



INTRODUCTION

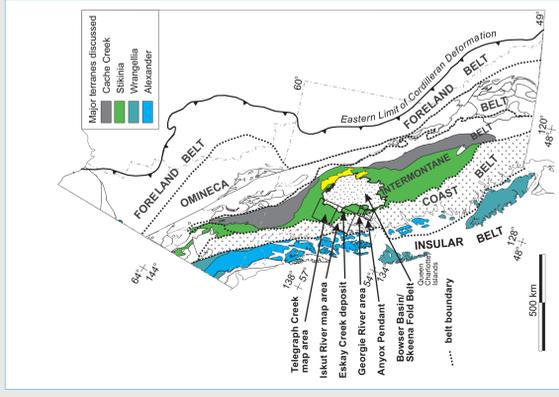
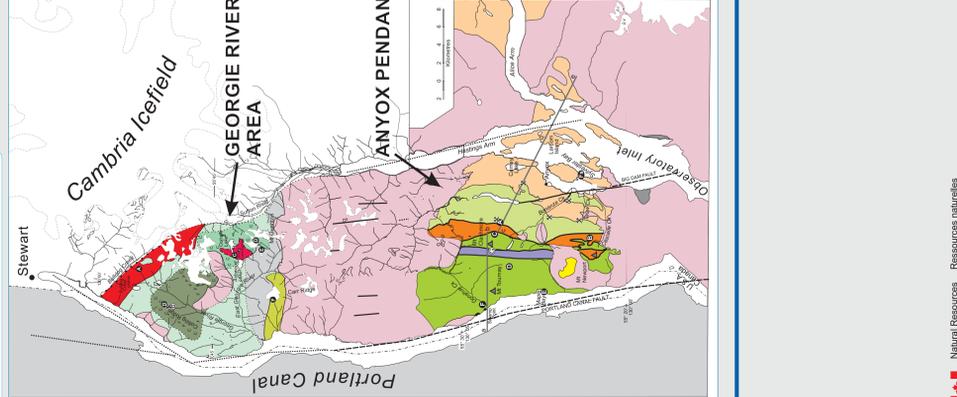


Figure 1 Location of the study area and major regional geologic terms of the Canadian Cordillera, Anyox Pendant, Bower Basin, Georgie River area, and other features discussed in the text. Modified after Wheeler and McKenzie (1999).

Figure 2 Generalized geology of northwest Nass River area, showing relationship of Anyox Pendant to Georgie River area. Maps in this figure are simplified versions of the geologic maps. Symbols and unit colours are the same as in Figures 3 and 7.



GEORGIE RIVER AREA

Geological Framework and Sample Locations

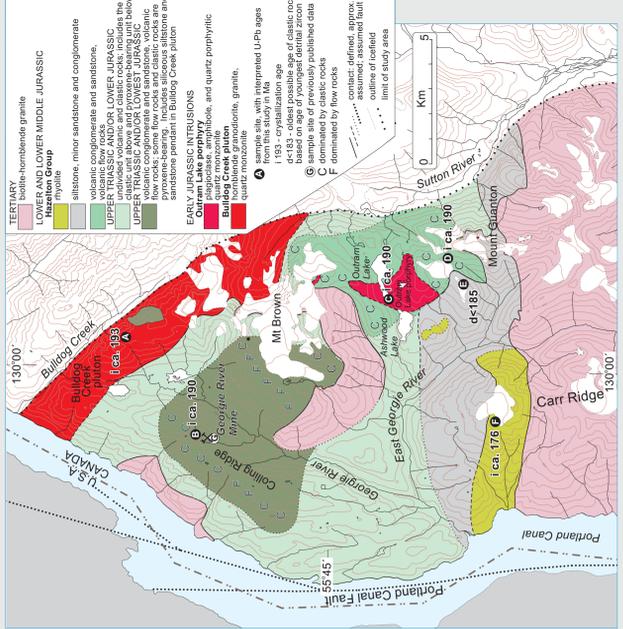
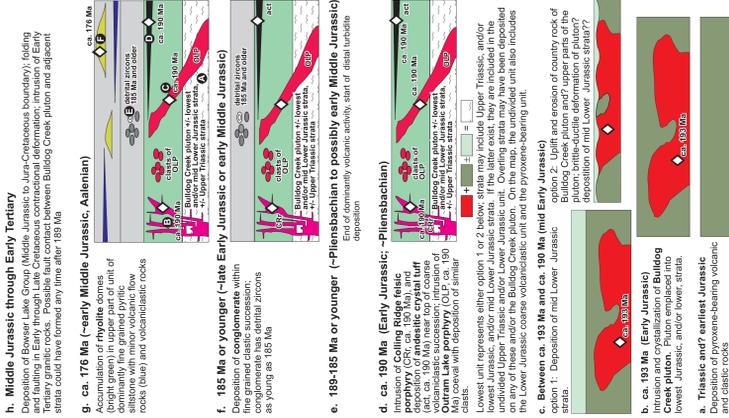


