

MARINE Management News

*A newsletter for everyone interested in the management and conservation
of California's living marine resources.*



California Department of Fish and Game
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California Recreational Fisheries Survey Completes First Year

by DFG Staff

If you're an avid saltwater fisherman, you've probably heard about it. You've probably even talked to the folks who are the backbone of it, when you return to your home port after a fishing trip. What is "it"? The California Recreational Fisheries Survey, or CRFS for short.

How did the CRFS, a new and improved method for gathering saltwater fishing information, come into being? Before the CRFS was created and implemented, Marine Recreational Fisheries Statistics Survey (MRFSS) data were used for making crucial management decisions. In recent years, constituents and fishery managers expressed concern over the use of MRFSS data, particularly for making in-season decisions for groundfish. To address concerns, California and other West Coast policymakers recommended the development of a new program to replace the MRFSS. Staff from the California Department of Fish and Game (DFG) and the Pacific States Marine Fisheries Commission (PSMFC) designed CRFS to more comprehensively sample California's

"CRFS" continued on page 21



*CRFS Sampler measures a sanddab
Photo courtesy Wade Van Buskirk*

Season Changes for Groundfish Will Give Recreational Anglers More Fishing Opportunities

by DFG Staff

Anglers fishing in state waters will soon have more opportunities to fish for groundfish, the Department of Fish and Game (DFG) has announced. At the request of the Fish and Game Commission, DFG

Director Ryan Brodrick approved modifying the recreational groundfish fishing season for 2005.

The in-season adjustments follow the receipt of new data from the California Recreational Fisheries Survey (CRFS), which was implemented in 2004 to provide more timely and accurate estimates of recreational catch and effort in ocean waters (see "California Recreational Fisheries Survey Completes First

Year," above). CRFS data are available on a monthly basis to help manage California's recreational fisheries.

"The California Recreational Fisheries Survey is the best scientific method available for evaluating all forms of recreational ocean fishing," said Brodrick. "To the extent that these data support additional fishing opportunities, the Department will make those opportunities available."

Brodrick cautioned, however, that fishing opportunities could be restricted in the future if new CRFS data show that recreational fishermen are exceeding catch levels specified by law. The changes to the recreational groundfish seasons and depths by area are as follows:

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Abalone Permit Report Card Data Provide Valuable Insights

DFG reminds abalone fishermen that returning punch cards helps to maintain a healthy fishery

by Jerry Kashiwada, Marine Biologist

Abalone permit report cards, commonly known as “punch cards,” are filled out by fishermen whenever abalone is taken. The cards were implemented in 2000 to provide information about the number, time, date, and location of abalone taken by fishermen. The California Department of Fish and Game (DFG) uses data from abalone punch cards to estimate of the number of abalone caught each year. A subset of the cards is entered into a database for analysis after the cards are returned at the end of the season. Although the returned cards provide a valuable estimate of the number of abalone caught, the relatively low rate of returns, which has varied from 18 to 43 percent annually, could cause inaccuracies in catch estimates.

The main difficulty is determining whether different catch rates exist for fishermen who return cards and fishermen who do not. To study the fishing patterns of people who do not return their cards, DFG altered its telephone surveys to only use names drawn from the database of abalone card purchasers.



2003 abalone punch card

As expected, few people actually reached the annual limit of 24 abalone per year. Although the estimates for abalone catch are relatively small compared to the annual limit, these estimates are in the range biologists were expecting with the reductions in bag and annual limits in 2002.

For both 2002 and 2003, the estimated annual catch was 264,000 abalone. This estimate is much lower than in previous years, primarily as a result of recent changes in bag limits and annual limits. Data from the abalone permit report cards and

targeted surveys have also improved both the amount and the accuracy of data available to DFG biologists, which translates into more accurate annual estimates.

According to telephone survey data, the six sites with the highest abalone catch were Fort Ross State Marine Conservation Area/Reef Campground (these two sites were combined due to close proximity), Van Damme State Marine

Conservation Area, Sea Ranch, Salt Point State Marine Conservation Area, Albion Head, and the Mendocino Headlands. Data indicate that the Fort Ross State Marine Conservation Area/Reef Campground site consistently produced the most abalone.

During telephone surveys, people were asked whether they used diver fins and boats to take abalone. Both questions address possible reductions in abalone abundance as indicated by the equipment fishermen use. People generally use the least amount of equipment they feel is necessary for

“Abalone Data” continued on page 8

Percentage of punch card holders with zero catch and zero effort, for the card-return group and non-return group				
Year	Percent With Zero Catch		Percent With Zero Effort	
	Card Returned	Card Not Returned	Card Returned	Card Not Returned
2002	4	8.5	4.5	17.6
2003	2.4	10.6	5.8	17.8

This systematic draw insures the sub-sample is representative of the whole database. Analysis of data from survey questions can determine whether the card-return group has different catch rates from the non-return group, and allows biologists to adjust estimates to account for the differences.

DFG and its contractors have conducted telephone surveys of abalone permit report card purchasers since the spring of 2003. These surveys show about 17 percent of the non-return group did not even try to catch abalone. For the card-return group, the percentage was much lower (less than 6 percent). A similar but less dramatic trend was seen for people who actually tried but were not successful in catching abalone.

The average catch per season for fishermen who tried to catch abalone was around nine abalone. People who returned cards averaged about eleven abalone, while people who did not return their cards averaged between seven and eight abalone.

Average abalone catches for 2002 and 2003			
Year	Card Returned	Card Not Returned	All Cards Combined
2002	11	7.7	9.5
2003	10.6	7.4	8.9

Invasion of the Jumbo Squid!

An unusual creature from the south invades California waters

by Travis Tanaka, Marine Biologist

This winter, many California anglers have been catching something that resembles a sea monster but is actually great table fare: the jumbo squid, often incorrectly referred to as the “giant” squid. Anglers from San Diego to Eureka have been catching these large brown “squirts” for the last two months. Harvest of these unique animals off California is uncommon, but in some years they can be present throughout state ocean waters.

The natural range of jumbo squid, also known as the Humboldt squid, stretches from Tierra del Fuego, at the southern tip of South America, to Southern California, primarily in the mid-to-eastern portion of the Pacific Ocean. The bulk of the population appears to reside off Central America. During extreme warm water years they have been sighted as far north as the Gulf of Alaska. Their estimated depth range is from the surface to over 1,600 feet.

This is a large, fast growing, predatory species. Its maximum reported total length is 13 feet (including the tentacles) with an estimated lifespan of 1 to 2 years. With such a rapid growth rate, its metabolism is extremely fast. Jumbo squid are constantly in search of food. They will eat crustaceans, sardines,

mackerel, other fishes, and even each other. Due to their large size, other animals such as toothed whales and large tunas readily feed upon jumbo squid. The stomachs of large dolphins and some whales have been found to contain jumbo squid beaks. The San Diego long-range sport fishing fleet often uses whole yellowfin tuna, which can weigh over 200 pounds.

The big question that everyone asks is “Why are they here?” There are no definitive answers; however, the squid’s appearance may be connected to an influx of warm ocean waters. Currently off the Monterey coast, the sea surface temperature is 2 to 2½ degrees above normal for this time of year.

Jumbo squid are being caught with regularity by sport anglers up and down the coast this year. Anglers fishing the local banks and high spots near San Diego and the Cordell Bank near Bodega Bay are hooking jumbo squid on every trip. Boats from Monterey are targeting the Monterey and Carmel submarine canyons, where warm water meets cool, nutrient-laden upwelled water. Jumbo squid seek out food sources trapped between these two water masses, as do many other predators.

With many of California’s recreational fisheries currently closed, the appearance of jumbo squid is a welcome surprise. Sport landings from San Diego to Bodega Bay have been scheduling numerous trips every week, and most meet with great fishing success. Anglers have been averaging five to 15 squid per person. Many private

*“Jumbo Squid”
continued on page 22*



Carrie Wilson, a DFG marine biologist, hoists her catch aloft: a jumbo squid caught off Half Moon Bay.

Photo courtesy C. Wilson

DFG Answers the Age-Old Question: ...Is It Edible?



