

UPDATE ON NEARSHORE FISHERY MANAGEMENT PLAN IMPLEMENTATION

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NEARSHORE FISHERY MANAGEMENT PLAN IMPLEMENTATION UPDATE

EXECUTIVE SUMMARY

Recent and ongoing activities are improving efforts to meet the goals and objectives of the Nearshore Fishery Management Plan (NFMP). Priority has been given to increasing our knowledge of nearshore plan species for more effective management. Other areas of progress include reducing the number of commercial nearshore fishermen to more closely match the available stocks, improved inseason monitoring, and setting catch limits based on stock assessments. These actions have been initiated to help ensure nearshore fishery resources are sustainable over the long term.

Key Actions Ongoing or Completed:

- Implemented a restricted access (RA) program for the shallow nearshore species reducing the number of participants and moving closer to a statewide capacity goal.
- Implemented a permit for the deeper nearshore species which limited participation.
- Completed stock assessments on six plan species: three species are healthy, one is precautionary, one assessment was not accepted and one needs further research.
- Collected improved information on abundance, growth rates, age composition, and other life history traits for most of the NFMP species.
- Improved recreational and commercial fishery data collection programs were implemented.
- Improved techniques for gathering information on species density and size structure.
- Achieved active inseason management for cabezon, greenlings and California sheephead.
- Included NFMP criteria for Marine Protected Areas (MPAs) for the 19 nearshore species as design criteria in the Marine Life Protection Act (MLPA) Master Plan.
- Consistently engaged constituents in management discussions.

Short Term Plans for the Future Include:

- Build internal capacity for conducting stock assessments
- Improve knowledge of plan species through more stock assessments and continued fishery independent research
- Include nearshore rockfish and California scorpionfish in statewide inseason management
- Identify appropriate habitat for the 19 species
- Develop a plan for gaining more direct regional input into decision-making

Challenges to Implementation: Progress on full NFMP implementation has been hampered by a lack of adequate funding and consequent lack of Department staff, or limited by the quality, timeliness or precision of available information. The NFMP was developed as a long-term approach and while there is some concern that certain aspects of the plan have yet to be implemented, many current activities will eventually fulfill long-term objectives.

Key Actions Needed for Successful Plan Implementation Include:

- Direct research toward collection of essential fishery information (EFI) and refine use of fishery-independent assessment tools
- Use reference reserves designated through the MLPA process to assess species abundance
- Explore the use of assessed species to infer status of unassessed NFMP species
- Increase funding for EFI collection, stock assessments, regional management and monitoring
- Develop regional management approaches based on stock status



BACKGROUND

The passage of the Marine Live Management Act (MLMA) in 1998 mandated resource sustainability as the highest priority. Also mandated were science-based management, fishery sustainability as key to minimizing socioeconomic impacts, and management based on fishery management plans including preparation of a NFMP. The necessity of preparing a NFMP was in response to increasing pressure on vulnerable nearshore reef fish species, particularly from a lucrative, relatively unregulated commercial nearshore live-fish fishery. Expansion of the live-fish fishery began in the late 1980s and early 1990s. Many of these species are vulnerable to overfishing and localized depletion due to their residential nature and because most of them are long-lived, late maturing, and slow growing. The live-fish fishery specifically targets plate-sized fish which are often immature adding to their vulnerability. At the time of plan development, species information to base management was limited so a precautionary approach was warranted.

Adopted in 2002, the NFMP identifies a management strategy for 19 of California's nearshore finfish species targeted by recreational anglers and the commercial nearshore fishery. The plan purpose is to use more coordinated management to ensure long-term sustainability of nearshore stocks and fishery resources. The plan framework identifies key goals and objectives necessary for implementation. Significant progress has been made toward meeting some of these goals and objectives while others are taking longer to achieve (Appendix 1). Five management approaches form the basis for integrated management strategies that over time will meet the goals and objectives of the NFMP and MLMA. They are: the Fishery Control Rule, Restricted Access, Regional Management, Marine Protected Areas (MPAs), and Allocation. Management improves as these plan approaches are implemented and our knowledge base increases. This report has been prepared to update the Commission on implementation progress, challenges to date, and future plans.

