
**Coastal erosion along the southeastern coastline of the
Avalon Peninsula, Newfoundland**

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In March 2009 a coastal-erosion project for the Mistaken Point Ecological Reserve (MPER) was undertaken with the purpose of understanding dominant erosional and depositional processes affecting the integrity of the coastline of the Mistaken Point Ecological Reserve. The 5.7 km² coastline within MPER is internationally known for its 565 Ma Ediacaran fossil-bearing horizons. The stratigraphic section contained within MPER is ~2.5 km thick, exposed as rock platforms and cliffs along an indented and morphologically variable coastline. The primary catalyst for the project was the reserve's entrance into Canada's official Tentative List as a potential UNESCO World Heritage Site. As a result, the importance of conservation management has been emphasized, with effectiveness that can only be assured once dominant processes, and rates of those processes, are identified along specifically chosen sites within the reserve. The four sites chosen for assessment include: two sites within Pigeon Cove (Western MPER) and two sites within Mistaken Point (central MPER). Observations have indicated erosional processes including: increased storm intensity and frequency, geological structure, angle of cove, as well as protective headlands that contribute to wave power and angle of hit. Sites with fossils present are also under threat of illegal casting (leaving behind erosive chemicals), and removal of fossils by diamond saw, creating weak points within the rocks' structure. Foot traffic due to visitation is also a concern at Mistaken Point. Further quantitative analysis is being undertaken to understand the rates of erosion that might be present at each of the above sites.