



California Department of Fish and Game  
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## Statewide Network of Marine Protected Areas Nears Completion

by Elizabeth Pope, Marine Biologist

On January 1, 2012, a suite of new marine protected areas (MPAs) went into effect in the south coast region, the third of four statewide coastal regions of the Marine Life Protection Act (MLPA). This action brought the state one step closer to completing a redesigned and scientifically linked MPA network as mandated by the MLPA. All MPAs developed in the MLPA process were designed by a local regional stakeholder group (RSG) selected for each region, who strove to balance science guidelines, local information, feasible design criteria, and user needs to meet the goals of the MLPA.

The south coast region ranges geographically from Point Conception (Santa Barbara County) south to the California/Mexico border, including offshore islands within state waters. South coast MPAs were adopted on December 5, 2010, by the California Fish and Game Commission (Commission) and are located in state

*"MPA" continued on page 2*



Surf fishermen enjoy a Southern California beach. Some MPAs allow sport and commercial fishing.

DFG photo by S. Bell

## Pacific Herring Populations Increase in San Francisco Bay

by Ryan Bartling, Marine Biologist

Large schools of Pacific herring once again returned to the waters of San Francisco Bay this winter, providing a feast for the bay's many marine mammals and seabirds. The return was also celebrated by the commercial herring fleet.

The spawning biomass estimate for the 2011-2012

season was 60,985 tons, an increase over last season's estimate of 57,082 tons and well above the historical average (1978-1979 season to present) of 49,670 tons. Annual spawning biomass surveys have been conducted by the Department of Fish and Game (DFG) in San Francisco Bay since 1973.

"Another year of favorable ocean conditions likely led to better survival and improved growth for young herring," said John Mello, senior environmental scientist for the Aquaculture and Bay Management Project (ABMP).

The gill net fishery for San Francisco Bay opened with a quota of 1,845 tons on January 2, 2012 and closed on February 27, 2012. During January and February, approximately 88 percent of the San Francisco Bay gill net quota (1,632 tons) was landed. Fresh fish and herring-eggs-on-kelp permits were issued, but no landings were made for these fisheries.

DFG remains committed to providing a sustainable fishery while continuing to protect herring's integral role in both ocean and bay food webs. In order to safeguard the fishery, DFG is once again recommending a conservative 5 percent harvest rate for the upcoming season. If adopted, the quota for the 2012-2013 season would be

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waters adjacent to the mainland shore or around offshore islands. State waters are defined as the mean high tide line seaward to 3 nautical miles offshore, though not all MPAs extend fully offshore to 3 nautical miles.

The suite of south coast MPAs consists of 50 MPAs (37 new or modified, plus 13 existing at the northern Channel Islands) and two existing special closures. Three different types of MPA designations are included in this regional network:

- State Marine Reserve (SMR)– No take of any kind
- No-Take State Marine Conservation Area (SMCA)– No commercial and/or recreational take, and
- State Marine Conservation Area (SMCA)– Allows limited commercial and/or recreational take.

Special closures are also found in the south coast and are areas that provide localized protection for sea bird nesting and rookery sites, including marine mammal haul-out sites. Specific south coast MPA information including maps, regulations and coordinates can be found at [www.dfg.ca.gov/mlpa/southcoast.asp](http://www.dfg.ca.gov/mlpa/southcoast.asp).

The MPA planning process has concluded for the fourth and final MLPA coastal region on the north coast (California/Oregon border to Alder Creek near Point Arena in Mendocino County). Proposed regulations include a suite of 19 MPAs, one State Marine Recreational Management Area (SMRMA: an area that provides MPA-like protection while allowing waterfowl hunting

**Summary Statistics for Marine Protected Areas Within the Entire Statewide Coastal Network**

Type of MPA	Number of MPAs	Area (sq. mi.) of MPAs in All Coastal State Waters <sup>1</sup>	Percent of All Coastal State Waters <sup>1</sup>
SMR	48	461	9%
SMCA (no-take)	10	33	1%
SMCA	61	350	7%
SMP <sup>2</sup>	0	0	0%
SMRMA	5	4	<1%
Special Closures	16	3	<1%
Total <sup>3</sup>	124	851	17%

<sup>1</sup> Encompasses approximately 5,285 sq. mi., excluding state waters in San Francisco Bay.

