middle Silurian, elevation 5550 feet, ridge crest 1.7 miles NNW. of north end of upper Sandpile Lake, lat.  $59^{\circ}03'1/2''N$ , long.  $128^{\circ}12'W$  and elevation 5100, ridge crest 1.4 miles NNW. of north end of upper Sandpile Lake, lat.  $59^{\circ}03'N$ , long.  $128^{\circ}11'W$ , British Columbia.

*Petalocrinus mirabilis* Weller and Davidson

Hypotype 16919

Norford, B.S., 1962, Geol. Surv. Canada, Paper 62–14, p. 24, pl. 10, fig. 13.

Coralline member, Sandpile Group, Middle Silurian, elevation 5100 feet, lat.  $59^{\circ}03'N$ , long.  $128^{\circ}11'W$ , McDame map-area, British Columbia.

## ECHINODERMATA

*Pleurocystites cf. filitextus* Billings

Hypotypes 17695, 17696

Sinclair, G.W.,

1948, J. Pal., vol. 22, No. 3, p. 304, pl. 42, figs. 1–4, 10 [17695], 6, 7 [17696].

1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 41, pl. 4, fig. 5 [17696].

Ottawa Formation, Middle Ordovician, Hull, Quebec; Sherman Fall Formation, Middle Ordovician, quarry 5 miles north of Peterborough, Ontario.

*Pleurocystites laevis* Raymond

= *Amecystis laevis*, Sinclair, G.W., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 41, pl. 4, fig. 3 [holotype 7936].

*Siphonocrinus pentagonorus* Wachsmuth and Springer

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66–5, pl. 13, fig. 5 [holotype 11064].

*Siphonocrinus pentagonorus* Wachsmuth and Springer

Hypotype 20577

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66–5, pl. 13, fig. 1.

Wiarton Member, Amabel Formation, Middle Silurian, Colpo Bay–Adamsville road, 4.6 miles northwest of Colpo village, Bruce Peninsula, Ontario.

*Stephanocrinus angulatus* Conrad

Hypotype 2664

Bolton, T.E.,

1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 79, pl. 8, fig. 18.

1966, Geol. Surv., Canada, Paper 66–5, pl. 10, fig. 20.

Rochester Formation, Clinton Group, Middle Silurian, Grimsby, Ontario.

*Syringocrinus paradoxicus* Billings

Gill, E.D. and Caster, K.E., 1960, Bull. Am. Pal., vol. 41, No. 185, pp. 17–20, pl. 6, fig. 3; text-fig. 4 [holotype 1521a].

Parsley, R.L. and Caster, K.E., 1965, ibid., vol. 49, No. 221, p. 118, pl. 16 fig. 3 [holotype 1521].

*Syringocrinus sinclairi* Parsley and Caster

Holotype 17520; paratypes 17521, a, 17522, a, b, 17523–17525

Parsley, R.L. and Caster, K.E., 1965, Bull. Am. Pal., vol. 49, No. 221, p. 121, pl. 16, figs. 1, 2, 4–9, 11.

Trenton, Middle Ordovician, Lakefield, Ontario, and Chateau Richer, Quebec.

*Thresherodiscus ramosus* Foerste

Kesling, R.V., 1960, Contr. Mus. Pal., Univ. Michigan, vol. 15, No. 8, p. 151, pl. 13, figs. 1, 2; text-fig. 3 [holotype 8446].

## G R A P T O L I T H I N A

*Dendrograptus fruticosus* Hall

Hypotypes 10780, 10781

Ruedemann, R., 1947, Geol. Soc. Amer., Mem. 19, p. 215, pl. 20, figs. 13, 14.

Ordovician, Cape Rosier, Gaspé, Quebec.

*Desmograptus canadensis* (Whiteaves)

Hypotype 10517

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 63, pl. 17, fig. 3.

Caution Creek Formation, Upper Ordovician, South Knife River, 1/2 mile starting about 2 2/5 miles due east of line of long. 95°, Manitoba.

*Dictyonema approximatum* Ruedemann

Paratypes 10773–10775

Ruedemann, R., 1947, Geol. Soc. Amer., Mem. 19, p. 166, pl. 5, figs. 3, 6? [10773], 4 [10774], 5 [10775].

Ordovician, Cape Rosier, Gaspé, Quebec.

*Dictyonema* sp. cf. *D. expansum* Spencer

Hypotype 20574

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66–5, pl. 12, fig. 12.

Lockport Formation, Middle Silurian, Hamilton area, Ontario.

*Dictyonema pertextum* Ruedemann

Holotype 10776; paratypes 10777–10779

Ruedemann, R., 1947, Geol. Soc. Amer., Mem. 19, p. 173, pl. 4, figs. 21 [10776], 22 [10777], 23, 24? [10778].

Ordovician, Cape Rosier, Gaspé, Quebec.

*Didymograptus hirundo* Salter

Hypotype 10782

Ruedemann, R., 1947, Geol. Soc. Amer., Mem. 19, p. 334, pl. 56, fig. 26.

Lower Ordovician, Marsouin, Quebec.

*Diplograptus (Orthograptus) rugosus* var. *apiculatus* Elles and Wood

Hypotypes 17724, a

Ruedemann, R., 1947, Geol. Soc. Amer., Mem. 19, p. 402, pl. 69, figs. (?) 19, 20 [17724], 21 [17724a].

Ordovician, about 1 1/2 miles up Middle Port Daniel River, Gaspé, Quebec.

*Glyptograptus austrodentatus* var. *americanus* Bulman

Paratype 8074

Bulman, O.M.B., 1963, Palaeontology, vol. 6, pt. 4, p. 683, pl. 97, fig. 19.

Shumardia limestone, Lower Ordovician, Point Levis, Quebec.

## GRAPTOLITHINA

### *Graptolithus bifidus* Hall

- = *Didymograptus bifidus*, Berry, W.B.N., 1962, J. Pal., vol. 36, No. 2, p. 294, text-figs. 1a-d,  
2a, b [lectotype 910a, syntype 910].  
=? *Didymograptus* sp., Berry, W.B.N., 1962, ibid., text-fig. 1e [syntype 910b].

### *Graptolithus bigsbyi* Hall

- = *Tetragraptus bigsbyi*, Skevington, D., 1965, Bull. Geol. Instit. Univ. Uppsala, vol. 43,  
No. 3, p. 4, fig. 1 [lectotype 923a].  
= *Tetragraptus pseudobigsbyi*, Skevington, D., 1965, ibid., p. 8, fig. 2 [holotype 923b].

### *Graptolithus pristiniformis* Hall

- = *Glyptograptus dentatus*, Bulman, O.M.B., 1963, Palaeontology, vol. 6, pt. 4, p. 673, pl. 96,  
figs. 1 [neotype 943], 2 [syntype 943a]; text-fig. 4a [neotype 943].

### *Reticulograptus polymorphus* (Gurley)

Hypotype 17968

- Bolton, T.E.,  
1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 79,  
pl. 8, fig. 20.  
1966, Geol. Surv., Canada, Paper 66-5, pl. 11, fig. 4.  
3 feet above base of Rochester Formation, Clinton Group, Middle Silurian, Albion Falls,  
Hamilton region, Ontario.

## B R Y O Z O A

### *Archaeotrypa prima* Fritz

Holotype 9479

Fritz, M.A., 1947, J. Pal., vol. 21, No. 5, p. 435, pl. 60, figs. 3, 4.  
Upper Cambrian, Cripple Creek area, Alberta.

### *Archaeotrypa secunda* Fritz

Holotype 9480

Fritz, M.A., 1947, J. Pal., vol. 21, No. 5, p. 435, pl. 60, figs. 1, 2.  
Upper Cambrian, Cripple Creek area, Alberta.

### *Arcticopora christiei* Fritz

Syntypes 10783–10787

Fritz, M.A., 1962, Proc. Geol. Assoc. Can., vol. 13, p. 54, pl. 1, figs. 1, 2; pl. 2, figs. 1, 2;  
pl. 3, figs. 1, 2.  
Permo-Carboniferous [Triassic], north shore of Lake Hazen about 2 1/2 miles west of Johns  
Island, northeastern Ellesmere Island, Arctic.

### *Arcticopora christiei* Fritz

Hypotypes 10789, a–c

Bolton, T.E., 1962, Proc. Geol. Assoc. Can., vol. 13, p. 55.  
Blind Fiord Formation, Lower Triassic, northeast side of Van Hauen Pass between Hare and  
Otto Fiords, northwestern Ellesmere Island, Arctic.

### *Arthroclema pulchellum* Billings

Sinclair, G.W., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook  
p. 41, pl. 4, fig. 4 [paratype 1569].

### *Ascopora alani* Fritz

Syntype 14378

Fritz, M.A., 1963, Bull. Can. Petrol. Geol., vol. 11, No. 1, p. 54, pl. 2, fig. 1.  
Norquay Member, Rocky Mountain Formation, Pennsylvanian, Tunnel Mountain, Banff, Alberta.

### Bryozoans – *Clathropora frondosa* Hall, *Fenestella* sp.

Hypotype 17967

Bolton, T.E.,  
1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 79  
pl. 8, fig. 19.  
1966, Geol. Surv., Canada, Paper 66–5, pl. 11, fig. 10.  
Rochester Formation, Clinton Group, Middle Silurian. Grimsby (?), Ontario.

BR YOZOA

Bryozoans — *Phaenopora expansa* Hall and Whitfield, *P. constellata* Hall, *Helopora fragilis* Hall  
Hypotype 17964

Bolton, T.E.,

1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 77,  
pl. 7, fig. 25.

1966, Geol. Surv., Canada, Paper 66-5, pl. 3, fig. 1.

Cabot Head Formation, Cataract Group, Lower Silurian, railroad-cut at Limehouse, Ontario.

*Cheilotrypa ostiolata* (Hall)

Hypotype 20431

Bolton, T.E.,

1966, Geol. Surv., Canada, Paper 66-5, pl. 11, figs. 8, 11.

1966, Palaeontology, vol. 9, pt. 3, p. 521, pl. 82, fig. 6.

Rochester Formation, Middle Silurian, DeCew Falls, Ontario.

*Cheilotrypa?* sp.

Fig. spec. 14721

Fagerstrom, J.A., 1961, J. Pal., vol. 35, No. 1, p. 17, pl. 6, fig. 18.

Formosa reef limestone, Middle Devonian, north branch Maitland River, 1.5 miles northeast  
of Wingham, lot 20, con. 3, Turnberry tp., Ontario.

*Cyclotrypa silurica* Hennig

Hypotype 20429

Bolton, T.E., 1966, Palaeontology, vol. 9, pt. 3, p. 521, pl. 82, figs. 1, 3.

331 feet below top of Member A, Read Bay Formation, Upper Silurian, Goodsir Creek, central-  
east coast of Cornwallis Island, Arctic.

*Cyphotrypa whiteavesi* McCammon

Holotype 14880a

McCammon, H., 1960, Manitoba Dept. Mines Natural Res., Mines Branch, Publ. 59-6,  
p. 45, pl. 7, figs. 9a b.

Dawson Bay Formation, Middle Devonian, Snake Island, Lake Winnipegosis, Manitoba.

*Dermatostroma* sp.

Fig. spec. 18662

Liberty, B.A., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p.  
51, pl. 5, fig. 10.

Dundas Formation, Upper Ordovician, Don Valley Brickyard quarry, Toronto, Ontario.

*Diplotrypa franklini* Bolton

Holotype 20421; paratypes 20422-20426

Bolton, T.E., 1966, Palaeontology, vol. 9, pt. 3, p. 518, pl. 81, figs. 1-6; pl. 82, fig. 4.

Member A, Read Bay Formation, Upper Silurian, 618, 627, and 698 feet below top of formation,  
Goodsir Creek, central-east coast of Cornwallis Island; upper beds of Read Bay Formation,  
Cape Admiral M'Clintock, north coast of Somerset Island, and west side of Radstock Bay,  
southwestern Devon Island; and 3380-3400 feet above base of undifferentiated Allen Bay –  
Read Bay Formation, late Silurian or early Devonian, Darling Peninsula, east-central  
Ellesmere Island, Arctic.

*Diplotrypa schucherti* Fritz

Paratypes 20681, 20682

Fritz, M.A., 1966, J. Pal., vol. 40, No. 6, p. 1335, pl. 166, figs. 2-4.

Long Point Formation, Middle Ordovician, 1 1/2 miles east of Portage Road Junction on east  
coast of Long Point Peninsula. Port au Port, Newfoundland.

*Eridotrypa* sp. cf. *E. umbonensis* Owen

Hypotype 20430

Bolton, T.E., 1966, Palaeontology, vol. 9, pt. 3, p. 517.

693 feet below top of Member A, Read Bay Formation, Upper Silurian, Goodsir Creek, central-east coast of Cornwallis Island, Arctic.

*Fistulipora* (?) *mutabilis* Hennig

Hypotypes 20427, 20428

Bolton, T.E., 1966, Palaeontology, vol. 9, pt. 3, p. 520, pl. 82, figs. 2, 5, 7, 8.

618 and 698 feet below top of Member A, Read Bay Formation, Upper Silurian, Goodsir Creek, central-east coast of Cornwallis Island, Arctic.

*Hallopora elegantula* (Hall)

Hypotypes 20563, 20566

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 11, figs. 3, 9.

44 and 22 feet above base of Rochester Formation, Middle Silurian, DeCew Falls, Ontario.

*Helopora lineata* Billings — syntype 2251 located.

*Lichenalia utricula* Bassler — syntypes 2247, a located.

*Pachydictya hexagonalis* Ulrich

Hypotypes 6828, a, b

Ross, J.P., 1961, J. Pal., vol. 35, No. 2, p. 341, pl. 45, figs. 2, 5, 8.

Stony Mountain Formation, Upper Ordovician, Stony Mountain, Manitoba.

*Phaenopora superba* (Billings)

Hypotype 15100

Ross, J.P., 1961, J. Pal., vol. 35, No. 2, p. 334.

Becscie Formation, Lower-Middle Silurian, between Little and Duck Rivers, Anticosti Island, Quebec.

*Proboscina laxa* Whiteaves

= *Hederalia?* *laxa*. Bassler, R.S., 1939, Proc. U.S. Nat. Mus., vol. 87, No. 3068, p. 46, pl. 13, fig. 1 [holotype 4218].

*Ptilodictya canadensis* Billings

Ross, J.P., 1960, J. Pal., vol. 34, No. 6, p. 1064, pl. 126, figs. 1, 2 [holotype 2005].

*Ptilodictya excellens* Billings

= *Stictoporella excellens*, Ross, J.P., 1960, J. Pal., vol. 34, No. 6, p. 1072, pl. 128, fig. 1 [holotype 2248].

*Ptilodictya fragilis* Billings — syntype 2249 located

*Ptilodictya nitidula* Billings

Ross, J.P., 1961, J. Pal., vol. 35, No. 2, p. 336, pl. 43, fig. 6 [holotype 2004].

= *Rhinidictya nitidula*, Twenhofel, W.H., 1928, Geol. Surv., Canada, Mem. 154, p. 165, pl. 14, figs. 14, 15.

*Ptilodictya sulcata* Billings

Ross, J.P., 1960, J. Pal., vol. 34, No. 6, p. 1069, pl. 125, figs. 3, 8, 9 [lectotype 2501].

BRYOZOA

*Ptilodictya superba* Billings

= *Phaenopora superba*, Ross, J.P., 1961, J. Pal., vol. 35, No. 2, p. 334, pl. 41, fig. 9; pl. 42, fig. 2 [holotype 2352].

*Reptaria stolonifera* Rolle

Hypotype 14796

McCammon, H., 1960, Manitoba Dept. Mines Natural Res., Mines Branch, Publ. 59-6, p. 45, pl. 7, fig. 7.

Dawson Bay Formation, Middle Devonian, north bank Red Deer River 100 yards west of Highway 10 bridge between The Pas and Mafeking, l.s.d. 7, sec. 17, tp. 45, rge. 25, W. Prin. mer., Manitoba.

*Stictoporella excellens* (Billings)

Hypotype 15099

Ross, J.P., 1960, J. Pal., vol. 34, No. 6, p. 1072, pl. 128, fig. 9.

Jupiter Formation, Middle Silurian, 2 miles east of Jupiter River, Anticosti Island, Quebec.

*Trematopora tuberculosa* Hall

Hypotype 20565

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 11, fig. 7.

Rochester Formation, Middle Silurian, DeCew Falls, Ontario.

## B R A C H I O P O D A

*Acrotreta metisensis* Howell

Paratypes 6467–6473

Howell, B.F., 1944, Bull. Wagner Free Instit. Sci., vol. 19, p. 9.

Metis shale, Lower Ordovician, Little Metis, Quebec.

*Allanaria allani* (Warren)

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62–4, p. 24, pl. 11, figs. 14–16  
[hypotype 13821], 17 [hypotype 13822].

*Allanaria allani* (Warren)

Hypotypes 14840–14845

McCammon, H., 1960, Manitoba Dept. Mines Natural Res., Mines Branch, Publ. 59–6,  
p. 59, pl. 10, figs. 12–17.

Souris River Formation, Upper Devonian, abandoned quarry 1 1/2 miles west of town of  
Winnipegosis, NW. 1/4 l.s.d. 9, tp. 31, rge. 18 and along road and in dry creek bed 3 miles  
south of turnoff to Pine River, along east boundary sec. 21, tp. 32, rge. 19, W. Prin. mer.,  
Manitoba.

*Allanaria allani* (Warren)

Hypotype 16714

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62–4, p. 22, pl. 10, figs. 37–39.

Moberly Member, Waterways Formation, Upper Devonian, north bank of Athabasca River  
opposite Moberly Rapids, Alberta.

*Allanaria minutilla* Crickmay

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62–4, p. 24, pl. 11, figs. 18–20  
[hypotype 13823].

*Ambocoelia* cf. *A. umbonata* (Conrad)

Hypotypes 16095–16099, 16130 [plaster replica]

Norris, A.W., 1964, Geol. Surv., Canada, Bull. 114, p. 56, pl. 16, figs. 10a–14.

Horn Plateau Formation, Middle Devonian, east flank Horn Plateau, 2.9 miles west of southwest  
tip Fawn Lake, lat. 62° 08.2'N, long. 117° 39'W, District of Mackenzie.

*Amphistrophia* sp.

Fig. specs. 18992–18996

Boucot, A.J., et al., 1966, Geol. Surv., Canada, Bull. 140, p. 27, pl. 8, figs. 7–13.

Silurian, beach south of village of Back Bay, 0.5 mile northwest of west end of Douglas Island,  
southern New Brunswick.

*Anastrophia* sp.

Fig. spec. 18967, a [mould and cast]

Boucot, A.J., et al., 1966, Geol. Surv., Canada, Bull. 140, p. 21, pl. 5, figs. 7, 8.

Silurian, beach south of village of Back Bay, 0.5 mile northwest of west end of Douglas  
Island, southern New Brunswick.

## BRACHIOPODA

### *Antirhynchonella fornicata* (Hall)

Hypotype 20589

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 13, fig. 20.

Wiarnton Member, Amabel Formation, Middle Silurian, first north-south road west of Purple Valley, 1/2 mile north of Colpo Bay-Purple Valley main road, Bruce Peninsula, Ontario.

### *Athyris aquilonius* Norris

Holotype 16108; paratypes 16109-16114, 16131 [plaster replica]

Norris, A.W., 1964, Geol. Surv., Canada, Bull. 114, p. 62, pl. 17, figs. 4a-10.

Horn Plateau Formation, Middle Devonian, east flank Horn Plateau, 2.9 miles west of southwest tip Fawn Lake, lat. 62°08.2'N, long. 117°39'W, District of Mackenzie.

### *Athyris vittata* Hall

Hypotypes 14679, 14860, 14861, a

McCammon, H., 1960, Manitoba Dept. Mines Natural Res., Mines Branch, Publ. 59-6, p. 62, pl. 11, figs. 1-3.

Point Wilkins Member, Souris River Formation, Upper Devonian, Rose Bush Island, Swan Lake and Point Wilkins, Dawson Bay, Lake Winnipegosis, Manitoba.

### *Athyris vittata* var. *randalia* Stainbrook

Hypotype 16713

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 22, pl. 10, figs. 34-36.

Moberly Member, Waterways Formation, Upper Devonian, west bank of Athabasca River opposite Tar Island and Mile 22, Alberta.

### "*Athyris*" sp. C

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 32, pl. 15, figs. 10-12 [fig. spec. 13795].

### *Athyris* sp.

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 24, pl. 11, figs. 25-27 [fig. spec. 13825].

### *Atrypa arctica* Warren

Hypotype 16691

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 18, pl. 8, figs. 10-12.

Upper Hume Formation, Middle Devonian, Gayna River about 9 miles from mouth, District of Mackenzie.

### *Atrypa* cf. *A. asperanta* Crickmay

Hypotype 16692

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 18, pl. 8, figs. 13-15.

Hume Formation, Middle Devonian, Anderson River 38 miles east of junction with Carnwath River, District of Mackenzie.

### *Atrypa bremerensis* Stainbrook

Hypotypes 14810-14812

McCammon, H., 1960, Manitoba Dept. Mines Natural Res., Mines Branch, Publ. 59-6, p. 51, pl. 8, figs. 10-12.

Dawson Bay Formation, Middle Devonian, Snake Island, Lake Winnipegosis, Manitoba.

*Atrypa gabrielsi* Norford

Holotype 14486; paratypes 15777, 15778, 15797–15804, 15853

Norford, B.S., 1962, Geol. Surv., Canada, Bull. 78, p. 18, pl. 4, figs. 1–13.

Lower 20 feet Sandpile Group, Middle Silurian, elevation 6300 feet, just north of high point 1.4 miles northwest of north end of lower Sandpile Lake, lat.  $59^{\circ}04'N$ , long.  $128^{\circ}11'W$ , British Columbia.

*Atrypa independens* Welster

Hypotypes 14817–14820

McCammon, H., 1960, Manitoba Dept. Mines Natural Res., Mines Branch, Publ. 59–6, p. 53, pl. 9, figs. 1–4.

Souris River and Dawson Bay Formation, Upper and Middle Devonian, Point Wilkins, Dawson Bay, Lake Winnipegosis; abandoned quarry 1 1/2 miles west of town of Winnipegosis, NW. 1/4 l.s.d. 9, tp. 31, rge. 18; and north bank Red Deer River 100 yards west of highway 10 bridge between The Pas and Mafeking, l.s.d. 7, sec. 17, tp. 45, rge. 25, W. Prin. mer., Manitoba.

*Atrypa manitobensis* McCammon

Holotype 14813; paratypes 14814–14816

McCammon, H., 1960, Manitoba Dept. Mines Natural Res., Mines Branch, Publ. 59–6, p. 52, pl. 8, figs. 13, 14.

Dawson Bay Formation, Middle Devonian, north bank 1 3/5 miles up Red Deer River, l.s.d. 6, sec. 21, tp. 45, rge. 25, W. Prin. mer., Manitoba.

*Atrypa multicostellata* Kotlowski

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62–4, p. 24, pl. 11, figs. 11–13 [hypotype 10903].

*Atrypa nasuta* Norris

Holotype 16084, paratypes 16081–16083, 16085–16087, 16127

Norris, A.W., 1964, Geol. Surv., Canada, Bull. 114, p. 52, pl. 15, figs. 5–9c; pl. 16, figs. 1, 2a, b.

Horn Plateau Formation, Middle Devonian, east flank Horn Plateau, 2.9 miles west of southwest tip Fawn Lake, lat.  $62^{\circ}08.2'N$ , long.  $117^{\circ}39'W$ , District of Mackenzie.

*Atrypa nasuta hearni* Norris

Holotype 16080

Norris, A.W., 1964, Geol. Surv., Canada, Bull. 114, p. 54, pl. 15, figs. 4a–e.

Horn Plateau Formation, Middle Devonian, east flank Horn Plateau, 2.9 miles west of southwest tip Fawn Lake, lat.  $62^{\circ}08.2'N$ , long.  $117^{\circ}39'W$ , District of Mackenzie.

'*Atrypa parksi*' Williams

Hypotypes 17952, 17953

Bolton, T.E.,

1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 77, pl. 7, figs. 1–3 [17952], 4–6 [17953].

1966, Geol. Surv., Canada, Paper 66–5, pl. 1, figs. 2–4 [17952]; pl. 3, figs. 5, 6, 15 [17953].

Manitoulin and Cabot Head Formations, Cataract Group, Lower Silurian, top of bluff northeast of West Bay, Manitoulin Island and Credit Forks, Ontario.

## BRACHIOPODA

### *Atrypa parva* Hume

Hypotypes 15771-15776, 15786, 15787, 15789-15791

Norford, B.S., 1962, Geol. Surv., Canada, Bull. 78, p. 16, pl. 3, figs. 5-13.

Lower 20 feet Sandpile Group, Middle Silurian, elevation 6300 feet, just north of high point 1.4 miles northwest of north end of lower Sandpile Lake, lat.  $59^{\circ}04'N$ , long.  $138^{\circ}11'W$ , British Columbia.

### '*Atrypa*' *parva* Hume

Hypotypes 20614-20617

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 17, figs. 3-7; pl. 18, fig. 9.

Thornloe Formation, Middle Silurian, Mann Island, Lake Timiskaming, Quebec.

### *Atrypa "reticularis"* (Linnaeus)

Hypotypes 19033-19041

Boucot, A.J., et al., 1966, Geol. Surv., Canada, Bull. 140, p. 34, pl. 13, figs. 17, 18; pl. 14, figs. 1-5.

Unnamed beds and Long Reach Formation, Silurian, beach south of village of Back Bay, 0.5 mile northwest of west end of Douglas Island and bed of southwesterly flowing brook, 0.75 mile from its junction with Nerepis River near Armstrong Corner, 0.45 mile northeast of Nerepis River, southern New Brunswick.

### *Atrypa snakensis* McCammon

Holotype 14821; paratypes 14822-14826; hypotype 14827

McCammon, H., 1960, Manitoba Dept. Mines Natural Res., Mines Branch, Publ. 59-6, p. 54, pl. 9, figs. 5-9.

Dawson Bay Formation, Middle Devonian, Snake and Charlie Islands, Lake Winnipegosis; Red Deer River 100 yards west of Highway 10 bridge between The Pas and Mafeking, l.s.d. 7, sec. 17, tp. 45, rge. 25, W. Prin. mer., Manitoba.

### *Atrypa* sp. J, K, L, M

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 30, pl. 14, figs. 16-18 [fig. spec. 12274], 19-21 [fig. spec. 10921], 22-24 [fig. spec. 10923], 25-27 [fig. spec. 10944].

### *Atrypa* sp.

Fig. spec. 14809

McCammon, H., 1960, Manitoba Dept. Mines Natural Res., Mines Branch, Publ. 59-6, p. 55, pl. 10, fig. 21.

Point Wilkins Member, Souris River Formation, Upper Devonian, Point Wilkins, Dawson Bay, Lake Winnipegosis, Manitoba.

### *Atrypa* sp. 1, 2

Fig. specs. 15381, 15382

Raasch, G.O., et al., 1961, "Geology of the Arctic", vol. 1, p. 469, pl. 3, figs. 1-7, 9-11. Middle Silurian, Prong Creek, Wind River area, lat.  $65^{\circ}17'N$ , long.  $135^{\circ}45'W$ , central Yukon.

### *Atrypa* sp.

Fig. spec. 16689

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 18, pl. 8, figs. 4-6.

Upper Silurian or Lower Devonian, west slope of Cathedral Mountain, Virginia Falls area, District of Mackenzie.

*Atrypa* sp.

Fig. specs. 16918a, b

Norford, B.S., 1962, Geol. Surv., Canada, Paper 62-14, p. 24, pl. 10, figs. 16-18.

Coralline member, Sandpile Group, elevation 5100 feet, ridge crest 1.4 miles NNW. of north end of upper Sandpile Lake, lat. 59° 03' N, long. 128° 11' W, British Columbia.

*Calvinaria albertensis albertensis* (Warren)

Hypotypes 14944-14951

McLaren, D.J., 1962, Geol. Surv., Canada, Bull. 86, p. 26, pl. 1, figs. 4, 5, 7-9, 11; text-figs. 6B, C.

Mount Hawk Formation, Upper Devonian, northeast flank of Roche Miette, Jasper Park; south end of Idlewilde Mountain, Clearwater River valley, Alberta; and reef limestone forming cliff on north side of Root River, 10 miles west of Gap in Camsell Range, Northwest Territories.

*Calvinaria albertensis feni* McLaren

Holotype 14959; paratypes 14960, 15201-15203

McLaren, D.J., 1962, Geol. Surv., Canada, Bull. 86, p. 33, pl. 2, figs. 7-10; text fig. 7B.

208 feet above base of Escarpment Member, Hay River Formation, Upper Devonian, left bank Hay River immediately below junction of Mills Lake road with Hay River highway, about 24 1/2 miles above mouth of river, Northwest Territories.

*Calvinaria albertensis opimia* McLaren

Holotype 14952; paratypes 14953-14958

McLaren, D.J., 1962, Geol. Surv., Canada, Bull. 86, p. 31, pl. 2, figs. 1-6; text-fig. 7A.

Base of Escarpment Member, Hay River Formation, Upper Devonian, left bank Hay River, 1/3 mile east of junction of Mills Lake road with Hay River highway, some 24 miles above mouth of river; High Banks, Hay River; and mile 24.6, Hay River, Northwest Territories.

*Calvinaria ambigua* (Crickmay)

Hypotype 15954

McLaren, D.J., 1962, Geol. Surv., Canada, Bull. 86, p. 24, text-fig. 8A.

Amana Shale, Devonian, Amana, Iowa, U.S.A.

*Calvinaria bransoni* Stainbrook

Hypotype 15953

McLaren, D.J., 1962, Geol. Surv., Canada, Bull. 86, p. 30, text-fig. 6A.

Sly Gap Formation, Devonian, Indian Wells Canyon, Alamogordo, New Mexico, U.S.A.

*Calvinaria? inelegans* McLaren

= *Leiorhynchus carya*. McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, pl. 13, figs. 22-24 [hypotype 11248].

McLaren, D.J., 1962, ibid., Bull. 86, p. 100, pl. 18, figs. 4a-e.

*Calvinaria variabilis athabascensis* (Kindle)

Hypotypes 14931-14935, 15204

McLaren, D.J., 1962, Geol. Surv., Canada, Bull. 86, p. 39, pl. 4, figs. 3, 4, 6, 7; pl. 5, figs. 1a-f; text-fig. 9.

Maligne Formation and Escarpment Member, Hay River Formation, Upper Devonian, near highway and saddle immediately south of Morro Park, Jasper Peak, Alberta and left bank Hay River, 1/3 mile east of junction of Mills Lake road with Hay River highway, some 24 miles above mouth of river, Northwest Territories.

## BRACHIOPODA

### *Calvinaria variabilis insculpta* (McLaren)

Hypotypes 14936–14940, 15208

McLaren, D.J., 1962, Geol. Surv., Canada, Bull. 86, p. 43, pl. 3, figs. 7–10; pl. 4, figs. 1a–d; text-fig. 10.

Perdrix and Cairn Formations, Upper Devonian, Job Creek, eastern fault block: Front Range at Red Deer gap, north side; and about 600 feet down from top of Fairholme in Nigel Peak section, Sunwapta Pass area, Alberta.

### *Calvinaria variabilis jobensis* McLaren

Holotype 14941; paratypes 14942, 14943, 15209, 15210

McLaren, D.J., 1962, Geol. Surv., Canada, Bull. 86, p. 45, pl. 5, figs. 4–6; text-figs. 11A, B.

4 feet above base of Perdrix Formation, Upper Devonian, Job Creek, eastern fault block, Alberta.

### *Calvinaria variabilis variabilis* (Whiteaves)

Hypotypes 14927–14930, 15207

McLaren, D.J., 1962, Geol. Surv., Canada, Bull. 86, p. 35, pl. 3, figs. 3–6; text-fig. 8B.

16 feet above base of Escarpment Member, Hay River Formation, Upper Devonian. 'Hay River, 40 miles above its mouth' and left bank Hay River, 1/3 mile east of junction of Mills Lake road with Hay River highway, some 24 miles above mouth of river, Northwest Territories.

### "*Camarotoechia*" *banffensis* Warren

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62–4, p. 32, pl. 15, figs. 13–15 [hypotype 13796].

### *Camarotoechia ekwanensis* Whiteaves

= *Stegerynchus* (?) *ekwanensis*, Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66–5, pl. 19, figs. 4, 6 [holotype 4425].

### *Camarotoechia lamellosa* Fagerstrom

Paratypes 14732, 14733

Fagerstrom, J.A., 1961, J. Pal., vol. 35, No. 1, p. 28, pl. 9, fig. 29.

Formosa reef limestone, Middle Devonian, road-cut 2 1/2 miles north of Formosa, Ontario.

### *Camarotoechia tethys* (Billings)

Hypotype 14731

Fagerstrom, J.A., 1961, J. Pal., vol. 35, No. 1, p. 27.

Formosa reef limestone, Middle Devonian, road-cut 2 miles north of Formosa, Ontario.

### *Camarotoechia* (?) *winiskensis* Whiteaves

= *Stegerynchus* (?) *winiskensis*, Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66–5, pl. 18, figs. 6, 13 [syntypes 4198a, 4198].

### *Camarotoechia* sp.

Fig. spec. 4570

Shimer, H.W., 1926, Geol. Surv., Canada, Contr. Can. Pal., Bull. 42, p. 45.

Upper Devonian, Lake Minnewanka area, Alberta.

### *Camarotoechia* sp. E (n. sp.)

= *Sinotectirostrum medicinale*, Sartenaer, P., 1961, Bull. Instit. Roy. Sci. Nat. Belgique, vol. 37, No. 24, p. 4, pl. 1, figs. 3a, b [holotype 13797].

= *Sinotectiractrum medicinale*, McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62–4, p. 32, pl. 15, figs. 16–18.

*"Camarotoechia"* sp.

Hypotypes 14979–14981

Boucot, A.J., et al., 1961, Geol. Surv., Canada, Bull. 65, p. 7, pl. 2, figs. 8–10.  
Sutherland River Formation, Upper Silurian, Camp Creek, Douro Range, west Devon Island, Arctic.

*"Camarotoechia"* sp.

Fig. spec. 16690

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62–4, p. 18, pl. 8, figs. 7–9.  
Upper Silurian or Lower Devonian, west slope of Cathedral Mountain, Virginia Falls area,  
District of Mackenzie.

*Camerella wiartonensis* Bolton

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66–5, pl. 13, fig. 4 [holotype 11592].

*Camerella wiartonensis* Bolton

Hypotypes 20579, 20580

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66–5, pl. 13, figs. 6, 7.  
Wiarton Member, Amabel Formation, Middle Silurian, road-cut opposite radio tower on Owen  
Sound–Chatsworth highway 6–10, Ontario.

*Cancrinella cf. C. germanicus* (Frebold)

Hypotype 13529

Harker, P. and Thorsteinsson, R., 1960, Geol. Surv., Canada, Mem. 309, p. 56, pl. 16, fig.  
6.  
Assistance Formation, Permian, lower reaches Lyall River, Grinnell Peninsula, northwest Devon  
Island, Arctic.

*Carinatina dysmorphostrota* (Crickmay)

Hypotype 16695

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62–4, p. 18, pl. 8, figs. 22–24.  
Upper Hume Formation, Middle Devonian, Gayna River about 9 miles from mouth, District of  
Mackenzie.

*Cassidirostrum pedderi* McLaren

Holotype 15350; paratypes 15351–15357

McLaren, D.J.,

1961, Bull. Instit. Roy. Sci. Nat. Belgique, vol. 37, No. 23, p. 2, pl. 1, figs. 1a–e  
[15350], 2a–c [15351], 3 [15355].

1962, Geol. Surv., Canada, Bull. 86, p. 49, pl. 6, figs. 1–6; text-figs. 12, 13, 14A, B.

McLaren, D.J., et al., 1962, ibid., Paper 62–4, p. 18, pl. 8, figs. 34–36 [paratype 15354].  
Hare Indian and "Lower Remparts" Formations, Middle Devonian, Anderson River between  
lat.  $68^{\circ}28'N$  and  $68^{\circ}32'N$ , and long.  $127^{\circ}04'W$  and  $127^{\circ}24'W$ ; Andrew River, lat.  $68^{\circ}20'N$ ,  
long.  $128^{\circ}56'W$  and lat.  $68^{\circ}08'N$ , long.  $128^{\circ}33'W$ , Northwest Territories.

*Catazyga erratica* (Hall)

Hypotypes 18670, a

Liberty, B.A., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook,  
p. 51, pl. 5, figs. 3, 4.

'Dundas Formation, Upper Ordovician, Weston, Ontario.

*Chiliopsis subplana* (Conrad)

Hypotype 20560

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66–5, pl. 10, fig. 24.  
29 feet above base of Rochester Formation, Middle Silurian, DeCew Falls, Ontario.

## BRACIOPODA

### *Chilidiopsis* sp.

Fig. specs. 19011-19014

Boucot, A.J., et al., 1966, Geol. Surv., Canada, Bull. 140, p. 30, pl. 11, figs. 2-10; pl. 12, figs. 1-5.

Unnamed beds and Long Reach Formation, Silurian, beach south of village of Back Bay, 0.5 mile northwest of west end of Douglas Island and bed of southwesterly flowing brook, 0.75 mile from its junction with Nerepis River near Armstrong Corner, 0.45 mile northeast of Nerepis River, southern New Brunswick.

### *Chonetes aurora* Hall

Hypotypes 14797, 14798

McCammon, H., 1960, Manitoba Dept. Mines Natural Res., Mines Branch, Publ. 59-6, p. 47, pl. 8, figs. 1, 2.

Dawson Bay Formation, Middle Devonian, north side Charlie Island and along western and northern shore of Snake Island, Lake Winnipegosis, Manitoba.

### *Chonetes (Paeckelmannia?) capitolinus* Toula

Hypotypes 13522, 13523

Harker, P. and Thorsteinsson, R., 1960, Geol. Surv., Canada, Mem. 309, p. 53, p. 16, figs. 11, 12.

Assistance Formation, Permian, lower reaches Lyall River, Grinnell Peninsula, northwest Devon Island, Arctic.

### Chonetid brachiopods

Fig. specs. 15388, 15391

Raasch, G.O., et al., 1961, "Geology of the Arctic", vol. 1, p. 468.

Middle Silurian, Prong Creek, Wind River area, lat.  $65^{\circ}17'N$ , long.  $135^{\circ}45'W$ , central Yukon.

### *Chonetina* cf. *C. timanicus* (Tschermschew)

Hypotypes 13524, 13525

Harker, P. and Thorsteinsson, R., 1960, Geol. Surv., Canada, Mem. 309, p. 55, pl. 17, fig. 7; pl. 23, fig. 8.

Belcher Channel Formation, Permian, Lyall River area, Grinnell Peninsula, northwest Devon Island, Arctic.

### *Cleiothyridina* cf. *C. subexpansa* (Waagen)

Hypotype 13769

Harker, P. and Thorsteinsson, R., 1960, Geol. Surv., Canada, Mem. 309, p. 73, pl. 24, figs. 1, 2.

Assistance Formation, Permian, lower reaches Lyall River, Grinnell Peninsula, northwest Devon Island, Arctic.

### ? *Clorinda* sp.

Fig. specs. 15805, 15806

Norford, B.S., 1962, Geol. Surv., Canada, Bull. 78, p. 16, pl. 3, figs. 1-4.

Coralline member, Sandpile Group, Middle Silurian, elevation 5400 feet, ridge crest, 1 1/2 miles north of upper Sandpile Lake, long.  $59^{\circ}03\frac{1}{2}'N$ , lat.  $128^{\circ}10'W$ , British Columbia.

### '*Coelospira*' *planoconvexa* (Hall)

Hypotypes 17959, 17960

Bolton, T.E.,

1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 77, pl. 7, figs. 15, 16.

1966, Geol. Surv., Canada, Paper 66-5, pl. 1, figs. 23, 24.

Manitoulin Formation, Cataract Group, Lower Silurian, most easterly located quarry outskirt of Owen Sound and stream bed east of quarries at Dundas, Ontario.

*Coelospira* sp.

Fig. specs. 15001–15004

Boucot, A.J., et al., 1961, Geol. Surv., Canada, Bull. 65, p. 11, pl. 3, figs. 15–20.  
Sutherland River Formation, Upper Silurian, Douro Range, west Devon Island, Arctic.*Conchidium occidentalis* (Hall)

Hypotype 2821

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66–5, pl. 15, fig. 8.  
Guelph Formation, Middle Silurian, Durhám, Ontario.*Cortezorthis bathurstensis* Johnson and Talent

Holotype 19596; paratypes 19595, 19597–19599

Johnson, J.G., and Talent, J.A., 1967, Palaeontology, vol. 10, pt. 1, p. 150, pl. 20, figs. 1–13.  
Stuart Bay Formation, Lower Devonian, northern Bathurst Island, lat.  $75^{\circ}47'N$ , long.  $98^{\circ}20'W$ ,  
Arctic.*Cortezorthis aff. bathurstensis* Johnson and Talent

Hypotypes 19593, 19594

Johnson, J.G. and Talent, J.A., 1967, Palaeontology, vol. 10, pt. 1, p. 153, pl. 19, figs. 21–23.  
Blue Fiord Formation, Lower Devonian, south bank Sutherland River, lat.  $76^{\circ}19'N$ , long.  $92^{\circ}51'$ ,  
Prince Alfred Bay area, Devon Island, Arctic.*Cortezorthis maclareni* Johnson and Talent

Holotype 19115; paratypes 19106–19114, 19116

Johnson, J.G., and Talent, J.A., 1967, Palaeontology, vol. 10, pt. 1, p. 146, pl. 19, figs.  
1–20; pl. 20, figs. 28, 29.  
Blue Fiord Formation, Lower Devonian, south side Eids Fiord, southwest Ellesmère Island,  
Arctic.*Cortezorthis* sp.

Fig. spec. 19117

Johnson, J.G. and Talent, J.A., 1967, Palaeontology, vol. 10, pt. 1, p. 154, pl. 20, figs. 21–27.  
Middle Devonian, southeast Novaya Zemlya, U.S.S.R.*Costistricklandia* cf. *C. gaspéensis* (Billings)

Hypotypes 18971–18973

Boucot, A.J., et al., 1966, Geol. Surv., Canada, Bull. 140, p. 23, pl. 5, figs. 14–19; pl. 6,  
figs. 1, 2.  
Long Reach Formation, Silurian, bed of southwesterly flowing brook, 0.75 mile from its junction  
with Nerepis River near Armstrong Corner, 0.45 mile northeast of Nerepis River, southern  
New Brunswick.*Cranaena?* *cryptonelloides* Norris

Holotype 16117; paratypes 16118, 16119, 16132 [plaster replica]

Norris, A.W., 1964, Geol. Surv., Canada, Bull. 114, p. 66, pl. 17, figs. 13a–15c.

Horn Plateau Formation, Middle Devonian, east flank Horn Plateau, 2.9 miles west of southwest  
tip Fawn Lake, lat.  $62^{\circ}08.2'N$ , long.  $117^{\circ}39'W$ , District of Mackenzie.*Cranaena* cf. *iowensis* (Calvin)

Hypotypes 14885–14887

McCammon, H., 1960, Manitoba Dept. Mines Natural Res., Mines Branch, Publ. 59–6,  
p. 63, pl. 11, fig. 4.Point Wilkins Member, Souris River Formation, Upper Devonian, Point Wilkins, Dawson Bay,  
Lake Winnipegosis and near Steep Rock, River, Manitoba.

## BRACIOPODA

### *Cranaena romingeri* (Hall)

Hypotypes 14744–14746

Fagerstrom, J.A., 1961, J. Pal., vol. 35, No. 1, p. 35.

Formosa reef limestone, Middle Devonian, road-cut 2 miles north of Formosa; middle of Falls of Teeswater River; and just east of bridge at Formosa, Ontario.

### *Cranaena?* sp.

Fig. spec. 16116

Norris, A.W., 1964, Geol. Surv., Canada, Bull. 114, p. 65, pl. 17, figs. 12a–c.

Horn Plateau Formation, Middle Devonian, east flank Horn Plateau, 2.9 miles west of southwest tip Fawn Lake, lat.  $62^{\circ}08.2'N$ , long.  $117^{\circ}39'W$ , District of Mackenzie.

### *Cryptonella lens* (Hall)

Hypotype 14747

Fagerstrom, J.A., 1961, J. Pal., vol. 35, No. 1, p. 35.

Formosa reef limestone, Middle Devonian, just east of bridge at Formosa, Ontario.

### *Cymostrophia?* sp. B

Fig. spec. 14727

Fagerstrom, J.A., 1961, J. Pal., vol. 35, No. 1, p. 20, pl. 8, fig. 14.

Formosa reef limestone, Middle Devonian, the Falls of Teeswater River about 3 miles southeast of Teeswater, lot 4, con. 3 and lots 3–4, con. 4, Culross tp., Ontario.

### *Cymostrophia* sp.

Fig. specs. 16058, 16059

Norris, A.W., 1964, Geol. Surv., Canada, Bull. 114, p. 40, pl. 13, figs. 15a, b, 16a, b.

Horn Plateau Formation, Middle Devonian, east flank Horn Plateau, 2.9 miles west of southwest tip Fawn Lake, lat.  $62^{\circ}08.2'N$ , long.  $117^{\circ}39'W$ , District of Mackenzie.

### *Cyrtia* sp.

Fig. specs. 15795, 15796

Norford, B.S., 1962, Geol. Surv., Canada, Bull. 78, p. 24, pl. 3, figs. 26–29.

About 150 feet above base Sandpile Group, Middle Silurian, elevation 3450 feet, creek 2 miles northwest of junction Dall and Turnagain Rivers, lat.  $58^{\circ}48'N$ , long.  $127^{\circ}53'W$ , British Columbia.

### *Cyrtia* sp.

Fig. specs. 19054, 19055

Boucot, A.J., et al., 1966, Geol. Surv., Canada, Bull. 140, p. 38, pl. 15, figs. 18, 19.

Silurian, Green Point, Back Bay, southern New Brunswick.

### *Cyrtina billingsi* Meek

Hypotype 16709

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62–4, p. 22, pl. 10, figs. 21–23.

Firebag Member, Waterways Formation, Upper Devonian, east bank of Athabasca River at mile 63.5 about 14 feet above river level, District of Mackenzie.

### *Cyrtina extensa* Bolton

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66–5, pl. 13, figs. 8, 9 [holotype 11593].

### *Cyrtina hamiltonensis* Hall

Hypotypes 14846, 14847

McCammon, H., 1960, Manitoba Dept. Mines Natural Res., Mines Branch, Publ. 59–6, p. 60, pl. 10, figs. 1, 2.

Dawson Bay Formation, Middle Devonian, north bank 1 3/5 miles up Red Deer River, l.s.d. 6, sec. 21, tp. 45, rge. 25, W. Prin. mer. and Snake Island, Lake Winnipegosis, Manitoba.

*Cyrtina* cf. *C. inulta* Stainbrook

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 28, pl. 13, figs. 19-21  
[hypotype 13814].

*Cyrtina lapidea* Pedder

Holotype 14614; paratypes 14615-14617

Pedder, A.E.H., 1960, Palaeontology, vol. 3, pt. 2, p. 214, pl. 35, figs. 11-17; pl. 36.  
fig. 6.

Hay River Formation, Upper Devonian, Hay River opposite mile 14 on Mackenzie Highway,  
lat. 60°40'N, long. 115°51'W, Northwest Territories.

*Cyrtina paucicostata* McCammon

Holotype 14848; paratypes 14849-14858

McCammon, H., 1960, Manitoba Dept. Mines Natural Res., Mines Branch, Publ. 59-6,  
p. 60, pl. 10, figs. 3-9.

Dawson Bay Formation, Middle Devonian, Snake Island, Lake Winnipegosis; north bank Red  
Deer River 100 yards west of highway 10 bridge between The Pas and Mafeking, l.s.d. 7,  
sec. 17, tp. 45, rge. 25, 1 3/5 miles up, l.s.d. 6, sec. 21, tp. 45, rge. 25, and first turn in  
river east of Highway bridge; and 2 miles west of Nina Lake along road to The Narrows,  
Lake Manitoba, sec. 24, tp. 24, rge. 10, W. Prin. mer., Manitoba.

*Cyrtina?* sp.

Fig. specs. 15011, 15012

Boucot, A.J., et al., 1961, Geol. Surv., Canada, Bull. 65, p. 9, pl. 3, figs. 31-33.

Sutherland River Formation, Upper Silurian, Douro Range, west Devon Island, Arctic.

*Cyrtina* sp.

Fig. spec. 16704

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 22, pl. 10, figs. 1-3.

Sulphur Point Formation, Middle Devonian, east side of Presquile Point, south shore of Great  
Slave Lake, District of Mackenzie.

*Cyrtiopsis normandvilliana* Crickmay

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 32, pl. 15, figs. 7-9  
[hypotype 13794].

*Cyrtiopsis* cf. *C. prepta* Crickmay

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 32, pl. 15, figs. 21-23  
[hypotype 13799].

*Cyrtiopsis* sp.

Fig. spec. 16555

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 26, pl. 12, fig. 21.

"Imperial Sandstone", Upper Devonian, 6 miles below junction of Ram and North Nahanni  
Rivers, District of Mackenzie.

*Cyrtospirifer thalattodoxa* Crickmay

Hypotype 16563

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 26, pl. 12, figs. 7-9.

Basal beds of Escarpment Member, Hay River Formation, Upper Devonian, left bank Hay River  
near mile 26 on Mackenzie Highway, District of Mackenzie.

*Cyrtospirifer ex gr. C. whitneyi* (Hall)

= *Cyrtospirifer* sp., McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 28  
pl. 13, figs. 3-6 [fig. spec. 13810].

## BRACHIOPODA

*Dalejina* cf. *D. hybrida* (Sowerby)

Hypotypes 18931–18934, 18937

Boucot, A.J., et al.,

1965, J. Pal., vol. 39, No. 3, pl. 46, figs. 23–27.

1966, Geol. Surv., Canada, Bull. 140, p. 12, pl. 3, figs. 1–4, 9, 10.

Silurian, beach south of village of Back Bay, 0.5 mile northwest of west end of Douglas Island, southern New Brunswick.

*Dalejina* cf. *D. hybrida* (Sowerby)

Hypotypes 18930, 18935, 18936, 18938

Boucot, A.J., et al., 1966, Geol. Surv., Canada, Bull. 140, p. 12, pl. 2, figs. 14, 15; pl. 3, figs. 5–8, 11–14.

Silurian, beach south of village of Back Bay, 0.5 mile northwest of west end of Douglas Island, southern New Brunswick.

*Dalmanella whittakeri* Raymond

= *Onniella whittakeri*, Sinclair, G.W., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 41, pl. 4, figs. 8, 9 [paratype 3240a].

Dalmanellid brachiopods

Fig. specs. 15387, 15390

Raasch, G.O., et al., 1961, "Geology of the Arctic", vol. 1, p. 468, pl. 3, figs. 17–21, 26.

Middle Silurian, Prong Creek, Wind River area, lat.  $65^{\circ}17'N$ , long.  $135^{\circ}45'W$ , central Yukon.

*Derbyia* cf. *D. grandis* Waagen

Hypotype 13521

Harker, P. and Thorsteinsson, R., 1960, Geol. Surv., Canada, Mem. 309, p. 52, pl. 16, figs. 9, 10.

Assistance Formation, Permian, lower reaches Lyall River, Grinnell Peninsula, northwest Devon Island, Arctic.

*Derbyia* sp.

Fig. spec. 13525

Harker, P. and Thorsteinsson, R., 1960, Geol. Surv., Canada, Mem. 309, p. 53, pl. 23, fig. 8. Belcher Channel Formation, Permian, lower reaches Lyall River, Grinnell Peninsula, northwest Devon Island, Arctic.

*Devonoproductus vulgaris* Stainbrook

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62–4, p. 30, pl. 14, fig. 6 [hypotype 13806].

*Dicaelosia* cf. *D. biloba* (Linnaeus)

Hypotype 15788

Norford, B.S.,

1962, Geol. Surv., Canada, Bull. 78, p. 23, pl. 3, figs. 19–22.

1962, ibid., Paper 62–14, p. 24, pl. 10, fig. 14.

Coralline member, Sandpile Group, elevation 5100 feet, ridge crest 1.4 miles NNW. of north end of upper Sandpile Lake, lat.  $59^{\circ}03'N$ , long.  $128^{\circ}11'W$ , British Columbia.

*Dicaelosia* sp.

Fig. spec. 18966

Boucot, A.J., et al., 1966, Geol. Surv., Canada, Bull. 140, p. 20, pl. 2, fig. 13.

Silurian, beach south of village of Back Bay, 0.5 mile northwest of west end of Douglas Island, southern New Brunswick.

*Dicoelosia acutilobus* (Ringueberg)

Hypotype 17965

Bolton, T.E.,

1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 79,  
pl. 8 figs. 1, 2.

1966, Geol. Surv., Canada, Paper 66-5, pl. 10, figs. 25, 26.

4 1/2-6 feet above base, Rochester Formation, Clinton Group, Middle Silurian, DeCew Falls,  
Ontario.*Dictyoclostus* cf. *D. neoinflatus* Licharew

Hypotypes 13526-13528

Harker, P. and Thorsteinsson, R., 1960, Geol. Surv., Canada, Mem. 309, p. 55, pl. 17,  
figs. 1-4.Assistance Formation, Permian, lower reaches Lyall River, Grinnell Peninsula, northwest Devon  
Island, Arctic.*Dictyonella corallifera* (Hall)

Hypotype 17966

Bolton, T.E.,

1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 79,  
pl. 8, fig. 3.

1966, Geol. Surv., Canada, Paper 66-5, pl. 10, fig. 13.

Rochester Formation, Clinton Group, Middle Silurian, near Thorold, Ontario.

*Dielasma* cf. *D. plica* (Kutorga)

Hypotypes 13770, 13771

Harker, P. and Thorsteinsson, R., 1960, Geol. Surv., Canada, Mem. 309, p. 74, pl. 23,  
figs. 5-7.Assistance Formation, Permian, lower reaches Lyall River, Grinnell Peninsula, northwest Devon  
Island, Arctic.*Dinobolus* sp. cf. *D. conradi* (Hall)

Hypotypes 14487a, b.

Norford, B.S.,

1960, Palaeontology, vol. 3, pt. 2, p. 242, pl. 41, figs. 8-17.

1962, Geol. Surv., Canada, Bull. 78, p. 13, pl. 1, figs. 1-8.

Sandpile Group, Middle Silurian, 1.7 miles NNW. of southerly of two lakes in Sandpile Creek,  
lat. 59°03' 1/2"N, long. 128°12'W, British Columbia.*Dinorthis columbia* Wilson

Hypotypes 16890, 16892, 16893a, 16898

Norford, B.S., 1962, Geol. Surv., Canada, Paper 62-14, p. 18, pl. 7, figs. 8, 10-15, 31.

Beaverfoot-Brisco Formation, Upper Ordovician, Palliser Pass, British Columbia; Cirrus Mountain,  
Banff Park, Alberta; and Hatch Creek section 3 miles northeast of Harrogate, British Columbia.*Dinorthis rockymontana* Wilson

Hypotypes 16885, 16894

Norford, B.S., 1962, Geol. Surv., Canada, Paper 62-14, p. 14, pl. 5, fig. 1; p. 18, pl. 7,  
fig. 21.Beaverfoot-Brisco Formation, Upper Ordovician, Cirrus Mountain, Banff Park, Alberta and  
Hatch Creek section 3 miles northeast of Harrogate, British Columbia.

## BRACHIOPODA

*Dinorthis* cf. *D. rockymontana* Wilson

Hypotype 16891

Norford, B.S., 1962, Geol. Surv., Canada, Paper 62-14, p. 18, pl. 7, fig. 9.

Beaverfoot-Brisco Formation, Upper Ordovician, lat.  $49^{\circ}49'N$ , long.  $115^{\circ}26'W$ , British Columbia.

cf. *Doleroides* sp.

Fig. specs. 16877-16879

Norford, B.S., 1962, Geol. Surv., Canada, Paper 62-14, p. 12, pl. 4, figs. 4-6.

Sunblood Formation, Middle Ordovician, Sunblood Mountain, South Nahanni River, District of Mackenzie.

*Dolerorthis flabellites* (Foerste)

Hypotype 20581

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 13, fig. 10.

Wiarton Member, Amabel Formation, Middle Silurian, road-cut at top of escarpment due north of Kemble, Ontario.

*Dolerorthis flabellites* var. *euorthis* Foerste

Hypotype 20472

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 1, fig. 14.

Manitoulin Formation, Lower Silurian, north end of road exposure 1/2 mile southwest of Y-junction near east shore of South Bay, Indian Reserve No. 16, Manitoulin Island, Ontario.

