

RESEARCH REPORT

**“ The Cleaner Ban and the Future of PEI’s Oyster Industry
and Rural Communities”**

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INTRODUCTION

Background Information

In April 2000, the Department of Fisheries and Oceans announced the decision to disallow oyster cleaners on PEI. Cleaners were responsible for breaking off spat (baby oysters attached to the backs of fully grown oysters) and returning it to the oyster beds, sorting out under sized oysters, and breaking apart clumps of oysters fished from the water. These activities, are of utmost importance to long term sustainability of the oyster industry on PEI, as they insure that undersized and baby oysters are returned to the beds in good condition to continue growing for future fishing seasons into good sized and high quality oysters. The majority of the cleaners were wives of oyster fishermen and their role as a cleaner often allowed both the husband and wife to secure employment insurance during the winter months from their work during the spring and fall oyster fishing seasons.

Objectives of the Study

My study, which was concentrated in western PEI (Prince County) was conducted over a ten week period and had four principal objectives.

- 1) To gain some insight as to whether or not cleaners were actually a threat to conservation of oysters, as well as what benefits their position may have provided, economically, environmentally and socially. Insight into these issues will also raise some questions about the effects of insufficient data on the oyster industry and its fishers. That is, did the cleaner ban create a situation where former cleaners put pressure on alternative fisheries in order to compensate for their lost income?
- 2) To discuss the cleaner ban with former cleaners and their fishing partners and determine its impact to their way of life. This second objective was concerned with how families and communities were affected as a result of the ban. It also questioned how fishers altered their fishing activities, if at all, as a result of not having a cleaner on board, as well as, how the ban affected the attitudes of fishers toward the oyster industry and the groups and organizations that have a role in governing it, such as the Department of Fisheries and Oceans, and the Shellfish Association.
- 3) To speak with members of the Shellfish Association, individuals who did not have cleaners, officials at DFO, and oyster buyers in order to gain alternative perspectives on the cleaner ban, the reasons behind it, whether it was perceived to be a good decision. These alternative perspectives were also useful for understanding how the ban affected the industry in terms of quantity and quality of oyster stocks, and in terms of fishing practices (hours worked, how many fishers are on the water and whether or not the preferred locations for fishing changed, etc...).
- 4) To follow up with as many former cleaners as possible in order to determine if they were able to find another source of employment as opposed to cleaning and if so how their new forms of work compared to cleaning especially in terms of job satisfaction, and level of income.

METHODOLOGY

The methodology for this study included semi-structured interviews conducted over the phone, on shore at Bedeque and Wilmot Bays, or in small groups either at someone's home or at a meeting hall. Information from these interviews was also coupled with observations and informal conversations while accompanying various oyster fishers in their dories while they fished. Estimates suggest that there were between 300-350 cleaners originally employed. The numbers interviewed for this study appear below.¹

	Couples: oyster fisher (husband) and former cleaner (wife)	Individual Cleaners	Oyster Fishers with no cleaner on board at the time of the ban
NUMBER INTERVIEWED	3 (3 cleaners, and 3 husbands)	13	16

Data and other insights were also collected from members of the community who knew oyster fishers, and other individuals connected to the oyster industry including members of the Shellfish Association, the Prince Edward Island Department of Fisheries, the Council of Professional Fish Harvesters, oyster buyers and their employees and those who own oyster leases. Most of the information gathered from these people was obtained through informal chats on shore, or through telephone interviews.

	PEISA	PEI Department of Fisheries	PEICPFH	Oyster Buyers	Employees of oyster buyers	Lease Holders (do not fish public grounds)
Number Interviewed	3	1	1	2	3	3

¹The numbers in the tables do not overlap. For example, the sixteen fishers who did not have a cleaner on board at the time of the ban are not also included as members of the Shellfish Association, or as lease holders.