Figure 6 Geological map of Georgie River area, showing locations of sample sites and U-Pb ages. Correlations of units as discussed in this paper and Everschick and Snyder (1999).

Figure 7 Locations of fossiliferous volcanic-bearing volcanic and diastrophic rocks in the Anyox Pendant, as shown in this report.

Evolution of stratigraphic section in Georgie River area, as constrained by U-Pb zircon data



h. Middle Jurassic through Early Tertiary
Deposition of Bower Lake Group (Middle Jurassic to Tertiary) boundary; folding and faulting in Early through Late Cretaceous; contractional deformation; intrusion of Early Tertiary plutons; Late Cretaceous extensional tectonics; Boulding Creek pluton and adjacent strata could have formed any time after 185 Ma.

g. ca. 176 Ma (early Middle Jurassic, Aalenian)
Accumulation of rhyolite domes and tuffaceous sandstones in the upper part of the Bower Lake Group, with a unit of dominantly fine grained volcanic rocks (tuff) and volcaniclastic rocks (sandstone) deposited in the Boulding Creek pluton.

f. 185 Ma or younger (late Early Jurassic or early Middle Jurassic)
Deposition of volcanic-bearing volcanic and diastrophic rocks in the Boulding Creek pluton and adjacent strata, as young as 185 Ma.

e. 189-185 Ma or younger (Pliensbachian to possibly early Middle Jurassic)
Deposition of volcanic-bearing volcanic and diastrophic rocks in the Boulding Creek pluton and adjacent strata.

d. ca. 190 Ma (Early Jurassic; Pliensbachian)
Deposition of andesitic crystal tuff (ACT) in the Boulding Creek pluton and adjacent strata, as young as 190 Ma.

b. ca. 193 Ma (Early Jurassic)
Intrusion and crystallization of Boulding Creek pluton and/or lower, lower, Jurassic, and/or lower, strata.

a. Tertiary and/or earliest Jurassic
Intrusion and crystallization of volcanic-bearing volcanic and diastrophic rocks.

