

Lobsters, Lifestyles and Local vs. Regional Control

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Introduction

The main conference room in the Marriot thunders with clamor. Located in downtown Portland, Maine, this upscale hotel seems taken aback by the annual meeting of the Maine Lobsterman's Association (MLA). Lobstermen, from across the state, have gathered to talk about the future of their fishery on this, the first Friday in April. Concerned with the National Marine Fisheries Service's (NMFS) proposed decision to limit the number of traps per boat to 500 for the following season, the Association has convened to discuss this and other issues facing the most valuable fishery in Maine. The lobstermen have invited wholesalers, local marine wardens, lobstermen from and representatives of the National Marine Fisheries branch of N.O.A.A. (National Oceanic and Atmospheric Association) to participate in a lively debate over how to best ensure the future of the Maine lobster fishery.

The decisions to be made over the course of this weekend are likely to affect the future of much more than a fishery. The proposed limit of 500 traps per boat is sure to affect a way of life. In fact, it is likely that this limit and other proposed regulations could usher in an age where the full time lobsterman becomes a relic of Maine's rich marine history. Increasingly, the ability to sustain a livelihood from the sea with the burgeoning costs of boats, gear, and supporting a family is being jeopardized by imposed sanctions that have reduced yearly catches.

The State of the Fishery

The American Lobster, *Homarus americanus*, is a decapod crustacean that thrives in much of the marine habitat provided by the Gulf of Maine.ⁱ Lobsters dwell on the bottom throughout the Gulf, surviving primarily in structures of sand, gravel or rock. In addition, the species' desire for cover makes eel grass covered portions of the former bottom structures ideal. Additionally, the cool waters of the Gulf are perfect habitat for the lobster, which prefers living in waters between 7 and 20 degrees Celsius. Moreover, lobsters tend to avoid brackish, estuarine environments because of their physiological predisposition for more saline seawater, between 21 and 35 ppt (parts per thousand) salt.ⁱⁱ

Besides predation by humans, lobsters, particularly juveniles, are exploited by cod, haddock, halibut, striped bass and seals. All of these species reside for part of the year in the Gulf of Maine, where they catch lobsters in up to their deepest residences of 700 feet. Fortunately, for the lobster, years of overfishing have drastically depleted populations of groundfish, including cod, haddock and halibut, from the waters of the Gulf.ⁱⁱⁱ As a result, lobstermen have reported catches of lobster on stretches of bottom where none used to be found.^{iv}

Despite catches of lobster in areas once considered devoid of the species, concern abounds that skyrocketing catches in recent years are harvesting the crustacean beyond sustainable levels. Indeed, through the 1950's, 60's, 70's and into the 80's, commercial lobster catches have fluctuated between 18,000,000 and 22,000,000 pounds annually.^v However, in the late eighties these steady catches began a slow rise, ascending into the range of 30,000,000 pounds by 1991.^{vi} In 1997 lobster harvests in the state reached a peak of 46,957,534 pounds,

more than twice the average sustained harvests of the last forty years.^{vii} Along with the burgeoning catches, increasing numbers of young men in Maine are drawn to the lobster industry, the last large, viable fishing industry in the state. Here men can make a living in the time-honored tradition of their father's and grandfather's, from the sea. The increasing catches and increasing competition among lobstermen has driven lobstermen to increasingly extend their commitment to the sea, fishing more and more traps, farther and farther from shore.^{viii}

These increases, in catches, lobstermen and traps fished, concern fishery regulators and lobstermen alike. Regulators of the fishery remember all too well the collapse of the Gulf of Maine's groundfishery, less than ten years ago, which was preceded by several years of record catches of cod and haddock. They wholeheartedly believe that the lobster population, fished at this level, will collapse within a decade. Lobsters take five years to reach a mature breeding age and recruitment (survival to adulthood) of young is exceedingly precarious. Thus, with sustained severe fishing pressure it is only a matter of time until harvests outstrip the populations capacity to replenish its' lost generations.