PAST, CURRENT AND FUTURE ACTIVITIES

Improved Information for Management Using a Science-Based Approach

Progress has been in the area of increasing our knowledge of plan species. The NFMP relies on an information-based harvest strategy to move toward a more ecosystem-based approach. Stocks with little information are currently managed at a catch limit equal to fifty percent of recent total landings. As more information on stock status is gained (e.g., through formal stock assessments or research on species biology), more confidence can be placed in management measures and catch limits can be based on estimates of actual stock size relative to an unfished state.

Increased knowledge of plan species focuses on four areas:

1. Conducting formal stock assessments for species with sufficient data,
2. Actively pursuing EFI,
3. Improving fishery dependent data collection, and
4. Determining appropriate methods for collecting long-term, fishery-independent estimates of abundance.



Recent Actions for Acquiring and Using Essential Fishery Information

- Since 2002, six plan species have been formally assessed – cabezon, California scorpionfish, California sheephead, black and gopher rockfishes, and kelp greenling. Four assessments were adopted for use in management and setting catch limits.
 - Department staff collaborated with NOAA Fisheries and independent fishery scientists to conduct these stock assessments.
 - 2003 – Cabezon and black rockfish were assessed and the NFMP fishery control rule was used to set appropriate catch limits for 2004.
 - 2004 - California sheephead assessment was conducted. Changes based on this assessment have not been implemented pending further research.
 - 2005 – First-time gopher rockfish and California scorpionfish assessments were conducted and approved for use in management. Catch limits were determined for cabezon, black and gopher rockfish, and California scorpionfish to be used in 2007-2008 management consistent with the NFMP fishery control rule.
 - 2005 – The kelp greenling assessment was conducted and not approved for use in management due to data concerns.
- Department staff collaborated with federal agency and academic researchers to improve information on abundance, growth rates, ageing, and other life history traits important for stock assessments (Table 1).
 - California sheephead and California scorpionfish assessments were Department-funded
 - Department-funded collection of ageing information for cabezon
 - Department-funded research on sex change in California sheephead and its importance to evaluating stock abundance
 - Department-supported rockfish tagging studies providing information on movement and survival
- Improvements were made in fishery dependent recreational and commercial data collection programs.
 - 2004 - A new California Recreational Fisheries Survey Program (CRFS) was implemented to improve the accuracy, precision and timeliness of information used for management.
 - Increased commercial sampling now provides increased dockside sampling of southern California groundfish.
 - DFG staff collaborated with NOAA Fisheries and Pacific States Marine Fisheries Commission staff to develop and implement a NOAA Fisheries-funded voluntary nearshore commercial logbook program.
 - 2004 – Initial meetings with fishermen and agencies and pretest.
 - 2005 – Meetings with permit holders, pilot study conducted.
 - 2006 – Developed data entry program.
- Fishery independent research inside and outside MPAs centered on improving techniques for gathering information on species density and size structure using scuba and remotely-operated vehicles (ROVs). This work is part of the Cooperative Research and Assessment of Nearshore Ecosystems (CRANE) program and includes state-wide private, academic, and agency partners.



- Scuba and ROV survey protocols were established and implemented among all collaborators.
- CRANE scuba effort gathered data at 89 sites from Point Año Nuevo (San Mateo County) to San Diego in 2004.
 - Fish (and invertebrate) density and size information were collected
 - More information obtained on some species than others due to species' unique habitat and depth preferences (Table 1).
- CRANE program is also reviewing historical abundance and size information from same sites used by CRANE

Challenges to Improving Essential Fishery Information:

- Collecting EFI is expensive and time-intensive.
- Wide-scale CRANE surveys received one-time federal funding for 2004 and only a portion of the sites were surveyed again in 2005; continued data gathering efforts of this magnitude currently lack long-term funding.

Next Steps for Improved Essential Fishery Information:

- Publish results of 2004 ROV and scuba surveys
- Contract for updated blue rockfish life history information for stock assessment
- Contract to conduct California sheephead age validation
- Consider stock assessments for blue, copper, or olive rockfishes, and new California sheephead and kelp greenling assessments
- Complete review of historical scuba survey data from same sites used by CRANE
- Full implementation of voluntary nearshore commercial logbook program

Long-Term Plans:

- Compare fish densities in fished and unfished areas using CRANE survey approach for determining stock status
- Establish new CRANE study sites as funding allows
- Increase habitat mapping for California coastline
- Explore the use of assessed species to infer status of unassessed NFMP species

Nearshore Management Activities

Setting Catch Limits – In December 2000, the Commission adopted interim catch limits and allocations for cabezon, greenlings and California sheephead based on a precautionary approach until the NFMP was adopted in 2002. In the absence of better information (stock assessments), catch limits were set at fifty percent of recent combined recreational and commercial landings.