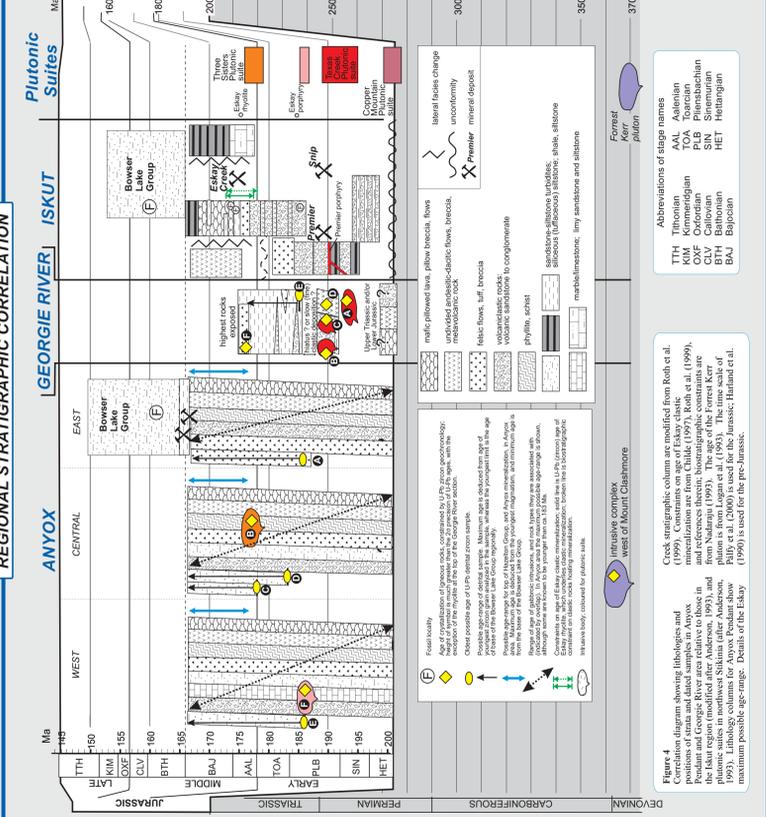
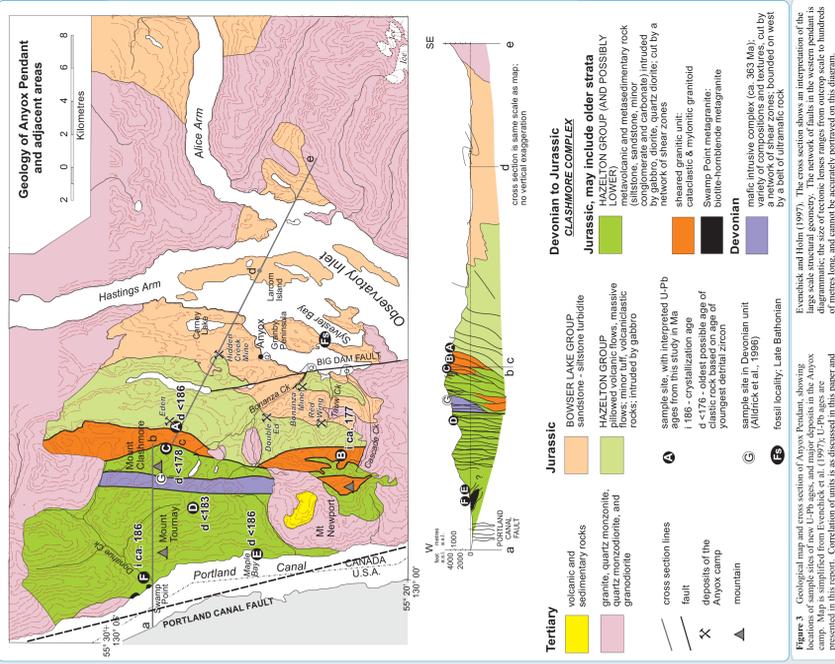


Figure 5 Regional stratigraphic correlation diagram showing geological units from the Devonian to the Jurassic across different regions: WEST, CENTRAL, EAST, ANYOX, GEORGIE RIVER, ISKUT, and PLUTONIC SUITES.

ANYOX PENDANT

Geological Framework and Sample Locations



Devonian to Jurassic
GLASHORE COMPLEX
HAZELTON GROUP (AND POSSIBLY older strata)
metasedimentary and metasedimentary rock (sandstone, siltstone, minor intruded by gabbro, quartz diorite, cut by a network of shear zones)
steamed granitic unit
1885 - crystallization age
d < 176 - oldest possible age of classic rock based on age of youngest detrital zircon

Jurassic
volcanic and sedimentary rocks
granite, quartz monzonite, quartz monzonitic, and gabbro
sample site, with interpreted U-Pb age
1885 - crystallization age
d < 176 - oldest possible age of classic rock based on age of youngest detrital zircon

Devonian
mafic intrusive complex (ca. 363 Ma)
variety of compositions and textures, cut by a network of shear zones
fossiliferous localities, Late Devonian

