

MEETING SUMMARY | June 12, 2013

Spiny Lobster Fishery Management Plan

Lobster Advisory Committee



Meeting in Brief

Discussion of Commercial Lobster Fisherman Survey and Fishery Management Guidelines.

DFW staff introduced the *Guidelines for Management Options for the Spiny Lobster Fishery Management Plan (Commercial and Recreational)* (Guidelines) as a starting point for LAC discussion and thinking. The Guidelines incorporate DFW management objectives and enforcement concerns and were developed from a range of sources, including direct communication with commercial fishery representatives, requests for DFW guidance at recent commercial caucus meetings, collected and analyzed commercial log data, results of the commercial lobster fisherman survey and the Marine Life Management Act objectives.

The LAC explored a range of questions and concerns associated with the Guidelines and commercial lobster fisherman survey results, brainstormed ideas for designing and managing a trap limit program, and identified criteria for evaluating future trap limit program proposals. Members are encouraged to discuss meeting outputs with their respective constituents and amongst each other prior to the next meeting. The LAC will continue working on proposal refinement as a tool to develop its advice and recommendations for DFW.

Modeling to Understand Commercial Fishing Effort. Building on similar previous presentations, Dr. Matt Kay reviewed the team science work that Shoreline Resource Consultants (SRC) conducts to better understand commercial lobster fishing effort. SRC is made up of research specialists with a combined wealth of knowledge and expertise in fishery management from around the world. He reiterated the primary objectives of the team's work in the Channel Islands, again reviewed the concepts and applicability of Spawning Potential Ratio (SPR) and Yield Per Recruit (YPR) to lobster fishery management, and provided an overview of the research model of Dr. Richard Parrish.

Additional Project Updates. DFW staff provided an overview of the recent Management Strategy Evaluation (MSE) training and shared the latest statistical analysis of recreational report card returns.

Next Meeting

July 10, 2013 | 8:00 a.m. – 3 p.m. | DFW office in Los Alamitos, in the upstairs conference room

<http://www.dfg.ca.gov/marine/lobsterfmp/>

Action Items

Timeline	Name	Action Item
June 18	DFW	Provide lobster FMP update to Marine Resource Committee
June 30	LAC Members	Submit expense reports to DFW

DFW Updates and Introduction of Management Guidelines

Assistant Chief for the Southern California Region Paul Hamdorf provided opening remarks to the meeting. He noted the recent appointment of Craig Shuman as DFW's new Marine Regional Manager and stressed the Enforcement Division's interest to maintain a consistent presence during the lobster FMP development process. He introduced DFW's Guidelines as a starting point for LAC discussion and thinking.

Data analysis shows an increasing trend in lobster trap pulls (effort), a downward trend in catch-per-trap-pull and an increase in the number of days traps are soaked. In concurrence with FMP modeling results and input provided by a majority of fishery participants, the Guidelines are designed to cap gear and effort at no higher than existing levels. (Current trap use average is 321 based on survey results.) Marine manager Tom Barnes noted that the Guidelines represent potential methods to improve fishery management immediately yet do not equate to a harvest control rule, which will be discussed at a later LAC meeting. A harvest control rule prescribes a management response (action plan) if the fishery were to decline to a predetermined point (trigger point). Lobster FMP Project Manager Kristine Barsky noted that MPAs will be taken into consideration when developing a lobster control rule, and may potentially serve as a biological buffer that reduces the likelihood of a harvest control rule being triggered.

Presentation on Modeling to Understand Commercial Fishing Effort

Building on similar previous presentations to the LAC and commercial fleet meetings, Dr. Matt Kay reviewed science work his team at Shoreline Resource Consultants (SRC) has conducted to date. The presentation given to the LAC at this meeting (June 12, 2013) was identical to a presentation that Dr Kay gave at a meeting in La Jolla on May 24, 2013. The May 24 gathering addressed southern portion fishermen (San Diego area) who had expressed interest in meeting Dr. Kay and hearing about this work.

Dr Kay's presentation focused on two research projects conducted by SRC scientists. The first project was a multi-year effort (2005-2011) conducted at the northern Santa Barbara Channel Islands. The project involved extensive fieldwork and some fisheries modeling. Collaborative in nature, this project was supported by a number of locally based fishermen who provided the vessels that enabled SRC research.