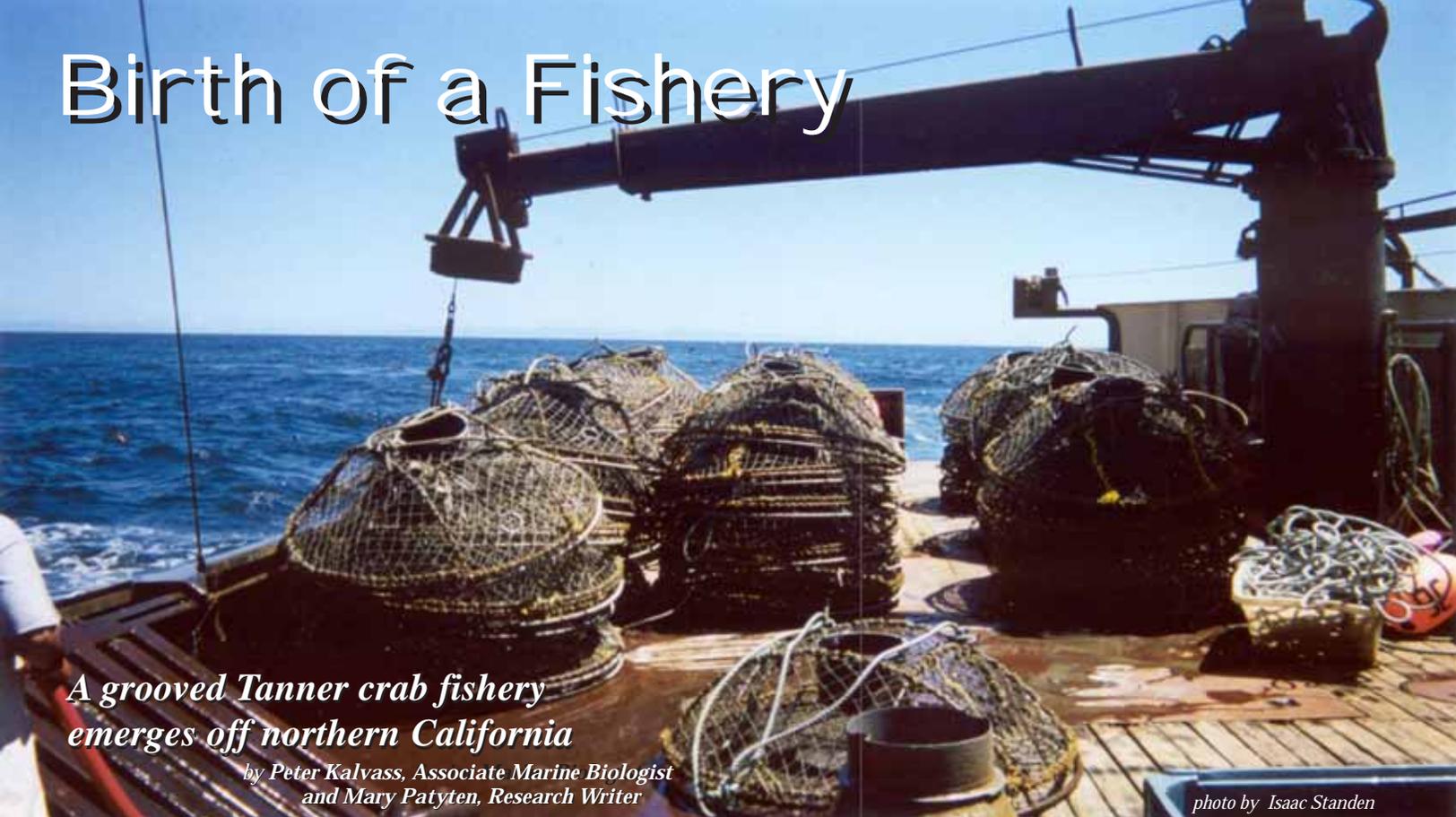
Photo by C. Wilson

If taken care of on the boat and cleaned well at the dock, jumbo squid are great table fare. After removing the viscera, use a knife to remove the yellow inner membrane on the mantle. The angler must also peel off the thick outer membrane as well. Some people pound their squid steaks to tenderize them, and soak them in milk or a treatment of their choice to remove some of the uric acid and other metabolites that can occur in the flesh. Pat dry and cook as desired. 🍴



A jumbo squid is brought aboard the F/V Hulicat.
Photo by C. Wilson

Birth of a Fishery



A grooved Tanner crab fishery emerges off northern California

by Peter Kalvass, Associate Marine Biologist and Mary Patyten, Research Writer

photo by Isaac Standen

Dome-type crab traps on deck during the experimental tanneri fishery

Over the past few years, a leggy crab living off the California coast known as the grooved Tanner crab (*Chionoecetes tanneri*) has been receiving a bit more attention than usual. Under the authority of an experimental permit, fishermen have been landing the crab while Department of Fish and Game (DFG) biologists evaluate the fishery. After analyzing two years' worth of landings and other scientific data, the DFG and the California Fish and Game Commission (Commission) are on the brink of permitting a new fishery for grooved Tanner crab off the California coast.

These spidery-looking, deep-sea crabs are cousin to our southern California sheep crab, and relatives of the more gastronomically desirable Alaskan snow crab and true Tanner crab. The grooved Tanner crab, or "tanneri", is the only member of the genus whose range extends south to California. Tanneri can be found from the Pribilof Islands in Alaska to the California-Mexico border, on soft sea floor at depths of up to 5,400 feet.

Although the life span for tanneri is not currently known, other species of Tanner crab live for an estimated 15 to 19 years, with an accompanying low natural mortality rate as adults. By comparison, Dungeness crab live for a maximum of six to eight years. Most female tanneri reach maturity in their fifth year, at about 3 1/3 inches in carapace (shell) width; males are thought to mature in their sixth year at about 4 1/2 inches carapace width.

Fishery Beginnings

Local interest in tanneri emerged in 1997 when a crabber based in Seattle began exploring the potential for a fishery off Eureka and Crescent City, with assistance from a DFG biologist. The first experimental permit to trap tanneri off California was issued in 2001. Although the permit was renewed each year for four consecutive years (the limit prescribed by Fish and Game Code), it was only fished in 2003 and 2004.

The permit limited fishing activities such as the number of traps fished, the depth at which traps could be fished, and the size and sex of crabs that could be taken. Fishermen were also required to take an observer on fishing trips. Although other individuals and companies approached the Commission to obtain permits to fish for tanneri, these were denied pending the outcome of the fishery's experimental phase.

Fishermen landed approximately 212,000 pounds of tanneri in 2003 and nearly 461,000 pounds in 2004, all from northern California waters. Landings fetched from \$1.05 to \$1.50 per pound in 2004, with most of the crab ending up in the export market or on casino buffet tables.

Biomass, Harvest Limits, and Fishery Concerns

The DFG analyzed information from a number of state and federal fishery management agencies to

"Tanneri" continued on page 5

"Tanneri" continued from page 4

determine the status of tanneri populations. The tanneri population off California averaged an estimated 48 million pounds between 1998 and 2003, including about 18 million pounds of harvestable male crabs. Analyses indicate that tanneri could sustain only a low harvest rate; therefore, the DFG has recommended an annual catch limited to about 15 percent, or 2.8 million pounds, of male crabs measuring 5 inches or greater in carapace width.

Tanner crabs are not as robust as king crabs or crabs of the genus *Cancer* (such as Dungeness crabs), and succumb to handling mortality more frequently than those hardier species. Studies show that from 4 to 20 percent of snow crabs die as a result of handling and discard (known as 'deadloss'). In 2003, deadloss accounted for a little over 10 percent of the catch in the experimental tanneri fishery. Deadloss dropped to about 6 percent in 2004.

Because tanneri live very deep on the soft sea floor where not many other fished species live, bycatch of non-targeted species was minimal during the experimental tanneri fishery. Only 309 pounds of sablefish were landed in 2003 as bycatch, and the fish were kept and sold according to the terms of the experimental permit.

California trawlers take tanneri incidentally in the slope bottomfish fishery. Bycatch has been estimated at about three-quarters of a million pounds annually. This is a significant catch, and indicates that about 1½ percent of the population is already being fished and discarded, with a very low survival rate.

Proposed Management Elements

After analyzing fishery data, reviewing other emerging tanneri fisheries in Alaska and British Columbia, and determining that the experimental



*Grooved Tanner crab, on ice
photo courtesy Alaska DFG*

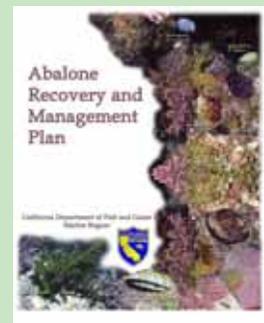
tanneri fishery met the definition of an emerging fishery under the terms of California's Marine Life Management Act, the DFG presented tanneri fishery management recommendations to the Commission in February, 2005. The next step will be for the DFG to refine the tanneri regulatory package and bring it before the Commission again at the May 2005 meeting, thus beginning the process of adopting regulations for the new fishery. 🦀

Abalone Recovery and Management Plan Slated for Adoption in May 2005

The Abalone Recovery and Management Plan (ARMP) is nearing completion. The Department of Fish and Game (DFG) is now finalizing the plan for adoption at the May 2005 Fish and Game Commission meeting.

In preparing the ARMP for adoption, DFG has revised the document based on public comment received during 2004. Currently the document is undergoing final editing to make sure the Commission is given a clean, concise and error-free version of the plan. The final document will be available for viewing once it is sent to the

Commission. The ARMP will be posted on the Marine Region Web site (www.dfg.ca.gov/mrd/armp/index.html), and hard copies will be available at all Marine Region offices and regional headquarters. 🦀



Proposed Management Elements for a Grooved Tanner Crab Fishery

- Annual harvest limit
- Observer requirement
- Trap logbook
- Vessel-based permit requirement
- Minimum fishing depth
- Trap limit
- Male crabs only, with 5-inch minimum size limit



UPDATES

Marine Management News

Marine Life Protection Act Initiative Making Progress

by *MLPA Initiative Staff*

The California Resources Agency and Department of Fish and Game have partnered with the Resources Legacy Fund Foundation and others in a new initiative to implement the Marine Life Protection Act (MLPA). The MLPA directs the state to re-examine and redesign California's system of marine protected areas to increase its cohesiveness and effectiveness to, among other things, protect marine life, habitats, and natural heritage, as well as improve recreational, educational and marine research opportunities. Marine protected areas include state marine reserves, state marine parks and state marine conservation areas.