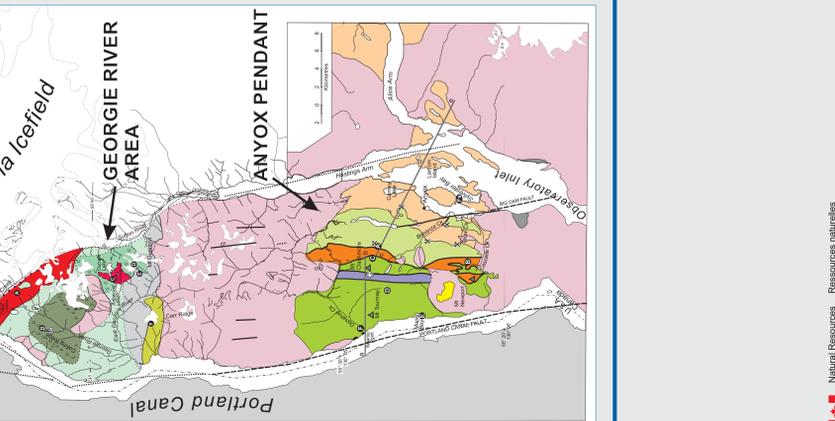
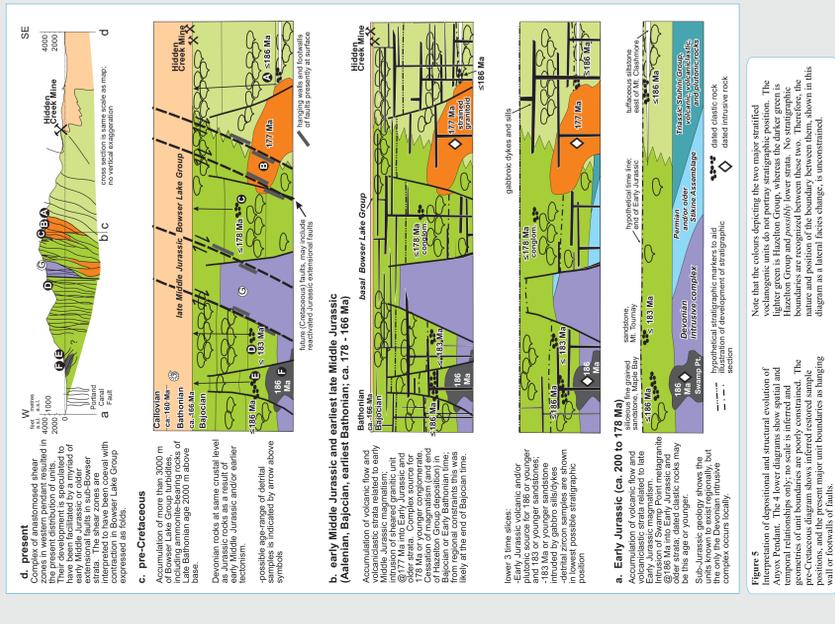


Figure 3 Geologic map and cross section of Anyox Pendant, showing locations of sample sites and U-Pb ages, and major deposits in the Anyox Pendant. Map is simplified from Everschick et al. (1997). U-Pb ages are presented in this report. Correlations of units as discussed in this paper and Everschick and Snyder (1999).

Evolution of stratigraphic section in Anyox Pendant, as constrained by U-Pb zircon data



d. present
Complex of unmetamorphosed diastrophic rocks in the western pendant resulted in 4000-10000 Ma. These rocks are unmetamorphosed and are of early Middle Jurassic or older age. The rocks are unmetamorphosed and are of early Middle Jurassic or older age. The rocks are unmetamorphosed and are of early Middle Jurassic or older age.

c. pre-Cretaceous
Accumulation of more than 3000 m of volcanic-bearing volcanic and diastrophic rocks in the Anyox Pendant, as young as 190 Ma.

b. early Middle Jurassic and earliest late Middle Jurassic (Aalenian, Bajocian, earliest Bathonian; ca. 178 - 166 Ma)
Accumulation of volcanic flow and tuffaceous sandstones in the Bower Lake Group, with a unit of dominantly fine grained volcanic rocks (tuff) and volcaniclastic rocks (sandstone) deposited in the Boulding Creek pluton.

a. Early Jurassic (ca. 200 to 175 Ma)
Accumulation of volcanic flow and tuffaceous sandstones in the Bower Lake Group, with a unit of dominantly fine grained volcanic rocks (tuff) and volcaniclastic rocks (sandstone) deposited in the Boulding Creek pluton.