RESULTS

The next section of this report includes statistics gained from the research which provide some insight into the impact of the cleaner ban on both the families and fishers involved, as well as on the oyster industry itself. I then summarise the most popular arguments both for and against having oyster cleaners on board dories. Based on an analysis of these arguments and my own observations in the field, I will discuss whether the decision to ban cleaners was beneficial or harmful to the oyster industry. The final section of this report includes a summary of some of the most pressing issues (according to those interviewed) facing the oyster industry right now, and how these issues will continue to affect the oyster industry on PEI in the future. Because there is still a great deal of hostility over the cleaner issue, the names of those interviewed have been altered in this report. Also, because of the close-knit nature of Prince County Island communities, I have placed the cleaners I interviewed into wage categories rather than naming their actual place of employment.

Status of former cleaners

Of the 16 cleaners interviewed, 14 are currently employed elsewhere. Of the two who did not find another job, one did not have enough previous work experience, aside from cleaning oysters, nor did she wish to work in another job except the fisheries. The other, of the two who did not find another form of employment, did not feel finding another job would be worth her while since she would only have to pay for a babysitter to look after her children. This cleaner stated that before the ban, the flexible hours for cleaning oysters meant that she could look after her children herself. It was her perception that the best she could hope for would be a minimum wage job and all the money she made would only go to child care. According to her, finding a job would not be of any benefit to her or her family.

Cleaners Employed and Wages Earned		
Wage Categories (\$/hr)	Total	Percentage of Total*
6-8	9	64%
10-14	3	21%
20+	2	14%

*** this refers to the total of employed cleaners (14)**

The vast majority of the former cleaners who did find another job are employed in minimum wage jobs, such as waitressing. Three of the 14 former cleaners currently employed already had another form of employment besides cleaning at the time of the ban. However, their other jobs were only part time and were meant to supplement their income from cleaning in the off season. These three women cleaned primarily to help their husbands who were “getting on in age” rather than to earn an extra income. Of the total represented above, there were four women who had just recently found employment, nearly two years after the ban had taken place. Of these four, three found minimum wage jobs and one found a job with the government for which she earned approximately \$10/hr. In the \$20/hr and above category were two former cleaners who had bought oyster licences. However, although

having an oyster licence theoretically allowed these women to earn approximately \$20+/hr, the actual purchase of the licence cost them and their families about \$15,000-\$20,000, putting these women in debt. When asked why they chose to buy an oyster licence knowing what the cost would be, these two women replied that they made the choice simply because they didn't want to do anything else to make a living.

Cleaners' Job Satisfaction		
Level of Satisfaction	Total Number of Cleaners	Percentage of Total*
Low	4	28%
Medium	8	57%
High	2	14%

Some of the former cleaners I spoke with were not only dissatisfied with whatever new employment they found after the ban, they were also dissatisfied with their quality of life. Some of the most common complaints were that they were suddenly forced on a fixed schedule, they no longer could spend time outdoors, they didn't feel as 'useful' at their new job, and that they missed the physical activity that cleaning oysters provided. For various health reasons, many women were also concerned about their husbands fishing alone. There were at least four cases where oyster fishers who formerly had cleaners retired from fishing because they needed the help of a cleaner in order to fish enough boxes a day to make a decent living. There were two cleaners who rated their current job satisfaction as high, but this was because they were so frustrated with the oyster fishery and the groups and organisations that were involved in running it that they were glad to be out of the fishery and making a living elsewhere, even though they were getting paid less and had less working flexibility. Some women discussed feeling a bit of initial anxiety after the ban took place, especially regarding how they were going to afford those "brand name" clothes for their children not to mention their university education. However, the majority of cleaners rated their job satisfaction as 'so-so,' meaning as one former cleaner put it, "there is general sense of moving on" (Jessica, 2002).

