



New Developments Dealing with Ship Strikes of Whales Off the U.S. West Coast



Melissa Galieti's photo taken south of Point Loma in Southern California on August 1, 2012 shows propeller scars on one of forty blue whales they sighted that day.

by John Calambokidis, Cascadia Research, Olympia, WA.

There have been some significant new developments on efforts to reduce ship strikes on the U.S. West Coast since the article on this problem appeared in *Spyhopper* in June 2011. While some immediate improvements are promising first steps to address the issue, longer-term strategies for bigger changes still have some major hurdles before they can be achieved. This article reviews some of these new developments and examines the outlook for the future.

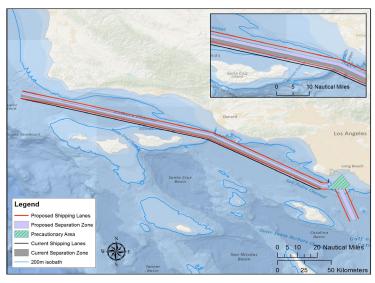
One of the most immediate and concrete changes taking effect this year is the change to the shipping lanes off Southern and Central California effective June 1,2013. These changes came about from the efforts of a number of groups and agencies that urged the Coast Guard to consider whale strikes (as well as safety) when they evaluated shipping lanes in their Port Access Routing Study for the approaches to San Francisco and Los Angeles/Long Beach Harbors. The recommended changes were approved by the International Maritime Organization late in 2012, and took effect on June 1, 2013.

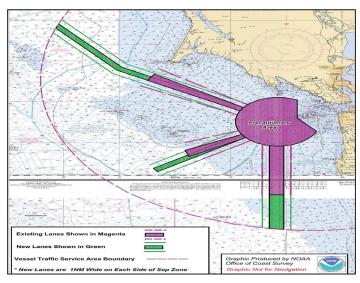
Off Southern California, the change was modest, but potentially significant and involved shifting the inbound shipping lane one nautical mile to the northeast (closer to shore) through a reduction in the separation zone between the inbound and outbound lanes. The main motivation for this change was in the Santa Barbara Channel where the inbound lane passed just north of an area known for large concentrations of blue whales that feed near the 200m depth contour, along the north side of

ACS Newsletter

June 2013

Ship Strikes, cont.





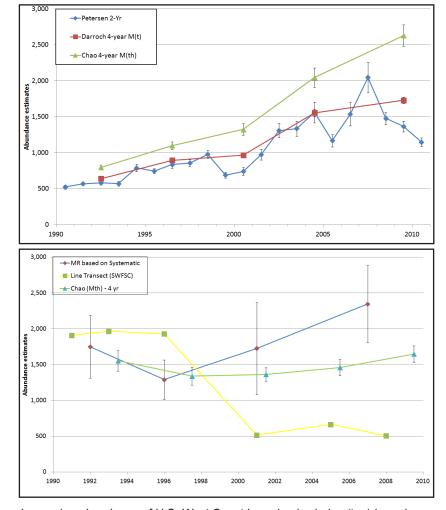
Changes to S. California shipping lanes (left) and San Francisco shipping lanes (right), effective June 1, 2013.

Santa Rosa and west Santa Cruz Islands. Even this small change could matter – how much is hard to say – but one analysis conducted by Kelli Johnson using Cascadia Research's effort-corrected sighting data suggests that this modification could reduce ship overlap, with blue whales by about 10-20% in the Santa Barbara Channel. The Santa Barbara Channel was the focus of concern in fall 2007 when at least three different blue whales were documented as having been struck by ships in that area.