A public-private partnership, the MLPA Initiative is developing recommendations for implementing the MLPA through a Blue Ribbon Task Force chaired by the Honorable Phil Isenberg, a former assemblymember and mayor of Sacramento. The task force is guided by the advice of scientists, resource managers, experts, stakeholders and members of the public through a variety of methods, including a Master Plan Science Advisory Team, a Statewide Interests Group, stakeholder and expert panels during meetings of the task force, and public comments on documents as they are being drafted.

The initiative includes a high degree of involvement and input from a wide range of stakeholders, from ports, harbors and conservation organizations to divers and commercial fishermen. These interests and others are part of an open, transparent process that began last fall and will conclude at the end of 2006. Please visit www.dfg.ca.gov/mrd/mlpa for more information. 🐟

Market Squid FMP Regulations Now In Effect

by *Dale Sweetnam, Senior Marine Biologist*

Last year, the Fish and Game Commission (Commission) adopted the Department of Fish and Game's (DFG) Market Squid Fishery Management Plan (MSFMP), along with a regulations package and the supporting environmental documentation. The new fishery regulations went into effect on March 28, 2005.

The MSFMP creates a management program for California's market squid resource, which will:

- Establish fishery control rules, including a seasonal catch limit to prevent the fishery from over-expanding; continue weekend closures, which provide for periods of uninterrupted spawning; continue gear regulations regarding light shields and wattage used to attract squid; and maintain monitoring programs designed to evaluate the impact of the fishery on the resource
- Create a restricted access program, including provisions for initial entry into the fleet, types of permits, permit fees, and permit transferability to produce a moderately productive and specialized fleet
- Establish a seabird closure that restricts the use of attracting lights for commercial purposes in the Gulf of the Farallones National Marine Sanctuary

The regulations pertaining to the new program are available for review in the 2005 Digest of Commercial Fish Laws available at all DFG offices, and online at www.dfg.ca.gov/licensing/commercial/CommercialDigest.htm.

Current squid permit holders will be notified of eligibility by the DFG. Applicants qualifying for non-transferable permits must submit an application along with the appropriate documentation to the DFG's License and Revenue Branch. For questions concerning the initial permit requirements, please contact Ms. Vandella Campbell of the DFG License and Revenue Branch, at 916-227-2281, or e-mail VCampbel@dfg.ca.gov.

For more information on market squid, check out the Marine Region Web page at www.dfg.ca.gov/mrd/marketsquid/index.html. 🐟

Since the tide is right...



Try surfing the Marine Region Web site!

www.dfg.ca.gov/mrd

Get Hooked on the Marine Region Web Site!

by Aaron DelMonte, Assistant Information Systems Analyst and Marine Region Webmaster

For the latest information on fishing regulations, marine resources, and news affecting natural resources on our California coastline, your first stop should be the Department of Fish and Game Marine Region Web site, located at www.dfg.ca.gov/mrd. This comprehensive information source currently contains over 1,800 Web pages readily available to the public. If you are new to the Marine Region Web site, we invite you to see what a truly valuable resource we have created. For those of you who have already visited our Web site, be sure to check back regularly, since new features, updates, and press releases are added every week. Here are a few recent, noteworthy additions to our Web site:

2005 Ocean Sport Fishing Regulations

www.dfg.ca.gov/mrd/sportfishing_regs2005.html:

The complete online version of the annual ocean sport fishing regulations booklet is available on our Web site, in bookmarked PDF format. Additional resources on the page include links to in-season regulation changes, maps of Channel Islands Marine Protected Areas, images of selected fish, and measurement methods for finfish and invertebrates. You can even learn about the state record-holding fishermen featured on the booklet cover.

Marine Life Protection Act (MLPA) Initiative

www.dfg.ca.gov/mrd/mlpa: This partnership between government agencies and private entities is striving to achieve the original MLPA goals. The 1999 MLPA directed the State to design and manage a network of marine protected areas in order to, among other things, protect marine life and habitats, marine ecosystems, and marine natural heritage, as well as improve recreational, educational and study opportunities provided by marine ecosystems. This Web site, which has been updated substantially within the past few weeks, contains up-to-date information about this endeavor.

2005 Ocean Salmon Seasons www.dfg.ca.gov/mrd/oceansalmon.html:

Going salmon fishing? As of April 2, the recreational salmon season is open all along the California coast. Be sure to check our Ocean Salmon Seasons page for the latest information on season dates and regulations throughout the state. At the bottom of the page, you will find some recent additions, including the 2004 Salmon Fishery Review and 2005 pre-season reports. "Web Site Update" continued on page 22

DFG Marine Region Scientist Wins Prestigious Award by DFG Staff



DFG's Tom Barnes
DFG file photo

For the second time in ten years, Department of Fish and Game (DFG) Senior Biologist Tom Barnes was a member of a research team receiving the Best Publication of the Year Award from the *Fishery Bulletin of the United States*. The *Fishery Bulletin* is an internationally-respected scientific journal published quarterly by NOAA Fisheries, a part of the U.S. Department of Commerce. For 2003, the winning paper was entitled "Biology and Population Dynamics of Cowcod (*Sebastes levis*) in the Southern California Bight," by John Butler, Larry Jacobson, Tom Barnes and Geoff Moser. Back in 1994, Tom was a member of another research team that received the same award from NOAA Fisheries for a paper entitled "A Biomass-based Assessment Model for Northern Anchovy, *Engraulis mordax*."

In both of these cases, a key ingredient was underlying research based on collaborative work between the DFG and NOAA Fisheries. It is this kind of partnership that can take advantage of different but complimentary skills and resources to achieve outstanding results. Encouraged by this and other successes, the Marine Region has made it a point to actively seek out partnerships with academic institutions, local and federal agencies, and the public to maximize our effectiveness.

When Department scientists like Tom Barnes gain recognition outside DFG, it underscores what we here in the Marine Region have known all along— that our dedicated, professional scientists contribute significantly to our understanding of California's precious ocean resources, which gives our managers the information they need to provide for sustainable use by the public while maintaining a healthy marine ecosystem. 🐟

Log onto the Marine Region's Web site to find all the latest information on commercial and recreational fisheries. The Web site provides an easy way to catch up on new regulations, groundbreaking research, and public meetings. Log on today and see what hooks your attention at www.dfg.ca.gov/mrd!



**Northern Management Area
(California/Oregon border to near Cape Mendocino)**
Open May 1 through December from 0-180 feet (0-30 fathoms).

**North-Central Management Area
(Near Cape Mendocino to Pigeon Point)**
Open July 1 through December from 0-120 feet (0-20 fathoms).

**Monterey South-Central Management Area
(Pigeon Point to near Lopez Point)**
Open July 1 through December from 0-120 feet (0-20 fathoms).

**Morro Bay South-Central Management Area
(near Lopez Point to Point Conception)**
Open May 1 through September from 0-240 fms (0-40 fathoms).

"Abalone Data" continued from page 2

a successful fishing trip. For example, if large abalone could be caught by walking in sneakers at low tide, most people would not be inclined to bother with wetsuits and boats to catch abalone. An increased use of fins and boats would indicate reduced abalone abundance in shallow water closest to access points.

The use of fins distinguishes whether the person is a diver or a shore picker. Shore pickers generally catch abalone in water depths that are accessible by wading, while divers can access deeper water. The average size of abalone caught by divers is usually larger than that caught by shore pickers. Over time, an increase in the percentage of divers could indicate lower availability of abalone in the shallow waters accessible to shore pickers. Currently between 70 and 75 percent of those surveyed used fins.

Similarly, the use of boats allows fishermen access to areas less impacted by fishing pressure.

Due to State budget restraints, the *Marine Management News* will only be published electronically until further notice. Sign up for automatic, electronic notification of new issues at:

www.dfg.ca.gov/mrd/subscribe.html

Copies are available for viewing or printing from the Marine Region Web site:
www.dfg.ca.gov/mrd/index_newsletter.html

**Southern Management Area
(Point Conception to U.S.-Mexico border)**
Open April 16 through December from 0-360 feet (0-60 fathoms), except during September and October when fishing is restricted to 0-180 feet (0-30 fathoms).

See the tables and map on pages nine through 19 for summaries of the changes by management area. These adjustments apply only to state waters (0-3 nautical miles from shore) pending action by the Pacific Fishery Management Council, which is scheduled to decide on April 8 whether the adjustments will be extended into federal waters (3-200 nautical miles from shore).

Detailed tables summarizing the modified recreational groundfish fishing season are also available on the Marine Region's Web site, at www.dfg.ca.gov/mrd/bfregs2005.html. 

