

Soundings



American Cetacean Society- Monterey Bay Chapter

AUGUST 2012

PO Box H E, Pacific Grove, CA 93950

AMERICAN CETACEAN SOCIETY- MONTEREY BAY CHAPTER

Monthly meeting at **Hopkins Marine Station**, Lecture Hall,
Boat Works Building

(Across from the American Tin Cannery Outlet Stores)

Meeting is open to the Public

Date: Thursday, August 30, 2012 Time: 7:30 PM.

PLEASE JOIN US AT 7:00 FOR REFRESHMENTS

Speaker: Ron Eby, Naturalist and Conservationist

**Subject: Elkhorn Slough And
The Otters That Flourish There**

INSIDE THIS ISSUE

CALENDAR.....	2
BLUE WHALE GATHERING OFF MONTEREY BAY	2
HOW REAL REALITY TV MIGHT SAVE THE MONK SEAL	3
GROWING SHIP TRAFFIC THREATENS BLUE WHALES.....	4
LEATHERBACK FEEDING SEASON BE- GINS OFFSHORE OF CA.....	5
PIECING THE PUZZLE TOGETHER ON DOLPHIN DEATHS.....	6
SIGHTINGS.....	7
MEMBERSHIP.....	8

As rich and diverse as the Monterey Bay, so also is Elkhorn Slough. The Slough is a key estuarine habitat that supports life from the Bay as well as organisms that spend their entire life cycles in its environment. The slough habitat is also an important component in our planet's overall hydrological cycle. .

Our speaker and research team members Robert Scoles and Rita Chaffin have spent thousands of hours observing and reporting on Elkhorn Slough and the life and conditions there. Ron's presentation will include the historical and geological aspects of the Slough as seen from a naturalist's perspective. He will feature observations and findings from recent and ongoing studies of sea otter usage.

Please join us this month for an interesting and informative presentation about this key wet lands habitat by someone who has seen things first hand over an extended period of time.

See you there,

Bob Mannix, Chair, ACS MB Programs Committee

Congratulations to ACS volunteers extraordinaire Bob Mannix and Dave Zaches, who were honored at the annual ACS BBQ held on 7/29. Many thanks to those attending to honor Bob and Dave, and Thank You to the volunteers who organized a delightful day and donated to the excellent raffle. Thank you Monterey Bay Whale Watch and participants at the annual Blue Whale Watch Adventure held on 8/4. We saw blues, humpbacks and bow-riding Dall's porpoises. Thanks for attending!

CALENDAR

Aug. 30: San Francisco Chapter ACS: Chris Pincetich presents Recent and Historical Impacts of the Ca Drift Net Fishery on Marine Mammals and Turtles. 7 -9pm Saylor's Restaurant and Bar, Sausalito, CA

Sept. 8: Channel Islands Adventure: San Miguel Island. Cost is \$100. For More Info 310-548-7562

Sept 24--30: 2012 Blue Ocean Film Festival & Conservation Summit in Monterey, CA. Blue brings together some of the finest scientist and filmmakers from around the world for 6 days in Monterey to try and find solutions to our oceans most urgent problems

Oct. 13: Wildlife Conservation Expo, 10am-6pm, Mission Bay Conference Center, San Francisco. www.wildnet.org/events

Nov. 9th-11: 13th International Conference Of The American Cetacean Society. Whales and Humans: A Conflicted Relationship. San Diego, CA Hyatt Regency, Mission Bay. Register now at Acsonline.org

MEDIA RECOMMENDATIONS

[The Gulf of California: Biodiversity and Conservation](#) written by Richard C. Brusca. University of Arizona Press.

[Sea Turtles of the Eastern Pacific: Advances in Research and Conservation](#) (Arizona-Sonora Desert Studies in Natural History)

[Seabird Islands: Ecology, Invasion and Restoration](#). 2011 Oxford University Press

[The Odyssey of KP2. An Orphan Seal a Marine Biologist, and the Fight to Save a Species](#) written by Dr. Terrie Williams. UCSC Marine Mammal Physiologist.