<sup>2</sup> SMP-State Marine Park

<sup>3</sup> Statewide totals include all MPAs in effect in the southern, central, and north-central coast regions, and MPAs proposed in the north coast region, and do not include special closures or existing MPAs in San Francisco Bay.

to continue) and seven special closures. The MPAs are currently before the Commission for regulatory and environmental review and public input. Adoption of the proposed MPAs and special closures is not expected before spring of 2012.

To date, the MLPA planning phase has resulted in a statewide coastal network of 124 MPAs, that encompass 848 sq mi or approximately 17% of all coastal state waters (approximately 9% in SMRs) and 16 special closures (see table, above). This includes MPAs and special closures proposed in the north coast, and may be subject to change depending on final adoption by the Commission. Information about all statewide MPAs, including goals of the MLPA and planning process for MPAs, can be found at [www.dfg.ca.gov/mlpa](http://www.dfg.ca.gov/mlpa). MPA information can also be accessed via your smart phone or other Internet-enabled device at [www.dfg.ca.gov/m/MPA](http://www.dfg.ca.gov/m/MPA). 📱

*"Herring" continued from page 1*

set at 2,854 tons by the California Fish and Game Commission. This low harvest rate will help minimize fishing mortality, a critical step for continued herring population recovery.

During 2011, the California Fish and Game Commission adopted minor regulatory changes proposed by DFG. These changes included modifications to the fresh fish fisheries in San Francisco and Tomales Bay. Season dates were amended to reflect herring abundance in those bays and the daily market order was increased from 500 to 1,000 pounds. DFG was asked to propose these changes to meet the demands of an emerging market for locally produced and sustainable seafood.

Even with increasing biomass estimates, DFG staff

remain concerned about the herring population age structure, specifically the large proportion of younger fish (less than 5-year herring) in the 2011-2012 spawning population. Herring reach reproductive maturity at age 2 and can return to spawn every year, with a large female laying 40,000 to 50,000 eggs in a single year. San Francisco Bay herring can live to be 9 years old. One of the ABMP management goals is to allow the harvest of 4 year old and older herring in the commercial fishery, allowing herring several opportunities to spawn before being caught in the commercial fishery.

Overall, DFG views the continued recovery of the herring population as promising, especially after the historic low biomass estimate for 2008-2009 of 4,833 tons. This low estimate, along with other factors, caused the first-ever complete fishery closure for the 2009-2010 commercial season.

DFG's long-term management goals for the San Francisco Bay Pacific herring population include restoring a healthy age structure that includes all ages of fish, managing commercial harvest to achieve a sustainable fishery, and providing forage to other species that utilize herring as a food source. For more information visit the ABMP Herring Fishery Web page at:

[www.dfg.ca.gov/marine/herring](http://www.dfg.ca.gov/marine/herring) 📱



*F/V Pac Man gillnets herring on the Tiburon waterfront. DFG file photo.*



## Marine Management News Fish Identification Quiz!

by Mary Patyten, Research Writer

Welcome to the Marine Management News Fish Identification Quiz for January 2012! Here's your chance to show off your fish identification knowledge and win an official Department of Fish and Game (DFG) fish tagging cap. To qualify for the drawing, simply send the correct answers via e-mail to [AskMarine@dfg.ca.gov](mailto:AskMarine@dfg.ca.gov) by April 30, 2012 correctly identifying:

- The species of the fish pictured below (scientific name and an accepted common name), and
- The daily bag limit outside of San Francisco and San Pablo bays, as found in the 2012-2013 Ocean Sport Fishing regulations booklet

Be sure to type "January 2012 MMN Fish Quiz" as the "Subject" of your e-mail. The winner will be selected during a random drawing from all correct answers received by April 30, 2012.

While many fish lay eggs that develop over time and hatch into tiny, free-drifting larvae, this unique fish gives birth to highly developed young—in fact, they look like tiny replicas of their parents—that enter the world ready to swim. Females give birth to an average of 33 young, but this can vary from as few as four to as many as 113. Most enter the world during the spring and summer months. Newborn fish average 2½ inches long at birth, and reach maturity at about 6½ inches long, as 1 to 2 years olds.

