

## **Preliminary Analysis of Onshore Harvesting Survey, SW New Brunswick 2008**

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### **Introduction:**

A total of 24 semi-structured interviews were conducted in the coastal communities of southwest New Brunswick during the summer of 2008<sup>1</sup>. Several different types of respondents were sought using snowball sampling. The main target for respondents were harvesters of onshore species such as clam, periwinkle, dulse, and rockweed, as well as river and lake species such as eel, gaspereau, and shad. The main processors of these species in the region were also contacted for interviews. However, when some harvesting sectors proved difficult to access (especially periwinkles), persons who were identified as knowledgeable about their community were contacted to discuss the onshore sector of their local economy. Most of these key informants are active core fishermen.

Some harvesters were licensed by the Department of Fisheries and Oceans (clam, gaspereau, eel and shad), while others were not (periwinkle, dulse). One processor operated a holding operation only (local clams were purchased and shipped to northern New Brunswick for processing) and another had recently exited the industry.

For harvesters, questions were divided into four general categories: their personal background, fishing activities and household livelihood, sales and consumption, and numbers involved in the industry. Processors were asked about their background, their processing activities (including relations with the regulators), pricing and market information, and numbers in the industry. Key informants were asked background information about their community, about fishing activities in their community, sales and

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<sup>1</sup> This project is part of a larger costs and earnings survey for southwest New Brunswick being conducted in association with Fundy North Fishermen's Association. Courtney Nickerson, honours student, Department of Anthropology, University of New Brunswick conducted the interviews. The semi-structured interview schedule was developed by Melanie Wiber, in consultation with Maria Recchia of Fundy North Fishermen's Association. Funding support for this project came from the Coastal CURA. Ethical review was conducted by the University of New Brunswick Ethical Review Board.

consumption patterns, and numbers in the industry. All were asked about the health of the stocks they relied upon, as well as factors affecting stock health. Of those interviewed, ten were harvesters (six clammers and/or periwinklers, three gaspereau/shad and/or eels, one dulse/periwinkles); three were processors (one with an inactive license) and eleven were key informants. Some respondents fit into multiple categories, as was the case for one processor who was also a harvester, and two key informants who were occasional harvesters of onshore species.

### **Background of Respondents:**

With the exception of two harvesters, all respondents came from families with a history of involvement in the fisheries, and all but two respondents had other fishers in their households. Most harvesters had been involved in fishing multiple species in the past, including lobster, groundfish, scallops, and sea urchin. Many fished with other family members with core licenses (sons, fathers, uncles). A few continued to serve as boat crew in addition to their independent harvesting activities. The oldest informant was 73 years of age; the youngest was 37. Most respondents fell between 55-65 years of age. The majority of respondents were male. This is unfortunate, since it is apparent that at least the periwinkle industry has significant numbers of female harvesters involved. All respondents were residents of small coastal communities between Saint John and St. Andrews (including Campobello and Deer Islands), with the exception of two gaspereau/eel fishermen who resided in the Grand Lakes and Ripples areas.

Most harvesters had multiple sources of income, many relying for part of the year on Employment Insurance. When asked to choose between characterizing their household incomes as “doing well”, “losing ground” or “in difficulty”, most harvesters characterized their household income levels as “doing well”. However, a number mentioned that they had had to increase the intensity of their harvesting activities in order to maintain income levels, and others reported that due to shellfish beach closures their incomes had significantly declined in the current year.

**Fishing Activities:**

All respondents reported a surprising number of people in their communities who made use of the various onshore species (see Table 1). Most respondents gave similar counts for community numbers in each species – generally clam harvesters represented the greatest number in any community and also the most communities with people in the industry. However, many reported that the numbers in the clam industry were dropping. Periwinkle harvesting is said to be on the increase, with many communities having upwards of 30 people involved. Gaspereau and eel had the least number involved in general (6 to 8 individuals), although Saint John was reported to have upwards of 100 license holders for gaspereau. In a few communities, specialized seaweed harvesting (rockweed) provided steady employment in both harvesting and processing.