Recent Implementation Actions:

- In 2003, following plan adoption, the Commission revised catch limits and allocations using updated landings information consistent with the approach used in 2000.
- In 2004, the catch limit for cabezon was decreased based on results of a new stock assessment; the allocation ratios remained unchanged.



Challenges to Setting Better Catch Limits:

Increased EFI collection is needed to provide more complete geographically-specific information on population densities and improve stock assessments. The Commission and Pacific Fishery Management Council (Council) can then use a more informed approach when determining appropriate catch limits.

Inseason (In-Year) Monitoring - Currently the Commission actively manages the fisheries for cabezon, greenlings, and California sheephead -- setting catch limits and trip limits. The Department monitors catches during the year (or inseason) to keep landings within allocations. Catch limits have been used since 2001 to regulate inseason landings and to close fishery sectors when annual allocations were expected to be met (Figure 1).

Recent Implementation Actions

- Inseason statewide recreational and commercial monitoring occurring
- Improved the methodology to accurately predict inseason landings
- Department authority to take inseason action helps keep catches closer to allocations
- Since 2003 commercial two-month trip limits have been in place to spread the catch among permittees and throughout the year

Challenges to Better Inseason Monitoring are:

- Timely information flow; there is currently a 6 –10 week delay in receiving commercial or recreational landings information to properly gauge the need for action
- It is difficult to predict the behavior of fishermen in a given year or in response to regulatory or market changes

Next Steps:

- Expand the inseason commercial monitoring program to include nearshore rockfish and California scorpionfish
- Consider costs and benefits of regional monitoring since regional data collection is now in place

When 1998 landings of all NFMP species are compared to 2004, the effect of the NFMP-initiated regulations in conjunction with Council-initiated groundfish regulations affecting nearshore species is apparent (Table 2). The 1998 data represent a period of peak harvest prior to implementing more precautionary regulations. Overall, the total landings of NFMP species have declined by fifty percent and the top ten species have not changed. The largest decreases were observed in cabezon, California sheephead, California scorpionfish, and copper, grass, quillback and black-and-yellow rockfish. The top four species are still the same although lower allowable catches of cabezon reduced this specie's rank from two to three.

Matching the Fishery to Available Resources – A key factor in the development of the MLMA, and subsequently the NFMP, was the need to more closely control the commercial



nearshore live-fish fishery so that long term sustainability was ensured. A Nearshore Fishery Permit was first required in 1999 for the shallow nearshore species - cabezon, California sheephead, kelp and rock greenlings, California scorpionfish, and black-and-yellow, China, gopher, grass, and kelp rockfishes. The purpose of the permit was to limit expansion of the fishery; there were 1,128 participants at that time and by 2002, 504 participants continued to purchase permits.

Recent Implementation Actions:

- 2003 - A full RA program was implemented for the shallow nearshore species to promote the ecological and economic sustainability of the fishery, consistent with the MLMA and Commission policies. The purpose was to reduce the number of participants and move closer to a statewide capacity goal set by the Commission at 61 participants.
 - Nearshore fishery permit holders now have regional permits that only allow the use of hook-and-line gears, trap gear, and dip nets.
 - A total of 216 NFPs were issued in 2003 to initial qualifiers reducing the number of participants by fifty-nine percent. Permit transfers in 2004 and 2005 helped achieve an overall attrition rate of about seven percent.
 - Since 2003 there has been a six percent reduction in the number of active permittees (landing more than 50 pounds in a year.)
 - In 2005 there were 155 active participants – still one hundred fifty-four percent above the capacity goal.
- 2003 - A nontransferable statewide Deeper Nearshore Species Fishery Permit was first required to take black, blue, brown, calico, copper, olive, quillback and treefish rockfishes. This permit also prevented further expansion of the fishery.
 - There were 286 permittees in 2003 and 246 permittees in 2004, resulting in an attrition rate of fourteen percent.
 - In 2005, successful permit appeals to the Commission increased the total to 250 participants; forty-three percent of these were active participants.

Challenges:

- The number of permits is well above the capacity goal and some participants have indicated that due to low catch limits the fishery is not economically sustainable.
- Nearshore fishery permits are region-based while catch limits remain statewide.

Next Steps:

- Implement a full restricted access program for the deeper nearshore species or for all of the NFMP species.

