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Resources, Partners Needed to Develop a Lobster Fishery Management Plan

by Mary Patyten, Research Writer and Kristine Barsky, Senior Invertebrate Specialist The Department of Fish and Game (DFG) is seeking outside funding and qualified partners to provide support for the development of a California spiny lobster fishery management plan (FMP). This exploratory process is being undertaken because of budget uncertainties, which may limit the resources at DFG's disposal to prepare an FMP and carry out all the meetings necessary to include constituent contributions to the plan.

Suggestions, concerns and offers of assistance may be directed to:

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California spiny lobster shelter in rocky crevices during the day and scavenge for food at night. DFG photo by D. Stein

Shortly after Jan 1, 2010 the DFG will evaluate the resources and funding available for developing an FMP and make a decision regarding next steps. If the DFG moves ahead with "Lobster" continued on page 5

Biologists, DFG Enforcement Team Up for Abalone and Urchin Surveys by Mary Patyten, Research Writer

During the first week of Aug. 2009, Department of Fish and Game (DFG) and Bodega Marine Lab biologists completed nearshore abalone and sea

Inside This Issue

- Lobster FMP1
- Abalone Survey.....1
- CRFS Tales2
 CalCOFI.....2
- Oct. Fish ID Quiz......3
- May Quiz Answer......3
- Region Awards......4
- Marine Web Site......5Creature Feature6
- Hoop Net Regulations .6
- MLPA Web Site......7
- Mgmt. Meetings......8

urchin dive surveys off Fort Ross in northern California, with assistance from DFG enforcement vessels and personnel. Biologists use the data gathered during surveys to monitor and manage California's abalone populations in accordance with the Abalone Recovery and Management Plan (ARMP). The data is also used to monitor and manage sea urchin populations.

From the DFG patrol boat *Marlin*, divers surveyed 42 randomly selected areas on and around Fort Ross (Pedotti) Reef, Reef Campground, and Fort Ross Cove sites. Divers counted red, pinto, and flat abalone, as well as red sea urchin and purple sea urchin.

On average, divers found one red abalone and one red sea urchin for every 3 square meters of survey area. A total of 863 red abalone, 836 red sea urchins, and 1,030 purple sea urchins were counted within the 2,520 square meters surveyed. Only four pinto abalone, and zero flat abalone, were found – both species are rare in California.

Divers also collected 80 small boulders covered with coralline algae for examination. Abalone settle onto boulders and other rocky areas to feed on coralline algae early in their "Abalone Survey" continued on page 4

Tales from the Front Lines of California's Fisheries

Central California and Channel Islands CRFS Fishery Technicians relate their on-the-job experiences by Mary Patyten, Research Writer

Fishery technicians for the California Recreational Fisheries Survey (CRFS) spend a great deal of time in places where anglers gather: piers, docks, jetties, boats, launch ramps, and beaches. They interview fishermen, measuring and weighing their fish, and answering questions regarding fishing regulations, all to keep tabs on the status and health of nearshore fish populations. Inevitably, they witness not only a long parade of fish and fishermen, but also some interesting situations as recounted in Part I of this two-part fishing tale...

Good fishing, bad fishing, fascinating natural events, and sometimes even fairy tale endings– they're all part of the intriguing world of CRFS fishery technicians.

"On each pier there are characters, stories, fish tales and images that linger in my mind long after I've clocked out for the night," says Kirk Lombard, who works as a technician out of San Francisco.

Up and down the coast,

fishery technicians share Lombard's sentiments and have some tales of their own to tell.

Charles Villafana, who worked as a fishery technician out of San Luis Obispo in 2006, recounted a party boat trip that did not start out too well. "Somehow, on the way out to fish, one of the passengers dislodged the standpipe for the bait tank. All the bait ran out the bottom of the tank as it drained. When we reached the fishing area, it was too late to return to get more bait, so everyone had to fish without it."

Surprisingly, this did not slow down the bite much according to Villafana, who noted that the bare white flies the fishermen were forced to use instead of bait "seemed to attract more blue rockfish" than usual. All's well that ends well!

Fishery technicians must be skilled at identifying different species of fish, but Chris Zacker, who works out of San Luis Obispo, puzzled over one unusually colored fish he saw in 2006 just after completing his training. Zacker recounted that a spear fisherman brought in the fish, which "looked similar to a blackand-yellow rockfish, with the exception of the tips of the pectoral fins, which were colored a bright red-orange." As Chris gained more experience, he learned that rockfish can vary widely in coloration, making

identification difficult even for fishery biologists. In other words, if you've seen one black-and-yellow rockfish, you really haven't seen them all!