With these fears in mind the National Marine Fisheries Service has taken an aggressive stance on the industry, advocating a trap limit of 500/boat. In addition, yearly increases in size limits for minimum length lobsters and decreases in maximum length lobsters have reduced the window of harvest to individuals where the distance from the eyes to the tail ranges between three and five inches.^{ix} Finally, in the interest of reducing the quantities of lobster unnecessarily ripped from the bottom only to be dropped back to the sea floor for size reasons, the agency has prescribed a system of venting for each lobster trap. Either two circular (2 3/8 inches in diameter) vents or one rectangular vent (1 15/16 by 5 7/8 inches) are admissible under this federal mandate.^x Unfortunately, the Fisheries Service has increased the size of these vents nearly every year since their inception. The costs of replacing the vents fall squarely on the shoulders of the lobstermen who must not only invest their resources but also their time. Indeed, replacing each vent takes approximately thirty minutes per trap, or five hundred hours for a thousand traps.^{xi}

Lobstermen are concerned with the present state of the fishery not so much because of the portent of collapsing catches, but on account of the ever-increasing competition on their fishing grounds. Burgeoning catches have not been met with much increase in demand and prices seem to have stabilized. In addition, the increasing number of competitors on the water force lobstermen to fish more and more traps, which requires longer work days and higher costs in gear preparation, maintenance and hauling of traps. Few fishermen agree on the issue of proposed trap limits. Older, more experienced fishermen feel that their superior knowledge of seasonal lobster distribution and feeding habits will enable them to gross as much with 500 traps in the water as with 1000.^{xii} In contrast, inexperienced anglers are wary of trap limits, fearing the invariable lost catches in the limitation of the bottom area they can cover with traps.

The meeting promises to be an eventful one. The lobstermen and their invited guests intend to debate the issue of proposed trap limits, following which the MLA plans to vote on whether to accept the NMFS proposal, or to offer a lobster management proposal of their own.

John Cornish, National Marine Fisheries Service Representative

After four years of undergraduate study in marine biology at the University of Rhode Island, your keen interests in marine fisheries led to enrollment in the Woods Hole Oceanographic Institute on Cape Cod. At Woods Hole you worked on independent research under some of the most respected fisheries scientists in the country. Using Woods Hole's backyard, the North Atlantic Ocean, as your classroom you examined the biology of the troubled codfishery, once the pride of New England's great fishing industries.

After finishing your PhD in 1985 you were hired by the National Marine Fisheries Service as director of their groundfish monitoring program in the New England States. Despite frequent warnings by your office, record catches in the early 1990's did not resonate with predictions of the fishery's collapse. However, by 1995 it was clear that cod, haddock and halibut stocks on George's Bank and the Gulf of Maine were nearly commercially extinct. Despite cajoling and even threats from the New England fishing industry that your proposed regulations would destroy their livelihoods and a vital piece of New England history, successful legislative implementation of a moratorium of fishing on vast stretches of the Gulf and the Bank was achieved in 1995. Now, after nearly four years of minimal fishing, groundfish numbers are slowly increasing. Unfortunately, the ecosystem disruption wrought by decades of overfishing has made conditions all but impossible for groundfish stocks to recover to the levels of bounty enjoyed for centuries off the New England coast. It seems like your regulations came too late.

Having just recovered from the tragedy of a failing groundfishery you have committed yourself not to re-create the mistakes that caused past failures. Future fisheries under your jurisdiction will be closely monitored and regulations will be sought in a proactive rather than reactive manner. Indeed, as you yourself said at a recent NMFS meeting, "The greatest challenge facing our service is to enact regulations that anticipate future collapses rather than enacting regulations that react to collapses as they occur."