*Dolerorthis* cf. *D. rustica* (Sowerby)

Hypotypes 18924-18928

Boucot, A.J., et al., 1966, Geol. Surv., Canada, Bull. 140, p. 11, pl. 2, figs. 4-11.

Silurian, beach south of village of Back Bay, 0.5 mile northwest of west end of Douglas Island, southern New Brunswick.

*Douvillinaria* sp.

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 30, pl. 14, figs. 3, 4 [fig. spec. 13804].

*Douvillinella?* *crickmayi* Pedder

Holotype 14609; paratypes 14610-14613

Pedder, A.E.H., 1960, Palaeontology, vol. 3, pt. 2, p. 212, pl. 36, figs. 7-11.

Grumbler Formation, Upper Devonian, Hay River opposite mile 38 on Mackenzie Highway, lat.  $60^{\circ}29'N$ , long.  $116^{\circ}19'W$ , Northwest Territories.

*Eatonia variabilis* Whiteaves

= *Calvinaria variabilis variabilis*, McLaren, D.J., 1962, Geol. Surv., Canada, Bull. 86, p. 35, pl. 3, figs. 1a-c [lectotype 4272], 2a-c [syntype 4272b].

*Eleutherokomma* cf. *E. hamiltoni* Crickmay

Hypotype 16715

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 22, pl. 10, fig. 40.

Moberly Member, Waterways Formation, Upper Devonian, west bank of Athabasca River about mile 35.5 just above river level, District of Mackenzie.

*Eleutherokomma impennis* Crickmay

Hypotype 16708

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 22, pl. 10, figs. 18-20.

Peace Point Member, Waterways Formation, Upper Devonian, Gypsum Cliffs, north bank of Peace River, 5 miles east of the east end of island just below Boyer Rapids, Alberta.

*Eleutherokomma implana* Norris

Holotype 16107; paratypes 16103–16106

Norris, A.W., 1964, Geol. Surv., Canada, Bull. 114, p. 59, pl. 16, figs. 17a–19; pl. 18, figs. 1a–3e.

Horn Plateau Formation, Middle Devonian, east flank Horn Plateau, 2.9 miles west of southwest tip Fawn Lake, lat.  $62^{\circ}08.2'N$ , long.  $117^{\circ}39'W$ , District of Mackenzie.

*Eleutherokomma reidfordi* Crickmay

Hypotype 16559

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62–4, p. 26, pl. 12, figs. 1–3.

Lower member, Hay River Formation, Upper Devonian, left bank Hay River, between mile 15 and 16 on Mackenzie Highway, District of Mackenzie.

*Eleutherokomma* sp.

=*Eleutherokomma* cf. *E. reidfordi*, McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62–4, p. 28, pl. 13, figs. 28–30 [hypotype 13815].

*Elytha formosensis* Fagerstrom

Paratype 14736

Fagerstrom, J.A., 1961, J. Pal., vol. 35, No. 1, p. 30.

Formosa reef limestone, Middle Devonian, small outcrop on south side of Teeswater River, lot 2, con. 3, Culross tp., Ontario.

*Emanuella meristoides* (Meek)

=*Emanuella* sp., McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62–4, p. 24, pl. 11, figs. 21–24 [fig. spec. 13824].

*Emanuella meristoides* (Meek)

Hypotypes 16700, 16701

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62–4, p. 20, pl. 9, figs. 19–22.

Pine Point Formation, Middle Devonian, west tip of McKay Island, near Pine Point on south side of Great Slave Lake, District of Mackenzie.

*Emanuella richardsoni* (Meek)

Hypotypes 14836–14839

McCammon, H., 1960, Manitoba Dept. Mines Natural Res., Mines Branch, Publ. 59–6, p. 57, pl. 10, figs. 11a–c.

Dawson Bay Formation, Middle Devonian, north bank Red Deer River 100 yards west of Highway 10 bridge between The Pas and Mafeking, l.s.d. 7, sec. 17, tp. 45, rge. 25 and 2 miles west of Nina Lake along road to The Narrows, Lake Manitoba, sec. 24, tp. 24, rge. 10, W. Prin. mer., Manitoba.

*Emanuella?* sp.

Fig. specs. 16100–16102, 16129 [plaster replica]

Norris, A.W., 1964, Geol. Surv., Canada, Bull. 114, p. 16, figs. 9a–d, 15a–16d.

Horn Plateau formation, Middle Devonian, east flank Horn Plateau, 2.9 miles west of southwest tip Fawn Lake, lat.  $62^{\circ}08.2'N$ , long.  $117^{\circ}39'W$ , District of Mackenzie.

*Emanuella* sp. F

Fig. spec. 16707

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62–4, p. 22, pl. 10, figs. 10, 11.

Sulphur Point Formation, Middle Devonian, 0.8 mile north of Burnt Point on northwest shore of Great Slave Lake, District of Mackenzie.

## BRACIOPODA

### *Eocoelia* cf. *E. sulcata* (Prouty)

Hypotypes 19042–19044

Boucot, A.J., et al., 1966, Geol. Surv., Canada, Bull. 140, p. 35, pl. 14, figs. 16–21; pl. 15, figs. 1, 2.

Long Reach Formation, Silurian, bed of southwesterly flowing brook, 0.75 mile from its junction with Nerepis River near Armstrong Corner, 0.45 mile northeast of Nerepis River, southern New Brunswick.

### *Eoparaphorhynchus macclareni* Sartenaer

Holotype 15578; paratypes 15579–15608

Sartenaer, P., 1961, Bull. Instit. Roy. Sci. Nat. Belgique, vol. 37, No. 24, p. 2, pl. 1, figs. 1a–e; pl. 2, fig. A.

Upper Devonian, Root River 5 3/4 miles upstream on north side, south end of prominent scarp; Mackenzie River left bank 10 3/4 miles above mouth of North Nahanni River, Northwest Territories.

### *Eoplectodonta transversalis* (Sowerby)

Hypotypes 20497, 20498, 20559

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66–5, pl. 3, figs. 13, 14; pl. 10, fig. 23. Irondequoit and Rochester Formations, Middle Silurian, DeCew Falls, Ontario.

### *Eospirifer radiatus* (Sowerby)

Hypotypes 20518–20520

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66–5, pl. 5, figs. 6–8.

Fossil Hill Formation, Middle Silurian, 0.1 mile north of Manitowaning–South Baymouth road on Lake Manitou road; corner of Manitowaning–South Baymouth and The Slash roads; and 0.6 mile east of Snowville, Manitoulin Island, Ontario.

### *Eospirifer radiatus* (Sowerby)

Hypotype 2689c

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66–5, pl. 12, fig. 14.

Lockport Formation, Middle Silurian, Thorold area, Ontario.

### *Eospirifer* sp.

Fig. spec. 19048–19050

Boucot, A.J., et al., 1966, Geol. Surv., Canada, Bull. 140, p. 37, pl. 15, figs. 14–17.

Unnamed beds and Long Reach Formation, Silurian, beach south of village of Back Bay, 0.5 mile northwest of west end of Douglas Island and bed of southwesterly flowing brook, 0.75 mile from its junction with Nerepis River near Armstrong Corner, 0.45 mile northeast of Nerepis River, southern New Brunswick.

### *Evanescirostrum seversoni* (McLaren)

Hypotype 15625

Sartenaer, P., 1965, Bull. Instit. Roy. Sci. Nat. Belgique, vol. 41, No. 3, p. 10, pl. 2, figs. C. Palliser Formation, Upper Devonian, Bourgeau, Healy Creek, Banff National Park, Alberta.

### *Fardenia* cf. *ellipsoidea* Stearn

Hypotype 15383

Raasch, G.O., et al., 1961, "Geology of the Arctic", vol. 1, p. 469, pl. 3, figs. 23, 24.. Middle Silurian, Prong Creek, Wind River area, lat. 65°17'N, long. 135°45'W, central Yukon.

*Fardenia plicata* Bolton

Hypotypes 20473, 20474

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 1, figs. 15, 16.

Manitoulin Formation, Lower Silurian, north end of road exposure 1/2 mile southwest of Y-junction near east shore of South Bay, Indian Reserve No. 26, and corner of west-secondary and Kagawong Lake roads, 1 1/4 miles south of main highway, Manitoulin Island, Ontario.

*Fardenia* sp. 2

Fig. spec. 15385

Raasch, G.O., et al., 1961, "Geology of the Arctic," vol. 1, p. 471, pl. 3, figs. 22, 25. Middle Silurian, Prong Creek, Wind River area, lat.  $65^{\circ}17'N$ , long.  $135^{\circ}45'W$ , central Yukon.*Ferganella* sp.

Fig. specs. 19020, 19021

Boucot, A.J., et al., 1966, Geol. Surv., Canada, Bull. 140, p. 32, pl. 12, figs. 15-25.

Silurian, beach south of village of Back Bay, 0.5 mile northwest of west end of Douglas Island, southern New Brunswick.

*Fimbrispirifer tricostatus* Fagerstrom

Paratypes 14737, 14738

Fagerstrom, J.A., 1961, J. Pal., vol. 35, No. 1, p. 32, pl. 10, figs. 9, 10.

Formosa reef limestone, Middle Devonian, road-cuts 2 and 2 1/2 miles north of Formosa, Ontario.

*Gastrodetoechia utahensis* (Kindle)

Hypotypes 15858, 15862

Sartenaer, P., 1965, Bull. Instit. Roy. Sci. Nat. Belgique, vol. 41, No. 3, p. 4, pl. 1, fig. 4; pl. 2, figs. A.

Upper Devonian, Yohin syncline, North Nahanni River valley, Northwest Territories, and Three Forks Formation, Spring Creek, Logan Canyon, Logan, Utah, U.S.A.

*Glassia variabilis* Whiteaves

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 19, fig. 3 [syntype 4326a].

*Glassia variabilis* Whiteaves

Hypotype 15384

Raasch, G.O., et al., "Geology of the Arctic," vol. 1, p. 469, pl. 3, figs. 12-16.

Middle Silurian, Prong Creek, Wind River area, lat.  $65^{\circ}17'N$ , long.  $135^{\circ}45'W$ , central Yukon.*Glassia variabilis* Whiteaves

Hypotypes 15792-15794, 15854-15856

Norford, B.S., 1962, Geol. Surv., Canada, Bull. 78, p. 22, pl. 3, figs. 14-18, 23-25.

Coralline member, Sandpile Group, Middle Silurian, elevation 6300 feet, just north of high point 1.4 miles northwest of north end of lower Sandpile Lake, lat.  $59^{\circ}04'N$ , long.  $128^{\circ}11'W$ , British Columbia.*Glassia variabilis* Whiteaves

Hypotype 16900

Norford, B.S., 1962, Geol. Surv., Canada, Paper 62-14, p. 20, pl. 8, figs. 1, 3, 4, 6, 8.

Middle Silurian, lat.  $55^{\circ}27'N$ , long.  $123^{\circ}23'W$ , Pine Pass map-area, British Columbia.*Glassia variabilis?* Whiteaves var.

Hypotype 17728

Whiteaves, J.F., 1906, Geol. Surv., Canada, Palaeoz. Fossils, vol. 3, pt. 4, p. 252, pl. 26, figs. 6, a, b.

Silurian, foot of portage road, Ekwan River, Ontario.

## BRACHIOPODA

### *Glyptorthis insculpta* var. *manitoulinensis* Foerste

Liberty, B.A., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 53, pl. 6, fig. 7 [syntype 6784].

### "*Grunewaldtia*" *americana* Stainbrook

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 28, pl. 13, figs. 1, 2 [hypotype 13809].

### *Gypidula* cf. *G. cornuta* Fenton and Fenton

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 32, pl. 15, figs. 27-29 [hypotype 13801].

### *Gypidula?* sp.

Fig. specs. 16048-16050

Norris, A.W., 1964, Geol. Surv., Canada, Bull. 114, p. 35, pl. 13, figs. 5a-7.

Horn Plateau Formation, Middle Devonian, east flank Horn Plateau, 2.9 miles west of southwest tip Fawn Lake, lat. 62°08.2'N, long. 117°39'W, District of Mackenzie.

### *Gypidula* sp.

Fig. spec. 16688

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 18, pl. 8, figs. 1-3.

Upper Silurian or Lower Devonian, west slope of Cathedral Mountain, Virginia Falls area, District of Mackenzie.

### *Hadrorhynchia sandersoni* (Warren)

Hypotype 15333

McLaren, D.J.,

1961, Bull. Instit. Roy. Sci. Nat. Belgique, vol. 37, No. 23, p. 4, pl. 1, figs. 5a-c.

1962, Geol. Surv., Canada, Bull. 86, p. 56, pl. 7, figs. 6a-f.

Pine Point Formation, Middle Devonian, half a mile west of Pine Point, south shore of Great Slave Lake, Northwest Territories.

### *Hadrorhynchia sandersoni* (Warren)

Hypotypes 15331, 15332, 15334-15340

McLaren, D.J., 1962, Geol. Surv., Canada, Bull. 86, p. 56, pl. 7, figs. 1-5, 7; pl. 8, figs. 1a-e; text-figs. 15, 16.

Kee Scarp and Pine Point Formation, Middle Devonian, on Wolverine anticline, Carcajou Ridge, right bank Mackenzie River; Dawson Landing; northwest side of eastern island of Pine Point Islands (Green Islands); 150 feet ENE. and 800 feet WSW. of Dawson Landing wharf, south shore of Great Slave Lake, Northwest Territories.

### *Hemithyris psittacea* (Gmelin)

Hypotype 12549

Wagner, F.J.E., 1959, Geol. Surv., Canada, Bull. 52, pl. 1, figs. 5a-e.

Sunnyside Formation, Pleistocene, ditch on west side of Point Roberts Road, 2/5 mile south of Raith Road, NE. 1/4 sec. 10, tp. 5, Delta municipality, British Columbia.

### *Hesperorthis* cf. *H. laurentina* (Billings)

Hypotypes 15725-15727

Norford, B.S., 1962, Geol. Surv., Canada, Bull. 78, p. 14, pl. 2, figs. 1-5, 9.

Coralline member, Sandpile Group, Middle Silurian, elevation 6300 feet, just north of high point 1.4 miles northwest of north end of lower Sandpile Lake, lat. 59°04'N, long. 128°11'W and elevation 5100 feet, ridge crest 1.4 miles NNW. of north end of upper Sandpile Lake, lat. 59°03'N, long. 128°11'W, British Columbia.

*Hesperorthis tricenaria* (Conrad)

## Hypotype 1151

Sinclair, G.W., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 39, pl. 3, figs. 7, 8.  
 'Leray' beds, Ottawa Formation, Middle Ordovician, Paquette Rapids, Ottawa River.

*Hesperorthis* sp.

## Fig. spec. 15728

Norford, B.S., 1962, Geol. Surv., Canada, Bull. 78, p. 15, pl. 2, figs. 6, 8, 10.  
 Coralline member, Sandpile Group, Middle Silurian, elevation 6300 feet, just north of high point 1.4 miles northwest of north end of Sandpile Lake, lat.  $59^{\circ}04'N$ , long.  $128^{\circ}11'W$ . British Columbia.

*Hesperorthis* sp.

## Fig. specs. 16880–16882

Norford, B.S., 1962, Geol. Surv., Canada, Paper 62–14, p. 12, pl. 4, figs. 10–13.  
 Sunblood Formation, Middle Ordovician, Sunblood Mountain, South Nahanni River, District of Mackenzie.

*Homoeospira apriniformis* Hall

## Hypotypes 20528, 20529

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66–5, pl. 6, figs. 7, 8.  
 Fossil Hill Formation, Middle Silurian, section at end of Sandfield – Tehkumah tps. boundary road lots 3–4, con. I, Sandfield tp., southeast of Sandfield, Manitoulin Island, Ontario.

*Howellella pauciplicata* Waite

## Hypotypes 15807, 15808

Norford, B.S., 1962, Geol. Surv., Canada, Bull. 78, p. 24, pl. 4, figs. 14–17.  
 Coralline member, Sandpile Group, Middle Silurian, elevation 5100 feet, ridge crest 1.4 miles NNW. of north end of upper Sandpile Lake, lat.  $59^{\circ}03'N$ , long.  $128^{\circ}11'W$ , British Columbia.

*Howellella* sp.

## Fig. specs. 15005–15010

Boucot, A.J., et al., 1961, Geol. Surv., Canada, Bull. 65, p. 8, pl. 3, figs. 21–30.  
 Sutherland River Formation, Upper Silurian, Douro Range, west Devon Island, Arctic.

*Howellella* sp. 1

## Fig. specs. 19056–19059

Boucot, A.J., et al., 1966, Geol. Surv., Canada, Bull. 140, p. 38, pl. 16, figs. 11–14.  
 Jones Creek Formation and unnamed beds, Silurian, road-cut on old road east side of main highway south of Central Greenwich, 0.2 mile south of mouth of Jones Creek and beach south of village of Back Bay, 0.5 mile northwest of west end of Douglas Island, southern New Brunswick.

*Howellella* spp. 2, 3

## Fig. specs. 19060, 19061

Boucot, A.J., et al., 1966, Geol. Surv., Canada, Bull. 140, pp. 38, 39, pl. 16, figs. 3–10.  
 Long Reach Formation, Silurian, bed of southwesterly flowing brook, 0.75 mile from its junction with Nerepis River near Armstrong Corner, 0.45 mile northeast of Nerepis River, southern New Brunswick.

*Hypothyridina cameroni* Warren

## Hypotype 16079

Norris, A.W., 1964, Geol. Surv., Canada, Bull. 114, p. 50, pl. 15, figs. 3a–d.  
 Horn Plateau Formation, Middle Devonian, east flank Horn Plateau, 2.9 miles west of southwest tip Fawn Lake, lat.  $62^{\circ}08.2'N$ , long.  $117^{\circ}39'W$ , District of Mackenzie.

## BRACHIOPODA

*Hypothyridina emmonsii* (Hall and Whitfield)

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 30, pl. 14, figs. 10-12  
[hypotype 13808].

*Hypothyridina* sp. B

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 30, pl. 14, figs. 7-9  
[hypotype 13807].

*Indospirifer orestes* (Hall and Whitfield)

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 28, pl. 13, figs. 7-10  
[hypotype 13811].

*Isorthis mackenziei* Boucot, Johnson, Harper, and Walmsley

Holotype 18959; paratype 18960

Boucot, A.J., et al., 1966, Geol. Surv., Canada, Bull. 140, p. 17, pl. 4, figs. 17-20.

Long Reach Formation, Silurian, bed of southwesterly flowing brook, 0.75 mile from its junction with Nerepis River near Armstrong Corner, 0.45 mile northeast of Nerepis River, southern New Brunswick.

*Isorthis orbicularis* (Sowerby)

Hypotypes 14968-14978

Boucot, A.J., et al., 1961, Geol. Surv., Canada, Bull. 65, p. 5, pl. 1, figs. 13-20; pl. 2, figs. 1-7.

Sutherland River Formation, Upper Silurian, Douro Range, west Devon Island, Arctic.

*Isorthis* sp.

Fig. specs. 15779-15782, 15842

Norford, B.S., 1962, Geol. Surv., Canada, Bull. 78, p. 15, pl. 2, figs. 7, 11-17, 22.

Coralline member, Sandpile Group, Middle Silurian, elevation 6300 feet, just north of high point 1.4 miles northwest of north end of lower Sandpile Lake, lat. 59°04'N, long. 128°11'W and elevation 5100 feet, ridge crest 1.4 miles NNW. of north end of upper Sandpile Lake, lat. 59°03'N, long. 128°11'W, British Columbia.

*Isorthis* sp.

Fig. specs. 18961-18965

Boucot, A.J., et al., 1966, Geol. Surv., Canada, Bull. 140, p. 19, pl. 4, figs. 15, 16; pl. 5, figs. 1-6.

Unnamed beds and Jones Creek Formation, Silurian, beach south of village of Back Bay, 0.5 mile northwest of west end of Douglas Island and Jones Creek, 0.35 mile west of highway bridge at Central Greenwich, southern New Brunswick.

*Janius* sp. cf. *J. nobilis* (Barrande)

Fig. specs. 15152-15154

Boucot, A.J., 1963, Palaeontology, vol. 5, No. 4, p. 699, pl. 103, figs. 7-9.

Upper Silurian, junction of road and Gambol Brook, Tetagouche Lakes area, New Brunswick.

*Kochiproductus freboldi* (Stepanow)

Hypotype 13534

Harker, P. and Thorsteinsson, R., 1960, Geol. Surv., Canada, Mem. 309, p. 59, pl. 17, figs. 5, 6. Assistance Formation, Permian, lower reaches Lyall River, Grinnell Peninsula, northwest Devon Island, Arctic.

*Kozlowskiellina* (*Megakozlowskiella*) *submersa* (Grabau)

Hypotype 14735

Fagerstrom, J.A., 1961, J. Pal., vol. 35, No. 1, p. 30.

Formosa reef limestone, Middle Devonian, middle of Falls of Teeswater River, Ontario.

*Ladogia kakwaensis* (McLaren)

= *Ladogioides kakwaensis*,

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 24, pl. 11, figs. 1, 2 [hypotype 13819].

McLaren, D.J., 1962, ibid., Bull. 86, p. 71, pl. 12, figs. 3a-e.

*Ladogia meyendorfi* (de Verneuil)

Hypotypes 15341, 15720

McLaren, D.J., 1962, Geol. Surv., Canada, Bull. 86, p. 65, pl. 8, figs. 4a-f [15341]; text-fig. 17 [15720].

Pskov Stage, Upper Devonian, Pskov, Velikaja River, Estonia.

*Ladogioides kakwaensis* (McLaren)

Hypotypes 15229-15236

McLaren, D.J., 1962, Geol. Surv., Canada, Bull. 86, p. 71, pl. 10, figs. 4, 5; pl. 11, figs. 3, 4; pl. 12, figs. 1, 2, 4; text-figs. 19-21.

"Flume Formation", Upper Devonian, below saddle at northeast end of mountain on northwest side of Kakwa Lake, lat. 54°03'N, long. 120°10'W, British Columbia.

*Ladogioides pax* McLaren

Holotype 15216; paratypes 15217-15227

McLaren, D.J.,

1961, Bull. Instit. Roy. Sci. Nat. Belgique, vol. 37, No. 23, p. 4, pl. 1, figs. 6a-e [15216], 7a-c [15219].

1962, Geol. Surv., Canada, Bull. 86, p. 66, pl. 9, figs. 1-8; pl. 10, figs. 1-3; text-fig. 18.

McLaren, D.J., et al., 1962, ibid., Paper 62-4, p. 22, pl. 10, figs. 12-14 [15220].

Peace Point Member, Waterways Formation, Upper Devonian, sink-hole filling in brecciated Slave Point Formation, Gypsum Cliffs north bank of Peace River, 1.1 miles ENE. of east end of island just below Boyer Rapids and opposite unnamed island below Boyer Rapids, and west bank Edwin Creek near junction with Clearwater River, Alberta.

*Lazutkinia* sp.

Fig. spec. 16706

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 22, pl. 10, figs. 6-8. Middle Devonian, east side of Peace River immediately south of mouth of Bernard Creek, Halfway River map-area, British Columbia.

*Leangella* sp.

Fig. specs. 18979, 18980

Boucot, A.J., et al., 1966, Geol. Surv., Canada, Bull. 140, p. 24, pl. 6, figs. 13-15. Silurian, beach south of village of Back Bay, 0.5 mile northwest of west end of Douglas Island, southern New Brunswick.

*Leiorhynchus athabascensis* Kindle

= *Calvinaria variabilis athabascensis*, McLaren, D.J., 1962, Geol. Surv., Canada, Bull. 86, p. 39, pl. 5, figs. 2a-c [lectotype 5819], 3a-c [syntype 5819a].

*Leiorhynchus awokanak* McLaren

Paratypes 15343-15349

McLaren, D.J., 1962, Geol. Surv., Canada, Bull. 86, p. 91, pl. 16, figs. 2-7; text-figs. 26A, B. Pine Point Formation, Middle Devonian, 1/2 mile west of Pine Point; opposite centre island of Green Island group; 2 1/2 miles east of Pine Point; and at Pine Point, south shore of Great Slave Lake, Northwest Territories.

## BRACHIOPODA

### *Leiorhynchus carya* Crickmay

Hypotypes 15211–15215, 15228, 15955

McLaren, D.J., 1962, Geol. Surv., Canada, Bull. 86, p. 100, pl. 18, figs. 1, 2, 5, 6; text-figs. 29A–C.

Perdrix Formation, Upper Devonian, 170 and 132 feet above base of outcrop and talus collection, ridge on south side of Winnifred Pass, approx. lat.  $53^{\circ}40'N$ , long.  $119^{\circ}15'W$ ; talus collection northeast flank of Mount Mackenzie, near Mountain Park; and from mountain north of Mount Cheviot, Alberta.

### *Leiorhynchus castanea* Meek

Hypotypes 15358–15378

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62–4, p. 20, pl. 9, figs. 1–3 [15360], 16–18 [15374].

McLaren, D.J., 1962, ibid., Bull. 86, p. 83, pl. 14, figs. 2–7; pl. 15, figs. 1–11; pl. 16, figs. 1a–c; text-figs. 24, 25A, B.

Upper 2 feet of Lower Ramparts or Hume Formation and lower beds of Middle Ramparts or Hare Indian Formation, Middle Devonian, east bank Andrew River, 4 miles south of junction with Carnwath River; lowest 15 feet of Hare Indian Formation, Anderson River between lat.  $68^{\circ}28'N$  and  $68^{\circ}32'N$  and long.  $127^{\circ}04'W$  and  $127^{\circ}24'W$ ; Fort Creek shale about 25 feet above contact with Beavertail limestone; east side of mouth of canyon on Carcajou River, approx. lat.  $64^{\circ}58'N$ , long.  $127^{\circ}12'W$ ; Beavertail limestone 20 to 30 feet below contact with Fort Creek shale, north end of Wolverine anticline, Carcajou Ridge; 11 to 12 feet above base of Fort Creek Formation, Dodo Canyon along east side of Canol Road where it leaves Mackenzie Mountains front, approx. lat.  $65^{\circ}01'N$ , long.  $127^{\circ}18'W$ ; shale underlying Hare Indian and Ramparts Formations, Gayna River, tributary of Mountain River; Nahanni Formation, creek flowing through western part of Iverson Range, about 8 miles south of West Iverson Lake, lat.  $62^{\circ}10'N$ , long.  $124^{\circ}44'W$  and tributary to north fork of Root River, lat.  $63^{\circ}08'N$ , long.  $125^{\circ}44'W$ ; Pine Point Formation, 1/2 mile west of Pine Point, south shore of Great Slave Lake and Windy Point, north shore of Great Slave Lake; Horn River Formation, on Clive River, tributary to Willowlake River, lat.  $62^{\circ}50'N$ , long.  $119^{\circ}48'W$  and lat.  $62^{\circ}50'N$ , long.  $119^{\circ}43'W$ ; basal Fort Creek sandstone, in small stream-cut 1 mile northeast of northeast bank of Mackenzie River, lat.  $66^{\circ}46'30''N$ , long.  $129^{\circ}52'W$ , Northwest Territories.

### *Leiorhynchus manetoe* McLaren

Holotype 15711; paratypes 15712–15719

McLaren, D.J., 1962, Geol. Surv., Canada, Bull. 86, p. 79, pl. 13, figs. 1–7; pl. 14, fig. 1; text-fig. 23.

800–810 feet below top of Nahanni Formation, Middle Devonian, southern Manetoe Range, approx. lat.  $61^{\circ}49'N$ , long.  $125^{\circ}05'W$ ; talus Headless Formation, creek flowing through western part of Iverson Range, about 8 miles south of West Iverson Lake, lat.  $62^{\circ}10'N$ , long.  $124^{\circ}44'W$ , Northwest Territories.

### *Leiorhynchus? matonabee* Norris

Holotype 16078; paratypes 16074–16077, 16125, 16126 [plaster replicas]

Norris, A.W., 1964, Geol. Surv., Canada, Bull. 114, p. 48, pl. 14, figs. 13a–15c; pl. 15, figs. 1a–2e.

Horn Plateau Formation, Middle Devonian, east flank Horn Plateau, 2.9 miles west of southwest tip Fawn Lake, lat.  $62^{\circ}08.2'N$ , long.  $117^{\circ}39'W$ , District of Mackenzie.

*Leiorhynchus russelli* McLaren

Paratypes 14918–14926, 15205, 15206

McLaren, D.J., 1962, Geol. Surv., Canada, Bull. 86, p. 95, pl. 17, figs. 1–4, 6–10; text-figs. 27, 28.

Peace Point Member, Waterways Formation, Upper Devonian, sink-hole filling in brecciated Slave Point Formation, Gypsum Cliffs, north bank of Peace River about 1.13 and 1.11 mile ENE. of east end of island just below Boyer Rapids; opposite unnamed island immediately below Boyer Rapids; northeast bank of Peace River about 4 miles northwest of ranger cabin, Alberta; and northeast flank of Wallbridge Mountain, Cecilia Lake, British Columbia.

*Leiorhynchus* sp.

Fig. spec. 14917

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 22, pl. 10, figs. 15–17.

Peace Point Member, Waterways Formation, Upper Devonian, sink-hole filling in brecciated Slave Point Formation, Gypsum Cliffs, north bank of Peace River about 1.13 miles ENE. of east end of island just below Boyer Rapids, Alberta.

= *Leiorhynchus russelli*, McLaren, D.J., 1962, ibid., Bull. 86, p. 95, pl. 17, figs. 5a–d [holotype 14917].

*Leiorhynchus* sp. I

Fig. spec. 15342

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 20, pl. 9, figs. 13–15.

Pine Point Formation, Middle Devonian, 0.5 mile west of Pine Point, south shore of Great Slave Lake, District of Mackenzie.

= *Leiorhynchus awakanak*, McLaren, D.J., 1962, ibid., Bull. 86, p. 91, pl. 16, figs. 6a–e [holotype 15342].

'*Leptaena rhomboidalis*' (Wilckens)

Hypotype 20564

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 11, fig. 5.

29 feet above base of Rochester Formation, Middle Silurian, DeCew Falls, Ontario.

*Leptaena* sp.

Fig. spec. 20469

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 1, fig. 11.

Manitoulin Formation, Lower Silurian, north end of flats on main highway west of West Bay village, Manitoulin Island, Ontario.

*Leptaena* spp.

Fig. specs. 18988–18991

Boucot, A.J., et al., 1966, Geol. Surv., Canada, Bull. 140, p. 27, pl. 7, figs. 11, 12; pl. 8, figs. 1–6.

Silurian, beach south of village of Back Bay, 0.5 mile northwest of west end of Douglas Island, southern New Brunswick.

*Leptagonia?* *rhomboidalis* (Wilckens)

Hypotypes 16060–16065

Norris, A.W., 1964, Geol. Surv., Canada, Bull. 114, p. 41, pl. 13, figs. 17a–c; pl. 14, figs. 1a–4b.

Horn Plateau Formation, Middle Devonian, east flank Horn Plateau, 2.9 miles west of southwest tip Fawn Lake, lat. 62°08'.2'N, long. 117°39'W, District of Mackenzie.

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### *Leptelloidea* sp.

Fig. specs. 15809–15812

Norford, B.S., 1962, Geol. Surv., Canada, Bull. 78, p. 25, pl. 4, figs. 18–24.

Coralline member, Sandpile Group, Middle Silurian, elevation 6300 feet, just north of high point 1.4 miles northwest of north end of lower Sandpile Lake, lat. 59°04'N, long. 128°11'W, British Columbia.

### *Lingula* cf. *L. arctica* Miloradovich

Hypotypes 13510–13512

Harker, P. and Thorsteinsson, R., 1960, Geol. Surv., Canada, Mem. 309, p. 49, pl. 15, fig. 12.

Assistance Formation, Permian, lower reaches Lyall River, Grinnell Peninsula, northwest Devon Island, Arctic.

### *Lingula cobourgensis* Billings

Sinclair, G.W., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 41, pl. 4, fig. 12 [lectotype 1635a].

### *Lingula divulgata* Sinclair

Holotype 17697; paratypes 17698–17700, a, 17701, a–c, 17702, a–f, 17703

Sinclair, G.W., 1945, Trans. Roy. Soc. Can., ser. 3, vol. 39, sec. 4, p. 77, pl. 4, figs. 7 [17697], 8, 9 [17700].

Collingwood Formation, Ordovician, Craigleath [17697–17699], Ontario; Upper Trenton, Ordovician, near bottom of Gravel's quarry [17700, a], shaly limestone in southwest corner of Turcotte and Asselin quarry [17702, a–f], and small quarry in west end of Chateau Richer [17701, a–c, 17703], Quebec.

### *Lingula friabilis* Sinclair

Holotype 17704; paratypes 17705, a–e

Sinclair, G.W., 1945, Trans. Roy. Soc. Can., ser. 3, vol. 39, sec. 4, p. 72, pl. 3, fig. 6 [17704].

Mile End Formation, Middle Ordovician, St. Vincent de Paul, Quebec.

### *Lingula lyelli* Billings

Raymond, P.E., 1911, Ann. Carnegie Mus., vol. 7, No. 2, p. 318, pl. 33, figs. 5 [1027c], 6 [1027b].

### *Lingula scutum* Sinclair

Sinclair, G.W., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 41, pl. 4, fig. 7 [holotype 11249].

### *Longispina whittakeri* Norris

Holotype 16069; paratypes 16068, 16070

Norris, A.W., 1964, Geol. Surv., Canada, Bull. 114, p. 45, pl. 14, figs. 7a–9.

Horn Plateau Formation, Middle Devonian, east flank Horn Plateau, 2.9 miles west of southwest tip Fawn Lake, lat. 62°08.2'N, long. 117°39'W, District of Mackenzie.

### *Macropleura eudora* (Hall)

Hypotype 20578

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 13, figs. 2, 3.

Wiarton Member, Amabel Formation, Middle Silurian, 20 inches below top of road-cut at Wiarton, Ontario.

*Macroleura* sp.

Fig. specs. 19051–19053

Boucot, A.J., et al., 1966, Geol. Surv., Canada, Bull. 140, p. 37, pl. 15, figs. 20, 21; pl. 16, figs. 1, 2.

Silurian, beach south of village of Back Bay, 0.5 mile northwest of west end of Douglas Island, southern New Brunswick.

*Megalopterorhynchus haynesi* Sartenaer

Holotype 15692; paratypes 15693–15695, 15709

Sartenaer, P., 1965, Bull. Instit. Roy. Sci. Nat. Belgique, vol. 41, No. 3, p. 7, pl. 1, figs. 5, 6a–c; pl. 2, figs. B.

Palliser Formation, Upper Devonian, Bourgeau Range, Healy Creek, Banff National Park, Alberta and Three Forks Formation, Upper Devonian, 5 km northeast of Golden Sunlight mine, southwestern Montana, U.S.A.

*Meganteris* sp.

Fig. spec. 14763

Boucot, A.J., 1960, J. Pal., vol. 34, No. 3, pl. 68, figs. 7, 8.

Lower Devonian, Bear River, Nova Scotia.

*Megastrophia (Megastrophia) proxicostellata* Fagerstrom

Paratype 14725

Fagerstrom, J.A., 1961, J. Pal., vol. 35, No. 1, p. 19, pl. 8, fig. 8

Formosa reef limestone, Middle Devonian, 100 feet east of Formosa Brewery, Formosa, Ontario.

*Megastrophia* sp. A

Hypotype 14726

Fagerstrom, J.A., 1961, J. Pal., vol. 35, No. 1, p. 20, pl. 8, figs. 9, 10.

Formosa reef limestone, Middle Devonian, the Falls of Teeswater River about 3 miles southeast of Teeswater, lot. 4, con. 3 and lots 3-4, con. 4, Culross tp., Ontario.

*Meristella angustisinuata* Fagerstrom

Holotype 14742

Fagerstrom, J.A., 1961, J. Pal., vol. 35, No. 1, p. 33, pl. 11, fig. 17.

Formosa reef limestone, Middle Devonian, north side 300 feet above Falls of Teeswater River, Ontario.

*Meristella formosensis* Fagerstrom

Paratypes 14740, 14741

Fagerstrom, J.A., 1961, J. Pal., vol. 35, No. 1, p. 33.

Formosa reef limestone, Middle Devonian, middle of Falls of Teeswater River, Ontario.

*Meristella subrotunda* Fagerstrom

Paratype 14743

Fagerstrom, J.A., 1961, J. Pal., vol. 35, No. 1, p. 34.

Formosa reef limestone, Middle Devonian, just east of bridge at Formosa, Ontario.

*Meristina (?) expansa* Whiteaves

Syntypes 17731, a–g

Whiteaves, J.F.,

1904, Geol. Surv., Canada, Ann. Rept., n. ser., vol. 14, 1901, p. 45F.

1906, ibid., Palaeoz. Fossils, vol. 3, pt. 4, p. 245, pl. 27, fig. 7 [17731].

Silurian, 17 to 30 miles below Rainy Island, Attawapiskat River, Ontario.

## BRACHIOPODA

### *Meristina* sp.

Fig. spec. 19045, a

Boucot, A.J., et al., 1966, Geol. Surv., Canada, Bull. 140, p. 35, pl. 15, figs. 3–5.

Silurian, beach south of village of Back Bay, 0.5 mile northwest of west end of Douglas Island, southern New Brunswick.

### *Microcardinalia pyriformis* (Savage)

Hypotype 20526

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 6, figs. 4, 5, 10.

Fossil Hill Formation, Middle Silurian, first road-cut west of junction of road to Cooks Dock, northeast of Silverwater, Manitoulin Island, Ontario.

### *Monelasmina besti* Pedder

Holotype 14326; paratypes 14327–14329

Pedder, A.E.H., 1959, Geol. Mag., vol. 96, No. 6, p. 470, pl. 14, figs. 1–4.

Hay River Formation, Upper Devonian, Hay River opposite mile 14 Grimshaw Road, lat. 60°41'N, long. 115°54'W, Northwest Territories.

### *Muirwoodia mammatus* (Keyserling)

Hypotypes 13530-13533

Harker, P., and Thorsteinsson, R., 1960, Geol. Surv., Canada, Mem. 309, p. 58, pl. 16, figs. 1–5.

Assistance Formation, Permian, lower reaches Lyall River, Grinnell Peninsula, northwest Devon Island, Arctic.

### *Nervostrophia borealis* Pedder

Holotype 14598; paratypes 14599–14604

Pedder, A.E.H., 1960, Palaeontology, vol. 3, pt. 2, p. 209, pl. 35 figs. 1–10.

Hay River Formation, Upper Devonian, Hay River opposite mile 14 on Mackenzie Highway, lat. 60°41'N, long. 115°54'W, Northwest Territories.

### *Nervostrophia maclareni* Pedder

Holotype 14605; paratypes 14606–14608

Pedder, A.E.H., 1960, Palaeontology, vol. 3, pt. 2, p. 210, pl. 36, figs. 1–5.

Hay River Formation, Upper Devonian, a few feet above Louise Falls on Hay River, lat. 60°30'N, long. 116°14'W, Northwest Territories.

### *Nervostrophia vestita* Crickmay

Hypotypes 16560, 16564

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 26, pl. 12, figs. 4 [16564], 5, 6 [16560].

Escarpment Member, Hay River Formation, Upper Devonian, 1/3 mile east of junction of Mills Lake Road with Mackenzie Highway, 24 miles above mouth of Hay River, District of Mackenzie.

### *Nucleospira* sp.

Hypotype 14859

McCammon, H., 1960, Manitoba Dept. Mines Natural Res., Mines Branch, Publ. 59-6, p. 61, pl. 10, fig. 10.

Souris River Formation, Upper Devonian, along Camperville road and in dry creek bed along east boundary sec. 21, tp. 32, rge. 19, W. Prin. mer., Manitoba.

*Nucleospira* sp.

Fig. specs. 19046, 19047

Boucot, A.J., et al., 1966, Geol. Surv., Canada, Bull. 140, p. 36, pl. 15, figs. 6–13. Silurian, beach south of village of Back Bay, 0.5 mile northwest of west end of Douglas Island, southern New Brunswick.

*Nudirostra albentensis* (Warren)= *Calvinaria albentensis albentensis*,

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 30, pl. 14, figs. 13–15 [hypotype 11237].

McLaren, D.J., 1962, ibid., Bull. 86, p. 26, pl. 1, figs. 6a–e [hypotype 11241], 10a–e [hypotype 11237].

*Nudirostra athabascensis* (Kindle)= *Calvinaria variabilis athabascensis*,

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 24, pl. 11, figs. 4–7 [hypotype 11232], 8–10 [hypotype 13820].

McLaren, D.J., 1962, ibid., Bull. 86, p. 39, pl. 4, figs. 5a–c [13820], 8a–e [11232].

*Nudirostra gibbosa seversoni* McLaren

= “*Nudirostra*” *seversoni*, McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 32, pl. 14, figs. 4–6 [holotype 10016].

= *Evanescirostrum seversoni*, Sartenaer, P., 1965, Bull. Instit. Roy. Sci. Nat. Belgique, vol. 41, No. 3, p. 10, pl. 1, fig. 7.

*Nudirostra insculpta* McLaren= *Calvinaria variabilis insculpta*.

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 28, pl. 13, figs. 25–27 [holotype 11245].

McLaren, D.J., 1962, ibid., Bull. 86, p. 43, pl. 4, figs. 2a–c.

*Nudirostra utahensis ventricosa* (Haynes)

= *Paurorhyncha utahensis*, McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 32, pl. 15, figs. 1–3 [hypotype 11210].

*Nudirostra walcotti* (Merriam)

= “*Leiorhynchus*” *walcotti*, McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 32, pl. 15, figs. 24–26 [hypotype 13800].

*Öpikina* sp.

Fig. specs. 16875, 16876

Norford, B.S., 1962, Geol. Surv., Canada, Paper 62-14, p. 12, pl. 4, figs. 3, 9.

Sunblood Formation, Middle Ordovician, Sunblood Mountain, South Nahanni River, District of Mackenzie.

*Orbiculoides* sp.

Fig. specs. 13513–13515

Harker, P. and Thorsteinsson, R., 1960, Geol. Surv., Canada, Mem. 309, p. 49, pl. 15, figs. 10, 11.

Assistance Formation, Permian, lower reaches Lyall River, Grinnell Peninsula, northwest Devon Island, Arctic.

## BRACHIOPODA

*'Orthohynchula' bidwellensis* Bolton

Hypotypes 20482–20489

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 2, figs. 1–8.

Manitoulin Formation, Lower Silurian, corner East-West secondary and Rockville roads and East-West secondary road, 3/4 mile east of Rockville road, Bidwell tp., Manitoulin Island, Ontario.

*Oxoplecia calhouni* Wilson

Liberty, B.A., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 51, pl. 5, fig. 6 [syntype 7768].

*Pentamerella pavilionensis* (Hall)

Hypotypes 14722, 14723

Fagerstrom, J.A., 1961, J. Pal., vol. 35, No. 1, p. 18, pl. 7, figs. 22, 23.

Formosa reef limestone, Middle Devonian, small outcrop on south side of Teeswater River, lot. 2, con. 3, Culross tp. and north end of road-cut, 2 1/2 miles north of Formosa, Ontario.

*Pentamerella sclavus* Norris

Holotype 16053; paratypes 16052, 16054–16056, 16124 [plaster replica]

Norris, A.W., 1964, Geol. Surv., Canada, Bull. 114, p. 37, pl. 13, figs. 9a–13.

Horn Plateau Formation, Middle Devonian, east flank Horn Plateau, 2.9 miles west of southwest tip Fawn Lake, lat. 62°08.2'N, long. 117°39'W, District of Mackenzie.

*Pentamerella* sp.

Fig. spec. 16051

Norris, A.W., 1964, Geol. Surv., Canada, Bull. 114, p. 36, pl. 13, figs. 8a–e.

Horn Plateau Formation, Middle Devonian, east flank Horn Plateau, 2.9 miles west of southwest tip Fawn Lake, lat. 62°08.2'N, long. 117°39'W, District of Mackenzie.

*Pentameroides subrectus* (Hall and Clarke)

Hypotype 20584

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 13, fig. 13.

Amabel Formation, Middle Silurian, road exposure inland from lighthouse, west end of Manitoulin Island, Ontario.

*Pentameroides* sp.

Fig. spec. 17973

Bolton, T.E.,

1964, "Geology of Central Ontario", Bull. Am. Assoc. Petrol. Geol., Guidebook, p. 79, pl. 8, figs. 34, 35.

1966, Geol. Surv., Canada, Paper 66-5, pl. 3, figs. 16, 17.

Raynales Formation, Clinton Group, Middle Silurian, Thorold, Ontario.

*Pentameroides* sp.

Fig. spec. 20514

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 5, fig. 2.

Fossil Hill Formation, Middle Silurian, road exposure 0.6 mile east of Snowville, northwest of Tehkummah, Manitoulin Island, Ontario.

*Pentamerus occidentalis* Hall

= *Plicocoelina occidentalis*, Boucot, A.J. and Johnson, J.G., 1966, J. Pal., vol. 40, No. 5, p. 1039, pl. 125, figs. 1–7 [hypotype 2976].

*Pentamerus* sp.

Fig. specs. 15783–15785

Norford, B.S., 1962, Geol. Surv., Canada, Bull. 78, p. 16, pl. 2, figs. 18–21.

Coralline member, Sandpile Group, Middle Silurian, elevation 5000 feet, ridge crest 0.9 mile south of 6266-foot cairn, lat. 59°02 1/2'N, long. 128°06'W, British Columbia.

*Pentamerus* sp.

Fig. spec. 16901

Norford, B.S., 1962, Geol. Surv., Canada, Paper 62-14, p. 20, pl. 8, fig. 11.

Coralline member, Sandpile Group, Middle Silurian, elevation 4800 feet, lat. 59°02 1/2'N, long. 128°07 1/2'W, McDame map-area, British Columbia.

*Pentamerus* sp.

Fig. spec. 18970, a

Boucot, A.J., et al., 1966, Geol. Surv., Canada, Bull. 140, p. 22, pl. 5, figs. 12, 13.

Silurian, beach south of village of Back Bay, 0.5 mile northwest of west end of Douglas Island, southern New Brunswick.

*Pentamerus* sp.

Fig. specs. 20513, 20515

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 5, figs. 1, 3.

Fossil Hill Formation, Middle Silurian, Barrow Bay, Bruce Peninsula and road-cut northeast of The Slash, lot 5, con. XIII, Assignack tp., Manitoulin Island, Ontario.

*Pentlandina* cf. *P. parva* Bancroft

Hypotypes 18981–18987

Boucot, A.J., et al., 1966, Geol. Surv., Canada, Bull. 140, p. 25, pl. 6, figs. 16-18; pl. 7, figs. 1-10.

Silurian, beach south of village of Back Bay, 0.5 mile northwest of west end of Douglas Island, southern New Brunswick.

*Petroria rugosa* Wilson

Hypotype 16897

Norford, B.S., 1962, Geol. Surv., Canada, Paper 62-14, p. 18, pl. 7, fig. 26.

Beaverfoot-Brisco Formation, Upper Ordovician, Cirrus Mountain, Banff Park, Alberta.

*Pholidops substruncata* (Hall)

Hypotype 8570

Foerste, A.F., 1924, Geol. Surv., Canada, Mem. 138, p. 108, pl. 11, fig. 1.

Upper Ordovician, Nicolet River, Quebec.

*Pholidostrophia nacrea* (Hall)

Hypotype 14724

Fagerstrom, J.A., 1961, J. Pal., vol. 35, No. 1, p. 19.

Formosa reef limestone, Middle Devonian, east side Maitland River just south of bridge, 1 mile north of Wingham, lot 20, con. 8, Turnberry tp., Ontario.

*Pholidostrophia?* sp.

Fig. spec. 16073

Norris, A.W., 1964, Geol. Surv., Canada, Bull. 114, p. 43, pl. 14, figs. 12a, b.

Horn Plateau Formation, Middle Devonian, east flank Horn Plateau, 2.9 miles west of southwest tip Fawn Lake, lat. 62°08.2'N, long. 117°39'W, District of Mackenzie.

## BRACHIOPODA

*'Platystrophia biforata'* (Schlotheim)

Hypotypes 17957, 17958

Bolton, T.E.,

1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 77, pl. 7, figs. 10-13 [17957], 14 [17958].

1966, Geol. Surv., Canada, Paper 66-5, pl. 1, figs. 7-10 [17957].

Manitoulin Formation, Cataract Group, Lower Silurian, Eugenia Falls, Ontario.

*Platystrophia clarksvillensis* Foerste

Hypotypes 18672, a

Liberty, B.A., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 53, pl. 6, figs. 5, 6.

Meaford Formation, Upper Ordovician, between Capes Crocker and Montresor, Lake Huron, Ontario.

*Platystrophia* sp. cf. *P. reversata* (Foerste)

Hypotype 20470

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 1, fig. 12.

Manitoulin Formation, Lower Silurian, Gore Bay-Kagawong Lake road, 3/4 mile south of main highway, Manitoulin Island, Ontario.

*Plectatrypa imbricata* (Sowerby)

Hypotypes 19024-19032

Boucot, A.J., et al., 1966, Geol. Surv., Canada, Bull. 140, p. 33, pl. 13, figs. 3-16.

Silurian, beach south of village of Back Bay, 0.5 mile northwest of west end of Douglas Island, southern New Brunswick.

*Plectodonta* (*Eoplectodonta*?) cf. *E. millinensis* (Jones)

Hypotypes 18974-18978

Boucot, A.J., et al., 1966, Geol. Surv., Canada, Bull. 140, p. 23, pl. 6, figs. 3-12.

Silurian, beach south of village of Back Bay, 0.5 mile northwest of west end of Douglas Island, southern New Brunswick.

*Plectospirifer?* *compactus* (Meek)

Hypotype 16698

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 18, pl. 8, figs. 31-33.

Hume Formation, Middle Devonian, Carnwath River, District of Mackenzie.

*Plicostricklandia castellana* (White)

Hypotypes 20525, 20533

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 6, figs. 1, 13, 14.

Fossil Hill Formation, Middle Silurian, on plateau west of 'Isaiah Hunter Farm, New England' and 1/2 mile north of The Slash, Manitoulin Island, Ontario.

*Plicostricklandia manitouensis* (Williams)

Hypotypes 20527, 20530, 20531

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 6, figs. 6, 9, 11.

Fossil Hill Formation, Middle Silurian, section at end of Sandfield-Tehkummah tps. boundary road lots 3-4, con. I, Sandfield tp., southeast of Sandfield and corner of Manitowaning-South Baymouth and The Slash roads, Manitoulin Island, Ontario.

"*Productella*" sp. F

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 32, pl. 15, figs. 19, 20 [fig. spec. 13798].

*Productella* sp. N

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 30, pl. 14, fig. 5  
[fig. spec. 13805].

*Protochonetes?* sp.

Fig. spec. 19015

Boucot, A.J., et al., 1966, Geol. Surv., Canada, Bull. 140, p. 31, pl. 12, fig. 6.

Silurian, beach south of village of Back Bay, 0.5 mile northwest of west end of Douglas Island, southern New Brunswick.

*Protomegastrophia prima* Boucot, Johnson, Harper, and Walmsley

Holotype 19004; paratypes 19005–19010

Boucot, A.J., et al., 1966, Geol. Surv., Canada, Bull. 140, p. 29, pl. 9, figs. 9–13; pl. 10, figs. 1–9; pl. 11, fig. 1.

Silurian, beach south of village of Back Bay, 0.5 mile northwest of west end of Douglas Island, southern New Brunswick.

*Pterospirifer cf. P. alatus* (Schlotheim)

Hypotypes 13752–13756

Harker, P. and Thorsteinsson, R., 1960, Geol. Surv., Canada, Mem. 309, p. 68, pl. 20, figs. 1–14.

Assistance Formation, Permian, lower reaches Lyall River, Grinnell Peninsula, northwest Devon Island, Arctic.

*Pterospirifer?* sp. A

Fig. specs. 13757–13761

Harker, P. and Thorsteinsson, R., 1960, Geol. Surv., Canada, Mem. 309, p. 69, pl. 21, figs. 1–14.

Assistance Formation, Permian, lower reaches Lyall River, Grinnell Peninsula, northwest Devon Island, Arctic.

*Productella concentrica* (Hall)

Hypotypes 14799–14801

McCammon, H., 1960, Manitoba Dept. Mines Natural Res., Mines Branch, Publ. 59-6, p. 48, pl. 8, figs. 6, 7.

Dawson Bay Formation, Middle Devonian, north bank Red Deer River 100 yards west of Highway 10 bridge between The Pas and Mafeking, l.s.d. 7, sec. 17, tp. 45, rge. 25, W. Prin. mer. and Snake Island, Lake Winnipegosis, Manitoba.

*Proschizophoria* sp.

Fig. specs. 14761a, b, 14762, a

Boucot, A.J., 1960, J. Pal., vol. 34, No. 3, pl. 68, figs. 4–6.

Lower Devonian, Fales River near Torbrook, Nova Scotia.

*Protathyris* sp.

Fig. specs. 14999, 15000

Boucot, A.J., et al., 1961, Geol. Surv., Canada, Bull. 65, p. 10, pl. 3, figs. 9–14.

Sutherland River Formation, Upper Silurian, Douro Range, west Devon Island, Arctic.

*Pugnoides kakwaensis* McLaren

= *Ladogioides kakwaensis*,

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 24, pl. 11, fig. 3 [holotype 11246].

McLaren, D.J., 1962, ibid., Bull. 86, p. 71, pl. 11, figs. 1a–c [paratype 11247], 2a–c [holotype 11246].

## BRACIOPODA

"*Pugnoides*" sp. E

Fig. spec. 16710

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 22, pl. 10, figs. 24-26.  
Calumet Member, Waterways Formation, Upper Devonian, about 4.5 feet above river level, west  
bank of Athabasca River at mile 56.5, Alberta.

*Rafinesquina camerata* (Conrad)

= *Rafinesquina sardesoni*, Liberty, B.A., 1964, "Geology of Central Ontario," Am. Assoc.  
Petrol. Geol., Guidebook, p. 51, pl. 5, fig. 2 [hypotype 3256].

*Rensselandia laevis* (Meek)

Hypotype 16699

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 20, pl. 9, figs. 4-6.  
About 40-60 feet above base of Ramparts Formation, Middle Devonian, the Ramparts, Macken-  
zie River, District of Mackenzie.

*Resserella cf. R. concavoconvexa* (Twenhofel)

Hypotypes 18939-18945

Boucot, A.J., et al., 1966, Geol. Surv., Canada, Bull. 140, p. 13, pl. 3, figs. 15-17, 21-25.  
Silurian, beach south of village of Back Bay, 0.5 mile northwest of west end of Douglas Island,  
southern New Brunswick.

*Resserella elegantula* (Dalman)

Hypotype 20554

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 10, figs. 11, 17.  
15 feet above base of Rochester Formation, Middle Silurian, DeCew Falls, Ontario.

*Resserella eugenensis* (Williams)

Hypotypes 17954-17956

Bolton, T.E.,

1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 77,  
pl. 7, figs. 7-9.

1966, Geol. Surv., Canada, Paper 66-5, pl. 2, fig. 15 [17956].

Manitoulin and Cabot Head Formations, Cataract Group, Lower Silurian, Manitoulin Island and  
Eugenia Falls, Ontario.

= *Mendacella* sp., Bolton, T.E., 1966, ibid., pl. 1, figs. 5 [17954], 6 [17955].

*Resserella cf. R. visbyensis* (Lindström)

Hypotypes 18946, 18947

Boucot, A.J., et al., 1966, Geol. Surv., Canada, Bull. 140, p. 14, pl. 3, figs. 18-20.  
Long Reach Formation, Silurian, bed of southwesterly flowing brook, 0.75 mile from its junction  
with Nerepis River near Armstrong Corner, 0.45 mile northeast of Nerepis River, southern  
New Brunswick.

'*Reticularia*' *bicostata* (Vanuxem)

Hypotype 20571

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 12, fig. 8.  
Eramosa Member, Lockport Formation, Middle Silurian, old quarry at Dundas, Ontario.

*Rhipidium* sp.

Fig. spec. 20607

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 15, figs. 9, 10.  
Guelph Formation, Middle Silurian, road-cut 0.8 mile south of Brinkmann Corners, Bruce Penin-  
sula, Ontario.

*Rhynchonella anticostiensis* Billings

= *Hypsiptycha anticostiensis*, Howe, H.J. and Reso, A., 1967, J. Pal., vol. 41, No. 2, p. 359  
 [lectotype 2032d; paralectotypes 2032a, g, m].

*Rhynchopora* cf. *R. nikitini* Tschernyschew

Hypotypes 13740, 13741

Harker, P. and Thorsteinsson, R., 1960, Geol. Surv., Canada, Mem. 309, p. 63.  
 Assistance Formation, Permian, lower reaches Lyall River, Grinnell Peninsula, northwest Devon  
 Island, Arctic.