[Shark: A Visual History](#) written by Richard Ellis. 2012 Lyons Press

BLUE WHALE GATHERING OFF MONTEREY NOTHING SHORT OF SPECTACULAR

By Pete Thomas, GrindTV.com

Blue whales have flocked to Monterey Bay in what some off the Central California port are calling the most phenomenal showing of the endangered mammals in recent history. As many as 100 of the planet's largest creatures have congregated to gorge on tiny shrimp-like krill, and joining in the feast are dozens of smaller but more animated humpback whales, along with numerous other marine mammal species.

"Everywhere you go you just see blows," Nancy Black, owner of Monterey Bay Whale Watch, told the Santa Cruz Sentinel.

Black said the phenomenon represents "a once-in-a-lifetime chance" for tourists to witness the splendor -- and gluttony -- of mammals that can measure 100 ft. and weigh up to 150 tons. What's incredible is the sheer numbers of blue whales -- there are only about 10,000 worldwide -- but also feeding behavior that's occurring at the surface and unusually close to shore. (Generally, krill remains lower in the water column and beyond sight of boat-ers.)

This includes horizontal and vertical lunge-feeding by whales that are capable of ingesting vast quantities of krill in single gulp.

"People get to see the world's largest mouth," said researcher Alisa Schulman-Janiger, explaining that a blue whale's mouth is about 1/4 of the size of a mammal that consumes up to 4 tons of krill per day. Krill, of course, is key to the blue whales' existence. About 2,000 blue whales spend the summer off the West Coast fattening up on the inch-long crustaceans, before migrating to southern waters in the fall. Some of the whales feed along the coast but much of it occurs beyond the range of whale-watching fleets.

Krill feed on phytoplankton and when conditions are prime in a given area, generally after an upwelling of cold water and nutrients, krill blooms can fill vast portions of the water column.

For the last two summers, southern California boasted the most consistent blue whale sightings. But for now Monterey Bay is the great gathering place for the ocean giants, but also for smaller cetaceans present for the feast. On Thursday's morning trip alone Monterey Bay Whale Watch reported sightings of 12 blue whales, 40 humpback whales, 400 Risso's dolphins, 300 northern right whale dolphins, 250 Pacific white-sided dolphins and two minke whales.

It just doesn't get any better than that.

HOW “REAL REALITY TELEVISION” MIGHT SAVE THE MONK SEAL -

By Charles Littnan, *Lead Scientist of the Hawaiian Monk Seal Research Program, NOAA Fisheries*

The Hawaiian monk seal is one of the oldest species of seal on the planet, having resided in the tropical waters of the Hawaiian archipelago for millions of years. But their tenure in paradise is perilously close to its end. In the last 75 years the monk seal population has declined dramatically and only about 1,100 seals remain in the wild.

While there is a steep decline and many threats faced by the population in the remote part of the seals' range, there is a glimmer of hope. A small population of seals has established itself in the main Hawaiian Islands...and has begun to grow. Quickly. In 2000 there were 15 seals in the main islands...12 years later there are now 150-200. This increase provides an important toehold for the population and raises hope for the species recovery. But an increase of seals in the heavily human-populated area has resulted in a number of new and complex management issues. Some of the key issues are seals, their diet, and interactions with fisheries. There are a number of very real concerns voiced by community members but the way forward to finding solutions is hampered by a lack of data, poor communication, and a good amount of misinformation. The host of issues, not just fisheries concerns, has increased animosity towards the seals and recently there have been a number of seal killings.