For example, despite record catches over the last five years in the Maine lobster industry, you are demanding ever tighter regulations to prevent a groundfish-like collapse. Along with most fisheries scientists, you believe that the strength of a fishery is best indicated not by sheer numbers of catch but by catch per unit effort. This value takes into account not only the number of fish harvested but also the effort it took to yield that harvest. In terms of the Maine lobster fishery, it is clear that escalating catches have been mirrored by escalating effort, in the form of increasingly more traps, fishermen and hours fished. Thus, the Maine lobster yield may be increasing not as a function of increasing lobster populations in the Gulf. Rather, increases in harvests could stem from increases in overall fishing industry effort. With these data in mind, the Maine lobster industry is very likely fishing beyond the sustainable yield of lobster stocks. Unfortunately, in your eyes, collapse of the fishery can be the only result of this non-sustainable fishing. Thus, as drafted in your proposal to the Maine Lobstermen's Association,

"We advocate a conservation position for lobster based on federal mandates that would manage the fishery comprehensively at a national level, ensuring cohesive, region-wide regulations with a focus on the future and sustainability rather than on the present and highest yields."

The most important of these mandates is your proposed region-wide trap limit of 500 traps/boat and an increase of allowable vent sizes to 2 by 6 inches for rectangular vents and 2 5/6 inches in diameter for the circular vents.^{xiii}

David Mercier^{xiv}

A forty-year old lifetime resident of Harpswell who graduated from the College of the Atlantic with a degree in fisheries management, you immediately went to work in the Midcoast Maine region as a local marine warden. Your jurisdiction includes, among many other species, the monitoring of lobster harvests. With the recent demise of groundfish, your job has increasingly focused on lobster regulations. Deeply saddened by the loss of the groundfish, and the proud tradition of fishing they represented for Maine and the region, your chief concern in monitoring lobster is conservation of the species so that the state can hang on to one of the last vestiges of marine oriented employment.

You see the plight of the lobster as an issue that cannot be regionally controlled. Obviously, the health of the fishery depends on regulating harvests throughout the Atlantic seaboard. However, these regulations must be implemented with a local focus that can understand, as the Federal Government cannot, the intricacies of different fishing communities in different towns, counties, and states. You cite the inability of the Federal Government to understand the full range of subtle effects that combine to shape the Midcoast fishery as evidence that local determination of regulation is a necessity. For example, in using annual commercial harvest data and catch per unit effort to assess the viability of the lobster stocks, the National Marine Fisheries service neglects all of the recreational, and even black market, lobster catches that go unrecorded each year. You would estimate that up to one million pounds of lobster per year is harvested from your district without going noticed by the Federal Government. Thus, while the thinking of the Feds is right on the mark, you feel that the data is incomplete, and skewing their assessment of the lobster fishery's health.

In addition to using generalized, often flawed, data in assessing fishery viability you feel like even greater errors of judgement are taking place in the National Marine Fisheries Service's proposed regulations. When discussing the venting system proposed by the Feds you said,
"The double circular venting system for traps approved by the NMFS in the early 1990's is almost comical in its sheer stupidity. It truly represents that the people in Washington have no understanding of even the basic workings of the lobster industry."

Indeed, these circular vents are wonderful for the escape of the tail portion of the lobster. However, as the animal backs out of the vents it is met with the unfortunate problem of its large claws, which are splayed to the sides. In order to squeeze through these vents the lobster would have to cross its claws and wrench itself through the holes, an unlikely scenario in light of the ready abundance of bait within the trap.^{xv} You liken these circular vents to the Winnie the Pooh story when he gets half-way out of a den and then gets stuck by the proliferation of his belly. Surely, the NMFS needs to develop a keener understanding of the basic principles of lobster anatomy and its fishery before they should go about proposing any regulations. Indeed, several members of the MLA and yourself met at the Portland High School Auditorium last night where you pleaded,

"I urge you men to vote against the NMFS proposal, not on the basis of lobster conservation being a foolish notion but on the basis of rejecting federal control, which can not possibly understand the multitude of different problems facing the hundreds of fisheries on the Eastern Seaboard."

