

The Inshore Fishery - Annapolis and Digby Counties and the District of Clare

*Intended as a draft of a background document for inclusion in a final report under the CURA project,
Social Research for Sustainable Fisheries*

Ecological context

The largest single ecological factor affecting the fishery of the Bay of Fundy is the range and nature of the tides. Although the tides exhibit normal diurnal periodicity, the topography of the surrounding land mass and the shallow, constricted flow in the upper bay, create extreme tides and formidable tidal currents.

The bathymetry of the entire Gulf of Maine includes an undersea constriction and shelf at the foot of the Bay of Fundy running from Grand Manan Island to Brier Island. This shelf and constriction is credited with creating the upwelling that provides the nutrients, which support a rich food web and a complex bio-diversity in the bay. In addition, the relative shallowness of the Bay allows for moderate water temperatures leading to higher biological productivity. These factors make the Bay of Fundy a rich ecosystem characterized by an abundance of fish, shellfish, sea birds, and marine mammals, including the endangered right whale.

The Bay of Fundy is in fact a series of bays within a bay, having separate ecosystems for St. Mary's Bay, Annapolis Basin, Minas Basin and Chignecto Bay. Each embayment is subject to its own tidal interaction, and the resulting effect on its marine environment.

The upper bay, being shallow and subject to extreme tidal action is largely unsuitable as spawning grounds for groundfish. As a result, fishing communities dependent on groundfish have mostly been established in the southwest corner, in the County of Digby and the District of Clare.

The Fishing Communities

The Department of Fisheries and Oceans Economics Branch has identified certain communities as official ports of the Scotia-Fundy Region. For the Annapolis, Digby, Clare area they include; Cape St. Mary/Meteghan, Belliveau's Cove, Church Point, Saulnierville/Corneauville, Sandy Cove/Centreville, Little River, Tiverton, Freeport, West Port, Digby, Weymouth/New Edinburgh, Victoria Beach/Hillsburn/Grandville Ferry, Port Lorne/Hampton, and Margaretsville.

These communities are generally small, close knit, and almost completely dependent on marine resources. Along the so called, "Trench Shore" in the district of Clare, the population is mostly Acadian, while most of the people of Digby Neck and the Islands can trace their ancestors back to New England. Along the Annapolis County Shore or "Bay Shore" most of the population is of Anglo Saxon descent, as is the population of the upper bay.

Those of African descent have largely been displaced from the fishery. In the port of Hampton, the remains of the "black wharf" can still be seen next to the location where the "white wharf" once stood, a faint reminder of the multi-racial nature of the fishery at the turn of the previous century.

The Mi'kmaq population has also been largely excluded from the fishery, although some individuals do hold commercial licenses. The larger issue of the aboriginal right to fish for a modest livelihood (as handed down by the Supreme Court of Canada) is only now being played out in St. Mary's Bay. Most of the challenge has come from members of the Indian Brook band near Truro. The chief of the local Bear River band, Frank Meuse has stated his band's intention to wait the situation out for a more lasting settlement.

Other Related Economic Activity

Although the coastal communities of the region are almost entirely dependent on the fishery, there are other economic activities, including forestry, mixed agriculture, and a variety of small commercial enterprises. The District of Clare has a ship building tradition, and boat building is still carried on there in a number of yards. In the Digby area there is also a service industry associated with repairs and maintenance of fishing gear and vessels.

In the district of Clare, mink ranching provides substantial economic benefit. It is tied

to pen out animals at slaughter. Fish plant waste is generally moved through the milk ranches as animal feed, the practice being so common that there is little material left to supply the fish meal industry.

Changing attitudes toward wildlife and the environment has led to the development of ecotourism in the region. Digby Neck and the Islands has a number of thriving whale watching operations and a growing number of bed and breakfast facilities based on the attractiveness of the natural environment.