Several of the former cleaners interviewed also mentioned that even though they had found another job they continued to fish quahogs in order to supplement their incomes. Many of the cleaners (10 of the 16) also had licenses for bar clams and quahogs, which they used infrequently because cleaning oysters provided enough income. Several of the women told me they had never seen crowds fishing for quahogs as they had in the last couple of years. This raises a question for further research concerning how the cleaner ban could have possibly put pressure on other fisheries, as some of the former cleaners turn to other non-CORE fisheries to make up the lost income.

The Arguments in Favour of Cleaners

Economic Benefits: “It was an honest way to earn an extra income in the winter”

During the course of my study I heard this argument several times from former cleaners and from their fishing partners. Cleaners felt they were making a necessary and worth while contribution to the oyster industry and to the livelihood of their families, and there was a real sense of pride in the fact that they had worked hard all summer and earned their employment insurance in the winter. As one particular cleaner described:

At least my husband wasn't buying my stamps. That kind of stuff goes on all the time, even though the Sharbell's case scared a lot of people. You just can't survive on one income in the winter...and believe me I damn well earned my winter income (Dawn, 2002).

During several interviews people discussed the various kinds of strategies that are employed to secure extra income, either under the table payments or employment insurance in the winter in both the oyster industry and other fisheries on the island. According to former cleaners I spoke with the cleaner position was recognized by Revenue Canada as a “legal” means of obtaining employment insurance in the off-season. Many former cleaners and their fishing partners regarded the cleaner position as an honest way to make a living and as a family-based job creation strategy.

Environmental Benefits: “Fishermen don't have time to clean properly”

Cleaners were quick to point out that when they fished with their husbands or fishing partners the majority of spat was removed alive and thrown back in and clumps of small oysters were usually broken up. Many of the fishers who formerly had cleaners on board told me they still needed to fish the same number of boxes as they did with a cleaner in order to make their living. This meant that when their cleaners were removed these fishers felt pressure to rush and that meant they just didn't have time to inspect every single oyster, break up clumps and ensure that spat was removed without being broken. Most of the fishers stated that the removal of cleaners had not really changed where people fished. However, there were several complaints about the number of fishers on West River, a well enhanced oyster fishing area. The possibility of overcrowding in certain locations, such as West River, as a result of the cleaner ban also requires further research. It makes sense that without cleaners, fishers would move their fishing efforts to highly enhanced areas in an effort to avoid areas with poor oyster beds. Overcrowding of certain oyster beds will not only result in the decay of areas where enhancement has been successful, but also contribute to deterioration of those beds where enhancement projects still need time to develop.

Social Benefits: “A precedent had been set”

Many cleaners, although upset about the income they lost after the cleaner ban, were more concerned with the effect of the ban to their way of life. Even though there was never any actual title for the cleaner position, taking a cleaner on-board one's dory had been a common practice for many oyster fishers on PEI for over 50 years. For many, fishing oysters with a cleaner on board had become a way of life, especially for husband and wife teams who were supporting a family. The practice also supported a way of life for others living in small island fishing communities. As one cleaner put it:

When I cleaned I was giving a job to a neighbour to babysit my kids. Now that I'm not a

cleaner my neighbour is out of work and since I have no previous work experience and only a high school education the best job I could hope for would be minimum wage. So if I go out and get one that would mean I've taken work away from students or someone else who could have had that job if I were cleaning (Jill, 2002).

Several of the older couples I spoke with who had previously worked together fishing and cleaning oysters before the ban were angry that DFO had done nothing to stop cleaners for nearly 50 years and "then suddenly threw them off the boats" (Jessica, 2002). There was a general consensus that since the cleaner position had been recognized by Revenue Canada when filing for employment insurance claims, and since a precedent had been set for so long that there should have been more legal leverage for oyster cleaners to fight DFO's decision.

Corruption in Oyster Industry Politics?

This last issue is not really an argument for the cleaner position. It is however, an indication that even some oyster fishers who did not have cleaners did not agree with the ban. This argument is summarized in the words of this particular oyster fishermen who said:

I don't really care if we have cleaners or if we don't have cleaners, but I think it was wrong the way they went about the whole thing...There were guys going around door to door paying people \$10 to vote the cleaners off (Doug, 2002).