Along these same lines you encouraged the lobstermen to consider the benefits of a system of local regulations. Here, local marine wardens would set regulations as necessitated by their respective fisheries. In your particular area you would advocate the abolition of circular vents in favor of a universal system of rectangular venting. In addition, you would attempt to account for, and crack down on, black market lobster sales in your regulations. Finally, the greatest boon of local control would be its inclusion of lobstermen in regulations. Rather than relying on a system of restricting their catches with mandated size limits and vents, you would advocate that the lobstermen participate in the process, seeking out breeding lobsters and breeding grounds where moratoriums on fishing would ensure the health of the local populations. On the whole, a system of local control would inherently be more democratic and representative of the subtle dynamics of local fisheries.

Denny McIllheny

At twenty-five you are the youngest lobsterman who owns his own boat in Portland Harbor. Your father owned a dragger, which harvested groundfish in the Gulf during the glory years of the 1970's and 80's. His untimely death coupled with the collapse of the Gulf's groundfishery left you with a beaten up trawler, no money and no fish. Fortunately, the Federal Government instituted its boat buy-back program just before you planned to sell your vessel for scrap metal. With the generous sum provided in return for a useless dragger, you bought the finest lobsterboat in the Harbor. Equipped with radar, loran and a Global Positioning System you can navigate to each of your traps in the densest pea-soup fogs. In addition, powered by a 600 horsepower diesel engine you steam out to your traps in all weather conditions at upwards of twenty knots.

Unfortunately, the superiority of your boat has not translated into superior lobstering. Unfamiliar with the lobster, you are constantly unsure of where to find the densest populations of your quarry. Thus, you spread your traps over vast stretches of bottom hoping to cover the greatest area, adjusting your traps to where the yields are greatest. You feel as if you are chasing the lobster around the Gulf, always a couple of steps behind. As a result, your boat, while the finest in Portland, consistently grosses near the bottom of the fleet. However, being young and strong you are determined to succeed and gain redemption from the snickers of the older, experienced lobstermen.

With these goals in mind, you have consistently expanded the number of traps you fish and the number of days you haul (traps) per year. Fishing 1,500 traps per year and hauling 200 out of 365 days has taken its toll. You rarely rise later than 5:00 am and you always return to the docks no earlier than 5:00 PM. But, at the same time, catches have begun to increase. You grossed in the middle of the fleet last year and have earned enough money to put a down-payment on a two bedroom Cape in Portland. Being able to buy a house has been wonderful considering your wife is expecting her first child in a couple of months. With catches across the state increasing year after year, the future looks grand indeed.

Drawn to the convention by your considerable investment in the lobster industry, you are increasingly troubled by the doomsday talk of the National Marine Fisheries service. In your experience the lobstering in the Gulf has never been better. The proposed regulation to increase vent sizes yet again is a serious issue for you. Fishing over 1,500 traps, the time and cost of replacing all of the vents means lost time on the water and lost revenue. You do not

understand how the government agency that pushed for boat buy-backs for the groundfishing industry does not allocate money for meeting the proposed vent increases.

While the issue of the vents is a nuisance both financially and time-wise, the advocated trap limits are sure to cripple you. Cutting the number of traps you could fish by two-thirds would cut your income incredibly. It is likely that limits of this sort would scarcely be able to provide food for yourself, not to mention your wife and child. Without any other skills, lobstering, as you put it,

“Is my only option and there is no fucking way some stiff from Washington, wearing pressed Dockers and a blazer, who has never had to break his back for a day in his life is going to tell me how much I can fish. Doesn’t he understand I have a family, a mortgage and a boat that is catching more lobsters than it ever has in the past. How dare he tell me that I am fishing too hard, I have no other choice. In fact, I don’t give a shit about the number of lobster in the Gulf or increasing catches, I just want tonnage. The more lobster I can bring in, the more money I make!”