Regional Management – Regional management of the nearshore fishery is contingent on the ability to regionally monitor both recreational and commercial landings and to use regional information on stock status to set fair and equitable harvest limits. It is also dependent on having Department resources available for regional management with more formal constituent input.



Recent Implementation Actions:

- Monitored the commercial fishery on a regional basis
- Used CRFS to make accurate and timely regional recreational catch estimates
- Solicited regional input from constituents on key management decisions
- Established regional focus groups and a Groundfish Task Force with regional representation for developing regulations

Challenges:

- The Department lacks sufficient staff to implement a regional approach
- Regional stock status levels remain unknown
- Establishment of fair and equitable regional catch limits and allocations

Next Steps:

- Expand regional in-season monitoring capabilities
- Develop a plan for acquiring more direct regional input into decision-making
- Increase Department resources for NFMP implementation
- Determine appropriate regional catch limits, allocations, and trip limits

Incorporating Marine Protected Areas into Management – As mentioned above, a NFMP objective is to move toward basing catch limits for all plan species on stock status relative to an unfished state. Information on stocks from unfished areas will come from studying fish in MPAs in habitat appropriate for plan species; the information can then be compared to that observed in comparable habitats in fished areas. Knowledge of appropriate habitat in existing and future MPAs will further efforts to base management on methods using fish densities in unfished areas as described in the NFMP. The NFMP refers to these unfished areas as “reference reserves”. The MPAs are also key to the goal of moving toward an ecosystem-based management approach by providing a better understanding of the role of plan species in the ecosystem.

Recent Implementation Actions:

- Began to determine the amount of appropriate habitat for plan species in and around existing MPAs, focusing on the South Region and southern California species
- Included the NFMP criteria for MPAs for the 19 nearshore species as design criteria in the MLPA Master Plan Framework adopted by the Commission (August 2005)

Next Steps:

- Refine the criteria for evaluating “appropriate habitat”
- Expand appropriate habitat analysis northward in 2006 to the central coast regions
- Determine next habitat mapping priorities
- Determine which MPAs are suitable as reference reserves for plan species

Long Term Next Steps:

The NFMP fishery control rule relies on a process of moving to a “data moderate” or “data rich” state that is dependent on the availability of unfished areas such as those found in reference reserves for evaluating the status of stocks. Traditional stock assessments,



while very informative, rely on specific life history information about key biological characteristics (growth rates, mortality rates, stock structure, etc.) that are time and cost-intensive to collect and are heavily dependent on long time-series of data that are either minimally or not available for some of the plan species. When species densities in reference reserves are compared over time with densities in comparable fished habitats, the effects of fishing on stock size relative to the effects of fluctuating environmental variables (oceanographic conditions) should become more apparent. MPAs that comprise the network of unfished Marine Reserves mandated under the MLPA should provide the replication necessary for untangling fishery effects from those due to environmental factors. The pace of moving to a “data moderate” or “data rich” state and ecosystem-based management approach will be partly determined by the development and subsequent monitoring of MPAs through the ongoing MLPA process.

Constituent Involvement – Increased constituent involvement in the management process was also mandated in the MLMA. The NFMP called for the development of Regional Advisory Committees. So far, formal committees have not been developed due to Department resource limitations. However, efforts to more formally involve constituents in the management process have been developed so managers are better able to address constituent needs in planning management actions/approaches.

Recent Implementation Actions:

- Established a statewide Groundfish Task Force comprised of recreational, commercial and environmental members
- Developed a mailing list of interested parties who receive notice of proposed regulation changes, relevant press releases, and the Marine Management Newsletter
- Created four recreational and four commercial regional focus groups whose input was used for the 2007-2008 regulation development process
- Created more complete web information on groundfish issues so that information access is enhanced
- Conducted regional conference calls with constituents on proposed regulation changes
- Hired a consultant to develop a plan for effectively engaging constituent input in a cost-effective manner

Next Steps:

- Maximize web-based information exchange
- Implement appropriate communications approaches from the regional constituent input plan
- Consider incorporating the proposed MPA Management Advisory Committees with the planned Nearshore Regional Advisory Committees as suggested in the draft MLPA Monitoring, Evaluation, and Adaptive Management Framework

Transfer of Management Authority – Sixteen of the 19 plan species are jointly managed under the federal Groundfish Management Plan (Table 1). While some of the plan species occur only off California, some have a geographic range throughout the Council jurisdiction



along the coasts of Oregon and Washington. Oregon is developing a nearshore fishery management plan and coordinated management of shared stocks among the three states will continue to be a priority.

