

GEOLOGICAL  
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PAPER 66-56

ANAGYMNOTOCERAS  
A NEW MIDDLE TRIASSIC (ANISIAN) AMMONOID  
GENUS FROM NORTHEASTERN BRITISH COLUMBIA

(Report, and 1 plate)

F. H. McLearn



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ABSTRACT

A new ammonoid genus, Anagymnotoceras (Beyrichitidae) is proposed. The type species is Anagymnotoceras varium (McLearn) from the Toad Formation of northeastern British Columbia, and of Anisian (Middle Triassic) age.



Anagymnotoceras

A NEW MIDDLE TRIASSIC (ANISIAN) AMMONOID GENUS  
FROM NORTHEASTERN BRITISH COLUMBIA

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INTRODUCTION

by

E. T. Tozer

F. H. McLearn died on October 7, 1964. He left a nearly complete manuscript on Anisian ammonoids from northeastern British Columbia. This manuscript provides full descriptions and illustrations of the Anisian ammonoids of which brief descriptions had already been published (McLearn, 1946a, 1946b, 1948) and, in addition, contains descriptions of several new taxa, including a new genus. This genus has been briefly discussed, although not named, in a note already published (McLearn, 1960). The manuscript has now been prepared for publication and will appear as a Bulletin of the Geological Survey of Canada. This paper is being published now in order to establish the new genus recognized by Dr. McLearn. Recent work on the Anisian faunas of Canada has shown that this genus is of restricted stratigraphic distribution and consequently of significance in the zonation of Triassic rocks. It is therefore desirable that the description should be published without delay. The account that follows is taken, with minor editorial changes, from the manuscript left by Dr. McLearn.

SYSTEMATIC PALAEOLOGY

Family Beyrichitidae

Genus Anagymnotoceras McLearn, new genus

Type species: Gymnotoceras varium McLearn, 1948, p. 33, Supplement, p. 2, pl. XI, figs. 5, 6. (See Plate I, figures 11-13).

It is proposed to include within this genus Beyrichitidae without a ventral keel which pass through two



stages in late ontogeny. In the earlier stage there are ribs that branch from umbilical bullae and also some intercalated ribs. The flanks are typically convergent at this stage. In the later, adult, stage the whorl is more compressed, with less convergent flanks. The adult stage also shows loss of umbilical bullae, loss of branching of ribs, and the acquisition of ornament consisting of single ribs which may or may not bear lateral tubercles or bullae. The diameter at which the change takes place is variable. Ventrolateral tubercles are not developed.

The strong umbilical bullae distinguish Anagymnotoceras from Hollandites. The bullae of Anagymnotoceras are in great contrast with the small umbilical tubercles from which ribs branch in the typical Hollandites from the Himalayas.

In addition to the type species, the following are assigned to Anagymnotoceras: Gymnotoceras moderatum McLearn 1948, Gymnotoceras helle McLearn 1948, Gymnotoceras wrighti McLearn 1946b, Gymnotoceras ino McLearn 1948, Gymnotoceras columbianum McLearn 1946a (see Plate I).

#### REFERENCES

McLearn, F.H.

- 1946a: A Middle Triassic (Anisian) fauna in Halfway, Sikanni Chief and Tetsa Valleys, northeastern British Columbia, 20 pp. (1-20), mimeographed; Appendix I, The Middle Triassic of Liard River, British Columbia, by E.D. Kindle, 3 pp. (21-23), mimeographed; Appendix II, New Middle Triassic species from northeastern British Columbia, 2 pp. (1, 2) printed; 3 plates (I-III); 4 figs. (1a-d), Geol. Surv. Can., Paper 46-1.
- 1946b: Additional new Middle Triassic species from northeastern British Columbia; supplement to Appendix II; Geol. Surv. Can., Paper 46-1, 2 pp. (3, 4), printed; 4 plates (IV-VII).

McLearn, F.H. (cont.)

- 1948: A Middle Triassic (Anisian) fauna in Halfway, Sikanni Chief and Tetsa Valleys, northeastern British Columbia, 36 pp. (1-36), mimeographed; Appendix I, The Middle Triassic of Liard River, British Columbia, by E.D. Kindle, 3 pp. (37-39), mimeographed; Supplement, New Middle Triassic Ammonoids from northeastern British Columbia, 3 pp. (1-3), printed; 12 plates (I-III as in McLearn, 1946a; IV-VII as in McLearn, 1946b; VIII-XII published for the first time); 4 figs. (1a-d), as in McLearn, 1946a; Geol. Surv. Can., Paper 46-1. (Second Edition).

- 1960: Revision of some Anisian (Middle Triassic) ammonoids; Can. Field-Nat., vol. 74, p. 53.

McLearn, F.H., and Kindle, E.D.

- 1950: Geology of northeastern British Columbia; Geol. Surv. Can., Mem. 259.

PLATE I

All figures are natural size.

All specimens are from the Toad Formation, Tetsa River Valley, Tuchodi Lakes area (94 K), northeastern British Columbia.

FIGS. 1, 2. Anagymnotoceras wrighti (McLearn). Ventral and side views, holotype, GSC No. 9484, talus, near locality 2 of McLearn and Kindle, 1950, fig. 7, p. 39. (GSC loc. 10702)

FIG. 3. Anagymnotoceras helle (McLearn). Side view, holotype, GSC No. 9593, talus, near locality 2 of McLearn and Kindle, 1950, fig. 7, p. 39. (GSC loc. 10697).