**For automatic,
electronic notification of in-season
fishing regulation changes,
sign up for the
Marine Region mailing list at:
www.dfg.ca.gov/mrd/subscribe.html**

Fishermen using boats generally catch larger abalone than shore-based fishermen. An increase in boat usage over time could indicate reduced abalone abundance closer to shore access points. Between 25 and 29 percent of fishermen use boats, but only 11 percent of those surveyed said they used boats all the time.

While the main purpose of the telephone survey was to gather fishing information, the interviewers also asked questions concerning basic socio-economic characteristics of the fishery users. For example, an estimated 32,500 fishermen tried to catch abalone in 2003, spending an estimated \$8,500,000 on the northern California abalone fishery.

However, each dollar directly spent on abalone fishing stimulates a trickle-down effect of additional spending as it enters local economies. When these additional expenditures are taken into account, the total economic impact of the abalone fishery for 2003 is estimated at \$12,095,000.

For additional information on California's abalones and abalone fishery management, visit the DFG Marine Region Web site at www.dfg.ca.gov/mrd/abalone.html and www.dfg.ca.gov/mrd/armp/index.html. 



Summary of Recreational Groundfish Regulations for 2005 Northern Management Area



Ocean waters between 42°00' N. latitude (CA-OR Border) and 40°10' N. latitude (near Cape Mendocino)

Species	Time Period ^{2, 3}	Depth Limit ^{2, 3, 4}	Daily Bag Limit ²	Min. Size Limit ^{1, 2, 4}
RCG Complex (including all species of Rockfish, Cabezon and Greenlings as defined in Section 1.91)	<u>Boat-based Anglers</u> ³ : Open: May-Dec Closed: Jan-Apr <u>Divers, Shore-based Anglers</u> ³ : Open year-round	May only be taken in waters <i>less than</i> 180 ft (30 fm) deep	10 fish in combination per person; see sub-limits for cabezon, greenlings and bocaccio	See individual species and groups below
Canary and Yelloweye Rockfish, Cowcod	CLOSED all year; NO RETENTION		NO RETENTION (zero)	
Bocaccio	Same as RCG Complex, above	Same as RCG Complex, above	2 fish per person; also included in the 10-fish aggregate RCG Complex bag limit	10" total length
Cabezon	Same as RCG Complex, above	Same as RCG Complex, above	1 fish per person; also included in the 10-fish aggregate RCG Complex bag limit	15" total length
Kelp or Rock Greenling	Same as RCG Complex, above	Same as RCG Complex, above	1 fish per person; also included in the 10-fish aggregate RCG Complex bag limit	12" total length
Lingcod	<u>Boat-based Anglers</u> ³ : Open: May-Nov Closed: Jan-Apr, Dec <u>Divers, Shore-based Anglers</u> ³ : Open: Apr-Nov Closed: Jan-Mar, Dec	Same as RCG Complex, above	2 fish per person	24" total length
Other Federal Groundfish ⁵ (see list online at www.dfg.ca.gov/mrd/groundfish_fedlist.html)	Same as RCG Complex, above	Same as RCG Complex, above	See regulations for individual species	See regulations for individual species

continued on following page

Do You Know What Species This Is?

HINT: Daily Bag Limit: 2 fish per person in the Northern Management Area, 1 fish per person elsewhere in the state; also included in the 10-fish aggregate RCG Complex bag limit.

(answer at the bottom of pg. 18)



Photo by E. Roberts

Leopard Shark ⁶	<u>Boat-based Anglers³ within Humboldt Bay:</u> Open all year <u>Outside of Humboldt Bay:</u> Same as RCG Complex, above <hr/> <u>Divers, Shore-Based Anglers³:</u> Open all year	<u>Boat-based Anglers³ within Humboldt Bay:</u> No depth restrictions <u>Outside of Humboldt Bay:</u> Same as RCG Complex, above <hr/> <u>Divers, Shore-Based Anglers³:</u> No depth restrictions	3 fish per person	36" total length
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1. See regulations for information on gear restrictions and fillet lengths.
2. Subject to in-season change. Call the Automated Telephone Information System at (831) 649-2801 (available after Jan 1, 2005), visit the Marine Region Web site at www.dfg.ca.gov/mrd, send an e-mail to AskMarine@dfg.ca.gov, or call your nearest DFG office for the latest information.
3. Divers and shore-based anglers are exempt from restrictions affecting the RCG complex, ocean whitefish, California scorpionfish, California sheephead, and other federally managed groundfish (except for lingcod). The following definitions describe boat-based and shore-based anglers, and divers:
 - Boat-based anglers are fishermen that fish from boats or vessels of any size or any other type of floating object, including kayaks and float tubes.
 - Shore-based anglers are fishermen that fish from beaches, banks, piers, jetties, breakwaters, docks and other manmade structures connected to the shore.
 - Divers are spear fishermen entering the water either from the shore or from a boat or other floating object.
4. Total length is the longest straight-line measurement from the tip of the head with the mouth closed to the end of the longest lobe of the tail. Go to the Marine Region Web site at www.dfg.ca.gov/mrd/measurement.pdf for a measurement illustration.
5. The sport fisheries for sanddab, butter sole, curlfin sole, flathead sole, rex sole, rock sole, sand sole, and starry flounder, using gear specified for sanddabs in federal and state regulations, are exempt from fishery restrictions that affect other federally managed groundfish.
6. The sport fishery for leopard shark inside Humboldt Bay is exempt from restrictions that affect other federally managed groundfish.

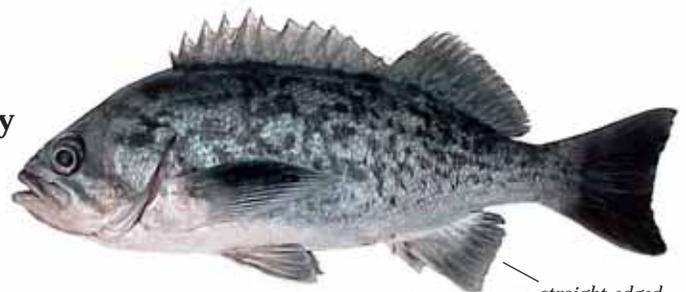
These adjustments apply only to state waters (0-3 nautical miles from shore) pending action by the Pacific Fishery Management Council, which is scheduled to decide on April 8, 2005, whether they will be extended into federal waters (3-200 nautical miles from shore).

Do You Know What Species This Is?

Here are some hints:

- 🐟 **This species can be distinguished from a very similar fish by its smaller mouth and straight-edged anal fin.**
- 🐟 **Daily Bag Limit: 10 fish per person, within the 10-fish aggregate RCG Complex bag limit.**

(answer at the bottom of pg. 18)



DFG file photo

straight-edged
anal fin



Summary of Recreational Groundfish Regulations for 2005 North-Central Management Area

Ocean waters between 40°10' N. latitude (near Cape Mendocino) and 37°11' N. latitude (near Pigeon Point)

Species	Time Period^{2,3}	Depth Limit^{2,3,4}	Daily Bag Limit²	Min. Size Limit^{1,2,5}
RCG Complex (including all species of Rockfish, Cabezon and Greenlings as defined in Section 1.91)	<u>Boat-based Anglers³</u> : Open: July-Dec Closed: Jan-June <u>Divers, Shore-based Anglers³</u> : Open year-round	May only be taken in waters <i>less than</i> 120 ft (20 fm) deep ⁴	10 fish in combination per person; see sub-limits for cabezon, greenlings and bocaccio	See individual species and groups below
Canary and Yelloweye Rockfish, Cowcod	CLOSED all year; NO RETENTION		NO RETENTION (zero)	
Bocaccio	Same as RCG Complex, above	Same as RCG Complex, above	1 fish per person; also included in the 10-fish aggregate RCG Complex bag limit	10" total length
Cabezon	Same as RCG Complex, above	Same as RCG Complex, above	1 fish per person; also included in the 10-fish aggregate RCG Complex bag limit	15" total length
Kelp or Rock Greenling	Same as RCG Complex, above	Same as RCG Complex, above	1 fish per person; also included in the 10-fish aggregate RCG Complex bag limit	12" total length
Ocean Whitefish	Same as RCG Complex, above	Same as RCG Complex, above	10 fish per person	none
California Sheephead	Same as RCG Complex, above	Same as RCG Complex, above	5 fish per person	12" total length
California Scorpionfish	Same as RCG Complex, above	Same as RCG Complex, above	5 fish per person	10" total length
Lingcod	<u>Boat-based Anglers³</u> : Open: July-Nov Closed: Jan-June, Dec <u>Divers, Shore-based Anglers³</u> : Open: Apr-Nov Closed: Jan-Mar, Dec	Same as RCG Complex, above	2 fish per person	24" total length

continued on following page

Other Federal Groundfish ⁶ (see list online at www.dfg.ca.gov/mrd/groundfish_fedlist.html)	Same as RCG Complex, above	Same as RCG Complex, above	See regulations for individual species	See regulations for individual species
Leopard Shark ⁷	<u>Boat-based Anglers³ within San Francisco Bay, Bodega Harbor, Tomales Bay, Bolinas Bay, and Drakes Estero:</u> Open all year <u>Outside of the previously named bays:</u> Same as RCG Complex, above <u>Divers, Shore-Based Anglers³:</u> Open all year	<u>Boat-based Anglers³ within San Francisco Bay, Bodega Harbor, Tomales Bay, Bolinas Bay, and Drakes Estero:</u> No depth restrictions <u>Outside of the previously named bays:</u> Same as RCG Complex, above <u>Divers, Shore-Based Anglers³:</u> No depth restrictions	3 fish per person	36" total length

