

the lower part of the metasandstone package and include the High Head and Moses Lake members in southwestern Nova Scotia and the Moose River formation in the Halifax-Canso area. The middle part of the Goldenville Group consists of metasandstone/slate termed the Government Point formation (equivalent to the Tancook member) in southwestern Nova Scotia. No equivalent unit is recognized in the Digby-Yarmouth or Halifax-Canso areas. The upper part of the group consists of metasilstone of the Bloomfield (Digby-Yarmouth area), Moshers Island (Pubnico-Chester area), and Beaverbank (Halifax-Canso area) formations. Units in the overlying slate-rich Halifax Group include the Acacia Brook and Bear River formations in the Digby-Yarmouth area, Cunard and Feltzen formations in the Pubnico-Chester area, and Cunard and Glen Brook formations in the Halifax-Canso area.

The High Head member contains a distinctive metasilstone unit with abundant trace fossils including the early Cambrian ichnofossil *Oldhamia*, suggesting that the Goldenville Group below this member may extend into the Neoproterozoic. The upper part of the Tancook member has yielded an early Middle Cambrian shelf-lithofacies trilobite faunule of Acado-Baltic affinity. The upper part of the Bear River formation locally contains the graptolite *Rhabdinopora flabelliformis* and acritarch species that are Early Ordovician, suggesting that the underlying Acacia Brook, Cunard, Bloomfield, Moshers Island, and Beaverbank formations are Middle to Late Cambrian, and that a significant unconformity exists between the Halifax Group and the overlying late Ordovician - Early Silurian White Rock Formation. A revised minimum thickness for the Meguma Supergroup is 10 km.

Protoliths of the metasandstone units were predominantly immature feldspathic wacke and arenite. Preliminary whole-rock geochemical data suggest that most of the clastic material in the Meguma Supergroup was deposited near an active or recently active continental margin, not an Atlantic-style passive continental margin as previously assumed. These new chemical data, combined with detrital muscovite and zircon studies in progress, provide additional constraints on the position of the Meguma terrane in lower Paleozoic continental reconstructions.

**The Meguma Supergroup of southern Nova Scotia:
new insights on the stratigraphy, tectonic
setting, and provenance**

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The Meguma Group of southern Nova Scotia has traditionally been subdivided into a lower sand-dominated Goldenville Formation and an upper slate-dominated Halifax Formation interpreted to be deposited on a passive margin. Recent mapping in the Meguma Group, combined with petrography and petrochemistry, has resulted in re-evaluation of its stratigraphy, tectonic setting, and provenance. As previously proposed, the Goldenville and Halifax formations should be formally elevated to “group” status because both units can be subdivided into several formations and members. Thus, the Meguma Group is elevated to “supergroup”. The lower part of the Goldenville Group is a metasandstone-dominated unit termed the Church Point formation in the Digby-Yarmouth area and Green Harbour formation in the Pubnico-Chester area. The equivalent units to the northeast (Halifax-Canso area) are subdivided into the Taylors Head and Tangier formations. Several metasilstone/slate-dominated units are recognized in