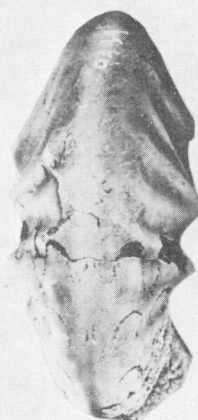
FIGS. 4, 5. Anagymnotoceras helle (McLearn). Ventral and side views, paratype, GSC No. 9592, in place, locality 6 of McLearn and Kindle, 1950, fig. 7, p. 39. (GSC loc. 10696).

FIGS. 6, 7. Anagymnotoceras columbianum (McLearn). Side and ventral views, holotype, GSC No. 6691, in place, locality 6 of McLearn and Kindle, 1950, fig. 7, p. 39. (GSC loc. 10696).

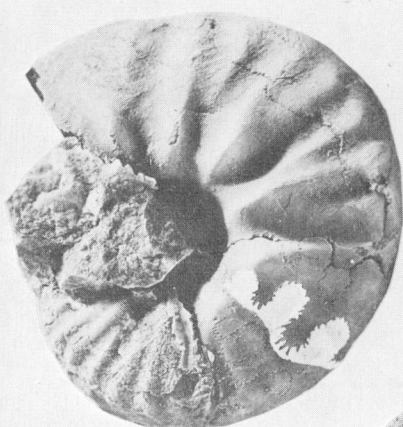
FIG. 8. Anagymnotoceras moderatum (McLearn). Side view, holotype, GSC No. 9596, in place, locality 6 of McLearn and Kindle, 1950, fig. 7, p. 39. (GSC loc. 10696).

FIGS. 9, 10. Anagymnotoceras ino (McLearn). Ventral and side views, holotype, GSC No. 9594, in place, locality 2 of McLearn and Kindle, 1950, fig. 7, p. 39. (GSC loc. 10698).

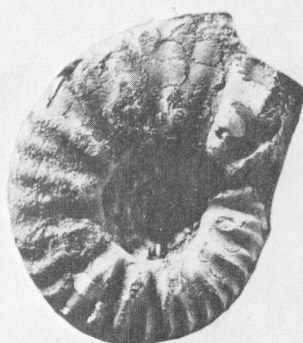
FIGS. 11-13. Anagymnotoceras varium (McLearn). Ventral view and both sides of holotype, GSC No. 9595, in place, locality 6 of McLearn and Kindle, 1950, fig. 7, p. 39. (GSC loc. 10696). The arrow (fig. 11) is directed at one of the umbilical bullae. Figures 12 and 13 have the same orientation.



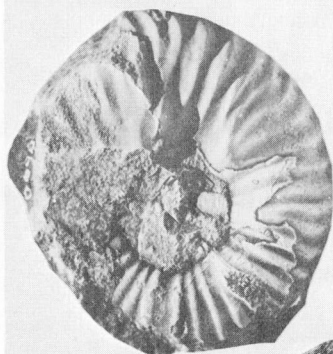
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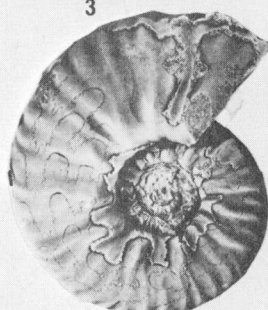
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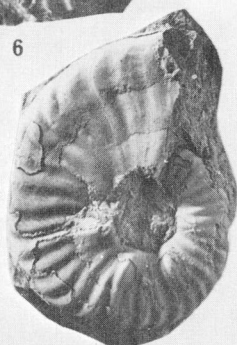
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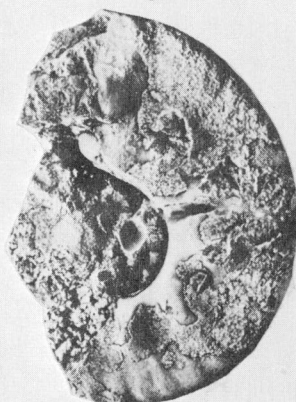
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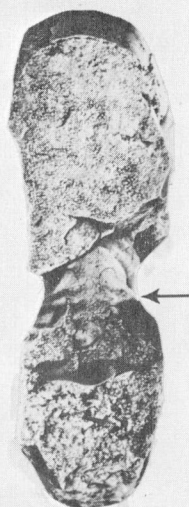
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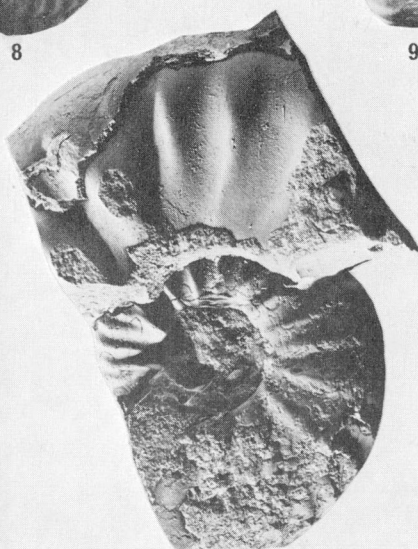
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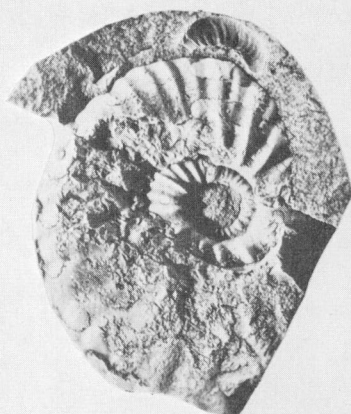
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