During my time spent in the field I received several reports of people being paid money to vote against the cleaners, I was also told that when the time to vote on the matter of cleaners came it was announced that it didn't matter which way the vote went, cleaners were going to be gone regardless. At least 10 of the oyster fishers interviewed told me they had never really given cleaners a second thought until the issue came up. This fact raises the question of who perceived oyster cleaners as a threat to conservation.

The Arguments In Favour of the Cleaner Ban

Conservation

This was the argument given most often by members of DFO and the Shellfish Association.² Their concern was that cleaners not only greatly sped up the process of fishing, thereby cutting the season short, but also allowed their fishing partners to fish twice as many boxes as another fisher without a cleaner on board. However, the reality of the situation is that fishers without a cleaner on board were sometimes able to fish 6 boxes per day. Most of the cleaners suggested that when they were on board their fishing partners took in about 8 boxes on a good day. This demonstrates that having a cleaner on board was not significant in terms of how many boxes were fished per boat. An experienced fisher can individually fish up to ten boxes per day at the start of the season.

²The Shellfish Association is a collective group which represents the oyster fishers of Prince and Queen's County PEI. One of its primary objectives is to enhance the public fishing beds in order to ensure that there is an abundance of oysters in the various bays that are most commonly fished.

There was also a general fear that the number of cleaners could get out of hand since there was no way to restrict the number of cleaners if all of the approximately 1044 oyster licenses were suddenly activated and everyone had a cleaner on board.

According to some members of the Shellfish Association and officials at DFO the cleaner position was a potential threat to the conservation of the oyster stocks in PEI waters. When I spoke to people at DFO and the Shellfish Association, one of the major issues surrounding the problem with cleaners was not only that the number of oyster fishers had increased greatly in a short amount of time, but also that there were more and more cleaners who were ‘young guys’ which sped up the fishing process and increased the quantity of landings even more than husband and wife teams had in the past (Gallant, 2002). Banning cleaners was therefore viewed as one way to ensure that the oyster stocks in the public sector of the fishery would continue to provide enough landings to support those who depended on the oyster industry as part of their livelihood.

“People with Cleaners Were Greedy”

Not everyone I spoke with who supported the cleaner ban thought that cleaners were a threat to conservation. Rather, many of the oyster fishers were glad to see cleaners off because they and their fishing partners were perceived as being greedy. However, the term *greedy* as it applied to cleaners and their partners had a wide range of implications as described in the next paragraphs.

It was the perception of several oyster fishers that most of the cleaners were women who had actually held a licence, but sold it when the government began to buy back licences in the early 1990's for approximately \$40,000 dollars. It was this issue, far more than conservation which upset several oyster fishers. These fishers didn't think it was fair that many cleaners were able to acquire extra income from selling their licences *and* still continue to make “top pogy” (employment insurance) by also helping their husbands to fish large quantities of oysters. As one oyster fishermen put it:

Tell me how it's fair for them to gain all that extra income from selling their licence to the government and then her and her husband make top pogy in the winter from her sitting on the boat cleaning.... basically our tax dollars were paying for them to sell their licences (Ralf, 2002).

Some oyster fishers I spoke with didn't think that cleaners actually earned their money. It was their perception that cleaners were just on the boats for show to get employment insurance and didn't really do anything to earn their share of the income. People who used this argument against cleaners regarded their role in the industry as an easy and lazy way to make EI in the winter.