Some exotic fish species follow warm water influxes from the south that occasionally infiltrate

the Southern California Bight, as documented by Kai Lampson off the Channel Islands in 2006. "I observed a hammerhead shark while on a fishing trip 10 miles off

Anacapa Island," he said. "This was one of five hammerhead shark sightings of which I was aware. Two other sport boats caught hammerhead sharks, which were reportedly brought into Ventura and Santa Barbara harbors."

Lampson, who now works as a DFG marine biologist, said that in addition to the unusual shark sightings, commercial boats also reported seeing blue marlin and manta rays in the outer waters during that time period. Rockfish can be difficult to identify to species. The DFG provides a fish identification poster to each registered party boat (also available at www. rockfishid.com), and fish identification materials in annual regulations booklets and online at www.dfg.ca.gov/marine/ fishid.asp.

Watch for Part II of this article in the January issue of the Marine Management News. For more information about the CRFS program, be sure to visit the DFG Web page at www.dfg.ca.gov/marine/crfs.asp.

CalCOFI Conference: Forecasting Fishery Productivity

The 2009 CalCOFI conference will take place Dec. 7-9 at the Asilomar Conference Center in Pacific Grove, CA. The deadline for conference registration is Nov. 20.

The theme for this conference is "Forecasting Fishery Productivity in the California Current". The California Cooperative Oceanic Fisheries Investigations, or "CalCOFI" program, with its long time series of biological and physical oceanography data, has shown that ocean conditions can be a major driver of fishery productivity. More information about the conference is available on the CalCOFI conference Web site at

http://oceaninformatics.ucsd.edu/calcofi/conference/.

Marine Management News Fish Identification Quiz!

by Mary Patyten, Research Writer

Pelcome to the Marine Management News Fish Identification Quiz for October 2009! Here's your chance to show off your fish identification knowledge and win an official Department of Fish and Game fish tagging cap (left). To enter the contest, simply send the correct answer via e-mail to AskMarine@dfg.ca.gov before October 31, 2009 correctly identifying:

- *The species of the fish pictured below (scientific name and an accepted common name)*
- The current daily bag limit, as given in the 2009-2010 recreational fishing regulations for California!

For this quiz, we've selected a fish that is not very common in California waters, however it intrigues anglers whenever it is caught. Be sure to type "October 2009 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 October 31, 2009.

In mid- to late summer, large groups of this fish may be found close to the sea floor, hovering over egg-filled nests built in shallow depressions and surrounded by small stones. Females guard the nests until the young hatch, at which time the tiny fish drift with the currents.

This species ranges from Point St. George in Del Norte County, California to Chile, South America, including the Galapagos Islands. It is considered rare off California, especially north of Point Conception, and is most abundant in the upper and central portions of the Gulf of

California. This fish can be found in just about any habitat. Adult fish tend to live close to the bottom near shore, where they seem to prefer the protection of

reefs and boulder-strewn slopes. They generally hide during the day by wedging themselves into rocky crevices, although they have been seen

venturing onto adjacent areas of sand. At night they tend to disperse a bit. Younger fish are found more frequently over sand, hiding wherever drifting debris provides cover.

This species has been caught at depths ranging from close to the surface to 1,680 ft., and can grow to $2\frac{1}{2}$ ft. long. It eats

just about anything, from algae growing on rock surfaces to mollusks such as clams, to sea urchins and a variety of crustaceans including crabs, crunching through the tough shells with very strong teeth and jaws. They have also been observed "blowing" jets of water into the

so been observed blowing jets of water into the sandy sea floor to uncover polychaete worms and other burrowing prey, and feeding on venomous species that most predators would avoid.

This species has not occurred in great enough numbers off California to attract the attention of commercial fishermen over the years; still, the fish arrives in California waters with warm water influxes often enough to delight recreational fishermen who enjoy their feisty, hard-fighting nature.

> If you think you know this species of fish, enter the prize drawing by sending an e-mail to the DFG at *AskMarine@dfg.ca.gov* with the correct scientific and a

common name, and the current daily bag limit. Again, be sure to type "October 2009 MMN Fish Quiz" in the "Subject" portion of your e-mail. Answers to the quiz and the winner's name will be published in the next issue of *Marine Management News.*

May 2009 "Mystery" Fish: Giant Sea Bass

photo by J. Sung



Congratulations go out to Mr. Joaquin Perry, a farmer in the Sacramento area, for identifying the May 2009 mystery fish as a giant (black) sea bass, *Stereolepis gigas*. Giant sea bass is a no-take species – the bag limit is zero fish in California waters (see Section 28.10).