The need to address concerns about monk seal foraging and diet gave rise to this exciting collaboration and the Hō'ike ā Maka Project. The intent of the project is to understand and share images of the feeding and underwater behavior of Hawaiian monk seals, and lay to rest many of the myths and misconceptions regarding monk seals and their impact on the local marine environment and its resources. We plan to deploy seal-borne video cameras to study how monk seals feed and use their marine habitat in the main Hawaiian Islands. The discoveries will be critical to un-

derstanding the seals' ecology, ensuring their continued existence, and building a culture of coexistence between man and seal. But more importantly, our project is going to abandon the typical research model of scientists working alone and reporting their findings back to the public. We want to include our community in all aspects of the work. To that end, we will work directly with local researchers, ocean users (fishers, divers, surfers and others), students, and NGO's, during the deployments, the “reveal session” where we get the first glimpses of each monk seal's underwater world, and during the analysis and interpretation.

We hope that through this project greater trust and partnership can be fostered between everyone that has a stake in this issue. We are two months away from our first field trip and we will be posting blog entries as we continue on our adventure. It will be a journey filled with amazing wildlife, fascinating discovery, heated conflict, and, hopefully, enlightenment and understanding for all. Please join us.

Besides following our work on this blog, you can also make sure that this important scientific research becomes a reality. We need the assistance of citizens scientists everywhere and have an urgent need to raise at least \$7,500 by September in order to cover the cost of highschool student research grants, tracking tags, and other instrumentation. Wherever you are in the world, become part of the Hawaiian monk seal research and conservation family by making a donation at: <http://www.monksealfoundation.org/Research.aspx>



A Hawaiian monk seal approaches the camera of Mark Sullivan, taken on NMFS permit 10137. Photo by Mark Sullivan.

GROWING SHIP TRAFFIC THREATENS BLUE WHALES

By Erik Olsen

MIRISSA, Sri Lanka — In early April, whale watchers off this country's southern coast were greeted by a disturbing sight: the lifeless body of a 60-foot-long blue whale floating in the water about 12 miles offshore.

The body was swelling rapidly, and suckerfish swarmed across its skin. Even more unsettling was the condition of its tail, which had been nearly severed from the body.

"It was very obviously from a ship's propeller," said Mazdak Radjainia, a structural biologist and underwater photographer from the University of Auckland in New Zealand who happened upon the whale. "It must have been a really cruel death, because it was such a massive injury."

Researchers say ship strikes are a leading cause of death among whales around the globe. Many that are killed are from endangered populations like blue whales that are barely holding on.

The problem is particularly troublesome here in Sri Lanka, where a largely unstudied population of blue whales, possibly numbering in the thousands, has come under increasing pressure from commercial shipping and from a boom in unregulated whale-watching boats.

Because these waters are poorly monitored, scientists do not know for sure whether ship strikes are on the rise. But the whale's death in April was already the sixth of the year, according to news reports. In one grisly encounter in March, a blue whale was found draped over the bow of a container vessel in the harbor in the capital, Colombo, 90 miles north of this beach resort. Last year, some 20 whale carcasses (not all of them blue whales) were seen around the island, according to Arjan Rajasuriya, a research officer with the National Aquatic Resources Research and Development Agency in Colombo. It is not known how many of the deaths resulted from ship strikes.

"These strikes likely represent only a portion of the likely true mortality," said John Calambokidis, a whale researcher in Olympia, Wash., who documents ship strikes off the West Coast of the United States. Because blue whales often sink soon after they are struck, most such deaths go unrecorded, and Dr. Calambokidis says the true number "could be 10 or 20 times" the number seen.

Fifteen miles off the southern coast of Sri

Lanka is one of the world's busiest shipping lanes, and whales are known to swim regularly inside them. But some scientists believe that the increase in whale watching could be forcing whales to seek food farther out, pushing them into the big ships' path.

"I'm afraid the whales are being harassed by the whale-watching boats and that this could affect their movement," said Asha de Vos, a whale researcher here.

The threat to the whales has some researchers scrambling to learn as much as they can about them and to find a way to protect them.

"Having these whales right off the coast is pretty amazing," said Ari S. Friedlaender, a research scientist at the Duke University Marine Laboratory. "We know so little about blue whales in general that any place that you have easy access to animals like this, your learning curve is going to be exponential."

