



# Channel Islands National Marine Sanctuary Sanctuary Superintendent's Report



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A report for the Sanctuary Advisory Council

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## ABOUT THIS REPORT

The Sanctuary Superintendent's Report highlights recent accomplishments and activities from program areas at the Channel Islands National Marine Sanctuary (CINMS or sanctuary). This report is provided to the Sanctuary Advisory Council (SAC) in March, July, and November, and is also available online at [channelislands.noaa.gov](http://channelislands.noaa.gov).

## Legendary Filmmaker Mike deGruy Dies; Community and Sanctuary Staff Mourn His Loss and Honor His Extraordinary Life

CINMS staff, along with the Santa Barbara community and ocean conservationists worldwide, were shocked and saddened to learn recently that world-acclaimed underwater filmmaker, television host and ocean advocate Mike deGruy was killed on Friday, February 3, 2012, in a helicopter crash in Australia. Also killed was Mike's friend and pilot Andrew Wight, a well-respected adventurer and filmmaker. Wight and deGruy were working on pre-production for a James Cameron film at the time of the crash. Many sanctuary staff have had the distinct pleasure of working with Mike over the years, from his supportive role as a charter member of the Channel Islands Marine Sanctuary Foundation, to his many filming expeditions in sanctuary waters and his strong support for education programs and schools. Mike encouraged all of us with his warm spirit, fabulous smile, creative genius, and open generosity. We send our support to his wife Mimi, and children, Max and Frances. Contributions in Mike's honor may be made to the Santa Barbara Middle School ([www.sbms.org](http://www.sbms.org)); Heal the Ocean ([www.healtheocean.org](http://www.healtheocean.org)); and the Mobile Bay Keeper ([www.mobilebaykeeper.org](http://www.mobilebaykeeper.org)). For more information: [www.mikedegruy.com](http://www.mikedegruy.com).

## ABOUT THE SANCTUARY

*Designated in 1980, the Channel Islands National Marine Sanctuary (CINMS or sanctuary) consists of an area off the coast of California of approximately 1,470 square miles adjacent to the following islands and offshore rocks: San Miguel Island, Santa Rosa Island, Santa Cruz Island, Anacapa Island, Santa Barbara Island, Richardson Rock, and Castle Rock, extending seaward to a distance of approximately six nautical miles. The islands vary in distance from 12 to 40 nautical miles offshore from Santa Barbara and Ventura counties in southern California. A fertile combination of warm and cool currents in this area results in a great variety of plants and animals including kelp forests, fish, invertebrates, marine mammals and sea birds. The sanctuary also contains a wealth of maritime heritage resources including Chumash Native American artifacts and over 100 historic shipwrecks. Human uses in the area include commercial and recreational fishing, marine wildlife viewing, boating, diving, kayaking, maritime shipping, nearby offshore oil and gas development, research and monitoring, and numerous educational activities. Sanctuary staff coordinate research, monitoring, education, outreach, emergency response, and community involvement programs, as well as the enforcement of regulations, to promote long term resource protection and compatible human use within the CINMS.*

## **SANCTUARY ADVISORY COUNCIL**

### **2012 Priorities Established by CINMS Advisory Council**

On January 20 the advisory council for the CINMS voted on and established work plan priorities for the year 2012. By collectively setting these priorities, the council ensures that it will remain in touch with and engaged in important issues faced by the sanctuary. High and medium priority actions that will receive the council's attention in 2012 include:

- Continuing development of external support for the sanctuary mission;
- Providing council advise on sanctuary actions related to ship strikes on large whales;
- Remaining informed of US Coast Guard plans to adjust shipping lanes within and near the sanctuary region and providing council input;
- Receiving updates on and providing support for biological and socioeconomic monitoring of the Channel Islands marine protected areas (MPAs)
- Discussing recently designated state MPAs along the mainland coast adjacent to CINMS and integrating related education and outreach efforts;
- Learning about the latest work to advance understanding of ocean acidification and remaining informed of the implementation of the sanctuaries' west coast action plan;
- Receiving reports from staff and experts on water quality issues, including harmful algal blooms, within the sanctuary and surrounding waters; and
- Learning from knowledgeable council members and invited guests about artificial reefs.