Aside from making money by selling their licences, some oyster fishers saw cleaners and their partners as people who were greedy in the sense that they were taking oysters away from other fishers who didn't have cleaners on their boats for whatever reason. Several of the older oyster fishers were adamant that you didn't fish oysters to become rich, but because it was a way to make a decent living. Their concern was that ever since the price for oysters jumped to record highs in the mid 1990's, more and more people were buying oyster licences expecting to get rich and had no understanding or appreciation for oyster fishing as a way of life, and what's more as a *hard* way of life. People with cleaners and young oyster fishers (aged 20-25) were singled out as people who were in the oyster industry for the short term to fish as many oysters as they could and to make as much money as possible at the expense of oyster fishers

who had been in the industry for many years. Cleaners and their partners were frequently mentioned as people who fished only with their own interests in mind without any regard for the future of the industry and without regard for the other oyster fishers on the water who depended on oysters for the long-term to make their living.

CONCLUSIONS

The cleaner ban not only highlights the effects of DFO policy on the livelihoods of rural families and communities, but also how the importance of the role of women to the health of the oyster industry is frequently unrecognized. Cleaners, the bulk of whom were women, had the potential to bring a lot of benefits to the health and future of the oyster industry and as a consequence to the health and future of rural island communities and their way of life as well. Certainly, concerns that cleaners were a threat to conservation were not blatant myths; however, with proper monitoring and management cleaners had the potential to bring far more good than harm to the oyster industry, a general sense of well-being to the Island economy and sense of cultural integrity as well.

Taking all factors into consideration there is no evidence that cleaners were an *actual* threat to conservation of oyster stocks at the time of the ban. However, some oyster fishers raised concerns that cleaners could become a *potential* risk to the future conservation of PEI's oysters, especially as the number of oyster fishers on the water continued to increase. In order to fully appreciate why DFO decided to ban cleaners, one must be aware of key policy changes to the management of Canadian fisheries in response to the collapse of the groundfishery in the Maritimes ten years ago.

Specifically, Sec. 14.75 of the Oceans Act states that where conservation becomes an issue the Minister of Fisheries and Oceans shall lead in developing a national strategy for maintaining fisheries "based on the principals of sustainable development, integrated management and the precautionary approach" (Doucette et al, 1998).

According to the national government's definition, the precautionary approach is "[1] a distinctive approach within risk management [2] that primarily affects the development of options and the decision phases. It is ultimately guided by judgment, based on values and priorities" (Department of Foreign Affairs, 2001). However, this definition is far more comprehensive than that of fisheries management where the precautionary approach is defined in Sec. 30.C of the Oceans Act as "erring on the side of caution" (Doucette et al, 1998).

The particular definition for the precautionary approach, as stated in the Oceans Act, meant that requests of the Shellfish Coalition (a group of oyster fishers which formed to promote research on PEI's oyster industry and fight the cleaner ban) to conduct further studies on the industry and possibly develop some type of licence specific to cleaners were not adequately addressed. The area director at the time felt that "on the balance of the best information and experience we have at hand we are of the view that the conditions in the [oyster] fishery...indeed pose a significant risk to the sustainability of the fishery calling for prompt, precautionary action" (Scarth, 2000). This illustrates the perception of some oyster fishers that since the cleaner position could not be managed, cleaners could become a *potential* threat to conservation if good market conditions encouraged more and more people to activate their oyster licences and if everyone fishing employed a cleaner. These fears are echoed in the comments of Jimmy A'Hearn at a September, 2000 meeting with DFO, the Shellfish Association and other oyster

associations, where he said: “Where do we draw the line? Currently there are more than 700 fishers. Do we allow 700 cleaners?”

Ultimately, the decision to ban cleaners was in fact DFO responding to the concerns of some oyster fishers and members of the Shellfish Association according to policy guidelines for conservation as stated in the Oceans Act. However, the next paragraphs illustrate some of the inherent problems with “erring on the side of caution” in the absence of close examination of the “values and priorities” of Island communities and families.