*Rhynchospira lowi* Whiteaves

= *Plectatrypa lowi*, Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 19, figs. 5, 10  
 [syntypes 4403].

*Rhynchotrema kananaskia* Wilson

Norford, B.S., 1962, Geol. Surv., Canada, Paper 62-14, p. 18, pl. 7, figs. 16-20 [holotype  
 6749].

*Rhynchotrema windermeris* Wilson

Hypotypes 16895, 16896

Norford, B.S., 1962, Geol. Surv., Canada, Paper 62-14, p. 18, pl. 7, figs. 22-25, 35.  
 Beaverfoot-Brisco Formation, Upper Ordovician, Mount Coleman, Banff Park, Alberta.

*Rhynobolus* sp. A

Fig. specs. 18917-18923

Boucot, A.J., et al., 1966, Geol. Surv., Canada, Bull. 140, p. 9, pl. 1, figs. 1-11; pl. 2,  
 figs. 1-3.

Unnamed beds and Long Reach Formation, Silurian, beach south of village of Back Bay, 0.5  
 mile northwest of west end of Douglas Island and bed of southwest flowing brook, 0.75  
 mile from its junction with Nerepis River near Armstrong Corner, 0.45 mile northeast of  
 Nerepis River, southern New Brunswick.

*Rhynobolus* sp. B

Fig. specs. 19068-19075

Boucot, A.J., et al., 1966, Geol. Surv., Canada, Bull. 140, p. 9, pl. 17, figs. 4-11; pl. 18,  
 figs. 1-9.

Silurian, 0.2 mile west of mouth of Little Popelogan Brook, southeast Upsalquitch River, New  
 Brunswick.

*Rhytistrophia cooperi* Fagerstrom

Paratypes 14728-14730

Fagerstrom, J.A., 1961, J. Pal., vol. 35, No. 1, pl. 20.

Formosa reef limestone, Middle Devonian, north end of road-cut 2 1/2 miles north of Formosa,  
 Ontario.

*Rugaltarostrum madisonense* (Haynes)

Hypotype 15677

Sartenaer, P., 1961, Bull. Instit. Roy. Sci. Nat. Belgique, vol. 37, No. 24, p. 6, pl. 2, fig. D.  
 Upper Devonian, northeast side Root River, Camsell Range, Northwest Territories.

*Salopina lunata* (Sowerby)

Hypotypes 14962-14967

Boucot, A.J., et al., 1961, Geol. Surv., Canada, Bull. 65, p. 3, pl. 1, figs. 1-12.

Jones Creek Formation, Middle Silurian, road-cut west side Jones Creek, about 100 yards south  
 of main highway, Hampstead area, New Brunswick.

## BRACHIOPODA

### *Satopina submedia* (McLearn)

Hypotypes 18948–18958

Boucot, A.J., et al., 1966, Geol. Surv., Canada, Bull. 140, p. 15, pl. 3, figs. 26–28; pl. 4, figs. 1–14.

Jones Creek Formation, Silurian, road-cut on old road east side main highway south of Central Greenwich, 0.2 mile south of mouth of Jones Creek, New Brunswick.

### *Salopina?* sp.

Fig. spec. 14961

Boucot, A.J., et al., 1961, Geol. Surv., Canada, Bull. 65, p. 3, pl. 1, figs. 1–5.

Sutherland River Formation, Upper Silurian, Douro Range, west Devon Island, Arctic.

### *Schizobolus* sp.

Fig. spec. 15386

Raasch, G.O., et al., 1961, "Geology of the Arctic", vol. 1, p. 468, pl. 3, fig. 8.

Middle Silurian, Prong Creek, Wind River area, lat. 65°17'N, long. 135°45'W, central Yukon.

### *Schizophoria fascicostella* Norris

Holotype 16047; paratypes 16045, 16046, 16123 [plaster replica]

Norris, A.W., 1964, Geol. Surv., Canada, Bull. 114, p. 33, pl. 13, figs. 2a–4e.

Horn Plateau Formation, Middle Devonian, east flank Horn Plateau, 2.9 miles west of southwest tip Fawn Lake, lat. 62°08.2'N, long. 117°39'W, District of Mackenzie.

### *Schizophoria iowensis* (Hall)

Hypotypes 14804, 14805

McCommon, H., 1960, Manitoba Dept. Mines Natural Res., Mines Branch, Publ. 59-6, p. 49, pl. 8, figs. 8, 9.

Dawson Bay Formation, Middle Devonian, Snake Island, Lake Winnipegosis and north bank 1 3/5 miles up Red Deer River, l.s.d. 6, sec. 21, tp. 45, rge. 25, W. Prin. mer., Manitoba.

### *Schizophoria* sp.

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 30, pl. 14, figs. 1, 2 [fig. spec. 13803].

### *Schuchertella* cf. *S. prava* (Hall)

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 32, pl. 15, fig. 30 [hypotype 13802].

### "*Schuchertella*" sp.

Fig. specs. 14982–14990

Boucot, A.J., et al., 1961, Geol. Surv., Canada, Bull. 65, p. 13, pl. 2, figs. 11–22.

Sutherland River Formation, Upper Silurian, Douro Range, west Devon Island, Arctic.

### *Schuchertella* sp.

Fig. specs. 16066, 16067

Norris, A.W., 1964, Geol. Surv., Canada, Bull. 114, p. 44, pl. 14, figs. 5a–6d.

Horn Plateau Formation, Middle Devonian, east flank Horn Plateau, 2.9 miles west of southwest tip of Fawn Lake, lat. 62°08.2'N, long. 117°39'W, District of Mackenzie.

### *Shaleria* sp.

Fig. specs. 14991–14998

Boucot, A.J., et al., 1961, Geol. Surv., Canada, Bull. 65, p. 12, pl. 2, figs. 23–26; pl. 3, figs. 1–8.

Sutherland River Formation, Upper Devonian, Douro Range, west Devon Island, Arctic.

*? Sieberella newtonensis* Imbrie

Hypotype 16057

Norris, A.W., 1964, Geol. Surv., Canada, Bull. 114, p. 39, pl. 13, figs. 14a-c.

Horn Plateau Formation, Middle Devonian, east flank Horn Plateau, 2.9 miles west of southwest tip Fawn Lake, lat. 62°08.2'N, long. 117°39'W, District of Mackenzie.

*Sieberella* sp.

Fig. specs. 18968, 18969

Boucot, A.J., et al., 1966, Geol. Surv., Canada, Bull. 140, p. 22, pl. 5, figs. 9-11.

Silurian, beach south of village of Back Bay, 0.5 mile northwest of west end of Douglas Island, southern New Brunswick.

*Sinotectirostrum medicinale* Sartenaer

Paratypes 15648-15665

Sartenaer, P., 1961, Bull. Instit. Roy. Sci. Nat. Belgique, vol. 37, No. 24, p. 4, pl. 2, fig. B. Alexo Formation, Upper Devonian, Beaver Ridge between Medicine and Beaver Lakes, Jasper National Park, Alberta.

*Skenidiooides* sp.

Fig. spec. 18929

Boucot, A.J., et al., 1966, Geol. Surv., Canada, Bull. 140, p. 12, pl. 2, fig. 12.

Silurian, beach south of village of Back Bay, 0.5 mile northwest of west end of Douglas Island, southern New Brunswick.

*Sowerbyella "sericea"* (Sowerby)

Hypotype 18660

Sinclair, G.W., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 41, pl. 4, fig. 6.

Middle Trenton, Middle Ordovician, quarry at Lakefield, Ontario.

*Sphaerirhynchia?* sp.

Fig. specs. 19022, 19023

Boucot, A.J., et al., 1966, Geol. Surv., Canada, Bull. 140, p. 33, pl. 13, figs. 1, 2.

Silurian, beach south of village of Back Bay, 0.5 mile northwest of west end of Douglas Island, southern New Brunswick.

*Spinatrypa borealis* (Warren)

Hypotype 16693

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 18, pl. 8, figs. 16-18.

Hume Formation, Middle Devonian, Anderson River near mouth of Simpson Creek, District of Mackenzie.

*Spinatrypa coriacea* Crickmay

Hypotype 16694

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 18, pl. 8, figs. 19-21.

Upper Hume Formation, Middle Devonian, Gayna River about 9 miles from mouth, District of Mackenzie.

*Spinatrypa hornensis* Norris

Holotype 16090; paratypes 16088, 16089, 16091-16094, 16128

Norris, A.W., 1964, Geol. Surv., Canada, Bull. 114, p. 55, pl. 16, figs. 3-8.

Horn Plateau Formation, Middle Devonian, east flank Horn Plateau, 2.9 miles west of southwest tip Fawn Lake, lat. 62°08.2'N, long. 117°39'W, District of Mackenzie.

## BRACHIOPODA

### *Spinatrypa lata* (Warren)

Hypotype 16696

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 18, pl. 8, figs. 25-27.  
Hume Formation, Middle Devonian, Anderson River near mouth of Simpson Creek, District of Mackenzie.

### *Spinatrypa mascula* (Stainbrook)

Hypotypes 14802, 14828-14830

McCammon, H., 1960, Manitoba Dept. Mines Natural Res., Mines Branch, Publ. 59-6, p. 55,  
pl. 10, figs. 20, 22, 23.

Dawson Bay Formation, Middle Devonian, Snake Island, Lake Winnipegosis; north bank Red Deer River 100 yards west of Highway 10 bridge between The Pas and Mafeking, I.s.d. 7, sec. 17, tp. 45, rge. 25; and south end of Lake Winnipegosis 2 miles south of Snake Island and 2 miles west of Charlie Island, sec. 21, tp. 30, rge. 17, W. Prin. mer., Manitoba.

### *Spinatrypa mascula* var. *manitobensis* McCammon

Holotype 14831; paratypes 14832-14835

McCammon, H., 1960, Manitoba Dept. Mines Natural Res., Mines Branch, Publ. 59-6, p. 56,  
pl. 10, figs. 18, 19.

Dawson Bay Formation, Middle Devonian, north bank Red Deer River 100 yards west of Highway 10 bridge between The Pas and Mafeking, I.s.d. 7, sec. 17, tp. 45, rge. 25, W. Prin. mer. and salt flats 1 mile west of mouth Red Deer River, Manitoba.

### *Spinocyrtia* cf. *S. euryteines* (Owen)

Hypotype 16711

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 22, pl. 10, figs. 27-30.  
Calumet Member, Waterways Formation, Upper Devonian, north bank of Clearwater River 7.3 miles (air distance) above junction with Christina River, Alberta.

### *Spinulicosta* sp.

Fig. specs. 16071, 16072

Norris, A.W., 1964, Geol. Surv., Canada, Bull. 114, p. 47, pl. 14, figs. 10, 11.  
Horn Plateau Formation, Middle Devonian, east flank Horn Plateau, 2.9 miles west of southwest tip Fawn Lake, lat. 62°08.2'N, long. 117°39'W, District of Mackenzie.

### "*Spirifer*" cf. "*S.* bischofi" A. Roemer

Hypotype 14765

Boucot, A.J., 1960, J. Pal., vol. 34, No. 3, pl. 68, fig. 10.  
Lower Devonian, Bear River, Nova Scotia.

### *Spirifer cascadensis* Warren

Crickmay, C.H., 1955, "The Minnewanka Section of the Mississippian", p. 14, pl. 2, fig. 1  
[holotype 8909].

Rodriguez, J. and Gutschick, R.C., 1976, J. Pal., vol. 41, No. 2, p. 379 [lectotype 8909;  
syntypes 8909a-c].

### *Spirifer crispus?* Hisinger var.

Hypotype 17729

Whiteaves, J.F., 1906, Geol. Surv., Canada, Palaeoz. Fossils, vol. 3, pt. 4, p. 253, pl. 27,  
fig. 1.

Silurian, middle rapid, Ekwan River, Ontario.

*Spirifer osborni* Harker

Holotype 13744; paratypes 13745, 13746

Harker, P. and Thorsteinsson, R., 1960, Geol. Surv., Canada, Mem. 309, p. 65, pl. 20, figs. 15–17; text-fig. 6.

Assistance Formation, Permian, lower reaches Lyall River, Grinnell Peninsula, northwest Devon Island, Arctic.

*Spirifer striato-paradoxus* Toula

Hypotypes 13747–13751

Harker, P. and Thorsteinsson, R., 1960, Geol. Surv., Canada, Mem. 309, p. 67, pl. 19, figs. 1–7.

Assistance Formation, Permian, lower reaches Lyall River, Grinnell Peninsula, northwest Devon Island, Arctic.

*Spirifer* n. sp. A

Syntypes 9184–9186

Brown, R.C.A., 1952, Geol. Surv., Canada, Mem. 264, p. 101.

Greenock Formation, Carboniferous, Snaring Ridge, Mount Greenock, Alberta.

*Spiriferella keilhavii* (von Buch)

Hypotypes 13767, 13768

Harker, P. and Thorsteinsson, R., 1960, Geol. Surv., Canada, Mem. 309, p. 72, pl. 22, figs. 9–11; pl. 23, figs. 1, 2.

Assistance Formation, Permian, lower reaches Lyall River, Grinnell Peninsula, northwest Devon Island, Arctic.

*Spiriferella saranae* (de Verneuil)

Hypotypes 13762–13765, 13525

Harker, P. and Thorsteinsson, R., 1960, Geol. Surv., Canada, Mem. 309, p. 71, pl. 22, figs. 1–8; pl. 23, figs. 3, 4, 8.

Belcher Channel and Assistance Formations, Permian, lower reaches Lyall River, Grinnell Peninsula, northwest Devon Island, Arctic.

*Spiriferina borealis* Whiteaves

Tozer, E.T., 1962, Geol. Surv., Canada, Paper 62-19, p. 14, pl. 6, figs. 2a, b [hypotype 4733].

*Spondylospira lewesensis* (Lees)

Hypotypes 14259–14261

Tozer, E.T., 1962, Geol. Surv., Canada, Paper 62-19, p. 26, pl. 12, figs. 11–14.

Formation F, Lewes River Group, Upper Triassic, east shore of Lake Laberge, 11 miles south of Lower Laberge, Yukon.

*Squamularia asiatica* Chao

Hypotypes 13742, 13743

Harker, P. and Thorsteinsson, R., 1960, Geol. Surv., Canada, Mem. 309, p. 64, pl. 18, figs. 12–15; text-fig. 5.

Assistance Formation, Permian, lower reaches Lyall River, Grinnell Peninsula, northwest Devon Island, Arctic.

*Stegerhynchus indianensis* (Hall)

Hypotype 20567

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 12, fig. 2.

Eramosa Member, Lockport Formation, Middle Silurian, old quarry at Dundas, Ontario.

## BRACHIOPODA

### *Stegerhynchus neglectum* (Hall)

Hypotypes 20475–20477

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 1, figs. 17–19.

Manitoulin Formation, Lower Silurian, creek bed 1/2 mile east of main highway on East-West secondary road east of Gore Bay airfield, Manitoulin Island, Ontario.

### *Stegerhynchus (?) winiskensis* (Whiteaves)

Hypotype 20501

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 4, fig. 1.

St. Edmund Formation, Middle Silurian, Gore Bay–Polar road, 4 miles south of main highway Manitoulin Island, Ontario.

### *Stegerhynchus?* sp.

Fig. specs. 19016–19019

Boucot, A.J., et al., 1966, Geol. Surv., Canada, Bull. 140, p. 31, pl. 12, figs. 7–14.

Unnamed beds and Jones Creek Formation, Silurian, beach south of village of Back Bay, 0.5 mile northwest of west end of Douglas Island and road-cut on old road east side main highway south of Central Greenwich, 0.2 mile south of mouth of Jones Creek, southern New Brunswick.

### *Stenoscisma cf. S. kochi* (Dunbar)

Hypotypes 13735, 13736

Harker, P. and Thorsteinsson, R., 1960, Geol. Surv., Canada, Mem. 309, p. 62, pl. 18, figs. 5–8.

Assistance Formation, Permian, lower reaches Lyall River, Grinnell Peninsula, northwest Devon Island, Arctic.

### *Stenoscisma plicatum* (Kutorga)

Hypotypes 13737–13739

Harker, P. and Thorsteinsson, R., 1960, Geol. Surv., Canada, Mem. 309, p. 62, pl. 18, figs. 1–4.

Assistance Formation, Permian, lower reaches Lyall River, Grinnell Peninsula, northwest Devon Island, Arctic.

### *Stenoscisma rhomboidalis* Hall and Clarke

Hypotype 14734

Fagerstrom, J.A., 1961, J. Pal., vol. 35, No. 1, p. 29, pl. 9, figs. 45–47.

Formosa reef limestone, Middle Devonian, 300 feet above Falls of Teeswater River, Ontario.

### *Streptorhynchus kempei* Anderson

Hypotypes 13516–13518

Harker, P. and Thorsteinsson, R., 1960, Geol. Surv., Canada, Mem. 309, p. 50, pl. 15, figs. 1–6.

Assistance Formation, Permian, lower reaches Lyall River, Grinnell Peninsula, northwest Devon Island, Arctic.

### *Streptorhynchus triangularis* Wiman

Hypotypes 13519, 13520

Harker, P. and Thorsteinsson, R., 1960, Geol. Surv., Canada, Mem. 309, p. 51, pl. 15, figs. 7–9.

Assistance Formation, Permian, lower reaches Lyall River, Grinnell Peninsula, northwest Devon Island, Arctic.

*Stricklandia canadensis* Billings

Hypotype 17972

Bolton, T.E.,

1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 79, pl. 8,  
fig. 33.

1966, Geol. Surv., Canada, Paper 66-5, pl. 3, fig. 12.

Reynales Formation, Clinton Group, Middle Silurian, near Thorold, Ontario.

*Stricklandinia manitouensis* Williams= *Plicostricklandia manitouensis*, Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 6,  
figs. 2, 3 [syntype 5126].*Strispirifer niagarensis* (Conrad)

Hypotypes 20555, 2689

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 10, figs. 12, 27.

Rochester Formation, Middle Silurian, first road cutting the escarpment west of Grimsby and  
near Thorold, Ontario.*Stringocephalus* sp.

Fig. spec. 16705

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 22, pl. 10, figs. 4, 5.

Sulphur Point Formation, Middle Devonian, east side of Presqu'ile Point, south shore of Great  
Slave Lake, District of Mackenzie.*Stropheodonta* cf. *littletonensis* Stainbrook

Hypotypes 14881-14883

McCammon, H., 1960, Manitoba Dept. Mines Natural Res., Mines Branch, Publ. 59-6, p. 46,  
pl. 7, figs. 4-6.Souris River Formation, Upper Devonian, outcrop along Camperville road and in dry creek bed  
along east boundary sec. 21, tp. 32, rge. 19, W. Prin. mer., Manitoba.*Stropheodonta* (*Rhenostrophia*) sp.

Fig. spec. 14764

Boucot, A.J., 1960, J. Pal., vol. 34, No. 3, pl. 68, fig. 9.

Lower Devonian, Bear River, Nova Scotia.

*Stropheodonta* sp.

Fig. spec. 14884

McCammon, H., 1960, Manitoba Dept. Mines Natural Res., Mines Branch, Publ. 59-6, p. 46,  
pl. 7, figs. 9a, b.Souris River Formation, Upper Devonian, outcrop along Camperville road and in dry creek bed  
along east boundary sec. 21, tp. 32, rge. 19, W. Prin. mer., Manitoba.*Stropheodonta* sp.

Fig. spec. 16712

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 22, pl. 10, figs. 31-33.

Moberly Member, Waterways Formation, Upper Devonian, east bank of Athabasca River at Mile  
26.6, Alberta.*Strophomena huronensis* Foerste

Hypotype 18664

Liberty, B.A., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook,  
p. 53, pl. 6, fig. 11.

Meaford Formation, Upper Ordovician, Cape Smyth, Manitoulin Island, Ontario.

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### *Strophomena* sp.

Fig. spec. 7612

Wilson, A.E.,

1945, Trans. Roy. Soc. Can., ser. 3, vol. 39, sec. 4, p. 139, pl. 1, fig. 19.

1946, Geol. Surv., Canada, Bull. 8, p. 108, pl. 9, fig. 16.

Leray beds, Ottawa Formation, Middle Ordovician, La petite Chaudière, Val Tetreau, Quebec.

### *Strophomena* sp.

Fig. spec. 8571

Foerste, A.F., 1924, Geol. Surv., Canada, Mem. 138, p. 122, pl. 11, fig. 8.

Upper Ordovician, Nicolet River, Quebec.

### *Strophonella* cf. *S. euglypha* (Hisinger)

Hypotypes 18997–19003

Boucot, A.J., et al., 1966, Geol. Surv., Canada, Bull. 140, p. 28, pl. 8, figs. 14–16; pl. 9, figs. 1–8.

Silurian, beach south of village of Back Bay, 0.5 mile northwest of west end of Douglas Island, southern New Brunswick.

### “*Tenticospirifer*” *cyrtinaformis* (Hall and Whitfield)

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 28, pl. 13, figs. 11–14 [hypotype 13812].

### “*Terebratula*” *liardensis* Whiteaves

Tozer, E.T., 1961, Geol. Surv., Canada, Paper 62-19, p. 14, pl. 6, figs. 1a–c [holotype 4734].

### *Thaerondonta* sp. aff. *T. saxeae* (Sardeson)

Hypotypes 16887–16889

Norford, B.S., 1962, Geol. Surv., Canada, Paper 62-14, p. 18, pl. 7, figs. 1–7.

Beaverfoot-Brisco Formation, Upper Ordovician, Cirrus Mountain, Banff Park, Alberta.

### *Theodossia keenei* (Crickmay)

Hypotype 16561

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 26, pl. 12, figs. 13–16.

Kakisa Formation, Upper Devonian, Birch River 7 miles upstream from junction with Liard River, District of Mackenzie.

### *Theodossia scopulorum* (Crickmay)

Hypotype 16562

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 26, pl. 12, figs. 17–20.

Upper beds of Kakisa Formation, Upper Devonian, Coral (or Upper) Falls on Trout River, District of Mackenzie.

### *Thomasaria rockymontana* (Warren)

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 28, pl. 13, figs. 15–18 [hypotype 13813].

### “*Trematospira*” *camura* (Hall)

Hypotypes 20561, 20562

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 11, figs. 1, 2.

Basal 5–15 feet of Rochester Formation, Middle Silurian, DeCew Falls, Ontario.

*Trematospira* sp.

Fig. spec. 16115

Norris, A.W., 1964, Geol. Surv., Canada, Bull. 114, p. 63, pl. 17, figs. 11a-d.

Horn Plateau Formation, Middle Devonian, east flank Horn Plateau, 2.9 miles west of southwest tip Fawn Lake, lat. 62°08.2'N, long. 117°39'W, District of Mackenzie.

*Trifidorostellum dunbarensis* (Haynes)

Hypotype 15523

Sartenaer, P., 1961, Bull. Instit. Roy. Sci. Nat. Belgique, vol. 37, No. 24, p. 5, pl. 2, fig. C.

Sartenaer, P. and Rozman, Kh.S., 1965, Palaeo. J., No. 1, p. 148, fig. Ib.

Three Forks Formation, Upper Devonian, T5N, R1+2W, Devils Fence 15' quadrangle, Montana.  
U.S.A.*Trimerella borealis* Whiteaves

Holotype 17730

Whiteaves, J.F.,

1902, Ottawa Naturalist, vol. 16, p. 142, pl. 3, figs. 2, 3.

1906, Geol. Surv., Canada, Palaeoz. Fossils, vol. 3, pt. 4, p. 250, pl. 25, figs. 3, a.

Silurian, lower or first rapid, Ekwan River, Ontario.

*Trimerella ekwanensis* Whiteaves

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 19, fig. 12 [syntype 4415a].

*Tropidoleptus* sp.

Fig. specs. 14760, a, b

Boucot, A.J., 1960, J. Pal., vol. 34, No. 3, pl. 68, figs. 1-3.

Lower Devonian, Bear River, Nova Scotia.

*Vagrania* sp.

Fig. specs. 18726, 18727

Boucot, A.J., et al., 1964, J. Pal., vol. 38, No. 5, p. 811, pl. 128, figs. 10-12.

Stuart Bay Formation, Emsian?, Middle Devonian, Stuart Bay anticline, northern Bathurst Island, Arctic.

*Virgiana decussata* (Whiteaves)

Hypotype 20500

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 3, fig. 19.

Dyer Bay Formation, Middle Silurian, road along East Range - Con. A boundary, Gordon tp. 0.6 mile east of Gore Bay-Poplar road, Manitoulin Island, Ontario.

*Waagenoconcha* cf. *W. virginiaeformis* Stepanow

Hypotype 13734

Harker, P. and Thorsteinsson, R., 1960, Geol. Surv., Canada, Mem. 309, p. 62, pl. 16,  
figs. 7, 8.

Assistance Formation, Permian, Lyall River, Grinnell Peninsula, northwest Devon Island, Arctic.

*Waagenoconcha payeri?* (Toula)

Hypotypes 13535, 13733

Harker, P. and Thorsteinsson, R., 1960, Geol. Surv., Canada, Mem. 309, p. 61, pl. 18,  
figs. 9-11.

Assistance Formation, Permian, lower reaches Lyall River, Grinnell Peninsula, northwest Devon Island, Arctic.

## BRACHIOPODA

*Warrenella cf. W. franklini* (Meek)

Hypotype 16702

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 20, pl. 9, figs. 23–25.

Pine Point Formation, Middle Devonian, 1.7 miles south of Dawson Landing wharf, south side of Great Slave Lake, District of Mackenzie.

*Warrenella cf. W. kirki* (Merriam)

Hypotype 16697

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 18, pl. 8, figs. 28–30.

Hume Formation ("Lower Ramparts"), Middle Devonian, Carnwath River, District of Mackenzie.

*Warrenella nevadensis* (Walcott)

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 28, pl. 13, figs. 31–36  
[hypotype 13818].

*Warrenella* sp. A

Fig. spec. 16558

McLaren, D.J., et al., 1962, Geol. Surv., Canada, Paper 62-4, p. 26, pl. 12, figs. 10–12.

Twin Falls Formation, Upper Devonian, Lower Kakisa River, 1 mile upstream from road bridge, District of Mackenzie.

*Westonia linguloides* (Kobayashi) – hypotypes 9120, a, b located.

*Whitfieldella hyale* (Billings)

Hypotype 20582

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 13, fig. 11.

Wiarton Member, Amabel Formation, Middle Silurian, road-cut 1 1/4 miles south of Adamsville, Bruce Peninsula, Ontario.

*Whitfieldella nitida* (Hall)

Hypotypes 20556, 20570, 20575

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 10, fig. 18; pl. 12, figs. 6, 15.  
Rochester Formation and Eramosa Member, Amabel Formation, Middle Silurian, DeCew Falls and east of Parkhead, Ontario.

*Zygospira uphami* Winchell and Schuchert

= *Catazyga raymondi*, Liberty, B.A., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 51, pl. 5, fig. 7 [syntype 3245a].

## GASTROPODA

*Eotomaria durhamensis* (Whiteaves)

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 13, fig. 21 [hypotype 11079].

*Euomphalopterus* sp.

Fig. spec. 19065

Boucot, A.J., et al., 1966, Geol. Surv., Canada, Bull. 140, p. 40, pl. 17, figs. 2, 3.

Silurian, beach south of village of Back Bay, 0.5 mile northwest of west end of Douglas Island, southern New Brunswick.

*Fusispira gigantea* Wilson

Hypotypes 10360, 10361

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 67, pl. 16, fig. 1; pl. 17, fig. 2.

Portage Chute Formation, Upper Ordovician, South Knife River, left bank approximately 2 miles WNW. of northwest end of Herriot Lake and right bank about 3 miles west of northwest end of Herriot Lake, Manitoba.

*Fusispira nobilis* Ulrich and Scofield

Sinclair, G.W., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 41, pl. 4, fig. 11 [hypotype 3262].

Gastropod indet.

Fig. spec. 19067

Boucot, A.J., et al., 1966, Geol. Surv., Canada, Bull. 140, p. 41, pl. 16, fig. 24.

Silurian, beach south of village of Back Bay, 0.5 mile northwest of west end of Douglas Island, southern New Brunswick.

*Gyrodes excavata* Michelin

Hypotypes 5776, a, b (?), 5777, a-g

Whiteaves, J.F., 1879, Geol. Surv., Canada, Mesoz. Fossils, vol. 1, pt. 2, p. 124.

Upper Cretaceous, Protection and Vancouver Islands, British Columbia and Sucia Island, Washington, U.S.A.

= *Gyrodes (conradiana)?* Gabb, var.) *canadensis*, Whiteaves, J.F., 1903, ibid., vol. 1, pt. 5, p. 365.

*Haminea horni* Gabb? var.

Hypotype 5757

Whiteaves, J.F., 1879, Geol. Surv., Canada, Mesoz. Fossils, vol. 1, pt. 2, p. 132, pl. 16, figs. 8, a, b.

Upper Cretaceous, Sucia Island, Washington, U.S.A.

*Hindsia nodulosa* (Whiteaves)

Hypotypes 5766, a

Whiteaves, J.F., 1879, Geol. Surv., Canada, Mesoz. Fossils, vol. 1, pt. 2, p. 125 [syntypic material (?) of *Fasciolara nodulosa*, 1874].

Upper Cretaceous, Protection Island and 2 1/2 miles up the Nanaimo River, Vancouver Island, British Columbia.

## MOLLUSCA

### *Holopea gigantea* Nelson

Holotype 10867; paratypes 10868, 10869

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 64, pl. 16, figs. 2, 3

Member 2, Portage Chute Formation, Upper Ordovician, Churchill River, about 1/2 mile above and below Bad Cache Rapids; 2 1/2-3 miles below Bad Cache Rapids; and 2 miles below Portage Chute, Manitoba.

### *Holopea guelphensis* Billings

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 13, fig. 16 [hypotype 11076]; pl. 16, fig. 8 [hypotype 2848], 9 [holotype 2847].

### *Hormotoma winnipegensis* Whiteaves

Hypotype 10333

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 65, pl. 19, fig. 3.

Member 2, Portage Chute Formation, Upper Ordovician, right bank Nelson River, first Upper Limestone Rapids down to about 1 mile below Third Upper Limestone Rapids, Manitoba.

### *Liospira helena* (Billings)

Hypotype 18671

Liberty, B.A., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 53, pl. 6, figs. 3, 4.

Kagawong Formation, Upper Ordovician, Clay Cliffs, 3 miles north of Wekwemikongsing, Manitoulin Island, Ontario.

### *Liospira parva* Wilson

Hypotype 10871

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 65, pl. 16, figs. 4a, b.

Member 1, Caution Creek Formation, Upper Ordovician, right bank Churchill River, 2 3/4 miles below mouth Chasm Creek, Manitoba.

### *Lophospira manitoulinensis* Foerste

Liberty, B.A., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 53, pl. 6, fig. 2 [syntype 8501c].

### *Maclurea operculum*

= *Ceratopea billingsi*, Yochelson, E.L., 1964, Medd. om Grönland, vol. 164, No. 7, p. 5, pl. 1, figs. 17-19 [holotype 7459; paratypes 7459a, b].

### *Maclurites altus* Wilson

Hypotype 10884

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 67, pl. 16, fig. 6.

Member 2, Portage Chute Formation, Upper Ordovician, right bank Churchill River, 1-1 3/4 miles below Bad Cache Rapids, Manitoba.

### *Megalomphala robusta* Whiteaves

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 19, fig. 7 [syntype 4421a].

### *Michelia turretiformis* (Hall)

Hypotype 2890a

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 15, fig. 6.

Guelph Formation, Middle Silurian, Durham, Ontario.

### *Naticonema niagarensis* (Hall)

Hypotype 20558

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 10, figs. 21, 22.

44-50 feet above base of Rochester Formation, Middle Silurian, DeCew Falls, Ontario.

*Orecopia cotei* Pedder

Holotype 17633; paratypes 17634–17636

Pedder, A.E.H., 1966, Palaeontology, vol. 9, pt. 1, p. 145, pl. 21, figs. 2, 6–9, 11, 12, 14; text-fig. 2b.

Unnamed limestone and Tathlina Formation, Upper Devonian, near Nabesche River, lat. 56°17'N, long. 123°23 1/2'W, British Columbia and on Hay River opposite mile post 59.1 Mackenzie Highway, Northwest Territories.

*Orecopia mccoyi* (Walcott)

Hypotypes 17637, 17638

Pedder, A.E.H., 1966, Palaeontology, vol. 9, pt. 1, p. 146, pl. 21, figs. 1, 3, 4; text-fig. 2a.

Sultan Formation, Upper Devonian, Spring Mountains, Goodsprings Quadrangle, southern Nevada, U.S.A.

*Oriostoma* cf. *O. globosum* (Schlotheim)

Hypotypes 19062–19064

Boucot, A.J., et al., 1966, Geol. Surv., Canada, Bull. 140, p. 40, pl. 16, figs. 15–23.

Silurian, beach south of village of Back Bay, 0.5 mile northwest of west end of Douglas Island, southern New Brunswick.

*Phanerotrema occidens* (Hall)

Hopotype 20613

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 16, figs. 10, 14.

Guelph Formation, Middle Silurian, zinc prospect 1000 feet east of Highway 6, 3 miles northwest of Wiarton, Ontario.

*Pleurotomaria durhamensis* Whiteaves

= *Eotomaria durhamensis*, Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 16, fig. 3 [holotype 2868].

*Potamides tenuis* var. *nanaimoensis* Whiteaves

Syntypes 5763, a–c.

Whiteaves, J.F., 1879, Geol. Surv., Canada, Mesoz. Fossils, vol. 1, pt. 2, p. 121.

Upper Cretaceous, northwest side of Hornby Island, Vancouver Island, British Columbia.

*Pseudoscalites* cf. *P. lindstroemi* Boucot, Johnson, Harper and Walmsley

Hypotype 19066

Boucot, A.J., et al., 1966, Geol. Surv., Canada, Bull. 140, p. 41, pl. 16, fig. 25; pl. 17, fig. 1.

Silurian, beach south of village of Back Bay, 0.5 mile northwest of west end of Douglas Island, southern New Brunswick.

*Pterotheca* sp.

Fig. spec. 18648

Sinclair, G.W., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 39, pl. 3, fig. 3.

Gull River Formation, Middle Ordovician, Lake St. George quarry, north of Orillia, Ontario.

*Strophostylus* (?) *elevatus* (Hall)

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 13, fig. 15 [hypotype 11073].

*Subulites compactus* Whiteaves

Hypotype 2840

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 16, fig. 7.

Guelph Formation, Middle Silurian, Elora, Ontario.

MOLLUSCA

*Subulites (Cyrtospira) ventricosus* Hall

Hypotype 20583

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 13, fig. 12.

Wiarton Member, Amabel Formation, Middle Silurian, Owen Sound-Chatsworth Highway 6-10,  
1/4 mile north of Rockford road, Ontario.

*Tremanotus angustata* Hall

Hypotypes 2911, b

Bolton, T.E., 1966, Geol. Surv., Canada, Papér 66-5, pl. 16, figs. 1, 2.

Guelph Formation, Middle Silurian, Hespeler, Ontario.

*Trochonema coxi* Wilson

Hypotype 10808

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 63, pl. 16, fig. 5.

Member 1, Portage Chute Formation, Upper Ordovician, right bank North Knife River, over  
4 1/4 miles below Teepee Falls, Manitoba.

"*Turbo*" *ferniensis* Frebold

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 100, pl. 48, figs. 2a, b [holotype  
12895], 3a, b [paratype 12896].

## P E L E C Y P O D A

### *Ambonychia septentrionales* Whiteaves

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 19, fig. 1 [holotype 4428].

### *Amphicoelia leidyi* Hall

Hypotypes 20592, 20609

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 13, fig. 24; pl. 15, fig. 12.

Amabel and Guelph Formations, Middle Silurian, 22 inches from top of road-cut at Wiarton and east side of road 3 miles north of Spry, west side of Bruce Peninsula, Ontario.

### *Anomia albertensis* McLearn

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 68, pl. 32, fig. 7 [holotype 6081].

### *Arctica limpadiana* McLearn

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 76, pl. 24, figs. 7 [paratype 7421], 8A, B [holotype 7420].

### *Aucella acutistriata* Crickmay

= *Buchia uncitoides* var. *acutistriata*, Jeletzky, J.A., 1965, Geol. Surv., Canada, Bull. 103, pl. 10, fig. 6 [holotype 9656].

### *Aucella ex gr. bronni* Rouiller

= *Buchia concentrica*, Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 98, pl. 46, fig. 7 [hypotype 12905].

### *Aucella canadiana* Crickmay

= *Buchia okensis* var. *canadiana*, Jeletzky, J.A., 1965, Geol. Surv., Canada, Bull. 103, pl. 10, fig. 7 [paratype 9655].

### *Aucella cascadiensis* Crickmay

= *Buchia okensis* f. typ., Jeletzky, J.A., 1965, Geol. Surv., Canada, Bull. 103, pl. 10, fig. 2 [hypotype 9657].

### *Aucella gigas* Crickmay

= *Buchia keyserlingi* var. *gigas*, Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-6, p. 18, pl. 8, figs. 1a-c. [holotype 9664]

Jeletzky, J.A., 1965, ibid.,

Bull. 103, pl. 21, figs. 1A-C.

### *Aucella spasskenoides* Crickmay

= *Buchia uncitoides* var. *spasskenoides*, Jeletzky, J.A., 1965, Geol. Surv., Canada, Bull. 103, pl. 10, figs. 12 [paratype 9651], 13 [holotype 9652].

## MOLLUSCA

### *Aucellina aptiensis* (d'Orbigny)

#### Hypotype 17318

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 68, pl. 20, figs. 3A, B.  
Lower Cretaceous, Stony Creek, about 18 1/2 miles upstream from mouth, northern Richardson  
Mountain, Northwest Territories.

### *Aucellina aptiensis* (d'Orbigny) f. typ.

#### Hypotype 17316

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 68, pl. 20, figs. 6A, B.  
Lower Cretaceous, Stony Creek about 18 1/2 miles upstream from mouth, northern Richardson  
Mountains, Northwest Territories.

### *Aucellina aptiensis* var. *nassibianzi* Sokolov

#### Hypotypes 16598, 17319, 17320

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 64, pl. 18, figs. 4A-C; p. 68,  
pl. 20, figs. 4A, B; p. 72, pl. 22, fig. 1.  
Lower Cretaceous, southwest bank Rat River about 1 1/2 miles downstream from mouth of  
Longstick Creek and Stony Creek, about 18 1/2 miles upstream from mouth, northern  
Richardson Mountains, Northwest Territories.

### *Aucellina* aff. *caucasica* (Abich)

#### Hypotypes 17292, 17293, 17310

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 58, pl. 15, figs. 4A-C, 5A-C;  
p. 64, pl. 18, figs. 5A, B.  
Lower Cretaceous, middle part of nameless spur extending east from main slope at a point 2  
miles south of Bug Lake, east slope Aklavik Range, Northwest Territories.

### *Aucellina?* *downlingi* McLearn

= *Aucellina gryphaeoides*, Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 74,  
pl. 23, figs. 10A, B [hypotype 9556].

### *Aucellina gryphaeoides* (Sowerby)

#### Hypotype 17396

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 74, pl. 23, figs. 8A, B.  
Buckingham Formation, Fort St. John Group, Lower Cretaceous, just east of Bullhead anticline,  
8 1/2 miles north of bridge, left bank Sikanni River, British Columbia.

### *Aucellina* aff. *gryphaeoides* (Sowerby)

#### Hypotype 17317

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 68, pl. 20, figs. 5A, B.  
Lower Cretaceous, Stony Creek, about 18 1/2 miles upstream from mouth, northern Richardson  
Mountains, Northwest Territories.

### *Aucellina* n. sp. A (aff. *aptiensis* (d'Orbigny))

#### Hypotype 17304

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 64, pl. 18, figs. 3A-D.  
Lower Cretaceous, northeast bank Lower Rat River about 1/2 mile below mouth Longstick  
Creek and some 500 feet upstream from Indian campsite, "Destruction City", northern  
Richardson Mountains, Northwest Territories.

### *Aucellina* n. sp. B (aff. *aptiensis* (d'Orbigny))

#### Hypotype 17308

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 64, pl. 18, figs. 6A-C.  
Lower Cretaceous, lower part of rocky spur extending east of main slope at a point 2 miles south  
of Bug Lake, east slope Aklavik Range, Northwest Territories.

*Buchia cf. blanfordiana* (Stoliczka)

Hypotype 16578, 16584

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 106, pl. 51, figs. 2a-c, 3a-c.

Jeletzky, J.A., 1965, ibid., Bull. 103, pl. 2, figs. 3A-C; pl. 3, figs. 5A-C.

Upper Jurassic, west side Grassy Island, west coast Vancouver Island, British Columbia.

*Buchia cf. blanfordiana* (Stoliczka)

Hypotypes 16577, 16579, 16581, 16586, 17517

Jeletzky, J.A., 1965, Geol. Surv., Canada, Bull. 103, pl. 2, figs. 2A, B, 4A-C, 6A-C; pl. 3, figs. 6A, B, 8A-C; pl. 22, figs. 2A-E.

Upper Jurassic, west side main body Grassy Island, west coast Vancouver Island; Eldorado Group [16586], Upper Jurassic, Spruce Lake, British Columbia.

*Buchia cf. bulloides* (Lahusen)

Hypotypes 17279, 17284

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 54, pl. 13, figs. 3A, B, 8A-C.

Mould Bay Formation, Lower Cretaceous, 6 miles northwest of "Redoubt", between Intrepid Inlet and Fitzwilliam Strait, Prince Patrick Island, Arctic.

*Buchia concentrica* var. *erringtoni* (Gabb)

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 102, pl. 49, figs. 3a-f [hypotype 17012].

Jeletzky, J.A., 1965, ibid., Bull. 103, pl. 1, figs. 10A-F.

*Buchia crassicollis* (Keyserling) f. typ.

Hypotype 16659

Jeletzky, J.A.,

1964, Geol. Surv., Canada, Paper 64-6, p. 16, pl. 7, figs. 14a-d.

1965, ibid., Bull. 103, pl. 20, figs. 10A-D.

Brockenback Hill Formation, Lower Cretaceous, Lonetree Island, off south tip of the Peninsula, Harrison Lake, British Columbia.

*Buchia crassicollis* (Keyserling) s. str.

Hypotypes 16656; 16660, 17337

Jeletzky, J.A.,

1964, Geol. Surv., Canada, Paper 64-6, p. 16, pl. 7, figs. 1, 2, 5.

1965, ibid., Bull. 103, pl. 20, figs. 1A, B [16656].

Lower Cretaceous, 7/8 of a mile north of mouth of nameless creek that falls into inlet opposite village of Winter Harbour, northeastern shore of Winter Harbour, Forward Inlet, Quatsino Sound, Vancouver Island, British Columbia.

= *Buchia crassicollis* f. typ., Jeletzky, J.A., 1965, ibid., Bull. 103, pl. 20, figs. 11A, B [16660].*Buchia crassicollis* var. *solida* (Lahusen)

Hypotypes 16658, 16661

Jeletzky, J.A.,

1964, Geol. Surv., Canada, Paper 64-6, p. 16, pl. 7, figs. 15a, b, 16a, b.

1965, ibid., Bull. 103, pl. 20, figs. 9A, B, 12A, B.

Lower Cretaceous, west and southeast end of small wooded islet inside of Winter Harbour and about 1 1/4 miles north of Greenwood Point, Forward Inlet, Quatsino Sound, Vancouver Island, British Columbia.

MOLLUSCA

*Buchia* aff. *crassicollis* var. *solida* (Lahusen)

Hypotype 17336

Jeletzky, J.A.,

1964, Geol. Surv., Canada, Paper 64-6, p. 18, pl. 8, figs. 3a-d.

1965, ibid., Bull. 103, pl. 22, figs. 1A-E.

Eldorado Group (lower part), Lower Cretaceous, south side of ridge between Gun and Leckie Creeks, Tyaughton Lake area, Bridge River district, British Columbia.

*Buchia fischeriana* (d'Orbigny)

Hypotypes 17991, 17992

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 106, pl. 51, figs. 4a-c, 5a-c.

Husky Formation, Upper Jurassic, southeast shoulder of Mount Gifford, Aklavik Range, Richardson Mountains, Northwest Territories.

=*Buchia fischeriana* s. lato, Jeletzky, J.A., 1966, ibid., Bull. 128, p. 25, pl. 8, figs. 6A-C  
[hypotype 17991].

=*Buchia fischeriana* s. lato var., Jeletzky, J.A., 1966, ibid., p. 25, pl. 8, figs. 9A-C  
[hypotype 17992].

*Buchia fischeriana* (d'Orbigny)

Hypotypes 18018-18021

Jeletzky, J.A., 1966, Geol. Surv., Canada, Bull. 128, p. 25, pl. 8, figs. 2-5.

Deer Bay Formation, Upper Jurassic, Slidre Fiord, Reptile Creek, 1-1 1/2 miles north of Eureka weather station, Ellesmere Island, Arctic.

*Buchia* aff. *fischeriana* (d'Orbigny)

Hypotype 18015

Jeletzky, J.A., 1966, Geol. Surv., Canada, Bull. 128, p. 31, pl. 7, figs. 7A-D.

Husky Formation, Upper Jurassic, about 5 miles north of top of Mount Goodenough, east slope of Aklavik Range, northern Richardson Mountains, Northwest Territories.

*Buchia fischeriana* (d'Orbigny) s. lato

Hypotype 18016

Jeletzky, J.A., 1966, Geol. Surv., Canada, Bull. 128, p. 25, pl. 4, figs. 3A-C.

Middle Sandstone Member, Mould Bay Formation, Upper Jurassic, north of head of Intrepid Inlet, Prince Patrick Island, Arctic.

*Buchia* aff. *fischeriana* (d'Orbigny) s. lato

Hypotype 18009

Jeletzky, J.A., 1966, Geol. Surv., Canada, Bull. 128, p. 25, pl. 7, figs. 3A-C.

Awingak Formation, Upper Jurassic, north coast of Slidre Fiord, 1.2 miles northwest of Eureka weather station, Ellesmere Island, Arctic.

*Buchia* aff. *fischeriana* (d'Orbigny) s. lato

Hypotype 17447

Jeletzky, J.A., 1965, Geol. Surv., Canada, Bull. 103, pl. 4, figs. 14A-D.

One Tree Formation, Lower Cretaceous, west side of main body Grassy Island, west coast of Vancouver Island, British Columbia.

*Buchia fischeriana* (d'Orbigny) s. lato var.

Hypotype 18017

Jeletzky, J.A., 1966, Geol. Surv., Canada, Bull. 128, p. 25, pl. 8, figs. 8A-C.

Upper Jurassic, about 28 miles northwest of Summit Lake, about lat. 68°N, long. 137°20'W, west flank of northern Richardson Mountains, Yukon.

*Buchia aff. fischeriana* var. *stremouhovi* (Pavlow)

Hypotype 17473

Jeletzky, J.A., 1965, Geol. Surv., Canada, Bull. 103, pl. 7, figs. 6A-D.

One Tree Formation, Lower Cretaceous, west side of main body Grassy Island, west coast of Vancouver Island, British Columbia.

*Buchia inflata* (Toula) f. typ.

Hypotype 17335

Jeletzky, J.A.,

1964, Geol. Surv., Canada, Paper 64-6, p. 12, pl. 5, figs. 6a-e.

1965, ibid., Bull. 103, pl. 17, figs. 6A-E.

Eldorado Group (lower part), Lower Cretaceous, 300 yards northwest of north end of Spruce Lake, Tyaughton Lake area, Bridge River district, British Columbia,

*Buchia aff. inflata* (Toula) s. lato

Hypotype 17332

Jeletzky, J.A.,

1964, Geol. Surv., Canada, Paper 64-6, p. 12, pl. 5, figs. 3a-e.

1965, ibid., Bull. 103, pl. 17, figs. 3A-E.

Eldorado Group (lower part), Lower Cretaceous, north bank of Tyaughton Creek, Tyaughton Lake area, Bridge River district, British Columbia.

*Buchia inflata* (Toula) var.

Hypotypes 17246, 17249, 17250

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 46, pl. 9, figs. 4A-C; p. 48, pl. 10, figs. 2A, B, 4A-C.

Lower Cretaceous, approximately lat. 68°14'N, long. 137°28'W, RCAF A-14451-11, Bonnie Lake map-area, northern Yukon.

*Buchia inflata* var. *crassa* (Pavlow)

Hypotypes 17331, 17333

Jeletzky, J.A.,

1964, Geol. Surv., Canada, Paper 64-6, p. 12, pl. 5, figs. 2a-d, 4a-d.

1965, ibid., Bull. 103, pl. 17, figs. 2A-D, 4A-D.

Eldorado Group (lower part), Lower Cretaceous, north bank of Tyaughton Creek, a few hundred feet west of mouth of Camp Creek, Tyaughton Lake area, Bridge River district, British Columbia.

*Buchia inflata* var. *majuscula* (Tullberg)

Hypotype 16647

Jeletzky, J.A.,

1964, Geol. Surv., Canada, Paper 64-11, p. 52, pl. 12, figs. 1A-C.

1965, ibid., Bull. 103, pl. 16, figs. 6A-C.

Deer Bay Formation, Lower Cretaceous, Delta River, Ellef Ringnes Island, Arctic.

*Buchia keyserlingi* (Lahusen) f. typ.

Hypotype 17163

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 38, pl. 5, figs. 2A-C.

Deer Bay Formation, Lower Cretaceous, 4 miles northeast from head of Strand Fiord, Axel Heiberg Island, Arctic.

## MOLLUSCA

### *Buchia keyserlingi* (Lahusen) s. lato

Hypotype 16599

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-6, p. 6, pl. 2, figs. 3a, b.

One Tree Formation, Lower Cretaceous, southern rocky fringe of Grassy Island, west coast of Vancouver Island, British Columbia.

=*Buchia keyserlingi* var. *visingensis*, Jeletzky, J.A., 1965, ibid., Bull. 103, pl. 10, figs. 1A-C.

### *Buchia keyserlingi* (Lahusen) s. lato

Hypotype 17287; plastotype 17688

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 46, pl. 9, fig. 3; p. 54, pl. 13, figs. 11A, B.

Lower Cretaceous, 5 miles up Delta River, Deer Bay map-area, Ellef Ringnes Island, Arctic, and second creek west of Fischer Creek, Pine Pass area, Peace River Foothills, northeastern British Columbia.

### *Buchia* aff. *keyserlingi* (Lahusen)

Hypotype 17216

Jeletzky, J.A., 1966, Geol. Surv., Canada, Bull. 128, p. 29, pl. 6, figs. 5A-C.

Lower Cretaceous, south wall of Fault Creek canyon, about 3/8 of a mile up from its lower end, east slope of Aklavik Range, northern Richardson Mountains, Northwest Territories.

### *Buchia* aff. *keyserlingi* (Lahusen) s. lato

Hypotype 17252

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 50, pl. 11, figs. 1A-D.

Deer Bay Formation, Lower Cretaceous, 4 miles northwest of Meteorological Station, Deer Bay map-area, Ellef Ringnes Island, Arctic.

### *Buchia keyserlingi* (Lahusen) s. lato., var.

Hypotype 16615

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-6, p. 6, pl. 2, figs. 5a, b.

One Tree Formation, Lower Cretaceous, southern rocky fringe of Grassy Island, west coast of Vancouver Island, British Columbia.

=*Buchia keyserlingi* var. *visingensis*, Jeletzky, J.A., 1965, ibid., Bull. 103, pl. 12, figs. 1A-C.

### *Buchia keyserlingi* var. *gigas* (Crickmay)

Hypotype 16663

Jeletzky, J.A.,

1964, Geol. Surv., Canada, Paper 64-6, p. 18, pl. 8, figs. 2a, b.

1965, ibid., Bull. 103, pl. 20, figs. 16A, B.

Brockenback Hill Formation, Lower Cretaceous, Lonetree Island, off south tip of the Peninsula, Harrison Lake, British Columbia.

### *Buchia keyserlingi* var. *sibirica* (Sokolov)

Hypotype 16611

Jeletzky, J.A., 1965, Geol. Surv., Canada, Bull. 103, pl. 11, figs. 5A-C.

One Tree Formation, Lower Cretaceous, southern fringe of Grassy Island, west coast of Vancouver Island, British Columbia.

### *Buchia keyserlingi* var. *visingensis* (Sokolov)

Hypotypes 16607, 16616

Jeletzky, J.A., 1965, Geol. Surv., Canada, Bull. 103, pl. 11, figs. 1A, B; pl. 12, figs. 2A-C.

One Tree Formation, Lower Cretaceous, southern rocky fringe of Grassy Island, west coast of Vancouver Island, British Columbia.

*Buchia mosquensis* (von Buch)

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 104, pl. 50, fig. 3 [hypotype 17008].  
 Jeletzky, J.A., 1965, ibid., Bull. 103, pl. 1, fig. 2.

*Buchia mosquensis* (von Buch)

Jeletzky, J.A., 1965, Geol. Surv., Canada, Bull. 103, pl. 1, figs. 1A-C [hypotype 17009].

*Buchia mosquensis* (von Buch) s. lato

Hypotypes 17989, 17990

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 104, pl. 50, figs. 2, 4.  
 Upper Jurassic, west of Richardson Mountains, east of Waters River, Yukon, and top of Dave Lord Ridge, Yukon.

*Buchia mosquensis* var. *rugosa* (Fischer)

Plastotype 16576

Jeletzky, J.A., 1965, Geol. Surv., Canada, Bull. 103, pl. 2, figs. 1A-C.  
 Portlandian Stage, Upper Jurassic, Moscow, U.S.S.R.

*Buchia* n. sp. aff. *inflata* (Toula)

Hypotypes 16642, 17324

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-6, p. 10, pl. 4, figs. 2a, b; p. 14, pl. 6, figs. 7a-d.  
 Eldorado Group (lower part), Lower Cretaceous, about 1 1/2 miles above mouth of Mud Creek and about 1/4 mile west of Spruce Lake, Tyaughton Lake area, Bridge River district, British Columbia.  
 = *Buchia pacifica*, Jeletzky, J.A., 1965, ibid., Bull. 103, p. 44, pl. 16, figs. 1A, B [holotype 16642]; pl. 22, figs. 3A-C.  
 = *B. pacifica* var., 1965, Jeletzky, J.A., ibid., pl. 18, figs. 2A-D [17324].

*Buchia* n. sp. aff. *inflata* (Toula)

Hypotypes 17256, 17257, 17264, 17276-17278, 17280, 17281; plastotypes 17690-17692, 18808  
 Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 50, pl. 11, figs. 4, 8, 9; p. 52, pl. 12, figs. 3, 5-7, 9; p. 54, pl. 13, figs. 1, 2, 4, 5.

Mould Bay Formation, Lower Cretaceous, 6 miles northwest of "Redoubt", between Intrepid Inlet and Fitzwilliam Strait, Prince Patrick Island, Arctic [17256, 17257, 17277, 17278, 17280]; Isachsen Formation, Lower Cretaceous, headwaters Delta River, Ellef Ringnes Island, Arctic [17281]; Bullhead Group, Lower Cretaceous, Pine Pass map-area - ridge at headwaters Moberly River, lat. 55°39'N, long. 122°33'W [17264, 17276], Martin Creek [17690, 17692], second creek west of Fischer Creek [17691], and upper Peace River area [18808], northeastern British Columbia.

*Buchia* n. sp. aff. *inflata* (Toula) f. typ.

Hypotypes 16649, 16653

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-6, p. 14, pl. 6, figs. 2a-c; p. 10, pl. 4, figs. 10a-c.

One Tree Formation, Lower Cretaceous, southern end of southern rocky fringe of Grassy Island, west coast of Vancouver Island, British Columbia.

= *Buchia pacifica* f. typ., Jeletzky, J.A., 1965, ibid., Bull. 103, pl. 16, figs. 8A-C [16649]; pl. 19, figs. 4A-C [16653].

## MOLLUSCA

*Buchia* n. sp. *inflata* (Toula) var.

Hypotypes 16644, 17325

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-6, p. 14, pl. 6, figs. 4a-d, 5a-c.

One Tree Formation and Eldorado Group (lower part), Lower Cretaceous, southern end of southern rocky fringe of Grassy Island, west coast of Vancouver Island and 1/4 mile west of Spruce Lake, Tyaughton map-area, Bridge River district, British Columbia.

= *Buchia pacifica*, Jeletzky, J.A., 1965, ibid., Bull. 103, p. 44, pl. 16, figs. 3A-C [16644].

= *B. pacifica* var., Jeletzky, J.A., 1965, ibid., pl. 18, figs. 3A-D [17325].

*Buchia* n. sp. aff. *inflata* (Toula) var.

Hypotypes 16643, 16645, 16648, 16650, 16651, 16655

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-6, p. 10, pl. 4, figs. 3, 4, 7, 9; p. 14, pl. 6, figs. 3, 6.