1. See regulations for information on gear restrictions and fillet lengths.
2. Subject to in-season change. Call the Automated Telephone Information System at (831) 649-2801 (available after Jan 1, 2005), visit the Marine Region Web site at www.dfg.ca.gov/mrd, send an e-mail to AskMarine@dfg.ca.gov, or call your nearest DFG office for the latest information.
3. Divers and shore-based anglers are exempt from restrictions affecting the RCG complex, ocean whitefish, California scorpionfish, California sheephead, and other federally managed groundfish (except for lingcod). The following definitions describe boat-based and shore-based anglers, and divers:
 - Boat-based anglers are fishermen that fish from boats or vessels of any size or any other type of floating object, including kayaks and float tubes.
 - Shore-based anglers are fishermen that fish from beaches, banks, piers, jetties, breakwaters, docks and other manmade structures connected to the shore.
 - Divers are spear fishermen entering the water either from the shore or from a boat or other floating object.
4. Waters less than 10 fathoms (60 ft.) in depth around the Farallon Islands and Noonday Rock are closed to fishing at all times. Waters of Cordell Bank less than 100 fathoms (600 ft.) are closed to fishing at all times.
5. Total length is the longest straight-line measurement from the tip of the head with the mouth closed to the end of the longest lobe of the tail. Go to the Marine Region Web site at www.dfg.ca.gov/mrd/measurement.pdf for a measurement illustration.
6. The sport fisheries for sanddab, butter sole, curlfin sole, flathead sole, rex sole, rock sole, sand sole, and starry flounder, using gear specified for sanddabs in federal and state regulations, are exempt from fishery restrictions that affect other federally managed groundfish.
7. The sport fishery for leopard shark inside San Francisco Bay, Bodega Harbor, Tomales Bay, Bolinas Bay, and Drakes Estero is exempt from restrictions that affect other federally managed groundfish.

These adjustments apply only to state waters (0-3 nautical miles from shore) pending action by the Pacific Fishery Management Council, which is scheduled to decide on April 8, 2005, whether they will be extended into federal waters (3-200 nautical miles from shore).

4/5/05



Summary of Recreational Groundfish Regulations for 2005 Monterey South-Central Management Area

Ocean waters between 37°11' N. latitude (Pigeon Point) and 36°00' N. latitude (near Lopez Point)



Species	Time Period ^{2, 3}	Depth Limit ^{2, 3}	Daily Bag Limit ²	Min. Size Limit ^{1, 2, 4}
RCG Complex (including all species of Rockfish, Cabezon and Greenlings as defined in Section 1.91)	<u>Boat-based Anglers</u> ³ : Open: July-Dec Closed: Jan-June <u>Divers, Shore-based Anglers</u> ³ : Open year-round	May only be taken in waters <i>less than</i> 120 ft (20 fm) deep	10 fish in combination per person; see sub-limits for cabezon, greenlings and bocaccio	See individual species and groups below
Canary and Yelloweye Rockfishes, Cowcod	CLOSED all year; NO RETENTION		NO RETENTION (zero)	
Bocaccio	Same as RCG Complex, above	Same as RCG Complex, above	1 fish per person; also included in the 10-fish aggregate RCG Complex bag limit	10" total length
Cabezon	Same as RCG Complex, above	Same as RCG Complex, above	1 fish per person; also included in the 10-fish aggregate RCG Complex bag limit	15" total length
Kelp or Rock Greenling	Same as RCG Complex, above	Same as RCG Complex, above	1 fish per person; also included in the 10-fish aggregate RCG Complex bag limit	12" total length
Ocean Whitefish	Same as RCG Complex, above	Same as RCG Complex, above	10 fish per person	none
California Sheephead	Same as RCG Complex, above	Same as RCG Complex, above	5 fish per person	12" total length
California Scorpionfish	Same as RCG Complex, above	Same as RCG Complex, above	5 fish per person	10" total length
Lingcod	<u>Boat-based Anglers</u> ³ : Open: July-Nov Closed: Jan-June, Dec <u>Divers, Shore-based Anglers</u> ³ : Open: Apr-Nov Closed: Jan-Mar, Dec	Same as RCG Complex, above	2 fish per person	24" total length

continued on following page

Other Federal Groundfish ⁵ (see list online at www.dfg.ca.gov/mrd/groundfish_fedlist.html)	Same as RCG Complex, above	Same as RCG Complex, above	See regulations for individual species	See regulations for individual species
Leopard Shark ⁶	<u>Boat-based Anglers³ within Elkhorn Slough:</u> Open all year <u>Outside of Elkhorn Slough:</u> Same as RCG Complex, above <hr/> <u>Divers, Shore-Based Anglers³:</u> Open all year	<u>Boat-based Anglers³ within Elkhorn Slough:</u> No depth restrictions <u>Outside of Elkhorn Slough:</u> Same as RCG Complex, above <hr/> <u>Divers, Shore-Based Anglers³:</u> No depth restrictions	3 fish per person	36" total length

1. See regulations for information on gear restrictions and fillet lengths.

2. Subject to in-season change. Call the Automated Telephone Information System at (831) 649-2801 (available after Jan 1, 2005), visit the Marine Region Web site at www.dfg.ca.gov/mrd, send an e-mail to AskMarine@dfg.ca.gov, or call your nearest DFG office for the latest information.

3. Divers and shore-based anglers are exempt from restrictions affecting the RCG complex, ocean whitefish, California scorpionfish, California sheephead, and other federally managed groundfish (except for lingcod). The following definitions describe boat-based and shore-based anglers, and divers:

- Boat-based anglers are fishermen that fish from boats or vessels of any size or any other type of floating object, including kayaks and float tubes.
- Shore-based anglers are fishermen that fish from beaches, banks, piers, jetties, breakwaters, docks and other manmade structures connected to the shore.
- Divers are spear fishermen entering the water either from the shore or from a boat or other floating object.

4. Total length is the longest straight-line measurement from the tip of the head with the mouth closed to the end of the longest lobe of the tail. Go to the Marine Region Web site at www.dfg.ca.gov/mrd/measurement.pdf for a measurement illustration.

5. The sport fisheries for sanddab, butter sole, curlfin sole, flathead sole, rex sole, rock sole, sand sole, and starry flounder, using gear specified for sanddabs in federal and state regulations, are exempt from fishery restrictions that affect other federally managed groundfish.

6. The sport fishery for leopard shark inside Elkhorn Slough is exempt from restrictions that affect other federally managed groundfish.

These adjustments apply only to state waters (0-3 nautical miles from shore) pending action by the Pacific Fishery Management Council, which is scheduled to decide on April 8, 2005, whether they will be extended into federal waters (3-200 nautical miles from shore).

4/5/05

Do You Know What Species This Is?

Here are some hints:

 DFG is conducting a stock assessment for this species; the final report is expected by the end of 2005.

 Daily Bag Limit: 10 fish per person, within the 10-fish aggregate RCG Complex bag limit.

(answer at the bottom of pg. 18)



Photo by E. Roberts



Summary of Recreational Groundfish Regulations for 2005
Morro Bay South-Central Management Area
Ocean waters between 36°00' N. latitude (near Lopez Point in Monterey County)
and 34°27' N. latitude (Point Conception)



Species	Time Period^{2,3}	Depth Limit ²	Daily Bag Limit²	Min. Size Limit^{1,2,4}
RCG Complex (including all species of <u>R</u> ockfish, <u>C</u> abazon and <u>G</u> reenlings as defined in Section 1.91)	<u>Boat-based Anglers³</u> : Open: May-Sept. Closed: Jan-April, Oct-Dec. <u>Divers, Shore-based Anglers³</u> : Open year-round	May only be taken in waters <i>less than</i> 240 ft (40 fm) deep	10 fish in combination per person; see sub-limits for cabezon, greenlings and bocaccio	See individual species and groups below
Canary and Yelloweye Rockfish, Cowcod	CLOSED all year; NO RETENTION		NO RETENTION (zero)	
Bocaccio	Same as RCG Complex, above	Same as RCG Complex, above	1 fish per person; also included in the 10-fish aggregate RCG Complex bag limit	10" total length
Cabazon	Same as RCG Complex, above	Same as RCG Complex, above	1 fish per person; also included in the 10-fish aggregate RCG Complex bag limit	15" total length
Kelp or Rock Greenling	Same as RCG Complex, above	Same as RCG Complex, above	1 fish per person; also included in the 10-fish aggregate RCG Complex bag limit	12" total length
Ocean Whitefish	Same as RCG Complex, above	Same as RCG Complex, above	10 fish per person	none
California Sheephead	Same as RCG Complex, above	Same as RCG Complex, above	5 fish per person	12" total length
California Scorpionfish	Same as RCG Complex, above	Same as RCG Complex, above	5 fish per person	10" total length
Lingcod	<u>Boat-based Anglers³</u> : Open: May-Sept Closed: Jan-Apr, Oct-Dec <u>Divers, Shore-based Anglers³</u> : Open: Apr-Nov Closed: Jan-Mar, Dec	Same as RCG Complex, above	2 fish per person	24" total length

continued on following page

Other Federal Groundfish ⁵ (see list online at www.dfg.ca.gov/mrd/groundfish_fedlist.html)	Same as RCG Complex, above	Same as RCG Complex, above	See regulations for individual species	See regulations for individual species
Leopard Shark	<u>Boat-based Anglers</u> ³ : Same as RCG Complex, above <u>Divers, Shore-Based Anglers</u> ³ : Open all year	Same as RCG Complex, above	3 fish per person	36" total length