In 2009, Sri Lanka ended a deadly 25-year civil war that largely kept foreign scientists and researchers away from these waters. Several general surveys in the 1970s revealed that there were whales here, but it was not until the 1990s that interest started to grow. Researchers were particularly drawn by the whales' tendency to stay here year round; other blue whale populations are known to migrate vast distances.

Perhaps no one has studied these whales and promoted their conservation as much as Ms. de Vos.

Three years ago, Ms. de Vos started the Sri Lankan Blue Whale Project, a long-term research program that she hopes will stop the carnage and raise awareness of the whales here. For the last three years, from December to May, she has been photographing the whales and using scientific instruments to better understand their feeding behaviors.

"Clearly, there's something down there that's keeping them around. But we need to know where it is and how much," she said.

In March, Ms. de Vos was helped by a team of researchers from the Duke University Marine Lab who brought along an electronic echo sounder, which uses sound waves to measure the density of prey in the water. For 10 days, she and the team crisscrossed miles of water, taking measurements and finding spots thick with krill.

The data will help scientists better understand where and when the whales are feeding — and, she hopes, persuade the government to shift the shipping lanes farther out to sea.

Ms. de Vos, who was born and raised in Colombo, became a champion of the blue whales after

she took a boat ride in 2006 and was astounded by what she saw.

“There were six whales within four square kilometers of where I was, and that was it for me,” she said. “That was a sign, and I knew I wanted to better understand and protect them.”

But her effort is fraught with challenges, including a lack of support from local authorities and the disadvantages of being a young woman in a society dominated by men. “I’m very much on my own around here,” she said. “I don’t have a lot of infrastructure or equipment to do my work.”

She has received some financial support from the University of Western Australia, where she is completing a doctorate in oceanography.

“Her work is really setting the stage for further research on these animals,” said Dr. Friedlaender, who hopes to visit the region next year.

Ms. de Vos notes that with the end of Sri Lanka’s civil war, there is now a major push to increase tourism, and whale watching is a critical part of the government’s development strategy. While the effort may bring much-needed economic development to this poor country, Ms. de Vos is concerned that it may all be happening too fast.

“Right now, whale-watching boats are driving helter-skelter around the animals,” she said. “I don’t want it to explode into something that becomes a harassment for the whales.”

In other countries with established whale-watching industries, laws prohibit getting close to the animals; the United States sets the minimum distance at 100 yards. Ms. de Vos would like to see similar regulations here.

“In this new era of peace, the blue whale is very fast becoming the symbol of our country,” she said. “It would be very sad to harm these animals because of our foolishness.”

LEATHERBACK FEEDING SEASON BEGINS OFFSHORE OF CALIFORNIA

Rare leatherbacks spotted by network organized by SeaTurtles.org

Confirmed sightings of endangered leatherback sea turtles by scientists and naturalists offshore of Dana Point, Monterey, Santa Cruz, and Half Moon Bay are being reported to the all-volunteer Leatherback Watch Program run by the non-profit SeaTurtles.org over the last ten days. Leatherbacks were first sighted July 14th offshore of Monterey and have been sighted regularly throughout the last week with

the most recent sighting Sunday offshore of Moss Landing in the Monterey Bay National Marine Sanctuary. In total, nine individual leatherbacks sightings have been reported offshore of Northern California in under two weeks.

“Seeing a critically endangered leatherback is a rare and unforgettable experience and compiling these sightings is really boosting our local conservation and advocacy outreach,” said Chris Pincetich, Ph.D. a marine biologist and educator at SeaTurtles.org. “Knowing exactly when they arrive, where they are most abundant, and how many are out there helps us shape new protective policies for fisheries that are their leading threat.”