Mr. Perry likes to hunt, fish, and dive in his spare time. He plans to retire soon and spend more time outdoors hunting and fishing. **CONSERVATION NOTE**: Giant sea bass undergo distinct body changes before reaching adulthood, at times looking rather like a perch or a rockfish. Identifying and releasing young fish is crucial to preserving the species off California.



Marine Region Staff Recognized for Excellence

by Mary Patyten, Research Writer

In June 2009, four DFG Marine Region staff from Los Alamitos, Belmont and Bodega Bay received Region awards for outstanding work in protecting and maintaining California's marine ecosystems.

"Marine Region staff takes on a variety of challenging tasks," said Marija Vojkovich, Marine Region Manager. "Our regional awards are a way for us to step back and appreciate the work our colleagues do."

Senior biologist Laura Rogers-Bennett received the Frances Clark Award for Excellence in Marine Science. Over her career, Rogers-Bennett has modeled abalone growth and recruitment, evaluated marine reserves with respect to invertebrates, and participated in developing a coastwide crab abundance index, among other projects. She also mentors graduate students from UC Davis, and has published scientific papers in a variety of journals.

"This award means a lot to me, as working in the ocean is never a one person adventure – quite the contrary, it involves a host of people," said Rogers-Bennett. "The Marine Region is chock full of terrific, dedicated and professional marine scientists with whom I am lucky enough to work."



Statistical methods analysts Joe Weinstein and Phil Law, and marine biologist Ashok Sadrozinski received the Marine Region Award for Special Contribution. Weinstein, Law and Sadrozinski's work improved the precision of California's marine recreational fish catch estimates, and the analysis of data gathered for the California Recreational Fisheries Survey. Their methods may be reviewed for implementation in other coastal states' recreational fishery surveys as well.

"Our work in the Recreational Fisheries Data Project aims to improve the DFG marine angler surveys and their application towards effective management and good fishery science," said Weinstein.

"Excellence" continued on page 5

Laura Rogers-Bennett (left), Phil Law (below left) and Ashok Sadrozinski (below

"Abalone Survey" continued from page 1

development, when they are about the size of a single grain of fine sand. By removing and examining the plants and young abalone found on boulders, researchers are trying to determine the time of year most abalone settle to the seafloor, and the location of important nursery areas. Cruise staff also towed nets to gather plankton samples that will provide further information about abalone during its early life stages. Samples were preserved for later examination.

Dive conditions were exceptional during the research cruise, with good water clarity, calm winds and reduced ocean swell. The cruise took place during the first week of the recreational red abalone fishery opener, after the closure for the month of July. Research staff witnessed a great number of recreational divers at the Fort Ross site during the opener. According to data from abalone report cards and creel surveys, Fort Ross is the most popular recreational abalone fishing location in northern California.

Regular surveys of the Fort Ross site are mandated by the ARMP. Fort Ross is one of eight sites surveyed triennially



Newly settled red abalone less than half a millimeter long, gathered at Van Damme State Park in Mendocino County. photo courtesy of T. Horii

off the northern California coast in an effort to monitor the health of abalone stocks. For more information about California's abalone and the ARMP, visit the DFG Marine Region Web site at *www.dfg.ca.gov/marine/abalone.asp.*

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

by Aaron Del Monte, Assistant Information Systems Analyst and Marine Region Webmaster

F or 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 Web site, located at *www.dfg.ca.gov/marine*. This comprehensive information source currently contains well over 2,000 Web pages readily available to the public. If you are new to this Web site, 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:

"Excellence" continued from page 4



"I know I speak for my two colleagues when I say this work has been very satisfying, as it has relied both on great teamwork and our unique individual strengths. Because our Marine Region colleagues are top-notch, this recognition from them is a truly wonderful boost."

Marine Region staff nominate colleagues for the awards. An Awards Committee of senior Region staff reviews the nominations and makes recommendations to the Regional Manager, who selects the final award recipients.

"Lobster" continued from page 1

a spiny lobster FMP, the multi-year process will include public scoping sessions, informational meetings, and peer review of the entire plan before it is presented to the Fish and Game Commission for approval through their rulemaking process. Previously, the DFG developed FMPs for white seabass, the nearshore finfish complex, and market squid. If the DFG undertakes a lobster FMP the process will follow the same steps as for previous FMPs, as mandated in the Marine Life Management Act.

The California spiny lobster is a key species that supports important recreational and commercial fisheries in Southern California. The DFG has given it high priority as the next FMP the state should undertake.

