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From Theory to Practice: Maine_s New Approach to Lobster Management
Stream: Fisheries

INTRODUCTION

In 1995, the Maine State Legislature approved a plan by the Department of Marine Resources and the lobster industry to design a new approach to lobster management which transfers limited management responsibility to local Lobster Policy Management Councils. Many lessons have been learned over the past two years of implementing this landmark legislation. This paper presents a state government perspective on how Maine_s new lobster management law is being implemented and what challenges lay ahead for further development of this co-management system. First, there will be a brief description of Maine_s lobster fishery and the history that has brought us to where we are in 1998. Following this description, I will make some observations on how this new cooperative management approach is working. My comments are drawn from the experiences of the two area coordinators who work most closely with the industry and from comments received during a day-long workshop held in March 1997 that reflected on cooperative management approaches in Maine_s lobster, sea urchin, and soft-shell clam fisheries. This paper discusses the lobster case because it is an example of formal power-sharing among the legislature, the state regulatory agency and the industry members. It is truly a cooperative management scheme with both responsibility and authority being shifted to more local and non-traditional units of governance.

OVERVIEW OF MAINE_S LOBSTER FISHERY

The lobster industry is Maine_s number one fishery in terms of economic value. In 1997, there were nearly 47 million pounds of lobster caught which were worth \$136 million dollars (US). Maine accounts for one-half of the United State_s landings of American lobster (*Homarus americanus*) and one-quarter of the annual global landings. In 1997, there were approximately 6,500 commercial lobster licenses and 2.6 million trap tags issued in the State of Maine. Each lobster trap is required to have a tag attached. The Department of Marine Resources estimates that in fact 1.5 million traps are actually in the water and 3,500 residents are lobster fishing full time. The remaining licenses and trap tags are being purchased are not being utilized. Eighty-five percent of Maine_s lobster landings occur during the five months from July to November.

Maine_s lobster fishery has several conservation measures in place, some dating back to the 1800_s. Most of these measures are the result of ideas developed by the industry members. Since 1989, there has been a minimum size carapace length of 3 1/4 inches and a maximum

carapace length of 5 inches has been in place since 1960. One of the earliest management measures was established in 1872 when it was declared that egg-bearing females were illegal to possess. An additional protection measure of v-notching the tail of the egg-bearing lobster was instituted voluntarily by the lobster industry. Since 1948, it has been illegal to possess a v-notched lobster. Fishing is by conventional traps only with no diving or dragging of lobsters permitted in Maine waters. Gear restrictions have also limited the number of traps on a line in local areas and specified the minimum number and size of escape vents. From June through August hauling traps on Sundays is prohibited. Most recently, the State developed a trap limit program that capped the number of trap at 1200 per license holder with a build-down schedule until 2003 for those individuals who fish over 1200 traps.

Despite these management measures, the lobster fishery is viewed by federal scientists to be at a high risk of collapse. There has been a marked increase in effort on the resource in recent years. The number of traps in Maine's coastal waters has more than doubled over the past 25 years and the average number of traps per boat increased 600% over the past three decades. Throughout the 1990's, Maine has been experiencing record landings. However, for the past 60 years there has been a steady decline of the winter and spring fishery. In 1997, less than fifteen percent of the annual catch was caught before July when the majority of lobsters molt. This suggests heavy fishing pressure. In 1997, 87% of the fishery was on new recruits - or those lobsters just newly molted into legal size. Therefore, there is scientific concern that conservation-based management has not kept pace with the escalation of effort.

TRANSITION OF THE INDUSTRY

Since its inception, Maine's lobster industry has been tightly connected and integral to our coastal communities. Traditionally, this marine resource has been managed using an informal process of local governance through harbor _gangs_ who establish rules for the local territory. However, increasing harvesting pressure and changing social characteristics have threatened this local structure and the sustainability of the fishery. In addition to increasing numbers of fishermen, technological innovation is also contributing to increased fishing pressure. Modern sonar electronics facilitate the location of productive bottom and create safer and much more efficient operations. Larger and faster vessels with powerful hydraulic haulers expand territory, reduce running time, speed hauling, and allow for deeper water fishing. Wire traps have almost replaced the traditional wooden traps and also contribute to much greater fishing power.