In reality, the lobster industry, in and of itself, is not really a lifestyle for you. Rather, working the sea is a lifestyle and the lobster is just a source of income. As long as you can catch something and sell it for a profit that will pay your mortgage you do not care what it is that you are catching. If the lobster fishery collapsed, the up-and-coming sea urchin fishery, or clams, or eels could just as soon replace the lobster for you as long as you can catch them and make a profit. With this in mind you have begun to diversify your fishing. Currently, you make nearly \$10,000 additional dollars per year selling sea urchins to Japanese markets. With plans to expand into the elver, clam and crab fisheries, you have begun planning for being “regulated out” of the lobster industry, just as you were “regulated out” of groundfishing. Hopefully, if these regulations are voted down you will not have to go through the stress of changing your gear, your fishing and your boat all while providing for your wife and child.

In terms of fisheries as a whole, you feel like regulations are a mean-spirited attempt by the government to reduce the earnings of hardworking, struggling young men like yourself. You remark often to your wife,

“What is the sense of harvesting lobster, or fish, or clams, if you are not allowed to sell everything you catch. That is like issuing an income tax before you have earned a dollar. It does not make sense, there is a lot of money that can still be made if the Feds would get off of our backs and let catches continue to rise. If more lobster can be caught, what is the problem? There must just be more lobsters on the bottom.”

Craig Pellerin^{xvi}

The son of a Maine lobstermen, lobstering has been a part of your life since birth. At the age of ten you began hauling your own traps from the water around Bailey’s Island. Rowing a skiff out to each trap and hauling with your bare hands developed a strength of character and a love of the sea that has grown stronger ever since. During these formative summers of hauling the potential financial rewards of the industry were reinforced by numerous experiences. As you often relate to those who inquire about lobstering,

“When I was in junior high and high school, during the summer and fall when I was hauling my own traps, I always had a twenty dollar bill in my pocket. My friend Gary Cooper, who worked at Grand City (a variety store), would bust his ass for eight hours a day and he never had twenty

bucks in his pocket. All I had to do was spend a couple hours a day hauling and baiting my traps and there it was, twenty dollars for working hard and enjoying the water. How can you beat that.^{xviii}

As you have grown into the imposing man many regard as the unspoken leader of the MLA, you have developed a keen understanding of the lobster and its habits. Routinely grossing over \$200,000 a year you bring home an annual income approaching \$75,000. Yet, despite these huge earnings, particularly by coastal Maine standards, the working schedule you have endured has been equally imposing. Rising at dawn and working until three in the afternoon has worn your powerful hands into a state of callused rawhide. Your back and arms routinely feel like they belong to your 65 year old father rather than to the 39 years you carry. Despite the physical challenges, you still lobster with all of the enthusiasm of a 25 year old. You have to, both of your sons play ice hockey and when you aren't lobstering you are at their games or driving them across the state for tournaments.

Your concern for the lobstering industry reflects the wisdom of dependence that comes from 30 years of lobstering and no other source of income. Clearly, the lobster industry needs to be better regulated. However, you would debate the urgency of the Feds and the validity of their proposals. You feel like the Feds declaration that, "the lobster population in the Gulf is facing imminent collapse," is preposterous! The increasing catches that concern the NMFS are easily explained by two dynamic factors in the Gulf of Maine: the state of the groundfish and the amount of food. As others have mentioned, the groundfish are all but gone in the Gulf. As a result, juvenile lobsters have lost their primary predators and are surviving at an unbelievable rate. In addition, the dumping of old lobster bait and dragger bycatch onto the bottom has provided a glut of food for the cannibalistic lobster. With what you estimate, as 30,000 lbs of bait/day being dumped on the bottom lobsters have no reason to prey upon their brethren. Thus, both of these factors have combined to create the present boom of lobster catches in Maine.

Despite these enumerated facts, you feel like regulations will have to play a part in the future of lobstering, "*For my boys to make a living off the lobster, regulations can neither become too strict or too few, either will spell the end of a way of life in Maine.*" While trap limits are a great idea you fail to see the rewards of imposing such limits if a license moratorium is not declared. If an infinite number of people can get licenses to fish the lobster then it does not matter if only 100 traps can be fished per boat, there will still be a problem of overfishing.^{xviii} Pleas for a license moratorium have been soundly rejected by the Feds who say that such a practice is unconstitutional. In your eyes, "Proposed trap limits in a system with unlimited licenses is unconstitutional. They will take traps from professional lobstermen and put them in the hands of journeymen who are supplementing their income from somewhere else by lobstering us out of business."

