

# Silurian Stratigraphy and Paleogeography of the Matapedia - Temlscouata Region. Quebec

J. Lajoie, P. J. Lesperance et J. Belaud

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Silurian Stratigraphy and Paleogeography  
of the Matapedia - Temiscouata Region, Québec\*

J. LAJOIE, P.J. LESPÉRANCE, J. BÉLAND

Department of Geology, Université de Montréal, P.Q.

Field work in the Matapedia - Temiscouata region has been carried out under the auspices of the QUÉBEC DEPARTMENT OF NATURAL RESOURCES, and this brief account of the results is published with the permission of its Deputy Minister. A more detailed treatment with facies and paleogeographical maps will appear later.

The area discussed lies in the Northern Appalachians in Quebec, southwest of the Gaspé Peninsula (Figure 1). About 3,500 square miles in extent, the area is bounded to the northwest by the Siluro-Ordovician contact, by the Québec-New Brunswick border to the southeast, by the Matapedia valley to the southwest and the Temiscouata valley to the northeast.

The Silurian overlies the Cambro-Ordovician with angular unconformity; structures in the Silurian are broad synclines and anticlines trending northeast-southwest. Field evidence suggests that the Taconic Orogeny occurred prior to Lower Llandovery time and after the (Normanskill) Middle Ordovician.

The Silurian sedimentary rocks are predominantly terrigenous. The basal strata of the Silurian vary in composition from place to place. The lowermost formation, the Cabano, is characterized by lithic wackes interbedded with lithic conglomerates or lutites. The Cabano Formation grades upward into lutites and arkosic wackes of the Lac Raymond Formation (new name, LESPÉRANCE and GREINER, in press). A coarse terrigenous facies, comprising the Pointe-Aux-Trembles Formation (new name, LESPÉRANCE and GREINER, in press), intertongues with the Lac Raymond, and extends to the southwest. The Pointe-Aux-Trembles Formation consists mainly of lithic pyroclastic sandstones and conglomerates. Further east the Cabano Formation is overlain by lutites making up the Awantjish Formation.

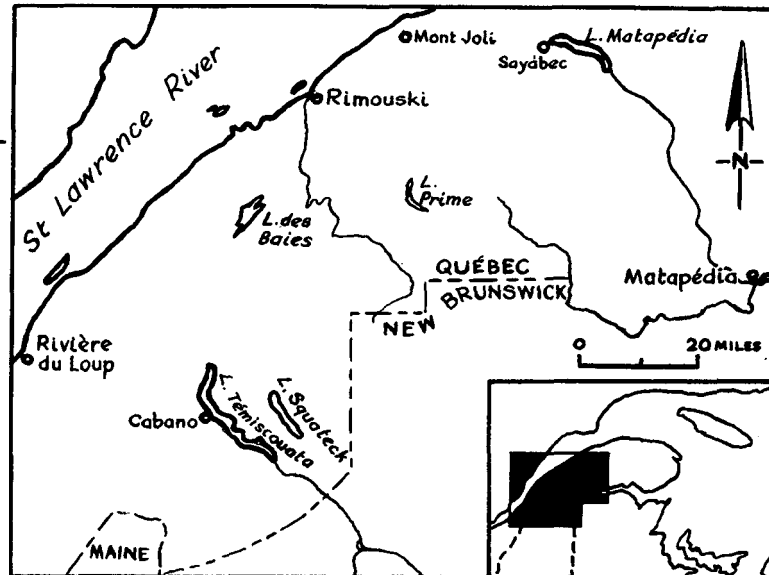


Figure 1 Location of the Matapedia-Temiscouata area, Eastern Quebec.



Paleogeography

In the Matapedia - Temiscouata region the Early Silurian sea transgressed from northeast to southwest, over and around the partly eroded "Taconic Mountains". The deposition of terrigenous sediments was followed by the deposition of Upper Llandoveryan pyroclastic sediments derived from the south-southeast. The volcanic activity accompanied a local uplift of the southwestern portion of the area. The major transgression of the Silurian started during Wenlock time and climaxed during the Ludlow. The Wenlockian sediments are indicative of a shallow marine, stable environment whereas the diversity and great thickness of the Ludlovian and "Skalian" sediments point to an unstable marine environment.

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