This fish eats mostly sand crabs and other small crabs and crustaceans, as well as bean clams.

This species may be found from Bodega Bay (Sonoma County) to central Baja California, Mexico, from the surface to a depth of around 240 feet. They are usually found in the surf zone along sandy beaches where they seem to congregate in depressions on the bottom. Tagging studies indicate this species tends to stay put, usually traveling less than 2 miles, although movement of up to 31 miles has been recorded.

These fish are relatively short-lived. The oldest males reach about 6 years old and 12 inches long. Females can reach about 9 years old and up to 17 inches long. The state record for this species was a 4 lb., 2 oz. fish caught in 1996 off Southern California.

This species is very popular with sport anglers, who appreciate their readiness to take bait and plastic worms on hook and line. Currently, recreational anglers catch far more of this species than commercial fishermen. The estimated recreational catch during the latter half of the 20th century averaged 739,000 lb. per year, whereas the commercial catch averaged 127,000 lb. per year.

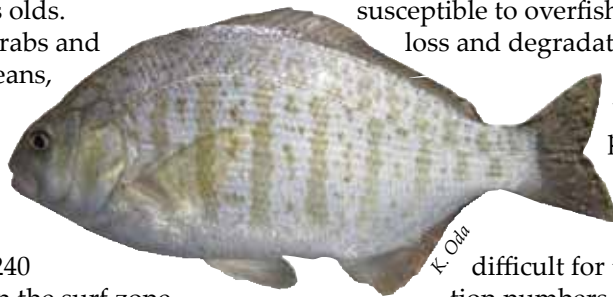
Various life-history traits of this species make it susceptible to overfishing and vulnerable to habitat loss and degradation in marine nearshore

areas and estuaries, which it uses as nurseries. Because they produce comparatively few young and are relatively short-lived, impacts to the nearshore environment could make it

difficult for this fish to rebound if population numbers fall to low levels.

If you think you know this species of fish, claim your prize by being the first to send an e-mail to DFG at [AskMarine@dfg.ca.gov](mailto:AskMarine@dfg.ca.gov) by April 30, 2012 with the correct scientific and common name, and the daily bag limit outside of San Francisco and San Pablo bays, as found in the 2012-2013 Ocean Sport Fishing regulations booklet. Again, be sure to type "January MMN Fish Quiz" in the "Subject" portion of your e-mail.

Answers to the quiz and winner's names will be provided in the next issue of *Marine Management News*.



### October 2011 "Mystery Fish": Blue Rockfish



DFG photo by E. Roberts

The maxillary (jaw or mouth) of a blue rockfish does not extend past the mid-point of the eye, unlike the black rockfish, whose maxillary is larger.

Congratulations go out to Bob Roiner of Citrus Heights, California for correctly identifying last issue's mystery fish as a blue rockfish, *Sebastes mystinus*. The daily bag and possession limit for blue rockfish is 10 fish within the RCG Complex bag limit of 10 rockfish, cabezon and greenlings in combination.

Bob is a 71-year-old, semi-retired pharmacist who, as he says, "does as little as I can for a living!". He loves anything to do with the outdoors, including fishing (especially saltwater) and hunting with his labrador retriever, Maggie. Congratulations again, Bob!



# DFG-led CRFS Program in Full Swing

by Ed Roberts, Associate Marine Biologist

Beginning January 1, 2011, the Department of Fish and Game's (DFG) Marine Region assumed responsibility for the field sampling component of the statewide California Recreational Fisheries Survey (CRFS), which was previously conducted by contract employees with the Pacific States Marine Fisheries Commission (PSMFC).

Anglers have seen little in terms of changes during the transition, aside from some friendly new faces in the field. The new CRFS scientific aids conducting the survey are highly trained and well qualified, having completed at least 10 units of science-related, college-level classwork or a year of biological survey work. They also received extensive training last winter both in the classroom and in the field to master CRFS sampling protocols and polish fish identification skills.