1. See regulations for information on gear restrictions and fillet lengths.
2. Subject to in-season change. Call the Automated Telephone Information System at (831) 649-2801, visit the Marine Region Web site at www.dfg.ca.gov/mrd, send an e-mail to AskMarine@dfg.ca.gov, or call your nearest DFG office for the latest information.
3. Divers and shore-based anglers are exempt from restrictions affecting the RCG complex, ocean whitefish, California scorpionfish, California sheephead, and other federally managed groundfish (except for lingcod). The following definitions describe boat-based and shore-based anglers, and divers:
 - Boat-based anglers are fishermen that fish from boats or vessels of any size or any other type of floating object, including kayaks and float tubes.
 - Shore-based anglers are fishermen that fish from beaches, banks, piers, jetties, breakwaters, docks and other manmade structures connected to the shore.
 - Divers are spear fishermen entering the water either from the shore or from a boat or other floating object.
4. Total length is the longest straight-line measurement from the tip of the head with the mouth closed to the end of the longest lobe of the tail. Go to the Marine Region Web site at www.dfg.ca.gov/mrd/measurement.pdf for a measurement illustration.
5. The sport fisheries for sanddab, butter sole, curlfin sole, flathead sole, rex sole, rock sole, sand sole, and starry flounder, using gear specified for sanddabs in federal and state regulations, are exempt from fishery restrictions that affect other federally managed groundfish.

These adjustments apply only to state waters (0-3 nautical miles from shore) pending action by the Pacific Fishery Management Council, which is scheduled to decide on April 8, 2005, whether they will be extended into federal waters (3-200 nautical miles from shore).

4/05

Do You Know What Species This Is?

Here are some hints:

- 🐟 **This species reaches a maximum length of 18 inches, and has an estimated lifespan of around 80 years.**
- 🐟 **DFG has classified this species as a “Shallow Nearshore Rockfish”**
- 🐟 **Daily Bag Limit: 10 fish per person, within the 10-fish aggregate RCG Complex bag limit.**

(answer at the bottom of pg. 18)



Photo by E. Roberts



Summary of Recreational Groundfish Regulations for 2005 Southern Management Area



Ocean waters between 34°27' N. latitude (Point Conception) and the U.S.-Mexico Border

Species	Time Period ^{3,4}	Depth Limit ^{2,3}	Daily Bag Limit ³	Min. Size Limit ^{1,3,5}
RCG Complex (including all species of Rockfish, Cabezon and Greenlings as defined in Section 1.91)	<u>Boat-based Anglers</u> ⁴ : Open: Mar-Dec. Closed: Jan-Feb <u>Divers, Shore-based Anglers</u> ⁴ : Open year-round	Mar-Apr 15: May only be taken in waters <i>between</i> 180 ft (30 fm) and 360 ft (60 fm) deep ² Apr 16-Aug, Nov-Dec: May only be taken in waters <i>less than</i> 360 ft (60 fm) deep ² Sep-Oct: May only be taken in waters <i>less than</i> 180 ft (30 fm) deep ²	10 fish in combination per person; see sub-limits for cabezon, greenlings and bocaccio	See individual species and groups below
Canary and Yelloweye Rockfish, Cowcod	CLOSED all year; NO RETENTION		NO RETENTION (zero)	
Bocaccio	Same as RCG Complex, above	Same as RCG Complex, above	1 fish per person; also included in the 10-fish aggregate RCG Complex bag limit	10" total length
Cabezon	Same as RCG Complex, above	Same as RCG Complex, above	1 fish per person; also included in the 10-fish aggregate RCG Complex bag limit	15" total length
Kelp or Rock Greenling	Same as RCG Complex, above	Same as RCG Complex, above	1 fish per person; also included in the 10-fish aggregate RCG Complex bag limit	12" total length
Ocean Whitefish	Same as RCG Complex, above	Same as RCG Complex, above	10 fish per person	none
California Sheephead	Same as RCG Complex, above	Same as RCG Complex, above	5 fish per person	12" total length
California Scorpionfish	<u>Boat-based Anglers</u> ⁴ : Open: Oct-Dec Closed: Jan-Sept <u>Divers, Shore-based Anglers</u> ⁴ : Open all year	Oct: May only be taken in <i>less than</i> 180 ft (30 fm) ² Nov-Dec: May only be taken in waters <i>less than</i> 360 ft (60 fm) ²	5 fish per person	10" total length

continued on following page

Lingcod	<u>Boat-based Anglers⁴</u> : Open: Apr-Nov Closed: Jan-Mar, Dec <u>Divers, Shore-based Anglers⁴</u> : Open: Apr-Nov Closed: Jan-Mar, Dec	Apr-Aug, Nov: May only be taken in waters <i>less than</i> 360 ft (60 fm) deep ² Sep-Oct: May only be taken in waters <i>less than</i> 180 ft (30 fm) deep ²	2 fish per person	24" total length
Other Federal Groundfish ⁶ (see list online at www.dfg.ca.gov/mrd/groundfish_fedlist.html)	Same as RCG Complex, above	Same as RCG Complex, above	See regulations for individual species	See regulations for individual species
Leopard Shark ⁷	<u>Boat-based Anglers⁴ within Newport Bay, Alamitos Bay, San Diego Bay, and Mission Bay:</u> Open all year <u>Outside of the above-mentioned bays:</u> Same as RCG Complex, above <u>Divers, Shore-Based Anglers⁴:</u> Open all year	<u>Boat-based Anglers⁴ within Newport Bay, Alamitos Bay, San Diego Bay, and Mission Bay:</u> No depth restrictions <u>Outside of the above-mentioned bays:</u> Same as RCG Complex, above <u>Divers, Shore-Based Anglers⁴:</u> No depth restrictions	3 fish per person	36" total length

1. See regulations for information on gear restrictions and fillet lengths.
2. In the Cowcod Conservation Areas fishing is prohibited in waters greater than 120 feet (20 fathoms). Fishing is also subject to the Time Period closures for the Southern Management Area.
3. Subject to in-season change. Call the Automated Telephone Information System at (831) 649-2801 (available after Jan 1, 2005), visit the Marine Region Web site at www.dfg.ca.gov/mrd, send an e-mail to AskMarine@dfg.ca.gov, or call your nearest DFG office for the latest information.
4. Divers and shore-based anglers are exempt from restrictions affecting the RCG complex, ocean whitefish, California sheephead, and other federally managed groundfish (except for lingcod and California scorpionfish). The following definitions describe boat-based and shore-based anglers, and divers:
 - Boat-based anglers are fishermen that fish from boats or vessels of any size or any other type of floating object, including kayaks and float tubes.
 - Shore-based anglers are fishermen that fish from beaches, banks, piers, jetties, breakwaters, docks and other manmade structures connected to the shore.
 - Divers are spear fishermen entering the water either from the shore or from a boat or other floating object.
5. Total length is the longest straight-line measurement from the tip of the head with the mouth closed to the end of the longest lobe of the tail. Go to the Marine Region Web site at www.dfg.ca.gov/mrd/measurement.pdf for a measurement illustration.
6. The sport fisheries for sanddab, butter sole, curlfin sole, flathead sole, rex sole, rock sole, sand sole, and starry flounder, using gear specified for sanddabs in federal and state regulations, are exempt from fishery restrictions that affect other federally managed groundfish.
7. The sport fishery for leopard shark inside Newport Bay, Alamitos Bay, San Diego Bay, and Mission Bay is exempt from restrictions that affect other federally managed groundfish.

These adjustments apply only to state waters (0-3 nautical miles from shore) pending action by the Pacific Fishery Management Council, which is scheduled to decide on April 8, 2005, whether they will be extended into federal waters (3-200 nautical miles from shore).

