

# Islands: Unique Coastal Habitat for Wildlife

By Glen Parsons, Wildlife Division



DNR Boats “Guillemot” and “Petrel” at Harbour Islands in the Eastern Shore Wildlife Management Area.

## Other Conservation Projects

For the past three decades the Wildlife Division has worked with other agencies, and individuals on a number of island wildlife management and conservation projects;

- Creating Wildlife Management Areas for the eastern shore islands, Pearl Island, and Scatrari Island.
- Securing and protecting islands through Eastern Habitat Joint Venture partnership.
- Conducting biological inventories of animal and plant communities.
- Conducting banding and monitoring programs for various seabird species.
- Assisting passerine banding with the Atlantic Bird Observatory on Bon Portage and Seal Island.
- Aiding the Country Island Tern Restoration Project.
- Installing eider nesting structures on eastern shore islands.
- Creating predator control programs on eider nesting islands.
- Coordinating species introduction programs.
- Supporting honours and masters research projects related to coastal island wildlife.

There are thousands of islands scattered along Nova Scotia’s coast. These islands range in size from just a few square meters to thousands of hectares, and represent more than one per cent of the total provincial land base. That’s over 50,000 ha or almost 200 square miles. Coastal islands formed from bedrock outcrops, as glacial deposits (drumlins) from the last ice age, or as barrier islands created by the ocean’s movement of marine soils. Nova Scotians have a strong cultural connection to coastal islands—many are frequently used by residents of coastal communities and they have long been recognized as protected havens for lost or shipwrecked fishermen and mariners traveling along the coast.

Islands also provide exceptional habitat for common and rare animals and plants. Many species use islands, as they are usually relatively free of predators. Islands provide excellent habitat for nesting and migrating seabirds, waders, and songbirds. Colonial birds such as common eider, puffin, razorbill, and Leaches storm petrel nest exclusively on islands. Islands along the southern end of the province provide ideal rest stations for hundreds of thousands of birds on their way north or south during their migration through the Atlantic flyway.

Nova Scotia’s islands also provide habitat for species at risk including the Endangered roseate tern, which is known to nest on only a few islands in Canada, and the harlequin duck, which winters and feeds along exposed rocky headlands and reefs of coastal islands. Islands also provide habitat to several mammals including mink, snowshoe hare, and seals. Small mammals including meadow vole and masked shrew, inhabit vegetated islands. Research indicates that these island inhabitants are often as much as twice the size of their mainland cousins.

Plants have to be highly adapted to survive on harsh coastal islands. Island plant communities have to be able to tolerate strong winds, cold temperatures, high humidity, and high salt levels. Many island plants are uncommon and exist at the outer limit of their range here. For example, the groundsel tree (*Baccharis halimifolia*) is only found on two Nova Scotian islands representing the northern limit for this species. Another rare coastal plant, scurvy grass (*Cochlearia tridactylites*) was first discovered in Nova Scotia by Lawrence Benjamin (DNR) during an eider banding exercise. It is currently only known to exist here on a few islands, representing the southern limit for this species. Finally, Sable Island—

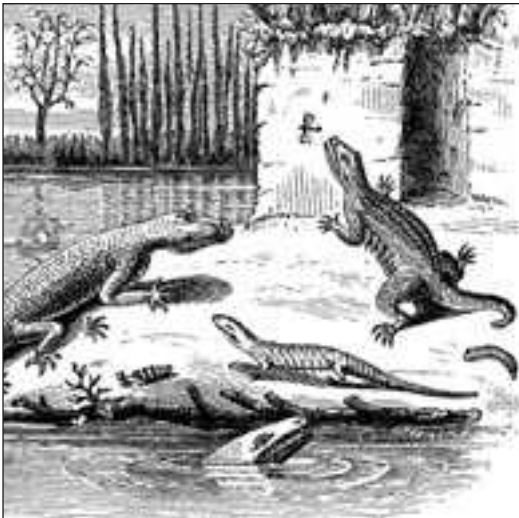
Nova Scotia's most easterly point—is known for its long sand beaches, wild horses, and historical shipwrecks, but it is also a Migratory Bird Sanctuary and is recognized as providing habitat for endemic species of plants and insects.

Most islands are located in areas of extreme humidity and are often identified as having a “fog forest” that provides unique habitat to invertebrates and amphibians so they can thrive in moist environments free from predators. Other coastal habitats, including estuaries, marine flats, saltmarshes, beaches, and small saline ponds are often associated with islands. These areas provide several wildlife species with habitat critical to their survival.



Colonial birds, such as the puffin, nest exclusively on islands.

## Nova Scotia's New Provincial Fossil



*Hylonomus*, (pictured above, center) from Dawson's 'Air Breathers of the Coal Period' and 'Acadian Geology'.

Last spring Nova Scotia became the first province to proclaim a fossil as an official symbol. The honour goes to *Hylonomus lyelli* from the Carboniferous Coal Age, some 300 million years ago. It is the oldest reptile known in the fossil record of the Earth and is quite famous in geological circles. It is pictured in countless textbooks and general interest books on fossils and the history of life.

*Hylonomus lyelli* was discovered in the mid-nineteenth century at Joggins, Cumberland County, by Sir William Dawson. Dawson was a native son of Pictou and Canada's foremost geologist and scientist of the nineteenth century. He named the fossil *Hylonomus*, which means “forest dweller,” and *lyelli* after Sir Charles Lyell, the “father of modern geology” and mentor to Dawson and Charles Darwin.

Contributing equally to the fame of *Hylonomus* is its curious entombment within the standing fossil trees at Joggins, where it may have denned or taken refuge from passing wildfire, the perfect mascot for the department! DNR is playing a key role, in concert with the community and other government departments, in developing the case to have Joggins designated a UNESCO World Heritage Site.