Dr. Kay reiterated the primary objectives of the Channel Islands work (the first of two projects discussed is his presentation):

Primary Research Objectives

- Assess changes in lobster populations inside reserves (MPAs)
- Learn about basic lobster biology
- Develop a harvest rate assessment (interpret in the context of SPR/YPR for California spiny lobster)

Key Findings of Dr. Kay's Research

- Significant lobster population increase inside the Channel Islands MPAs shortly after designation of these areas, including many individuals in larger size classes; (Of note, a barely legal lobster produces approximately 100,000 eggs whereas larger animals produce upwards of 800,000)

- Lobster move much shorter distances than was previously predicted; movement appears to be habitat dependent
- Lobster spillover outside MPAs is occurring but no hard numbers yet; more lobsters leaving than coming in to MPAs

Dr. Kay then revisited and reviewed key concepts with the LAC, including Spawning Potential Ratio (SPR) and Yield Per Recruit (YPR), and their application to fishery management, sustainability and ongoing understanding of the resource. SPR gives researchers, and by extension DFW, a good measure of the lobster population's ability to replace itself.

Key "take-home" Messages from the SPR/YPR Models Presentation

- The current minimum size limit allows approximately 5-8% of the reproduction that would be present if there were no fishery in California, spawning potential even if all legal lobsters were harvested in a given season. (The range of approximately 5-8% depends upon life history parameters, such as growth rates, that are used in the model)
- YPR is a theoretical measure that helps fishery managers understand the yield a fishery can produce. Managers generally look at SPR and YPR together.
- Harvest rates pushed to a certain point do not increase yield but do push spawning rates down
- There is an apparent harvest rate "sweet spot" for this fishery at ~0.3-0.5 (harvest rates of 0.3-0.5 mean that 30-50% of all legal sized animals are harvested in a season). Above ~0.5 very little yield is achieved, but much effort cost is expended and SPR is lost. Below ~0.3 the fishery is under utilized and yield is low.

LAC comments and questions interspersed the presentation, focusing on various findings and identifying key modeling considerations as lobster research generates additional information that informs management.

Key Modeling Considerations and Future Needs

- Acknowledge limited understanding of lobster larval source
- Assess suitable lobster habitat bight wide (and how much inside MPAs)
- The model provides an excellent way to incorporate the effect of MPAs into assessment (the model accounts for the reproductive output of populations inside MPAs)
- Determining the amount of lobster habitat inside MPAs in California is a critical research priority, because this impacts SPR estimates
- Consider uncertainty and its effect on future research needs
- Measure differences in key biological parameters such as the size at first reproduction, fecundity, and growth rates across the range of the fishery (i.e. from north to south), and account for differences in future models

The second research project discussed by Dr. Kay reviewed modeling work conducted by Dr. Richard Parrish to support the lobster FMP process. This model assessed harvest rates for California spiny lobster and considered the economic value of the resource, specifically the net value of lobster fished at different rates. Dr. Parrish's work demonstrates that lobster is fished at different rates across different areas, with the highest resource extraction rates occurring in the south. Echoing the SPR/YPR of Dr. Kay, Dr. Parrish found that at a certain point, additional effort produces very little additional yield, but reduces egg production, which is not beneficial to the fishery. Dr. Kay summarized the overall presentation by pointing out that the California spiny lobster fishery has been well managed and may expect to have a sustainable future with

continued sound management. The feedback loop informed by research and monitoring plays a critical role for management to achieve the MLMA objectives, still central to the FMP process and end product. Ideas included in the introduced DFW Guidelines may prove beneficial to all fishery participants.

Discussion of Commercial Lobster Survey and Fishery Management Guidelines

As noted above, DFW introduced spiny lobster fishery management Guidelines as a starting point for LAC discussion and thinking. The Guidelines incorporate DFW management objectives and enforcement concerns and were developed from a range of sources, including direct communication with commercial fishery representatives, requests for DFW guidance at recent commercial caucus meetings, collected and analyzed commercial log data, results of the commercial lobster fisherman survey and the Marine Life Management Act objectives.

