Johnston, J.W., 1999, **Sedimentology and Depositional History of the Wasaga Beach and Ipperwash Areas**, *M.Sc., Earth Sciences, University of Waterloo*, Waterloo, ON, 202 p.

The geological history and sedimentology of the best preserved and developed beach-barrier complexes in the Lake Huron basin at Ipperwash (southeast Lake Huron) and Wasaga Beach (southeast Georgiam Bay) in Ontario were studied. Riverbank exposures, profile surveys, hand and piston coring, ground penetrating radar, grain size, carbonate, and pebble lithology analyses were used to interpret glacial and coastal coastal environments.

Sediments were environmentally classified as glacial (Newmarket and Kettleby tills at Wasaga), beach barrier (gravely to silty sands), bar-enclosed lagoonal (sand, peat, marl), beach ridge-swale (sand and gravel), and Aeolian parabolic dunes (sand). Former late Holocene lake levels of ancestral Lake Huron were distinguished by the subsurface contact with foreshore sands over upper shoreface sands. Isostatic rebound was more strongly recorded at Wasaga Beach, with more marked stream incision and a +7 m difference in Nipissing elevations, but both complexes include 40 to 44 individual beach ridges formed from short-term fluctuations in water levels.

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