What is the Marine Region?

www.dfg.ca.gov/marine/marineregion.asp

When visiting our site, one of your very first questions might be: "Where exactly is the Marine Region and what does the Marine Region do?" This page will answer these questions. In addition to an overview of the Marine Region, you will find a description of 14 current projects within the Marine Region. In the coming weeks, look for links to in-depth information for each of these projects.

Yelloweye Rockfish In-Season Tracking

www.dfg.ca.gov/marine/groundfishcentral/tracking.asp Yelloweye rockfish (*Sebastes ruberrimus*) is a challenging species to manage because the statewide recreational

"Marine Region Website" continued on page 7

Frances Clark: *Pioneer in the Marine Sciences*

by Mary Patyten, Research Writer



The Marine Region Award for Excellence in Marine Science is named for Frances Clark, a pioneer in marine conservation and marine science. Clark, who started her career as a DFG fisheries biologist in the 1920s, was one of the first female fishery researchers to receive worldwide respect and acclaim. Her career included scientific work on grunion, sardines

Frances Clark (left) and John Janssen tagging sardines in 1934. DFG file photo

and the California Current, and she was instrumental in establishing California Cooperative Oceanographic Fisheries Investigations (CalCOFI), an organization that studies the marine environment and methods for managing its living resources. Her outstanding 32-year career with the DFG included 17 years as director of the California State Fisheries Laboratory at Terminal Island.

The legacy and spirit of Frances Clark continues in the Marine Region today, as exemplified by the work of Region scientists who receive the award that bears her name. The Frances Clark Award for Excellence in Marine Science perpetual award plaque is currently on display at the Marine Region office in Los Alamitos. The inaugural recipient of the award was senior biologist Konstantin Karpov (retired) who received the award in 2007; the latest recipient, Laura Rogers-Bennett, is only the second person to receive this legacy award.



In California, the Dungeness crab ranges from the California-Oregon border southward to Santa Barbara, however they are uncommon south of Point Conception.

This species prefers sandy or sand-mud bottom, but may be found in almost any sea floor habitat. They range from the intertidal zone to a depth of at least 750 ft., but are not abundant beyond 300 ft.

Distinguishing Characteristics

• Dark rusty brown-red

• Broadly oval shell (*carapace*); modestly serrated front edge, with distinctive lighter markings on carapace

• Ten legs, front pincers largest, last segment of legs may be paler with white tips

Life History & Other Notes

Dungeness crab feed on a variety of food sources, but prefer clams, fish, and other crustaceans (including other Dungeness crab) when available.

Female molting and mating occurs from February through June off California. Females may carry up to two million eggs under a flap on their belly. The eggs hatch between November and February,

with newly hatched young passing through six developmental stages before changing to adult form and settling into nearshore areas. Although inshore-offshore movement of Dungeness crab has been observed, most move less than 10 miles from where they settle.

Dungeness crab may be taken by hand (when diving) or by more traditional hoop nets or traps from jetties, piers, or boats. Dungeness crab may not be taken in San Francisco Bay. Clams and fish carcasses are favorite bait.

This Creature Feature is an excerpt from the California Finfish and Shellfish Identification Book available from the DFG Publications Office (contact (916) 322-8978 or publications@dfg.ca.gov). The book was created as part of the California Fishing Passport Program, which showcases different species of fish available to California anglers. The California Fishing Passport, a free fishing journal, is the basis of the program. For more information, visit www.fishingpassport.org.

Dungeness Crab SCIENTIFIC NAME Cancer magister OTHER COMMON NAME Dungies RANGE & HABITAT Mostly north of Pt. Conception on sandy or sand-mud bottom WIDTH To 9 inches LIFESPAN To 8 years **DIET & SUGGESTED BAIT** Feeds on clams, fish, and other crustaceans, but will adapt to whatever is available. Try clams or fish carcasses for bait

Wardens Explore Legal Definition for Hoop Net

by Mary Patyten, Research Writer

The Department of Fish and Game's Law Enforcement Division has forwarded to the Fish and Game Commission (Commission) a proposal containing new regulatory language defining the physical structure of a hoop net, and how many hoop nets may be used at a given time by a person or from a vessel. The proposal also contains an option that would prohibit divers from carrying a spear when hunting for lobster.

The Commission meets next on Nov. 5 in Woodland, at which time the public is welcome to provide information and feedback to the Commission on this subject. The adoption hearing for any new hoop net regulations is scheduled for Dec. 11 in Sacramento. Any new regulations relating to hoop nets are not expected to go into effect until the 2010-2011 recreational lobster season.

Previously, an early Oct. Commission meeting in Woodland, and two special meetings in San Diego and Newport Beach held by the Law Enforcement Division at the end of Sept., provided the public with opportunities to comment on the proposal.