"Working on the CRFS is an enjoyable and rewarding experience," said Dan Troxel, one of the recently hired

scientific aids conducting the CRFS in Humboldt and Del Norte counties. Dan holds a Master of Science degree in fisheries biology from Humboldt State University. "As a scientist, I believe the CRFS is a valuable tool for fishery management. As an avid saltwater angler, I feel it is important to sustain and conserve our marine resources, and the CRFS is a big part of that effort."

When asked his thoughts regarding DFG's assumption of responsibility for the field sampling component of the CRFS, Dan replied "My integration into the CRFS program went smoothly, and the DFG did a good job training me in CRFS protocol."

As part of the transition, DFG filled two senior marine biologist supervisor positions, one for Northern and Central California, and one for Southern California. In addition, five associate marine biologist positions were filled—one each for Northern California, the San Francisco Bay Area, the Monterey/Morro Bay area, and two for Southern California—to serve as field leads for the more than 60 scientific aids conducting the survey.

Jayna Schaaf-Da Silva, who earned a Master of Science degree in marine science at Moss Landing Marine Laboratory (through San Jose State University), was recently promoted to associate marine biologist to serve as the field lead in the Monterey/Morro Bay area. Jayna worked on the CRFS for nearly 4 years as a fishery technician with PSMFC (see *The Scientific Side of the Hot Salmon Bite* in the Sept. 2005 issue of *Marine Management News*, available online at [www.dfg.ca.gov/marine/newsletter/0905.asp#crfs](http://www.dfg.ca.gov/marine/newsletter/0905.asp#crfs)).

"One of the biggest challenges I have run into as a CRFS field lead is helping the scientific aids see the big picture of the CRFS program and how important the data is to fisheries management in California," said Jayna. "Stock assessments use CRFS data. The results of these assessments are [in part] what give us annual harvest limits, and allow DFG to recommend fishing regulations such as bag limits, minimum size limits, fishing-depth constraints, and season structures. It's great when the scientific aids have that "ah-ha" moment and realize how important each fish measurement can be!"

It's clear that the transition has been a success.

Looking at some of the totals from 2011, CRFS scientific aids and biologists completed nearly 4,700 sampling assignments statewide.

More than 1,500 assignments were completed in Los Angeles, Orange and San Diego counties alone. Ventura and Santa Barbara counties accounted for almost 500 sampling assignments. Over 800 assignments were completed in Santa Cruz, Monterey and San Luis Obispo counties. More than 1,000 sampling assignments were completed in Sonoma and the Bay Area counties.

"CRFS" continued on page 5



"CRFS" continued from page 4

Almost 300 assignments were completed in Mendocino county, and nearly 600 in Humboldt and Del Norte counties. This large number of successfully completed sampling assignments is testimony to the efforts of the more than 60 scientific aids in the field and the eight biologists responsible for the implementation of the project.

From the efforts of DFG staff with prior CRFS experience, to those staff who assisted with the transition, to the eagerness of new staff, DFG will



continue to "carry the CRFS torch" to provide the data necessary to manage California's marine resources.

*Photos, L to R: CRFS sampler Shannon Walkenhauer interviews a fisherman, DFG file photo; rockfish taken aboard a party boat by a bright young angler; and the author, right, and friend with limits of Chinook salmon. All photos by/courtesy of Ed Roberts.*

## A Brief History of the CRFS

Since the late 1970s, the Pacific States Marine Fisheries Commission (PSMFC)—an interstate agency dedicated to helping state resource agencies address fisheries needs—has conducted marine recreational fishery sampling along the California coast, and produced catch and effort estimates needed by state and federal fishery managers. The CRFS evolved in 2004 with a goal of producing the marine recreational fishery data needed for sustainable management of California's marine resources. Since the development and implementation of the CRFS, DFG's intent has been to transfer the management of marine recreational fishery sampling in California from PSMFC back to DFG, and realize the long-term goal of having a single, integrated, statewide recreational finfish sampling program.

This goal was attained in January 2011. The CRFS is conducted year-round on beaches, piers and jetties, at public boat launch ramps, and aboard party and charter sportfishing boats at sea, where scientific aids interview anglers about their fishing activities and identify and measure their catch.