While there is no doubt that DFO listened and responded to the concerns and fears of oyster fishers, their response should have been backed up with accurate and up to date data, which is lacking in the oyster industry. As one example, many of the oyster fishers interviewed were not using the tags used for tracking which bays and rivers oysters are fished from, who fished them and the date they were fished. These tags are used for DFO’s statistics on PEI’s oyster stocks. The fact that many fishers were not using tags, and had not been for some time, raises some serious questions about the validity of DFO’s current statistics for making decisions affecting management of PEI’s oyster industry, such as the decision to ban cleaners.

Furthermore, many oyster fishers did not seem truly concerned that cleaners posed a threat to conservation. Often, oyster fishers who were against cleaners were the same ones who said the industry could grow to support all the licence holders and more if it was managed properly and if enhancement continued to be successful. What’s more, when oyster fishers were asked about cleaners and whether or not they thought they were a good or bad thing for the industry, they mentioned the ‘greed’ of cleaners and their partners, far more than ‘conservation’, as a justification for the ban.

Finally, if conservation was the motivation behind the cleaner ban, it is clear that the removal of cleaners had little or no effect in terms of solving any conservation problems for the oyster industry. Since the removal of cleaners, oyster landings have continued to increase. Furthermore, there is evidence to show that the quality of oysters has continued to decline since the removal of cleaners. Conversations with an oyster buyer and several of the buyers’ employees on shore have suggested that since the removal of cleaners the quality of oysters has gone down as they are no longer seeing “good clean choice oysters” and instead were noticing a greater frequency of standard oysters with spat still attached or only half removed.

I was able to note the condition of the oysters being sent to buyers myself. The harvester often contained broken spat that was scraped in half and killed instead of being removed in good condition to continue growing for future seasons. When speaking with those fishers who formerly had cleaners on board as well as with oyster fishers on shore I was frequently told that they just didn’t have time to remove the spat properly if at all, nor did they have time to break apart clumps, which is also important so that oysters have room to grow into a round choice shape as opposed to a long and straight standard grade shell. It is also important to note that the increasing quantities of standard grade oysters coming in to buyers was cited by buyers as one of the reasons they were forced to tighten up the grade this year, some refusing to accept any standard oysters at all.

Additionally, because rural island communities are integrated through socio-economic networks, the decision to ban cleaners had many ripple effects extending beyond the conservation of PEI’s oyster stocks. As one example, the formation of the Shellfish Coalition, which was a group of mainly women whose goals were first to fight the cleaner ban and second to promote and contribute to more scientific

information on the oyster industry, caused some major conflicts between families, neighbours and fellow oyster fishers. I was told several times of incidents on the water where a coalition member's husband was being harassed by other fishers on the water, forcing some in the coalition to abandon their fight to keep their cleaner position for the sake of their husband. According to many former cleaners hostilities are still 'hot' when it comes to the cleaner ban and even though it has been nearly two years since the ban was announced many of the relations with friends, family and neighbours still remain sour. This demonstrates how DFO policy decisions not only affect the fisheries but also the nature of family and community relations, especially among those who depend on the fishery for their livelihoods.

The cleaner ban also highlighted the important role that women have to play not only in terms of the sustainability and management of oyster stocks, but also to the future of the industry. Many of the cleaners interviewed described fishing oysters with their husbands as a way of life. Furthermore, because of their long term dependency on the oyster industry, cleaners felt it necessary to make sure they did a good job. What's more, the research also revealed that the attitudes of women towards the fishery seemed to have a significant influence on their children. Many of the former cleaners felt that the "little guy" (oyster fishers) had little influence or say over the policy decisions of the Shellfish Association and DFO. The cleaner ban was frequently described as "the last straw" by cleaners and their fishing partners, who said it showed them that one's position in the oyster industry was far too unstable and unpredictable. As a result cleaners were encouraging their children to get a university or college education and forget about inheriting their father's oyster licence. This fact raises some serious questions about the future of the public oyster fishery on PEI. Without the incentive of having one's children continuing to utilize the oyster industry as a way to make their living it is possible that there will be less incentive for current oyster fishers to fish the oysters well, especially in terms of ensuring that spat returns to the beds in good condition. It is also possible that the lack of future commitment to the oyster industry by the children of current oyster fishers will leave the public fishery open to corporations in the future, which are likely to provide less employment than the current system of licencing does, and which are also less likely than individuals to practice sustainable fishing practices since it is far easier for a corporation to pick up and move elsewhere if the fishery collapses.