For more information, read the news release at:

www.dfg.ca.gov/news/ news09/2009091701.asp

and the Initial Statement of Reasons for Regulatory Action located online at:

www.fgc.ca.gov/ regulations/new/2009/29_ 80isor.pdf

Call Capt. Angel Raton at (949) 289-3757 or Assistant Chief Mike McBride at (909) 484-0167 for further information regarding the proposed regulation changes.

"Marine Region Web Site" continued from page 5

harvest limit is very restrictive - 2.8 metric tons, or about two pickup truck loads. This page provides the public with weekly status updates of the yelloweye rockfish fishery.

Final 2008 California Commercial Landings www.dfg.ca.gov/marine/landings08.asp

How much fish is caught in a year by California commercial fishermen? Divided by region and species, these tables provide detailed answers.

Here are some of our most popular pages:

California Ocean Sport Fishing Regulations Map www.dfg.ca.gov/marine/fishing_map.asp

Going ocean fishing? This should be your first stop. Simply click the ocean location where you plan to fish and you will access a compact list of sport fishing regulations for that area. The pages are printerfriendly, 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 Sport Fishing Regulations

www.dfg.ca.gov/marine/sportfishing_regs2009.asp

This page features the Ocean Sport Fishing regulations booklet that was printed and distributed in February, 2009. The PDF file features bolded, italicized bookmark headings that denote updated or new sections. In addition to the booklet, you will find links to in-season regulations changes, helpful illustrations and more.

Fishing Page

www.dfg.ca.gov/marine/fishing.asp

One of our most popular pages of all, this page contains links to the two resources listed above, as well as information on specific species, laws and regulations, permits and licenses, record fish and inverte-



brate trophies, fish identification guides, and a number of annual reports and sets of data. Whether you are a recreational or commercial fisherman, you're sure to find some useful information on this page.

Fish Identification Page

www.dfg.ca.gov/marine/fishid.asp

Do you need to identify a fish or shellfish? This page contains a useful collection of photos, brochures and other resources to help you identify fish correctly.

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

The Marine Life Protection Act (MLPA) Initiative Web Site www.dfg.ca.gov/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 (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 subject to minimal human disturbance. This Web site contains up-to-date information about this endeavor, including meeting information, public comments and documents for

review. Current popular resources on the site include:

North Coast Region

www.dfg.ca.gov/mlpa/northcoast.asp

The initial public outreach for the North Coast Region (California/Oregon border to Alder Creek near Point Arena in Mendocino County) is currently under way. Public meetings and workshops in this region give Californians opportunities to learn about and get involved in the planning process.

South Coast Region

www.dfg.ca.gov/mlpa/southcoast.asp

The planning process for the South Coast Region (Point Conception to the California-Mexico border) is currently under way. The South Coast Regional Stakeholder Group recently developed three MPA proposals for this region, which are available online for viewing and comment. Additional meetings related to this process have been planned through the end of 2009.

North-Central Coast Region

www.dfg.ca.gov/mlpa/northcentralhome.asp On August 5, 2009 the Fish and Game Commission voted to adopt its preferred alternative proposal

"MLPA-I Web Site" continued on page 8

"<u>MLPA-I Web Site" continued from page 7</u>

for the MLPA North-Central Coast Study Region (Alder Creek near Point Arena in Mendocino County, to Pigeon Point in San Mateo County). This establishes 24 marine protected areas (MPAs) covering approximately 153 square miles of state waters. The adopted MPAs are expected to take effect in January 2010.

Central Coast Marine Protected Areas (MPAs) www.dfg.ca.gov/mlpa/ccmpas list.asp

California's Central Coast MPAs took effect September 21, 2007. From Pigeon Point (San Mateo County) south to Point Conception (Santa Barbara County), the series of 29 MPAs encompass approximately 204 square miles of state waters. This page contains descriptions of all 29 MPAs, including maps, and also contains links to a printerfriendly guide and brochure.



Upcoming Commission and Council Meetings

2009 Fish and Game Commission www.fgc.ca.gov/meetings/2009/2009mtgs.asp

> November 4 - 5 Woodland

December 9 - 10 TBD

2009-2010 Pacific Fishery Management Council California-based Meetings www.pcouncil.org/events/future.html

> October 31 - November 5, 2009 Costa Mesa

> > March 6 - 12, 2010 Sacramento

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

MARINE Management News

Marine 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.

> Newsletter Editor and Designer Mary Patyten

Staff Writers and Contributors to This Issue Kristine Barsky, Aaron Del Monte, Mary Patyten

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The Marine Life Management Act

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.

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 accomodation 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.