One Tree Formation, Lower Cretaceous, southern end of southern rocky fringe of Grassy Island, west coast of Vancouver Island, British Columbia.

= *Buchia pacifica*, Jeletzky, J.A., 1965, ibid., Bull. 103, p. 44, pl. 16, figs. 2A-D [16643], 7A, B [16648].

= *Buchia pacifica* var., Jeletzky, J.A., 1965, ibid., pl. 16, figs. 4A-C [16645], 9A-D [16650], 10A-C [16651]; pl. 19, figs. 8A, B [16655].

*Buchia* n. sp. aff. *volgensis* (Lahusen)

Hypotypes 17123, 17125

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 32, pl. 2, figs. 3A, B, 5A-C.

Lower Cretaceous, north wall of nameless tributary of Husky Channel, southeast promontory of Mount Gifford, east slope Aklavik Range, Northwest Territories; Deer Bay Formation, Lower Cretaceous, 4 miles southwest of Buchanan Lake, Axel Heiberg Island, Arctic.

*Buchia okensis* (Pavlow)

Hypotypes 17122, 17131

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 30, pl. 1, figs. 8A, B; p. 32, pl. 2, figs. 2A-C.

Deer Bay Formation, Lower Cretaceous, 4 miles southwest of Buchanan Lake, Axel Heiberg Island, Arctic; Lower Cretaceous, north wall nameless tributary of Husky Channel, southeast promontory Mount Gifford, east slope Aklavik Range, Northwest Territories.

*Buchia okensis* (Pavlow) f. typ.

Hypotypes 17437, 17439, 17451

Jeletzky, J.A., 1965, Geol. Surv., Canada, Bull. 103, pl. 4, figs. 3A-C [17451], 4A-D [17437], 6A-D [17439].

One Tree Formation, Lower Cretaceous, west side of main body Grassy Island, west coast of Vancouver Island, British Columbia.

*Buchia okensis* (Pavlow) s. lato

Hypotypes 16589-16592, 16594, 16597

Jeletzky, J.A.,

1964, Geol. Surv., Canada, Paper 64-6, p. 4, pl. 1, figs. 1-4, 7a, b, 10a, b.

1965, ibid., Bull. 103, pl. 5, figs. 2A, B [16589].

One Tree Formation, Lower Cretaceous, west side of and main body of Grassy Island, west coast of Vancouver Island, British Columbia.

= *Buchia okensis* f. typ., Jeletzky, J.A., 1965, ibid., pl. 5, figs. 3A, B [16590], 10A, B [16597].

= *Buchia okensis* s. lato var., Jeletzky, J.A., 1965, ibid., pl. 5, figs. 4A, B [16591], 5A, B [16592].

= *Buchia okensis* var. *canadiana*, Jeletzky, J.A., 1965, ibid., pl. 5, figs. 7A, B [16594].

*Buchia okensis* (Pavlow) s. lato

Hypotypes 17452, 17471, 17487

Jeletzky, J.A., 1965, Geol. Surv., Canada, Bull. 103, pl. 4, figs. 4A-D [17471], 18A-D [17452]; pl. 8, figs. 6A-D [17487].

One Tree Formation, Lower Cretaceous, west side and middle of southern part of main body  
Grassy Island, west coast of Vancouver Island, British Columbia.*Buchia aff. okensis* (Pavlow) s. lato

Hypotype 17143

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 36, pl. 4, figs. 9A, B.

Lower Cretaceous, on Aucella Creek, about 1 6/10 miles southwest from middle of Lake Anford,  
lat. 68°29'N, long. 135°52'W, Northwest Territories.*Buchia aff. okensis* (Pavlow) s. lato

Hypotypes 17477, 17483, 17486, 17488

Jeletzky, J.A., 1965, Geol. Surv., Canada, Bull. 103, pl. 7, figs. 10A-C; pl. 8, figs. 2A-D,  
5A-D, 7A-D.One Tree Formation, Lower Cretaceous, west side and middle of southern part of main body  
Grassy Island, west coast of Vancouver Island, British Columbia.*Buchia okensis* (Pavlow) s. lato var.

Hypotypes 17455, 17456, 17466-17469, 17482, 17484, 17485, 17500, 17501, 17519

Jeletzky, J.A., 1965, Geol. Surv., Canada, Bull. 103, pl. 4, figs. 21A-D, 22A-D; pl. 6,  
figs. 8A-D, 9A-D; pl. 7, figs. 1A-D, 2A-D; pl. 8, figs. 1A-D, 3A-D, 4A-D;  
pl. 9, figs. 7A-D, 8A-D; pl. 22, figs. 4A-D.One Tree Formation, Lower Cretaceous, west side and middle of southern part of main body of  
Grassy Island, west coast of Vancouver Island, British Columbia.*Buchia okensis* (Pavlow) var.

Hypotype 16596

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-6, p. 4, pl. 1, figs. 8a, b.

One Tree Formation, Lower Cretaceous, main body of Grassy Island, west coast of Vancouver  
Island, British Columbia.= *Buchia okensis* s. lato var., Jeletzky, J.A., 1965, ibid., Bull. 103, pl. 5, figs. 9A, B.*Buchia okensis* (Pavlow) var.

Hypotype 17181

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 30, pl. 1, figs. 4A-C.

Lower Cretaceous, Spear map-sheet, lat. 68°26'N, long. 136°30'30"W, northern Yukon.

*Buchia okensis* var. *canadiana* (Crickmay)

Hypotype 16593

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-6, p. 4, pl. 1, figs. 6a, b.

One Tree Formation, Lower Cretaceous, middle part of main body of McQuarry Island, west  
coast of Vancouver Island, British Columbia.= *Buchia okensis* s. lato var., Jeletzky, J.A., 1965, ibid., Bull. 103, pl. 5, figs. 6A, B.*Buchia okensis* var. *canadiana* (Crickmay)

Hypotype 17127

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 30, pl. 1, figs. 1A-C.

Deer Bay Formation, Lower Cretaceous, 4 miles southwest of Buchanan Lake, Axel Heiberg Island,  
Arctic.

## MOLLUSCA

### *Buchia okensis* var. *canadiana* (Crickmay)

Hypotypes 17435, 17453, 17454, 17459, 17460, 17463, 17464, 17470, 17518

Jeletzky, J.A., 1965, Geol. Surv., Canada, Bull. 103, pl. 4, figs. 1A-D, 19A-D, 20A-D; pl. 6, figs. 1A-D, 2A-D, 5A-D, 6A-D; pl. 7, figs. 3A-D; pl. 22, figs. 5A-D.

One Tree Formation, Lower Cretaceous, west side of main body Grassy Island, west coast Vancouver Island, British Columbia.

### *Buchia okensis* aff. var. *canadiana* (Crickmay)

Hypotype 17462

Jeletzky, J.A., 1965, Geol. Surv., Canada, Bull. 103, pl. 6, figs. 4A-D.

One Tree Formation, Lower Cretaceous, west side of main body Grassy Island, west coast of Vancouver Island, British Columbia.

### *Buchia okensis* var. *elliptica* (Pavlow)

Hypotypes 16595, 17311

Jeletzky, J.A.,

1964, Geol. Surv., Canada, Paper 64-6, p. 4, pl. 1, figs. 5a, b, 9a, b.

1965, ibid., Bull. 103, pl. 5, figs. 8A, B [16595].

One Tree Formation, Lower Cretaceous, main body of Grassy Island, west coast of Vancouver Island, British Columbia.

### *Buchia okensis* var. *subokensis* (Pavlow)

Hypotype 17132

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 30, pl. 1, figs. 3A, B.

Lower Cretaceous, south bank of south branch of Fault Creek some 600 yards above confluence with north fork, east slope Aklavik Range, Northwest Territories.

### *Buchia okensis* var. *subokensis* (Pavlow)

Hypotypes 17438, 17444, 17445, 17448, 17457, 17458, 17461, 17474

Jeletzky, J.A., 1965, Geol. Surv., Canada, Bull. 103, pl. 4, figs. 5A-D, 11A-D, 12A-D, 15A-D, 23A-D, 24A-D; pl. 6, figs. 3A-D; pl. 7, figs. 7A-D.

One Tree Formation, Lower Cretaceous, west side of main body Grassy Island, west coast Vancouver Island, British Columbia.

### *Buchia aff. okensis* var. *subokensis* (Pavlow)

Hypotype 17442

Jeletzky, J.A., 1965, Geol. Surv., Canada, Bull. 103, pl. 4, figs. 9A-C.

One Tree Formation, Lower Cretaceous, west side of main body Grassy Island, west coast of Vancouver Island, British Columbia.

### *Buchia okensis* aff. var. *subokensis* (Pavlow)

Hypotypes 17441, 17443, 17475

Jeletzky, J.A., 1965, Geol. Surv., Canada, Bull. 103, pl. 4, figs. 8A-D, 10A-C; pl. 7, figs. 8A-C.

One Tree Formation, Lower Cretaceous, west side of main body Grassy Island, west coast of Vancouver Island, British Columbia.

### *Buchia pacifica* Jeletzky var.

Hypotypes 16652, 16654

Jeletzky, J.A., 1965, Geol. Surv., Canada, Bull. 103, pl. 19, figs. 3A-C, 6A-C.

One Tree Formation, Lower Cretaceous, southern end of southern rocky fringe of Grassy Island, west coast of Vancouver Island, British Columbia.

*Buchia piochii* (Gabb) s. lato var.

## Hypotype 18032

Jeletzky, J.A., 1966, Geol. Surv., Canada, Bull. 128, p. 25, pl. 7, figs. 6A–B.  
 Husky Formation, Upper Jurassic, 3/4 of a mile south of top of Mount Goodenough, north end  
 of Aklavik Range, northern Richardson Mountains, Northwest Territories.

*Buchia piochii* var. *mniownikensis* (Pavlow)

## Hypotypes 17117, 17118, 17120

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 104, pl. 50, figs. 5a–e, 6, 7a–e.  
 Jeletzky, J.A., 1965, ibid., Bull. 103, pl. 1, figs. 4A–E, 5A–E, 9A–E.  
 Mould Bay Formation, about 135 feet above base and talus, Upper Jurassic, 2 1/2 miles north of  
 Mould Bay weather station and Mould Bay, Prince Patrick Island, Arctic.

*Buchia piochii* var. *mniownikensis* (Pavlow)

## Hypotype 18010

Jeletzky, J.A., 1966, Geol. Surv., Canada, Bull. 128, p. 29, pl. 7, figs. 10A, B.  
 Awingak Formation, Upper Jurassic, north coast of Slidre Fiord, 1.2 miles northwest of Eureka  
 weather station, Ellesmere Island, Arctic.

*Buchia piochii* var. *russiensis* (Pavlow)

Jeletzky, J.A., 1965, Geol. Surv., Canada, Bull. 103, pl. 1, figs. 3A–E [hypotype 17010].

*Buchia piochii* var. *russiensis* (Pavlow)

## Hypotype 17119

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 104, pl. 50, figs. 8a–d.  
 Jeletzky, J.A., 1965, ibid., Bull. 103, pl. 1, figs. 6A–D.  
 Talus Mould Bay Formation, Upper Jurassic, Mould Bay, Prince Patrick Island, Arctic.

*Buchia plicata* (Zittel)

## Plastotype 16587

Jeletzky, J.A., 1965, Geol. Surv., Canada, Bull. 103, pl. 3, figs. 9A–C.  
 Lower Tithonian (Puaroan) Stage, Upper Jurassic, Waikato Sound Heads, New Zealand.

*Buchia richardsonensis* Jeletzky

## Holotype 18013; paratypes 18011, 18012, 18014, 18030

Jeletzky, J.A., 1966, Geol. Surv., Canada, Bull. 128, p. 31, pl. 7, figs. 1A, B, 4A–5E, 8A–9D.  
 Husky Formation, Upper Jurassic, about 5 miles north of top of Mount Goodenough, east  
 slope of Aklavik Range, northern Richardson Mountains, Northwest Territories; Deer Bay  
 Formation, Upper Jurassic, 2 1/3 miles east of mouth of unnamed river entering bay that  
 joins Greely Fiord, 4 miles east of Hare Fiord, Ellesmere Island, Arctic.

*Buchia aff. subinflata* (Pavlow)

## Hypotypes 17220, 18024

Jeletzky, J.A., 1966, Geol. Surv., Canada, Bull. 128, p. 40, pl. 6, figs. 9A–D; pl. 7,  
 figs. 11A–E [not 17024].  
 Deer Bay Formation, Upper Jurassic, Slidre Fiord, Reptile Creek, 2 1/2 miles north of Eureka  
 weather station, Ellesmere Island, Arctic.

## MOLLUSCA

### *Buchia sublaevis* (Keyserling) s. lato

Hypotypes 17235, 17283

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 52, pl. 12, figs. 8A-C; p. 54, pl. 13, figs. 7A-C, 9A-C.

Monach Formation, Bullhead Group, Lower Cretaceous, ridge between Carbon and Eleven Mile Creeks, lat.  $55^{\circ}49'N$ , long.  $122^{\circ}48'W$ , Pine Pass map-area, Peace River Foothills, northeastern British Columbia; Deer Bay Formation, Lower Cretaceous, 5 miles up Delta River, Deer Bay map-area, Ellef Ringnes Island, Arctic.

### *Buchia cf. sublaevis* (Keyserling) s. lato

Hypotype 17254

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 50, pl. 11, figs. 3A, B.

Bullhead Group, Lower Cretaceous, about 2 1/2 miles west of Fischer Creek on Hart Highway, Peace River Foothills, Alberta.

### *Buchia cf. sublaevis* (Keyserling) s. lato

Hypotype 17334

Jeletzky, J.A.,

1964, Geol. Surv., Canada, Paper 64-6, p. 12, pl. 5, figs. 5a-d.

1965, ibid., Bull. 103, pl. 17, figs. 5A-D.

Eldorado Group (lower part), Lower Cretaceous, 17400 feet on bearing  $280^{\circ}$  from junction of Tyaughton Creek and Spruce Lake, Tyaughton Lake area, Bridge River district, British Columbia.

### *Buchia aff. sublaevis* (Keyserling)

Hypotype 17230

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 52, pl. 12, figs. 10A-D.

Monach Formation, Bullhead Group, Lower Cretaceous, west of the Monach, lat.  $55^{\circ}49'N$ , long.  $122^{\circ}57'30''W$ , Pine Pass map-area, Peace River Foothills, northeastern British Columbia.

### *Buchia sublaevis* (Keyserling) s. lato var.

Hypotype 17330

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-6, p. 12, pl. 5, figs. 1a-d.

Eldorado Group (lower part), Lower Cretaceous, north bank of Tyaughton Creek, Tyaughton Lake area, Bridge River district, British Columbia.

=*Buchia sublaevis* var. *majuscula*, Jeletzky, J.A., 1965, ibid., Bull. 103, pl. 17, figs. 1A-D.

### *Buchia sublaevis* (Keyserling) s. lato var.

Hypotype 17234

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 52, pl. 12, figs. 2A-C.

Deer Bay Formation, Lower Cretaceous, on north bank of delta of nameless creek slightly less than 1/2 mile from mouth, about 1 7/8 miles east of Isachsen weather station, Ellef Ringnes Island, Arctic

### *Buchia sublaevis* (Keyserling) var.

Hypotype 17286

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 54, pl. 13, figs. 10A, B.

Deer Bay Formation, Lower Cretaceous, 5 miles up Delta River, Deer Bay map-area, Ellef Ringnes Island, Arctic.

### *Buchia aff. terebratuloides* (Lahusen) s. lato

Hypotype 17450

Jeletzky, J.A., 1965, Geol. Surv., Canada, Bull. 103, pl. 4, figs. 17A-D.

One Tree Formation, Lower Cretaceous, west side of main body Grassy Island, west coast of Vancouver Island, British Columbia.

*Buchia tolmatschowi* (Sokolov) f. typ.

Hypotype 16623

Jeletzky, J.A.,

1964, Geol. Surv., Canada, Paper 64-6, p. 8, pl. 3, figs. 3a-d.

1965, ibid., Bull. 103, pl. 13, figs. 4A-D.

One Tree Formation, Lower Cretaceous, northern part of western shore of Clark (One Tree) Island, west coast of Vancouver Island, British Columbia.

*Buchia tolmatschowi* (Sokolov) f. typ.

Hypotype 16636

Jeletzky, J.A., 1965, Geol. Surv., Canada, Bull. 103, pl. 15, figs. 4A-C.

One Tree Formation, Lower Cretaceous, southern end of southern rocky fringe of Grassy Island, west coast of Vancouver Island, British Columbia.

*Buchia tolmatschowi* (Sokolov) s. lato

Hypotype 16622

Jeletzky, J.A., 1965, Geol. Surv., Canada, Bull. 103, pl. 13, figs. 3A-C.

One Tree Formation, Lower Cretaceous, northern part of western shore Clark (One Tree) Island, west coast of Vancouver Island, British Columbia.

*Buchia tolmatschowi* (Sokolov) var.

Hypotype 16620

Jeletzky, J.A.,

1964, Geol. Surv., Canada, Paper 64-6, p. 8, pl. 3, figs. 2a-d.

1965, ibid., Bull. 103, pl. 13, figs. 1A-D.

One Tree Formation, Lower Cretaceous, northern part of western shore of Clark (One Tree) Island, west coast of Vancouver Island, British Columbia.

*Buchia tolmatschowi* var. *americana* (Sokolov)

Hypotypes 16629, 16641

Jeletzky, J.A.,

1964, Geol. Surv., Canada, Paper 64-6, p. 8, pl. 3, figs. 1a-d; p. 10, pl. 4, figs. 1a-c.

1965, ibid., Bull. 103, pl. 14, figs. 1A-D; pl. 15, figs. 11A-C.

One Tree Formation, Lower Cretaceous, south-southwest end of a larger islet situated some 400 yards northeast of main body and southern end of southern rocky fringe of Grassy Island, west coast of Vancouver Island, British Columbia.

*Buchia tolmatschowi* var. *americana* (Sokolov)

Hypotype 16640

Jeletzky, J.A., 1965, Geol. Surv., Canada, Bull. 103, pl. 15, figs. 10A-D.

One Tree Formation, Lower Cretaceous, southern end of southern rocky fringe of Grassy Island, west coast of Vancouver Island, British Columbia.

*Buchia uncitoides* (Pavlow) f. typ.

Hypotype 17139

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 36, pl. 4, figs. 3A, B.

Lower Cretaceous, about 1 3/4 miles slightly east of north end of Bonnie Lake, Yukon.

*Buchia uncitoides* (Pavlow) s. lato

Hypotypes 16600, 16664

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-6, p. 6, pl. 2, figs. 4a, b, 6a, b.

One Tree Formation, Lower Cretaceous, west side of main body of Grassy Island near its southern end, west coast of Vancouver Island, British Columbia.

= *Buchia uncitoides* var. *spasskenoides*, Jeletzky, J.A., 1965, ibid., Bull. 103, pl. 10, figs. 3A, B [16600], 11A, B [16664].

MOLLUSCA

*Buchia uncitoides* (Pavlow) s. lato

Hypotype 17446

Jeletzky, J.A., 1965, Geol. Surv., Canada, Bull. 103, pl. 4, figs. 13A-D.  
One Tree Formation, Lower Cretaceous, west side of main body Grassy Island, west coast of Vancouver Island, British Columbia.

*Buchia aff. uncitoides* (Pavlow) s. lato

Hypotypes 17449, 17472, 17478

Jeletzky, J.A., 1965, Geol. Surv., Canada, Bull. 103, pl. 4, figs. 16A-D; pl. 7, figs. 5A-C, 11A-C.  
One Tree Formation, Lower Cretaceous, west side of main body Grassy Island, west coast of Vancouver Island, British Columbia.

*Buchia cf. uncitoides* (Pavlow) s. lato

Hypotype 17440

Jeletzky, J.A., 1965, Geol. Surv., Canada, Bull. 103, pl. 4, figs. 7A-C.  
One Tree Formation, Lower Cretaceous, west side of main body Grassy Island, west coast of Vancouver Island, British Columbia.

*Buchia uncitoides* (Pavlow) s. lato var.

Hypotypes 16588, 17502-17505, 17508, 17510, 17514, 17516

Jeletzky, J.A., 1965, Geol. Surv., Canada, Bull. 103, pl. 5, figs. 1A, B; pl. 9, figs. 9A-12D, 15A-E, 17A-D, 21A-E, 23A-D.

One Tree Formation, Lower Cretaceous, southeastern side and middle of southern part of main body of Grassy Island, west coast of Vancouver Island, British Columbia.

*Buchia uncitoides* (Pavlow) var.

Hypotype 16606

Jeletzky, J.A.,  
1964, Geol. Surv., Canada, Paper 64-6, p. 6, pl. 2, figs. 7a-c.  
1965, ibid., Bull. 103, pl. 10, figs. 14A-C.

One Tree Formation, Lower Cretaceous, southern fringe of Grassy Island, west coast of Vancouver Island, British Columbia.

*Buchia uncitoides* (Pavlow) var.

Hypotype 17140

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 36, pl. 4, figs. 2A, B.  
Lower Cretaceous, about 1 3/4 miles slightly east of north of north end Bonnie Lake, Yukon.

*Buchia uncitoides* (Pavlow) var.

Hypotype 17436

Jeletzky, J.A., 1965, Geol. Surv., Canada, Bull. 103, pl. 4, figs. 2A-D.  
One Tree Formation, Lower Cretaceous, west side of main body Grassy Island, west coast of Vancouver Island, British Columbia.

*Buchia uncitoides* var. *acutistriata* (Crickmay)

Hypotypes 16603, 16604

Jeletzky, J.A.,  
1964, Geol. Surv., Canada, Paper 64-6, p. 6, pl. 2, figs. 1a-c, 2a-c.  
1965, ibid., Bull. 103, pl. 10, figs. 8A-C [16603].  
One Tree Formation, Lower Cretaceous, southern fringe of Grassy Island, west coast of Vancouver Island, British Columbia.  
= *Buchia uncitoides* s. lato, Jeletzky, J.A., 1965, ibid., pl. 10, figs. 9A-C [16604].

*Buchia uncitoides* var. *acutistriata* (Crickmay)

Hypotypes 17495, 17507, 17512, 17513

Jeletzky, J.A., 1965, Geol. Surv., Canada, Bull. 103, pl. 9, figs. 2A-D, 14A-E, 19A-D, 20A-E.

One Tree Formation, Lower Cretaceous, middle of southern part main body Grassy Island, west coast of Vancouver Island, British Columbia.

*Buchia uncitoides* var. *catamorpha* (Crickmay)

Hypotypes 16614, 17465, 17506, 17511

Jeletzky, J.A., 1965, Geol. Surv., Canada, Bull. 103, pl. 6, figs. 7A-D [17465]; pl. 9, figs. 13A-D [17506], 18A-D [17511]; pl. 11, figs. 8A, B [16614].

One Tree Formation, Lower Cretaceous, southern rocky fringe, west side, and middle of southern part of main body Grassy Island, west coast of Vancouver Island, British Columbia.

*Buchia uncitoides* var. *spasskensoides* (Crickmay)

Hypotype 17141

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 36, pl. 4, figs. 4A, B.

Lower Cretaceous, about 1 3/4 miles slightly west of north of north end Bonnie Lake, Yukon.

*Buchia uncitoides* var. *spasskensoides* (Crickmay)

Hypotypes 16605, 17479, 17481, 17491-17494, 17496, 17497, 17499, 17509, 17515

Jeletzky, J.A., 1965, Geol. Surv., Canada, Bull. 103, pl. 7, figs. 12A-C, 14A-D; pl. 8, figs. 10A-12D; pl. 9, figs. 1A-D, 3A-D, 4A-D, 6A-D, 16A-D, 22A-D; pl. 10, figs. 10A, B [16605].

One Tree Formation, Lower Cretaceous, west side and middle of southern part of main body Grassy Island, west coast of Vancouver Island, British Columbia.

*Buchia aff. uncitoides* var. *spasskensoides* (Crickmay)

Hypotypes 17489, 17490

Jeletzky, J.A., 1965, Geol. Surv., Canada, Bull. 103, pl. 8, figs. 8A-D, 9A-D.

One Tree Formation, Lower Cretaceous, middle of southern part of main body Grassy Island, west coast of Vancouver Island, British Columbia.

*Buchia unschensis* (Pavlow)

Hypotypes 17188-17191, 17214, 18023, 18025, 18027

Jeletzky, J.A., 1966, Geol. Surv., Canada, Bull. 128, p. 35, pl. 1, figs. 1A-4D; pl. 5, figs. 4A-6D; pl. 6, figs. 3A-D.

Deer Bay Formation, Upper Jurassic, Slidre Fiord, Reptile Bay, 2 1/2 miles north of Eureka weather station, Ellesmere Island, Arctic.

*Buchia aff. unschensis* (Pavlow)

Hypotype 17182

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 30, pl. 1, figs. 5A-C.

Lower Cretaceous, Spear map-sheet, lat. 68°21'N, long. 136°30'30"W, northern Yukon.

*Buchia aff. unschensis* (Pavlow)

Hypotype 17212

Jeletzky, J.A., 1966, Geol. Surv., Canada, Bull. 128, p. 35, pl. 6, figs. 1A-C.

Deer Bay Formation, Upper Jurassic, Slidre Fiord, Reptile Bay, 2 1/2 miles north of Eureka weather station, Ellesmere Island, Arctic.

## MOLLUSCA

*Buchia unschensis* (Pavlow) f. typ.

Hypotype 17215

Jeletzky, J.A., 1966, Geol. Surv., Canada, Bull. 128, p. 35, pl. 6, figs. 4A–C.

Deer Bay Formation, Upper Jurassic, Slidre Fiord, Reptile Creek, 2 1/2 miles north of Eureka weather station, Ellesmere Island, Arctic.

*Buchia unschensis* (Pavlow) var.

Hypotypes 17213, 17217–17219, 18022, 18026

Jeletzky, J.A., 1966, Geol. Surv., Canada, Bull. 128, p. 35, pl. 5, figs. 3A–D, 7A–E; pl. 6, figs. 2A–D, 6A–8C.

Deer Bay Formation, Upper Jurassic, Slidre Fiord, Reptile Creek, 2 1/2 miles north of Eureka weather station, Ellesmere Island, Arctic.

*Buchia volgensis* (Lahusen) f. typ.

Hypotype 16602

Jeletzky, J.A.,

1964, Geol. Surv., Canada, Paper 64-11, p. 36, pl. 4, figs. 10A, B.

1965, ibid., Bull. 103, pl. 10, figs. 5A, B.

Lower Cretaceous, on Martin Creek about 1 3/5 miles west of junction with Donna River, lat. 68°12'N, long. 135°34'W, District of Mackenzie.

*Buchia volgensis* (Lahusen) s. str.

Hypotypes 17144, 17157

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 36, pl. 4, figs. 5A, B, 7A–D.

Lower Cretaceous, directly beneath (east of) top of Mount Gifford and some 500 feet below its eastern rim, and south wall Fault Creek Canyon about 3/8 mile from lower end, east slope Aklavik Range, Northwest Territories.

*Buchia aff. volgensis* (Lahusen) s. str.

Hypotypes 17180, 17185, 17186

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 30, pl. 1, figs. 9–11.

Lower Cretaceous, east of Bell Lake, lat. 67°12'N, long. 136°17'W, Yukon; Monteith Formation, Bullhead Group, Lower Cretaceous, east of Point 6115, lat. 55°42'N, long. 122°41'W, Pine Pass map-area, Peace River Foothills, northeastern British Columbia.

*Buchia volgensis* (Lahusen) var.

Hypotype 16601

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 36, pl. 4, figs. 6A, B.

Lower Cretaceous, on Martin Creek, about 1 3/5 miles west of junction with Donna River, lat. 68°12'N, long. 135°34'W, Northwest Territories.

=*Buchia volgensis* s. str., Jeletzky, J.A., 1965, ibid., Bull. 103, pl. 10, figs. 4A, B.

*Byssonychia grandis* Ulrich

Liberty, B.A., 1964 "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 51, pl. 5, fig. 13 [hypotype 2120].

*Cardinia aff. regularis* Terquem

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 10, pl. 3, fig. 3 [hypotype 13717].

*Cleidophorus albionensis* Bolton

Bolton, T.E., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 77, pl. 7, fig. 21 [holotype 11594].

1966, Geol. Surv., Canada, Paper 66-5, pl. 2, fig. 22.

*Cleidophorus major* Bolton

Bolton, T.E., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 77, pl. 7, fig. 19 [holotype 11597].  
 1966, Geol. Surv., Canada, Paper 66-5, pl. 2, fig. 10.

*Cleidophorus minor* Bolton

Bolton, T.E., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 77, pl. 7, fig. 22 [holotype 11595].  
 1966, Geol. Surv., Canada, Paper 66-5, pl. 2, fig. 12.

*Cleidophorus wentworthensis* Bolton

Bolton, T.E., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 77, pl. 7, fig. 20 [holotype 11596].  
 1966, Geol. Surv., Canada, Paper 66-5, pl. 2, fig. 14.

*Conocardium* sp.

Fig. spec. 16044

Norris, A.W., 1964, Geol. Surv., Canada, Bull. 114, p. 32, pl. 13, figs. 1a-c.  
 Horn Plateau Formation, Middle Devonian, east flank Horn Plateau, 2.9 miles west of southwest tip Fawn Lake, lat. 62°08.2'N, long. 117°39'W, District of Mackenzie.

*Corbula munda* McLearn

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 62, pl. 29, figs. 4a, b [holotype 6092], 5a, b [paratype 6093].

*Ctenodonta cabotensis* Bolton

Hypotype 20492

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 2, fig. 13.  
 Grimsby Formation, Lower Silurian, Albion Falls, Ontario.

*Cucullaea livingstonensis* McLearn

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 80, pl. 38, fig. 4 [holotype 6045].

*Cucullaea* sp.

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 18, pl. 7, figs. 14, 16 [fig. specs. 13373, 13374].

*Cypricardinia arata* Hall

Hypotypes 20586, 20610

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 13, fig. 17; pl. 16, fig. 5.  
 Amabel and Guelph Formations, Middle Silurian, road-cut 1.3 miles northwest of Adamsville and exposures 1/2-1 mile north of Edenhurst on first North-South road west of Highway 6, Bruce Peninsula, Ontario.

*Goniomya cf. v-scripta* (Sowerby)

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 26, pl. 11, fig. 7 [hypotype 13396].

*Goniophora speciosa* Hall

Hypotype 20585

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 13, fig. 14.  
 Wiarton Member, Amabel Formation, Middle Silurian, Purple Valley road just east of Colpoys village - Adamsville road, Bruce Peninsula, Ontario.

*Gryphaea cadominensis* Warren

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 38, pl. 17, fig. 3 [hypotype 12894].

## MOLLUSCA

### *Gryphaea impressimarginata* McLearn

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 68, pl. 32, fig. 6 [holotype 12909].

### *Gryphaea rockymontana* Warren

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 14, pl. 5, fig. 2 [holotype 12871].

### *Haidaia billhookensis* Crickmay

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 54, pl. 25, fig. 3 [holotype cast 9681a].

### *Haidaia packardi* Crickmay

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 54, pl. 25, fig. 4 [holotype cast 9682a].

### *Haidaia statluensis* Crickmay

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 54, pl. 25, fig. 5 [paratype cast 9673a].

### *Hiatella arctica* (Linné)

Hypotypes 20452-20455

Terasmae, J., 1965, Geol. Surv., Canada, Bull. 121, pl. 7, figs. 7-10.

Pleistocene, northwest shore Sheek Island, Bergen Lake, St. Lawrence River, west of Cornwall and Foster sandpit, Uplands airport, Ottawa, Ontario.

### *Inoceramus cadottensis* McLearn

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 82, pl. 27, fig. 7 [holotype 6343].

### *Inoceramus cadottensis* var. *altifluminis* McLearn

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 82, pl. 27, fig. 3 [holotype 8935].

### *Inoceramus dowlingi* McLearn

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 82, pl. 27, fig. 1 [paratype 5399].

### *Inoceramus ferniensis* Warren

Hypotype 18007

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 38, pl. 17, fig. 4.

Rock Creek Member, Fernie Group, Middle Jurassic, Oldman River Gap, Livingstone Range, Alberta.

### *Inoceramus lucifer* Eichwald

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 46, pl. 21, figs. 1a-c, 2, 3a, b [hypotypes 13416, 13417, 13423].

### *Inoceramus nahwisi* McLearn

= *Posidonia?* *nahwisi* f. typ., Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 96, pl. 34, fig. 1 [holotype 6344].

### *Inoceramus nahwisi* var. *goodrichensis* McLearn

= *Posidonia?* *nahwisi* var. *goodrichensis*, Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 94, pl. 33, fig. 4 [holotype 8943]; p. 96, pl. 34, fig. 7 [paratype 8944].

### *Inoceramus nahwisi* var. *moberliensis* McLearn

= *Posidonia?* *nahwisi* var. *moberliensis*, Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 96, pl. 34, fig. 2 [holotype 8945].

### *Inoceramus obliquiformis* McLearn

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 80, pl. 38, fig. 2 [holotype 6049].

*Inoceramus vancouverensis* Shumard

Hypotypes 5681a, d, f

Whiteaves, J.F., 1879, Geol. Surv., Canada, Mesoz. Fossils, vol. 1, pt. 2, p. 170, pl. 20,  
figs. 4 [5681f], a [5681a], b [5681d].

Upper Cretaceous, 2 1/4 miles up Nanaimo River, Vancouver Island, British Columbia.

*Integridarium (Onestia) onestae* (McLearn)

= *Onestia onestae*, Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 76, pl. 24,  
fig. 9 [hypotype 8004], 11 [hypotype 8003].

*Lima albertensis* McLearn

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 62, pl. 29, fig. 7 [holotype 6075].

*Lima aff. compressa* Terquem

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 10, pl. 3, fig. 4 [hypotype 13732].

*Macoma balthica* (Linné)

Hypotypes 20462, 20463

Terasmae, J., 1965, Geol. Surv., Canada, Bull. 121, pl. 8, figs. 5, 6.

Pleistocene, gravel pit 1.5 miles northwest of Summerstown, about 6 miles east of Cornwall,  
Ontario.

*Macoma calcarea* (Gmelin)

Hypotypes 20464–20466

Terasmae, J., 1965, Geol. Surv., Canada, Bull. 121, pl. 8, figs. 7–9.

Pleistocene, northwest shore Sheek Island, Bergen Lake, St. Lawrence River, west of Cornwall,  
Ontario.

*Megalomus canadensis* Hall

Hypotype 20608

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 15, fig. 11.

Guelph Formation, Middle Silurian, Hespeler, Ontario.

*Modiola mandannaense* Lees

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 10, pl. 3, fig. 7 [holotype 9632].

*Modiolopsis kelsonensis* Williams

Hypotype 20491

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 2, fig. 11.

Grimsby Formation, Lower Silurian, Wentworth Street–Sherman Avenue section, Hamilton,  
Ontario.

*Modiolopsis rectus* (Hall)

Hypotypes 20588, 20591

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 13, figs. 19, 23.

Wiarton Member, Amabel Formation, Middle Silurian, cut on Adamsville–Lions Head road,  
northwest of Adamsville, Bruce Peninsula and road-cut at top of escarpment due north of  
Kemble, Ontario.

*Modiolopsis subcarinatus* Hall

Hypotype 17962

Bolton, T.E., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook,  
p. 77, pl. 7, fig. 23.

Basal red shale, Grimsby Formation, Lower Silurian, DeCew Falls, Ontario.

## MOLLUSCA

### *Monotis* cf. *M. haueri* Kittl

#### Hypotype 22687

Westermann, G.E.G., 1966, Can. J. Earth Sci., vol. 3, No. 7, p. 980, fig. 18.  
Lewes River Group, Triassic, "Maunoir Butte", lat.  $61^{\circ}31'N$ , long.  $135^{\circ}06'W$ , Laberge area,  
Yukon.

### *Monotis obtusicostata* Westermann

#### Holotype 21814; paratypes 21815–21817

Westermann, G.E.G., 1966, Can. J. Earth Sci., vol. 3, No. 7, p. 979, figs. 12, 14, 15, 17a, b.  
Pardonet Formation, Triassic, "Pink Mountain", lat.  $57^{\circ}5'N$ , long.  $122^{\circ}55'W$ , Sikanni Chief River  
area and lower part of "Black Bear Ridge", Peace River Foothills, British Columbia.

### *Monotis typica* (Kiparisova)

#### Hypotypes 21811–21813

Westermann, G.E.G., 1966, Can. J. Earth Sci., vol. 3, No. 7, p. 976, figs. 1–3.  
Pardonet Formation, Triassic, north of Twin Spruce gully, west slope West Brown spur, Peace  
River Foothills, British Columbia.

### *Mya arenaria* Linné

#### Hypotypes 20459–20461

Terasmae, J., 1965, Geol. Surv., Canada, Bull. 121, pl. 8, figs. 1–4.  
Pleistocene, gravel pit 1.5 miles northwest of Summerstown, about 6 miles east of Cornwall,  
Ontario.

### *Mya truncata* Linnaeus

#### Hypotypes 9877, 9884–9887

Laursen, D., 1966, Malacologia, vol. 3, No. 3, pp. 401, 402.  
Pleistocene, Winisk River, Ontario, and elevation 12–32 feet, Eric Cove, Quebec.

### *Mya truncata* forma *ovata* Jensen

#### Hypotypes 9878–9883, 9888–9890

Laursen, D., 1966, Malacologia, vol. 3, No. 3, p. 402.  
Pleistocene, elevation 40–180 feet, Clyde River, Baffin Island; Port Harrison and elevation  
12–32 feet, Eric Cove, Quebec; Fort Albany, Ontario.

### *Mytilus edulis* (Linné)

#### Hypotypes 20450, 20451

Terasmae, J., 1965, Geol. Surv., Canada, Bull. 121, pl. 7, figs. 5, 6.  
Pleistocene, Foster sandpit, Uplands airport, Ottawa, Ontario.

### *Ostrea dowlingi* McLearn

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 74, pl. 35, fig. 5 [paratype 6056a].

### *Oxytoma blairmorensis* McLearn

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 68, pl. 32, fig. 8 [holotype 6050];  
p. 74, pl. 35, fig. 4 [paratype 6050a].

### *Oxytoma cygnipes* Phillips

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 14, pl. 5, figs. 3, 4 [hypotypes  
12872, 12875].  
1966, ibid., Paper 66-27, p. 2, pl. 1, figs. 5, 6 [hypotypes 12872, 12876].

### *Oxytoma jacksoni* (Pompeckj)

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 24, pl. 10, figs. 11, 12a, b; p. 26,  
pl. 11, fig. 5 [hypotypes 13389–13391].

*Oxytoma mclearni* Warren

Hypotype 18008

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 38, pl. 17, fig. 5.  
 Rock Creek Member, Fernie Group, Middle Jurassic, 1/2 mile east of Burns' coal mine, Alberta.

*Oxytoma septentrionalis* (Haughton)

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 26, pl. 11, fig. 6 [hypotype 13394].

## Pelecypods

Hypotypes 20490

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 2, fig. 9.  
 Grimsby Formation, Lower Silurian, Wentworth Street — Sherman Avenue section, Hamilton,  
 Ontario.

*Pholadomya donacina* var. *obliquitruncata* Goldfuss

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 14, pl. 5, fig. 7 [hypotype 9636].

*Pinna calamitoides* Shumard

Packard, E.L. and Jones, D.L., 1965, J. Pal., vol. 39, No. 5, p. 914, pl. 108, figs. 1, 2  
 [hypotypes 17751, a].

*Pleuromya* (*Myacites*) cf. *gregarius* (Zeiten?)

= *Pleuromya* cf. *P. gregaria*, Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 10, pl. 3,  
 fig. 5 [hypotype 9638].

*Pleuromya obtusiprorata* McLearn

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 80, pl. 38, fig. 3 [holotype 6087].

*Pleuromya postculminata* McLearn

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 62, pl. 29, fig. 6 [holotype 6089].

*Pleuromya* sp. aff. *simplex* Warren

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 18, pl. 7, fig. 17 [hypotype 13375].

*Posidonomya nahwisi* var. *goodrichensis* McLearn

= *Posidonia?* *nahwisi* var. *goodrichensis*, Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper  
 64-11, p. 94, pl. 33, figs. 1 [hypotype 9710], 3 [hypotype 9713], 5 [hypotype 9717a].

*Posidonomya nahwisi* (transitional to var. *goodrichensis*) McLearn

= *Posidonia?* *nahwisi* f. typ., Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 96,  
 pl. 34, fig. 3 [hypotype 9704].

*Protocardia striatula* (Phillips)

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 18, pl. 7, fig. 15 [hypotype 13378].

Transitional forms of *Buchia*

Fig. specs. 17476, 17480

Jeletzky, J.A., 1965, Geol. Surv., Canada, Bull. 103, pl. 7, figs. 9A-D, 13A-D.

One Tree Formation, Lower Cretaceous, west side of main body Grassy Island, west coast of  
 Vancouver Island, British Columbia.

*Trigonia* aff. *T. costatula* Lycett

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 14, pl. 5, fig. 6 [hypotype 9635].

MOLLUSCA

*Trigonia littlei* Frebold

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4. p. 8, pl. 2, figs. 7a, b-9 [holotype 13720; paratypes 13721, 13722].

*Whitella hinda* (Billings)

Liberty, B.A., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 51, pl. 5, fig. 14 [holotype 2080].

*Yoldia arctica* (Gray)

Hypotypes 20446-20449

Terasmae, J., 1965, Geol. Surv., Canada, Bull. 121, pl. 7, figs. 1-4.

Pleistocene, northwest shore Sheek Island, Bergen Lake, St. Lawrence River, west of Cornwall, Ontario.

## CEPHALOPODA — Nautiloidea

### *Amphicyrtoceras williamsi* Foerste

#### Hypotype 20596

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 14, fig. 5.  
Guelph Formation, Middle Silurian, zinc prospect 1000 feet east of Highway 6, 3 miles northwest of Wiarton, Ontario.

### *Anaspyroceras varro* (Billings)

#### Hypotype 20606

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 15, fig. 5.  
Guelph Formation, Middle Silurian, zinc prospect 1000 feet east of Highway 6, 3 miles northwest of Wiarton, Ontario.

### *Antiplectoceras shamattawaense* (Parks)

#### Hypotypes 10552, 10553

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 97, pl. 31, fig. 3.  
Member 3, Chasm Creek Formation, Upper Ordovician, left bank Churchill River, 2-2 1/2 miles above Red Head Rapids, Manitoba.

### *Apsidoceras boreale* Foerste and Savage

#### Hypotype 10504

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 99, pl. 33, fig. 2.  
Chasm Creek Formation, Upper Ordovician, Nelson River, from mouth about 1/4 mile upriver, Angling River, Manitoba.

### *Apsidoceras milleri* Nelson

#### Holotype 10520, 10521 [plaster cast]

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 99, pl. 33, fig. 1; pl. 34, figs. 1a, b.  
Member 1, Chasm Creek Formation, Upper Ordovician, left bank Churchill River, 9 1/4-10 miles above Red Head Rapids, Manitoba.

### *Beloitoceras orilliense* Flower

Sinclair, G.W., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 39, pl. 3, fig. 2 [holotype 11085].

### *Billingsites borealis* (Parks)

#### Hypotypes 10528, 10529

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 82, pl. 22, figs. 4a, b.  
Member 1, Caution Creek Formation, Upper Ordovician, right bank Churchill River, 2 3/4 miles below Chasm Creek and 1/2-1 mile up from mouth on Caution Creek, Manitoba.

### *Billingsites costulatus* (Whiteaves)

#### Hypotypes 10527, 21088

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 81, pl. 37, fig. 2.  
Member 2, Portage Chute Formation, Upper Ordovician, right bank Churchill River, 1/2 mile above and below Bad Cache Rapids, and near foot of second upper limestone rapids, Nelson River, Manitoba.

## MOLLUSCA

### *Billingsites keatingi* Nelson

#### Holotype 10558

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 82, pl. 22, figs. 3a, b.  
Member 1, Caution Creek Formation, Upper Ordovician, Caution Creek from 1/2–1 mile up,  
Churchill River, Manitoba.

### *Billingsites landerensis* Foerste

#### Hypotypes 10799, 10800

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 81, pl. 23, figs. 1a, b.  
Member 2, Portage Chute Formation, Upper Ordovician, left bank Churchill River, 2 1/2–3 miles  
below Bad Cache Rapids, Manitoba.

### *Charactoceras laddi* Foerste

#### Hypotype 10507

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 101, pl. 28, fig. 3.  
Caution Creek Formation, Upper Ordovician, 1/2 mile up Chasm Creek, Churchill River,  
Manitoba.

### *Charactoceras manitobense* Nelson

#### Holotype 10860; paratype 10885

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 100, pl. 19, fig. 2; pl. 30, fig. 4.  
Member 2, Portage Chute Formation, Upper Ordovician, left bank South Knife River, approxi-  
mately 2 miles WNW. of northwest end of Herriot Lake and right bank Churchill River,  
1/2 mile above and below Bad Cache Rapids, Manitoba.

### *Charactoceras warrenae* Nelson

#### Holotype 10798; paratype 10506

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 101, pl. 29, fig. 2; pl. 37, figs. 1, 4.  
Member 1, Caution Creek Formation, Upper Ordovician 1/2 mile up Chasm Creek and right  
bank Churchill River, 2 3/4 miles below mouth Chasm Creek, Manitoba.

### *Charactocerina goodwini* Nelson

#### Holotype 10805

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 103, pl. 30, fig. 3; pl. 32, fig. 4.  
Member 3, Caution Creek Formation, Upper Ordovician, Churchill River, 1/2–1 mile above  
mouth on Caution Creek, Manitoba.

### *Charactocerina kirki* Foerste

#### Hypotype 10861

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 102.  
Member 1, Portage Chute Formation, Upper Ordovician, right bank Churchill River, 1/2 mile  
above and below Bad Cache Rapids, Manitoba.

### *Charactocerina leithi* Nelson

#### Holotype 10522, 10523 [plaster cast]

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 103, pl. 35, fig. 1; pl. 36, figs. 1a, b.  
Member 3, Chasm Creek Formation, Upper Ordovician, left bank Churchill River, 2–2 1/2  
miles above Red Head Rapids, Manitoba.

### *Cyclendoceras belli* Nelson

#### Holotype 10516; paratype 21089

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 69, pl. 17, fig. 1; pl. 18, figs. 1a, b.  
Caution Creek Formation, Upper Ordovician, Churchill River, for 1/3 mile up Hidden Creek  
and South Knife River, Manitoba.

*Cyrtogomphoceras alcocki* Nelson

Hypotype 10541; paratype 10542

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 96, pl. 28, figs. 1a, b.

Member 2, Portage Chute Formation, Upper Ordovician, right bank Nelson River from First Upper Limestone Rapids down to about 1 mile below Third Upper Limestone Rapids and right bank Churchill River, 1/2 mile above and below Bad Cache Rapids, Manitoba.

*Cyrtogomphoceras baffinense* Foerste

Hypotype 10543

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 94.

Member 2, Portage Chute Formation, Upper Ordovician, right bank Churchill River, 1/2 mile above and below Bad Cache Rapids, Manitoba.

*Cyrtogomphoceras foerstei* Miller and Furnish

Hypotype 10544

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 95, pl. 27, fig. 1.

Member 2, Portage Chute Formation, Upper Ordovician, right bank South Knife River, about 3 miles west of northwest end of Herriot Lake, Manitoba.

*Cyrtogomphoceras nutatum* Foerste and Savage

Hypotype 10524

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 93, pl. 35, fig. 2.

Member 2, Portage Chute Formation, Upper Ordovician, left bank Churchill River, 2 miles below Portage Chute, Manitoba.

*Cyrtogomphoceras rotundum* Miller

Hypotype 10546

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 93, pl. 23, fig. 2.

Member 2, Portage Chute Formation, Upper Ordovician, left bank South Knife River, approximately 2 miles WNW. of northwest end of Herriot Lake, Manitoba.

*Cyrtogomphoceras thompsoni* Miller and Furnish

Hypotypes 10545, 10792

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 95, pl. 26, fig. 1.

Member 2, Portage Chute Formation, Upper Ordovician, right bank Nelson River, 3–3 1/2 miles below Long Spruce Rapids and left bank Churchill River, 2 1/2–3 miles below Bad Cache Rapids, Manitoba.

*Cyrtogomphoceras turgidum* Troedsson

Hypotypes 10508, 10547, 21090

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 92, pl. 29, fig. 1.

Member 2, Portage Chute Formation, Upper Ordovician, left bank Churchill River, 2 1/2–3 miles below Bad Cache Rapids; right bank Nelson River, from First Upper Limestone Rapids down to about 1 mile below Third Upper Limestone Rapids; and South Knife River, Manitoba.

'*Cyrtorizoceras*' *byronense* Foerste

Hypotypes 20593, 20600

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 14, figs. 1, 2, 9.

Wiarton Member, Amabel Formation, Middle Silurian, road-cut west side opposite radio tower, Owen Sound—Chatsworth Highway 6-10, Ontario.

## MOLLUSCA

### *Digenuoceras latum* (Foerste)

Hypotypes 10551, 21091

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 83, pl. 23, fig. 3.

Member 2, Portage Chute Formation, Upper Ordovician, right bank Churchill River, about 2 1/2 miles below Bad Cache Rapids and South Knife River, Manitoba.

### *Digenuoceras mclearni* Nelson

Holotype 10345

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 84, pl. 21, fig. 1.

Member 1, Caution Creek Formation, Upper Ordovician, for 1/3 mile up Hidden Creek, Churchill River, Manitoba.

### *Digenuoceras okulitchi* Nelson

Holotype 10510; paratype 10511

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 84, pl. 25, fig. 2; pl. 30, fig. 1.

Chasm Creek Formation, Upper Ordovician, left bank Churchill River, approximately 7 1/2 miles and 2–2 1/2 miles above Red Head Rapids, Manitoba.

### *Discosorus humei* Foerste

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 18, fig. 12 [syntype 8710].

### *Donacoceras timiskamingense* Foerste

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 18, fig. 3 [holotype 8043].

### *Ephippiorthoceras dowlingi* Foerste and Savage

Hypotype 21092

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 78.

Caution Creek Formation, Upper Ordovician, Caution Creek, Churchill River, Manitoba.

### *Exomegoceras wyomingense* Miller and Carrier

Hypotype 10554

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 85, pl. 31, fig. 1.

Member 2, Portage Chute Formation, Upper Ordovician, right bank Churchill River 1/2 mile above and below Bad Cache Rapids, Manitoba.

### *Geisonoceras tenuistriatum* (Hall)

Hypotype 18665

Liberty, B.A., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 51, pl. 5, fig. 11.

Collingwood Formation, Upper Ordovician, 2500 feet north of highway bridge over Lynde Creek (West Branch), lot 30, con. 2, Whitby West tp., Ontario co., Ontario.

### *Gorbyoceras giganteum* Nelson

Holotype 10525

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 77, pl. 18, fig. 2; pl. 25, figs. 1, 3.

Member 2, Chasm Creek Formation, Upper Ordovician, left bank Churchill River, approximately 7 1/2 miles above Red Head Rapids, Manitoba.

### *Grimsbyoceras (?) orodes* (Billings)

Hypotype 20587

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 13, fig. 18.

Wiarton Member, Amabel Formation, Middle Silurian, Purple Valley road just east of Colpoys village—Adamsville road, Bruce Peninsula, Ontario.

*Homaloceras planatum* Whiteaves

Turner, J.S., 1966, Proc. Leeds Philosophical and Literary Soc., Sci. Sec., vol. 10, pt. 1, p. 5, fig. 1a [holotype 4166].

*Humeoceras unguioideum* Foerste

Teichert, C., 1964, Treatise on Invertebrate Paleontology, pt. K, Mollusca 3, p. K187, figs. 123. 1a, b [holotype 8041], c–e [paratype 8041b].

*Huronia* sp. cf. *H. obliqua* Stokes

## Hypotype 20540

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 7, fig. 6.  
Fossil Hill Formation, Middle Silurian, plateau west of 'Isaiah Hunter Farm, New England', Manitoulin Island, Ontario.

*Huronia septata* Parks

## Hypotype 21093

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 73.  
Member 3, Chasm Creek Formation, Upper Ordovician, 2 miles above Red Head Rapids, Churchill River, Manitoba.

*Huroniella timiskamingensis* Foerste

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 18, fig. 5 [holotype 8705].

*Kinaschukoceras churchillense* Nelson

## Holotype 10802; paratypes 10803, 10804

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 105, pl. 37, fig. 3.  
Member 4, Chasm Creek Formation, Upper Ordovician, right bank Churchill River, Red Head Rapids, Manitoba.

*Kochoceras bailliei* Nelson

## Holotype 10865; paratype 10866

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 71, pl. 21, figs. 2a–c.  
Chasm Creek Formation, Upper Ordovician, 1/2 mile up Chasm Creek and left bank Churchill River, approximately 7 1/2 miles above Red Head Rapids, Manitoba.

*Kochoceras giganteum* Nelson

## Holotype 10864

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 71, pl. 19, fig. 1.  
Member 3, Chasm Creek Formation, Upper Ordovician, left bank Churchill River, 2–2 1/2 miles above Red Head Rapids, Manitoba.

*Lambeoceras baffinense* Miller, Youngquist and Collinson

## Hypotype 10513

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 75.  
Member 2, Portage Chute Formation, Upper Ordovician, left side Churchill River, 2 1/2–3 miles below Bad Cache Rapids, Manitoba.

*Lambeoceras kronlundi* Miller and Youngquist

## Hypotype 10332

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 73, pl. 32, fig. 1.  
Member 1, Portage Chute Formation, Upper Ordovician, right bank North Knife River, approximately 4 1/4 miles below Tepee Falls, Manitoba.

MOLLUSCA

*Lambeoceras landerense* Foerste

Hypotype 10535

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 74.

Member 2, Portage Chute Formation, Upper Ordovician, left bank South Knife River, approximately 2 miles WNW. of northwest end of Herriot Lake, Manitoba.

*Lambeoceras nudum* Troedsson

Hypotype 10536

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 74.

Caution Creek Formation, Upper Ordovician, South Knife River, 1/2 mile long outcrop starting about 2 2/5 miles due east of line of long. 95°, Manitoba.

*Lambeoceras walkeri* Nelson

Holotype 10531, 10532 [plaster cast]; paratype 10533

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 75, pl. 20, fig. 1.

Surprise Creek Formation, Upper Ordovician, right bank Nelson River at Lower Limestone Rapids along outer side of large island, Manitoba.

*Lechritrochoceras desplainense* (McChesney)

Hypotype 20590

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 13, fig. 22.

Wiarton Member, Amabel Formation, Middle Silurian, road-cut 3.7 miles south of Edenhurst, west of Highway 6, Bruce Peninsula, Ontario.

*Leurocycloceras brucense* (Williams)

Hypotypes 20599, 20603–20605

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 14, figs. 8, 10, 13; pl. 15, figs. 1–3. Guelph Formation, Middle Silurian, east side of Gauley Bay west of Stokes Bay and Baptist Harbour, lots 50–52, con. 10W, St. Edmund tp., Bruce Peninsula, Ontario.

*Leurocycloceras (?) orangevillense* Bolton

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 7, fig. 8 [paratype 11069].

*Leurocycloceras (?) orangevillense* Bolton

Hypotype 20541

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 7, fig. 7.

17 inches below upper contact, Fossil Hill Formation, Middle Silurian, Scotts Falls, tributary of Nottawasaga River northeast of Orangeville, Ontario.

*Lowoceras* sp.

Fig. spec. 20618

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 18, fig. 8.

Middle Silurian, limestone rapids on Fawn branch of Severn River, Hudson Bay Lowlands, Ontario.

*Megadiscosorus crassisegmentatus* Foerste

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 18, fig. 10 [holotype 8726].

*Michelinoceras oberon* (Billings)

Hypotype 20539

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 7, fig. 5.

20 inches below upper contact, Fossil Hill Formation, Middle Silurian, Scotts Falls, tributary of Nottawasaga River northeast of Orangeville, Ontario.

*Neumatoceras churchillense* Nelson

Holotype 10559

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 86, pl. 36, figs. 2a, b.

Member 2, Portage Chute Formation, Upper Ordovician, right bank Churchill River, 1/2 mile above and below Bad Cache Rapids, Manitoba.

*Paractinoceras (?) churchillense* Nelson

Holotype 10534

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 77, pl. 20, fig. 3; pl. 29, fig. 3.

Member 2, Chasm Creek Formation, Upper Ordovician, right bank Churchill River, approximately 6 1/2 miles above Red Head Rapids, Manitoba.

*Parksoceras lepidodendroides* (Parks)

Hypotype 10505

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 69, pl. 31, fig. 2.