Dr. Pincetich said the leatherbacks seen recently appeared to be moving north as they followed a huge bloom of jellyfish. Based on photos acquired, one sea turtle was spotted twice, four days apart by the same vessel. Leatherbacks are feasting on brown sea nettle jellies, the most nutritious species offshore from California, Pincetich said.

Passengers and crew aboard Blue Ocean Whale Watch vessels out of Moss Landing reported at least two leatherbacks. A former deckhand on the whale watching boat Huli Cat, out of Pillar Point Harbor in San Mateo County, also spotted one from shore, said Tom Mattusch, the boat’s skipper. In Southern California, naturalist Corey Hall spotted a leatherback twice last week on a Dana Wharf Whale Watching vessel.

“Last year we had 7 sightings of leatherback turtles from our boat and we’re excited to see if we can spot more this season.” said Kate Cummings from Blue Ocean Whale Watch. “So far, it’s looking good because our first sighting didn’t come until August of



This leatherback was spotted July 14, 2012 offshore of Moss Landing, California, feeding on brown sea nettle jellyfish that were so abundant one can be seen stranded on the leatherback’s carapace in this photo from Blue Ocean Whale Watch.

last year. When we start to see sea nettle jellies in the water, we perk up and scan all around the boat, hoping to see a feasting turtle return to the surface to breathe.”

With the help of supporters like Kate, the Leatherback Watch Program has recorded sightings from Point Sur California up to British Columbia, Canada. The majority of sightings were off the California coast in an area that is now protected critical habitat under the Endangered Species Act for these marine reptiles enacted February 27, 2012.

The Leatherback Watch Program began in 2010 to work collaboratively with charter vessels, marine researchers and local yacht clubs to compile, record and communicate sightings of Pacific leatherbacks off the West Coast of the United States using photos and GPS coordinates to validate the data for use in ongoing marine ecology studies. The project reaches hundreds of thousands of people when media outlets share news stories, articles, and videos.

SeaTurtles.org is advocating to name the leatherback the official marine reptile of the state of California with a bill, AB 1776, moving through Sacramento this year. AB 1776 will help Californians learn about and appreciate the leatherback and recognize the ecological importance of this ancient species by adding it to state law as an official symbol of California’s conservation ethic and biodiversity.

Leatherbacks grow up to eight feet long, can weight close to a ton, have survived the extinction of dinosaurs over 65 million years ago virtually unchanged, but are now under a serious threat of extinction in the Pacific. Populations of the Pacific leatherback have declined by approximately 90 percent in the last 25 years under the constant assault of industrial fishing, particularly the deadly interactions with long-line and gillnet fishing gear. Illegal poaching, vessel strikes, entanglement in marine debris, and plastic pollution ingestion all harm and kill these imperiled animals. For over twenty years, the Sea Turtle Restoration Project www.seaturtles.org has worked from California and the Gulf of Mexico with communities across the globe to protect endangered leatherback sea turtles from slipping closer to extinction.

PIECING THE PUZZLE TOGETHER ON DOLPHIN DEATHS

By Leslie Kaufman

Unusually cold water in the Gulf of Mexico combined with damage to the food web from the BP oil spill probably caused the premature deaths of hundreds of dolphins in the region, a new report concludes.

The study, published in the journal PLoS One,

suggests that a perfect storm of events led to the deaths. The researchers cited three specific stresses: an unusually cold winter in 2010, the oil spill from April to July of 2010 and an unusually large and rapid flow of very cold freshwater from melting snows in January 2011. Such cold water would have been tolerable to healthy dolphins, they suggested, but many of the dolphins in the northern Gulf were unhealthy and had thin blubber layers.

Graham A.J. Worthy, a biologist and contributing author from the Univ. of Central Florida, said the study was not definitively linking the deaths to the oil spill but seeking to assemble the various pieces of the puzzle. "Everything ultimately seems to be linked back to poor body condition," he said. "So what would cause poor body condition? What we do know was that there was a cold winter in 2010 which might have affected dolphin food resources, and the BP oil spill occurred in 2010, and there is increasing evidence of spill materials entering coastal ecosystems and negatively impacting the food web," he said.