Finally, as the collapse of the groundfishery has already demonstrated, it is important to act swiftly when it comes to matters of conservation of fisheries resources. However, the 'precautionary approach' should not be taken in the absence of goals for sustainable community and economic development, especially in rural PEI communities where jobs are scarce and where there is a close interrelationship between the well-being of PEI's fisheries, the fishers and Island businesses.

Issues Concerning the Oyster Industry in Spring 2002, and their Impact on the Future of the Industry

During my time in the field researching the cleaner ban I became aware of several other issues which are of major concern to the future health and sustainability of Prince Edward Island's oyster industry. The following sections attempt to summarize three of these issues and their effects on the oyster industry on PEI.

The Power of the Buyers

The spring oyster fishing season of 2002 perhaps best illustrates how much of a role oyster buyers on the island have, not only concerning the health and sustainability of the oyster stocks and other species such as quahogs in PEI waters, but also concerning the economic and social health of rural island communities.

At the start of the season, high levels of domoic acid in PEI waters prevented many buyers from shipping out their old oyster stocks before the start of the spring season. The reaction of buyers to this circumstance was to cut prices for oysters, put a quota on the number of boxes they would take from each individual and to increase the grade of oysters so that most buyers were only accepting 'choice' oysters. Furthermore, according to the fishers I spoke with, oysters that would have been considered 'choice' in previous years were downgraded to standard this year.

One particular buyer closed their doors at the start of the season and since the remaining buyers were not taking on new clients, the closure meant that approximately 45 oyster fishers had virtually no form of income for the entire spring season. The fluctuations in the market after the September 11th 2001 incident in New York city were also cited as a major factor justifying the actions of buyers in the spring of 2002. The actions of buyers had many effects on the economic and environmental health of the oyster industry, its participants and rural island communities.

One interesting result of the poor market conditions for PEI oysters this spring immediately became obvious, not in the fishery or among oyster fishers themselves but to businesses which depend on oyster fishers in order to make their profits. As an example, one restaurant owner in Summerside told me he was having a particularly difficult year financially because he depended on oyster fishers to stop by in the mornings for breakfast or coffee, as well as on their way home for lunch. In fact, oyster fishers were his regular customers and this particular restaurant noticed that there just weren't as many oyster fishers coming in this year and his business was suffering because of it. Many oyster fishers told me the restaurant story wasn't unique as they had spoken with owners and employees of gas stations where oyster fishers filled up nearly every morning, and those who built and repaired oyster tongs and dories, along with those who sold outboard motors, all of whom were beginning to notice a decrease in their income in conjunction with the hardships for oyster fishers.

Another of the results of buyers' actions was to decrease both the number of fishers on the water and the intensity with which they fished oysters. Because of the low price and box quota, many fishers stopped fishing oysters early in the season or were forced to fish far fewer boxes than they normally would have. Many buyers were only accepting 3-4 boxes per fisher whereas in other years some fishers were able to sell between 8-10 boxes to their buyer per visit. These conditions could be devastating to oyster beds which need to be worked well and regularly in order for oysters to grow in good health and in large quantities (Fisheries and Oceans Canada, 2000). When the spring season is shortened because fishers cannot sell their oysters and when fishers are fishing less, the beds are not being worked properly. It will be interesting to monitor the condition of oysters in the upcoming seasons in 2003 in order to see the full results of the circumstances for fishers during the spring season of 2002.