Caution Creek Formation, Upper Ordovician, South Knife River, 1/2 mile along starting about 2 3/5 miles due east of line of long. 95°, Manitoba.

*Phragmoceras lineolatum* Whiteaves

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 19, fig. 13 [syntype 4404].

*Phragmoceras ontarioense* Foerste

Hypotype 20594

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 14, fig. 3.

Wiarton Member, Amabel Formation, Middle Silurian, road-cut west side opposite radio tower, Owen Sound–Chatsworth Highway 6-10, Ontario.

*Probillingsites cobourgensis* Flower

Sinclair, G.W., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 41, pl. 4, figs. 13 [paratype 11092], 14 [holotype 11091].

*Probillingsites harkeri* Nelson

Holotype 10540

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 80, pl. 20, figs. 2a, b.

Member 1, Caution Creek Formation, Upper Ordovician, for 1/2 mile up Chasm Creek, Churchill River, Manitoba.

*Probillingsites sutherlandi* Sweet and Miller

Furnish, W.M. and Glenister, B.F., 1964, Treatise on Invertebrate Paleontology, pt. K, Mollusca 3, p. K267, fig. 189.4; p. K270, fig. 191.5 [holotype 12229].

*Schuchertoceras newberryi* (Billings)

Hypotype 17741

Furnish, W.M. and Glenister, B.F., 1964, Treatise on Invertebrate Paleontology, pt. K, Mollusca 3, p. K267, fig. 189.3; p. K270, fig. 191.4.

Allen Bay Formation, Upper Ordovician, Douro Range, Camp Creek, west Devon Island, Arctic.

*Spyroceras hammelli* (Foerste)

Hypotype 18663

Liberty, B.A., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 53, pl. 6, fig. 1.

Meaford Formation, Upper Ordovician, Cape Smyth, Manitoulin Island, Ontario.

*Stokesoceros* sp. cf. *S. engadinense* Foerste

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 18, fig. 7 [hypotype 8707].

## MOLLUSCA

### *Westonoceras nelsonense* Foerste

Hypotype 10509

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 87.

Member 2, Portage Chute Formation, Upper Ordovician, left bank South Knife River, 1 mile northwest end of Herriot Lake, Manitoba.

### *Whiteavesites procteri* Nelson

Holotype 10538

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 79, pl. 22, fig. 1; pl. 30, fig. 2.

Surprise Creek Formation, Upper Ordovician, right bank Nelson River, along outer side of large island at Lower Limestone Rapids, Manitoba.

### *Whiteavesites winnipegensis* (Whiteaves)

Hypotype 10530

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 79, pl. 22, fig. 2.

Member 2, Portage Chute Formation, Upper Ordovician, South Knife River, Manitoba.

### *Wilsonoceras squawcreekense* Miller

Hypotype 10537

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 104, pl. 32, fig. 2.

Member 2, Portage Chute Formation, Upper Ordovician, left side Churchill River, 2 1/2–3 miles below Bad Cache Rapids, Manitoba.

### *Winnipegoceras callahani* Nelson

Holotype 10550

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 91, pl. 24, fig. 1.

Member 2, Chasm Creek Formation, Upper Ordovician, left bank Churchill River, approximately 7 1/2 miles above Red Head Rapids, Manitoba.

### *Winnipegoceras (?) contractum* (Foerste and Savage)

Hypotype 10801

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 91.

Member 1, Caution Creek Formation, Upper Ordovician, left bank Churchill River adjacent to mouth and 1/2 mile up Surprise Creek, Manitoba.

### *Winnipegoceras dowlingi* Foerste

Hypotypes 10549, 10887

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 89, pl. 26, fig. 2; pl. 31, fig. 4.

Member 2, Portage Chute Formation, Upper Ordovician, left and right banks Nelson River, 1 mile above and below Third Upper Limestone Rapids and 3–3 1/2 miles below Long Spruce Rapids, Manitoba.

### *Winnipegoceras laticurvatum* (Whiteaves)

Hypotype 10548

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 88, pl. 23, fig. 4; pl. 27, fig. 2.

Member 2, Portage Chute Formation, Upper Ordovician, left bank South Knife River, approximately 2 miles WNW. of northwest end of Herriot Lake, Manitoba.

### *Winnipegoceras nelsonense* Nelson

Holotype 10791

Nelson, S.J., 1963, Geol. Soc. Amer., Mem. 90, p. 90, pl. 24, fig. 2; pl. 28, fig. 2; pl. 32, fig. 3.

Member 2, Portage Chute Formation, Upper Ordovician, right bank Nelson River, 3–3 1/2 miles below Long Spruce Rapids, Manitoba.

### *Worthenoceras* sp. cf. *W. exiguum* Foerste

Hypotypes 20597, 20598

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 14, figs. 6, 7.

Wiarton Member, Amabel Formation, Middle Silurian, road-cut at Adamsville, Bruce Peninsula, Ontario.

## CEPHALOPODA — Dibranchiata

### *Acroteuthis* aff. *conoides* Swinnerton

#### Hypotype 17291

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 58, pl. 15, figs. 3A, B.

Lower Cretaceous, about 1 mile east of top of Mount Goodenough, basal part of eastern slope of massif, east slope Aklavik Range, Northwest Territories.

### *Acroteuthis* cf. *conoides* Swinnerton

#### Hypotype 17288

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 56, pl. 14, figs. 3A, B.

Lower Cretaceous, north bank of left fork of northermost branch Bug Creek, about 1 3/4 miles north of lower end Bug Creek Canyon, elevation 2025 feet, east slope Aklavik Range, Northwest Territories.

### *Acroteuthis* cf. *A. kernensis* Anderson and *A. mitchelli* Anderson

#### Hypotypes 17384, 17388

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 70, pl. 21, figs. 4A-C, 8A-C.

Lower Cretaceous, northeast shore Rat River about 4 1/2 miles downstream from mouth of Barrier River and 1 mile northwest of southwest corner of river's "Big Bend", and top part of east slope Mount Goodenough massif, northern Richardson Mountains, Northwest Territories.

### *Acroteuthis?* (a new genus?) n. sp. A

#### Fig. spec. 17248

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 48, pl. 10, figs. 1A, B.

Deer Bay Formation, Lower Cretaceous, 4 miles northeast of Meteorological Station, Ellef Ringnes Island, Arctic.

### *Acroteuthis* n. sp. A

#### Fig. specs. 17326, 17327

Jeletzky, J.A., 1965, Geol. Surv., Canada, Bull. 103, pl. 18, figs. 4A-C, 5A-C.

Eldorado Group, Lower Cretaceous, along north bank Tyaughton Creek a few hundred feet west of mouth of Camp Creek, Tyaughton Lake area, Bridge River district, British Columbia.

### *Acroteuthis* n. sp. aff. *conoides* Swinnerton?

#### Hypotype 17305

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 66, pl. 19, figs. 1A-C.

Lower Cretaceous, crest of nameless rocky spur extending east from main slope immediately north of one occurring about 2 miles south of Bug Lake, east slope Aklavik Range, Northwest Territories.

### *Acroteuthis pseudopanderi* (Sintsov)

#### Hypotypes 17296, 17297, 17301

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 60, pl. 16, figs. 2A-E, 3A, B; p. 64, pl. 18, figs. 2A-C.

Lower Cretaceous, middle part of nameless rocky spur extending east from main slope at a point 2 miles south of Bug Lake, east slope Aklavik Range, Northwest Territories.

MOLLUSCA

*Acroteuthis subquadratus* (Roemer)

Hypotype 17253

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 50, pl. 11, figs. 2A, B.  
Deer Bay Formation, Lower Cretaceous, a few miles east of Isachsen weather station, Ellef  
Ringnes Island, Arctic.

*Actinosepia canadensis* Whiteaves

Waage, K.M., 1965, Postilla, No. 94, p. 18, pl. 1, figs. 1-3 [holotype 5379; paratypes  
5739a-c].

*Actinosepia canadensis* Whiteaves

Hypotypes 19888, 20696

Landes, R.W., 1940, Geol. Surv., Canada, Mem. 221, p. 180.  
Waage, K.M., 1965, Postilla, No. 94, p. 18, pl. 2, figs. 1-3; pl. 3, figs. 1, 2.  
Bearpaw Formation, Upper Cretaceous, near Manyberries, sec. 30, tp. 5, rge. 4, W. 4th mer.,  
Alberta.

*Aulacoteuthis cf. ascendens* Stolley

Hypotype 17387

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 70, pl. 21, figs. 7A-D.  
Lower Cretaceous, headwaters of middle branch Jimmy Creek, northern Richardson Mountains,  
Northwest Territories.

*Buelowiteuthis plana* (von Bülow)

Hypotype 21164

Jeletzky, J.A., 1966, Univ. Kansas Pal. Contrib., Mollusca, Art. 7, p. 25, pl. 18, figs. 1A-C.  
Pardonet beds, Upper Triassic, ledge near fault at hill 8, below Jewitt Spur, north bank of  
Peace River, northeastern British Columbia.

*Cylindroteuthis aff. obeliscoides* Pavlow and Lamplugh

Hypotype 16582

Jeletzky, J.A., 1965, Geol. Surv., Canada, Bull. 103, pl. 2, figs. 8A, B.  
Upper Jurassic, west side Grassy Island, west coast Vancouver Island, British Columbia.

*Cylindroteuthis* sp.

Fig. spec. 20444

Jeletzky, J.A., 1966, Univ. Kansas Pal. Contrib., Mollusca, Art. 7, pl. 15, figs. 1A-D.  
Husky Formation, Upper Jurassic, about 5 miles north of top of Mount Goodenough, east  
slope of Ak lavik Range, northern Richardson Mountains, Northwest Territories.

*Dimitobelus lindsayi* (Hector)

Hypotype 21166

Jeletzky, J.A., 1966, Univ. Kansas Pal. Contrib., Mollusca, Art. 7, pl. 19, figs. 1A-F.  
Upper Cretaceous, Amuri Bluff (west wing), South Island, New Zealand.

*Gastrobhelus umbilicatus* (de Blainville)

Hypotype 21169

Jeletzky, J.A., 1966, Univ. Kansas Pal. Contrib., Mollusca, Art. 7, pl. 25, fig. 3.  
Lower Jurassic, Sehnde Canal, northwestern Germany.

*Hibolithes hastatus* (de Blainville)

Hypotype 20440

Jeletzky, J.A., 1966, Univ. Kansas Pal. Contrib., Mollusca, Art. 7, pl. 9, figs. 1A, B; pl. 10,  
figs. 1A-C.  
? Upper Jurassic, Württemberg, Germany.

*Hibolithes* n. sp. A?

Fig. spec. 17386

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 70, pl. 21, figs. 6A–D.

Lower Cretaceous, lower Rat River, northeast branch about 1/2 mile below mouth Longstick Creek and some 500 feet upstream from Indian campsite, "Destruction City", northern Richardson Mountains, Northwest Territories.

*Holcobelus munieri* (Deslongchamps)

Hypotype 21167

Jeletzky, J.A., 1966, Univ. Kansas Pal. Contrib., Mollusca, Art. 7, pl. 25, figs. 1A, B.

Lower Oolite, Middle Jurassic, Bradford Abbas, Dorset, England.

*Megateuthis* (*Megateuthis*) *gigantea* (von Schlotheim)

Hypotypes 20441, 20442

Jeletzky, J.A., 1966, Univ. Kansas Pal. Contrib., Mollusca, Art. 7, pl. 11, figs. 2A–C; pl. 12, figs. 1, 3A–D; pl. 14, figs. 1A, B, 2; text–figs. 9–11, 14.

Middle Jurassic, Württemberg, Germany.

*Metabelemnites philippii* (Hyatt and Smith)

Hypotypes 20437, 20438, 21165

Jeletzky, J.A., 1966, Univ. Kansas Pal. Contrib., Mollusca, Art. 7, pl. 1, fig. 3; pl. 2, fig. 2; pl. 3, figs. 1A, B; pl. 4, figs. 1–2C; pl. 5, figs. 2A, B; pl. 18, figs. 4A–D.

Pardonet Formation, Upper Triassic, west end of Baldy (Pardonet) Hill at Little Parle Pas Rapid on Peace River and west limb of syncline, 1.5 miles northwest of point 6536, Toad River area, northeastern British Columbia.

*Metabelemnites* sp. cf. *M. philippii* (Hyatt and Smith)

Hypotypes 20445

Jeletzky, J.A., 1966, Univ. Kansas Pal. Contrib., Mollusca, Art. 7, p. 21, text–fig. 3.

Pardonet Formation, Upper Triassic, west end of Baldy (Pardonet) Hill at Little Parle Pas Rapid on Peace River, northeastern British Columbia.

*Mojsisovicsteuthis?* n. sp.

Fig. spec. 20439

Jeletzky, J.A., 1966, Univ. Kansas Pal. Contrib., Mollusca, Art. 7, pl. 5, figs. 1A–D.

Toad Formation, Middle Jurassic, Cameron Hill, east of mile post 378, Alaska Highway, northeastern British Columbia.

*Oxyteuthis* cf. *jasikowi* (Lahusen)

Hypotypes 17383, 17385

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 70, pl. 21, figs. 3A–D, 5A–C.

Lower Cretaceous, lower part of prominent spur of east slope of Mount Goodenough massif, and northeast side Treeless Creek, about 1 1/4 miles upstream from its second fork in the mountains, northern Richardson Mountains, Northwest Territories.

*Oxyteuthis* sp. cf. *O. pugio* Stolley

Hypotype 20443

Jeletzky, J.A., 1966, Univ. Kansas Pal. Contrib., Mollusca, Art. 7, pl. 12, fig. 2; pl. 13, fig. 2.

Lower Cretaceous, Cache Creek map-area, lat. 68°17'30"N, long. 135°44'W, northern Richardson Mountains, Northwest Territories.

MOLLUSCA

*Pachyteuthis?* sp. A

Fig. spec. 20198

Jeletzky, J.A., 1966, Univ. Kansas Pal. Contrib., Mollusca, Art. 7, p. 119, pl. 1, fig. 2; pl. 2,  
figs. 1A-C.

Jurassic, northwest bank of Porcupine River, about 10.5 miles downstream from mouth of Bell  
River, northern Yukon.

*Pachyteuthis?* n. sp. B

Fig. spec. 21168

Jeletzky, J.A., 1966, Univ. Kansas Pal. Contrib., Mollusca, Art. 7, pl. 25, figs. 2A, B.  
Bug Creek Formation, Middle Jurassic, Bug Creek, Aklavik Range, Northwest Territories.

## C E P H A L O P O D A — A m m o n o i d e a

### *Agoniatites* aff. *fulguralis* (Whidborne)

#### Hypotypes 16924, 16925

House, M.R. and Pedder, A.E.H., 1963, Palaeontology, vol. 6, pt. 3, p. 509, pl. 70, fig. 1; pl. 73, fig. 5.

Unnamed shale about 20 feet above top of Hume Formation and Fort Creek shale, Middle Devonian, about lat.  $65^{\circ}20'N$ , long.  $126^{\circ}56'W$ , Bosworth Creek, Northwest Territories and about lat.  $65^{\circ}20'N$ , long.  $138^{\circ}44'W$ , Ogilvie River, Yukon.

### *Agoniatites* cf. *holzapfeli* Wedekind

#### Hypotype 16926

House, M.R. and Pedder, A.E.H., 1963, Palaeontology, vol. 6, pt. 3, p. 510, pl. 70, fig. 8. Fort Creek Formation, Middle Devonian, about lat.  $65^{\circ}20'N$ , long.  $138^{\circ}44'W$ , Ogilvie River, Yukon.

### *Agoniatites* cf. *vanuxemi* (Hall)

#### Hypotypes 16922, 16923

House, M.R. and Pedder, A.E.H., 1963, Palaeontology, vol. 6, pt. 3, p. 509, pl. 72, figs. 3, 4.

Unnamed shale 10–20 feet above top of Hume Formation, Middle Devonian, about lat.  $65^{\circ}14'20''N$ , long.  $126^{\circ}23'40''W$ , Francis Creek, Northwest Territories.

### *Agoniatites* sp.

#### Fig. specs. 16927, 16969, 16970

House, M.R. and Pedder, A.E.H., 1963, Palaeontology, vol. 6, pt. 3, p. 511, pl. 70, fig. 4; pl. 72, figs. 13, 14.

Fort Creek Formation, Middle Devonian, lat.  $65^{\circ}36'30''N$ , long.  $136^{\circ}24'W$ , Hungry Lake, Yukon, and about lat.  $67^{\circ}40'N$ , long.  $128^{\circ}22'W$ , along Carnwarth River, Northwest Territories.

### *Amaltheus bifurcus* Howarth

#### Hypotypes 20355, 20356

Frebold, H., et al., 1967, Geol. Surv., Canada, Paper 67-12, p. 15, pl. 1, figs. 4, 6.

Upper Pleinsbachian, Jurassic, Loney Creek about 2 miles upstream, Firth River area, British Mountains, northern Yukon.

### *Amaltheus stokesi* (Sowerby)

#### Hypotypes 15973, 15976, 15977

Frebold, H.,

1964, Geol. Surv., Canada, Paper 63-4 p. 16, pl. 6, figs. 6, 7, 13.

1964, ibid., Bull. 116, p. 9, pl. 2, figs. 2, 5, 6.

Lower Jurassic, 1/2 mile southwest of Harrison Lake, Tulsequah area and Grizzly Glacier, Telegraph Creek area, northwestern British Columbia.

## MOLLUSCA

### *Amaltheus stokesi* (Sowerby)

Hypotypes 15974, 15975

Frebold, H., 1964, Geol. Surv., Canada, Bull. 116, p. 9, pl. 2, figs. 3, 4.

Lower Jurassic, ridge between Idaho Hill and Mount Bush, elevation 5200', lat.  $60^{\circ}18'57''N$ , long.  $135^{\circ}02'42''W$ , southern Yukon and Grizzly Glacier, lat.  $57^{\circ}10'32''N$ , long.  $130^{\circ}25'34''W$ , Telegraph Creek area, northwestern British Columbia.

### *Amaltheus stokesi* (Sowerby)

Hypotypes 20343, 20346, 20349, 20354, 20357

Frebold, H., et al., 1967, Geol. Surv., Canada, Paper 67-12, p. 14, pl. 1, figs. 1-3, 5, 7.

Upper Pleinsbachian, Jurassic, Loney Creek about 2 miles upstream, Firth River area, British Mountains, northern Yukon.

### *Amaltheus cf. A. stokesi* (Sowerby)

Hypotypes 19923, 20351-20353

Frebold, H., 1966, Geol. Surv., Canada, Paper 66-27, p. 2, pl. 1, figs. 1-4.

Fernie Group, Jurassic, Limestone Mountain area, about 10 miles south of Seven Mile Flat and east side of Forestry Road to lookout, l.s.d. 2, sec. 24, tp. 34, rge. 11, W. 5th mer., lat.  $51^{\circ}55'38''N$ , long.  $115^{\circ}25'30''W$ , Alberta.

### Ammonite resembling *Substeueroceras stantoni* Anderson

Fig. spec. 16580

Jeletzky, J.A., 1965, Geol. Surv., Canada, Bull. 103, pl. 2, fig. 5.

Upper Jurassic, west side Grassy Island, west coast Vancouver Island, British Columbia.

### *Ammonites barnstoni* Meek

=*Cadoceras barnstoni*, Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 82, pl. 39, figs. 3a, b [holotype 4811].

Frebold, H., 1964, ibid., Bull. 119, p. 14, pl. 8, fig. 3; pl. 12, fig. 2.

### *Ammonites loganianus* (?) Whiteaves Form A

=*Chondroceras oblatum*, Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 36, pl. 16, fig. 2 [holotype 4964].

### *Ammonites skidegatensis* Whiteaves

=*Stephanoceras skidegatense*, Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 34, pl. 15, figs. 2a, b [holotype 5011].

### Ammonites gen. et sp. indet.

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 76, pl. 36, figs. 3, 4 [fig. specs. 14714, 14717].

### Ammonite gen. et sp. indet. 1

Fig. specs. 15978-15980

Frebold, H., 1964, Geol. Surv., Canada, Bull. 116, p. 22, pl. 2, figs. 7-9.

Lower Jurassic, elevation 4850 feet in west side of cirque, southwest end King Salmon Lake, lat.  $58^{\circ}39'58''N$ , long.  $132^{\circ}54'30''W$ , Tulsequah area, northwestern British Columbia.

### Ammonite gen. et sp. indet. 2

Fig. spec. 15981

Frebold, H., 1964, Geol. Surv., Canada, Bull. 116, p. 23, pl. 2, fig. 10.

Lower Jurassic, south fork Ball Creek, lat.  $57^{\circ}10'38''N$ , long.  $130^{\circ}25'06''W$ , Telegraph Creek area, northwestern British Columbia.

*Ammonite gen. et sp. indet. 1–5*

Fig. specs. 19928, 19930–19934

Frebold, H., 1967, Geol. Surv., Canada, Bull. 158, pp. 28, 29, pl. V, figs. 3, 5a–9.

Hettangian, Lower Jurassic, about a mile west of Spruce Lake Creek, Tyauthon Creek; head of Last Creek; in creek at junction of two creeks approximately 5 miles south of Castle Mountain; and 1/2 mile west of limestone mass 1/2 mile east of Last Creek, Taseko Lakes area, British Columbia.

*Ammonites gen. et sp. indet.*

Fig. spec. 20350

Frebold, H., *et al.*, 1967, Geol. Surv., Canada, Paper 67-12, p. 13, pl. 2, fig. 7.

Jurassic, lat. 64°24'N, long. 138°10'W, Tombstone River area, central Yukon.

*Amoeboceras sp. indet.*

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 98, pl. 47, figs. 5, 6 [fig. specs. 15130, 15131].

*Amoeboceras sp. indet.*

Fig. specs. 20367–20370

Frebold, H., *et al.*, 1967, Geol. Surv., Canada, Paper 67-12, p. 21, pl. 3, figs. 5–7.

Jurassic, west side Babbage River about 1 mile south of Trout Lake and northeast side Sleepy Mountain, east of Babbage River near head of Ladas Creek, northern Yukon.

*Anaptychi*

Fig. specs. 16965–16968

House, M.R. and Pedder, A.E.H., 1963, Palaeontology, vol. 6, pt. 3, p. 534, text–figs. 15A–D. Fort Creek Formation and unnamed shale 10–40 feet above Beavertail Formation, Middle Devonian, Thunder River and Carcajou Ridge, Northwest Territories.

*Anarcestes (Latanarcestes) cf. *praecursor* Frech*

Hypotype 16930

House, M.R. and Pedder, A.E.H., 1963, Palaeontology, vol. 6, pt. 3, p. 513, pl. 74, fig. 3. 469 feet below top of Funeral Formation, Middle Devonian, about lat. 61°41'30"N, long. 125°05'W, northern Funeral Range, Northwest Territories.

*Ancyloceras (Ancyloceras) cf. *durrelli* Anderson*

Hypotype 17299

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 62, pl. 17, fig. 2.

Lower Cretaceous, middle part of nameless rocky spur extending east from main slope at a point 2 miles south of Bug Lake, east slope Aklavik Range, Northwest Territories.

*Ancyloceras (Acrioceras) aff. *starrkingi* Anderson*

Hypotype 17306

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 66, pl. 19, figs. 2A–C.

Lower Cretaceous, south bank of main branch of Bug Creek, about 3 miles west of Bug Lake, flat crest of Aklavik Range, Northwest Territories.

*Arcestes* sp.

Fig. spec. 17974

Carlisle, D. and Susuki, F., 1965, Can. J. Earth Sci., vol. 2, No. 5, p. 481, pl. 9, figs. 85, 86. Open Bay Formation, Upper Triassic, Open Bay section, Quadra Island, British Columbia.

*Arcthoplites (Cymahoplites) cf. *aburensis* (Spath)*

Hypotypes 17406, 17409, 17413

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 76, pl. 24, figs. 10A–C; p. 80, pl. 26, figs. 6A, B, 10A, B.

Lower Cretaceous, talus at Brûlé Rapids on Athabasca River, Alberta.

## MOLLUSCA

### *Arcthoplitites belli* (McLearn)

Hypotypes 17410–17412, 17417

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 80, pl. 26, figs. 4A–C, 5, 7A, B, 8A–D.

Loon River Formation, Lower Cretaceous, "Lower end of Bullhead (=Buffalo) Hills", Alberta.

### *Arcthoplitites aff. belli* (McLearn)

Hypotype 17408

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 80, pl. 26, figs. 9A, B. Lower Cretaceous, talus at Brûlé Rapids on Athabasca River, Alberta.

### *Arcthoplitites (=Subarcthoplitites) belli* (McLearn)

Hypotypes 17403 [not 17463], 17407, 17416

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 78, pl. 25, figs. 2A–D; p. 80, pl. 26, figs. 2, 12A, B.

Christopher Formation, Lower Cretaceous, east of Eldridge Bay, Sabine Peninsula, Melville Island, Arctic and Loon River Formation, Lower Cretaceous, "Lower end of Bullhead (=Buffalo) Hills", Alberta.

### *Arcthoplitites (=Subarcthoplitites) aff. belli* (McLearn)

Hypotype 17390

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 74, pl. 23, figs. 2A, B. Lower Cretaceous, talus at Brûlé Rapids on Athabasca River, Alberta.

### *Arcthoplitites belli* (McLearn) var.

Hypotype 17404

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 80, pl. 26, figs. 11A–C. Loon River Formation, Lower Cretaceous, "Lower end of Bullhead (=Buffalo) Hills", Alberta.

### *Arcthoplitites (Frebodiceras) irenense* (McLearn)

Hypotype 17415

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 76, pl. 24, figs. 2A, B.

Moosebar (?) Formation, Lower Cretaceous, below confluence Johnson and Burnt Trail Creeks, Pine Pass map-area, British Columbia.

### *Arcthoplitites aff. jachromensis* (Nikitin)

Hypotype 17402

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 78, pl. 25, figs. 1A–D.

Christopher Formation, Lower Cretaceous, south side Bunde Fiord, Axel Heiberg Island, Arctic.

### *Arcthoplitites (=Subarcthoplitites) talkeetnanum* (Imlay)

Hypotype 7429

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 74, pl. 23, figs. 9A–D.

Clearwater Formation, Middle Albian, Lower Cretaceous, Brûlé Rapids, Athabasca River, Alberta.

### *Arcticoceras ishmae* (Keyserling)

Frebeld, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 52, pl. 24, figs. 3 [hypotype 15121], 4a, b [hypotype 15120a].

### *Arcticoceras kochi* Spath

Frebeld, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 54, pl. 25, figs. 1a, b, 2 [hypotypes 15116, 15118].

*Arctoasteroceras jeletzkyi* Frebold

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 8, pl. 2, figs. 1a, b [holotype 14623], 2a, b [paratype 14628].

*Arcocephalites cf. arcticus* (Newton)

Hypotype 17641

Frebold, H.,

1964, Geol. Surv., Canada, Paper 63-4, p. 52, pl. 24, figs. 2a, b.

1964, ibid., Bull. 119, p. 4, pl. 1, fig. 4; pl. 3, fig. 3.

Savik Formation, Middle Jurassic, south shore Strand Fiord, Axel Heiberg Island, Arctic.

*Arcocephalites callomoni* Frebold

Holotype 17647; paratype 17642

Frebold, H.,

1964, Geol. Surv., Canada, Paper 63-4, p. 50, pl. 23, figs. 3a, b; p. 52, pl. 24, figs. 1a, b.

1964, ibid., Bull. 119, p. 4, pl. 3, figs. 1a, b; pl. 5, fig. 3; pl. 7, fig. 3.

Savik Formation, Middle Jurassic, south shore Strand Fiord, Axel Heiberg Island, Arctic.

*Arcocephalites callomoni* Frebold

Paratype 17645

Frebold, H., 1964, Geol. Surv., Canada, Bull. 119, p. 4, pl. 3, fig. 2; pl. 4, fig. 1.

Savik Formation, Middle Jurassic, south shore Strand Fiord, Axel Heiberg Island, Arctic.

*Arcocephalites elegans* Spath

Hypotypes 17640, 17644, 17646

Frebold, H.,

1964, Geol. Surv., Canada, Paper 63-4, p. 50, pl. 23, figs. 1a, b, 2a, b, 4.

1964, ibid., Bull. 119, p. 3, pl. 1, figs. 1a, b, 3a, b; pl. 2, figs. 2a, b.

Savik Formation, Middle Jurassic, south shore Strand Fiord, Axel Heiberg Island, Arctic.

*Arcocephalites elegans* Spath

Hypotypes 17639, 17643

Frebold, H., 1964, Geol. Surv., Canada, Bull. 119, p. 3, pl. 1, figs. 2a, b; pl. 2, figs. 1a, b.

Savik Formation, Middle Jurassic, south shore Strand Fiord, Axel Heiberg Island, Arctic.

*Arcocephalites?* sp. indet

Fig. specs. 19945, 20058

Frebold, H., et al., 1967, Geol. Surv., Canada, Paper 67-12, p. 12, pl. 2, figs. 1a, b [19945 – not 19445], 2.

Bathonian, Jurassic, 10 miles south of North Fork Pass, lat. 64°26'N, long. 138°13'W, Tombstone River area, central Yukon.

*Arctoceras* cf. *A. blomstrandii* (Lindström)

Hypotype 14294

Tozer, E.T., 1963, Geol. Surv., Canada, Bull. 96, p. 26, pl. 5, fig. 6.

"Toad-Grayling Formation", Lower Triassic, Needham Creek, 2 miles west of junction with Graham River, Halfway River area, British Columbia.

*Arieticeras algovianum* (Oppel)

Hypotypes 15984, 15985

Frebold, H.,

1964, Geol. Surv., Canada, Paper 63-4, p. 16, pl. 6, figs. 3, 4.

1964, ibid., Bull. 116, p. 13, pl. 3, figs. 4a, b, 5a, b.

Lower Jurassic, south fork of Ball Creek, Telegraph Creek area, northwestern British Columbia.

## MOLLUSCA

### *Arieticeras algovianum* (Oppel)

Hypotype 15986

Frebold, H., 1964, Geol. Surv., Canada, Bull. 116, p. 13, pl. 4, fig. 2.

Laberge Group, Lower Jurassic, ridge between Idaho Hill and Mount Bush, elevation 5200 feet, lat.  $60^{\circ}18'57''N$ , long.  $135^{\circ}02'42''W$ , southern Yukon.

### *Arieticeras cf. A. algovianum* (Oppel)

Hypotypes 15987, 15988

Frebold, H.,

1964, Geol. Surv., Canada, Paper 63-4, p. 16, pl. 6, figs. 8, 10.

1964, ibid., Bull. 116, p. 13, pl. 3, figs. 3a, b; pl. 5, fig. 2.

Lower Jurassic, Grizzly Glacier, Telegraph Creek area, British Columbia.

### *Arieticeras cf. A. algovianum* (Oppel)

Hypotype 15989

Frebold, H., 1964, Geol. Surv., Canada, Bull. 116, p. 13, pl. 5, fig. 3.

Lower Jurassic, south fork Ball Creek, lat.  $57^{\circ}10'38''N$ , long.  $130^{\circ}25'06''W$ , Telegraph Creek area, northwestern British Columbia.

### *Arieticeras cf. A. gerardi* Monestier

Hypotypes 15994, 15995

Frebold, H.,

1964, Geol. Surv., Canada, Paper 63-4, p. 16, pl. 6, fig. 2.

1964, ibid., Bull. 116, p. 14, pl. 5, figs. 6a, b.

Lower Jurassic, south fork of Ball Creek, Telegraph Creek area, northwestern British Columbia.

### *Arieticeras aff. A. ruthenense* (Reynes)

Hypotypes 15992, 15993

Frebold, H., 1964, Geol. Surv., Canada, Bull. 116, p. 14, pl. 4, figs. 3, 4.

Lower Jurassic, Grizzly Glacier, lat.  $57^{\circ}10'32''N$ , long.  $130^{\circ}25'34''W$  and south fork Ball Creek, lat.  $57^{\circ}10'38''N$ , long.  $130^{\circ}25'06''W$ , Telegraph Creek area, northwestern British Columbia.

### *Arietites* sensu lato gen. et sp. indet.

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 8, pl. 2, fig. 5 [fig. spec. 14618].

### *Arkelloceras elegans* Frebold

Holotype 20362

Frebold, H., et al., 1967, Geol. Surv., Canada, Paper 67-12, p. 17, pl. 3, figs. 8a, b.

Jurassic, upper Fish Creek, Northwest Territories.

### *Arkelloceras mcleani* Frebold

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 40, pl. 18, figs. 4a, b [paratype 13412], 5 [paratype 13414]; p. 42, pl. 19, figs. 2a-e [paratype 13411], 4a-c [holotype 13410].

### *Arkelloceras mcleani* Frebold

Hypotype 17670

Frebold, H., 1964, Geol. Surv., Canada, Bull. 119, p. 18, pl. 4, fig. 4.

Savik Formation, Middle Jurassic, south shore Strand Fiord, 15 miles northeast of Cape Leavel, Axel Heiberg Island, Arctic.

### *Arkelloceras tozeri* Frebold

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 40, pl. 18, figs. 1a-c [paratype 13407], 2a-d [holotype 13404, a], 3a, b [paratype 13405]; p. 42, pl. 19, figs. 1a-c [paratype 13409], 3a, b [paratype 13408], 5a, b [paratype 15143], 6a, b [paratype 15141], 7 [paratype 15140].

*Arnioceras* n. sp. near *humboldti* Hyatt

=*Arnioceras* sp., Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 14, pl. 5, fig. 5 [fig. spec. 9641].

*Arnioceras (Melanippites)* sp. indet.

=*Arniotites kwakiutlanus*, Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 12, pl. 4, fig. 3 [hypotype 13713].

*Arnioceras?* sp. indet.

Fig. spec. 15971

Frebold, H., 1964, Geol. Surv., Canada, Bull. 116, p. 7, pl. 1, figs. 8a, b.

Lower Jurassic, elevation 4830 feet, north-northwest above One-Way Lake, lat. 58°38'10"N, long. 132°33'10"W, Tulsequah area, northwestern British Columbia.

*Bacchites* cf. *B. bacchus* (Mojisovics)

Hypotype 18879

Carlisle, D. and Susuki, F., 1965, Can. J. Earth Sci., vol. 2, No. 5, p. 480, pl. 8, figs. 73, 77, 81.

Open Bay Formation, Upper Triassic, Open Bay section, Quadra Island, British Columbia.

*Berriasella (Protacanthodiscus)* n. sp. aff. *B. (P.) micheicus* (Bogoslovsky)

Hypotype 16610

Jeletzky, J.A.,

1964, Geol. Surv., Canada, Paper 64-6, p. 6, pl. 2, figs. 11a-c.

1965, ibid., Bull. 103, pl. 11, figs. 4A-D.

One Tree Formation, Lower Cretaceous, southern rocky fringe of Grassy Island, west coast of Vancouver Island, British Columbia.

*Beudanticeras affine* (Whiteaves)

Hypotypes 17400, 17401

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 76, pl. 24, figs. 4A, B, 6A-G. Lower Cretaceous, Second Rapid, Red River and southeast side Peace River in SW 1/4, sec. 28, tp. 93, rge. 20, W. 5th mer., Alberta.

*Beudanticeras cf. glabrum* (Whiteaves)

=*Beudanticeras* cf. *affine*, Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 76, pl. 24, figs. 3A, B [hypotype 5030].

=*Grantziceras affine*, Jones, D.L., 1967, U.S. Geol. Surv., Prof. Paper 547, p. 31, table [plastohypotype of 5030].

*Buchiceras? cornutum* Whiteaves

=*Neogastropites selwyni*, Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 94, pl. 33, figs. 6A, B [holotype 5039 = 8008].

*Buckmaniceras buckmani* Crickmay

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 82, pl. 39, figs. 2a-c [holotype 9674].

*Cabrieroceras karpinskyi* (Holzapfel)

Hypotypes 16931-16938

House, M.R. and Pedder, A.E.H., 1963, Palaeontology, vol. 6, pt. 3, p. 513, pl. 72, figs. 1, 2, 7, 9-12; text-figs. 5A-C.

Unnamed shale 0-10 feet above top of Hume Formation, lat. 65°14'20"N, long. 126°23'40"W, Francis Creek, Northwest Territories.

## MOLLUSCA

### *Cadoceras arcticum* Frebold

Paratype 17649

Frebold, H.,

1964, Geol. Surv., Canada, Paper 63-4, p. 84, pl. 40, fig. 2.

1964, ibid., Bull. 119, p. 12, pl. 12, fig. 1.

Middle Jurassic, lat. 68°50'N, long. 138°41'W, Babbage River, Yukon.

### *Cadoceras arcticum* Frebold

Paratypes 17648, 17650

Frebold, H., 1964, Geol. Surv., Canada, Bull. 119, p. 12, pl. 13, fig. 1; pl. 17, fig. 2; pl. 20, fig. 2.

Middle Jurassic, lat. 68°50'N, long. 138°41'W, Babbage River, Yukon.

### *Cadoceras barnstoni* (Meek)

Hypotype 17662

Frebold, H., 1964, Geol. Surv., Canada, Bull. 119, p. 14, pl. 11, fig. 2.

Middle Jurassic, extreme head southwest-flowing stream entering northeast side of Deer Bay, Ellef Ringnes Island, Arctic.

### *Cadoceras barnstoni* var. *C. arcuata* Frebold

Holotype 17663

Frebold, H., 1964, Geol. Surv., Canada, Bull. 119, p. 15, pl. 10, figs. 2a, b.

Savik Formation, Middle Jurassic, south shore Strand Fiord, 15 miles northeast of Cape Levvel, Axel Heiberg Island, Arctic.

### *Cadoceras bodylevskyi* Frebold

Holotype 17666

Frebold, H.,

1964, Geol. Surv., Canada, Paper 63-4, p. 86, pl. 41, figs. 1a-c.

1964, ibid., Bull. 119, p. 10, pl. 17, figs. 1a-c.

Savik Formation, Middle Jurassic, about 15 miles southeast of Cape Levvel, Strand Fiord, Axel Heiberg Island, Arctic.

### *Cadoceras bodylevskyi* Frebold

Paratypes 17667, 17668

Frebold, H., 1964, Geol. Surv., Canada, Bull. 119, p. 10, pl. 19, figs. 1, 2.

Savik Formation, Middle Jurassic, about 15 miles southeast of Cape Levvel, Strand Fiord, Axel Heiberg Island, Arctic.

### *Cadoceras brooksi* Crickmay

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 82, pl. 39, fig. 1 [holotype 9679].

### *Cadoceras canadense* Frebold

Holotype 17664

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 94, pl. 45, figs. 2a-c.

Middle Jurassic, about 2-3 miles south of Bug Creek, Aklavik Range, Northwest Territories.

=*Cadoceras (Stenocadoceras) canadense*, Frebold, H., 1964, ibid., Bull. 119, p. 16, pl. 7, fig. 2; pl. 10, figs. 3a, b.

### *Cadoceras (Stenocadoceras) cf. C. canadense* Frebold

Hypotype 17665

Frebold, H., 1964, Geol. Surv., Canada, Bull. 119, p. 17, pl. 13, fig. 2; pl. 14, figs. 1a, b.

Middle Jurassic, lat. 68°50'N, long. 138°41'W, Babbage River, Yukon.

*Cadoceras cf. falsum* Voronets

Hypotypes 17659, 17661

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 88, pl. 42, figs. 2a, b; p. 90, pl. 43, figs. 2a, b.

Savik Formation, Middle Jurassic, about 14 miles east of Cape Levvel, Strand Fiord, Axel Heiberg Island, Arctic.

= *Cadoceras cf. C. falsum*, Frebold, H., 1964, ibid., Bull. 119, p. 11, pl. 8, fig. 2; pl. 9, figs. 2a, b; pl. 18, figs. 1a–c.*Cadoceras lillei* Frebold= *Paracephalites glabrescens*, Frebold, H., 1964, p. 60, pl. 28, fig. 2 [hypotype 12902].*Cadoceras muelleri* Imlay= *Paracephalites hashimotoi*, Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 56, pl. 26, fig. 1; p. 58, pl. 27, fig. 1 [hypotype 12903].*Cadoceras septentrionale* Frebold

Holotype 17651; paratypes 17654, 17657, 17658

Frebold, H.,

1964, Geol. Surv., Canada, Paper 63-4, p. 92, pl. 44, figs. 1, 3, 4a, b, 5a, b.

1964, ibid., Bull. 119; p. 6, pl. 4, fig. 3; pl. 5, figs. 1a, b, 2a, b; pl. 6, figs. 1a, b, 3a, b.

Savik Formation, Middle Jurassic, south shore Strand Fiord, Axel Heiberg Island, Arctic.

*Cadoceras septentrionale* Frebold

Paratype 17655

Frebold, H., 1964, Geol. Surv., Canada, Bull. 119, p. 6, pl. 6, figs. 2a, b.

Savik Formation, Middle Jurassic, south shore Strand Fiord, Axel Heiberg Island, Arctic.

*Cadoceras septentrionale* var. *latidorsata* Frebold

Syntypes 17652, 17656

Frebold, H.,

1964, Geol. Surv., Canada, Paper 63-4, p. 88, pl. 42, fig. 1; p. 90, pl. 43, fig. 1; p. 92, pl. 44, figs. 2a, b.

1964, ibid., Bull. 119, p. 8, pl. 4, figs. 2a, b; pl. 7, fig. 1; pl. 8, fig. 1; pl. 9, fig. 1.

Middle Jurassic, Savik Formation, south shore Strand Fiord, Axel Heiberg Island, Arctic and about 2–3 miles south of Bug Creek, Aklavik Range, Northwest Territories.

*Cadoceras septentrionale* var. *latidorsata* Frebold

Syntype 17653

Frebold, H., 1964, Geol. Surv., Canada, Bull. 119, p. 8, pl. 10, fig. 1; pl. 11, fig. 1.

Savik Formation, Middle Jurassic, south shore Strand Fiord, Axel Heiberg Island, Arctic.

*Cadoceras voronetsae* Frebold

Holotype 17669

Frebold, H.,

1964, Geol. Surv., Canada, Paper 63-4, p. 94, pl. 45, fig. 1; p. 96, pl. 46, fig. 1.

1964, ibid., Bull. 119, p. 9, pl. 15, fig. 1; pl. 16, fig. 1.

Middle Jurassic, west of Porcupine River and east of Waters River, northeast end of Dave Lord Ridge, Yukon.

*Cadoceras* sp. indet.= *Cadoceras arcticum*, Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 84, pl. 40, fig. 1; p. 86, pl. 41, fig. 2 [holotype 15127].

## MOLLUSCA

### *Cadoceras?* sp. indet.

Fig. specs. 20344, 20345, 20347, 20348

Frebold, H., et al., 1967, Geol. Surv., Canada, Paper 67-12, p. 12, pl. 2, figs. 3-6.  
Callovian, Jurassic, 10 miles south of North Fork pass, lat.  $64^{\circ}26'N$ , long.  $138^{\circ}13'W$ , Tombstone River area, central Yukon.

### *Cadoceras (Stenocadoceras) cf. S. iniskinense* Imlay

Hypotype 22695

Frebold, H., in Frebold, H. and Tipper, H.W., 1967, Geol. Surv., Canada, Paper 67-21, p. 13, pl. 2, figs. 3a, b; pl. 3, fig. 1.  
Middle Callovian, Jurassic, 2 miles east of south end of Lorna Lake, Taseko Lakes area, British Columbia.

### *Cadoceras (Stenocadoceras) striatum* Imlay

Hypotype 22693

Frebold, H., in Frebold, H. and Tipper, H.W., 1967, Geol. Surv., Canada, Paper 67-21, p. 12, pl. 2, fig. 1.  
Middle Callovian, Jurassic, 2 miles east of south end of Lorna Lake, Taseko Lakes area, British Columbia.

### *Cadoceras (Stenocadoceras) cf. S. striatum* Imlay

Hypotype 22694

Frebold, H., in Frebold, H. and Tipper, H.W., 1967, Geol. Surv., Canada, Paper 67-21, p. 13, pl. 2, fig. 2.  
Middle Callovian, Jurassic, 2 miles east of south end of Lorna Lake, Taseko Lakes area, British Columbia.

### *Californites* cf. *C. careyi* (Smith)

Hypotype 18004

Carlisle, D. and Susuki, T., 1965, Can. J. Earth Sci., vol. 2, No. 5, p. 474, pl. 4, figs. 28-30.  
Open Bay Formation, Upper Triassic, Open Bay section, Quadra Island, British Columbia.

### *Cardioceras (Scarburgiceras) alphacordatum* Spath

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 98, pl. 47, figs. 2a, b [hypotype 13892].

### *Cardioceras canadense* Whiteaves

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 98, pl. 47, figs. 3a, b [holotype 7437].

### *Cardioceras mountjoyi* Frebold

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 98, pl. 47, figs. 1a, b [holotype 13895].

### *Cardioceras* sp. indet. aff. *C. alphacordatum* Spath

Hypotypes 20365, 20367

Frebold, H., et al., 1967, Geol. Surv., Canada, Paper 67-12, p. 21, pl. 3, figs. 2, 3.  
Oxfordian, Jurassic, Philip Creek 3 miles west of Trout Lake, west of Babbage River, lat.  $68^{\circ}51'N$ , long.  $138^{\circ}51'W$  and halfway between Trail and Babbage Rivers, lat.  $68^{\circ}55'N$ , long.  $138^{\circ}47'W$ , northern Yukon.

### *Cardioceras* sp. indet. aff. *C. cordatum* (Sowerby)

Hypotypes 20363, 20364

Frebold, H., et al., 1967, Geol. Surv., Canada, Paper 67-12, p. 20, pl. 2, fig. 10; pl. 3, fig. 1.  
Oxfordian, Jurassic, Caribou Creek about 2 1/2 miles upstream from Babbage River, lat.  $68^{\circ}48'N$ , long.  $138^{\circ}38'W$ , northern Yukon.

*Cardioceras* sp. indet.

Fig. specs. 20340–20342

Frebold, H., et al., 1967, Geol. Surv., Canada, Paper 67-12, p. 13, pl. 2, figs. 8, 9a, b; pl. 3, fig. 4.

Oxfordian, Jurassic, lat. 64°24'N, long. 138°10'W, Tombstone River area, central Yukon.

*Cardioceras (Scarburgiceras)* sp. indet. aff. *C. mirum* Arkell

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 102, pl. 49, fig. 2 [fig. spec. 15128].

*Cardioceras* (s. lato) sp. indet.

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 98, pl. 47, fig. 4 [fig. spec. 13893].

*Catacoeloceras polare* (Frebold)

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 18, pl. 7, figs. 12a, b [hypotype 14644].

*Catulloceras?* sp. indet.

Fig. spec. 16020

Frebold, H.,

1964, Geol. Surv., Canada, Paper 63-4, p. 18, pl. 7, fig. 11.

1964, ibid., Bull. 116, p. 16, pl. 7, fig. 6.

Laberge Group, Lower Jurassic, lat. 59°36'30"N, long. 134°16'20"W, Bennett area, British Columbia.

*Catulloceras?* sp. indet.

Fig. specs. 16019, 16021–16023

Frebold, H., 1964, Geol. Surv., Canada, Bull. 116, p. 16, pl. 7, figs. 5, 7–9.

Laberge Group, Lower Jurassic, lat. 59°36'30"N, long. 134°16'20"W, Bennett area, British Columbia.

*Charmasseiceras marmoratum* (Oppel)

Hypotypes 20050, 20052, 20056, 20057

Frebold, H., 1967, Geol. Surv., Canada, Bull. 158, p. 27, pl. 3, figs. 1a–d, 4a, b; pl. 4, figs. 1, 2a–c.

Hettangian, Lower Jurassic, approximately 1 1/2 miles northeast of Castle Mountain; saddle on ridge about a mile west of Castle Mountain; and head of Last Creek, Taseko Lakes area, British Columbia.

*Cheiloceras (Cheiloceras) sacculum* (G. and F. Sandberger)

Hypotypes 16956, 16957

House, M.R. and Pedder, A.E.H., 1963, Palaeontology, vol. 6, pt. 3, p. 530, pl. 77, figs. 3, 4; text-figs. 13A, B.

Upper Devonian, about lat. 62°21'N, long. 123°43'W, 6 miles south of eastern tip Carlson Lake, Northwest Territories.

*Cheiloceras (C.) cf. sacculum* (G. and F. Sandberger)

Hypotype 16958

House, M.R. and Pedder, A.E.H., 1963, Palaeontology, vol. 6, pt. 3, p. 531.

Upper Devonian, about lat. 62°7'35"N, long. 123°38'W, 5 miles SSW. of confluence Battlement Creek and North Nahanni River, Northwest Territories.

MOLLUSCA

*Chondroceras allani* (McLearn)

Hypotypes 16024–16027

Frebold, H., 1964, Geol. Surv., Canada, Bull. 116, p. 20, pl. 8, figs. 2–5.

Middle Jurassic, ridge north of Cleaver Lake, lat. 58°29'36"N, long. 132°27'54"W, Tulsequah area, northwestern British Columbia.

*Chondroceras allani* (McLearn) var.

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 30, pl. 13, figs. 3a, b [hypotype 12893].

*Chondroceras marshalli* (McLearn) var.

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 32, pl. 14, figs. 2a, b [hypotype 12891].

*Chondroceras* sp. indet.

Fig. spec. 16028

Frebold, H., 1964, Geol. Surv., Canada, p. 21, pl. 8, fig. 6.

Middle Jurassic, ridge north of Cleaver Lake, lat. 58°29'36"N, long. 132°27'54"W, Tulsequah area, northwestern British Columbia.

*Christioceras trifurcatum* Nassichuk and Furnish

Holotype 19879; paratypes 19880–19882

Nassichuk, W.W. and Furnish, W.M., 1965, J. Pal., vol. 39, No. 4, p. 726, text–figs. 1A, B, 2A–E.

Lower Pennsylvanian, north shore Hare Fiord, lat. 81°07.5'N, long. 84°17'W, Ellesmere Island, Arctic.

*Cleoniceras* (*Anadesmoceras*?) aff. *subbaylei* Spath f. typ.

Hypotypes 17391, 17394

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 74, pl. 23, figs. 3A, B, 6A–C.

Christopher Formation, Lower Cretaceous, east side of Black Top Mountain, near head of Slidre Fiord, Ellesmere Island, Arctic.

*Cleoniceras* (*Anadesmoceras*?) aff. *subbaylei* Spath var.

Hypotype 17392

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 74, pl. 23, fig. 4.

Christopher Formation, Lower Cretaceous, east side Black Top Mountain, near head of Slidre Fiord, Ellesmere Island, Arctic.

*Cleoniceras* cf. *tailleurii* Imlay

Hypotype 17418

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 80, pl. 26, figs. 14A, B.

Peace River Formation, Lower Cretaceous, NW 1/4, sec. 26, or NE 1/4, sec. 27, tp. 87, rge. 20, W. 5th mer., northeast side Peace River, Northwest Territories.

*Clistoceras globosum* Nassichuk

Holotype 19964; paratypes 19965–19970

Nassichuk, W.W., 1967, J. Pal., vol. 41, No. 1, p. 241, pl. 28, figs. 1–11; text–figs. 1–4.

Hare Fiord Formation, Pennsylvanian, north shore Hare Fiord, lat. 81°07.5'N, long. 84°17'W, northwestern Ellesmere Island, Arctic.

*Coeloceras spinatum* Frebold

= *Catacoeloceras spinatum*, Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 18, pl. 7, figs. 8a–e [holotype 13361], 13a, b [paratype 13364].

*Colvillia crassicostata* Imlay

Hypotypes 17393, 17395

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 74, pl. 23, figs. 5A–C, 7A–C.

Lower Cretaceous, Anderson River approximately 35 miles from its mouth, Northwest Territories.

*Coroniceras bisulcatum* (Bruguière)

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 8, pl. 2, fig. 6; p. 10, pl. 3, fig. 1; p. 12, pl. 4, figs. 1a, b [hypotype 11244].

*Cranococephalites borealis* (Spath)

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 48, pl. 22, figs. 1 [hypotype 15104], 2 [hypotype 15101], 3 [hypotype 15103], 4 [hypotype 15102].

*Cranococephalites vulgaris* Spath

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 48, pl. 22, figs. 6a–c [hypotype 13401], 7a–c [hypotype 13398].

*Cranococephalites warreni* Frebold

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 48, pl. 22, figs. 5a, b [holotype 15105].

*Craspedites (Taimyroceras?) canadensis* Jeletzky

Paratypes 17205, 17210

Jeletzky, J.A., 1966, Geol. Surv., Canada, Bull. 128, p. 6, pl. 2, figs. 9A–C; pl. 3, figs. 5A, B; text-fig. 11.

Deer Bay Formation, Upper Jurassic, Slidre Fiord, Reptile Creek, 2 1/2 miles north of Eureka weather station, Ellesmere Island, Arctic.

*Craspedites (Taimyroceras?) canadensis canadensis* Jeletzky

Holotype 18034; paratypes 17178, 17179, 17192–17197, 17202, 17204, 17206, 18035

Jeletzky, J.A., 1966, Geol. Surv., Canada, Bull. 128, pp. 6, 16, pl. 1, figs. 5A–9D; pl. 2, figs. 6A–C, 8A–C; pl. 3, figs. 1A–E; pl. 4, figs. 2A–F, 4A–C; pl. 5, figs. 1A–2E; text-figs. 1B–D, F, G, L.

Deer Bay Formation, Upper Jurassic, Slidre Fiord, Reptile Creek, 2 1/2 miles north of Eureka weather station, Ellesmere Island, Arctic.

*Craspedites (Taimyroceras?) canadensis eurekae* Jeletzky

Holotype 17208

Jeletzky, J.A., 1966, Geol. Surv., Canada, Bull. 128, pp. 6, 18, pl. 3, figs. 3A–E; text-fig. 1K.

Deer Bay Formation, Upper Jurassic, Slidre Fiord, Reptile Creek, 2 1/2 miles north of Eureka weather station, Ellesmere Island, Arctic.

*Craspedites (Taimyroceras?) canadensis pseudosubditus* Jeletzky

Holotype 17201; paratypes 17198–17200, 18033

Jeletzky, J.A., 1966, Geol. Surv., Canada, Bull. 128, pp. 6, 15, pl. 2, figs. 2A–5C; pl. 4, figs. 1A–C; text-figs. 1E, J.

Deer Bay Formation, Upper Jurassic, Slidre Fiord, Reptile Creek, 2 1/2 miles north of Eureka weather station, Ellesmere Island, Arctic.

*Craspedites (Taimyroceras?) canadensis pseudotaimyrense* Jeletzky

Holotype 17211; paratypes 17203, 17207, 17209

Jeletzky, J.A., 1966, Geol. Surv., Canada, Bull. 128, pp. 6, 16, pl. 2, figs. 7A–C; pl. 3, figs. 2A–C, 4A–C, 6A–C; text-fig. 1A.

Deer Bay Formation, Upper Jurassic, Slidre Fiord, Reptile Creek, 2 1/2 miles north of Eureka weather station, Ellesmere Island, Arctic.

MOLLUSCA

Craspeditid ammonite, genus and species indet.

Fig. spec. 16630

Jeletzky, J.A., 1965, Geol. Surv., Canada, Bull. 103, pl. 14, figs. 2A-C.

One Tree Formation, Lower Cretaceous, north part western shore Clark (One Tree) Island, west coast of Vancouver Island, British Columbia.

*Crioceratites (Crioceratites) emericci* var. *journoti* Sarkar

Hypotype 17289

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 58, pl. 15, fig. 1.

Lower Cretaceous, first independent creek north of Treeless Creek, east slope Aklavik Range, Northwest Territories.

*Crioceratites (Hoplocrioceras)* n. sp. aff. *laeviusculum* (Koenen)

Hypotypes 17295, 17300, 17307

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 60, pl. 16, fig. 1; p. 64, pl. 18, figs. 1A, B; p. 66, pl. 19, figs. 3A, B.

Lower Cretaceous, middle part of nameless rocky spur extending east from main slope at a point 2 miles south of Bug Lake, east slope Aklavik Range, Northwest Territories.

*Crioceratites (Hoplocrioceras)* n. sp. aff. *laeviusculum* (Koenen) var.

Hypotype 17298

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 60, pl. 16, fig. 4; p. 62, pl. 17, figs. 1A, B.

Lower Cretaceous, middle part of nameless rocky spur extending east from main slope at a point 2 miles south of Bug Lake, east slope Aklavik Range, Northwest Territories.

*Crioceratites (Hoplocrioceras)* cf. *remondi* (Gabb)

Hypotype 17294

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 58, pl. 15, fig. 6.

Lower Cretaceous, top part prominent spur of east slope of Mount Goodenough massif, east slope Aklavik Range, Northwest Territories.

*Dactylioceras commune* (Sowerby) var. a

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 18, pl. 7, figs. 7, [hypotype 13359a], 9 [hypotype 13357a].