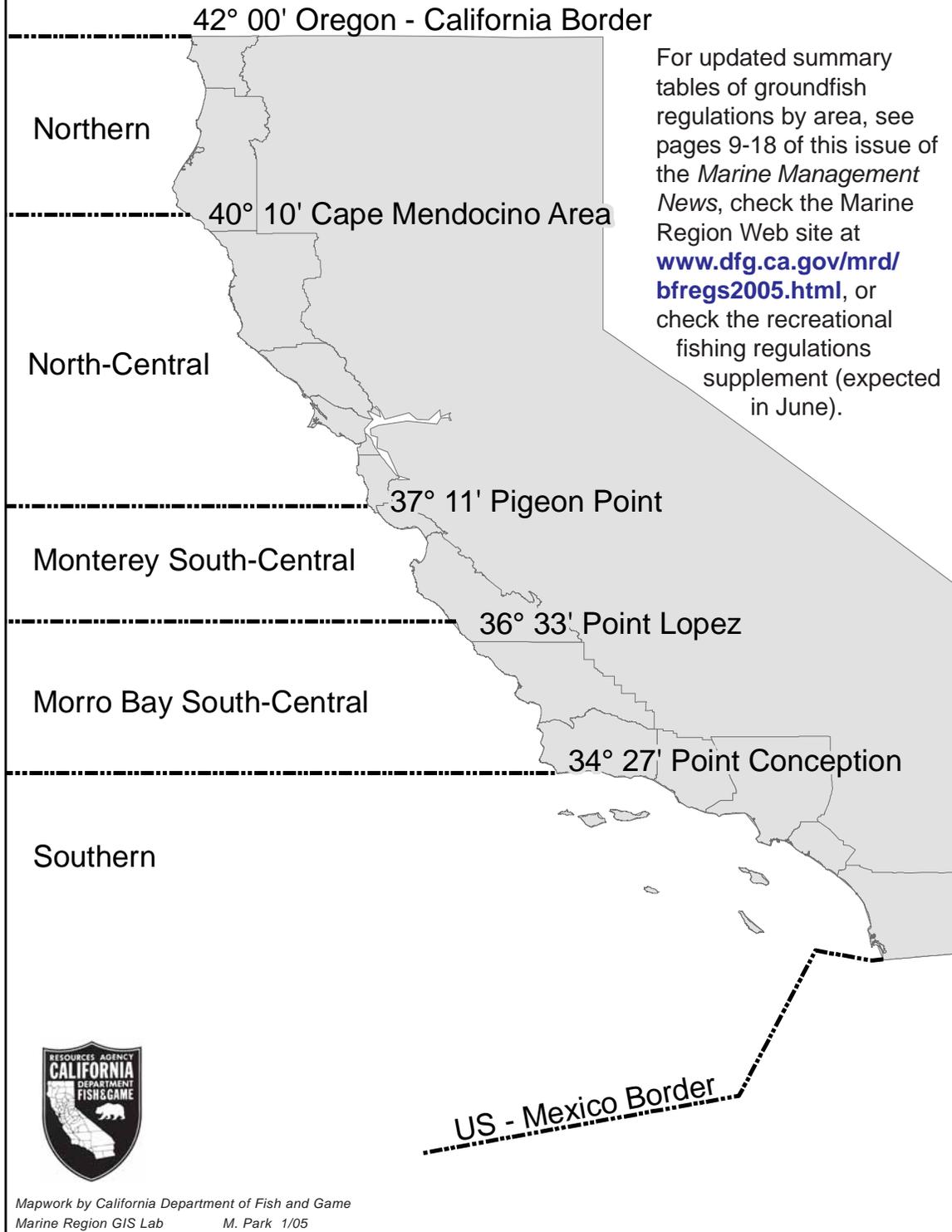
4/5/05

Answers to "Do You Know What Species This Is?"
Page 9: Bocaccio, *Sebastes paucispinis*
Page 10: Blue rockfish, *Sebastes mystinus*
Page 14: Gopher rockfish, *Sebastes carnatus*
Page 16: China rockfish, *Sebastes nebulosus*



GROUNDFISH MANAGEMENT AREAS FOR 2005

Five recreational groundfish management areas have been set along the California coast for 2005 following action taken by the Fish and Game Commission and the Pacific Fishery Management Council. Each area has a different set of groundfish regulations tailored to meet regional needs.



DFG Marine Region Returns to Shows After One Year Absence

by Ed Roberts, Marine Biologist
and Carrie Wilson, Associate Marine Biologist



DFG Captain Mike Wade (retired) and Marine Biologist Carrie Wilson tended the booth at the International Sportsmans Expo in San Mateo
Photo courtesy C. Wilson

After a brief absence, the Department of Fish and Game (DFG) returned this year to staff booths at six of the largest sportsmens shows throughout California. License counter agents sold fishing and hunting licenses at each event, while biologists and game wardens staffed adjacent informational booths to answer questions, clarify regulations, and to provide information about California's fish and wildlife resources. DFG personnel interacted with thousands of hunters, anglers, divers and other outdoor enthusiasts at the following shows this year:

January 12-16: Fred Hall Fishing, Tackle, and Boat Show - San Francisco

January 20-23: International Sportsmen's Expo - Sacramento

February 3-6: International Sportsmen's Expo - San Mateo

February 25-27: International Sportsmen's Expo - Pleasanton

March 2-6: Fred Hall Fishing, Tackle, and Boat Show - Long Beach

March 16-20: Fred Hall Fishing, Tackle, and Boat Show - Del Mar

Sportsmens shows such as these provide great opportunities for anyone interested in fishing, hunting, diving or enjoying the outdoors to meet with DFG game wardens and biologists. In this relaxed, informal setting, people can ask questions about regulations, or about what DFG is doing to manage California's fish and wildlife resources. With our full-service license sales staff also on hand selling everything from hunting and fishing licenses to pig tags, DFG was well represented.

Getting DFG back to the shows was a priority for DFG's Director Ryan Broddrick, who said, "These shows give us a unique opportunity to meet thousands of hunters and anglers over the course of a few days - to answer their questions, hear their concerns, and give them a convenient place to buy their annual fishing licenses."

Anglers took advantage of the opportunity to purchase their fishing licenses, and hundreds more expressed their gratitude and support for DFG's return to the shows.

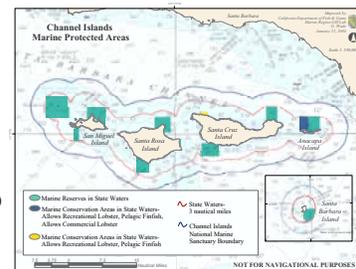
In Long Beach and Del Mar, the booming fishery for jumbo squid was a hot topic (see article, pg 3). Just as frequently, saltwater sport anglers expressed their confusion regarding the recreational depth restrictions that were in effect for the southern California groundfish fishery opener in March.

At the northern California shows participants seemed most interested in what the new groundfish regulations were, and why they have changed. Interest was also very high regarding the opening of salmon season (determined in early April by the federal Pacific Fisheries Management Council) and whether there would be any changes to abalone season.

The DFG would like to thank all the people that took the time to come by our booths to purchase a license, ask a question, or just to talk. The DFG would also like to thank the promoters of the Fred Hall and ISE shows for their generous support. 🐟🎣

...Where Did The Map Go?

In 2004, the DFG printed a map of the Channel Islands MPAs on the back cover of the Ocean Sport Fishing Regulations booklet. For the 2005 booklet, however, the back cover was dedicated to advertisements, a necessary step to insure that the DFG had sufficient funds to print this year's regulations booklets.



Even though this year's booklet does not feature the Channel Islands MPAs map on the back cover, fishermen may still view and/or print the map from the Marine Region Web site at www.dfg.ca.gov/mrd/channel_islands/index.html. The Channel Islands section of the Marine Region Web site includes not only the map that appeared on the back of the 2004 regulation booklet, but also maps of individual Channel Islands MPAs, regulations for the MPAs, information about the continuing process of MPA designation within the Channel Islands, and other useful information. 🐟🎣

“CRFS” continued from page 1

recreational fisheries, incorporating selected elements of the MRFSS program and the high frequency on-site sampling of private vessels from the DFG’s Ocean Salmon Project.

CRFS samplers began hitting the docks, jetties, beaches, and other prime fishing spots in January 2004. The new sampling program provides estimates of catch and effort every month, rather than every two months as with the MRFSS. Field samplers interview fishermen within six distinct geographic regions, as compared to two regions for MRFSS.

Samplers record a greater diversity of information for each fisherman surveyed, including trip target, fishing mode, area fished, and the fisherman’s catch. To support the increased complexity of the survey, twice as many samplers were hired in 2004. With double the samplers working more hours, the number of surveys completed in 2004 more than tripled. The focus on smaller geographic areas, monthly reports, and greater diversity of gathered information has given fishery managers more vital and timely information than ever before.

CRFS also incorporates a telephone survey that uses a limited licensed angler database. One in every 20 licensed fishermen is asked to provide their name and telephone number for the database when they buy their licenses. Anglers are then randomly contacted and asked to complete a survey over the phone. Interviewers especially want to talk to anglers who fish at night, fish from beach/bank areas, and who begin their fishing trips from private launch points inaccessible to samplers. Because only licensed fishermen are contacted, the improved telephone survey gathers more pertinent information for the same amount of interviewer effort.