For more information about the CRFS, visit the DFG website at [www.dfg.ca.gov/marine/crfs.asp](http://www.dfg.ca.gov/marine/crfs.asp)

## State's Third Largest Red Abalone Taken in 2011

by Mary Patyten, Research Writer



Phillip Johnson with his 11.81 in. trophy red abalone.  
photo by L. Johnson

On Oct. 16, 2011, Phillip Johnson of Fort Bragg took the third largest red abalone on record, the largest ever recorded by DFG in Mendocino County. The mollusk measured 11.81 in. (300 mm) long and over 9½ in. wide, weighing in at over 11 lb.

Mr. Johnson also holds the record for the eighth largest red abalone taken in California, a 285 mm mollusk taken in 2008. The state record abalone, taken in 1993, measured 12.33 in. (313.4 mm) long. The unofficial State "Top 15" red abalone list can be viewed online at [www.dfg.ca.gov/marine/invertebrate/abalone.asp](http://www.dfg.ca.gov/marine/invertebrate/abalone.asp)

## Sea Otters May Not Have to Pay Taxes...

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# UPDATES

## *Marine Management News*

### Selected “snapshots” of current Marine Region projects *by DFG Staff*

#### **Dungeness Crab**

The commercial Dungeness crab season in Mendocino, Humboldt and Del Norte Counties was delayed twice in 2011 due to soft-shell/poor quality crab conditions. On Nov. 15, 2011 DFG Director Charlton H. Bonham delayed the Dec. 1 opening until at least Dec. 16. Subsequent testing indicated the crab would still not meet quality standards by that date, so on Dec. 8 Director Bonham delayed the opening until January 13, 2012. Commercial crabbing took place south of Mendocino County as scheduled, and the recreational Dungeness crab season was unaffected.

Biologists do not know why Dungeness crab are occasionally slow to fill out their newly molted shells, but this delay in development has been documented before. For more information about the commercial Dungeness crab fishery, see the DFG Invertebrate Management Project Web page at [www.dfg.ca.gov/marine/invertebrate/management.com.asp#crab](http://www.dfg.ca.gov/marine/invertebrate/management.com.asp#crab).

#### **New Recreational Fishing Records**

Four new recreational diving and angling records were logged into the books since last fall. On Sept. 29, 2011 Jared Perry caught a 5 lb. 8 oz. grass rockfish (*Sebastes rastrelliger*) near Santa Cruz to capture the state angling record for that species. On July 31, 2011 Harold Gibson speared a 6 lb. 6 oz. monkeyface prickleback (*Cebidichthys violaceus*) off Carmel to land that species' state diving record. And Christopher



Jared Perry with his catch, including a new state record grass rockfish. DFG file photo

Cupples started the new year off right by capturing two state records in one day: On Jan. 2, 2012 Mr. Cupples speared a 6 lb. 6 oz. olive rockfish (*Sebastes serranoides*) and a 4 lb. 10 oz. rubberlip seaperch (*Rhacochilus toxotes*) while freediving off Carmel, to capture both of those state records. Congratulations to all the new state sportfishing record holders! For more information about state recreational fishing and diving records, see the DFG Record Ocean Sport Fish Web page at [www.dfg.ca.gov/marine/records.asp](http://www.dfg.ca.gov/marine/records.asp).

#### **Pismo Clam**

In Dec. 2011 DFG staff and volunteers conducted the eighth semi-annual Pismo clam survey at Sunset State Beach in Santa Cruz County. This survey yielded the lowest clam density and highest mean shell diameter recorded to date. Only eight clams were found in the 29 plots sampled, with shell diameters ranging from about 2¼ in. to nearly 3 inches. In previous surveys, shell diameters ranged from about 1½ in. to a little over 2 in., and densities were over five times higher. This latest survey may indicate that fewer new clams have entered the population in the past several years. For more information about Pismo clams, see the DFG Invertebrate Management Project Web page at [www.dfg.ca.gov/marine/invertebrate/bivalves.asp](http://www.dfg.ca.gov/marine/invertebrate/bivalves.asp). 🦪



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# Get Hooked on the Marine Region and MLPA Web Sites!