The report was produced by a team of scientists from half a dozen Southern universities and research institutes, including the Dauphin Island Sea Lab and the Univ. of Central Florida, that have been studying the dolphin deaths for two years.

Whether the oil spill from the Macondo well is related to the unusually high number of dolphin deaths in the northern gulf has been an enduring mystery.

At least 754 dolphins have been reported stranded there since February 2010. The dolphin deaths have mostly ceased in Florida, which was further from the spill site, but have continued in Alabama, Louisiana and Mississippi. In January 2011, there was also a spike in the deaths of baby dolphins.

So far the National Oceanic and Atmospheric Administration has stopped short of linking the dolphin deaths directly to the spill. But in March the agency released a report on autopsies on 32 dolphins from Barataria Bay off Louisiana, which was hit hard by the spill. The necropsies showed that the dolphins had low amounts of a stress hormone, indicating adrenal insufficiency, which has been associated with oil contamination among mammals in other studies.

Teri Rowles, the coordinator of the National Marine Mammal Health and Stranding Response Program at NOAA's Fisheries Service, said the agency would review the paper but had yet to come to any conclusion about the role of the oil spill in dolphin deaths. "We are still evaluating contributing factors and causes of this event," she said.

SIGHTINGS Compiled by Monterey Bay Whale Watch.
For Complete listing and updates see gowhales.com/sighting

Date	#	Type of Animal(s)			
8/9 a.m.	100	Risso's Dolphins	7/28 a.m.	32	Humpback Whales
	1	Mola Mola		6	Blue Whales
	1	Laysan Albatross	7/27 p.m.	2	Humpback Whales
8 a.m.	4	Killer Whales (predation on Sea Lion)		6	Blue Whales
	200	Pacific White-sided Dolphin	7/27 a.m.	8	Risso's Dolphins
	350	Risso's Dolphins		15	Humpback Whales
	6	Harbor Porpoise		4	Blue Whales
8/7 a.m.	5	Killer Whales (transient type)		1	Minke Whale
	8	Harbor Porpoise		4	Harbor Porpoise
8/6 a.m.	4	Humpback Whales	7/26 p.m.	10	Humpback Whales
	1	Blue Whale		1	Blue Whale
8/5 late p.m.	5	Killer Whales (transient type)		6	Harbor Porpoise
8/5 p.m.	1	Humpback Whale	7/26 a.m.	12	Humpback Whales
	4	Killer Whales (transient type)		2	Blue Whales
	15	Harbor Porpoise		1	Minke Whale
8/5 a.m.	2	Humpback Whales	7/25 late p.m.	6	Harbor Porpoise
	5	Killer Whales (transient type)	7/25 p.m.	11	Humpback Whales
	1	Minke Whale		4	Humpback Whales
	200	Pacific White-sided Dolphins	7/25 a.m.	1	Blue Whale
	15	Dall's Porpoise		14	Humpback Whales
	5	Harbor Porpoise		3	Blue Whales
8/4 p.m.	7	Humpback Whales	7/24 p.m.	40	Risso's Dolphins
	2	Blue Whales		17	Humpback Whales
	1	Minke Whale		1	Blue Whale
	4	Harbor Porpoise	7/24 a.m.	16	Humpback Whales
8/4 a.m.	12	Humpback Whales		2	Blue Whales
	4	Blue Whales		25	Risso's Dolphins
	20	Dall's Porpoise		12	Harbor Porpoise
8/3 p.m.	5	Humpback Whales	7/23 p.m.	25	Humpback Whales (some double breaching)
8/3 a.m.	3	Humpback Whales	7/23 a.m.	18	Humpback Whales
	6	Killer Whales (transient type)		2	Blue Whales
	30	Pacific White-sided Dolphin		60	Risso's Dolphins
8/2 p.m.	1	Humpback Whale (surface lunge feeding)	7/22 late p.m.	5	Harbor Porpoise
	7	Bottlenose Dolphins	7/22 p.m.	22	Humpback Whales (some lunge feed- ing)
8/2 a.m.	1	Humpback Whale (surface lunge feeding)		2	Blue Whales (some lunge feeding)
	6	Killer Whales	7/22 p.m.	9	Humpback Whales
8/1 p.m.	3	Humpback Whales (surface lunge feeding)		4	Blue Whales
8/1 a.m.	30	Humpback Whales (many lunge feeding)	7/22 a.m.	3	Bottlenose Dolphins
7/31 p.m.	9	Humpback Whales		3	Humpback Whales
	3	Blue Whales		3	Blue Whales
7/31 a.m.	20	Humpback Whales	7/21 p.m.	60	Risso's Dolphins
	11	Blue Whales		2	Humpback Whales (cow & calf)
	1	Northern Fur Seal		2	Blue Whales
7/30 p.m.	8	Humpback Whales	7/21 a.m.	3	Humpback Whales
	3	Blue Whales		4	Blue Whales
7/30 a.m.	28	Humpback Whales	7/20 a.m.	11	Humpback Whales
	8	Blue Whales		4	Blue Whales
	6	Harbor Porpoise		1	Pacific White-sided Dolphin
7/29 p.m.	20	Humpback Whales	7/19 p.m.	15	Risso's Dolphins
	3	Blue Whales		35	Humpback Whales
7/29 a.m.	26	Humpback Whales		2	Blue Whales
	3	Blue Whales	7/19 a.m.	8	Humpback Whales
	2	Killer Whales (transient type)		4	Blue Whales
	1	Minke Whale		1	Mola Mola
	6	Dall's Porpoise	7/18 p.m.	8	Blue Whales
7/28 p.m.	2	Humpback Whales	7/18 a.m.	10	Humpback Whales
	3	Blue Whales		7	Blue Whales
	1	Laysan Albatross		10	Risso's Dolphins
				1	Leatherback Sea Turtle
			7/17 p.m.	10	Humpback Whales
				1	Blue Whale