Full work plan details will be posted on line at: [channelislands.noaa.gov/sac/report\\_doc.html](http://channelislands.noaa.gov/sac/report_doc.html).

### **Youth Involvement Planned for CINMS Advisory Council**

At their January 20th, 2012 public meeting, members of the CINMS Advisory Council unanimously approved moving forward with a new project that will soon bring a group of high school students into the council forum. Under the leadership of their education working group, the Sanctuary Education Team (SET), regional area high schools will soon be notified of a special opportunity to connect a group of students with the SET, learn about advisory council issues, attend several council meetings, and prepare and present an issue-based project. The opportunity will also include the chance for schools to apply for a small grant from the Office of National Marine Sanctuaries' Ocean Guardian Program, which can help with student transportation costs. Advisory council members expressed enthusiasm and support for the SET's proposal.

### **CINMS Staff and Advisory Council Support U.C. Santa Barbara Study of Non-Market Valuation of Private Recreational Boat Users**

Masters students Kiya Gornik and Brandon Doheny at the Donald Bren School of Environmental Science and Management (Bren School) at the University of California, Santa Barbara are proposing a socioeconomic study in collaboration with CINMS and the Environmental Defense Center (EDC). The project is titled: Marine Protected Areas and the Non-Market Value of Private Recreational Boating in the Channel Islands National Marine Sanctuary. The project aims to translate private recreational boat user (PRBU) choices into economic value, thus providing CINMS managers with a net worth for recreational boating use. By utilizing the Random Utility Model (RUM) for the first time in a Sanctuary setting, managers will be informed of bio-geographic attributes (such as bottom composition, fish abundance) and management attributes (such as MPAs) of the CINMS that are valuable to recreational users. If the project is accepted by the Bren School, the student group will be advised by faculty members Christopher Costello and Paulina Oliva, Office of National Marine Sanctuaries Economist Bob Leeworthy, and will work closely with its clients CINMS and EDC. Letters of support for the project were submitted by the CINMS Superintendent, and the Sanctuary Advisory Council, who voted to support the project on January 20, 2012.

## **EDUCATION, OUTREACH, AND VOLUNTEERS**

### **CINMS MERITO Program Receives Funding from Amgen Foundation and California Whale Tail Grant**

The California Coastal Commission's Whale Tail grant program has awarded \$32,000 to the Boys and Girls Club of Oxnard in support of the Multicultural Education for Resource Issues Threatening Oceans (MERITO) Academy program at the CINMS. Between March and July 2012, the new grant will cover transportation costs for approximately 300 students to experience a field trip to the Channel Islands, contribute to coordination costs for implementing the program, and include a program evaluation. Additionally, the National Marine Sanctuary Foundation (NMSF) received a \$20,000 award from the Amgen Foundation to support the MERITO Academy program during the remainder of the 2011-2012 school year. Twenty-one educators and 600 STEM (Science, Technology, Engineering and Mathematics) under-represented students are enrolled in the program this academic year. As compared to program activity levels (number of students, extent of sponsored activities) over the past five years, this represents a substantial reduction in services. Contributions and grants that were awarded in the past (from CINMS, ONMS and NOAA's B-WET Program) were stretched to help cover costs through December 2011 for enrolling and training participating educators, and for finalizing the CINMS MERITO Academy curriculum. These newly awarded grants will help cover costs for MERITO Academy part-time staffing to coordinate with partner agencies and instruct students during 24 coastal field trips scheduled between February 16 and May 15, 2012. In addition, bus transportation costs will be covered thanks to a small grant awarded to the program by the U.S. Fish and Wildlife Service. Through the MERITO Academy program students become immersed in Earth and Ocean Science Education and learn about the connections between our watersheds, coasts, open oceans and atmosphere, while understanding the impact of our daily actions on the health of our oceans and climate. Specifically, the program is contributing to promoting environmental literacy and fostering a diverse workforce in ocean, coastal, Great Lakes, weather, and climate sciences, and encouraging stewardship and increasing informed decision making for the Nation.