by Aaron Del Monte, Marine Region Webmaster

For the latest information on fishing regulations, marine resources, and news affecting our California coastline, your first stop should be the Department of Fish and Game Marine Region website, located at [www.dfg.ca.gov/marine](http://www.dfg.ca.gov/marine). This comprehensive information source currently contains well over 2,000 web pages and documents readily available to the public. If you are new to this website, we invite you to explore the valuable resources we have created. For those who have already visited the site, be sure to check back regularly, since new features, updates, and press releases are added every week. Here are some recent, noteworthy updates:

## **2012-2013 Ocean Sport Fishing Regulations Booklet**

[www.dfg.ca.gov/marine/sportfishing\\_regs2012.asp](http://www.dfg.ca.gov/marine/sportfishing_regs2012.asp):

This is the 2012-2013 Ocean Sport Fishing regulations booklet that will be distributed in March, 2012. This electronic version denotes sections that have changed or are new for 2012.

## **Summary of Recreational Groundfish Fishing Regulations for 2012**

[www.dfg.ca.gov/marine/bfregs2012.asp](http://www.dfg.ca.gov/marine/bfregs2012.asp):

This page contains easy-to-read tables containing this year's season opening and closing dates, depth limits, daily bag limits and minimum size limits for California groundfish species.

## **California Grunion Facts and Runs**

[www.dfg.ca.gov/marine/grunionsschedule.asp](http://www.dfg.ca.gov/marine/grunionsschedule.asp):

Grunion, famous for their spawning behavior, are the object of a unique recreational fishery. This page contains facts about grunion and a list of expected grunion runs on the California coast through August 2012. Links to more expansive information and printable resources are also available.

## **Salmon 2012 Preseason Process**

[www.dfg.ca.gov/marine/salmonpreseason.asp](http://www.dfg.ca.gov/marine/salmonpreseason.asp):

This page contains an event calendar and contact information related to this year's salmon preseason process.

Here are some of our most popular pages:

## **California Ocean Sport Fishing Regulations Map**

[www.dfg.ca.gov/marine/fishing\\_map.asp](http://www.dfg.ca.gov/marine/fishing_map.asp):

Going saltwater 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.

## **Ocean Fishing: Laws and Regulations**


[www.dfg.ca.gov/marine/regulations.asp](http://www.dfg.ca.gov/marine/regulations.asp):

Are you looking for more detailed information about fishing regulations? This page contains links to useful publications and other information related to both sport and commercial fishing.

## **Invertebrate Management Project**

[www.dfg.ca.gov/marine/invertebrate](http://www.dfg.ca.gov/marine/invertebrate):

The Invertebrate Management Project is tasked with the monitoring and sustainable management of important commercial and recreational marine invertebrate fisheries occurring primarily in the nearshore environment of California's marine waters. These web pages contain expansive information about abalone, crabs, sea urchin, California spiny lobster and other marine invertebrates.

Thank you for using the Marine Region website as a resource for news, information and regulations. We hope you will visit our site again soon! 

## The Marine Life Protection Act (MLPA) Website

[www.dfg.ca.gov/mlpa](http://www.dfg.ca.gov/mlpa)

The 1999 MLPA directed the state to design and manage a network of marine protected areas (MPAs) 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 website contains up-to-date information about this exciting endeavor, including these popular resources:

### **South Coast Marine Protected Areas**

[www.dfg.ca.gov/mlpa/scmpas\\_list.asp](http://www.dfg.ca.gov/mlpa/scmpas_list.asp)

California's new and improved Marine Protected Areas (MPAs) network in the south coast region (Point Conception in Santa Barbara County to the California/Mexico border) went into effect January

1, 2012. The south coast MPA network encompasses 37 new or modified MPAs, plus the pre-existing 13 MPAs and two special closures located at the northern Channel Islands. This page contains summaries of the regulations and boundaries for each MPA, plus links to maps.

*"MPA Website" continued on page 8*

# Creature Feature

## Leopard Shark

by DFG Staff



The beautifully spotted and barred leopard shark is abundant in central and southern California bays and along sandy beaches, and is also found in northern California bays. It is most common in shallow water to a depth of 15 ft., less so down to 300 ft. or deeper in ocean waters. During the fall, large numbers may be found in San Francisco and Monterey bays.