Because of the strong cultural and linguistic identity of the Acadians, a cultural industry has developed around the community institutions of the French Shore. The Université Sainte Anne and Collège de L'Acadie have provided much of the driving force for this development.

The Resource

The principle species of commercial groundfish are cod, haddock, pollock, hake, and halibut. The pelagic fishery consists of herring and mackerel, but these fish have declined in commercial importance. Most herring and mackerel are used as bait for lobster traps. Lobster is the only healthy commercial resource, which many fishermen attribute to the fact that there has never been a quota system for lobsters. It is lobster landing that has buffered much of the loss from reduced groundfish catches. Lobster landings have remained stable, but an increased price and buoyant market has offset some losses from the declining groundfish fishery. The region also supports a scallop dragger fleet, although there have been indications that this fishery also threatens to be unstable.

There has been some development in bringing new commercial species to market. There is a small but developing sea urchin fishery, some interest in periwinkles, and a growing interest in dogfish for the pharmaceutical industry. Clam digging remains, but is becoming increasingly marginalized as a source of income.

The area also supports the beginnings of a marine plants industry, with rockweed harvesting and processing taking place. Some dulse is also harvested.

The Fishing Effort

The fishing effort is largely determined by gear type and vessel size. Vessels and gear range from the largest draggers equipped with otter trawls, to gillnet vessels, to longliners, down to small boats used for handlining. Each method has its attendant shortcomings.

Dragger technology is generally credited with the excessive fishing capacity that is believed responsible for the collapse of the groundfish fishery. It is also suspected of destroying critical ocean bottom habitat and spawning grounds, a charge that is also leveled at the scallop draggers. It is also a non-selective method of fishing, catching species for which there is no market or quota. This by-catch is difficult to estimate, but there are claims that on a worldwide basis, it represents as much as thirty percent of the landed catch.

Gillnetting and longlining are somewhat more selective, and by-catch is less of an issue. The most selective of all is handlining, but here the efficiency is so low that most of the inactive license holders in the region are handliners.

The issue of quantity versus quality has a bearing on the choice of fishing method and gear. Dragging is most efficient, but bruising and other physical damage often reduce fish quality. Handlining is the least damaging, and for this reason may be the preferred method for catching fish for the live fish and gourmet fish market.

Pivotal Developments

The inshore fishery of the region has undergone transformation, decline, and crisis, as each new management program is set into action. These management initiatives have developed into a series of pivotal developments, each having a profound effect on the fishery.

With the federal government's declaration of the 200-mile economic zone in 1976, the way was clear to begin the modernization of the fishing industry, the creation of over-fishing capacity in the dragger fleet, and the capitalization of shore based facilities. DFO science and management failed to respond in time to the signs of over fishing, and are generally held responsible for the collapse of the groundfish fishery by the mid-1990's. Recent estimates that the stocks are still not recovering as expected has further weakened public confidence in government stewardship of the resource.

The concentration of ownership of the fishery has also been a pivotal development. With

fishery has been relentless. A species by species approach has resulted in herring, groundfish and scallops being added to the list of commercial quotas. Lobster fishermen have expressed concern that there is a hidden agenda to add lobsters to the list of quotas.

The most recent crisis to hit the fishery is as a result of the 1999 decision of Supreme Court of Canada in the Marshall case. By ruling that Donald Marshall, a Mi'kmaq eel fisherman had the right to fish and sell his catch in order to make a moderate livelihood the Supreme Court set in motion the full scale entry of aboriginal fishers into the industry. In the St. Mary's Bay area, Mi'kmaq fishers were already taking lobsters under a previous ruling on the Sparrow case, which allowed aboriginal people to fish for their own consumption. The Marshall case took the issue to the commercial level and the conflict between aboriginal fishers and DFO enforcement officers is still being played out.

However, there are wider implications than the rights of the Mi'kmaq. Acceptance of the right to earn a moderate livelihood could be a major breakthrough for all bone fide fishers, with major implications for integrated coastal zone management.