As technology has advanced, the additional cost of that technology has led to greater overhead costs which make it necessary to fish more traps to maintain the same net income. In addition, a larger percentage of previously unused licenses are being activated as groundfish, scallop, and other traditional fisheries landings have declined and license holders who fished part-time are now fishing full-time for lobster. High lobster landings in recent years have encouraged more participation in the fishery by non-traditional harvesters. This situation created what many consider an _arms race_ among members of the industry and a clear increase in social tensions.

Recognizing that this combination of factors threatened the long-term sustainability of the fishery, the Department, the industry, and the Legislature developed a formal management regime to institutionalize and preserve the traditional community-based nature of the fishery. In 1995 there was a legislative decision to shift some of the decision making from the State to the industry. The Commissioner of Marine Resources was authorized to establish by rule seven regional Lobster Policy Management Councils (zone councils). The legislation gave the zone councils authority to vote on three management issues: limits on number of traps per license and time for compliance, number of traps on a trawl, and time and days for fishing. A referendum measure is voted on by all license holders in the zone over 18 and must be approved by a 2/3 majority vote. If passed, the Commissioner of Marine Resource maintains the authority and responsibility for determining if the management measure is reasonable before going through the rule-making process. In addition, the 1995 legislation instructed the Commissioner of Marine Resources to establish an apprentice program to control access into the lobster fishery.

HOW IS IT WORKING?

The zone councils have been meeting regularly to address management issues in their areas. All seven zones have voted and approved trap limits lower than the state maximum. Maine is still in the early stages of constructing a formal cooperative management system out of a traditionally informal one. There is no road map. This has led to frustration along the way among Department staff and members of the industry. However, after a workshop held in March, it became clear that the momentum in Maine is in favor of innovative approaches to fisheries management that incorporate local decision-making.

Following are some quotes from the industry panel at the Co-management Workshop held as part of the Maine Fishermen's Forum on March 5, 1998 in Rockland, Maine. These industry comments highlight the major issues in developing co-management.

- C ***Attendance at Meetings is Important:*** "Getting the harvesters to come to the meetings is actually part of their [zone councilors_] job... sort of like a staff meeting." Terry Watson, Phippsburg, Maine

Harvesters must be willing to have an open mind to new ideas for management. There is a lot of give-and-take at the meetings and this dialogue is important. Many fishermen went into fishing because they enjoyed working independently. There are new skills that need to be developed to participate in meetings. Although attendance at meetings has been high, it is still difficult to get some harvesters involved in the management of the resource. There is concern that active members will lose energy and momentum. Harvesters will need to be continuously educated about the resource and their role in management.

- C ***Communication is Essential:*** "I've never talked so much about lobstering in all my life and seen so much results from the talks." Lyman Kennedy, Falmouth, Maine

The information exchange between the Department of Marine Resources and the lobster

industry has improved over the past few years. Still, the industry would like information from the State to get out more quickly and regularly. There are some members of the industry who do not want to be involved in the management process. However, those people still need to be informed about what is happening at the interstate, federal, and zone council levels that affect their business. Additional methods to communicate with all lobster license holders are needed.

- C ***Lobster Zone Councils Would Like More Authority:*** _I also can tell you that from having testified before the Marine Resource Committee, there is a positive feeling over there for them to give the zones more power and if you go through this panel, you'll find this is one of the things we are looking for ... to get a little more power, to make decisions on our own._ Everard Dodge, Rockland, Maine

There are many difficult issues to address in lobster management and the lobster zone councils would like additional authority beyond the original three management measures approved by the Legislature. Some industry representatives are not sure if they are qualified to make all the decisions that will affect their industry, but they are willing to engage in the process. Many industry members anticipate they will have to make sacrifices in the future and the zone councils would like to be able to design a system that is fair and equitable.

Specifically, the zone councils are looking at ways to limit or control entry to the fishery by zone. This includes looking at different management measures for full-time versus part-time fishermen. One proposal to control entry is to have a person go through the established two year apprentice program and then get on a waiting list to receive a commercial lobster license. An owner-operator provision, where the owner of the boat must be aboard while fishing, received support from industry members and was recently passed by the Legislature.

- C ***Decision-making is Difficult:*** "... be prepared to make some very hard decisions -- decisions that affect your neighbors. And be able to explain that when you go back home what you have done." Kristan Porter, Culter, Maine

Many of the zones have made difficult decisions which affect their neighbors and their friends. This has caused friction in some zones and there is concern that these differences may act to pull the zone process apart.

The implementation of Maine's new lobster co-management system has many beneficial and positive attributes. Following are those components of the new co-management system that are working.