### **MERITO Concludes Class Presentations and Starts Field Trip Season for 610 Minority Students**

On January 27, 2012 Rocío Lozano-Knowlton, Program Coordinator, and Maripaula Valdes-Berriz, Program Assistant, with the CINMS MERITO Academy completed an annual round of introductory presentations to 610 students (4th-12th grade) participating in the Academy during the 2011-2012 school year. A total of 21 presentations were given between November 14, 2011 and January 27, 2012 at 14 schools in the cities of Santa Barbara, Ventura, Oxnard, Port Hueneme and Fillmore. The presentations were in English and/or in Spanish according to students needs. All participating schools are Title 1 or Head Start school programs for low income or migrant families with over 80% of STEM (Science, Technology, Engineering and Mathematics) under-represented students. While viewing beautiful images of the marine life and habitats at the Channel Islands, students learned about their sanctuary and its resources. The presentation also introduced students to ocean-related threats including climate change, marine debris, urban runoff, ocean acidification and unsustainable fishing practices while outlining actions students can adopt to mitigate these issues. Each of the 21 presentations has been followed by in-class ocean science based activities instructed by their educators who are enrolled in the program and were trained on November 2011 on the use the MERITO Academy curriculum. 25 coastal field trips are scheduled over the next 3 months.

### **Sanctuary staff delivers lecture to UC Santa Barbara Environmental Studies class on endangered species**

On February 21, 2012, Sean Hastings, Resource Protection Coordinator for the Channel Islands National Marine Sanctuary provided a lecture to a University of California, Santa Barbara Environmental Studies

course on Endangered Species. Hastings lectured on the threat of ship strikes to blue whales and other endangered cetaceans off of California, and the work to date to reduce the risk of ship strikes. Students were asked to brainstorm ideas on management measures and policies to reduce the risk of ship strikes. Several novel ideas emerged; including development of a recognition program for shippers that take conservation measures and monetary incentives such as reducing dock fees for slowing down or avoiding whale hot spots.

### **Rare Orca Pod Sightings made by Channel Islands Naturalist Corps in the CINMS**

On February 25, 2012 Channel Islands Naturalist Corps volunteers documented a seldom-seen pod of orca whales in the CINMS. Naturalist Corps volunteers are trained by the sanctuary and national park to provide interpretation on board public whale watch trips. They are also trained to conduct citizen science projects which include the photographic identification (photo-ID) of whales. Orcas, or killer whales, are identified individually from unique markings on their dorsal fin and the grey saddle patch at the base of the fin, as well as other features such as the eye patch. Sanctuary staff submit orca photo-ID data to Alisa Schulman-Janiger of the American Cetacean Society in Los Angeles, California. She has been studying orcas off the southern California coast for several decades. Schulman-Janiger reported that the February 25<sup>th</sup> sightings were the first time these whales have been photographed south of Monterey Bay, California. One of these is “CA155”; a seldom-seen transient female, first photographed in 1983 in Monterey. Another female, “CA126”, was also sighted with a calf and she is likely a first time mom. “CA126” is also seldom-seen, first sighted in Monterey in 1994 (with CA155). There have been no confirmed sightings of these whales between 1997 and 2007. Two of the other whales were previously sighted in 2007 off of Monterey and have the temporary designations of “N170” and “N170A”. On January 11, 2012, Channel Islands Naturalist Corps volunteers also documented an orphan male orca (“CA171B”). He lost his mom when only a few years old and has a very distinctive, unique left eye patch which looks like a pair of lips. Channel Islands Naturalist Corps volunteers also conduct photo-ID of blue and humpback whales and they have recently have been on the lookout to photo-ID a western gray whale that was satellite-tagged off of eastern Russia.

