



What is a Marine Protected Area?

Canada is the first country in the world to have a comprehensive oceans management law, introducing the Oceans Act in 1997. The Oceans Act introduced Marine Protected Areas, parts of the coast or ocean given special status to protect the resources that live within it. Basin Head was designated as a Marine Protected Area (MPA) in 2005.

What is Basin Head?

Located on the eastern tip of Prince Edward Island, Basin Head is a shallow coastal lagoon, a sheltered body of water and wetland surrounded by sand dunes. Six freshwater streams drain into the lagoon.

Basin Head is a special ecosystem, believed to be the only place on the planet where you can find a unique form of Irish moss, a seaweed used to make food products and cosmetics. As well there is a rich diversity of fish, birds, mammals and plants that live within Basin Head. To protect this one-of-a-kind environment, and the living things that make their homes there, in 2005 the Government of Canada declared Basin Head a Marine Protected Area, a special status that limits human activity that may be harmful to the area.

BASIN HEAD

Marine Protected Area

An Ecosystem Worth Protecting

To learn more about Basin Head, visit the Basin Head Fisheries Museum or contact:

Fisheries and Oceans Canada
Ecosystems Management Branch
343 Université Avenue
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Basin Head's Unique "Giant Moss"

Irish moss (*Chondrus crispus*) grows on rocky coasts along both sides of the North Atlantic. This seaweed is harvested for its carrageenan — a compound used to thicken products from ice cream to sunscreen.

However, the variety of Irish moss found in Basin Head is unlike that found anywhere else. Locally, it is called "giant moss" because it is so much larger than the more commonly known variety — up to eight times bigger. Beyond its size, it also has a different life cycle than typical Irish moss. Instead of attaching itself to rocks, it uses the threads of blue mussels to anchor themselves to the bottom. Giant moss depends on blue mussels to stay put; otherwise it floats free and is washed out to sea.

Basin Head's Irish moss also produces much more of the valuable carrageenan than typical moss — it yields 75% pure carrageenan versus the 45–50% found in the common form. Its colour, too is different — outside of Basin Head, the Irish moss changes colour to green in the summer, but the Basin Head Irish moss keeps its reddish brown hue year-round.

While the Irish moss is the most unique feature of Basin Head, there are many other species that make their home here. **Elgrass** (*Zostera marina*) is an aquatic plant that provides shelter and/or food for many different types of juvenile and adult fish. It is sensitive to local changes in nutrient supply from human sources including residential development or agricultural runoff.



Irish moss

Basin Head Zone Map

Regulations are in place to protect against disturbing, damaging or destroying any part of the MPA, the Irish moss and its habitat.

Aquatic Life in Basin Head

The **American eel** (*Anguilla rostrata*) lives in Basin Head. It spends most of its life in freshwater, but returns to the Sargasso Sea, thousands of kilometres away in the Atlantic Ocean, to spawn. Efforts are underway to protect declining eel populations at the national and international levels.

The **blue mussel** (*Mytilus edulis*) in Basin Head is vital to Irish moss beds. This means that threats to mussels are also threats to Irish moss.

Green crab (*Carcinus maenas*) is an aquatic invasive species from Europe and is now found in Basin Head and elsewhere in PEI. Its voracious appetite makes it a threat to shellfish. Scientists are working in Basin Head to understand how green crab impacts the blue mussels and Irish moss.



Photo by: Perry Williams