



TRADITIONAL ECOLOGICAL KNOWLEDGE

PORT MOUTON BAY

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Critical Habitat

The community of Port Mouton Bay NS has a sound economic base in the lobster fishery. Tourism is a growing secondary industry. Sustainability of lobster resources is an essential focus, and fishers are motivated to act responsibly in preserving and protecting their livelihood because the effects of groundfish decline are still being felt.

Fishermen and retired fishermen in the community were interviewed to discover their knowledge of the lobster population, its patterns of migration and habitat selection, and how this knowledge has contributed to their economic success, and the maintenance of healthy lobster stocks.

Those who contributed to this research are:

Gerald Edwin Burgess, Retired Fisherman, age 74, 51 years experience
1041 Southwest Port Mouton Road
902 683 2969

(Name Witheld), Retired Fisherman, 45 years experience
Southwest Port Mouton

Philip Lawson Huphman, Active Current Lobster License Holder
RR 1 Port Mouton
902 683 2627

Earl Fisher, Retired Fisherman, 24 years experience
RR 1 Port Mouton
902 683 2783

Brian Fisher, Current Active Lobster License Holder
RR 1 Port Mouton
902 683 2296

Clyde Fisher, Retired fisherman, 40 years experience
Box 9 Port Mouton
902 683 2645

Gordon Eugene Broome, Retired Fisherman, 67 years experience
RR 1 Port Mouton
902 683 2185

Richard Eugene Broome, Current Active Lobster License Holder
Box 28 Port Mouton
902 683 2449

Interviews were conducted on March 20 2007. Subjects were asked to share their observations on the behaviors and movements of lobsters throughout the year in Port Mouton Bay. Three main sources of information emerged:

1. Visual... **"Clear water allows a view of the ocean floor to a depth of 7 to 8 fathoms over shoal areas in the Western channel east and west of Jackie's Island, over Spectacle Ledge, locally called "the Reef", northwest of Port Mouton Island, and over ledges and shoals that fringe the rocky and indented coastline."** (Brian Fisher and Clyde Fisher) **"During calm weather, the sandy bottom of the harbour can be seen at depths up to 60 feet."** (Clyde Fisher)

2. Observations of lobster catch and locations during the lobster season, December through May. Following the movements of the lobsters and knowing their direction of travel is a strategy that pays off in higher catches.

3. Observations of accidental lobster catch and locations during other fishing activities, June through November.

December

Lobster season begins. **"We fished the first week in the harbour, then outside."** (Gerald Burgess) The fishermen agreed that the decline in catch over the first 2 months of the season is explained by 3 factors: lobsters are not moving into the bay, lobsters may be moving out of the bay, colder temperatures cause lobsters to become less active. Eugene Broome holds an unofficial record for the highest haul of lobster on the first day: 3000 pounds. Note that Eugene Broome has 67 years experience. Owing one of the smaller boats, he fished mainly within the Bay.

January

Lobster landings decline toward the end of the month. Bait fishing (crab) continues. Most fishers land their traps in late January.

February / March

A few fishers maintain a limited number of traps within the harbour.

April

Traps are set again... fishing continues within the Bay and "outside". Fishers who have learned the migration paths of lobsters place their traps in a line, leapfrogging the last trap toward the destination indicated by lobster movement. **"We could see lobsters on the bottom in 2 to 3 fathoms of water, migrating into the harbour through shoals in the the western channel and over the Reef."** (Clyde Fisher)

May

"In late May the catch improves in the harbour because lobsters are coming in to breed and molt. A mud / sand bottom attracts spawning lobsters." (Earl Fisher) **"Wrack kelp lies in the deeper water west of Port Mouton Island. Lobsters like to spawn among the slippery kelp that collects on the bottom. In the spring, seed lobsters (egg-bearing females) are found in the harbour."** (Gerald Burgess)

"There is friendly competition among the fishermen. Me and Tommy took an interest in the migration to learn where to find a good catch. The lobsters like a sand or mud bottom when they spawn and molt. We beat everybody one year!" (Clyde Fisher)

"A smooth bottom is the secret. I placed a lot of traps through the area the fish farm wants... half of my gear." (Eugene Broome)

June - November

The season is closed for lobsters, but prior to the decline in groundfish and subsequent closures, fishing activities continued. Gill nets were widely used until approx 1995. High numbers of berried lobsters are an indicator of spawning season and spawning territory.

"It was all ground fishing... for haddock, pollock, halibut, mackerel, herring. We used the area (proposed site 1251) to catch fish and also for safe haven. We set the gill nets there in storms... hurricane season August to October. Offshore, 1 or 2 lobsters might be caught in the nets. In the safe haven area, many large female lobsters were caught in the nets and had to be freed. This accidental catch was 95% female lobsters. That area is important for spawning." (Name Withheld)

"The gill nets are bulky and heavy. They brought up kelp in that area, and 6-8 seed lobsters a day." (Gerald Burgess)

"We were surprised to catch over 100 pounds of lobsters in the gill nets when we dumped them in the water off Port Mouton Island during an August storm. About 25% of them were berried females." (Philip Huphman)

"The gill nets were put into the safe haven during hurricanes. In the warm water times, 50% of the lobsters caught in the gill nets were big seed females. They ruined the gill nets. We had to cut them out. I only remember catching one lobster in a gill net outside the harbour. We fished the sandy bottom areas for bait in the summer and fall, and caught big berried female lobsters in our bait traps." (Earl Fisher)

Summary of Findings

The sheltered areas of Port Mouton Bay are a clearly identified lobster breeding and molting habitat. As the water warms in the spring and summer, lobsters migrate into the sandy bottomed areas where they spawn and molt. Catch numbers and catch locations support this fact. After the lobster catch season has ended, numbers of berried females caught during other fishing activities underline the importance of the sheltered harbour areas to the species. It appears that the lobsters seek a smooth bottom area, where the water is relatively quiet, and as water temperatures rise in the spring and summer, reproduction and molting takes place in an environment that supports the survival of the species. Sustainability of the resource is being protected.

In Port Mouton Bay, Aquaculture Site 0835, located northwest of Spectacle Island, has profoundly affected the formerly supportive habitat, and lobsters no longer breed there. **"The first year that the fish farm was here we noticed changes... 1994... it was worse in 1995, and has been worsening since. There was an immediate impact from the causeway to Mink Island and Carter's Beach. Our traps, lines and buoys got covered in slime. Lobsters held in crates off Spectacle Island died."** (Richard Broome) **"I never saw slime before the fish farm went in."** (Eugene Broome)

Concerns expressed regarding the possibility of an additional larger salmon farm were:

"We will lose the spawning area. The cages will cut off the channel to yachts and herring boats going to the fish plant. These are 40-50 foot boats that need a short, sheltered route into the harbour. Back Beach is the place for picnics. 50 or 60 people would go to the Island." (Name Withheld)

"Sometimes on Carter's Beach and along the road the rotten-egg smell is terrible. Our neighbours can't hang their laundry outside, and tourists on the beach complain about the stink." (Mrs. Eugene Broome)

"It's no good to think about trying to fix these problems after they happen." (Earl Fisher)

"The fishermen avoid Spectacle Island and the inner harbour. No lobsters come in there." (Brian Fisher)

"Mackerel also won't come into the inner harbour now. The lobster migration route will be ruined and blocked. I can't believe that they would consider taking the western channel. I fished it all my life... it makes me sick to think about it!" (Eugene Broome)