### **West Coast National Marine Sanctuaries Receive Funding From NOAA Ocean Acidification Program Office for Communication and Education Workshop**

West coast national marine sanctuaries are partnering with the Monterey Bay Aquarium Research Institute to host an Effective Practices for Ocean Acidification (OA) Communication and Education workshop. The workshop will take place immediately following the International Science Symposium, The Ocean in a High CO<sub>2</sub> World: Ocean Acidification, in Monterey in September 2012. This is a unique opportunity to bring together expert scientists from around the world with professional educators and communicators to determine the most effective way to communicate OA, using west coast communities as places to communicate potential impacts and positive actions. The workshop will focus on California Current ecosystems, food webs, fisheries, and tourism impacts and will link different types of outreach activities to target audiences. Outcomes will include identifying regionally relevant case studies, conducting a literature reviews, identifying existing materials and curriculum, and developing a logic model to outline effective practices for engaging stakeholder audiences. Workshop results can serve as a model for other regions and will help inform the development of a NOAA-wide ocean acidification education plan. Funding to support this workshop is provided by the NOAA Ocean Acidification Program Office.

### **CINMS collaborates with University of California Santa Barbara (UCSB) and Citrix Systems to Develop Free California Tidepools App**

As part of their 2011 Volunteer Day of Global Impact, developers from Citrix Systems, Inc. worked with a team of educators and scientists from the CINMS, UCSB Marine Science Institute and LiMPETS (Long-term Monitoring Program and Experiential Training for Students) to create a California Tidepools iPhone App (which also works on an iPad). The free app is now available for download in the Apple store and includes photos, common and scientific name, taxonomy, description, habitat, eats and eaten by, fun facts,

frequently asked questions, and more. It is designed to be an educational tool for teachers, naturalists, students, and anyone who is curious about tidepool life on the California coast. Another goal of the app is to raise awareness about the future Outreach Center for Teaching Ocean Science (OCTOS) which will increase ocean literacy by engaging visitors in scientific discovery (more at [octos.ucsb.edu](http://octos.ucsb.edu)). The sanctuary is also planning to provide a QR code link to the app on tidepool interpretive signs that are being developed as part of the Torch Oil Spill Rocky Intertidal Education Project and will be installed in the late summer 2012. Screen shots and more information available on the app: <http://itunes.apple.com/app/california-tidepools/id497631839?mt=8>.

### **CINMS Participated in Underwater Parks Day**

On Saturday, January 21, 2012, CINMS participated in the Ty Warner Sea Center Underwater Parks Day. The goal of the event was to increase awareness about marine protected areas (MPAs) and the event was one of several hosted by the Southern California Aquarium Collaborative. Channel Islands Naturalist Corps volunteers represented the sanctuary and Channel Islands National Park at the event. They shared information about Channel Islands MPAs and helped kids take the Ocean Guardian pledge to protect the ocean. 486 visitors attended the event. 230 were children.

### **CINMS and National Park Host 6<sup>th</sup> Annual Volunteer Recognition Event**

On January 26, 2012 the CINMS and Channel Islands National Park jointly hosted the 6<sup>th</sup> Annual Volunteer Recognition and Awards Event to thank volunteers for their commitment and stewardship of sanctuary and park resources. Over 220 were in attendance at the event, including volunteers from the Channel Islands Naturalist Corps (CINC) program and Sanctuary Advisory Council (SAC). 140 Channel Islands Naturalist Corps volunteers donated nearly 30,000 hours in fiscal year 2011 to educate the community aboard local whale watch vessels, on island hiking trips and at community events, and played an important role conducting citizen science and monitoring programs. Marty Flam, CINC Volunteer of the Year, was commended for his diverse and enthusiastic service for the sanctuary and park, with over 1,000 volunteer hours in fiscal year 2011. 42 active Sanctuary Advisory Council (SAC) members were also recognized for 1100 hours of service, with member Linda **Krop awarded the SAC 2010 Leadership Award**. Krop was awarded for her leadership on the council since 1998 and with the council's Conservation Working Group. Krop has led the group to high accomplishments, bringing comprehensive reports to the council, deftly navigating important discussions to find consensus among diverse interests, and arming the sanctuary staff with the best available knowledge on important sanctuary issues such as water quality, marine acoustics, aquaculture development, and ocean acidification.