American Cetacean Society
Monterey Bay Chapter
P.O. Box H E
Pacific Grove, CA 93950



RETURN SERVICE REQUESTED

Nonprofit
Organization
U.S. Postage
PAID
Monterey, CA
Permit No. 338

American Cetacean Society Membership Application Chapter#24

New Membership/Subscription ___ Gift Membership/Subscription ___
Renewal ___

Name _____

Address _____ Email _____

City, State, Zip _____

Membership level _____

Membership levels and Annual dues:

Lifetime \$1000 Patron \$500 Contributing \$250

Supporting \$85 International \$55 Family \$55 Individual \$45

Student \$35 Teacher \$35 Senior (62 plus) \$35

Subscription only * \$15/11 issues (*not entitled to membership benefits)

Check ___ Mastercard ___ Visa ___ Expiration date _____

Signature _____

Make checks payable to: ACS/Monterey Bay Chapter

Return to: Membership Secretary, ACS Monterey Bay Chapter

P.O. Box H E Pacific Grove, CA 93950

**Monterey Bay Chapter
Officers & Chairs, 2012**

Jerry Loomis, *President*
Richard Ternullo, *Vice President*
Randy Puckett, *Past Chapter President*
Diane Glim, *Publicity*
Katy Castagna, *Treasurer*
Sally Eastham, *Membership*
Jennifer Thamer, *Secretary*
Tim Thomas, *Historian*
Carol Maehr, *Conservation*
Bob Mannix, Donna Beckett *Programs*
Rene Rodriguez, *Education*
David Zaches, Art Haseltine,
Debbie Ternullo, Thom Akeman
Members at Large

Evelyn Starr, *Webmaster*
Tony Lorenz, Mary K. Paul, *Editors*
Email: tonylorenz@bigbluebay.com
kmarypaul@gmail.com