Results To Date

Data for 2004 were thoroughly analyzed in early 2005 to ensure accuracy. Both founding agencies spent considerable time creating and implementing new comparison methods that allow direct comparison of CRFS data to previous survey and

logbook data. New estimation methods were also formulated, as the previous estimation methods would not work for the more complex CRFS data.

Preliminary estimates for 2004 were posted to the RecFIN Web site (www.recfin.org/crfs.htm) on March 1, 2005. The preliminary data indicate that catches were generally lower than estimated using MRFSS data, primarily because of the extensive use of exit counts by the CRFS program to generate effort estimates instead of the “random digit dialing” telephone survey used in the MRFSS program.

The Future of CRFS

The DFG and the PSMFC are encouraged by the successful implementation of this monumental program, as well as the more accurate estimates of catch and effort. As with any program, there is always room for improvement and DFG will be striving to strengthen and expand CRFS. In 2005, twice as many telephone surveys are slated to take place to provide a more accurate estimate of fishing effort for night-time, beach/bank and private access fishing modes. DFG will also continue to improve the sampling program, the data review, and the estimation process. 🐟



Photo by Carrie Wilson

For More Information About CRFS, Visit the Following Web Sites:

DFG’s California Recreational Fisheries Survey Site
www.dfg.ca.gov/mrd/crfs.html

Recreational Fisheries Information Network
www.recfin.org/crfs.htm

Pacific Fishery Management Council
www.pcouncil.org

**Have a question? Need help
identifying a fish?**



finescale triggerfish.
Balistes polylepis
photo by E. Roberts

**Send your e-mail questions to:
AskMarine@dfg.ca.gov**

"Web Site" continued from page 7

California Grunion Facts and Runs for 2005
www.dfg.ca.gov/mrd/gruschd.html: Grunion are the object of a unique recreational fishery. These fish are famous for their spawning behavior, which is so remarkable that it evokes an "I don't believe it!" from most first-time observers. The grunion's phenomenal behavior can be observed from March through August. Check out this page for more information, including an updated 2005 schedule.

Here are some of our most popular pages:

California Ocean Sport Fishing Regulations Map
www.dfg.ca.gov/mrd/fishing_map.html: Going ocean fishing? This should be your first stop. Simply click the marine location where you plan to fish and you will access a compact list of sport fishing regulations for that area. The pages are printer-friendly, so you can print the regulations and take them with you on your next fishing trip. These pages are updated frequently, so you can be assured that they contain the most up-to-date information.

Record Ocean Sportfish www.dfg.ca.gov/mrd/faqtrph3.html: Would you like to learn about some of the largest California saltwater fish that have ever been caught? Go no further! This page contains links to lists of record ocean sport fish, as well as some impressive photos. If you're a potential record holder, learn how you may apply to join the ranks of state record holders.

Laws and Regulations Page www.dfg.ca.gov/mrd/regulations.html: This page is your main source for information concerning commercial and sport fishing regulations. Over 30 links connect you to a variety of information concerning current regulations.

A-to-Z Directory www.dfg.ca.gov/mrd/index_directory.html: We receive frequent comments letting us know how easy it is to find information on our Web site. Can't seem to find what you're looking for? Don't worry! Just visit our A-to-Z Directory to find an alphabetized list of resources available to you on our Web site.

Marine Region Press Room www.dfg.ca.gov/mrd/media: This portion of our Web site contains up-to-date information specifically for members of the media interested in publicizing information about the DFG Marine Region or California's marine resources. Current features include news releases, a press kit, media FAQs and story ideas.

Enjoy our Web site, and be sure to check back often for the latest news and updates. 🐟

Attention Salmon Anglers:

SLOW DOWN FOR WILDLIFE



Speeding Boats are a Danger to Sea Otters, Marine Birds, and Other Wildlife

- Within the last six years, at least five sea otter deaths have likely resulted from boat strikes that occurred during recreational salmon season.
- The operators of boats that strike wildlife protected by the Marine Mammal Protection Act and Endangered Species Act are subject to criminal and civil penalties.

Please observe speed limits and be on the lookout for surfacing wildlife

Thank you for your cooperation



"Jumbo Squid" continued from page 3

boaters are getting their share as well. Keep in mind that it takes a tremendous amount of work to capture one of these squid: most are caught at depths of 500 to 600 feet or more. Sometimes dropping a jig down to 1,000 feet may be required.

According to Title 14 of the California Code of Regulations, Section 29.70, there is no season or bag limit on these squid. However, the Department of Fish and Game encourages wise and conservative harvest. It is a violation to waste any fish, invertebrate or mollusk taken from the waters of the State. Take what you can use, and leave some for your next outing. 🐙

For more information on jumbo squid, check out:

The Octopus News Magazine Online
www.tonmo.com

The National Geographic Magazine Online
www.nationalgeographic.com
(keywords: jumbo squid)

DFG Marine Region Staff Honored in Sacramento

by Mary Patyten, Research Writer

On Feb. 8, 2005 the hard work and dedication of 18 Marine Region employees was recognized at the Department of Fish and Game (DFG) Superior Accomplishment Awards ceremony held in Sacramento. These awards recognized Marine Region staff who helped to bring the Nearshore Fishery Management Plan (NFMP) to completion. The plan was adopted by the Fish and Game Commission in October, 2002.

"This team demonstrated unusual creativity, inventiveness, and innovation in producing the first State fishery management plan," said DFG Marine Region Manager Patricia Wolf. "The methodology and product was a substantial improvement over traditional methods, organization, and procedures used previously to manage marine species."

The NFMP was the first State fishery management plan developed by a team of Department staff. The NFMP team produced the plan, presented it for adoption by the Fish and Game Commission, and implemented the subsequent program under the goals and priorities of the Marine Life Management Act. At the core of the NFMP is a management strategy of sustainability, which is an important contribution to the conservation of California's nearshore marine resources.

For more information about the Nearshore Fishery Management Plan, go to the Marine Region website at www.dfg.ca.gov/mrd/nfmp/index.html 

Superior Accomplishment Award Recipients

Debbie Aseltine-Neilson, Research Analyst II
Tom Barnes, Senior Biologist Specialist
Traci Bishop, Associate Marine Biologist
Cyndi Dawson, Marine Biologist
Deborah Johnston, Staff Environmental Scientist
Maura Leos, Office Technician
Robert Leos, Research Analyst II
Dave Osorio, Marine Biologist
Sandra Owen, Research Manager I
Mi Ra Park, Research Analyst I
Mary Patyten, Research Writer
Connie Ryan, Research Manager I
Don Schultze, Senior Biologist Specialist
Terry Tillman, Senior Biologist Specialist
Lisa Wertz, Marine Biologist
Deb Wilson-Vandenberg, Research Manager I
David VenTresca, Associate Marine Biologist
Marci Yaremko, Associate Marine Biologist



**Get hooked on the
Department of Fish and Game's
Marine Region Web site**

Log onto the Marine Region's Web site to find all the latest information on commercial and recreational fisheries. The Web site provides an easy way to catch up on new regulations, groundbreaking research, and public meetings. Log on today and see what hooks your attention at www.dfg.ca.gov/mrd/!

Fishery Management Meetings

2005 Fish and Game Commission
www.fgc.ca.gov/2005/2005mtgs.html

May 3-5
Sacramento

September 29-30
Susanville

June 23-24
Bishop

November 3-4
Santa Barbara

August 18-19
San Luis Obispo

December 8-9
Concord

2005 Pacific Fishery Management Council
www.pcouncil.org/events/future.html

April 3-8
Tacoma, WA

September 18-23
Portland, OR

June 12-17
Foster City, CA

Oct. 30-Nov. 4
San Diego, CA

For the latest information on upcoming fishery-related meetings, please go to our Calendar of Events at www.dfg.ca.gov/mrd/index_calendar.html or contact the Monterey DFG office at (831) 649-2870.

MARINE Management News

Marine Management News is published quarterly by the Marine Region of the California Department of Fish and Game for everyone interested in the management and conservation of California's living marine resources. Through this newsletter we hope to keep all associates and constituents interested in participating in and/or tracking the progress of the Marine Life Management Act (MLMA) informed of developments. The MLMA strongly emphasizes an open decision-making process that involves people interested in or affected by management measures.

For more information on the MLMA or to sign up to become more involved, please visit our web site at www.dfg.ca.gov/mrd.

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The Marine Life Management Act

California's Marine Life Management Act (MLMA) of 1998 is an innovative, collaborative, science-based approach to managing all of California's living marine resources. One of its major goals is the long-term sustainability of our resources and our fisheries. The MLMA recognizes and values the non-consumptive benefits of healthy marine life as well as the interests of those who are economically dependent upon them. Implementation and enforcement of the MLMA is the responsibility of the California Department of Fish and Game, whose mission is to conserve wildlife and the habitats upon which they depend through good science and informed citizen involvement. For more information visit www.dfg.ca.gov/mrd.

***DFG Marine Region's mission:
"To protect, maintain, enhance, and restore
California's marine ecosystems for their
ecological values and their use and
enjoyment by the public"***