*Dactylioceras commune* (Sowerby) var. b

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 18, pl. 7, figs. 6a, b [hypotype 13356].

*Dactylioceras kanense* McLarn

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 18, pl. 7, figs. 1a, b [hypotype 6485], 2a, b [hypotype 6484], 3a, b [hypotype 6486], 4 [holotype 9051].

*Dactylioceras* cf. *D. semicelatum* (Simpson)

Hypotypes 20359-20361

Frebold, H., et al., 1967, Geol. Surv., Canada, Paper 67-12, p. 17, pl. 1, figs. 9-11.

Toarcian, Jurassic, Loney Creek about 2 miles upstream, Firth River area, British Mountains, northern Yukon.

*Dactylioceras* sp. indet.

Fig. specs. 15999, 16000

Frebold, H., 1964, Geol. Surv., Canada, Bull. 116, p. 11, pl. 5, figs. 7, 8.

Lower Jurassic, 1/4 mile southwest of Frozen Lake, lat. 58°40'06"N, long. 133°03'18"W and 5 1/2 miles southeast of Mount Lester Jones and 6 miles southwest of King Salmon Lake, lat. 58°40'45"N, long. 133°06'44"W, Tulsequah area, northwestern British Columbia.

*Defonticeras colnetti* McLearn

=*Chondroceras colnetti*, Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 32, pl. 14, fig. 3 [holotype 9012].

*Defonticeras defontii* McLearn

=*Chondroceras defontii*, Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 30, pl. 13, figs. 2a, b [holotype 9009].

*Defonticeras ellsi* McLearn

=*Chondroceras ellsi*, Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 32, pl. 14, figs. 4a, b [holotype 9013].

*Desmoceras affine* Whiteaves

=*Grantziceras affine*, Jones, D.L., 1967, U.S. Geol. Surv., Prof. Paper 547, p. 31, table [syntypes 5020, 5024].

*Dichotomites cf. giganteus* (Imlay)

Hypotypes 17245, 17258, 17259, 18038

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 46, pl. 9, fig. 2; p. 52, pl. 12, figs. 11–13.

Bullhead Group, Lower Cretaceous, west slope Mount Monteith, Carbon Creek area; about 2 1/2 miles west of Fischer Creek on Hart Highway; elevation 3100 feet, east flank of Ridge 3, south side of Pine River valley; and foot of Mount Bickford Ridge, on valley plain of Pine River, Peace River Foothills, British Columbia.

*Dichotomites cf. giganteus* (Imlay)

Hypotypes 17323, 17328, 17329

Jeletzky, J.A.,  
1964, Geol. Surv., Canada, Paper 64-6, p. 14, pl. 6, figs. 1, 8a–d, 9a–c.  
1965, ibid., Bull. 103, pl. 18, figs. 1, 6A–D, 7A–C.

Eldorado Group (lower part), Lower Cretaceous, along north bank of Tyaughton Creek a few hundred feet west of mouth of Camp Creek, Tyaughton Lake area, Bridge River district, British Columbia.

*Dichotomites quatsinoensis* (Whiteaves)

Hypotypes 16657, 16662

Jeletzky, J.A.,  
1964, Geol. Surv., Canada, Paper 64-6, p. 16, pl. 7, figs. 8, 13a, b.  
1965, ibid., Bull. 103, pl. 20, figs. 3A, B, 15A, B.

Lower Cretaceous, southeast end of a small wooded islet inside of Winter Harbour and about 1 1/4 mile north of Greenwood Point, Forward Inlet, Quatsino Sound, Vancouver Island, British Columbia.

*Dichotomites quatsinoensis* (Whiteaves)

Hypotypes 17255, 17282

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 50, pl. 11, fig. 7; p. 52, pl. 12, fig. 4; p. 54, pl. 13, figs. 6A–D.

Deer Bay Formation, Lower Cretaceous, 5 miles up Delta River, Deer Bay map-area, Ellef Ringnes Island, Arctic.

*Dichotomites aff. quatsinoensis* (Whiteaves)

Topotype 4799a

Jeletzky, J.A.,  
1964, Geol. Surv., Canada, Paper 64-6, p. 16, pl. 7, figs. 6a, b.  
1965, ibid., Bull. 103, pl. 20, figs. 4A, B.

Lower Cretaceous, east side Winter Harbour, Forward Inlet, Quatsino Sound, Vancouver Island, British Columbia.

## MOLLUSCA

*Dichotomites* aff. *quatsinoensis* (Whiteaves)

Plastotype 18810

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 50, pl. 11, figs. 6A-C.  
Beattie Peaks Formation, Bullhead Group, Lower Cretaceous, upper Peace River area, British Columbia.

*Dichotomites* cf. *quatsinoensis* (Whiteaves)

Plastotype 18809

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 50, pl. 11, fig. 5.  
Beattie Peaks Formation, Bullhead Group, Lower Cretaceous, upper Peace River area, British Columbia.

*Discamphiceras* (?) *tipperi* Frebold

Holotype 19926

Frebold, H., 1967, Geol. Surv., Canada, Bull. 158, p. 22, pl. 5, figs. 1a, b; text-fig. 6.  
Hettangian, Lower Jurassic, a mile west of Spruce Lake Creek, Taseko Lakes area, British Columbia.

*Discamphiceras* (?) ex aff. *D.* (?) *tipperi* Frebold

Hypotype 19927

Frebold, H., 1967, Geol. Surv., Canada, Bull. 158, p. 23, pl. 5, figs. 2a-c.  
Hettangian, Lower Jurassic, a mile west of Spruce Lake Creek, Taseko Lakes area, British Columbia.

*Discotropites* cf. *D. sandlingensis* (Hauer)

Hypotype 17975

Carlisle, D. and Susuki, F., 1965, Can. J. Earth Sci., vol. 2, No. 5, p. 478, pl. 7, fig. 67.  
Open Bay Formation, Upper Triassic, Open Bay section, Quadra Island, British Columbia.

*Discotropites* sp.

Fig. spec. 17976

Carlisle, D. and Susuki, F., 1965, Can. J. Earth Sci., vol. 2, No. 5, p. 479, pl. 7, figs. 65, 66.  
Open Bay Formation, Upper Triassic, Open Bay section, Quadra Island, British Columbia.

*Dorsoplanites* cf. *gracilis* Spath

Hypotype 18029

Jeletzky, J.A., 1966, Geol. Surv., Canada, Bull. 128, p. 21, pl. 8, figs. 10A, B.  
Deer Bay Formation, Upper Jurassic, 2 1/3 miles east of mouth of unnamed river entering bay that joins Greely Fiord, 4 miles east of Hare Bay, Ellesmere Island, Arctic.

*Dorsoplanites* n. sp. ex aff. *crassus* Spath

Hypotype 18031

Jeletzky, J.A., 1966, Geol. Surv., Canada, Bull. 128, p. 20, pl. 8, figs. 11A, B; text-fig. 2.  
Deer Bay Formation, Upper Jurassic, 2 1/3 miles east of mouth of unnamed river entering bay that joins Greely Fiord, 4 miles east of Hare Bay, Ellesmere Island, Arctic.

*Dorsoplanites* sp. indet. ex gr. *D. panderi* (Michalski)

Hypotype 18036

Jeletzky, J.A., 1966, Geol. Surv., Canada, Bull. 128, p. 23, pl. 8, fig. 1.  
Deer Bay Formation, Upper Jurassic, Slidre Fiord, Reptile Creek, 2 1/2 miles north of Eureka weather station, Ellesmere Island, Arctic.

*Dorsoplanites* sp. indet.

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 104, pl. 50, fig. 1 [fig. spec. 15134].

*Dunedinites pinguis* Tozer

Holotype 14287; paratype 14288

Tozer, E.T., 1963, Geol. Surv., Canada, Bull. 96, p. 24, pl. 1, figs. 6a–d, 7.

Grayling Formation, Lower Triassic, Dunedin River, 4 1/2 miles north of mile 384, Alaska Highway, Tuchodi Lakes map-area, British Columbia.

*Echioceras* s. lato sp. indet.

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 8, pl. 2, figs. 3, 4 [fig. specs. 14638, 14640].

*Eolytoceras tasekoi* Frebold

Holotype 20059; paratype 20060

Frebold, H., 1967, Geol. Surv., Canada, Bull. 158, p. 14, pl. 8, figs. 1a–2c; text–fig. 2.

Hettangian, Lower Jurassic, approximately 1 1/2 miles northeast of Castle Mountain, Taseko Lakes area, British Columbia.

*Eolytoceras* cf. *E. tasekoi* Frebold

Hypotype 20063

Frebold, H., 1967, Geol. Surv., Canada, Bull. 158, p. 15, pl. 6, figs. 1a–c.

Hettangian, Lower Jurassic, approximately 1 1/2 miles northeast of Castle Mountain, Taseko Lakes area, British Columbia.

*Eolytoceras* sp. indet. 1–3

Fig. specs. 20061, 20062, 20064, 20065

Frebold, H., 1967, Geol. Surv., Canada, Bull. 158, pp. 15–16, pl. 6, figs. 2a–c, 3; pl. 8, figs. 3, 4.

Hettangian, Lower Jurassic, approximately 1 1/2 miles northeast of Castle Mountain, Taseko Lakes area, British Columbia.

*Erycites* cf. *E. howelli* (White)

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 26, pl. 11, fig. 8 [hypotype 15139].

*Fanninoceras fannini* McLearn

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 20, pl. 8, figs. 1 [hypotype 6495], 3, 8; p. 22, pl. 9, fig. 5 [holotype 9054].

*Fanninoceras kuna* var. *crassum* McLearn

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 22, pl. 9, fig. 4 [paratype 6517].

*Gastroploites allani* McLearn= *Gastroploites (Paragastroploites) allani*, Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 82, pl. 27, figs. 8A, B [holotype 6337].*Gastroploites anguinus* McLearn

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 88, pl. 30, figs. 2A–E [holotype 6338].

*Gastroploites canadensis* McLearn

Hypotypes 17431, 17432

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 84, pl. 28, figs. 2, 3A, B.

Lower Cretaceous, near base of shales in east bank Liard River, 10 miles north of mouth of Toad River, British Columbia.

MOLLUSCA

*Gastroploites* aff. *canadensis* (Whiteaves)

Hypotypes 17422, 17423

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 90, pl. 31, figs. 4A, B, 5A-D.  
Christopher Formation, Lower Cretaceous, east bank Thomsen River about 12 miles north of  
confluence of Muskox and Thomsen Rivers, Banks Island and south of Dumbell Dome,  
Ellef Ringnes Island, Arctic.

*Gastroploites cantianus* Spath var.

Hypotype 17433

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 88, pl. 30, figs. 3A-C.  
Drift? Hasler Formation, Lower Cretaceous, concretion lying in bottom of Dry Creek, on  
north side Peace River, Charlie Lake map-area, British Columbia.

*Gastroploites (Paragastroploites) flexicostatus* Imlay

Hypotypes 17429, 17430

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 86, pl. 29, figs. 3A, B, 4A-C.  
Christopher and Gates Formations, Lower Cretaceous, east of Eldridge Bay, Sabine Peninsula,  
Melville Island, Arctic, and Lynx Creek, Charlie Lake map-area, British Columbia.

*Gastroploites kingi* McLearn

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 84, pl. 28, figs. 1A, B [holotype  
6340].

*Gastroploites?* (*Paragastroploites?*) n. sp. aff. *liardense* (Whiteaves)

Hypotypes 17421, 17425, 17434

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 90, pl. 31, figs. 3A-C, 7A-D;  
p. 92, pl. 32, figs. 4A, B.  
Christopher Formation, Lower Cretaceous, south of Dumbell Dome, Ellef Ringnes Island and  
east side Thomsen River about 8 miles north of confluence of Thomsen and Muskox Rivers,  
Banks Island, Arctic.

“*Gastroploites*” (a new genus?) n. sp. A

Fig. specs. 17419, 17420, 17424

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 90, pl. 31, figs. 1A-D, 2A-I,  
6A-C.

Christopher Formation, Lower Cretaceous, east side Thomsen River about 8 miles north of  
confluence of Thomsen and Muskox Rivers, Banks Island; prominent ridge east side  
Amarok River, south side Strand Fiord, Axel Heiberg Island; and about 7000 feet  
southeast of southeast end Glacier Fiord, southern Axel Heiberg Island, Arctic.

*Gastroploites spiekeri* McLearn

= *Gastroploites (Paragastroploites) spiekeri*, Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper  
64-11, p. 82, pl. 27, figs. 6A, B [holotype 6339].

*Gastroploites (Paragastroploites) spiekeri* McLearn

Hypotypes 17426-17428

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 82, pl. 27, figs. 5A-C; p. 86,  
pl. 29, figs. 1A-D, 2A-D.

Lower Cretaceous, 1 mile east of gates on north side of Peace River, Charlie Lake map-area and  
near base of shales in east bank Liard River, 10 miles north of mouth of Toad River, British  
Columbia.

*Gastroploites stantoni* McLearn

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 82, pl. 27, figs. 2A-C [holotype  
6336].

*Genus et species indet.*

Hypotypes 16034–16036

Frebold, H., 1964, Geol. Surv., Canada, Bull. 116, p. 22.

Middle Jurassic, ridge north of Cleaver Lake, lat.  $58^{\circ}29'36''N$ , long.  $132^{\circ}27'54''W$  and 4 miles southwest of 180 Lake, lat.  $57^{\circ}19'17''N$ , long.  $130^{\circ}23'36''W$ , Telegraph Creek area, northwestern British Columbia.

*Gleviceras?* sp. indet.

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 6, pl. 1, figs. 12a, b [fig. spec. 14636].

*Goliathiceras* cf. *G. crassum* (Reeside)

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 100, pl. 48, fig. 1; p. 102, pl. 49, figs. 1a, b [hypotype 13900].

*Grammoceras?* *boreale* (Whiteaves)

Hypotype 16017

Frebold, H., 1964, Geol. Surv., Canada, Bull. 116, p. 18, pl. 7, fig. 4.

Laberge Group, Lower Jurassic, Five Finger Rapids on Lewes River, southern Yukon.

*Grammoceras* aff. *G. fallaciosum* (Bayle)

Hypotype 16015

Frebold, H.,

1964, Geol. Surv., Canada, Paper 63-4, p. 22, pl. 9, fig. 8.

1964, ibid., Bull. 116, p. 17, pl. 7, fig. 1.

Lower Jurassic, Five Finger Rapids on Lewes River, British Columbia.

*Grammoceras* aff. *G. fallaciosum* (Bayle)

Hypotypes 16016, 16018

Frebold, H., 1964, Geol. Surv., Canada, Bull. 116, p. 17, pl. 7, fig. 2.

Laberge Group, Lower Jurassic, Marsh Lake and M'Clintock River, southern Yukon.

*Grammoceras?* sp. indet.

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 22, pl. 9, figs. 7a, b [fig. specs. 14674, 14676].

*Guhsania bella* McLearn

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 28, pl. 12, fig. 1 [holotype 7710].

*Gymnotoceras columbianum* McLearn

=*Anagymnotoceras columbianum*, McLearn, F.H., 1966, Geol. Surv., Canada, Paper 66-56, pl. 1, figs. 6, 7 [holotype 6691].

*Gymnotoceras helle* McLearn

=*Anagymnotoceras helle*, McLearn, F.H., 1966, Geol. Surv., Canada, Paper 66-56, pl. 1, figs. 3 [holotype 9593], 4, 5 [paratype 9592].

*Gymnotoceras ino* McLearn

=*Anagymnotoceras ino*, McLearn, F.H., 1966, Geol. Surv., Canada, Paper 66-56, pl. 1, figs. 9, 10 [holotype 9594].

*Gymnotoceras moderatum* McLearn

=*Anagymnotoceras moderatum*, McLearn, F.H., 1966, Geol. Surv., Canada, Paper 66-56, pl. 1, fig. 8 [holotype 9596].

## MOLLUSCA

### *Gymnotoceras varium* McLearn

= *Anagymnotoceras varium*, McLearn, F.H., 1966, Geol. Surv., Canada, Paper 66-56, pl. 1, figs. 11-13 [holotype 9595].

### *Gymnotoceras wrighti* McLearn

= *Anagymnotoceras wrighti*, McLearn, F.H., 1966, Geol. Surv., Canada, Paper 66-56, pl. 1, figs. 1, 2 [holotype 9484].

### *Gymnotropites* cf. *G. americanus* Hyatt and Smith

Hypotype 17996

Carlisle, D. and Susuki, F., 1965, Can. J. Earth Sci., vol. 2, No. 5, p. 479, pl. 8, figs. 74-76. Open Bay Formation, Upper Triassic, Open Bay section, Quadra Island, British Columbia.

### *Gyroceratites (Lamelloceras)* sp.

Fig. spec. 16921

House, M.R. and Pedder, A.E.H., 1963, Palaeontology, vol. 6, pt. 3, p. 507, pl. 74, fig. 1. Funeral Formation, 1466-1476 below top, Middle Devonian, about lat. 61°55'N, long. 125°13'W, northern Arnica Range, Northwest Territories.

### *Hannaoceras* sp.

Fig. specs. 17977, 17978, 17997, 18880

Carlisle, D. and Susuki, T., 1965, Can. J. Earth Sci., vol. 2, No. 5, p. 475, pl. 4, figs. 35-38; pl. 5, figs. 44, 45.

Open Bay Formation, Upper Triassic, Open Bay section, Quadra Island, British Columbia.

### *Harpoceras allifordense* McLearn

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 20, pl. 8, figs. 5a, b [holotype 9053].

### *Harpoceras* aff. *H. exaratum* (Young and Bird)

Hypotype 20358

Frebold, H., et al., 1967, Geol. Surv., Canada, Paper 67-12, p. 16, pl. 1, fig. 8. Toarcian, Jurassic, Loney Creek about 2 miles upstream, Firth River area, British Mountains, northern Yukon.

### *Harpoceras* cf. *exaratum* Young and Bird

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 22, pl. 9, figs. 1, 2 [hypotypes 12877, 12880].

### *Harpoceras* cf. *H. exaratum* (Young and Bird)

Hypotypes 16002-16006

Frebold, H., 1964, Geol. Surv., Canada, Bull. 116, p. 16, pl. 6, figs. 1-5. Lower Jurassic, Tulsequah area, north side Niagara Mountain, lat. 58°29'36"N, long. 132°27'54"W; 4 miles east of Wade Lake, lat. 58°40'58"N, long. 133°05'40"W; west end of One-Way Lake, lat. 58°37'39"N, long. 132°33'42"W; elevation 4770 feet, south above west end King Salmon Lake, lat. 58°41'13"N, long. 132°53'42"W; and elevation 1765 feet, south side of Creek flowing out of One-Way Lake, lat. 58°39'38"N, long. 132°40'50"W, north-western British Columbia.

### *Harpoceras propinquum* (Whiteaves)

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 20, pl. 8, figs. 6a, b, 7 [hypotypes 6490, 6491].

### *Harpoceras* sp.

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 22, pl. 9, fig. 3 [fig. spec. 6489].

*Harpoceras* sp. juvenile

Fig. specs. 16007–16010

Frebald, H., 1964, Geol. Surv., Canada, Bull. 116, p. 16, pl. 6, figs. 6–9.

Lower Jurassic, elevation 1765 feet, south side of creek flowing out of One-Way Lake, lat.  $58^{\circ}39'38''N$ , long.  $132^{\circ}40'50''W$  and west end One-Way Lake, lat.  $58^{\circ}37'39''N$ , long.  $132^{\circ}33'42''W$ , Tulsequah area, northwestern British Columbia.

*Homolosomites poecilochotomus* Crickmay

= *Dichotomites quatsinoensis*, Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-6, p. 16, pl. 7, figs. 4 [9697], 7 [9696].

Jeletzky, J.A., 1965, ibid., Bull. 103, pl. 20, fig. 13 [9696]; pl. 21, fig. 11 [9697].

*Hoplites canadensis* Whiteaves

= *Gastropites canadensis*, Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 82, pl. 27, figs. 4A–C [holotype 7430].

*Hoplites mcconnelli* Whiteaves

= *Arctoplates* (= *Subarctoplates*) *mcconnelli*, Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 80, pl. 26, figs. 1A–E [holotype 4800].

*Hoplites newcombi* Whiteaves

= *Kepplerites newcombi*, Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 74, pl. 35, figs. 3a, b [holotype 5990].

*Imitoceras* sp.

Fig. spec. 16960

House, M.R. and Pedder, A.E.H., 1963, Palaeontology, vol. 6, pt. 3, p. 533, pl. 74, figs. 10, 11.

Upper Devonian, lat.  $62^{\circ}21'N$ , long.  $123^{\circ}42'W$ , North Nahanni River, Northwest Territories.

? *Imitoceras* sp.

Fig. specs. 16961, 16962

House, M.R. and Pedder, A.E.H., 1963, Palaeontology, vol. 6, pt. 3, p. 533, pl. 77, fig. 5.

Upper Devonian, about lat.  $62^{\circ}21'N$ , long.  $123^{\circ}43'W$ , 6 miles south of eastern tip Carlson Lake, Northwest Territories.

*Imlayoceras miettense* Frebold

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 76, pl. 36, figs. 1a–d [holotype 14707]; p. 78, pl. 37, fig. 1; p. 80, pl. 38, fig. 1 [paratype 14694].

*Isculitooides minor* Tozer

Holotype 18817; paratypes 18818, 18819

Tozer, E.T., 1965, Geol. Surv., Canada, Bull. 123, p. 20, pl. 2, figs. 1a–3c; text–fig. 4.

Toad Formation, 320–335 and about 410 feet above Fantasque Formation, Lower Triassic, northwesterly facing bluff west of upper Chowade River, 2 1/2 miles S7°W of summit of Mount Laurier, lat.  $55^{\circ}44'15''N$ , long.  $123^{\circ}29'W$  and South Gully 1100 feet south of North Gully 7 miles N12°W of summit of Mount Laurier, lat.  $56^{\circ}52'20''W$ , long.  $123^{\circ}30'50''W$ , northeastern British Columbia.

*Itinsaites itinsae* McLear

= *Normannites itinsae*, Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 36, pl. 16, fig. 4 [holotype 9020].

## MOLLUSCA

### *Juvenites needhami* Tozer

Holotype 14292; paratypes 14289–14291, 14293

Tozer, E.T., 1963, Geol. Surv., Canada, Bull. 96, p. 25, pl. 5, figs. 1a–6.

“Toad-Grayling Formation”, Lower Triassic, Needham Creek, 2 miles west of junction with Graham River, Halfway River map-area, British Columbia.

### *Kanastephanus altus* McLearn

=*Normannites altus*, Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 36, pl. 16, figs. 6a, b [holotype 9018].

### *Kanastephanus canadensis* McLearn

=*Normannites canadensis*, Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 36, pl. 16, figs. 3a, b [holotype 9019].

### *Kanastephanus mackenii* McLearn

=*Normannites mackenii*, Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 36, pl. 16, figs. 5a–c [holotype 9017].

### *Kepplerites aff. K. tychonis* (Ravn)

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 76, pl. 36, fig. 2 [hypotype 14715].

### *Kepplerites* sp. indet.

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 70, pl. 33, fig. 2 [fig. spec. 14706].

### *Keyserlingites subrobustus* (Mojsisovics)

Hypotypes 18841–18847

Tozer, E.T., 1965, Geol. Surv., Canada, Bull. 123, p. 31, pl. 5, fig. 1; pl. 6, figs. 1a–2b; pl. 7, figs. 1a–3b; pl. 8, figs. 2a–h.

Blind Fiord, Blaa Mountain and Toad Formations, Lower Triassic, Raanes Peninsula, 3 1/2 miles east from mouth of Willow River and 1 1/2 miles inland south side of Otto Fiord, 2 miles east from junction with Nansen Sound, Ellesmere Island, Arctic Archipelago; north-westerly facing bluff west of upper Chowade River, 2 1/2 miles S7°W of summit of Mount Laurier, lat. 55°44'15"W, long. 123°29'W and North Gully 7 miles N12°W of summit of Mount Laurier, lat. 56°52'20"W, long. 123°30'50"W, northeastern British Columbia.

### *Koninckites columbianus* Tozer

Holotype 14266; paratype 14267

Tozer, E.T., 1963, Geol. Surv., Canada, Bull. 96, p. 15, pl. 5, figs. 7a–c, 8a–c.

Grayling Formation, Lower Triassic, Dunedin River, 4 1/2 miles north of mile 384, Alaska Highway, Tuchodi Lakes map-area, British Columbia.

### *Kosmoceras (Gulielmiceras) knechtelii* Imlay

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 70, pl. 33, fig. 3 [hypotype 14696].

### *Laevicornaptychus*

Fig. specs. 16011–16014

Frebold, H., 1964, Geol. Surv., Canada, Bull. 116, p. 16, pl. 6, figs. 10–13.

Lower Jurassic, elevation 1765 feet, south side of creek flowing out of One-Way Lake, lat. 58°39'38"N, long. 132°40'50"W and west end One-Way Lake, lat. 58°37'39"N, long. 132°33'42"W, Tulsequah area, northwestern British Columbia.

*Laugeites?* sp. indet.

Fig. spec. 18028

Jeletzky, J.A., 1966, Geol. Surv., Canada, Bull. 128, p. 23, pl. 8, figs. 7A, B.

Deer Bay Formation, Upper Jurassic, Slidre Fiord, Reptile Creek, 2 1/2 miles north of Eureka weather station, Ellesmere Island, Arctic.

*Leconteiceras* sp.

Fig. spec. 17979

Carlisle, D. and Susuki, F., 1965, Can. J. Earth Sci., vol. 2, No. 5, p. 480, pl. 8, fig. 78.

Open Bay Formation, Upper Triassic, Open Bay section, Quadra Island, British Columbia.

*Leconteites lecontei whiteavesi* Jones, Murphy and Packard

Holotype 19097; paratypes 19098–19102

Jones, D.L., Murphy, M.A. and Packard, E.L., 1965, U.S. Geol. Surv. Prof. Paper 503-F, p. F13, pl. 6, figs. 1–9, 12–14; pl. 7, figs. 1–3.

Lower Cretaceous, Beresford Bay, Graham Island, Queen Charlotte Islands, British Columbia.

*Leioceras opalinum* (Reinecke)

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 24, pl. 10, figs. 1 [holotype 13380], 2 [holotype 13379], 3a–c [holotype 13384], 9 [holotype 14648]; p. 26, pl. 11, fig. 2 [holotype 13381].

*Leiophyllites* sp. indet.

Fig. spec. 18871

Tozer, E.T., 1965, Geol. Surv., Canada, Bull. 123, p. 40, pl. 2, fig. 10.

Toad Formation, 430 feet above Fantasque Formation, Lower Triassic, North Gully 7 miles N12°W of summit of Mount Laurier, lat. 56°52'20"N, long. 123°30'50"W, northeastern British Columbia.

*Lemuroceras belli* McLearn= *Arctoplitites belli*, Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 80, pl. 26, figs. 3A–E [holotype 9570].*Lemuroceras cf. indicum* Spath= *Arctoplitites* sp. indet. A, Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 76, pl. 24, figs. 1A–D [fig. spec. 9706].*Lemuroceras irenense* McLearn= *Arctoplitites (Freboldiceras) irenense*, Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 80, pl. 26, figs. 13A, B [holotype 9571].*Leptaleoceras pseudoradians* (Reynès)

Hypotypes 15991, 15997, 15998

Frebold, H.,

1964, Geol. Surv., Canada, Paper 63-4, p. 16, pl. 6, figs. 5, 11, 12.

1964, ibid., Bull. 116, p. 15, pl. 4, figs. 6, 7; pl. 5, fig. 5.

Lower Jurassic, south fork of Ball Creek, Telegraph Creek area, northwestern British Columbia and Laberge Group, Lower Jurassic, between Idaho Hill and Mount Bush, Whitehorse map-area, southern Yukon.

*Leptaleoceras pseudoradians* (Reynès)

Hypotypes 15990, 15996

Frebold, H., 1964, Geol. Surv., Canada, Bull. 116, p. 15, pl. 5, fig. 4; pl. 4, fig. 5.

Lower Jurassic, south fork Ball Creek, lat. 57°10'38"N, long. 130°25'06"W, Telegraph Creek area, northwestern British Columbia and ridge between Idaho Hill and Mount Bush, elevation 5200 feet, lat. 60°18'57"N, long. 135°02'42"W, southern Yukon.

## MOLLUSCA

### *Liardites whiteavesi* Tozer

Holotype 14302; paratypes 14300, 14301

Tozer, E.T., 1963, Geol. Surv., Canada, Bull. 96, p. 34, pl. 6, figs. 6a–8c.

Liard Formation, Triassic, north side Liard River, 3 miles upstream from Hades (Hell) Gate, lat. 59°16'30"N, long. 125°18'W, Toad River area, British Columbia.

### *Lilloettia imlayi* Frebold

= *Warrenoceras imlayi*, Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 68, pl. 32, figs. 4a, b [holotype 12897], 5 [paratype 12901].

### *Lilloettia lilloetensis* Crickmay

Frebold, H.,

1964, Geol. Surv., Canada, Paper 63-4, p. 78, pl. 37, figs. 2a, b, 3a, b [holotype 9698].

in Frebold, H. and Tipper, H.W., 1967, ibid., Paper 67-21, p. 11, pl. 1, fig. 9 [holotype 9698].

### *Lilloettia lilloetensis* Crickmay

Hypotypes 22690–22692

Frebold, H., in Frebold, H. and Tipper, H.W., 1967, Geol. Surv., Canada, Paper 67-21, p. 11, pl. 1, figs. 7, 8; pl. 3, fig. 3.

Middle Callovian, Jurassic, on ridge west of saddle at elevation 6870 feet one mile north of junction of Tyauton and Lizard Creeks and north side of ridge 2 1/2 miles southeast of Elbow Mountain, Taseko Lakes area, British Columbia.

### *Lilloettia tipperi* Frebold

Holotype 20367; paratypes 20368–20372

Frebold, H., in Frebold, H. and Tipper, H.W., 1967, Geol. Surv., Canada, Paper 67-21, p. 9, pl. 1, figs. 1–6; pl. 3, fig. 2.

Middle Callovian, Jurassic, Necho River, 2 miles upstream from Big Bend Creek, Necho River area, British Columbia.

### *Liparoceras (Becheiceras) cf. bechei* (Sowerby)

Hypotype 15972

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 14, pl. 5, fig. 1; p. 16, pl. 6, fig. 1.

Lower Jurassic, south of west end of King Salmon Lake, Tulsequah area, British Columbia.

= *Becheiceras* cf. *B. bechei*, Frebold, H., 1964, ibid., Bull. 116, p. 8, pl. 3, fig. 1; pl. 4, fig. 1; pl. 5, fig. 1.

### *Lobotornoceras* aff. *bilobatum* (Wedekind)

Hypotype 16955

House, M.R. and Pedder, A.E.H., 1963, Palaeontology, vol. 6, pt. 3, p. 529, pl. 77, figs. 1, 2; text-fig. 12A.

Upper Devonian, about lat. 62°21'N, long. 123°43'W, 6 miles south of eastern tip Carlson Lake, Northwest Territories.

### *Longobardites intornatus* McLearn

= *Longobardites (Intornites) intornatus*, Ascereto, R., 1966, Rivista Italiana Paleont., vol. 72, No. 4, p. 963, pl. 69, figs. 1a–c [holotype 6466], 2a, b [hypotype 9582].

### *Longobardites (Intornites) intornatus* McLearn

Hypotypes 22720, 22722, 22723, 22727, 22730, 22732

Ascereto, R., 1966, Rivista Italiana Paleont., vol. 72, No. 4, p. 963, pl. 69, figs. 3a–c, 4; pl. 70, figs. 2a–c, 5a–c, 7a–c; text-fig. 2.

Triassic, talus blocks, Alaska Highway, west of mile post 375 and at mile post 376+450 feet, Tetsa River, British Columbia.

*Longobardites (Intornites) nevadanus* Hyatt and Smith

Hypotypes 22721, 22724–22726, 22728, 22729, 22731

Aserreto, R., 1966, Rivista Italiana Paleont., vol. 72, No. 4, p. 963, pl. 69, figs. 5a–c, 7a–c; pl. 70, figs. 1a–c, 3a–c, 4a–c, 6a–c; text-figs. 5a–d.

Triassic, talus blocks, Alaska Highway, mile post 376+450 feet and west of mile post 375, Tetsa River, British Columbia.

*Maclearnoceras maclearni* Tozer

Holotype 14297; paratypes 14295, 14296, 14298, 14299

Tozer, E.T., 1963, Geol. Surv., Canada, Bull. 96, p. 36, pl. 6, figs. 1a–5b.

Liard Formation, Triassic, north side Liard River, 3 miles upstream from Hades (Hell) Gate, lat. 59°16'30"N, long. 125°18'W, Toad River area, British Columbia.

*Maenioceras* sp.

Fig. specs. 16941, 16942, 16948

House, M.R. and Pedder, A.E.H., 1963, Palaeontology, vol. 6, pt. 3, p. 515, pl. 70, figs. 2, 3, 7; pl. 72, fig. 16.

Fort Creek Shale, Middle Devonian, about lat. 67°40'N, long. 128°22'W, Carnwath River, Northwest Territories.

*Manticoceras cordiforme* Miller

House, M.R. and Pedder, A.E.H., 1963, Palaeontology, vol. 6, pt. 3, p. 519, pl. 76, figs. 5, 6; text-figs. 7C, 9F [holotype 2393].

*Manticoceras septentrionale* Miller= *Manticoceras cordiforme*, House, M.R. and Pedder, A.E.H., 1963, Palaeontology, vol. 6, pt. 3, p. 519, pl. 76, figs. 10, 11; text-figs. 7A, B, 9H [holotype 5139].*Manticoceras cf. sinuosum* (Hall)

Hypotypes 16973–16978

House, M.R. and Pedder, A.E.H., 1963, Palaeontology, vol. 6, pt. 3, p. 521, text-figs. 8A, B. Perdix and Mount Hawk Formations, Upper Devonian, head of Sulphur Creek, Miette area; Deception Creek; north side of a gap on North Saskatchewan River; and about lat. 52°25'N, 115°50'W, Saskatchewan Gap in Brazeau Range, Alberta.

*Manticoceras* spp.

Fig. specs. 16979, 16980, 16964

House, M.R. and Pedder, A.E.H., 1963, Palaeontology, vol. 6, pt. 3, p. 523, pl. 74, figs. 8, 9; text-figs. 9A, B, D, E.

Escarpment Formation and Grumbler Group, Redknife Formation, Upper Devonian, near junction of Mills Lake Road and Hay River and about lat. 61°26'N, long. 121°38'W, Liard Rapids, Northwest Territories.

*Metadagnoceras pulcher* Tozer

Holotype 18848

Tozer, E.T., 1965, Geol. Surv., Canada, Bull. 123, p. 29, pl. 1, figs. 11a–e; text-fig. 9.

Toad Formation, 320–335' above Fantasque Formation, Lower Triassic, northwesterly facing bluff west of upper Chowade River, 2 1/2 miles 57°W of summit Mount Laurier, lat. 55°44'15"N, long. 123°29'W, northeastern British Columbia.

## MOLLUSCA

*Metalegoceras crenatum* Nassichuk, Furnish, and Glenister

Holotype 18786; paratype 18781

Nassichuk, W.W., et al., 1966, Geol. Surv., Canada, Bull. 131, 1965, p. 27, pl. 5, fig. 1; text-fig. 5.

Lower Permian, about 10 miles southwest of "Snafu Ridge", lat.  $67^{\circ}31'N$ , long.  $136^{\circ}32'W$ , northeastern Yukon and north-central east coast, Bjorne Peninsula, southwestern Ellesmere Island, Arctic.

*Metalegoceras* sp.

= *Spirolegoceras harkeri*,

Ruzhencev, V.E., 1961, Acad. Sci. U.S.S.R., Pal. J., No. 2, p. 51.

Nassichuk, W.W., et al., 1966, Geol. Surv., Canada, Bull. 131, 1965, p. 29, pl. 4, figs. 1, 3; text-figs. 6B, 8B [holotype 13775].

*Monacanthites monoceras* Tozer

Holotype 18838; paratypes 18836, 18837, 18839, 18840

Tozer, E.T., 1965, Geol. Surv., Canada, Bull. 123, p. 27, pl. 1, figs. 8a–10c; pl. 2, fig. 4; text-fig. 8.

Toad Formation, 320–335 and about 430 feet above Fantasque Formation, Lower Triassic, Middle Gully about 600 feet south of North Gully, 7 miles  $N12^{\circ}W$  of summit of Mount Laurier, lat.  $56^{\circ}52'20''N$ , long.  $123^{\circ}30'50''W$  and northwesterly facing bluff west of upper Chowade River, 2 1/2 miles  $S7^{\circ}W$  of summit of Mount Laurier, lat.  $55^{\circ}44'15''N$ , long.  $123^{\circ}29'W$ , northeastern British Columbia.

*Neocomites* (*Neocomites*?) aff. *indomontanus* Uhlig

Hypotype 17223

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 40, pl. 6, figs. 4A–C.

Lower Cretaceous, lat.  $55^{\circ}38'N$ , long.  $122^{\circ}26'38''W$ , Peace River Foothills, British Columbia.

*Neocomites* (*Parandiceras*) cf. *rota* (Spath)

Hypotype 16646

Jeletzky, J.A.,

1964, Geol. Surv., Canada, Paper 64-6, p. 10, pl. 4, figs. 5a, b.

1965, ibid., Bull. 103, pl. 16, figs. 5A, B.

One Tree Formation, southern end of southern rocky fringe of Grassy Island, west coast of Vancouver Island, British Columbia.

*Neocomites* s. lato n. sp. indet.

Fig. spec. 16612

Jeletzky, J.A., 1965, Geol. Surv., Canada, Bull. 103, pl. 11, figs. 6A–C; pl. 12, fig. 6.

One Tree Formation, Lower Cretaceous, southern fringe of Grassy Island, west coast Vancouver Island, British Columbia.

*Neogastropilites americanus* var. A Reeside and Cobban

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 98, pl. 35, figs. 2A–C [hypotype 13633], 8A, B [hypotype 13632].

*Neogastropilites americanus* var. C Reeside and Cobban

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 98, pl. 35, figs. 5A, B [hypotype 13634].

*Neogastropilites americanus* var. D Reeside and Cobban

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 98, pl. 35, figs. 3A, B [hypotype 13635].

*Neogastropites cornutus* (Whiteaves)

= *Neogastropites cornutus* var. E, Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 96, pl. 34, fig. 5 [hypotype 8007].

*Neogastropites cf. cornutus* (Whiteaves)

= *Neogastropites selwyni*, Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 94, pl. 33, figs. 2A–C [hypotype 9711].

*Neogastropites cornutus* var. D Reeside and Cobban

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 98, pl. 35, figs. 4A, B [hypotype 13673].

*Neogastropites cornutus* var. E Reeside and Cobban

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 96, pl. 34, figs. 4A, B [hypotype 13676]; p. 98, pl. 35, figs. 1 [hypotype 13677], 6A–C [hypotype 13674], 7A, B [hypotype 13675].

*Neogastropites maclearni* var. A Reeside and Cobban

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 100, pl. 36, figs. 4A–D [hypotype 13642], 5A–D [hypotype 13638].

*Neogastropites maclearni* var. B Reeside and Cobban

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 100, pl. 36, figs. 2A–D [hypotype 13645].

*Neogastropites maclearni* var. C Reeside and Cobban

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 100, pl. 36, figs. 1A–D [hypotype 13653], 6A–C [hypotype 13652].

*Neogastropites maclearni* var. D Reeside and Cobban

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 100, pl. 36, figs. 3A–C [hypotype 13658], 8A–C [hypotype 13662].

*Neogastropites maclearni* var. E Reeside and Cobban

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 100, pl. 36, figs. 7A–C [hypotype 13666].

*Neogastropites (?) sp.*

= *Neogastropites?* sp. indet., Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 96, pl. 34, fig. 6 [fig. spec. 9718].

*Neogeoceras macnairi* Nassichuk, Furnish, and Glenister

Holotype 18770

Nassichuk, W.W., et al., 1966, Geol. Surv., Canada, Bull. 131, 1965, p. 48, pl. 4, figs. 7, 8; text–fig. 16B.

Upper Permian, 4 miles southwest of Cape Fortune, Cameron Island, Arctic.

*Neogeoceras* sp.

Fig. spec. 18785

Nassichuk, W.W., et al., 1966, Geol. Surv., Canada, Bull. 131, 1965, p. 50, text–fig. 17.

Upper Permian, lat. 67°58'28"N, long. 136°09'22"W, northern Richardson Mountains, District of Mackenzie.

## MOLLUSCA

### *Neoshumardites* cf. *N. sakmarae* (Ruzhencev)

#### Hypotype 18783

Nassichuk, W.W., et al., 1966, Geol. Surv., Canada, Bull. 131, 1965, p. 14, pl. 1, figs. 7, 8; text-fig. 2C.

Assistance Formation, Lower Permian, near central-east coast, Bjorne Peninsula, southwestern Ellesmere Island, Arctic.

### *Neouddenites caurus* Nassichuk, Furnish, and Glenister

#### Holotype 18787; paratypes 18788, 18789

Nassichuk, W.W., et al., 1966, Geol. Surv., Canada, Bull. 131, 1965, p. 41, pl. 2, figs. 4-7; text-figs. 13A-C, 14A.

Lower Permian, lat. 68°03'N, long. 136°38'W, 4 miles west-southwest of Aklavik, northern Yukon.

### *Olcostephanus quatsinoensis* Whiteaves

= *Dichotomites quatsinoensis*, Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-6, p. 16, pl. 7, figs. 12a-c [holotype 4799].

Jeletzky, J.A., 1965, ibid., Bull. 103, pl. 20, figs. 4A, B [4799a], 14A-C [4799].

### *Olenikites canadensis* Tozer

= var. A, Tozer, E.T., 1965, Geol. Surv., Canada, Bull. 123, p. 32, pl. 4, figs. 1a-c; text-fig. 10b [holotype 14094 - Blaa Mountain Formation].

= var. B, Tozer, E.T., 1965, ibid., p. 32 [paratype 14095 - Blaa Mountain Formation].

### *Olenikites canadensis* Tozer var. A

#### Hypotype 18850

Tozer, E.T., 1965, Geol. Surv., Canada, Bull. 123, p. 32, pl. 4, fig. 2.

Lower Shale member, Blaa Mountain Formation, Lower Triassic, 1 1/2 miles inland, south side Otto Fiord, 2 miles east from junction with Nansen Sound, Ellesmere Island, Arctic Archipelago.

### *Olenikites canadensis* Tozer var. B

#### Hypotypes 18851, 18852, 18855

Tozer, E.T., 1965, Geol. Surv., Canada, Bull. 123, p. 32, pl. 4, figs. 3a-4d, 6a-c.

Lower Shale member, Blaa Mountain Formation, Lower Triassic, 1 1/2 miles inland, south side Otto Fiord, 2 miles east from junction with Nansen Sound, Ellesmere Island, Arctic Archipelago.

### *Olenikites canadensis* Tozer var. C

#### Hypotypes 18853, 18854, 18856

Tozer, E.T., 1965, Geol. Surv., Canada, Bull. 123, p. 32, pl. 4, figs. 5a-c, 7a-8c; text-fig. 10a.

Lower Shale member, Blaa Mountain Formation, Lower Triassic, 1 1/2 miles inland and south side Otto Fiord, 2 miles east from junction with Nansen Sound, Ellesmere Island, Arctic Archipelago.

### Oppelioid ammonite

#### Fig. spec. 16583

Jeletzky, J.A., 1965, Geol. Surv., Canada, Bull. 103, pl. 2, figs. 9A, B.

Upper Jurassic, west side Grassy Island, west coast Vancouver Island, British Columbia.

### *Oxynoticeras oxynotum* (Quenstedt)

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 6, pl. 1, figs. 10a, b [hypotype 14632], 11 [hypotype 14631].

*Pachydiscus ootacodensis* (Stoliczka)

=*Pachydiscus (Pachydiscus) hornbyense*, Jones, D.L., 1963, U.S. Geol. Surv., Prof. Paper 432, p. 38, pl. 32, figs. 3–5 [plaster cast of hypotype 10052]; pl. 33, figs. 2, 3, 7 [plaster cast of hypotype 10051].

*Pachydiscus ootacodensis* (Stoliczka)

=*Pachydiscus (Pachydiscus) hornbyense?*, Jones, D.L., 1963, U.S. Geol. Surv., Prof. Paper 432, p. 38, pl. 32, fig. 2 [plaster cast of hypotype 5850].

*Paracadoceras harveyi* Crickmay

Frebald, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 84, pl. 40, figs. 3a, b [holotype 9675].

*Paracaloceras cf. P. coregonense* (Sowerby)

Hypotypes 19935–19938, 19943

Frebald, H., 1967, Geol. Surv., Canada, Bull. 158, p. 24, pl. 7, figs. 3–7b.

Hettangian, Lower Jurassic, ridge about 3 1/2 miles northeast of limestone knob near head of Last Creek, Taseko Lakes area, British Columbia.

*Paracaloceras multicostatum* Frebold

Holotype 19939; paratypes 19940–19942

Frebald, H., 1967, Geol. Surv., Canada, Bull. 158, p. 25, pl. 7, figs. 8a–10; pl. 8, fig. 5.

Hettangian, Lower Jurassic, about a mile west of Spruce Lake Creek and about 1 1/2 miles south of Spruce Lake, Taseko Lakes area, British Columbia.

*Paracaloceras russicostatum* Frebold

Holotype 19944; paratype 19946

Frebald, H., 1967, Geol. Surv., Canada, Bull. 158, p. 26, pl. 7, figs. 1a–2b; pl. 9, fig. 1.

Hettangian, Lower Jurassic, near head of Last Creek and approximately 1 1/2 miles northeast of Castle Mountain, Taseko Lakes area, British Columbia.

*Paracephalites glabrescens* Buckman

Frebald, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 60, pl. 28, fig. 1 [hypotype 14695]; p. 62, pl. 29, figs. 1a–c [hypotype 14719], 3 [hypotype 14705].

*Paracephalites hashimotoi* Frebold

Plastoholotype 14374

Frebald, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 60, pl. 28, figs. 4a–c.

Fernie Group, Middle Jurassic, Adanac strip mine, Carbondale area, Alberta.

*Paracephalites hashimotoi* Frebold

Frebald, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 60, pl. 28, fig. 3 [hypotype 14701].

*Paracephalites metastatus* (Buckman)

Frebald, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 62, pl. 29, fig. 2 [hypotype 14700].

*Paracoroniceras cf. gmündense* (Oppel)

Hypotype 15969

Frebald, H.,

1964, Geol. Surv., Canada, Paper 63-4, p. 10, pl. 3, figs. 2a, b.

1964, ibid., Bull. 116, p. 6, pl. 1, figs. 6a, b; pl. 2, fig. 1.

Laberge Group, Lower Jurassic, lat. 59°15'N, long. 133°45'W, Atlin district, northwestern British Columbia.

MOLLUSCA

*Paracoroniceras* cf. *P. gmündense* (Oppel)

Hypotype 15970

Frebold, H., 1964, Geol. Surv., Canada, Bull. 116, p. 6, pl. 1, fig. 7.

Lower Jurassic, Wheaton area, southern Yukon.

*Paragastrioceras* n. sp.

Fig. specs. 18771–18777

Nassichuk, W.W., et al., 1966, Geol. Surv., Canada, Bull. 131, 1965, p. 18, pl. 1, fig. 3; pl. 2,  
figs. 1–3; pl. 4, figs. 4, 5; text–fig. 3A.

Lower Permian, north of Blaa Mountain, and north side of Hare Fiord, lat. 81°08'N, long.  
84°25'W, Ellesmere Island, Arctic.

*Paranorites sverdrupi* Tozer

Holotype 14277; paratypes 14275, 14276, 14278–14283

Tozer, E.T., 1963, Geol. Surv., Canada, Bull. 96, p. 12, pl. 4, figs. 1–6c.

Blind Fiord Formation, Lower Triassic, north side Otto Fiord, 10 and 11 miles from  
entrance, Ellesmere Island, Arctic and “Toad-Grayling Formation”, Needham Creek,  
2 miles west of junction with Graham River, Halfway River map-area, British Columbia.

*Paratropites sellai* (Mojsisovics)

Hypotypes 17980, 17998

Carlisle, D. and Susuki, F., 1965, Can. J. Earth Sci., vol. 2, No. 5, p. 479, pl. 7, figs. 62,  
64; pl. 8, figs. 68–70.

Open Bay Formation, Upper Triassic, Open Bay section, Quadra Island, British Columbia.

*Paratropites* cf. *P. sellai* (Mojsisovics)

Hypotype 17999

Carlisle, D. and Susuki, F., 1965, Can. J. Earth Sci., vol. 2, No. 5, p. 479, pl. 8, figs. 71, 72.

Open Bay Formation, Upper Triassic, Open Bay section, Quadra Island, British Columbia.

*Peltoceras occidentale* Whiteaves

=*Peronoceras* cf. *subarmatum*, Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 18,  
pl. 7, figs. 5a, b [hypotype 5825].

*Peronoceras* cf. *P. fibulatum* (Sowerby)

Hypotypes 16032, 16033

Frebold, H., 1964, Geol. Surv., Canada, Bull. 116, p. 11, pl. 8, figs. 7, 8.

Lower Jurassic, east bank Glenora Creek, 1/4 mile from mouth of creek, lat. 57°50'20"N, long.  
131°23'W, Stikine River area, British Columbia.

*Peronoceras* cf. *subarmatum* Young and Bird

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 18, pl. 7, fig. 10 [hypotype 12878].

*Peronoceras* sp. indet.

Fig. spec. 16001

Frebold, H., 1964, Geol. Surv., Canada, Bull. 116, p. 12, pl. 5, fig. 9.

Lower Jurassic, 1/4 mile southwest of Frozen Lake, lat. 58°40'06"N, long. 133°03'18"W,  
Tulsequah area, northwestern British Columbia.

*Phylloceras bakeri* Imlay

Hypotype 17660

Frebold, H., 1964, Geol. Surv., Canada, Bull. 119, p. 18, pl. 20, fig. 1.

Middle Jurassic, lat. 68°50'N, long. 138°41'W, Babbage River, Yukon.

*Phylloceras* s. lato sp.

Fig. spec. 19929

Frebold, H., 1967, Geol. Surv., Canada, Bull. 158, p. 12, pl. 5, figs. 4a, b.  
 Hettangian, Lower Jurassic, about a mile west of Spruce Lake Creek, Tyauthon Creek, Taseko Lakes area, British Columbia.

*Phylloceratid ammonite*, genus and species indet.

Fig. spec. 16617

Jeletzky, J.A., 1965, Geol. Surv., Canada, Bull. 103, pl. 12, figs. 3A, B.  
 One Tree Formation, Lower Cretaceous, south end of central body of Grassy Island, west coast of Vancouver Island, British Columbia.

*Placenticeras glabrum* Whiteaves

=*Beudanticeras glabrum*, Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 76, pl. 24, figs. 5A, B [holotype 5028].  
 =*Grantziceras glabrum*, Jones, D.L., 1967, U.S. Geol. Surv., Prof. Paper 547, p. 33, text-fig. 16B [holotype 5028].

*Placenticeras (Perezianum? var.) liardense* Whiteaves

=*Gastroplyites spiekeri*, Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 88, pl. 30, figs. 1A–C [hypotype 4808c].  
 =*Gastroplyites (Paragastroplyites) spiekeri*, Jeletzky, J.A., 1964, ibid., p. 92, pl. 32, fig. 6 [hypotype 4808d].  
 =*Gastroplyites?* (*Paragastroplyites?*) *liardense*, Jeletzky, J.A., 1964, ibid., p. 92, pl. 32, figs. 1–3, 5 [syntypes 4808, a, b, e].

*?Platyclymenia* sp.

Fig. spec. 16963

House, M.R. and Pedder, A.E.H., 1963, Palaeontology, vol. 6, pt. 3, p. 534, pl. 74, fig. 2.  
 Costigan Member, Palliser Formation, Upper Devonian, about lat. 50°59'30"N, long. 115°08'W, southeast slope Mt. Lorette, Fisher Range, Alberta.

*Pleydellia?* sp. indet.

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 22, pl. 9, fig. 6 [fig. spec. 14672].

*Polyptychites?* cf. *densicosta* Pavlow

Hypotype 17247

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 46, pl. 9, figs. 5A–C.  
 Deer Bay Formation, Lower Cretaceous, slightly less than 1/2 mile from mouth nameless creek on north bank of delta, about 1 7/8 miles east of Isachen weather station, Ellef Ringnes Island, Arctic.

*Polyptychites* cf. *keyserlingi* (Neumayr and Uhlig) s. lato.

Hypotype 17222

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 40, pl. 6, figs. 2A, B.  
 Lower Cretaceous, northeast gully Mount Frank Roy, Peace River Foothills, British Columbia.

*Polyptychites* cf. *keyserlingi* (Neumayr and Uhlig)

Hypotype 17224

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 40, pl. 6, fig. 5.  
 Beattie Peaks Formation, Bullhead Group, Lower Cretaceous, lat. 55°38'40"N, long. 122°26'38"W, Peace River Foothills, British Columbia.

MOLLUSCA

*Polyptychites (Euryptychites) stubbendorfi* var. *middendorfi* Pavlow

Hypotypes 17244, 17251

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 46, pl. 9, figs. 1A-C; p. 48, pl. 10, figs. 3, 5A-F.

Deer Bay Formation, Lower Cretaceous, slightly less than 1/2 mile from mouth nameless creek on north bank of delta, about 1 7/8 miles east of Isachsen weather station, Ellef Ringnes Island, Arctic.

*Ponticeras* cf. *tschernyschewi* (Holzapfel)

Hypotypes 16943, 16944

House, M.R. and Pedder, A.E.H., 1963, Palaeontology, vol. 6, pt. 3, p. 516, pl. 70, figs. 5, 9.

10-40 feet above top of Beavertail Formation, Upper Devonian, about lat. 65°36'N, long. 128°30'W, Carcajou Ridge, Northwest Territories.

*Ponticeras* sp.

Fig. specs. 16945-16947

House, M.R. and Pedder, A.E.H., 1963, Palaeontology, vol. 6, pt. 3, p. 516, pl. 70, figs. 6, 10.

10-40 feet above top of Beavertail Formation, Upper Devonian, about lat. 65°36'N, long. 128°30'W, Carcajou Ridge, Northwest Territories.

*Popovites borealis* Tozer

Holotype 18833

Tozer, E.T., 1965, Geol. Surv., Canada, Bull. 123, p. 24, pl. 3, figs. 1a, b; text-fig. 6.

Lower Shale member, Blaa Mountain Formation, Lower Triassic, 1 1/2 miles inland, south side Otto Fiord, 2 miles east from junction with Nansen Sound, Ellesmere Island, Arctic Archipelago.

*Popovites occidentalis* Tozer

Holotype 18832; paratypes 18820-18831

Tozer, E.T., 1965, Geol. Surv., Canada, Bull. 123, p. 22, pl. 3, figs. 2a-12b; text-figs. 5a, b.

Toad Formation, 320-335 and 430 feet above Fantasque Formation, Lower Triassic, North Gully and Middle Gully about 600 feet south of North Gully 7 miles N12°W of summit of Mount Laurier, lat. 56°52'20"N, long. 123°30'50"W, and northwesterly facing bluff west of upper Chowade River, 2 1/2 miles S7°W of summit of Mount Laurier, lat. 55°44'15"N, long. 123°29'W, northeastern British Columbia.

*Preflorianites intermedius* Tozer

Holotype 18815

Tozer, E.T., 1965, Geol. Surv., Canada, Bull. 123, p. 18, pl. 2, figs. 9a-c; text-fig. 2.

Toad Formation, about 430 feet above Fantasque Formation, Lower Triassic, Middle Gully about 600 feet south of North Gully 7 miles N12°W of summit of Mount Laurier, lat. 56°52'20"N, long. 123°30'50"W, northeastern British Columbia.

*Probeloceras* sp.

Fig. spec. 16972

House, M.R. and Pedder, A.E.H., 1963, Palaeontology, vol. 6, pt. 3, p. 517, pl. 76, figs. 1, 2.

Duvernay Formation, Upper Devonian, 7922 feet depth, Imperial Paddle River 5-17-56-8W.5M well, Alberta.

*Procarnites modestus* Tozer

Holotype 18867; paratypes 18863–18866, 18868–18870

Tozer, E.T., 1965, Geol. Surv., Canada, Bull. 123, p. 38, pl. 1, figs. 1a–7c.

Toad Formation, 320–335, 414, about 420 and about 427 feet above Fantasque Formation, Lower Triassic, north side Needham Creek, 3 1/2 miles above Graham River, lat. 56°31'N, long. 123°10'W; North Gully and South Gully, 1100 feet south of North Gully, 7 miles N12°W of summit of Mount Laurier, lat. 56°52'20"N, long. 123°30'50"W; and northwesterly facing bluff west of upper Chowade River, 2 1/2 miles S7°W of summit of Mount Laurier, lat. 55°44'15"N, long. 123°29'W, northeastern British Columbia.

