

NEWLY-RECOGNIZED TSUNAMI IN ATLANTIC CANADA

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Prior to 1985, only two tsunamis were known in the scientific literature to have impinged on Atlantic Canada. One was reported in 1864 in St. Shott's, Newfoundland, and the large November 18, 1929 event caused significant loss of life and damage in southern Newfoundland. The June 27, 1864 tsunami has now been pinpointed in time. The November 18, 1929 tsunami from the Laurentian Slope (formerly the "Grand Banks") Earthquake is now known to have had significant impact from St. Shott's and Branch on the Avalon Peninsula of Newfoundland to the Burin Peninsula where 27 persons lost their lives, to St. Pierre et Miquelon, to Cape Breton Island where one death occurred, to County Harbour on the mainland and to at least the Head of St. Margaret's Bay where run up was seen.

The 1929 tsunami may have had a significant effect on parts of the ocean floor on the shelf, hence on the benthic and groundfish fishery.

The Lisbon Earthquake on November 1, 1755 caused a tsunami in Bonavista, Newfoundland probably recorded in the folksong, "When the Great Sea Hove

In." This event has now been confirmed from three other sources. A second apparently teleseismic tsunami has been identified from historic seismic studies as occurring on September 24, 1848 and affecting St. John's, Bonavista, Catalina and Elliston in Newfoundland, as well as Fishing Harbour in South Labrador.

A September 11, 1908 event affected the Gulf of St. Lawrence and northern Cape Breton. Northern Cape Breton was affected by a May 1914 event. These two events and the 1864 event raise questions as to the 100,000 year presumed return period of the Laurentian Slope event.

An April 18, 1843 tsunami has been identified in the Yarmouth area and a probable tsunami has been identified in Liverpool on January 19, 1813. A small seismic event has been identified in northern Baffin Bay on Ubekendt Island, Greenland. This event may have had a glacial origin. A further ten high-tide events have been identified which appear to have a non-seismic origin. One "ghost" event has been eliminated from the tsunami record.