The pattern of harvesting activity was variable according to species. Periwinkle harvesting can be done all year but is most intensive during the winter. Clams could also be harvested most months of the year, but generally are harvested in two seasons to avoid the summer months when red tide (and thus the danger of paralytic shellfish poisoning) is more common. Gaspereau is harvested in the spring, shad in May and June, and eels are harvested in the summer. Many harvesters of clams or dulse will also harvest periwinkles, as there is no license required and periwinkles can be harvested when clam flats are closed due to red tide or pollution. Gaspereau harvesters in the Saint John Harbour area tend to use their own catch as bait for lobster fishing, although any surplus may be sold. The gaspereau fishery on the river system tends to be a much larger fishery and the catch is nearly all sold. Clam and periwinkle harvesters cover a wider geographical range than other harvesters, perhaps as a result of the relative scarcity of beaches that are open for harvest at any one time.

There was some discrepancy in answers with respect to the health of the various stocks involved. Many respondents felt that the stocks of some species tended to go through cycles, with a few stocks improving or staying the same at this point in time (gaspereau, shad, periwinkles, dulse), while others were in decline (clams, eels). Many harvesters noted that the average size of individual clams, periwinkles and eels were smaller even

though some stocks in specific areas appeared healthy in numbers. However, when asked what factors were affecting the stocks, most respondents were very concerned about specific issues.

For example, while clam numbers were steady in some areas, harvesters could not make use of those stocks due to fecal contamination or paralytic shellfish poisoning. Some harvesters had tried to address pollution problems on beaches through contacting various government departments, with very little success. A number of respondents blamed lax government regulation of cottage septic systems or other land-based sources of pollution. Most respondents also mentioned various forms of pollution from aquaculture operations as a concern. Several respondents noted that beaches were littered with old cages, feed bags and other garbage from the salmon aquaculture industry. Some respondents reported that eel grass was taking over and driving some species out of prime habitat; they felt that this was related to water quality from aquaculture feed. Rockweed harvesting was also said to reduce nursery habitat for periwinkles and clams.

A number of harvesters were concerned about over-harvesting. Eel harvesters noted that licensing the harvesting of immature eels (to be raised in pens) was impacting the stock. Some clam harvesters argued that lack of effective monitoring of recreational diggers allowed commercial harvesters to mask their activities; many clam harvesters mentioned that dockside monitoring didn't seem to be effective (this was also a concern for processors).

On the other hand, processors reported that harvester numbers were severely down compared to former years. One processor reported that in the past she could count on over 123 clam harvesters, whereas today she relies on less than 6. Despite the drop in numbers involved, however, this same processor also expressed concern about over-harvesting of specific beaches.

Questions were asked about the relationship between harvesters, processors and the federal regulatory agencies involved in fisheries regulation and food inspection and

safety, including the Department of Fisheries and Oceans, the Canadian Food Inspection Agency and Environment Canada. All respondents expressed frustration with these agencies. Some respondents reported that any complaints about these agencies or to these agencies, however, could result in “repercussions” such as harassment masked as monitoring. Other respondents noted that “they have their job to do and we get along fine”, but would then go on to comment that regulations are not effective, there is little monitoring or enforcement, and in particular, these agencies act without regard for fairness and transparency. Some respondents felt that the aquaculture industry received far too much support and assistance from the government, while the capture fishery sectors languished without any effective support.

Other respondents had very specific concerns about fish habitat and the “destructive practices” of the regulators. The management of the Mactaquac Dam was mentioned as a site of concern, as was the lack of “point of source” assessment of pollutants on shellfish harvesting beaches.

**Sales and Consumption:**

Few harvesters reported consuming the species that they harvested with any regularity, partially as a result of regulations that prohibit this. Most reported that less than five percent of their harvest was consumed in their own or related households. Gaspereau fishermen may be the exception, as they often use the catch as bait in their own lobster fishery. The majority of harvesters reported marketing their product to local processors (one gaspereau fishermen reported selling into PEI). For clam harvesters, the increasing likelihood that beaches are contaminated and thus that clams must be depurated before marketing appears to have a mixed impact. Depuration does allow them to continue harvesting and earning an income, but they cannot shuck the meats when depuration is required, and thus they earn less for each bushel of clams they harvest (shucking is done by plant workers after the clams have gone through the depuration process).

Local processors report that their main markets are in the United States (especially for clams) and Europe (for eels and periwinkles). Lesser markets are in the Maritime Provinces, or in Toronto.

Both processors and harvesters report that prices have been falling for clams, and holding steady or slightly improving for periwinkles. However, many also note that the rising Canadian dollar and inflation from rising fuel prices have squeezed their profit margin in the past year. Prices for gaspereau and shad have remained steady. Some prices go through seasonal adjustments; in the winter, clam prices go down, but periwinkle prices go up. Eel harvesters reported that their prices are being driven down by competition from growers in the Far East who buy the immature eels from Canada and grow them out for market. Some harvesters are concerned by the reduction of buyers and local processors. This makes it more difficult to find competitive pricing.