1. *Scale:* The smaller scale of the local zone councils has allowed a faster response to issues and better understanding of the local resource. Within each of the seven zones, there are districts which elect representatives and this has facilitated the transfer of information and representation of the industry.
2. *Communication:* The zone council structure assists the Department of Marine Resources in

communicating with the lobster industry. Many of the zone councils have met on a monthly basis and are working with the Department to develop alternative management strategies. Fishermen within the zone councils are also communicating more frequently with each other and developing creative ideas. This has broken down traditional barriers between fishing communities. In addition, the State Legislature is now looking to the zone councils for guidance and input as they develop State lobster policy.

3. *Development of New Skills:* Members of the lobster zone councils are learning basic skills in how to conduct meetings, organize industry members and keep people together and invested. Over time, meetings have become much more productive. Although venting of frustration still occurs at the meetings, it is usually before the productive part of meeting and no longer an acceptable behavior during the meetings. The zone councils are also developing skills in group problem solving and learning how to think creatively. The zone councils are now in a position to tackle issues and answer questions before the issue is brought before the State Legislature. This has improved the legislative process.
4. *Stewardship:* Cooperative management has promoted personal responsibility for resource conservation. However, some control on access is needed to maintain interest among zone council members in managing the resource.

The Maine lobster co-management system is still in its early developmental stages. There are many obstacles ahead which need to be addressed in order to make the system successful on a long-term basis. Some of these are outlined below.

1. *Improve Education and Outreach:* As more communication is occurring, more questions are being asked and more communication is needed to be sure everyone is getting the same answers. Further information exchange between the fishermen and the Department of Marine Resources would be beneficial to the process. In addition, basic knowledge of fisheries biology and group organization would work to improve upon the industry's understanding of the management issues and their role in the decision-making process.
2. *Clarify Zone Process:* Reassessment periods should be built into the management process so issues that arise in this new system of governance can be resolved. In the coming year, there is a clear need to clarify the zone councils' by-laws and the basis for participation by part-time fishermen in the zone council process.
3. *Develop a Method to Resolve Conflicts:* Conflicts between fisheries and among fishermen over territory are increasing. There is currently no mechanism in place to address these conflicts. An arbitration or appeal process needs to be developed to protect the minority view.
4. *Better Integrate Scientific Information into the Decision-making Process:* Good decisions about the resource cannot be made unless valid information is available to the zone councils. Efforts are underway to increase the amount of information about the health of the resource through increased sea sampling and information about the socioeconomic aspects of the industry. In addition, mechanisms need to be built into the system to allow for quick readjustment as the resource responds to environmental and ecosystem changes.
5. *Lobster Zone Councils Need More Authority to Control Effort:* There is an interest in giving more authority to local councils so they have additional ways to address problems. Specifically, there is an immediate need to finalize current limited entry discussions and agree on management measures that will reduce effort in zones which are over crowded. The

lobster zones have been actively discussing limited entry options and will be proposing further management responsibility for the zone councils to the Legislature in 1999.

CONCLUSION

Designing and implementing a new system of cooperative management requires hard work from all participants. Some opponents of the system claim that Maine has simply created yet another layer of bureaucracy. *“There are more managers than fishermen.”* It is critical to clarify the role of the zone councils, the state, the interstate and the federal management systems in regulating the lobster resource. Lobster zone council members will become very disenfranchised if they work hard to come up with management measures, only to see *“top down”* management again by the federal government. The cost to government in terms of time and financial resources is extremely high, especially at the initial stage of development and implementation. The fishing industry must also be prepared to devote considerable time and effort to participate in this new system of management. Group decision-making techniques are skills that will need to be developed by members of the industry and department staff. This may be a major hurdle for other fishing industries. The lobster industry was organized and prepared to engage in a cooperative management approach. Members of the zone councils have understood that this process is new to everyone and have been very forgiving as unexpected issues have emerged. To succeed, the problem needs to be perceived from industry first before an effort such as this can begin.

“This co-management is a new concept here, it will work, I know it will work. I have seen more cooperation and people compromising to save this fishery than any time before. In situations where they actually give up some amount of their income, that is a tremendous thing to ask people to do. But these people are coming in, voluntarily, to save this industry to make it good overall for the good of Maine, for our children, and our grandchildren.” Everard Dodge, Zone D Lobster Policy Management Council, Rockland, Maine

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