## **RESEARCH, MONITORING AND VESSEL OPERATIONS**

### **Shipyard Repairs and Upgrades Completed for R/V *Shearwater***

A significant repair and upgrade contract for the CINMS Research Vessel *Shearwater* was awarded in July 2011. After a month-long dry dock at Ventura Harbor Boat Yard, the repair period was completed on February 3, 2012. Work included annual maintenance on the vessel's hull paint, main engines and generators, installation of remote battery switches, and hydraulic valve replacement for the crane and A-frame. Items found during a recent fleet inspection were also addressed, including repair of remaining minor hull plate corrosion, addressing minor weld cracking in the bow, and the installation of rudder stops. In addition, upgrades to R/V *Shearwater* included installation of clean power/inverter systems to support sensitive scientific electronics, upgrades to the CCTV camera system, installation of a 220VAC 50A outlet in the dry lab, and installation of a hydrophone pole mounting system. The upgrade portions of the package were supported in part by the Fishery Resource Analysis and Monitoring (FRAM) Division of NOAA's Northwest Fisheries Science Center to accommodate Seabed Autonomous Underwater Vehicle Operations. R/V

*Shearwater's* 2012 field season will begin on February 15<sup>th</sup> with the University of California Santa Barbara's (UCSB) Plumes and Blooms program, which includes monthly monitoring of water characteristics in the Santa Barbara Channel.

## **RESOURCE PROTECTION**

### **CINMS staff contribute to United States Coast Guard (USCG) enforcement summit**

On Thursday, February 16, 2012, CINMS staff Ben Waltenberger, Natalie Senyk, Sean Hastings and Sara Hutto participated in and presented to a multi-agency enforcement meeting. The California Department of Fish and Game, USCG, National Park Service and NOAA Office of Law Enforcement were represented. Topics included an overview of sanctuary and marine reserve regulations, the status of enforcement vessels, aircraft, and personnel, enforcement prioritization, and an update on the recent influx of illegal immigrant and drug smuggling activity in the region.

### **CINMS staff participates in Thresholds and Indicators for Coastal and Marine Spatial Planning workshop**

On February 22, 2012, Sean Hastings, Resource Protection Coordinator for the CINMS participated in a workshop titled - Thresholds and Indicators for Coastal and Marine Spatial Planning - hosted by the Moore Foundation and National Center for Ecological Analysis and Synthesis. Experts from fisheries, water quality, energy development, protected areas management and academia evaluated the current state of knowledge of ecological thresholds and indicators. Hastings was successful in pitching a contemporary marine spatial planning challenge in the CINMS region, namely, the issue of commercial shipping interacting with endangered species, air emissions, naval operations, and underwater noise propagation, that may become a test case for establishing ecosystem based thresholds and indicators.