*Procerites engleri* Frebold

=*Cobbanites engleri*, Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 68, pl. 32, fig. 1 [paratype 12907]; p. 70, pl. 33, fig. 1 [holotype 12906].

*Procerites?* sp. indet.

=*Cobbanites* sp., Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 68, pl. 32, figs. 2a, b, 3a, b [fig. specs. 12917, 12918].

*Productylioceras davoei* (Sowerby)

Hypotype 15982

Frebold, H.,

1964, Geol. Surv., Canada, Paper 63-4, p. 16, pl. 6, fig. 9.

1964, ibid., Bull. 116, p. 10, pl. 3, fig. 2.

Lower Jurassic, south of west end of King Salmon Lake, Tulsequah area, northwestern British Columbia.

*Productylioceras davoei* (Sowerby)

Hypotype 15983

Frebold, H., 1964, Geol. Surv., Canada, Bull. 116, p. 10.

Laberge Group, Lower Jurassic, lat. 59°26'10"N, long. 134°04'30"W, Bennett area, British Columbia.

*Proptychites cf. P. candidus* Tozer

Hypotypes 14284–14286

Tozer, E.T., 1963, Geol. Surv., Canada, Bull. 96, p. 22, pl. 3, figs. 1a–3.

“Toad-Grayling Formation”, Lower Triassic, 3 miles south of Mount Laurier, Halfway River area, British Columbia.

*Proptychites kummeli* Tozer

Holotype 14272; paratype 14273

Tozer, E.T., 1963, Geol. Surv., Canada, Bull. 96, p. 20, pl. 1, figs. 1a–3b.

Grayling Formation, Lower Triassic, Dunedin River, 4 1/2 miles north of mile 384, Alaska Highway, Tuchodi Lakes map-area, British Columbia.

*Proptychites mulleri* Tozer

Holotype 14268

Tozer, E.T., 1963, Geol. Surv., Canada, Bull. 96, p. 18, pl. 2, figs. 1a–d.

Grayling Formation, Lower Triassic, Dunedin River, 4 1/2 miles north of mile 384, Alaska Highway, Tuchodi Lakes map-area, British Columbia.

*Proptychites newelli* Tozer

Holotype 14270; paratype 14271

Tozer, E.T., 1963, Geol. Surv., Canada, Bull. 96, p. 19, pl. 1, figs. 4a–d.

Grayling Formation, Lower Triassic, Dunedin River, 4 1/2 miles north of mile 384, Alaska Highway, Tuchodi Lakes map-area, British Columbia.

## MOLLUSCA

### *Prosphingites* cf. *P. czechanowskii* Mojsisovics

Holotype 18816

Tozer, E.T., 1965, Geol. Surv., Canada, Bull. 123, p. 19, pl. 2, figs. 5a-c; text-fig. 3.

Toad Formation, about 415 feet above Fantasque Formation, Lower Triassic, Middle Gully about 600 feet south of North Gully 7 miles N12°W of summit of Mount Laurier, lat. 56°52'20"N, long. 123°30'50"W, northeastern British Columbia.

### *Pseudocadoceras grewingki* (Pompeckj)

Hypotype 22697

Frebold, H., in Frebold, H. and Tipper, H.W., 1967, Geol. Surv., Canada, Paper 67-21, p. 15, pl. 2, fig. 5.

Mysterious Creek Formation, Middle Callovian, Jurassic, road-cut on power line road, Deer Creek, west side of Harrison Lake, British Columbia.

### *Pseudocadoceras* aff. *P. grewingki* (Pompeckj)

Hypotype 22698

Frebold, H., in Frebold, H. and Tipper, H.W., 1967, Geol. Surv., Canada, Paper 67-21, p. 15, pl. 2, fig. 6.

Middle Callovian, Jurassic, 2 miles east of south end of Lorna Lake, Taseko Lakes area, British Columbia.

### *Pseudocadoceras petelini* (Pompeckj)

Hypotype 22696

Frebold, H., in Frebold, H. and Tipper, H.W., 1967, Geol. Surv., Canada, Paper 67-21, p. 14, pl. 2, figs. 4a, b.

Middle Callovian, Jurassic, 2 miles east of south end of Lorna Lake, Taseko Lakes area, British Columbia.

### *Pseudogastrioceras fortieri* Harker

Nassichuk, W.W., et al., 1966, Geol. Surv., Canada, Bull. 131, 1965, p. 24, pl. 3, figs. 1, 2; text-fig. 4B [holotype 13772].

### *Pseudogastrioceras fortieri* Harker

Topotypes 18764-18767

Nassichuk, W.W., et al., 1966, Geol. Surv., Canada, Bull. 131, 1965, p. 24, pl. 1, figs. 1, 2; pl. 4, fig. 6.

Assistance Formation, Lower Permian, lower reaches Lyall River, Grinnell Peninsula, Northwest Devon Island, Arctic.

### *Pseudolioceras m'clintocki* (Haughton)

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 24, pl. 10, figs. 4a, b [hypotype 14659], 5 [hypotype 14656], 6a, b [hypotype 14654], 7 [hypotype 14653], 8a, b [hypotype 14655].

### *Pseudolioceras* cf. *m'clintocki* (Haughton)

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 24, pl. 10, fig. 9 [hypotype 14670]; p. 26, pl. 11, figs. 1a, b [hypotype 14661].

### *Pseudosageceras bicarinatum* Tozer

Holotype 18814

Tozer, E.T., 1965, Geol. Surv., Canada, Bull. 123, p. 16, pl. 2, figs. 8a-d; text-fig. 1.

Toad Formation, 430 feet above Fantasque Formation, Lower Triassic, North Gully 7 miles N12°W of summit of Mount Laurier, lat. 56°52'20"N, long. 123°30'50"W, northeastern British Columbia.

*Psiloceras canadense* Frebold

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 6, pl. 1, figs. 1a, b [holotype 11206], 2a, b [paratype 11206D], 3 [paratype 11206E], 4 [paratype 11206F], 5 [paratype 11206G].

*Psiloceras canadense* Frebold

Hypotypes 15964–15968

Frebold, H., 1964, Geol. Surv., Canada, Bull. 116, p. 6, pl. 1, figs. 1–5.

Lower Jurassic, ridge east of Hankin Peak, lat. 57°10'18"N, long. 130°28'58"W and Grizzly Glacier, lat. 57°10'27"N, long. 130°29'27"W, Telegraph Creek area, northwestern British Columbia.

*Psiloceras canadense* Frebold

Hypotypes 19947, 20049, 20066

Frebold, H., 1967, Geol. Surv., Canada, Bull. 158, p. 18, pl. 1, figs. 1a–3c; text–fig. 3.

Hettangian, Lower Jurassic, a mile west of Spruce Lake Creek and north side of Tyaughton Creek 4500 feet above Spruce Lake Creek, Taseko Lakes area, British Columbia.

cf. *Psiloceras erugatus* (Bean)

=*Psiloceras* cf. *P. erugatus*, Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 10, pl. 3, fig. 6 [hypotype 9640].

*Psiloceras occidentale* Frebold

Holotype 20067; paratype 20068

Frebold, H., 1967, Geol. Surv., Canada, Bull. 158, p. 19, pl. 1, figs. 4a, b, 5; text–fig. 4.

Hettangian, Lower Jurassic, approximately 1 1/2 miles northeast of Castle Mountain, Taseko Lakes area, British Columbia.

*Psiloceras ex aff. P. planorbis* (Sowerby)

Hypotypes 20051, 20053, 20054

Frebold, H., 1967, Geol. Surv., Canada, Bull. 158, p. 17, pl. 1, figs. 6–8b.

Hettangian, Lower Jurassic, 3 1/2 miles northwest of limestone knob near head of Last Creek, Taseko Lakes area, British Columbia.

*Psiloceras psilonotum* (Quenstedt)

Hypotype 20055

Frebold, H., 1967, Geol. Surv., Canada, Bull. 158, p. 18, pl. 1, fig. 9.

Lower Jurassic, Nellingen, Württemberg, Germany.

*Psiloceras (Curviceras) columbiae* Frebold

Holotype 19925; paratypes 19919–19924, 19948

Frebold, H., 1967, Geol. Surv., Canada, Bull. 158, p. 20, pl. 1, figs. 10a–c; pl. 2, figs. 1a–5c; pl. 3, figs. 2a–c; text–fig. 5.

Hettangian, Lower Jurassic, south side near head of Last Creek; 1/2 mile west of limestone mass 1/2 mile east of Last Creek; and head of Last Creek, Taseko Lakes area, British Columbia.

*Puzosia* (s. lato) aff. *sigmoidalis* Donovan

Hypotype 17397

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 74, pl. 23, figs. 11A, B.

Lower Cretaceous, tributary Kotaneelee River, west flank Liard Range, Northwest Territories.

MOLLUSCA

*Sagenites (Trachysagenites) herbichi* Mojsisovics

Hypotypes 17981, 18878

Carlisle, D. and Susuki, F., 1965, Can. J. Earth Sci., vol. 2, No. 5, p. 481, pl. 9, figs. 82, 83, 84, 87.

Open Bay Formation, Upper Triassic, Open Bay section, Quadra Island, British Columbia.

*Saxitoniceras allani* McLearn

=*Chondroceras allani*, Frebold, H., 1964, Geol. Surv., Canada, Bull. 116, p. 20, pl. 8, figs. 1a-d [holotype 9021].

*Scaphites (Hoploscaphites) gilli* Cobban and Jeletzky

Paratypes 17993, 17994

Cobban, W.A. and Jeletzky, J.A., 1965, J. Pal., vol. 39, No. 5, p. 796, pl. 95, figs. 7A-E; pl. 92, figs. 9A, B.

Riding Mountain Formation, Upper Cretaceous, near Millwood, Manitoba.

*Schloenbachia borealis* Whiteaves

=*Grammoceras boreale*, Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 22, pl. 9, fig. 9 [holotype 9703].

Frebold, H., 1964, ibid., Bull. 116, p. 18, pl. 7, fig. 3 [holotype 9703].

*Schloenbachia gracilis* Whiteaves

=*Sonninia gracilis*, Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 28, pl. 12, figs. 2a, b [holotype 4809].

*Schloenbachia propinqua* Whiteaves

=*Harpoceras propinquum*, Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 20, pl. 8, figs. 4a, b [lectotype 4877].

*Schlottheimia (Scamnoceras) cf. acuticosta* Buckman

=*Schlottheimia* cf. *acuticosta*, Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 6, pl. 1, figs. 6a-c [hypotype 11231].

*Sellagoniatites jacksoni* House and Pedder

Holotype 16928

House, M.R. and Pedder, A.E.H., 1963, Palaeontology, vol. 6, pt. 3, p. 511, pl. 71, figs. 1-4; text-figs. 4A, B.

Talus Fort Creek Formation, Middle Devonian, lat. 68°11'30"N, long. 129°20'24"W, 7 1/2 miles downstream from confluence with Iroquois River on Carnwath River, Northwest Territories.

*Simbirskites (Simbirskites) cf. kleini* (Neumayr and Uhlig)

Hypotype 17290

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 58, pl. 15, fig. 2.

Lower Cretaceous, east bank of east branch Jimmy Creek at north end Mount Goodenough massif, east slope Aklavik Range, Northwest Territories.

*Sonneratia* (s. lato)? n. sp. A

Fig. spec. 17389

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 74, pl. 23, figs. 1A-C.

Lower Cretaceous, about lat. 60°58'N, east side Jackfish River, Northwest Territories.

*Sonninia* sp. indet.

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 28, pl. 12, figs. 3a, b [fig. spec. 12882].

Sonniniid gen. et sp. indet.

Fig. specs. 16029–16031

Frebold, H., 1964, Geol. Surv., Canada, Bull. 116, p. 19, pl. 8, figs. 9, 10.

Middle Jurassic, 3 miles east of junction More Creek and Iskut River, lat. 57°00'36"N, long. 130°33'44"W, Telegraph Creek area, northwestern British Columbia.

*Sphenodiscus requienianus?* (d'Orbigny)

=*Fanninoceras carlottense*, Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 20, pl. 8, figs. 2a, b [holotype 4878].

*Spirogmoceras* sp.

Fig. specs. 18002, 18003

Carlisle, D. and Susuki, T., 1965, Can. J. Earth Sci., vol. 2, No. 5, p. 474, pl. 4, figs. 24–27.

Open Bay Formation, Upper Triassic, Open Bay section, Quadra Island, British Columbia.

*Spirolegoceras harkeri* Ruzhencev

Topotypes 18768, 18769

Nassichuk, W.W., et al., 1966, Geol. Surv., Canada, Bull. 131, 1965, p. 29, pl. 3, figs. 3, 4; pl. 4, fig. 2; text–figs. 7, 8C.

Assistance Formation, Lower Permian, lower reaches Lyall River, Grinnell Peninsula, northwest Devon Island, Arctic.

*Spiticeras (Groebericeras) n. sp. indet.?*

Fig. spec. 16613

Jeletzky, J.A.,

1964, Geol. Surv., Canada, Paper 64-6, p. 6, pl. 2, fig. 10.

1965, ibid., Bull. 103, pl. 11, fig. 7.

One Tree Formation, Lower Cretaceous, southern rocky fringe of Grassy Island, west coast of Vancouver Island, British Columbia.

*Spiticeras (Spiticeras) cf. mojsvari* Uhlig

Hypotype 16619

Jeletzky, J.A., 1965, Geol. Surv., Canada, Bull. 103, pl. 12, fig. 5.

One Tree Formation, Lower Cretaceous, southern end of main body of Grassy Island, west coast of Vancouver Island, British Columbia.

*Spiticeras (Spiticeras) cf. scriptus* (Strachey)

Hypotype 16618

Jeletzky, J.A.,

1964, Geol. Surv., Canada, Paper 64-6, p. 6, pl. 2, figs. 9a–c.

1965, ibid., Bull. 103, pl. 12, figs. 4A–C.

One Tree Formation, Lower Cretaceous, southern end of main body of Grassy Island, west coast of Vancouver Island, British Columbia.

*Spiticeras (Spiticeras) sp. indet. juven.*

Fig. specs. 16608, 16609

Jeletzky, J.A.,

1964, Geol. Surv., Canada, Paper 64-6, p. 6, pl. 2, figs. 8, 12a, b.

1965, ibid., Bull. 103, pl. 11, figs. 2A–C, 3.

One Tree Formation, Lower Cretaceous, southern end of main body of Grassy Island, west coast of Vancouver Island, British Columbia.

MOLLUSCA

*Sporadoceras cf. primaevum* Schindewolf

Hypotype 16959

House, M.R. and Pedder, A.E.H., 1963, Palaeontology, vol. 6, pt. 3, p. 531, pl. 77, figs. 6–8; text figs. 14A–C.

Talus, Upper Devonian, about lat. 62°21'N, long. 123°43'W, 6 miles south of eastern tip Carlson Lake, Northwest Territories.

*Stephanoceras caamanoi* McLearn

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 34, pl. 15, figs. 1a, b [holotype 9056].

*Stephanoceras yakounense* McLearn

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 38, pl. 17, figs. 1a, b [hypotype 6483].

*Svalbardiceras chowadei* Tozer

Holotype 18861; paratype 18862; hypotype 18860

Tozer, E.T., 1965, Geol. Surv., Canada, Bull. 123, p. 37, pl. 4, figs. 9–11.

Toad Formation, 320–335 feet above Fantasque Formation, Lower Triassic, northwesterly facing bluff west of upper Chowade River, 2 1/2 miles S7°W of summit Mount Laurier, lat. 55°44'15"N, long. 123°29'W, northeastern British Columbia.

*Svalbardiceras freboldi* Tozer

Holotype 18857; paratypes 18858, 18859

Tozer, E.T., 1965, Geol. Surv., Canada, Bull. 123, p. 36, pl. 4, figs. 12a–13c; pl. 5, fig. 2; text-figs. 11a, b.

Lower Shale member, Blaa Mountain Formation, Lower Triassic, 1 1/2 miles inland and south side Otto Fiord, 2 miles east from junction with Nansen Sound, Ellesmere Island, Arctic Archipelago.

*Teicherticeras lenzi* House of Pedder

Holotype 16929

House, M.R. and Pedder, A.E.H., 1963, Palaeontology, vol. 6, pt. 3, p. 508, pl. 75, figs. 1–3, 10, 11; text-fig. 3.

296 feet below base of Hume equivalent, Middle Devonian, lat. 65°23'N, long. 138°31'W, Ogilvie River, Yukon.

*Teloceras dowlingi* McLearn

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 32, pl. 14, figs. 1a, b [holotype 9050].

*Teloceras itinsae* McLearn

Imlay, R.W., 1964, U.S. Geol. Surv., Prof. Paper 418-B, p. B50, pl. 24, figs. 3, 4 [plaster cast holotype 6481].

*Thorsteinssonoceras ellesmerensis* Jeletzky

Holotype 17226; paratypes 17221, 17228, 17232, 18037

Jeletzky, J.A.,

1964, Geol. Surv., Canada, Paper 64-11, p. 40, pl. 6, figs. 1A–E; p. 42, pl. 7, figs. 1–3; p. 44, pl. 8, figs. A–E.

1965, ibid., Bull. 120, p. 5, pl. 2, figs. 1A–D, 3A–C; pl. 4, figs. 1A–E; pl. 5, figs. 2A–F; pl. 6, figs. 2A–E.

Deer Bay Formation, Lower Cretaceous, southeast limb of syncline, 2 1/3 miles east of mouth of major unnamed river entering a prominent bay which joins Greely Fiord 4 miles east of Hare Bay, Ellesmere Island, Arctic.

*Thorsteinssonoceras ellesmerensis* Jeletzky

Paratypes 17225, 17227, 17229, 17231, 18661

Jeletzky, J.A., 1965, Geol. Surv., Canada, Bull. 120, p. 5, pl. 1, figs. 1A–D; pl. 2, figs. 2A–C; pl. 3, figs. 1A–D; pl. 5, figs. 1A–C; pl. 6, figs. 1A–D.

Deer Bay Formation, Lower Cretaceous, southeast limb of syncline, 2 1/3 miles east of mouth of major unnamed river entering a prominent bay which joins Greely Fiord 4 miles east of Hare Bay, Ellesmere Island, Arctic.

*Tmetoceras regleyi* Dumortier

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 26, pl. 11, figs. 3, 4 [hypotypes 11217, 11218].

*Tollia (Subcraspedites) aff. analogus* (Bogoslovsky)

Hypotype 17138

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 36, pl. 4, figs. 1A–C.

Lower Cretaceous, about 1 3/4 miles slightly east of north end of Bonnie Lake, Yukon.

*Tollia (Subcraspedites) aff. hoeli* (Frebold)

Hypotypes 17135, 17137

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 34, pl. 3, figs. 1A–C, 3A, B.

Deer Bay Formation, Lower Cretaceous, 4 miles southwest of Buchanan Lake, Axel Heiberg Island, Arctic.

*Tollia (Tollia) mutabilis* (Stanton) s. lato

Hypotypes 16635, 16638

Jeletzky, J.A., 1965, Geol. Surv., Canada, Bull. 103, pl. 15, figs. 2A–D, 8A–D.

One Tree Formation, Lower Cretaceous, southern end of southern rocky fringe of Grassy Island, west coast of Vancouver Island, British Columbia.

*Tollia (Tollia) cf. mutabilis* var. *burgeri* (Anderson)

Hypotypes 16639

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-6, p. 10, pl. 4, fig. 8.

One Tree Formation, Lower Cretaceous, southern end of southern rocky fringe of Grassy Island, west coast of Vancouver Island, British Columbia.

= *Tollia (Tollia) mutabilis* var. *burgeri*, Jeletzky, J.A., 1965, ibid., Bull. 103, pl. 15, fig. 9.*Tollia (Tollia) cf. mutabilis* var. *tehamaensis* (Anderson)

Hypotype 16637

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-6, p. 10, pl. 4, figs. 6a–c.

One Tree Formation, Lower Cretaceous, southern end of southern rocky fringe of Grassy Island, west coast of Vancouver Island, British Columbia.

= *Tollia (Tollia) mutabilis* var. *tehamaensis*, Jeletzky, J.A., 1965, ibid., Bull. 103, pl. 15, figs. 6A, B.*Tollia (Temnoptychites) novosemelica* (Sokolov)

Hypotypes 17164, 17174

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 38, pl. 5, figs. 1A, B, 4A–D.

Deer Bay Formation, Lower Cretaceous, about 1 mile north of airstrip and Reptile Creek, 2–2 1/2 miles northwest of weather station, Slidre Fiord, Ellesmere Island, Arctic.

*Tollia (Praetollia?) n. sp. A*

Fig. spec. 17158

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 36, pl. 4, fig. 8.

Lower Cretaceous, south wall Fault Creek Canyon, about 3/8 mile from lower end, east slope Aklavik Range, Northwest Territories.

## MOLLUSCA

### *Tollia (Tollia) paucicostata* (Donovan)

Hypotypes 16624, 16631–16633

Jeletzky, J.A., 1965, Geol. Surv., Canada, Bull. 103, pl. 13, figs. 5A–C; pl. 14, figs. 4A–6B.  
One Tree Formation, Lower Cretaceous, south-southwest end large islet some 400 yards northeast  
of main body of Grassy Island and northern part of western shore Clark (One Tree)  
Island, west coast of Vancouver Island, British Columbia.

### *Tollia (Tollia) cf. paucicostata* (Donovan)

Hypotypes 16621, 16625, 16628

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-6, p. 8, pl. 3, figs. 4a, b, 6a–c, 8.  
One Tree Formation, Lower Cretaceous, north part of western shore Clark (One Tree) Island,  
west coast of Vancouver Island, British Columbia.  
= *Tollia (Tollia) paucicostata*, Jeletzky, J.A., 1965, ibid., Bull. 103, pl. 13, figs. 2A, B,  
6A–D, 9.

### *Tollia (Tollia) paucicostata* (Donovan) var.

Hypotype 16634

Jeletzky, J.A., 1965, Geol. Surv., Canada, Bull. 103, pl. 14, figs. 8A–C.  
One Tree Formation, Lower Cretaceous, south-southwest end of large islet some 400 yards  
northeast of Grassy Island, west coast Vancouver Island, British Columbia.

### *Tollia (Tollia) cf. paucicostata* (Donovan) var.

Hypotype 16626

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-6, p. 8, pl. 3, figs. 5a, b.  
One Tree Formation, Lower Cretaceous, south-southeast end of a large islet situated some 400  
yards northeast of main body of Grassy Island, west coast of Vancouver Island, British  
Columbia.  
= *Tollia (Tollia) paucicostata* var., Jeletzky, J.A., 1965, ibid., Bull. 103, pl. 13, figs. 7A, B.

### *Tollia (Subcraspedites) cf. payeri* (Toula)

Hypotype 17156

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 36, pl. 4, figs. 11A, B.  
Lower Cretaceous, Babbage River, RCAF A-13383-166, lat. 68°43'50"N, long. 138°45'30"W,  
Barn Mountain map-area, Yukon.

### *Tollia (Temnoptychites) simplex* (Bogoslovsky)

Hypotype 17173

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 38, pl. 5, figs. 3A–E.  
Deer Bay Formation, Lower Cretaceous, Reptile Creek, 2-2 1/2 miles northwest of weather station,  
Slidre Fiord, Ellesmere Island, Arctic.

### *Tollia (Tollia) aff. simplex* (Bogoslovsky)

Hypotype 16627

Jeletzky, J.A.,  
1964, Geol. Surv., Canada, Paper 64-6, p. 8, pl. 3, figs. 7a, b.  
1965, ibid., Bull. 103, pl. 13, figs. 8A, B.

One Tree Formation, Lower Cretaceous, north part of western shore of Clark (One Tree)  
Island, west coast of Vancouver Island, British Columbia.

### *Tollia (Subcraspedites) aff. spasskensis* (Nitikin)

Hypotype 17124

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 32, pl. 2, figs. 4a–c.  
Deer Bay Formation, Lower Cretaceous, 4 miles southwest of Buchanan Lake, Axel Heiberg  
Island, Arctic.

*Tollia (Subcraspedites) cf. stenomphala* (Pavlow) or *T. (C.) pseudotolli* Neale

Hypotype 17184

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 30, pl. 1, fig. 2.

Monteith Formation, Bullhead Group, Lower Cretaceous, east of Point 6115, lat. 55°42'N, long. 122°41'W, Pine Pass map-area, Peace River Foothills, British Columbia.

*Tollia (Subcraspedites) aff. suprasubditus* (Bogoslovsky)

Hypotypes 17121, 17136

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 32, pl. 2, figs. 1A–C; p. 34, pl. 3, figs. 2A–D.

Deer Bay Formation, Lower Cretaceous, 4 miles southwest of Buchanan Lake, Axel Heiberg Island, Arctic.

*Tollia (Subcraspedites) ? cf. suprasubditus* (Bogoslovsky)

Hypotypes 17183, 17187

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 30, pl. 1, figs. 6A, B, 7.

Monteith Formation, Bullhead Group, Lower Cretaceous, Bocock Peak (south), lat. 55°51'N, long. 122°57'W, Pine Pass map-area, Peace River Foothills, British Columbia.

*Tollia (Tollia) tolli* var. *latelobata* Pavlow

Hypotype 17167

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 38, pl. 5, figs. 5A–D.

Deer Bay Formation, Lower Cretaceous, about 1 mile north of airstrip, Slidre Fiord, Ellesmere Island, Arctic.

*Tornoceras (Tornoceras) cf. crebriseptum* Raymond

Hypotypes 16954, 16971

House, M.R. and Pedder, A.E.H., 1963, Palaeontology, vol. 6, pt. 3, p. 527, pl. 74, figs. 4, 5.

Upper Devonian, about lat. 62°21'N, long. 123°43'W, 6 miles south of eastern tip Carlson Lake, Northwest Territories.

*Tornoceras (Tornoceras) cf. westfalicum* Holzapfel

Hypotypes 16949–16953

House, M.R. and Pedder, A.E.H., 1963, Palaeontology, vol. 6, pt. 3, p. 526, pl. 72, fig. 15; text-fig. 11.

Unnamed shale 10–20 feet above top of Hume Formation, Middle Devonian, about lat. 65°14'20"N, long. 126°23'40"W, Francis Creek, Northwest Territories.

*Tornquistites (?) sp.*

Fig. spec. 18001

Carlisle, D. and Susuki, F., 1965, Can. J. Earth Sci., vol. 2, No. 5, p. 480, pl. 8, figs. 79, 80.

Open Bay Formation, Upper Triassic, Open Bay section, Quadra Island, British Columbia.

*Torricellites? spinosum* Frebold

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 66, pl. 31, figs. 4 [paratype 14710], 5a, b [holotype 14709].

*Traskites (Shastites) cf. T. (S.) compressus* (Hyatt and Smith)

Hypotype 18005

Carlisle, D. and Susuki, F., 1965, Can. J. Earth Sci., vol. 2, No. 5, p. 475, pl. 4, figs. 32, 33.

Open Bay Formation, Upper Triassic, Open Bay section, Quadra Island, British Columbia.

*Traskites (Stantonites) cf. T. (S.) rugosus* (Hyatt and Smith)

Hypotype 17982

Carlisle, D. and Susuki, F., 1965, Can. J. Earth Sci., vol. 2, No. 5, p. 475, pl. 4, figs. 31, 34.

Open Bay Formation, Upper Triassic, Open Bay section, Quadra Island, British Columbia.

## MOLLUSCA

### *Tropaeum* n. sp. aff. *arcticum* (Stolley)

Hypotypes 17311, 17321, 17322

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 68, pl. 20, figs. 1 A, B; p. 72, pl. 22, figs. 2A-C, 3A-C.

Lower Cretaceous, northeast shore Rat River, about 4 1/2 miles downstream from mouth of Barrier River, and 1 mile northwest of southeast corner of river's "Big Bend", and locality unknown, probably loose in bed of Longstick Creek on east slope Richardson Mountains, Northwest Territories.

### *Tropaeum australe* (Moore)

Hypotype 17381

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 70, pl. 21, figs. 1A, B.

Lower Cretaceous, northeast bank Rat River, about 5 1/2 miles from mouth of Barrier River, and about 100 yards upstream from southwest corner of river's "Big Bend", northern Richardson Mountains, Northwest Territories.

### *Tropaeum undatum* Whitehouse

Hypotype 17313

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 68, pl. 20, fig. 2.

Lower Cretaceous, northeast shore Rat River, about 4 1/2 miles downstream from mouth of Barrier River, and 1 mile northwest of southeast corner of river's "Big Bend", northern Richardson Mountains, Northwest Territories.

### *Tropaeum cf. undatum* Whitehouse

Hypotype 17382

Jeletzky, J.A., 1964, Geol. Surv., Canada, Paper 64-11, p. 70, pl. 21, figs. 2A-C.

Lower Cretaceous, southeast shore Treeless Creek, some 600 yards downstream from campsite on east shore Emerald Lake, Mackenzie Delta, northern Richardson Mountains, Northwest Territories.

### *Tropites dilleri* Smith

Hypotypes 17983, 17984, 17986

Carlisle, D. and Susuki, F., 1965, Can. J. Earth Sci., vol. 2, No. 5, p. 476, pl. 5, figs. 39-43, 46; pl. 6, figs. 47-49.

Open Bay Formation, Upper Triassic, Open Bay section, Quadra Island, British Columbia.

### *Tropites cf. T. dilleri* Smith

Hypotype 17985

Carlisle, D. and Susuki, F., 1965, Can. J. Earth Sci., vol. 2, No. 5, p. 477, pl. 7, figs. 59-61.

Open Bay Formation, Upper Triassic, Open Bay section, Quadra Island, British Columbia.

### *Tropites cf. T. welleri* Smith

Hypotype 17988

Carlisle, D. and Susuki, F., 1965, Can. J. Earth Sci., vol. 2, No. 5, p. 477, pl. 6, figs. 50-52.

Open Bay Formation, Upper Triassic, Open Bay section, Quadra Island, British Columbia.

### *Tropites* sp.

Fig. spec. 18877

Carlisle, D. and Susuki, F., 1965, Can. J. Earth Sci., vol. 2, No. 5, pl. 7, fig. 63.

Upper Triassic, Fossil Point, Open Bay, Quadra Island, British Columbia.

### *Tropites* sp. A, B

Fig. specs. 17987, 18000

Carlisle, D. and Susuki, F., 1965, Can. J. Earth Sci., vol. 2, No. 5, p. 478, pl. 6, figs. 53-58.

Open Bay Formation, Upper Triassic, Open Bay section, Quadra Island, British Columbia.

*Uraloceras burtiense* (Voinova)

Hypotypes 18779, 18780

Nassichuk, W.W., et al., 1966, Geol. Surv., Canada, Bull. 131, 1965, p. 22, pl. 1, figs. 5, 6.  
Assistance Formation, Permian, north-central east coast, Bjorne Peninsula, southwestern Ellesmere Island, Arctic.

*Uraloceras involutum* (Voinova)

Hypotype 18778

Nassichuk, W.W., et al., 1966, Geol. Surv., Canada, Bull. 131, 1965, p. 20, pl. 1, fig. 4; text-fig. 3B.  
Assistance Formation, Permian, north-central east coast, Bjorne Peninsula, southwestern Ellesmere Island, Arctic.

*Vermiceras latisulcatum* (Quenstedt)

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 6, pl. 1, fig. 9 [hypotype 11239].

*Vermiceras scylla* (Reynès)

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 6, pl. 1, figs. 7a, b, 8 [hypotypes 11227, 11236].

*Warrenoceras? crassicostatum* (Imlay)

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 64, pl. 30, fig. 4 [hypotype 14698].

*Warrenoceras henryi* (Meek and Hayden)

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 64, pl. 30, fig. 1 [hypotype 14690]; p. 66, pl. 31, figs. 1a, b [hypotype 14692], 2 [hypotype 14689], 3 [hypotype 14688].

*Warrenoceras imlayi* (Frebold)

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 64, pl. 30, fig. 3 [hypotype 14720].

*Warrenoceras? loveanum* (Imlay)

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 64, pl. 30, fig. 5 [hypotype 14699].

*Warrenoceras rierdonense* (Imlay)

Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 64, pl. 30 fig. 2 [hypotype 14693].

*Wedeckindella* aff. *W. brilonense* (Kayser)

Hypotype 16940

House, M.R. and Pedder, A.E.H., 1963, Palaeontology, vol. 6, pt. 3, p. 515, pl. 73, fig. 3.  
Fort Creek Formation, Middle Devonian, about lat. 67°41'N, long. 128°22'W, Carnwath River, Northwest Territories.

*Wedeckindella* sp.

Fig. spec. 16939

House, M.R. and Pedder, A.E.H., 1963, Palaeontology, vol. 6, pt. 3, p. 515, pl. 73, fig. 1.  
Fort Creek Formation, Middle Devonian, about lat. 68°N, long. 130°10'W, 45 miles NNE. of Thunder River mouth, Anderson River, Northwest Territories.

*Xenodiscoides* cf. *X. radians* (Waagen)

Hypotype 14269

Tozer, E.T., 1963, Geol. Surv., Canada, Bull. 96, p. 11, pl. 1, figs. 5a–c.  
Grayling Formation, Lower Triassic, Dunedin River, 4 1/2 miles north of mile 384, Alaska Highway, Tuchodi Lakes map-area, British Columbia.

MOLLUSCA

*Zemistephanus richardsoni* (Whiteaves)

Frebald, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 36, pl. 16, fig. 1 [hypotype 9006].

*Zenoites arcticus* Tozer

Holotype 18834; paratype 18835

Tozer, E.T., 1965, Geol. Surv., Canada, Bull. 123, p. 25, pl. 2, figs. 6, 7a, b; text-fig. 7.

Lower Shale member, Blaa Mountain Formation, Lower Triassic, 1 1/2 miles inland south side  
Otto Fiord, 2 miles east from junction with Nansen Sound, Ellesmere Island, Arctic Archipe-  
lago.

*Yakounites mcevoyi* McLearn

= *Kepplerites mcevoyi*, Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 72, pl. 34,  
figs. 2a, b [holotype 5018].

*Yakounites plenus* McLearn

= *Kepplerites plenus*, Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 72, pl. 34,  
fig. 1 [holotype 9000].

*Yakounoceras gitinsi* McLearn

= *Kepplerites gitinsi*, Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 74, pl. 35,  
figs. 1a, b [holotype 9002].

*Yakounoceras torrensi* McLearn

= *Kepplerites torrensi*, Frebold, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 74, pl. 35,  
figs. 2a, b [holotype 9004].

*Zetoceras thorsteinssoni* Frebold

Frebald, H., 1964, Geol. Surv., Canada, Paper 63-4, p. 44, pl. 20, figs. 1a, b [holotype  
15144].

## ARTHROPODA — TRILOBITA

*Acaste (?) sp.*

Fig. spec. 20496

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 3, fig. 4.  
Grimsby Formation, Lower Silurian, DeCew Falls, Ontario.

*Acidiphorus spinifer* Raymond

Hypotypes 18261–18265

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 383, pl. 44,  
figs. 3, 5, 9–16.  
Lower Table Head Formation, Whiterock Stage, Ordovician, shore about 1/2 mile north of  
Pointe Riche lighthouse, and 400 and 479 feet above base of bed 8 in type section, north  
side of Table Point, western Newfoundland.

*Agnostus fabius* Billings

= *Geragnostus fabius*, Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132,  
No. 4, p. 302, pl. 2, figs. 1, 2 [lectotype 704c], 3 [paralectotype 704d].

*Agnostus galba* Billings

= *Galbagnostus galba*, Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132,  
No. 4, p. 305, pl. 3, figs. 1, 2, 4, 5, 12, 14 [lectotype 689b]; pl. 4, figs. 1, 2, 4  
[paralectotype 689e].

*Ampyx laeviusculus* Billings

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 318, pl. 12,  
figs. 1, 2, 4 [lectotype 693; paralectotypes 693a, c].  
= *Lonchodus normalis*, Whittington, H.B., 1965, ibid., p. 313 [hypotypes 693b, e, f].  
= *Ampyxoides semicostatus*, Whittington, H.B., 1965, ibid., p. 319 [hypotype 693d].

*Ampyx laeviusculus* Billings

Hypotypes 18421–18424

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 318, pl. 12, figs. 3,  
5–12.  
Middle Table Head Formation, Whiterock Stage, Ordovician, 90 feet up in type section, south  
side of Table Point, western Newfoundland.

*Ampyx normalis* Billings

= *Lonchodus normalis*, Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol.  
132, No. 4, p. 313, pl. 10, figs. 1 [lectotype 692], 4 [paralectotype 692a].

*Ampyx rutilius* Billings

= *Anisonotella glacialis*, Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132,  
No. 4, p. 321, pl. 13, fig. 9 [hypotype 691].

## ARTHROPODA

### *Ampyx semicostatus* Billings

= *Ampyxoides semicostatus*, Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 319, pl. 12, fig. 13 [lectotype 690].

### *Ampyxina salmoni* Churkin

Hypotypes 19875–19878

Lenz, A.C. and Churkin, M. Jr., 1966, Palaeontology, vol. 9, pt. 1, p. 46, pl. 5, figs. 9–12. Road River Formation, Upper Ordovician, just west of Snake River, lat. 65°21'N, long. 133°30'W, Yukon.

### *Ampyxoides semicostatus* (Billings)

Hypotypes 18425–18434

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 319, pl. 12, figs. 14–20; pl. 13, figs. 1–8, 10, 12.

Middle Table Head Formation, Whiterock Stage, Ordovician, 90, 130, and 185 feet up in type section, south side of Table Point and shore of Black Cove about 1/2 mile northeast of The Gravels at Port au Port Peninsula, western Newfoundland.

### *Anisonotella glacialis* (Billings)

Hypotypes 18435–18437

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 321, pl. 13, fig. 11; pl. 14, figs. 1–6, 8.

Middle Table Head Formation and Cow Head Group, Whiterock Stage, Ordovician, shore of Black Cove about 1/2 mile northeast of The Gravels at Port au Port peninsula, and boulder in conglomerate at Daniel's Harbour, western Newfoundland.

### Asaphid? hypostome

Fig. spec. 18370

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 357, pl. 67, figs. 5, 7, 8.

Middle Table Head Formation, Whiterock Stage, Ordovician, foreshore on south side of Table Cove, 4000 feet south of Table Point, western Newfoundland.

### Asaphid protaspis

Fig. specs. 18525, 18526

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 356, pl. 29, figs. 4–11.

Middle Table Head Formation, Whiterock Stage, Ordovician, isolated limestone in small hill at landward side of beach at Table Cove and foreshore on south side of Table Cove, 4000 feet south of Table Point, western Newfoundland.

### *Asaphus buttoni* Billings

= *Stegnopsis buttoni*, Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 346, pl. 21, figs. 5, 7 [holotype 657].

### *Asaphus morrisii* Billings

= *Niobe morrisii*, Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 352, pl. 27, figs. 10, 11 [lectotype 656; paralectotypes 656c, 655, a, b].

= *Stegnopsis buttoni*, Whittington, H.B., 1965, ibid., p. 352 [hypotype 656a].

= *Niobe quadraticaudata*, Whittington, H.B., 1965, ibid., p. 352 [hypotype 656d].

= *Peraspis lineolata*, Whittington, H.B., 1965, ibid., p. 352 [hypotypes 656f, g].

### *Bathyurus ingalli* Raymond

= *Raymondites ingalli*, Sinclair, G.W., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 41, pl. 4, fig. 1 [holotype 4318].

*Blosyropsis billingsi* Whittington

Holotype 18250; paratypes 18248, 18249, 18251–18255

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 378, pl. 42, figs. 1–15.

Middle Table Head Formation, Whiterock Stage, Ordovician, 17 and 90 feet up in type section, south side of Table Point; isolated limestone hill at landward side of beach at Table Cove; and foreshore on south side of Table Cove, 4000 feet south of Table Point, western Newfoundland.

*Bolboparia canadensis* Rasetti

Holotype 19887

Rasetti, F., 1966, Smithsonian Misc. Coll., vol. 148, No. 9, p. 21, pl. 5, figs. 13, 14.

Charny Formation, Lower Cambrian, 1/2 mile north of Elgin Station, L'Islet county, Quebec.

*Bronteus ekwanensis* Whiteaves

= *Scutellum ekwanensis*, Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 19, fig. 8 [syntype 4406].

*Bumastus* sp. cf. *B. armatus* (Hall)

Hypotype 20601

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 14, fig. 11.

Wiarton Member, Amabel Formation, Middle Silurian, road-cut on East-West road northwest of Adamsville, Bruce Peninsula, Ontario.

*Bumastus ioxus* (Hall)

Hypotype 20602

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 14, fig. 12.

Wiarton Member, Amable Formation, Middle Silurian, 20 inches below top of road-cut at Wiarton, Ontario.

aff. *Calymenidius* sp. indet.

Fig. specs. 18345, 18346

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 419, pl. 59, figs. 10, 12–15.

Middle Table Head Formation, Whiterock Stage, Ordovician, foreshore on south side of Table Cove, 4000 feet south of Table Point, western Newfoundland.

*Calyptaulax incepta* Whittington

Holotype 18368; paratype 18369

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 428, pl. 67, figs. 1–4, 6.

Lower Table Head Formation, Whiterock Stage, Ordovician, 350 and 379 feet above base bed 8 in type section, north side of Table Point, western Newfoundland.

*Carolinites* sp. indet. 1 and 2

Fig. specs. 18567, 18568

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 373, pl. 39, figs. 3, 4, 7, 11–13;

Middle Table Head Formation, Whiterock Stage, Ordovician, shore of Black Cove about 1/2 mile northeast of The Gravels at Port au Port Peninsula and foreshore on south side of Table Cove, 4000 feet south of Table Point, western Newfoundland.

## ARTHROPODA

*Ceraurinella polydorus* (Billings)

Hypotypes 18347–18350

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 408, pl. 60,  
figs. 1–11.

Middle Table Head Formation, Whiterock Stage, Ordovician, foreshore on south side of Table  
Cove, 4000 feet south of Table Point, western Newfoundland.

*Ceraurus dentatus* Raymond and Barton

Sinclair, G.W., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook,  
p. 41, pl. 4, fig. 10 [hypotype 1769a].

Cheirurid hypostome

Fig. spec. 18374

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, pl. 67,  
figs. 9, 12, 15.

Middle Table Head Formation, Whiterock Stage, Ordovician, foreshore on south side of Table  
Cove, 4000 feet south of Table Point, western Newfoundland.

*Cheirurus glaucus* Billings

= *Xystocrania glaucus*, Whittington, H.B., 1965, Bull. Mus. Comp. Zool., vol. 132, No. 4,  
p. 414, pl. 62, figs. 4, 8, 9 [lectotype 850].

*Cheirurus niagarensis* (Hall)

Hypotypes 17969, 17970

Bolton, T.E.,

1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 79, pl. 8,  
figs. 21, 22.

1966, Geol. Surv., Canada, Paper 66-5, pl. 12, figs. 7, 10.

Lockport Formation, Middle Silurian, East gorge, Ontario.

*Cheirurus perforator* Billings

= *Xystocrania perforator*, Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132,  
No. 4, p. 413, pl. 61, figs. 1, 3, 6 [holotype 684].

*Cheirurus polydorus* Billings

= *Ceraurinella polydorus*, Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol.  
132, No. 4, p. 408 [lectotype 685; paralectotypes 685b, c].

= *Pseudomera* sp., Whittington, H.B., 1965, ibid., p. 408 [hypotype 685a].

*Cheirurus sol* Billings

= *Heliomera sol*, Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4,  
p. 417, pl. 63, figs. 1, 3–5 [lectotype 683].

Cranidium gen. indet. 1

Fig. spec. 18470

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 135, No. 4, p. 432, pl. 19,  
figs. 13, 14, 18.

Middle Table Head Formation, Whiterock Stage, Ordovician, 90 feet up in type section, south  
side of Table Point, western Newfoundland.

Cranidium gen. indet. 2

Fig. spec. 18377

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 433, pl. 68,  
figs. 1–3.

Middle Table Head Formation, Whiterock Stage, Ordovician, isolated limestone in small hill at  
landward side of beach at Table Cove, western Newfoundland.

*Cryptolithoides* sp. indet.

Fig. specs. 19872–19874

Lenz, A.C. and Churkin, M. Jr., 1966, Palaeontology, vol. 9, pt. 1, p. 44, pl. 5, figs. 6–8.  
 Road River Formation, Upper Ordovician, just west of Snake River, lat. 65°21'N, long. 133°30'W,  
 Yukon.

*Cryptolithus bellulus* (Ulrich)

Hypotype 18669

Liberty, B.A., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook,  
 p. 51, pl. 5, fig. 9.  
 Blue Mountain Formation, Upper Ordovician, lowest outcrop, Workman's Creek, Ontario.

*Dalmanites limulurus* (Green)

Hypotype 20568

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 12, fig. 4.  
 Rochester Formation, Middle Silurian, DeCew Falls, Ontario.

*Dechenella (Basidechenella)* sp.

Fig. specs. 16120–16122

Norris, A.W., 1964, Geol. Surv., Canada, Bull. 114, p. 68, pl. 17, figs. 16, 17a, b.  
 Horn Plateau Formation, Middle Devonian, east flank Horn Plateau, 2.9 miles west of southwest  
 tip Fawn Lake, lat. 62°08.2'N, long. 117°39'W, District of Mackenzie.

## Enocrinurid gen. et sp. indet.

Fig. specs. 18375, 18376

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 427, pl. 68,  
 figs. 6–8, 10, 11.  
 Middle Table Head Formation, Whiterock Stage, Ordovician, 90 feet up in type section south  
 side of Table Point and foreshore on south side of Table Cove, 4000 feet south of Table  
 Point, western Newfoundland.

*Enocrinurus (Frammia) arcticus* (Haughton)

Hypotypes 17754–17756, 17758–17771

Bolton, T.E., 1965, Geol. Surv., Canada, Bull. 134, p. 4, pl. 1, figs. 2–12, 15–18; pl. 2,  
 figs. 1–5.  
 Read Bay Formation, Upper Silurian, gully 3 miles west of Cape Admiral M'Clintock and gully  
 on east shore of small lake just south of Garnier Bay, north shore Somerset Island; gorge  
 section west side Radstock Bay, southwest Devon Island; and Seal Island, Arctic.

*Enocrinurus* sp. cf. *Enocrinurus (Frammia) arcticus* (Haughton)

Hypotype 17757

Bolton, T.E., 1965, Geol. Surv., Canada, Bull. 134, p. 4, pl. 2, fig. 10.  
 Read Bay Formation, Upper Silurian, 1 mile north of Fury Beach, eastern Somerset Island, Arctic.

*Enocrinurus mirus* Billings

= *Miracybele mira*, Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132,  
 No. 4, p. 424, pl. 64, figs. 1, 3 [lectotype 697]; pl. 65, fig. 2 [paralectotype 698].

*Enocrinurus ornatus* Hall and Whitfield

Hypotype 20569

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 12, fig. 5.  
 Eramosa Member, Lockport Formation, Middle Silurian, old quarry at Dundas, Ontario.

*Endymion meeki* Billings

= *Endymonia meeki*, Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132,  
 No. 4, p. 326, pl. 15, figs. 19, 23, 24; pl. 68, figs. 4, 5 [holotype 875].

## ARTHROPODA

### *Endymionia schucherti* Raymond

Hypotypes 18439–18445

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 324, pl. 15, figs. 2, 3, 4, 6–18, 20.

Middle Table Head Formation and Cow Head Group, Whiterock Stage, Ordovician, 215 feet up in type section, south side of Table Point; boulder in conglomerate at Daniel's Harbour; and foreshore on south side of Table Cove, 4000 feet south of Table Point, western Newfoundland.

### *Endymionia* sp. indet.

Fig. spec. 18438

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 327, pl. 14, fig. 7.

Middle Table Head Formation, Whiterock Stage, Ordovician, shore of Black Cove about 1/2 mile northeast of The Gravels at Port au Port Peninsula, western Newfoundland.

### *Eorobergia grandis* Whittington

Holotype 18256; paratypes 18257–18260

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 380, pl. 43, figs. 1–7; pl. 44, figs. 1, 2.

Lower Table Head, Whiterock Stage, Ordovician, shore about 1/2 mile north of Pointe Riche lighthouse, western Newfoundland.

### *Flexicalymene granulosa* (Foerste)

Hypotype 18667

Liberty, B.A., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 51, pl. 5, fig. 12.

Dundas Formation, Upper Ordovician, near mouth Workman's Creek, Ontario.

### *Galbagnostus galba* (Billings)

Hypotypes 18390–18396

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 305, pl. 2, fig. 24; pl. 3, figs. 3, 6–11, 13, 15; pl. 4, figs. 3, 5–10.

Middle Table Head Formation, Whiterock Stage, Ordovician, isolated limestone in small hill at landward side of beach at Table Cove; foreshore on south side of Table Cove, 4000 feet south of Table Point; and 90 feet up in type section, south side of Table Point, western Newfoundland.

### *Geragnostus fabius* (Billings)

Hypotypes 18382–18389, 18460

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 302, pl. 2, figs. 4–23, 25, 26.

Cow Head Group and Middle Table Head Formation, Whiterock Stage, Ordovician, boulder in conglomerate at Daniel's Harbour and 215 feet up in type section, south side of Table Point, western Newfoundland.

### *Geragnostus longicollis* (Raymond)

Hypotypes 18378–18380

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 301, pl. 1, figs. 4–12, 14, 16, 17.

Middle Table Head Formation, Whiterock Stage, Ordovician, foreshore on south side of Table Cove, 4000 feet south of Table Point and isolated limestone in small hill at landward side of beach at Table Cove, western Newfoundland.

*Geragnostus* sp. indet.

Fig. spec. 18381

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 302, pl. 1,  
figs. 13, 15, 18.Middle Table Head Formation, Whiterock Stage, Ordovician, foreshore on south side of Table  
Cove, 4000 feet south of Table Point, western Newfoundland.*Goniophrys breviceps?* (Billings)

Hypotypes 18562–18566, 20200 [not 2254]

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 371, pl. 38,  
figs. 10, 12–17; pl. 39, figs. 1, 2, 5, 6, 10.Middle Table Head Formation, Whiterock Stage, Ordovician, foreshore on south side of Table  
Cove, 4000 feet south of Table Point; isolated limestone in small hill at landward side of  
beach at Table Cove; and Portland Creek, western Newfoundland.*Hardyoïdes minor* Kobayashi

Paratype 11941

Palmer, A.R., 1965, U.S. Geol. Surv., Prof. Paper 493, p. 54, pl. 7, fig. 11.

McKay Group, Upper Cambrian, west of Harrogate, British Columbia.

*Harpides atlanticus* BillingsWhittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 309, pl. 5,  
fig. 1 [holotype 674].*Harpides atlanticus* Billings

Hypotypes 18397–18401

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 309, pl. 5,  
figs. 2–4; pl. 6, figs. 1, 2, 4; pl. 7, figs. 1–4.Middle Table Head Formation, Whiterock Stage, Ordovician, foreshore on south side of Table  
Cove, 4000 feet south of Table Point and 265 feet up in type section, south side of Table  
Point, western Newfoundland.*Harpides concentricus* Billings= *Harpides atlanticus*, Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132,  
No. 4, p. 309, pl. 6, fig. 2 [hypotype 672].*Heliomera sol* (Billings)

Hypotype 18354

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 417, pl. 63,  
figs. 2, 6, 8, 12.Middle Table Head Formation, Whiterock Stage, Ordovician, isolated limestone small hill at  
landward side of beach at Table Cove, western Newfoundland.*Heliomera (Heliomeroides)* sp. indet.

Fig. spec. 18355

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 419, pl. 63,  
figs. 7, 11, 14, 15.Middle Table Head Formation, Whiterock Stage, Ordovician, 17 feet up in type section, south  
side of Table Point, western Newfoundland.*Hemiarges aquilonius* Whittington

Hypotypes 14492, 14493

Bolton, T.E., 1965, Geol. Surv., Canada, Bull. 134, p. 11, pl. 2, fig. 7; pl. 3, fig. 10.

Douro and Read Bay Formations, Upper Silurian, 2 miles north of peninsula north of large  
delta, east shore Goose Fiord, Ellesmere Island and Goodsir Creek, central-east coast of Corn-  
wallis Island, Arctic.

## ARTHROPODA

*Hemiarges* sp. cf. *H. aquilonius* Whittington

Hypotype 14491

Bolton, T.E., 1965, Geol. Surv., Canada, Bull. 134, p. 11, pl. 2, fig. 6.

Douro Formation, Upper Silurian, 2 miles north of peninsula north of large delta, east shore Goose Fiord, southwest Ellesmere Island, Arctic.

*Hemiarges bigener* Bolton

Holotype 17772; paratypes 17773–17779, 18245; hypotypes 14490, 17780, 17781

Bolton, T.E., 1965, Geol. Surv., Canada, Bull. 134, p. 10, pl. 3, figs. 1–9, 11.

Peel Sound Formation, undifferentiated Allen Bay–Read Bay Formation, and float, Upper Silurian or Lower Devonian, northeast corner of Prince of Wales Island; eastern Darling Peninsula, Ellesmere Island; and Marshall Peninsula, northwest Cornwallis Island, Arctic.

*Hemiarges ormistoni* Whittington

Hypotypes 15266, a, b

Whittington, H.B., 1961, J. Pal., vol. 35, No. 3, p. 438.

Cape Phillips Formation, Upper Silurian, near coast south of creek, Cape Phillips, Cornwallis Island, Arctic.

*Holometopus angelini* Billings.

= *Raymondaspis angelini*, Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 405, pl. 56, figs. 11–13 [lectotype 872].

*Hypermecaspis* cf. *bulmani* Harrington and Leanza

Hypotypes 18460–18462, 20199 [not 458]

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 335, pl. 18, figs. 17–22.

Middle Table Head Formation, Whiterock Stage, Ordovician, Table Point and west side of Pistolet Bay, western Newfoundland.

Illaenid? pygidium

Fig. spec. 18372

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 399, pl. 67, fig. 11.

Middle Table Head Formation, Whiterock Stage, Ordovician, type section south side of Table Point, western Newfoundland.

*Illaenus aboynensis* Whiteaves

= *Bumastus aboynensis*, Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 15, fig. 4 [syntype 3016].

*Illaenus alveatus* Raymond

Hypotypes 18284–18288

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 391, pl. 49, figs. 2, 3, 6–13; pl. 68, fig. 9.

Lower Table Head Formation, Whiterock Stage, Ordovician, 245 and 479 feet above base of bed 8 in type section, north side of Table Point, western Newfoundland.

*Illaenus consimilis* Billings

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 393, pl. 50, figs. 1, 4 [lectotype 663]; pl. 51, fig. 12 [paralectotype 663i]; pl. 52, fig. 1 [paralectotype 663h].

*Illaenus consimilis* Billings

## Hypotypes 18290–18306

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 393, pl. 50, figs. 2, 3, 5–15; pl. 51, figs. 1–11; pl. 52, figs. 2–13.

Middle Table Head Formation, Whiterock Stage, Ordovician, 90 and 185 feet up in type section, south side of Table Point; foreshore on south side of Table Cove, 4000 feet south of Table Point; and isolated limestone in small hill at landward side of beach at Table Cove, western Newfoundland.

*Illaenus fraternus* Billings

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 387, pl. 45, figs. 1–3 [lectotype 665e], 18 [paralectotype 665a]; pl. 46, figs. 1, 2, 4 [paralectotype 665b].

*Illaenus fraternus* Billings

## Hypotypes 18266–18273

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 387, pl. 45, figs. 4–17, 19; pl. 46, figs. 3, 5, 6, 8, 10.

Lower Table Head Formation, Whiterock Stage, Ordovician, 245 and 350 feet above base of bed 8 in type section, north side of Table Point, western Newfoundland.

*Illaenus gelasinus* Whittington

## Holotype 18307; paratypes 18308–18314

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, pl. 53, figs. 1–18; pl. 54, figs. 1, 5.

Middle Table Head Formation and Cow Head Group, Whiterock Stage, Ordovician, 90 feet up in type section, south side of Table Point; boulder in conglomerate at Daniel's Harbour; and isolated limestone in small hill at landward side of beach at Table Cove, western Newfoundland.

*Illaenus marginalis* Raymond

## Hypotypes 18274–18283

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 389, pl. 46, figs. 7, 9, 11, 12; pl. 47, figs. 3, 5–10; pl. 48, figs. 1, 2, 6, 8, 10.

Lower Table Head Formation, Whiterock Stage, Ordovician, shore about 1/2 mile north of Pointe Riche lighthouse, and 280 and 400 feet above base of bed 8 in type section, north side of Table Point, western Newfoundland.

*Illaenus* sp. indet. 1

## Fig. spec. 18289

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 393, pl. 49, figs. 11, 14, 15.