Project Manager Kristine Barsky stressed the variety of sources and collaborative effort between DFW and the Fish and Game Commission that informed production of the document. DFW explained that it mailed a survey to all 194 lobster permit holders in order to gain a fleet wide perspective regarding the issue of trap limits. A total of 111 surveys were completed and returned to DFW, representing a nearly 60% return rate. Some LAC members expressed disappointment that they were not involved in the survey design process.

The LAC explored a range of questions and concerns associated with the Guidelines and survey results, brainstormed ideas for designing and managing a trap limit program, and identified criteria for evaluating future trap limit program proposals. The key meeting discussion points/outputs contained herein (bullets below) should be considered together with the Guidelines as a developing point of discussion and thinking. The ongoing dialogue and deliberation among LAC members still aims to create mutually acceptable recommendations for lobster fishery management. Members are encouraged to discuss June meeting outputs with their respective constituents and amongst each other prior to the next meeting. Upcoming LAC meetings will allow further refinement of collective ideas articulated to date by DFW, LAC and members of the public. Note that key meeting points/outputs listed below are logically sequenced yet not prioritized (i.e. none are necessarily more important than others).

Questions/Clarifications

LAC members asked several questions, and DFW was able to offer some explanation.

- What is the rationale for 350 as the ideal trap limit number?
 - Guidance document is a starting point for discussion
 - Escalation in the number of overall traps identified as a problem
 - Number of active permits also going up
 - Gear reduction is one way to address problems
 - 48% of respondents who favor a trap limit desire 300 or less traps
 - Need for replacement trap tags
 - Permit stacking helps larger scale fishermen
- What is a manageable overall number of commercial traps?
 - Guidance document does not address this question
- Were survey returns different between the two regions?
 - Yes: higher level of returns from the south
- How is the fishery affected if a trap limit drops below 350?
 - Potential for compaction based on effort shift (i.e. fleet movement)

- Speculative as to how this would affect high-use versus low-use fishermen (i.e. number of traps used)

LAC Concerns

LAC members discussed the DFW Guidelines at length. Some members expressed concerns and identified issues that the LAC will need to address to develop mutually acceptable advice and recommendations. The identified issues are listed here. The LAC will continue discussing and developing proposals to address the issues at future meetings.

- Reduce number of commercial fishing permits (some members believe this can potentially be addressed by permit stacking)
- Reduce overall commercial fishing effort (some members would like to consider a tiered trap limit program)
- Reduce effort while simultaneously allowing new entrants to build up the number of traps used. “No one started out fishing 1,000 traps.”
- Minimize economic impacts of a trap limit program on the commercial sector, particularly for those who fish more than the proposed limit
- Potentially still consider a regional trap limit
- Share burdens of any management changes across the fishery (i.e. commercial and recreational sectors)
- There is liability, safety and risk associated with poorly managed traps, lost traps etc.
- Limited survey questions possibly skews response average (some members expressed disappointment at not being involved in the survey design process)

LAC Brainstorm

Following identification of questions and concerns associated with the Guidelines, the LAC engaged in an initial brainstorm focused on the trap limit issue. The group identified the following considerations and criteria linked to development and implementation of a trap limit for the commercial sector:

- Consider trap densities on the water when determining the trap limit program
- Open question: tiered approach or one-size-fits-all trap limit
- Create trap tiers based on catch history (DFW expressed concern that such a program may be difficult to set up and enforce)
- Reduce gear in water and possibly the overall number of fishermen by placing a limit on the number of traps available to transferred permits after a certain date (e.g. 200 or 300 traps); disagreement on whether or not this puts the burden of gear reduction on new permit holders
- Allow stacking of 2 to 3 permits
- Consider a phased trap limit over a period of several years
- Consider a tradable traps program
- Consider level of experience and create incentives for any trap limit program
- Ideal goal of 70-141 permit holders in the fishery

Criteria for Evaluating Future Trap Limit Program Proposals

DFW and LAC members jointly identified criteria for evaluating future trap limit program proposals as discussion and deliberation on the issue continues. Marine Manager Tom Barnes noted the valuable nature of the discussion and reminded the group that coming to consensus on a trap limit recommendation would send a powerful message to the Fish and Game Commission. The group noted that any trap limit program should meet the following criteria:

- Advances Marine Life Management Act objectives

- Reduces risk of triggering a harvest control rule
- Reduces conflict with other user groups
- Helps maintain economic viability of the commercial sector
- Minimizes economic impact to commercial fishermen (e.g. permit holders who fish more than 350 traps)
- Reduces effort
- Includes mechanism to reduce effort but not force permit holders out of business
- Simple, uncomplicated, flexible and/or gradual program
- Keeps administrative costs down and/or manageable
- Informs data collection, definition of capacity and understanding of trap numbers in water
- Creates incentives versus mandates
- Creates shared burden across the fishery (i.e. commercial and recreational)
- Is gradual and not immediate or draconian
- Is acceptable to the Fish and Game Commission

Public Comments

Public comment occurred at two different points during the meeting. Some members of the public expressed appreciation and support for key elements of the commercial lobster fisherman survey and associated Guidelines. Others offered critical feedback. Comments, questions and interests centered on the following:

- Acknowledge the cost of acquiring a second permit when considering stacking as part of any trap limit program
- Look at catch history when considering tiered trap limits; could help minimize impacts on large scale fishermen
- Recognize that a 350 trap limit may cause effort shift in the fishery (i.e. fleet migration)
- Demonstrate effort as it occurs across time
- Ensure flexibility with any proposed trap limit program
- Understand there will be a cost to any tag system associated with a trap limits; DFW's Enforcement Division will work with commercial sector to develop a tag system
- Link effort reduction to meeting MLMA objectives
- Permit stacking may not be the only option; consider reduced cost on a second set of traps
- A trap limit is probably the best tool to address MLMA objectives and optimize the fishery
- Some fishermen strongly support DFW's approach to conduct a survey and utilize results; survey enabled a democratic approach for commercial fishermen to provide feedback
- Consider a "soft" trigger combined with ongoing monitoring of the economic value of lobster; monitoring feedback loop enables better decisions
- Beware of the allocation issue negating the influence of science in decision-making
- Consider subcommittees to explore key issues
- Consider specific sections of the MLMA when designing a trap limit program (e.g. 7085, 7056, 7050)
- Consider a grandfather clause (e.g. number of years fished, total landings etc.) to limit economic impact of any management changes on large scale commercial fishermen
- Permit speculation may happen regardless of any attempts to avoid it
- Consider an adjusted trap limit for fishermen working in partnerships

Additional Project Updates

Additional project updates provided an overview of the recent Management Strategy Evaluation (MSE) training and latest statistical analysis of recreational report card returns. FMP science contractors led the training in late May with DFW staff and interested parties. The training

reviewed the operational model construction and described the various biological inputs. MSE is a data intensive model and will be incorporated into future management; it is premature to apply the model at this stage.

Shifting to a recreational fishery update, Lobster FMP Assistant Coordinator Kai Lampson noted a 32% return rate for all 2012 report cards. This represents a significant increase from previous fishing seasons and is mainly attributable to the “reminder post cards” sent out at the beginning of the year. DFW plans to send out additional mailers to remind recreational participants to submit report cards. The mailers will also provide information describing how the 2013/2014 report card covers the entire lobster season and not just the calendar year. According to the most recent report card data, recreational participants landed 28% of the state’s total lobster catch. Questions and comments by LAC members elicited open discussion and information sharing on DFW’s most recent data collection and analysis efforts for the recreational fishery:

- San Diego Bay is the number one catch site for the recreational fishery
- Hoop nets make up 64% of recreational fishing effort (gear type used not catch)
- 3,158 of 12,139 report card returns were submitted online
- Report cards are scanned twice to verify data
- Total recreational catch (poundage) is determined by total number of lobsters kept multiplied by average weight
- Combined weight of commercial and recreational catch is 1.2 million pounds

Closing Remarks

The LAC agreed to July 10, 2013 as the next meeting date. The meeting will take place from 8:00 a.m. to 3 p.m. at the DFW office in Los Alamitos, in the upstairs conference room.