The NFMP discussed the intent to seek sole management authority for these species through transfer of management authority from NOAA Fisheries as a long term plan. The purpose at the time was to allow the state to move beyond the management employed by the Council and reduce management complexity. Transfer of authority would involve the state assuming full responsibility for all aspects of management such as stock assessments, setting catch and trip limits, assessing bycatch, opening and closing fisheries, etc. It would continue to require considerable coordination with the state of Oregon and the Council. Currently, Federal and Council staffs are very involved in the stock assessment and management processes; there is considerable likelihood that this type of involvement would not continue if the state had full authority. None of the parties have the available staff resources needed for amending the federal Groundfish Management Plan or preparing the environmental review document. In addition, the state's current budget situation means that the Department's ability to fully manage the fishery at this time is limited. The formal process is presently on hold and may only be needed in the future if and when the current process does not allow for management measures the Commission would like to consider.

Under the current management approach¹, the Department proposes catch limits using the NFMP harvest control rules and develops accompanying management measures during the Council regulatory cycle. The Commission provides policy guidance to Department proposals, and the Council and Commission both take management actions. As long as the state regulations are consistent with, or more conservative than federal actions, NOAA Fisheries does not make changes. Under formal *deferral*, state management authority only applies to vessels registered/licensed in that state, so ultimately the state would need formal *delegation* of authority for management control over all vessels fishing in ocean waters within the state.

Recent Implementation Actions: California has already taken management actions that either directly or indirectly demonstrate the state's ability to fully manage these species:

- Requested the Council to add a management line at the CA/OR border
- Implemented a formal regional Restricted Access program (described above)
- Used Commission guidance to develop appropriate statewide catch limits and sector allocations, as well as other components of the management strategy, consistent with the NFMP through the Council process
- Participated in and/or funded stock assessments on three of the federal Groundfish Plan and NFMP species (CA scorpionfish, cabezon and gopher rockfish)
- Developed protocols for inseason management and CDFG authority for inseason action
- Commission adopted catch limits and trip limits for cabezon, greenlings and California sheephead

¹Formal *deferral* of management authority requires a vote by the Council, federal Groundfish Management Plan amendment, and preparation of a NEPA document. As this has not occurred, current actions (the status quo) can be considered as "de facto" *deferral* because the management actions the state is taking itself, and recommending through the Council process, are consistent with what would occur under formal *deferral*.



- Took actions under the Director's authority (provided by the Commission) to regulate inseason recreational catches

Next Steps:

- Assist NOAA Fisheries in permitting the Open Access portion of the federal fishery and incorporating it into a Limited Entry fishery
- Consider developing a comprehensive Restricted Access program for the deeper nearshore species or for all NFMP species

Long-Term Implementation Plans:

- Request formal transfer of authority, if appropriate, from the Council and NOAA Fisheries through amendment of the federal Groundfish Plan, joint preparation of an environmental review document and Council vote



Table 1. Current Status of NFMP Species (*Also in federal Groundfish Management Plan)

Management Status & Species	Date of last formal assessment	Status of CA stock	Currently included in CRANE EFI collection activities?
*Cabezon, <i>Scorpaenichthys marmoratus</i>	2005	North - Healthy; South – precautionary/ depressed	Yes
California sheephead, <i>Semicossyphus pulcher</i>	2004	??	Yes
*Kelp greenling, <i>Hexagrammos decagrammus</i>	2005 (not approved)	??	Yes
Rock greenling, <i>Hexagrammos lagocephalus</i>	None	??	No
*Black rockfish, <i>Sebastes melanops</i>	2003	Healthy	Yes
*Black-and-yellow rockfish, <i>Sebastes chrysomelas</i>	None	??	Yes
*Blue rockfish, <i>Sebastes mystinus</i>	None	??	Yes
*Brown rockfish, <i>Sebastes auriculatus</i>	None	??	Yes, limited due to species habitat preferences
*Calico rockfish, <i>Sebastes dallii</i>	None	??	Yes, southern CA only; limited due to depth preferences deeper than primary sampling sites
*China rockfish, <i>Sebastes nebulosus</i>	None	??	Yes
*Copper rockfish, <i>Sebastes caurinus</i>	None	??	Yes
*Gopher rockfish, <i>Sebastes carnatus</i>	2005	Very healthy	Yes
*Grass rockfish, <i>Sebastes rastrelliger</i>	None	??	Yes, limited due to species depth & habitat preferences
*Kelp rockfish, <i>Sebastes atrovirens</i>	None	??	Yes
*Olive rockfish, <i>Sebastes serranoides</i>	None	??	Yes
*Quillback rockfish, <i>Sebastes maliger</i>	None	??	Yes, limited due to few sampling sites in north region
*Treefish, <i>Sebastes serripes</i>	None	??	Yes, primarily southern CA
*California scorpionfish, <i>Scorpaena guttata</i>	2005	Very healthy	Yes
Monkeyface prickleback, <i>Cebidichthys violaceus</i>	None	??	No, due to species depth & habitat preferences