### Distinguishing Characteristics

Easily identified by the gray coloration over most of its body, and the black spots and crossbars on the back and side. Body elongate, with short and bluntly rounded snout. White or pale underneath.

### Life History & Other Notes

Leopard sharks eat a variety of fishes and shellfish, including squid, anchovy, and crab. It favors muddy bays and sloughs, especially in northern California, and is known to move in and out with the tides to feed over shallow tidal mudflats. It also occurs along the open coast and around southern California offshore islands, where it frequents kelp beds, sandy bottoms near rocky reefs, and the surf zone along sandy beaches.

As with most sharks, female leopard sharks bear live young. While this shark is considered relatively

harmless and is usually timid around divers, it should be handled with care. Most anglers use rod and reel tackle to take leopard shark; however, some spearfishing for this species does occur. The leopard shark is very good eating, and has been favorably compared to salmon.

*Excerpt from the California Finfish and Shellfish Identification Book. Single copies of the book are available to California residents free of charge by emailing a request to [publications@dfg.ca.gov](mailto:publications@dfg.ca.gov)*

### Leopard Shark

#### SCIENTIFIC NAME

*Triakis semifasciata*

#### OTHER COMMON NAMES

cat shark

#### RANGE & HABITAT

Statewide in bay environments, and in shallow waters near sandy beaches, and in kelp beds in southern California

#### LENGTH & WEIGHT

To 7 FT. AND 70 LBS.

#### LIFESPAN

To 30 YEARS

#### DIET & SUGGESTED BAIT

Feeds on crab, shrimp, mollusks and small fishes. Try these items or cut squid as bait.

"MPA Website" continued from page 7

### North Coast Study Region

[www.dfg.ca.gov/mlpa/northcoast.asp](http://www.dfg.ca.gov/mlpa/northcoast.asp)

The MPA planning process has been completed in the north coast study region (California/Oregon border to Alder Creek near Point Arena in Mendocino County). Nineteen MPAs, one State Marine Recreational Management Area and seven special closures are currently before the Commission for regulatory and environmental review and public input. Adoption of the proposed MPAs and special closures is not expected before spring, 2012.

### MPA Mobile Website

[www.dfg.ca.gov/m/MPA](http://www.dfg.ca.gov/m/MPA)

This website allows anglers, divers and other ocean users to look up current information about MPA regulations and boundaries from personal computers, as well as smartphones and other portable Internet-enabled devices. Users can search for any current MPA by name or county, or by using the interactive map. Users can also find and track their current location via GPS and determine whether or not they are currently located within an MPA.

## Upcoming Commission and Council Meetings

### 2012 California Fish and Game Commission

[www.fgc.ca.gov/meetings/2012](http://www.fgc.ca.gov/meetings/2012)

February 2  
Sacramento

March 7  
Riverside

April 11-12\*  
Eureka

April 18  
teleconference  
Sacramento

\* When possible, meetings will be held on the first day only.

### 2012 Pacific Fishery Management Council

[www.pcouncil.org/council-operations/council-meetings/future-meetings/](http://www.pcouncil.org/council-operations/council-meetings/future-meetings/)

March  
2-7  
Sacramento

April  
1-6  
Seattle, WA

June  
21-26  
San Mateo

For the latest information on upcoming fishery-related meetings, please go to our Calendar of Events at [www.dfg.ca.gov/marine/calendar.asp](http://www.dfg.ca.gov/marine/calendar.asp) or contact the Monterey DFG office at (831) 649-2870.



## **MARINE Management News**

**M**arine Management News is published three times per year 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/marine](http://www.dfg.ca.gov/marine).

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## **The Marine Life Management Act**

**C**alifornia'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/marine](http://www.dfg.ca.gov/marine).

### **DFG Marine Region mission:**

*"To protect, maintain, enhance, and restore California's marine ecosystems for their ecological values and their use and enjoyment by the public through good science and effective communication."*

*Alternate communication formats of this document are available upon request. If reasonable accommodation is needed, call DFG at (707) 964-5026. The California Relay Service for the deaf or hearing impaired can be utilized from TDD phones at (800) 733-2929.*