Lower Table Head Formation, Whiterock Stage, Ordovician, 280 feet above base of bed 8 in type section, north side of Table Point, western Newfoundland.

*Illaenus* sp. indet. 2

## Fig. spec. 18315

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 398, pl. 54, figs. 4, 6, 7.

Middle Table Head Formation, Whiterock Stage, Ordovician, isolated limestone in small hill at landward side of beach at Table Cove, western Newfoundland.

## ARTHROPODA

### *Illaenus* sp. indet. 3

Fig. specs. 18316, 18317

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 399, pl. 54,  
figs. 2, 3, 8–11.

Middle Table Head Formation, Whiterock Stage, Ordovician, foreshore on south side of Table  
Cove, 4000 feet south of Table Point, western Newfoundland.

### *Ischyrophyma tumida* Whittington

Holotype 18465; paratypes 18466–18468

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 339, pl. 19,  
figs. 6–12, 15.

Middle Table Head Formation, Whiterock Stage, Ordovician, foreshore on south side of Table  
Cove, 4000 feet south of Table Point, western Newfoundland.

### *Ischyrophyma?* sp. indet.

Fig. spec. 18469

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 340, pl. 19,  
figs. 16, 19, 20.

Middle Table Head Formation, Whiterock Stage, Ordovician, isolated limestone in small hill at  
landward side of beach at Table Cove, western Newfoundland.

### *Ischyrotoma* sp. indet.

Fig. spec. 18471

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 338, pl. 19,  
figs. 17, 21, 22.

Middle Table Head Formation, Whiterock Stage, Ordovician, foreshore on south side of Table  
Cove, 4000 feet south of Table Point, western Newfoundland.

### *Kawina* sp.

Fig. spec. 18274

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 416, pl. 62,  
figs. 5, 7.

Lower Table Head Formation, Whiterock Stage, Ordovician, shore about 1/2 mile north of Pointe  
Riche lighthouse, western Newfoundland.

### Komaspidid? pygidium

Fig. spec. 18569

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 374, pl. 39,  
figs. 8, 9.

Middle Table Head Formation, Whiterock Stage, Ordovician, foreshore on south side of Table  
Cove, 4000 feet south of Table Point, western Newfoundland.

### *Leioshumardia minima* Whittington

Holotype 18450; paratype 18449

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 331, pl. 17,  
figs. 9, 10, 13, 15–17.

Middle Table Head Formation, Whiterock Stage, Ordovician, foreshore on south side of Table  
Cove, 4000 feet south of Table Point and 190 feet up in type section, south side of Table  
Point, western Newfoundland.

*Lonchodus clavulus* Whittington

Holotype 18413; paratypes 18414–18420

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 316, pl. 11, figs. 1–14.

Middle Table Head Formation, Whiterock Stage, Ordovician, 17 feet up in type section, south side of Table Point and isolated limestone in small hill at landward side of beach at Table Cove, western Newfoundland.

*Lonchodus normalis* (Billings)

Hypotypes 18406–18412

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, pl. 10, figs. 2, 3, 5–14.

Middle Table Head Formation, Whiterock Stage, Ordovician, 90, 185, and 258 feet up in type section, south side of Table Point and isolated limestone in small hill at landward side of beach at Table Cove, western Newfoundland.

*Miracybele mira* (Billings)

Hypotypes 18357–18367

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 424, pl. 64, figs. 2, 4–11; pl. 65, figs. 1, 3–6; pl. 66, figs. 1–8.

Middle Table Head Formation, Whiterock Stage, Ordovician, isolated limestone in small hill at landward side of beach at Table Cove; foreshore on south side of Table Cove, 4000 feet south of Table Point; and 90 feet up in type section, south side of Table Point, western Newfoundland.

## Nileid gen. indet.

Fig. specs. 18538–18540

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 366, pl. 33, figs. 7–11, 13.

Middle Table Head Formation, Whiterock Stage, Ordovician, shore of Black Cove about 1/2 mile northeast of The Gravels at Port au Port Peninsula, western Newfoundland.

*Nileus affinis* Billings

Hypotypes 18527–18531

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 358, pl. 30, figs. 1, 3, 5, 7; pl. 31, figs. 1–6, 8, 10.

Lower and Middle Table Head Formation, Whiterock Stage, Ordovician, shore about 1/2 mile north of Pointe Riche lighthouse, type section and 185 feet up in type section, south side of Table Point, western Newfoundland.

*Nileus? lacunosa* Whittington

Holotype 18549; paratypes 18537, 18550, 18551

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 362, pl. 32, figs. 8, 11; pl. 36, figs. 1–10.

Middle Table Head Formation and Cow Head Group, Whiterock Stage, Ordovician, foreshore on south side of Table Cove, 4000 feet south of Table Point; 190 and 265 feet up in type section, south side of Table Point; and boulder in conglomerate at Daniel's Harbour, western Newfoundland.

*Nileus macrops* Billings

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 361, pl. 33, figs. 1, 2 [lectotype 649a; paralectotypes 649, b, c].

## ARTHROPODA

### *Nileus macrops* Billings

#### Hypotypes 18582–18586

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 361, pl. 32,  
figs. 2, 4, 6, 10, 12–14; pl. 33, figs. 3–6.

Middle Table Head Formation, Whiterock Stage, Ordovician, 90, 190, and 215 feet up in type  
section, south side of Table Point, western Newfoundland.

### *Nileus scrutator* Billings

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 360, pl. 30,  
figs. 4, 8, 14 [lectotype 667a; paralectotypes 667, 677b, c, d].

=*Nileus affinis*, Whittington, H.B., ibid., p. 358 [hypotypes 720, a].

### *Nileus scrutator* Billings

#### Hypotypes 18532–18536

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 360, pl. 30,  
figs. 2, 6, 9–13; pl. 31, figs. 7, 9; pl. 32, figs. 1, 3, 5, 7, 9.

Middle Table Head Formation, Whiterock Stage, Ordovician, type section; 90 and 215 feet up in  
type section, south side of Table Cove; and foreshore on south side of Table Cove, 4000 feet  
south of Table Point, western Newfoundland.

### *Niobe morrissi* (Billings)

#### Hypotypes 658a, b, 18517–18524

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, pp. 346, 352,  
pl. 27, figs. 12, 13; pl. 28, figs. 1–8; pl. 29, figs. 1–3.

Middle Table Head Formation, Whiterock Stage, Ordovician, Portland Creek; shore of Black  
Cove about 1/2 mile northeast of The Gravels at Port au Port Peninsula; 90 feet up in type  
section, south side of Table Point; foreshore on south side of Table Cove, 4000 feet south  
of Table Point; and isolated limestone in small hill at landward side of beach at Table  
Cove, western Newfoundland.

### *Niobe quadraticaudata* (Billings)

#### Lectotype 654; hypotypes 18498–18517

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 349, pl. 24,  
figs. 3–5, 7; pl. 25, figs. 1–12; pl. 26, figs. 1–9; pl. 27, figs. 1–9.

Middle Table Head Formation and Cow Head Group, Whiterock Stage, Ordovician, 50, 90, and  
265 feet up in type section, south side of Table Point; foreshore on south side of Table  
Cove, 4000 feet south of Table Point; boulder in conglomerate at Daniel's Harbour; and  
isolated limestone in small hill at landward side of beach at Table Cove, western Newfoundland.

### *Peraspis lineolata* (Raymond)

#### Hypotypes 18370, 18541–18548

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 364, pl. 34,  
figs. 3–12; pl. 35, figs. 2, 3, 5–8; pl. 36, fig. 12.

Cow Head Group and Middle Table Head Formation, Whiterock Stage, Ordovician, foreshore on  
south side of Table Cove, 4000 feet south of Table Point; boulders in conglomerates at  
Daniel's Harbour and north of mouth of Portland Creek; shore of Black Cove about 1/2 mile  
northeast of The Gravels at Port au Port Peninsula; and 185 feet up in type section, south  
side of Table Point, western Newfoundland.

### *Phaseolops?* sp. indet.

#### Fig. specs. 18463, 18464

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 337, pl. 19,  
figs. 1–5.

Middle Table Head Formation, Whiterock Stage, Ordovician, isolated limestone in small hill at  
landward side of beach at Table Cove, western Newfoundland.

*Proetid* pygidium

Fig. spec. 18373

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 338, pl. 67,  
fig. 14.Middle Table Head Formation, Whiterock Stage, Ordovician, type section south side of Table  
Point, western Newfoundland.*Proetus* (*Cyphoproetus*?) sp.

Fig. spec. 17782

Bolton, T.E., 1965, Geol. Surv., Canada, Bull. 134, p. 3, pl. 2, fig. 9.

Douro Formation, Upper Silurian, 2 miles north of peninsula north of a large delta, east shore of  
Goose Fiord, southwest Ellesmere Island, Arctic.*Pseudogygites latimarginatus* (Hall)

Hypotype 18666

Liberty, B.A., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook,  
p. 51, pl. 5, fig. 8.

Collingwood Formation, Upper Ordovician, Craigleath, Ontario.

## Pygidium gen. indet.

Fig. spec. 18371

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 366, pl. 67,  
figs. 10, 13.Middle Table Head Formation, Whiterock Stage, Ordovician, shore at Black Cove about 1/2 mile  
northeast of The Gravels at Port au Port Peninsula, western Newfoundland.*Raymondaspis reticulatus* Whittington

Holotype 18318; paratypes 18319–18337, 658c–e

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 402, pl. 55,  
figs. 2, 3, 5–9; pl. 56, figs. 1–10; pl. 57, figs. 1–13; pl. 58, figs. 1, 7.Middle Table Head Formation, Whiterock Stage, Ordovician, foreshore on south side of Table  
Cove, 4000 feet south of Table Point; isolated limestone, small hill at landward side of beach  
at Table Cove; 90 and 140 feet up in type section, south side of Table Point; and Portland  
Creek, western Newfoundland.*Raymondaspis turgidus* Whittington

Holotype 18339; paratypes 18340–18344

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 406, pl. 58,  
figs. 5, 6, 8, 9; pl. 59, figs. 1–9, 11.Middle Table Head Formation, Whiterock Stage, Ordovician, 190 feet above base type section,  
south side of Table Point, western Newfoundland.*Raymondaspis* sp. indet.

Fig. spec. 18338

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 405, pl. 58,  
figs. 2–4, 10.Middle Table Head Formation, Whiterock Stage, Ordovician, 90 feet up in type section, south  
side of Table Point, western Newfoundland.*Remopleurides pilulus* Whittington

Holotype 18570; paratype 18571

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 374, pl. 39,  
figs. 14–16; pl. 40, figs. 5–8.Middle Table Head Formation, Whiterock Stage, Ordovician, foreshore on south side of Table  
Cove, 4000 feet south of Table Point, western Newfoundland.

## ARTHROPODA

*Remopleurides? schlotheimi* Billings

= *Robergia schlotheimi*, Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 375, pl. 40, fig. 9 [paralectotype 694a]; pl. 41, fig. 1 [lectotype 694].

*Remopleurides* sp. indet.

Fig. specs. 18572, 18573

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 375, pl. 40, figs. 1-4.

Middle Table Head Formation, Whiterock Stage, Ordovician, 190 feet up in type section, south side of Table Point, western Newfoundland.

*Robergia schlotheimi* (Billings)

Hypotypes 18574-18581

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 375, pl. 40, figs. 10-12; pl. 41, figs. 2-10.

Middle Table Head Formation, Whiterock Stage, Ordovician, shore of Black Cove about 1/2 mile northeast of The Gravels at Port au Port Peninsula and 215 feet up in type section, south side of Table Point, western Newfoundland.

*Robergia yukonensis* Churkin

Holotype 19864; paratypes 19865-19871

Lenz, A.C. and Churkin, M. Jr., 1966, Palaeontology, vol. 9, pt. 1, p. 41, pl. 4; pl. 5, figs. 1-5.

Road River Formation, Upper Ordovician, just west of Snake River, lat. 65°21'N, long. 133°30'W, Yukon.

*Scutellum acamas* Billings

Hypotype 17971

Bolton, T.E.,

1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 79, pl. 8, fig. 23.

1966, Geol. Surv., Canada, Paper 66-5, pl. 12, fig. 13.

Lockport Formation, Middle Silurian, East gorge, Ontario.

*Scutellum acamas* (Hall)

Hypotype 20595

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 14, fig. 4.

Wiarton Member, Amabel Formation, Middle Silurian, road-cut west side opposite radio tower, Owen Sound - Chatsworth Highway 6-10, Ontario.

*Selenoharpes singularis* Whittington

Holotype 18402; paratypes 18403-18405

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 312, pl. 8, figs. 1-4; pl. 9, figs. 1-6.

Middle Table Head Formation, Whiterock Stage, Ordovician, foreshore on south side of Table Cove, 4000 feet south of Table Point, western Newfoundland.

*Shumardia glacialis* Billings

= *Anisonotella glaciales*, Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 321, pl. 13, fig. 13 [lectotype 670c].

*Shumardia granulosa* Billings

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 327, pl. 16, figs. 1-4 [lectotype 880], 10, 11, 13, 15 [paralectotypes 880].

*Shumardia sagittula* Whittington

Holotype 18448; paratypes 18446, 18447

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 330, pl. 17, figs. 1-8, 11, 12.

Middle Table Head Formation, Whiterock Stage, Ordovician, foreshore on south side of Table Cove, 4000 feet south of Table Point and 285 feet up in type section, south side of Table Point, western Newfoundland.

*Stegnopsis huttoni* (Billings)

Hypotypes 658, 18481-18497

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 346, pl. 21, figs. 8-12; pl. 22, figs. 1-14; pl. 23, figs. 1-13.

Middle Table Head Formation, Whiterock Stage, Ordovician. Portland Creek; foreshore on south side of Table Cove, 4000 feet south of Table Point; 185 and 190 feet up in type section south side of Table Point; isolated limestone in small hill at landward side of beach at Table Cove; and shore of Black Cove about 1/2 mile northeast of The Gravels at Port au Port Peninsula, western Newfoundland.

*Stegnopsis solitarius* Whittington

Holotype 18472; paratypes 18473-18480

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 344, pl. 20, figs. 1-11; pl. 21, figs. 1-4, 6.

Lower Table Head Formation, Whiterock Stage, Ordovician, shore about 1/2 mile north of Pointe Riche lighthouse; 400 and 280 feet up, unit 8, type section north side of Table Point, western Newfoundland.

*Telephina americana* (Billings)

Hypotypes 18314, 18552-18559

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 367, pl. 37, figs. 3-17; pl. 38, figs. 7-9, 11.

Middle Table Head Formation, Whiterock Stage, Ordovician, 90 feet up in type section, south side of Table Point and isolated limestone in small hill at landward side of beach at Table Cove, western Newfoundland.

*Telephina* sp. indet.

Fig. specs. 18560, 18561

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 371, pl. 38, figs. 1-6, 18.

Middle Table Head Formation, Whiterock Stage, Ordovician, foreshore on south side of Table Cove, 4000 feet south of Table Point, western Newfoundland.

*Telephus americanus* Billings

= *Telephina americana*, Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 367, pl. 37, figs. 1, 2 [lectotype 700b; paralectotypes 700, a, 699, a-e].

*Triarthrus fischeri* Billings

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 331, pl. 17, fig. 14 [lectotype 678c].

*Triarthrus fischeri* Billings

Hypotypes 18451-18459

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 331, pl. 17, figs. 18-21; pl. 18, figs. 1-9, 12-16.

Middle Table Head Formation and Cow Head Group, Whiterock Stage, Ordovician, 185 and 215 feet up in type section, south side of Table Point; shore of Black Cove about 1/2 mile northeast of the Gravels at Port au Port Peninsula; foreshore on south side of Table Cove, 4000 feet south of Table Point; and boulder in conglomerate at Daniel's Harbour, western Newfoundland.

## ARTHROPODA

### *Triarthrus spinosus* Billings

Hypotype 18668

Liberty, B.A., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 51, pl. 5, fig. 5.

Billings Formation, Upper Ordovician, Billings Bridge, Ottawa, Ontario.

### *Trimerus delphinocephalus* Green

Hypotypes 20573, 20576

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 12, figs. 11, 16.  
30 feet above base of Rochester Formation, Middle Silurian, DeCew Falls, Ontario.

### *Xystocrania cf. glaucus* (Billings)

Hypotype 18353

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol. 132, No. 4, p. 415, pl. 62,  
figs. 1-3, 6.

Lower Table Head Formation, Whiterock Stage, Ordovician, 350 feet above base of bed 8 in type  
section, north side of Table Point, western Newfoundland.

### *Xystocrania perforator* (Billings)

Hypotypes 18351, 18352

Whittington, H.B., 1965, Bull. Mus. Comp. Zool. Harvard, vol 132, No. 4, p. 413, pl. 61,  
figs. 2, 5, 8, 9, 11.

Lower Table Head Formation, Whiterock Stage, Ordovician, 379 and 350 feet above base of bed  
8 in type section, north side of Table Point, western Newfoundland.

## A R T H R O P O D A — M E R O S T O M A T A — E U R Y P T E R I D A

*Carcinosoma libertyi* Copeland and Bolton

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 3, fig. 15 [holotype 13984a].

*Eurypterus boylei* Whiteaves

= *Tylopterella boylei*, Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 16, fig. 12 [holotype 2910].

*Eurypterus lacustris* Harlan

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 17, figs. 1, 10 [hypotypes 13995, 13985].

*Eurypterus* sp. cf. *E. lacustris* Harlan

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 17, figs. 2, 11 [hypotypes 13986, 13988].

*Eurypterus* sp.

Hypotype 15380

Copeland, M.J. and Bolton, T.E., 1960, Geol. Surv., Canada, Bull. 60, p. 18.

Eramosa Member, Amabel Formation, Middle Silurian, Cook's quarry, west of Wiarton, Ontario.

*Pterygotus cummingsii* Grote and Pitt.

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 17, fig. 9 [hypotype 13991].

## A R T H R O P O D A — O S T R A C O D A

*Aechmina* sp.

Fig. specs. 17028, a, b.

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 7, pl. 5, figs. 10-12.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

*Ancillacuna lacrimosa* McGill

Holotype 17370; paratypes 17370a-d

McGill, P., 1966, Bull. Can. Petrol. Geol., vol. 14, No. 1, p. 118, pl. 4, figs. 1-7.

Slave Point Formation, Middle Devonian, 7392 feet Homestead *et al.* Joussard well, l.s.d. 10, sec. 32, tp. 72, rge. 13, W. 5th mer., Alberta.

*Anisocyamus* sp.

Fig. spec. 18658

Sinclair, G.W., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 39, pl. 3, fig. 18.

Kirkfield Formation, Middle Ordovician, Healey Falls, Ontario.

## ARTHROPODA

### *Aparchites fimbriatus?* (Ulrich)

Hypotypes 17068, a

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 29, pl. 2, figs. 5, 13.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

### *Aparchites?* *labellosus* (Jones)

Hypotypes 17062, a, b

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 30, pl. 7, figs. 19–21.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

### *Aparchites* sp. cf. *A. millepunctatus* (Ulrich)

Hypotype 17064

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 30, pl. 7, fig. 12.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

### *Aparchites tolmachoffi* Copeland

Holotype 17113; paratypes 17113a–c

Copeland, M.J., 1964, Geol. Surv., Canada, Bull. 117, p. 17, pl. 2, figs. 3a–d.

Undivided Allen Bay–Read Bay Formation, Middle Silurian, on northwest side and about 2 miles inland from sharp bend of Canyon Fiord, west-central Ellesmere Island, Arctic.

### *Aparchites?* sp.

Fig. spec. 17070

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 31, pl. 8, fig. 41.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

### *Aparchites* sp.

Fig. spec. 17109

Bolton, T.E.,

1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 79, pl. 8, fig. 28.

1966, Geol. Surv., Canada, Paper 66-5, pl. 3, fig. 8.

1.2 feet below top of Reynales Formation, Clinton Group, Middle Silurian, old quarry, Nelson, east of Waterdown, Ontario.

### *Aparchites* (?) sp.

Fig. spec. 20510

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 4, fig. 11.

Wingfield Formation, Middle Silurian, east shore MacRae Cove, south end of Meldrum Bay, Manitoulin Island, Ontario.

### *Arcuaria* sp.

Fig. specs. 17106, 17107

Bolton, T.E.,

1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 79, pl. 8, figs. 24, 27.

1966, Geol. Surv., Canada, Paper 66-5, pl. 3, fig. 7 [17107].

1.2 feet below top of Reynales Formation, Clinton Group, Middle Silurian, old quarry, Nelson, east of Waterdown and Grimsby Beach escarpment road-cut, Ontario.

### *Bairdia navicula* Martinova

Hypotypes 17371a–c

McGill, P., 1966, Bull. Can. Petrol. Geol., vol. 14, No. 1, p. 119, pl. 4, figs. 8–13.

Slave Point Formation, Middle Devonian, 7383 feet Homestead *et al.* Joussard well, l.s.d. 10, sec. 32, tp. 72, rge. 13, W. 5th mer., Alberta.

*Bairdiacypris* cf. *B. irregularis* Polenova

## Hypotypes 17374a-c

McGill, P., 1966, Bull. Can. Petrol. Geol., vol. 14, No. 1, p. 120, pl. 5, figs. 5-7.

Slave Point Formation, Middle Devonian, 7414 feet Homestead *et al.* Joussard well, l.s.d. 10, sec. 32, tp. 72, rge. 13, W. 5th mer., Alberta.

*Balticella* sp.

## Fig. specs. 18655, a

Sinclair, G.W., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 39, pl. 3, figs. 14, 15.

Kirkfield Formation, Middle Ordovician, Healey Falls, Ontario.

*Bassleratia typa* Kay

## Hypotype 18657

Sinclair, G.W., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 39, pl. 3, fig. 17.

Kirkfield Formation, Middle Ordovician, Healey Falls, Ontario.

*"Beecherella" berdaneae* Copeland

## Holotype 17110

Copeland, M.J., 1964, Geol. Surv., Canada, Bull. 117, p. 15, pl. 2, figs. 2a-d.

Undivided Allen Bay - Read Bay Formation, Middle Silurian, on northwest side and about 2 miles inland from sharp bend of Canyon Fiord, west-central Ellesmere Island, Arctic.

*Bekena homolibera* McGill

## Holotype 17375; paratypes 17375a-c

McGill, P., 1966, Bull. Can. Petrol. Geol., vol. 14, No. 1, p. 121, pl. 5, figs. 8-12.

Slave Point Formation, Middle Devonian, 7429 feet Homestead *et al.* Joussard well, l.s.d. 10, sec. 32, tp. 72, rge. 13, W. 5th mer., Alberta.

*Beyrichia (Neobeyrichia) maccoyiana sulcata* Reuter

= *Hemsiella maccoyiana sulcata*, Copeland, M.J., 1964, Geol. Surv., Canada, Bull. 117, p. 9, pl. 1, fig. 3 [hypotype 14511].

*Bolla persulcata* (Ulrich)

## Hypotypes 17084, a

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 8, pl. 11, figs. 9, 11.

Liskeard Formation, Middle Ordovician, depth 660-663 feet, Lake Timiskaming Drillhole No. 1 (LT1) near southwest shore Wabi Point, Harris tp., Ontario.

*Bolla subaequata* Ulrich

## Hypotype 18656

Sinclair, G.W., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 39, pl. 3, fig. 16.

Kirkfield Formation, Middle Ordovician, Healey Falls, Ontario.

*Bradoria* sp.

## Fig. spec. 14592

Bolton, T.E. and Copeland, M.J., 1963, J. Pal., vol. 37, No. 5, p. 1070, pl. 143, figs. 5-7. Middle Cambrian, west flank Windsor Mountain, Alberta.

*Byrsolopsis planilateralis* (Kay)

## Hypotypes 17083, a

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 44, pl. 11, figs. 7, 10.

Liskeard Formation, Middle Ordovician, depth 635-645 feet, Lake Timiskaming Drillhole No. 1 (LT1) near southwest shore Wabi Point, Harris tp., Ontario.

## ARTHROPODA

### *Bythocypris? cylindrica* (Hall)

Hypotypes 14591, a, b

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 45, pl. 2, figs. 2–4.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

### *Bythocypris granti* Ulrich

Hypotypes 17018, a, b

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 45, pl. 3, figs. 14, 15.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

### *Bythocypris* sp.

Fig. spec. 17108

Bolton, T.E.,

1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 79, pl. 8,  
fig. 32.

1966, Geol. Surv., Canada, Paper 66-5, pl. 3, fig. 2.

1.2 feet below top of Reynales Formation, Clinton Group, Middle Silurian, old quarry, Nelson,  
east of Waterdown, Ontario.

### *Conchoprimitives* sp.

Fig. spec. 17030

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 38, pl. 2, fig. 7.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

### *Ctenobolbina lucifer* Copeland

Holotype 14580; paratypes 14581, a

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 10, pl. 9, figs. 7, 8.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

### "*Ctenobolbina*" *punctata* Ulrich

Bolton, T.E., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook,  
p. 79, pl. 8, fig. 8 [hypotype 15195].

1966, Geol. Surv., Canada, Paper 66-5, pl. 11, fig. 6 [hypotype 15195a].

### "*Ctenobolbina*" sp.

Hypotypes 17105, a

Bolton, T.E.,

1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 79, pl. 8,  
figs. 29, 30.

1966, Geol. Surv., Canada, Paper 66-5, pl. 3, figs. 9, 10.

1.2 feet below top Reynales Formation, Clinton Group, Middle Silurian, old quarry, Nelson,  
east of Waterdown, Ontario.

### *Cryptophyllus oboloides* (Ulrich and Bassler)

Hypotype 18653

Sinclair, G.W., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook,  
p. 39, pl. 3, fig. 12.

Kirkfield Formation, Middle Ordovician, Healey Falls, Ontario.

### *Cypridina franklini* Copeland

Hypotype 17101

Copeland, M.J., 1964, Geol. Surv., Canada, Bull. 117, p. 19, pl. 2, figs. 6a–c.

Undivided Allen Bay – Read Bay Formation, Middle Silurian, on northwest side and about 2  
miles inland from sharp bend of Canyon Fiord, west-central Ellesmere Island, Arctic.

*Cytherellina voluptuosa* McGill

Holotype 17376; paratypes 17376a–c

McGill, P., 1966, Bull. Can. Petrol. Geol., vol. 14, No. 1, p. 121, pl. 5, figs. 13–15.

Slave Point Formation, Middle Devonian, 7388 feet Homestead *et al.* Joussard well, l.s.d. 10, sec. 32, tp. 72, rge. 13, W. 5th mer., Alberta.

*Dicranella marginata* Ulrich

Hypotype 17078

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 49, pl. 11, fig. 15.

Liskeard Formation, Middle Ordovician, abandoned quarry 2 miles west of New Liskeard, Dymond tp., near top of hill east of South Wabi Creek, Ontario.

*Dihogmochilina latimarginata* (Jones)

Hypotypes 17089, 20619, 20620

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 19, figs. 2, 9, 11.

Middle Silurian, east side Lake Winnipegosis, Manitoba; upper 5 feet of Hendricks quarry, Upper Peninsula, Michigan, U.S.A.; and Roche River, Saskatchewan River, Manitoba.

*Diplospis* sp. cf. *D. frequens* (Steusloff)

Hypotypes 17050, a–i

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 28, pl. 9, figs. 9–20.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

*Dizygopleura symmetrica* (Hall)

Bolton, T.E., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 79, pl. 8, fig. 4 [hypotype 15196].

1966, Geol. Surv., Canada, Paper 66-5, pl. 10, fig. 16 [hypotype 15196b].

*Ectoprimitia* sp.

Fig. spec. 17067

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 41, pl. 3, fig. 9.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

*Ellesclavus fluitatus* McGill

Holotype 17365; paratypes 17365a–c

McGill, P., 1966, Bull. Can. Petrol. Geol., vol. 14, No. 1, p. 114, pl. 2, figs. 1–10.

Slave Point Formation, Middle Devonian, 6610 feet Guyer Imperial Driftpile well, l.s.d. 4, sec. 7, tp. 73, rge. 11, W. 5th mer., Alberta.

*Elpezo?* *borealis* Copeland

Holotype 17116

Copeland, M.J., 1964, Geol. Surv., Canada, Bull. 117, p. 18, pl. 2, figs. 7a–e, 8.

Undivided Allen Bay – Read Bay Formation, Middle Silurian, on northwest side and about 2 miles inland from sharp bend of Canyon Fiord, west-central Ellesmere Island, Arctic.

*Entomozoe gigas* Copeland

Holotype 17115

Copeland, M.J., 1964, Geol. Surv., Canada, Bull. 117, p. 18, pl. 2, figs. 9a–e.

Undivided Allen Bay – Read Bay Formation, Middle Silurian, on northwest side and about 2 miles inland from sharp bend of Canyon Fiord, west-central Ellesmere Island, Arctic.

*Eohollina depressa* (Kay)

Hypotypes 14577, a–f

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 9, pl. 8, figs. 14–16, 21–23.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

## ARTHROPODA

*Eoleperditia?* sp. cf. *E.?* *obscura* (Jones)

Hypotype 17061

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 6, pl. 7, fig. 17.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

*Eridoconcha bifurcata* Copeland

Holotype 14575

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 38, pl. 7, fig. 7.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

*Euprimitia labiosa* (Ulrich)

Hypotypes 17019, a, b

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 11, pl. 11, figs. 6, 8.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp. and depth 624–634 feet, Lake Timiskaming Drillhole No. 1 (LT1) near southwest shore of Wabi Point, Harris tp., Ontario.

*Euprimitia labiosa* (Ulrich)

Hypotype 18652

Sinclair, G.W., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 39, pl. 3, fig. 11.

Kirkfield Formation, Middle Ordovician, Healey Falls, Ontario.

*Euprimitia linepunctata* (Kay)

Hypotype 17082

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 11, pl. 11, fig. 12.

Liskeard Formation, Middle Ordovician, depth 624–634 feet, Lake Timiskaming Drillhole No. 1 (LT1) near southwest shore Wabi Point, Harris tp., Ontario.

*Eurychilina* sp. cf. *E. reticulata* Ulrich

Hypotypes 17038, a

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 11, pl. 3, figs. 18, 19.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

*Eurychilina* (?) *striatomarginata* (Miller)

= *Norochilina foerstei*, Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 17 [holotype 8525; paratype 8525b].

*Eurychilina subadrata* Ulrich

Hypotypes 17035, a–g, 17036, a, b

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 13, pl. 4, figs. 6–13; pl. 10, figs. 15–17.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

*Eurychilina ventrosa* Ulrich

Hypotypes 17037, a, b

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 12, pl. 3, figs. 16, 17.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

*Eylanella joussardensis* McGill

Holotype 17369; paratype 17369a

McGill, P., 1966, Bull. Can. Petrol. Geol., vol. 14, No. 1, p. 117, pl. 3, figs. 10–14.

Slave Point Formation, Middle Devonian, 7395 feet Homestead *et al.* Joussard well, l.s.d. 10, sec. 32, tp. 72, rge. 13, W. 5th mer., Alberta.

*Geisina meneleyiana* McGill

Holotype 17366; paratypes 17366a, b

Copeland, M.J., 1966, Bull. Can. Petrol. Geol., vol. 14, No. 1, p. 115, pl. 2, figs. 11–14.

Slave Point Formation, Middle Devonian, 7403 feet Homestead *et al.* Joussard well, l.s.d. 10, sec. 32, tp. 72, rge. 13, W. 5th mer., Alberta.

*Gibberella* sp. cf. *G. jejuma* Abushik

Hypotypes 20671 (2 specimens)

Copeland, M.J., 1966, Proc. Geol. Assoc. Can., vol. 17, p. 46, pl. 1, fig. 13.

Vunta Formation, 210–218 feet below top, Upper Silurian, Fish Creek, White Mountains, lat. 67°56'N, long. 136°33–40'W, Yukon.

*Glymmatobolbina?* *magna* Copeland

Holotype 17039; paratype 17040

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 32, pl. 1, figs. 13–18.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

*Hallatia?* *dubia* Copeland

Holotype 17076; paratypes 17076a, b

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 44, pl. 10, figs. 9, 11, 12.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

*Hallatia* sp. cf. *H. particylindrica* Kay

Hypotype 17075

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 43, pl. 10, fig. 13.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

*Hemsiella maccoyiana mcleani* Copeland

Hypotype 14560; paratype 14561

Copeland, M.J., 1964, Geol. Surv., Canada, Bull. 117, p. 9, pl. 1, figs. 1, 2.

Stonehouse Formation, 800–900 feet above base, Upper Silurian, shore section Northumberland Strait, 2 miles southwest of Arisaig pier, Arisaig, Nova Scotia.

*Herrmannina* sp.

Fig. spec. 20509

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 4, fig. 9.

Wingfield Formation, Middle Silurian, east shore MacRae Cove, south end of Meldrum Bay, Manitoulin Island, Ontario.

*Heterochilina?* *bursa* Copeland

Holotype 17094; paratypes 17093, 17095

Copeland, M.J., 1966, Proc. Geol. Assoc. Can., vol. 17, p. 46, pl. 1, figs. 1–4.

Vunta Formation, 1550–1556 feet below top, Middle Ordovician, Fish Creek, White Mountains, lat. 67°56'N, long. 136°33–40'W, Yukon.

*Hogmochilina illtydensis* Copeland

Holotype 20674; paratypes 20673, 20675–20677

Copeland, M.J., 1966, Proc. Geol. Assoc. Can., vol. 17, p. 47, pl. 1, figs. 17–21.

90 feet below top of formation, Upper Silurian, Illtyd Range, lat. 65°21'N, long. 135°22'W, Yukon.

*Hyperchilarina bella* Copeland

Holotype 17031; paratypes 17032, a–f, 17033 (1–60)

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 39, pl. 3, figs. 1–6, 8.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

## ARTHROPODA

*Hyperchilarina obscura* Copeland

Holotype 17034

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 41, pl. 3, fig. 7.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

*Isochilina aspera* Copeland

Holotype 17059; paratypes 17060, a

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 6, pl. 7, figs. 25–27.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

*Kayina?* sp.

Fig. spec. 17029

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 38, pl. 8, fig. 40.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

*Kloedenellitina paxfluvii* McGill

Holotype 17367; paratype 17367a

McGill, P., 1966, Bull. Can. Petrol. Geol., vol. 14, No. 1, p. 115, pl. 3, figs. 1–5.

Slave Point Formation, Middle Devonian, 7385 feet Homestead *et al.* Joussard well, l.s.d. 10, sec. 32, tp. 72, rge. 13, W. 5th mer., Alberta.

*Krausella* sp. cf. *K. arcuata* Ulrich

Hypotypes 14590, a, b

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 47, pl. 3, figs. 11–13.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

*Krausella brevicornis* (Keenan)

Hypotypes 14588, a, b

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 46, pl. 2, figs. 10–12.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

*Krausella calvini* (Kay)

Hypotypes 14589, a

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 46, pl. 2, figs. 8, 9.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

*Krausella?* sp.

Fig. spec. 17103

Bolton, T.E., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 79, pl. 8, fig. 31.

1.2 feet below top of Reynales Formation, Clinton Group, Middle Silurian, old quarry, Nelson, east of Waterdown, Ontario.

*Laccochilina* (*Laccochilina*) sp.

Fig. spec. 17080

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 15, pl. 11, fig. 18.

Liskeard Formation, Middle Ordovician, Farr Quarry, 1/2 mile west of Haileybury, Ontario.

*Laccochilina* (*Prochilina*) *granulosa* Copeland

Holotype 17051; paratypes 17052, a–f

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 14, pl. 2, figs. 14–20.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

*Laccochilina (Prochilina) irrasa* Copeland

Holotype 17071; paratypes 17072, a-f

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 14, pl. 9, figs. 1, 2; pl. 10, figs. 2-5; pl. 11, fig. 5.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

*Leiocyamus?* sp.

Fig. spec. 17102

Bolton, T.E.,

1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 79, pl. 8, fig. 25.

1966, Geol. Surv., Canada, Paper 66-5, pl. 3, fig. 3.

1.2 feet below top of Reynales Formation, Clinton Group, Middle Silurian, old quarry, Nelson, east of Waterdown, Ontario.

*Leperditella aequilatera?* (Ulrich)

Hypotype 17066

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 35, pl. 7, fig. 18.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

*Leperditella rex* (Coryell and Schenck)

Hypotype 17021

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 35, pl. 8, figs. 11-13.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

*Leperditia arctica* Jones

Hypotype 17757

Bolton, T.E., 1965, Geol. Surv., Canada, Bull. 134, pl. 2, fig. 10.

Read Bay Formation, Upper Silurian, 1 mile north of Fury Beach, eastern Somerset Island, Arctic.

*Leperditia balthica* var. *guelphica* Jones

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 15, fig. 7 [syntype 3013c].

*Leperditia balthica* var. *guelphica* Jones

Hypotype 3014

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 16, fig. 4.

Guelph Formation, Middle Silurian, Grand River, Aboyné near Elora, Ontario.

*Leperditia hisingeri egena?* Jones

Hypotypes 17100, 20672

Copeland, M.J., 1966, Proc. Geol. Assoc. Can., vol. 17, p. 48, pl. 1, figs. 10-12, 14-16.

Vunta Formation, 210-218 feet and 116-126 feet below top, Upper Silurian, Fish Creek, White Mountains, lat. 67°56'N, long. 136°33-40'W, Yukon.

*Leperditia* sp. cf. *L. lumaea* Abushik

Hypotypes 20678-20680

Copeland, M.J., 1966, Proc. Geol. Assoc. Can., vol. 17, p. 48, pl. 1, figs. 22-24.

Vunta Formation, 37-39 feet below top, Upper Silurian, Fish Creek, White Mountains, lat. 67°56'N, long. 136°33-40'W, Yukon.

*Leperditia phaseola* var. *guelphica* Jones

= *Leperditia phaseolus*, Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 16, fig. 13 [hypotype 3005].

## ARTHROPODA

### *Leperditia phaseolus* (Hisinger)

Hypotype 3015

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 16, fig. 11.

Guelph Formation, Middle Silurian, Aboyne, near Elora, Ontario.

### *Leperditia* sp.

Fig. spec. 20499

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 3, fig. 18.

Dyer Bay Formation, Middle Silurian, creek section at Colpoys village, Ontario.

### *Levisulculus michiganensis* Kesling

Hypotypes 17041, a-c

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 25, pl. 6, figs. 2, 4-6.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

### *Levisulculus planus* Copeland

Holotype 17044; paratypes 17045, a-f

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 26, pl. 7, figs. 7-13.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

### *Levisulculus undatus* Copeland

Holotype 17042; paratypes 17043

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 26, pl. 6, figs. 1, 3.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

### *Levisulculus* sp.

Fig. spec. 17046

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 27, pl. 6, fig. 14.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

### *Limbina?* sp.

Fig. spec. 14565

Copeland, M.J., 1964, Geol. Surv., Canada, Bull. 117, p. 12, pl. 1, fig. 6.

Stonehouse Formation, Upper Silurian, between 30-54 feet above mouth of MacEachern Brook,  
southwest of Arisaig pier, Arisaig, Nova Scotia.

### *Londinia arisaicensis* Copeland

Holotype 14562; paratypes 14563. a. b. 14564, a-e

Copeland, M.J., 1964, Geol. Surv., Canada, Bull. 117, p. 11, pl. 1, figs. 16-26.

Stonehouse Formation, 0-100 feet above base, Middle Silurian, shore section Northumberland  
Strait, southwest of Arisaig pier, Arisaig, Nova Scotia.

### ? *Longiscula emaciata* Copeland

Holotype 14584; paratypes 14585, a, b

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 45, pl. 8, figs. 1-4.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

### *Longiscula* sp.

Fig. spec. 17112

Copeland, M.J., 1964, Geol. Surv., Canada, Bull. 117, p. 16, pl. 2, fig. 4.

Undivided Allen Bay - Read Bay Formation, Middle Silurian, on northwest side and about 2  
miles inland from sharp bend of Canyon Fiord, west-central Ellesmere Island, Arctic.

*Macrocyproides trentonensis* (Ulrich)

Hypotype 17017

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 48, pl. 2, fig. 1.  
Liskeard Formation, Middle Ordovician, Shipyards quarry, lot. 10, con. V, Bucke tp., Ontario.*Macronotella? canyonensis* Copeland

Holotype 17114

Copeland, M.J., 1964, Geol. Surv., Canada, Bull. 117, p. 17, pl. 2, fig. 5.  
Undivided Allen Bay – Read Bay Formation, Middle Silurian, on northwest side and about 2 miles inland from sharp bend of Canyon Fiord, west-central Ellesmere Island, Arctic.*Macronotella* sp.

Fig. spec. 17077

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 29, pl. 5, figs. 2, 3.  
Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.*Macrypsilon salterianum* (Jones)

Hypotypes 14566, a

Copeland, M.J., 1964, Geol. Surv., Canada, Bull. 117, p. 8, pl. 1, figs. 4, 5.  
Stonehouse Formation, Upper Silurian, 304 feet below top of exposed shore section, southwest of Arisaig pier, Arisaig, Nova Scotia.*Margasaccus devini* McGill

Holotype 17368; paratype 17368a

McGill, P., 1966, Bull. Can. Petrol. Geol., vol. 14, No. 1, p. 116, pl. 3, figs. 6–9.  
Slave Point Formation, Middle Devonian, 7403 feet Homestead *et al.* Joussard well, l.s.d. 10, sec. 32, tp. 72, rge. 13, W 5th mer., Alberta.*Microcheilinella boweni* McGill

Holotype 17377; paratypes 17377a–d

McGill, P., 1966, Bull. Can. Petrol. Geol., vol. 14, No. 1, p. 122, pl. 6, figs. 1–8.  
Slave Point Formation, Middle Devonian, 7393 feet Homestead *et al.* Joussard well, l.s.d. 10, sec. 32, tp. 72, rge. 13, W. 5th mer., Alberta.*Milleratia longisulcata* Copeland

Holotype 14574

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 37, pl. 7, fig. 6.  
Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.*Milieratia mica* Copeland

Holotype 14572; paratypes 14573, a–c

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 37, pl. 7, figs. 1–5.  
Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.*Monoceratella spicata* Copeland

Holotype 14586; paratypes 14587, a

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 47, pl. 8, figs. 5–10.  
Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.*Neobeyrichia (Nodibeyrichia) tuberculata strictispiralis?* (Jones)

Hypotype 14567

Copeland, M.J., 1964, Geol. Surv., Canada, Bull. 117, p. 9.  
Stonehouse Formation, Upper Silurian, 500 feet northeast of MacLean Lake, Pictou county, Nova Scotia.

## ARTHROPODA

### *Norochilina nora* Copeland

Holotype 17055; paratypes 17056, a–h

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 16, pl. 4, figs. 1–5; pl. 10, figs. 7, 21–23.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

### *Oepikella labrosa* Copeland

Holotype 17047; paratypes 17048, a–e, 17049, a–d

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 27, pl. 7, figs. 16, 22–24; pl. 9, figs. 21–25; pl. 10, figs. 26, 27.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

### *Oepikium* sp.

Fig. spec. 17079

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 18, pl. 11, fig. 20.

Liskeard Formation, Middle Ordovician, outcrop along road between con. I and II, lot 4, Dymond tp., Ontario.

### Ostracod indet.

Fig. spec. 17069, a

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 49, pl. 8, figs. 38, 39.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

### *Paraechmina abnormis* (Ulrich)

Bolton, T.E., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 79, pl. 8, fig. 6 [hypotype 15193a].

1966, Geol. Surv., Canada, Paper 66-5, pl. 10, fig. 15 [hypotype 15193c].

### *Paraechmina postica* Ulrich and Bassler

Bolton, T.E., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 79, pl. 8, fig. 5 [hypotype 15191].

### *Paraechmina spinosa* (Hall)

Bolton, T.E., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 79, pl. 8, fig. 7 [hypotype 15192c].

1966, Geol. Surv., Canada, Paper 66-5, pl. 10, fig. 14 [hypotype 15192].

### *Pleurodella costata* Copeland

Holotype 17057; paratypes 17058, a–1

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 23, pl. 1, figs. 1–4; pl. 8, figs. 31–37; pl. 10, fig. 8.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

### *Pokornyites shouldici* McGill

Holotype 17362; paratypes 17362a–c

McGill, P., 1966, Bull. Can. Petrol. Geol., vol. 14, No. 1, p. 110, pl. 1, figs. 4–8.

Slave Point Formation, Middle Devonian, 7385 feet Homestead *et al.* Joussard well, l.s.d. 10, sec. 32, tp. 72, rge. 13, W. 5th mer., Alberta.

### *Pribylites* cf. *P. hanaicus* Pokorny

Hypotypes 17363a–f

McGill, P., 1966, Bull. Can. Petrol. Geol., vol. 14, No. 1, p. 111, pl. 1, figs. 9–12.

Slave Point Formation, Middle Devonian, 7275–7278 feet Imperial Mabel well, l.s.d. 10, sec. 35, tp. 70, rge. 12, W. 5th mer., Alberta.

*"Primitia" harricensis* Copeland

Holotype 17086; paratypes 17086a, b

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 42, pl. 11, figs. 1–3.

Liskeard Formation, Middle Ordovician, depth 650–660 feet, Lake Timiskaming Drillhole No. 1 (LT1) near southwest shore Wabi Point, Harris tp., Ontario.

*"Primitia" sp. indet.*

Fig. specs. 17074, a, b

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 43, pl. 10, figs. 19, 20, 25.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

*Primitiella* sp. cf. *P. constricta* Ulrich

Hypotypes 17065, a–f

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 35, pl. 7, figs. 9, 13–15; pl. 10, fig. 10.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

*Primitiella limbata* Ulrich

Hypotype 17063

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 36, pl. 3, fig. 10.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

*Primitiella* sp.

Fig. specs. 17020, a–d

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 36, pl. 8, figs. 17–19.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

*Pseudulrichia* sp. cf. *P. bivertex* (Ulrich)

Hypotype 14576

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 8, pl. 7, fig. 8.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

*Pseudulrichia simplex* (Ulrich)

Hypotypes 17081, a, b

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 9, pl. 11, figs. 13, 14, 17.

Liskeard Formation, Middle Ordovician, depth 635–663 feet, Lake Timiskaming Drillhole No. 1 (LT1) near southwest shore Wabi Point, Harris tp., Ontario.

*Pullivillites? wabiensis* Copeland

Holotype 17023; paratype 17023a

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 48, pl. 7, figs. 10, 11.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

*Punctaparchites rugosus* (Jones)

Hypotype 18650

Sinclair, G.W., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 39, pl. 3, fig. 9.

Kirkfield Formation, Middle Ordovician, Healey Falls, Ontario.

*Rectobairdia affluens* (Rozhdestvenskaya)

Hypotypes 17372a, b

McGill, P., 1966, Bull. Can. Petrol. Geol., vol. 14, No. 1, p. 119, pl. 4, figs. 14–18.

Slave Point Formation, Middle Devonian, 7429 feet Homestead *et al.* Joussard well, l.s.d. 10, sec. 32, tp. 72, rge. 13, W. 5th mer.. Alberta.

## ARTHROPODA

### *Rectobairdia canigranulosa* McGill

Holotype 17373; paratypes 17373a-c

McGill, P., 1966, Bull. Can. Petrol. Geol., vol. 14, No. 1, p. 120, pl. 5, figs. 1-4.

Slave Point Formation, Middle Devonian, 7392 feet Homestead *et al.* Joussard well, l.s.d. 10, sec. 32, tp. 72, rge. 13, W. 5th mer., Alberta.

### *Rozhdestvenskayites diuturna* McGill

Holotype 17364; paratypes 17364a, b

McGill, P., 1966, Bull. Can. Petrol. Geol., vol. 14, No. 1, p. 112, pl. 1, figs. 13-16.

Slave Point Formation, Middle Devonian, 7429 feet, Homestead *et al.* Joussard well, l.s.d. 10, sec. 35, tp. 70, rge. 12, W. 5th mer., Alberta.

### *Saccelatia angularis* (Ulrich)

Hypotype 17022

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 31, pl. 2, fig. 6.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

### *Saccelatia buckensis* Copeland

Holotype 17024; paratypes 17024a-d

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 32, pl. 5, figs. 1, 4, 5, 13, 14; pl. 10, fig. 1.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

### *Scofieldia bilateralis* (Ulrich)

Hypotype 18654

Sinclair, G.W., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 39, pl. 3, fig. 13.

Kirkfield Formation, Middle Ordovician, Healey Falls, Ontario.

### *Selebratina pustulodentata* McGill

Holotype 17361; paratypes 17361a-e

McGill, P., 1966, Bull. Can. Petrol. Geol., vol. 14, No. 1, p. 109, pl. 1, figs. 1-3.

Slave Point Formation, Middle Devonian, 7280 feet Imperial Mabel well, l.s.d. 10, sec. 35, tp. 70, rge. 12, W. 5th mer., Alberta.

### *Spinobairdia? arctica* Copeland

Holotype 17111; paratypes 17111a-c

Copeland, M.J., 1964, Geol. Surv., Canada, Bull. 117, p. 16, pl. 2, figs. 1a-d.

Undivided Allen Bay-Read Bay Formation, Middle Silurian, on northwest side and about 2 miles inland from sharp bend of Canyon Fiord, west-central Ellesmere Island, Arctic.

### *Tallinnella panda* Copeland

Holotype 14582; paratypes 14583, a

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 19, pl. 8, figs. 28-30.

Eastview Formation, Upper Ordovician, east side St. Laurent Blvd., 200 yards north of Montreal Road, Ottawa, Ontario.

### *Tallinnella* sp.

Fig. specs. 17085, a

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 19, pl. 11, fig. 4.

Liskeard Formation, Middle Ordovician, depth 650-660 feet, Lake Timiskaming Drillhole No. 1 (LT1) near southwest shore Wabi Point, Harris tp., Ontario.

*Tetradella* sp. cf. *T. ellipsilira* Kay

Hypotypes 14570, a, b

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 22, pl. 1, figs. 6, 9, 12.  
 Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

*Tetradella kayi* Copeland

Holotype 14568; paratypes 14569, a, b

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 22, pl. 1, figs. 5, 7, 8.  
 Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

*Tetradella ulrichi* Kay

Hypotypes 14571, a

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 23, pl. 1, figs. 10, 11.  
 Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

*Tetradella ulrichi* Kay

Hypotype 18651

Sinclair, G.W., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 39, pl. 3, fig. 10.  
 Kirkfield Formation, Middle Ordovician, Healey Falls, Ontario.

*Thlipsurella* sp.

Fig. spec. 17104

Bolton, T.E., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 79, pl. 8, fig. 26.  
 1.2 feet below top of Reynales Formation, Clinton Group, Middle Silurian, old quarry, Nelson, east of Waterdown, Ontario.

*Thomasatia falcicosta* Kay

Hypotype 14578

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 18, pl. 8, fig. 20.  
 Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

*Tyaerenella tersa* Copeland

Holotype 17053; paratypes 17054, a-c

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 25, pl. 9, figs. 3-6; pl. 10, fig. 14.  
 Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

*Velapezoides shaveri* McGill

Holotype 17378; paratype 17378a

McGill, P., 1966, Bull. Can. Petrol. Geol., vol. 14, No. 1, p. 123, pl. 6, figs. 9-12.  
 Slave Point Formation, Middle Devonian, 7424 feet Homestead *et al.* Joussard well, l.s.d. 10, sec. 32, tp. 72, rge. 13, W. 5th mer., Alberta.

*Wabiella sella* Copeland

Holotype 14579; paratype 14579a

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 34, pl. 8, figs. 26, 27; pl. 11, figs. 16, 19.  
 Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp. and depth 635-645 feet, Lake Timiskaming Drillhole No. 1 (LT1) near southwest shore Wabi Point, Harris tp., Ontario.

## ARTHROPODA

### *Winchellatia longispina* Kay

Hypotype 17073

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 20, pl. 10, fig. 6.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

### *Winchellatia? magna* Copeland

Holotype 17025; paratypes 17026, a-d

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 20, pl. 5, figs. 6-9; pl. 10, figs. 18, 24.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

### *Winchellatia? parva* Copeland

Holotype 17027; paratype 17027a

Copeland, M.J., 1965, Geol. Surv., Canada, Bull. 127, p. 21, pl. 8, figs. 24, 25.

Liskeard Formation, Middle Ordovician, Shipyards quarry, lot 10, con. V, Bucke tp., Ontario.

### *Yukopsis jobi* Copeland

Holotype 17098; paratypes 17096, 17097, 17099

Copeland, M.J., 1966, Proc. Geol. Assoc. Can., vol. 17, p. 50, pl. 1, figs. 5-9.

Vunta Formation, 116-126 feet below top, Upper Silurian, Fish Creek, White Mountains, lat. 67°56'N, long. 136°33'-40'W, Yukon.

### *Zygbolba williamsi* Ulrich and Bassler

Hypotypes 20502, a, 20503, 20504, 20507, 20508

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 4, figs. 2-4, 7, 8, 10.

Dyer Bay and Wingfield Formations, Middle Silurian, Jacksons Cove and Rocky Bay, 3 miles west of Cabot Head, Bruce Peninsula, Ontario.

## A R T H R O P O D A — C I R R I P E D I A

*Balanus crenatus* Bruguière

Hypotype 20456

Terasmae, J., 1965, Geol. Surv., Canada, Bull. 121, pl. 7, figs. 11, 12.  
Pleistocene, gravel pit at Carp, Ontario.

*Balanus* sp.

Fig. specs. 20457, 20458

Terasmae, J., 1965, Geol. Surv., Canada, Bull. 121, pl. 7, figs. 13, 14.  
Pleistocene, gravel pit on Hunt Club Road 1/4 mile west of Bank Street, Ottawa, Ontario.

## A R T H R O P O D A — M A L A C O S T R A C A

*Ceratiocaris acuminata* Hall

Hypotype 3231

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 17, fig. 8.  
Bertie Formation, Upper Silurian, Rattlesnake Falls near Cayuga, Haldimand county, Ontario.

## INCERTAE SEDIS

### *Archaeoconularia* n. sp.

Hypotypes 20611, 20612

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 16, figs. 6, 15-17.  
Guelph Formation, Middle Silurian, zinc prospect 1000 feet east of Highway 6, 3 miles northwest of Wiarton, Ontario.

### *Arthrophycus alleghaniensis* (Harlan)

Hypotype 17963

Bolton, T.E.,

1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 77, pl. 7, fig. 24.

1966, Geol. Surv., Canada, Paper 66-5, pl. 3, fig. 11.

Thorold Formation, Clinton Group, Middle Silurian, Grimsby, Ontario.

### *Conularia niagarensis* Hall

Hypotype 20557

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 10, fig. 19.  
Rochester Formation, Middle Silurian, Rochester, New York, U.S.A.

### *Conularia trentonensis* Hall

Liberty, B.A., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 51, pl. 5, fig. 1 [hypotype 3255].

### *Eoconularia* n. sp.

Hypotypes 20478, 20479

Bolton, T.E., 1966, Geol. Surv., Canada, Paper 66-5, pl. 1, figs. 20, 21.

Manitoulin Formation, Lower Silurian, main highway 1 3/4 miles west of Manitowaning village, Manitoulin Island, Ontario.

### Possible Metazoans

Fig. spec. 15379

Frarey, M.J. and McLaren, D.J., 1963, Nature, vol. 200, No. 4905, p. 461, text-fig. 1.

Lorrain Formation, Cobalt Group, Precambrian, 1.75 miles northeast of Desbarats, Johnson tp., about 25 miles southeast of Sault Ste. Marie, Ontario.

= *Rhysonetron byei*, Hofmann, H.J., 1967, Science, vol. 156, No. 3774, p. 504, fig. 7 [holotype 15379].

### *Receptaculites occidentalis* Salter

Sinclair, G.W., 1964, "Geology of Central Ontario", Am. Assoc. Petrol. Geol., Guidebook, p. 41, pl. 4, fig. 2 [syntype 1125p].

*Rhysonetron byei* Hofmann

Paratype 22628

Hofmann, H.J., 1967, Science, vol. 156, No. 3774, p. 504, fig. 8.

Bar River Formation, Cobalt Group, first road-cut on Highway 639 north of creek connecting Jimchrist (Christman) Lake with east end of Flack Lake, township 157, lat. 46°35'10"N, long. 82°44'20"W, about 23.3 km north-northwest of Elliot Lake, Ontario.

*Rhysonetron lahtii* Hofmann

Holotype 9876; paratypes 22626, 22627

Hofmann, H.J., 1967, Science, vol. 156, No. 3774, p. 504, figs. 3-5.

Bar River Formation, Cobalt Group, Precambrian, first road-cut on Highway 639 north of creek connecting Jimchrist (Christman) Lake with east end of Flack Lake, township 157, lat. 46°35'10"N, long. 82°44'20"W, about 23.3 km north-northwest of Elliot Lake, Ontario.