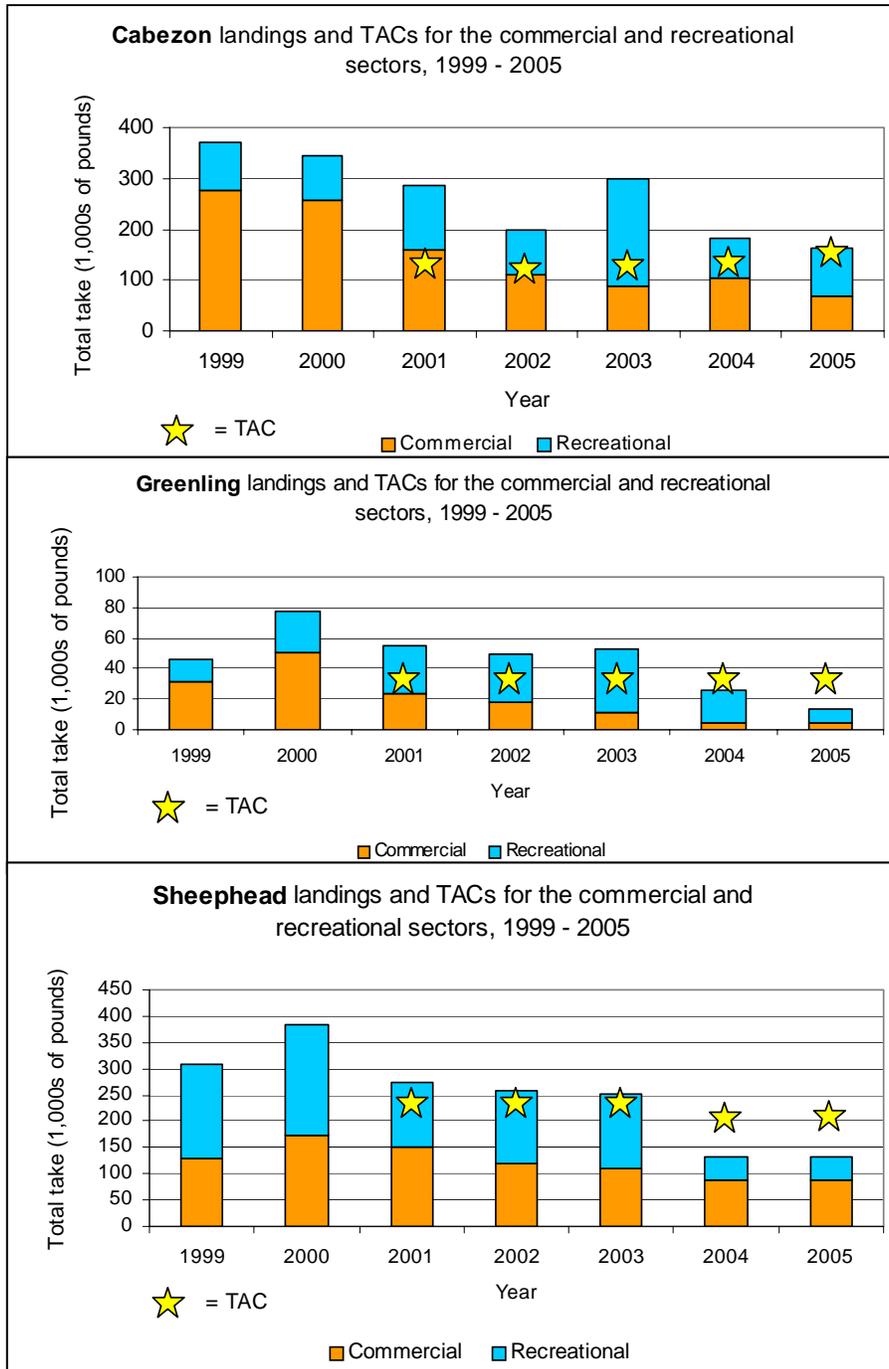


Table 2. Average annual weight in pounds for the NFMP species for periods before and after implementation of precautionary regulations. [Recreational data from MRFSS (1998) and CRFS (2004); commercial data from CALCOM.]