The Ecosystem Includes Licence Holders

Full comprehension of the oyster industry and the ecosystem of which oysters are a part involves an understanding of licence ownership of the oyster fishers. This became clear during the unique circumstances oyster fishers on PEI faced with the market conditions for buying and selling oysters in the spring season of 2002. The ecosystem of oysters should not only be understood in terms of marine species in PEI waters, but also in terms of how changes occurring on land such as market fluctuations, and policy changes happening at Revenue Canada and DFO will impact the livelihoods and attitudes of oyster fishers and consequently the manner and intensity with which they fish.

Nearly 90% of the oyster fishers I spoke with owned licences for quahogs and bar clams along with their oyster licence. These licences are generally thought of as a way to supplement a fisher's primary income generated from fishing oysters. However, this spring because of the poor market price and tough grade for oysters, many oyster fishers began to fish quahogs and bar clams with much greater intensity and on a far more regular basis than they had in previous years.

Several oyster fishers told me they used to fish quahogs mainly for their own consumption rather than to make money, but in spring 2002 many oyster fishers, especially those who didn't own leases and were entirely dependent on the public fishery, were topping nearly every box of oyster with quahogs since you could sell them to any buyer and the price for them was good, approximately \$0.25 per quahog. I also spoke with a few oyster fishers who, because of the box quota some buyers put on oysters, could not sell enough to their buyer to make their usual level on employment insurance, which they depended on for the winter months. These fishers were fishing quahogs and bar clams with the intent of making them contribute approximately half of their summer income. Indeed, many former cleaners I spoke with also owned quahog and bar clam licences and were fishing them in an attempt to make up for the income they lost when they could no longer clean. I received many complaints about severe crowding for quahog fishing, which should be a major concern since controls and monitoring of the condition of quahogs is limited. I was also told that this is the first year they have been fished by so many people with such intensity.

What these few examples illustrate is the interconnection of fishers and the variety of fisheries licences they hold, to the marine ecosystems in which they fish. Since marine ecosystems clearly include fishers as well as fish, efforts to promote sustainable fisheries resources must take into consideration social, economic and biological factors.

Lack of Optimism in the Oyster Industry

When conducting the interviews there seemed to be a general lack of optimism regarding both the current and future situation for the oyster industry on PEI. This is the result of a combination of factors which have been described as "too much too soon" for the oyster fishers and their families.

The Sharbell's case³, the cleaner ban, lack of faith in the Shellfish Association, fear and lack of trust of the government and DFO, the recent developments of professionalization, poor and unpredictable market conditions, the actions of buyers in the spring of 2002, combined with the unpredictability of the condition of oysters in terms of quality and quantity each year, has led many fishers to feel *very* insecure about fishing oysters to make a living. Many also did not feel that the situation was ever going to improve. Consequently, if they gave or sold their licences to their children many felt they would be giving them nothing more than debt and hardship. This is reflected in the fact that of the total 16 cleaners and 27 oyster fishers interviewed only 2 suggested they would want their children to fish oysters to make a living. In fact, the vast majority of people interviewed do not want their children involved in *any* of the fisheries on PEI. As one woman told me, "both my husband and I told our children if they fish we'll break their arms" (Jill, 2002). Most people

³The Sharbell's case involved an accusation made by Revenue Canada that a particular PEI oyster buyer was doctoring his record book to help some of his fishing clients obtain employment insurance that they hadn't actually earned. Some fishers were faced with paying Revenue Canada back up to \$40,000 if convicted. However, at the appeal trial in 2000 all those accused were found not guilty.

preferred to have their children get a university or college education and “something to do with computers” was frequently mentioned as the preferred career choice many oyster fishers had for their children. As already mentioned this leaves the future for the public fishery on PEI in a precarious position. Without younger generations of fishers entering the oyster industry the doors are left wide open for corporations, not to mention a possible dissolving of the social and economic networks among oyster fishers, their friends and neighbours, as well as, Island businesses, all of which currently help to maintain the rural Island communities I visited while conducting this study.

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