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NON-MARINE MOLLUSCS FROM THE SCOTS BAY FORMATION, NEWARK SUPERGROUP (EARLY JURASSIC). NOVA SCOTIA: TAXONOMIC ASSESSMENT AND PALEOECOLOGIC SIGNIFICANCE

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Silicified molluscs from have been reported from the Scots Bay Formation by previous workers, but have not been formally described as new species. The Scots Bay Formation outcrops as discrete pockets of thin-bedded limestone, interbedded with thin beds of chert. These pockets are restricted to exposures in four coves along a two kilometer stretch of the southern shore of Scots Bay (on the east side of the Blomidon Peninsula). Within these coves, the Scots Bay outcrops are lenses of lacustrine sediment that fill topographic lows within the North Mountain Basalt. These leses of sediment are laterally restricted, typically to less 100 meters wide; with the lateral edges of the outcrop thinning, and the units climbing topographically at outcrop margins.

The mollusc fauna is composed of two species of gastropods and a single species of small bivalve. The gastropods include a low spired form, *Valvata* sp., and a high spired form that probably represents a genus of the Hydrobiidae. The bivalve is a small form in the size range of the Pisidiidae (fingernail clams). However, the Scots Bay bivalves are very elongated in the shell height dimension, distinguishing them in shell form from the Pisidiidae.

The outcrop geometry, lithology and molluscan fauna indicate the Scots Bay Formation was deposited in small isolated ponds that developed in topographic tows on the surface of the North Mountain Basalt. The molluscan fauna indicates quite water, shallow. oxygenated conditions. Post-depositional silicification of the mollusc shells was probably facilitated by the ready availability of dissolved silica from the weathering of the North Mountain Basalt.