Yet, even without a license moratorium you acknowledge that survival on 500 traps is possible. You feel as if you could catch nearly as many lobsters with considerably less effort and cost. If forced to vote today you would much rather everyone be restricted to 500 traps than to see vent sizes go up.

In closing, despite your disagreements with the Feds over vents and lobster numbers you feel as though some measures of federal, region-wide control must be implemented in

conjunction with the recommendations of local fisheries. For example, the MLA requires that lobstermen cut a notch out of the tail fin of a proportion of breeding females. These lobsters are returned to the sea where they can breed. If any lobstermen catches a notched lobster it is immediately thrown back to ensure that the Gulf of Maine will always be populated with breeders. Thus, a system of local decision-making and regulation is being used to protect local industry. However, this system is sure to fail without a Federal net of regulation. Indeed, the currents in the Gulf of Maine sweep to the southwest filling the Cape Cod Bay waters of New Hampshire and Massachusetts. The lobster travels south with these currents following food and warmer temperatures in the fall and winter. Unfortunately, the lobstermen in Massachusetts and New Hampshire do not release notched lobsters. Thus, the lobsters' mobility and the lack of comprehensive, region-wide support compromise the local conservation efforts of Maine. With this and other examples in mind you feel that,

“The role of the Feds should not be one of imposing rules on us, but one of understanding the rules and problems of all the fisheries and using them to make national regulations. The Feds need to serve as mediators who can help the industries come together to create rules that work for all of us, and save our common interest, the lobster.”

Conclusion

In the coming meetings on this misty weekend in April the future of the lobster industry will be decided. The MLA must decide whether to vote for the decreased trap limit and the increased vent restrictions or to propose a revised system of regulation to the NMFS. Surely, all five interest groups are divided. However, it is clear that the health of lobster stocks is vital to each, in varying degrees. Hopefully, a consensus decision may be reached, which accounts for all of these interests and needs.

References

ⁱ <http://gulfofmaine.org/library/gbay/lobster.htm>

ⁱⁱ <http://gulfofmaine.org/library/gbay/lobster.htm>

ⁱⁱⁱ http://www.st.nmfs.gov/webplcomm/plsql/webst.1.MF_ANNUAL_LANDINGS.RESULTS

^{iv} Interview: “Craig Rogers, Midcoast Lobstermen”

^v http://www.st.nmfs.gov/webplcomm/plsql/webst.1.MF_ANNUAL_LANDINGS.RESULTS

^{vi} http://www.st.nmfs.gov/webplcomm/plsql/webst.1.MF_ANNUAL_LANDINGS.RESULTS

^{vii} http://www.st.nmfs.gov/webplcomm/plsql/webst.1.MF_ANNUAL_LANDINGS.RESULTS

^{viii} Interview: “Craig Rogers, Midcoast Lobstermen”

^{ix} Interview: “Craig Rogers, Midcoast Lobstermen”

^x Interview: “Craig Rogers, Midcoast Lobstermen”

^{xi} Interview: “Craig Rogers, Midcoast Lobstermen”

^{xii} Interview: “Craig Rogers, Midcoast Lobstermen”

^{xiii} Interview: “Craig Rogers, Midcoast Lobstermen”

^{xiv} Based on a Marine Warden based in Topsham, ME.

^{xv} Interview: “Craig Rogers, Midcoast Lobstermen”

^{xvi} Based on a lobsterman, and his family, from Harpswell, ME.

^{xvii} Interview: “Craig Rogers, Midcoast Lobstermen”

^{xviii} Interview: “Craig Rogers, Midcoast Lobstermen”