Species	1998				2004			
	Annual Landings (Pounds)			Rank	Annual Landings (Pounds)			Rank
	Recreational	Commercial	Total		Recreational	Commercial	Total	
Blue rockfish	580,134	106,839	686,973	1	348,737	26,975	375,712	1
Cabezon	161,511	389,308	550,819	2	77,477	108,716	186,193	3
Black rockfish	257,175	189,813	446,988	3	233,628	125,015	358,643	2
California sheephead	160,649	262,441	423,090	4	47,139	87,243	134,382	4
California scorpionfish	182,668	112,758	295,426	5	94,716	11,051	105,767	8
Brown rockfish	95,718	121,851	217,569	6	62,372	54,245	116,617	6
Copper rockfish	94,621	121,731	216,352	7	57,358	11,130	68,488	9
Gopher rockfish	88,988	85,820	174,808	8	72,717	34,871	107,588	7
Olive rockfish	124,832	12,234	137,066	9	119,184	2,287	121,471	5
Grass rockfish	19,163	92,540	111,703	10	14,251	30,205	44,456	10
Black-and-yellow rockfish	13,024	58,108	71,132	11	5,532	23,180	28,712	12
China rockfish	16,394	29,350	45,744	12	16,882	5,142	22,024	13
Greenlings (all species combined)	25,751	17,549	43,300	13	25,347	4,524	29,871	11
Quillback rockfish	5,906	26,165	32,071	14	6,826	3,953	10,779	15
Treefish	21,803	560	22,363	15	9,577	1,554	11,131	14
Kelp rockfish	10,887	6,780	17,667	16	8,578	2,101	10,679	16
Monkeyface								
prickleback	4,171	78	4,249	17	7,542	82	7,624	17
Calico rockfish	623	0	623	18	392	0	392	18
Total All Species			3,497,945				1,740,530	



Figure 1. Landings of cabezon, greenlings and California sheephead relative to the Total Allowable Catch (= catch limit) from 1999 to 2004.



Appendix 1. Key MLMA and the NFMP goals and objectives being addressed by past and current activities.

NFMP Goal or Objective	Fishery Control Rule		Management Measures	Restricted Access	Regional Management	MPAs	Allocation
	Stage I	Stage II					
Conserve ecosystems		Stock assessments completed					
Allow only sustainable uses		Setting TACs based on NFMP fishery control rule; inseason monitoring	Size limits on species that survive release; trip limits match capacity; limit gear				
Adjust catch allowance to reflect uncertainty	TAC ² at 50% of recent landings	TACs based on stock assessments (black & gopher rockfish, cabezon, CA scorpionfish)	Trip limits				
Match fish harvest capacity to sustainable catch levels				RA program for NFP species; DNSFP program			
Allocate restrictions and benefits fairly and equitably			FGC guidance to Council for regulation development		Regional discussions with constituents on proposed regulation changes		Revised as updated information is available
Minimize/limit bycatch and mortality			Match seasons and depths for co-occurring species	Bycatch permit with trip quota; bimonthly trip limits			
Maintain, restore and preserve habitat				Allowable gear limited to hook & line, traps and dip nets		Identify appropriate habitat for 19 species; NFMP MPA criteria in MLPA Master plan design criteria	



NFMP Goal or Objective	Fishery Control Rule		Management Measures	Restricted Access	Regional Management	MPAs	Allocation
	Stage I	Stage II					
Identify, assess, and enhance habitats						Identify appropriate habitat for 19 species	
Identify and minimize fishing that destroys habitat			CA input into Council EFH designations	NFP program gear endorsements			
Employ science-based decision-making		OYs/TACs based on stock assessments					
Conduct collaborative research		CRANE					
Collect data on spatial distribution of habitats and organisms		CRANE EFI collection			Initial focus on southern California and south central regions	CRANE & Channel Islands MPA monitoring	