### **NOAA Amendment of Overflight Regulation at CINMS and other West Coast Sanctuaries**

On January 26<sup>th</sup> NOAA published a Final Rule in the Federal Register regarding an amendment to the existing overflight regulations in place at four west coast national marine sanctuaries: Channel Islands, Monterey Bay, Gulf of the Farallones, and Olympic Coast. The final rule does not create a new regulation but clarifies an existing overflight restriction, which for CINMS has been in place since 1980. The amendment standardizes the application of these existing regulations, which is an important first step that will lead to the printing of sanctuary regulations on aeronautical sectional charts. Depiction on aeronautical charts will help raise greater awareness and increase compliance. The Federal Aviation Administration (FAA) is a partner and is currently in the process of amending those charts that overlap sanctuary boundaries. Once the sectional charts are updated, the Office of National Marine Sanctuaries will coordinate with the FAA to conduct outreach to pilots, airports, pilot associations and the media. The rule requires that motorized aircraft maintain certain minimum altitudes above specified locations within the boundaries of the listed sanctuaries (at CINMS, that area is within 1 nautical mile of the islands, below 1,000 feet) and states that failure to comply with these altitude limits is presumed to disturb marine mammals and seabirds and is a violation of sanctuary regulations. Also, at CINMS current exceptions will remain in place. This includes flights transporting persons or supplies to and from the islands; kelp survey flights; flights necessary to respond to an emergency threatening life, property, or the environment; flights necessary for valid law enforcement purposes in the Sanctuary; and flights authorized pursuant to a National Marine Sanctuary permit. The Sanctuary Advisory Council was notified on January 26<sup>th</sup>, and could engage in additional discussions at future meetings. Broader and strategic outreach will follow when the FAA charts are updated.

## Sanctuary Staff

### Santa Barbara Offices

Christopher Mobley *Superintendent*  
Todd Jacobs *Deputy Superintendent for Administration and Operations*  
Michael Murray *Deputy Superintendent for Programs*  
Shauna Bingham – *Volunteer Program & Outreach Coordinator*  
Amy Cale – *Web and Kiosk Developer*  
Laura Francis – *Education Coordinator*  
Matt Fulda – *Intern*  
Sean Hastings – *Resource Protection Coordinator*  
Sara Hutto – *California Sea Grant Fellow, 2012*  
Dr. Stephen Katz – *Research Coordinator*  
LTJG Lyndsey Keen – *Operations Officer*  
Charles Lara – *Vessel Captain*  
Dani Lipski – *Research Specialist*  
Robert Schwemmer – *Regional Maritime Heritage Coordinator*  
Natalie Senyk – *Physical Scientist*  
Terrence Shinn – *Vessel Captain*  
Ben Waltenberger – *Physical Scientist*  
Rebecca Young – *Program Support Specialist*

### Ventura County Field Office

Julie Bursek – *Team Leader for Education and Outreach*  
Rocío Lozano de Knowlton – *MERITO Program Coordinator*

### ONMS West Coast Region Staff

William Douros – *Regional Director*  
Lisa Wooninck – *Policy Coordinator*  
Nicole Capps – *Management Support Specialist*  
Dave Lott – *Operations Coordinator*

### Local ONMS Staff

Claire Fackler – *West Coast Education Liaison*  
Sarah Marquis – *West Coast Media Coordinator*  
Matt Pickett – *ONMS Aviation Coordinator*

## Learn More About Your Sanctuary

The Channel Islands National Marine Sanctuary produces the Sanctuary Superintendent's Report in conjunction with every other bi-monthly Sanctuary Advisory Council meeting. To learn more about the sanctuary please visit our web site at: <http://channelislands.noaa.gov>.

To learn more about the Sanctuary Advisory Council please visit: <http://channelislands.noaa.gov/sac/main.html>.

### Office of National Marine Sanctuaries (ONMS)

The National Marine Sanctuary System consists of 14 marine protected areas that encompass more than 150,000 square miles of marine and Great Lakes waters from Washington State to the Florida Keys, and from Lake Huron to American Samoa. The system includes 13 national marine sanctuaries and the Papahānaumokuākea Marine National Monument. The ONMS, which manages the system, was established under the National Marine Sanctuaries Act of 1972. Visit the ONMS web site at: <http://sanctuaries.noaa.gov/>.

### Channel Islands National Park

To learn about Channel Islands National Park visit their web site at: <http://www.nps.gov/chis/homepage.htm>.

## GET INVOLVED AND STAY INFORMED!

To learn how to get involved in the sanctuary visit: <http://channelislands.noaa.gov/focus/involved.html>

Sign up for the CINMS listserv to receive email notices about upcoming sanctuary events, and public meetings of the Sanctuary Advisory Council and its working groups: <http://channelislands.noaa.gov/focus/list.html>

## - CONTACT INFORMATION -

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