

## The Inter-dunal Swales of Kingsburg Beach

By Chris Miller

Kingsburg Beach is home to one of the rarest types of wetlands in Nova Scotia, the inter-dunal swale. This wetland type occurs in only five known locations in the province.

An inter-dunal swale is a type of wetland that occurs within a beach or dune environment. These ecosystems are rare because wetlands do not generally form atop well-drained sandy soils. Only under somewhat unusual geologic conditions do these types of wetlands occur.

This is particularly true in Nova Scotia, where rates of sea-level rise are among the highest in eastern North America, due mostly to the regionally subsiding landmass, which has the relative effect of driving up sea-levels. Under these conditions, beaches along our coast are constantly reworked and any inter-dunal swales that manage to form under these conditions are destroyed as the beaches are forced to migrate landwards with rising sea levels. The inter-dunal swales at Kingsburg Beach occur between Kingsburg Pond and Lily Pond. In this area, a series of beach ridges have developed, between which the wetland areas have formed. Although relatively small in size, the inter-dunal swales are at least 500 years old.

Inter-dunal swales have not been extensively studied in Nova Scotia and, as a result, we still know very little about precisely how these wetlands form, or even what species occupy these environments.

This article originally appeared in the 2005 KCC Newsletter.