
**The Meguma terrane of southern Nova Scotia:
insights on its pre-Carboniferous stratigraphy**

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The Meguma terrane of southern Nova Scotia includes the Neoproterozoic-Ordovician Goldenville and Halifax groups and the younger Silurian to early Devonian Rockville Notch Group, intruded by mainly Devonian plutons and overlain by Carboniferous and younger rocks. The Goldenville Group consists of metasandstone with minor interbeds of metasiltstone and slate (Moses Lake, Church Point, Green Harbour, Tangier, and Taylor Head formations), and locally grades upwards into thinly bedded metasandstone, metasiltstone, and silty slate (Government Point formation). The uppermost unit, which includes the laterally equivalent Moshers Island, Bloomfield, Beaverbank, and Tupper Lake Brook formations, is characterized by numerous Mn-rich laminations and concretions. The Church Point formation contains a distinctive metasiltstone unit (High Head Member) that contains a deep-water Lower Cambrian trace fossil assemblage, including the ichnofossil *Oldhamia*. The upper part of the Government Point formation has yielded early Middle Cambrian Acado-Baltic trilobite fossils and the overlying Tupper Lake Brook formation yielded an acritarch species consistent with middle Cambrian age.

Units in the overlying slate-rich Halifax Group include the basal pyritiferous units (laterally equivalent Acacia Brook and Cunard formations), overlain by non-pyritiferous units, the laterally equivalent Bear River, Feltzen, Bluestone, Glen Brook, and Lumsden Dam formations. Two new formations are recognized above the Lumsden Dam formation in the Wolfville area, the trace fossil-rich Elderkin Brook and overlying Hellsgate Falls formations. The upper part of the Cunard formation yielded a late Cambrian assemblage of acritarch species. The Bear River, Feltzen, and Lumsden Dam formations locally contain the Early Ordovician graptolite *Rhabdinopora flabelliformis*. Samples collected up-section from the graptolite occurrence in the Lumsden Dam formation yielded acritarch species that are indicative of the later Tremadocian. Slightly post-Tremadocian (Floian) acritarchs have been recovered from the Hellgate Falls formation.

The younger Silurian to Devonian units include volcanic and sedimentary rocks of the lower White Rock Formation, overlain by siltstone and slate of the Kentville Formation. The uppermost unit (New Canaan and Torbrook formations) consists of marine sedimentary and volcanic rocks. These formations are included in a newly defined Rockville Notch Group.

The gap in age between the Halifax Group and the overlying Rockville Notch Group confirms that a major unconformity exists between the two groups.