Several questions were asked about the relative importance of these onshore harvesting activities in coastal community economies. Most respondents felt that regulators did not recognize the importance of these activities for the economy of coastal communities. Some harvesters reported that even in “elite” (i.e. core fishermen) households, any downturn in their earnings might result in their falling back on some level of supplementary harvesting of onshore species. Other harvesters noted that these species allow young people to earn money for school or other expenses, and allow semi-retired fishermen to earn extra income. Furthermore, the processing plants often hire many people in the community (the processor who had recently ceased operation had formerly hired 45 employees).

Some respondents talked of the cultural importance of these activities. Access to these species taught the youth in the community a good work ethic – if they needed money for school or an activity, they could earn it through their own efforts. Many respondents pointed out that if their communities “were not fishing communities, then they were nothing at all”. Young people were moving away and former fishing villages were becoming “retirement communities”. Several respondents mentioned that most people in

their communities had lost the right to fish and that this was as a key problem in community survival.

### **Numbers in the Industry:**

Respondents were asked to comment on the numbers in their particular industry for their community, and were also asked questions about the role of harvester organizations and cooperatives. Clam harvesters generally noted that their numbers were down. Many attributed this to the fact that they were losing areas where they were allowed to dig. A number of clam harvesters noted that the recently formed clam cooperative could assist them with this problem. The cooperative was formed not as a marketing strategy, but rather as a mechanism to facilitate the water and meat testing that must be done on a regular basis to keep information accurate on shellfish conditions on specific beaches<sup>2</sup>. The cooperative charges a small fee for water and meat testing and facilitates more regular testing than is currently available in other jurisdictions (as on the Nova Scotia side of the Bay of Fundy). Clam harvesters are also hopeful that this cooperative will get access to beaches for research into stock enhancement and habitat reconstruction.

Processors are also largely supportive of the cooperative, as it facilitates their supply of clams. However, they have some concerns that the cooperative should not be allowed to unilaterally restrict harvester access to beaches.

Periwinkle harvesters, on the other hand, are uniformly reported to be increasing in all those communities for which we had information. Many attributed this to the fact that periwinkle harvesting is not licensed, so individuals can enter or exit that fishery very easily. In some communities, a high proportion of periwinkle harvesters are women and children. It would be interesting to know to what extent this activity is supporting single parent households.

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<sup>2</sup> The regional ACAP, Eastern Charlotte Waterways Inc., has been assisting clam harvester associations to organize the cooperative (see <http://www.ecwinc.org/main.htm>).

In terms of recruitment to a number of these industries, many respondents reported that young people are leaving the fishing communities because they find it too difficult to enter the fishery or are unwilling to undertake the difficulties involved in the lifestyle.

Gaspereau and eel harvesters, for example, report that their numbers are declining, and current license holders may not be able to sell their licenses when they retire as very few young people are showing an interest in the fishery. One reason for this is that there is not enough profit in the business to support the cost of buying into the fishery. Older fishermen who have paid off their licenses can earn a living, but new entry costs would undercut any profits. Also, a change in regulations has reduced the number of gaspereau sets<sup>3</sup> allowed per license, which will affect the pay off when retiring fishermen sell their licenses.

Estimated numbers in each industry and for each community are listed in Table 1 below. According to most respondents, these numbers are only rough estimates.

	<b>Shad</b>	<b>Eels</b>	<b>Gaspereau</b>	<b>Clams</b>	<b>Periwinkles</b>	<b>Dulse</b>	<b>Rockweed</b>
Saint John	20	15-20	30				
Black River		5-6					
Dipper Harbour				20-25	20-30	30	
L'Etang			3-4		8-10		
Pennfield				100	40-50	40-50	100
Maces Bay					8	8	
Campobello				16-20	12-20		
Deer Island				3-4	15-18		8
Grand Lake		6	12				

<sup>3</sup> Gaspereau are harvested by gill, trap, and dip nets depending upon the river and location within the river system, e.g., gill net in the river mouth, dip net in the lower river, and trap net in lake areas. Sets refer to gill net assemblies – according to informants, currently 12 sets are allowed to a license.



Point Lepreau				15-18			
Bocabec				40-50			
Ripples			8				

**Table 1: Estimated numbers in shore based harvesting industries, SW New Brunswick**