Off San Francisco, even larger changes took effect in June 2013. There are three sets of shipping lanes that come from the south, west, and north that lead to the entrance of San Francisco Bay. The western lane was of greatest concern because it is one of the busiest, because of its proximity to the Farallon Islands, and because it ended just before the shelf edge. Ships taking this lane would travel along the edge of the Continental Shelf, the area of highest whale density (see next page), as they approached or departed using this lane. Under the new lane designations, the western lane was shifted southward (away from S.E. Farallon Island) and extends west into deeper water more quickly; this reduces the ships' transit along the highest density whale area. There were also extensions and shifts in the northbound lanes that were designed to avoid some important habitats, although the path for reducing encounters with whales in this direction is more complex.

These shifts in the shipping lanes are important not just because they will likely reduce ship strikes, but also because they set a precedent for considering the ship strike issues in designating lane locations – something not done before on the U.S. West Coast. While the current changes are very modest, especially off Southern California, this precedent will hopefully make it easier to make larger changes in the future. There are numerous efforts underway to gather new data as well as conduct improved analyses to evaluate whale distribution patterns and their overlap with shipping routes. One effort published this year was led by Jessica Redfern at Southwest Fisheries Science Center (SWFSC) and reported on a habitat model for blue, fin, and humpback whales off Southern California. The model was then used to predict how different larger-scale changes in shipping routes might change encounters with different species (see Redfern et al. publication in *Conservation Biology*). That effort was important to show the range of habitat factors that can influence whale densities (distance from 200m isobath, mixed layer depth, salinity, sea surface temperature, etc.) as well as contrast the resulting distributions and densities among the three species. For example, a shift in shipping lanes to reduce encounters with humpback whales (such as shifting lanes from the Santa Barbara Channel to a route south of the channel) could potentially increase encounters with fin whales that inhabit different areas.

As mentioned in the previous *Spyhopper* article, there is a higher concern regarding ship strikes for some species. Off the U.S. East Coast this is right whales, but off the U.S. West Coast the focus is on blue whales, even though impacts on other species still need to be considered. Relative threat to different species is based on their population size, population trend, distribution relative to shipping lanes, and their relative vulnerability to ship strikes. As shown in the updated population trend figure on page 3, there is a reason to be particularly concerned about blue whales in the eastern North Pacific due to their low population size and lack of increasing trends in abundance, in addition to the high number of documented ship strikes. Cascadia's research on blue whales has shown that they spend



Increasing abundance of U.S. West Coast humpback whales (top) based on mark-recapture using photo-IDs in contrast to blue whales (bottom) which show little recovery, based on mark recapture and a decline based on SWFSC line transect data (Calambokidis and Barlow 2013).

extended periods near the surface at night (when they largely rest and do not feed) and do not appear to react effectively to approaching ships. Because only a small proportion of whales that die are documented (most either sinking or drifting offshore), the true numbers of ship strikes may be ten times or more higher than that documented and could explain the lack of recovery of eastern North Pacific blue whales. The shipping lanes coming into LA/Long Beach (through the Santa Barbara Channel) are an important area because of the regular use by blue whales, the documentation of many of the blue whale ship strikes in this region, and the high volume of traffic. A number of efforts are underway to improve both the models of whale distribution and how to best locate shipping lanes to avoid whales. While the Redfern et al. paper was valuable for the reasons mentioned above, the models developed in the paper cannot predict species distributions on fine spatial scales. Comparisons to our more extensive sighting data in the Santa Barbara Channel suggest that the models underestimated the density of blue whales in the Channel and, concomitantly, the benefits to blue whales of shifting the shipping lanes out of the Channel. Consequently, additional work is needed to develop models that use multiple data sets to make predictions on finer scales.

Off Central California, there are also several analyses underway to examine whale distribution in relation to shipping routes. The first of these was a collaborative effort between a number of groups, including Oikonos and Cascadia Research supported by Pacific Life Foundation (see http://www.oikonos.org/projects/whale-shipping-lane.htm). There is also a collaborative effort between the sanctuaries and Point Reyes Bird Observatory called ACCESS (http://www.oikonos.org/projects/whale-shipping-lane.htm). There is

accessoceans.org/) based on dedicated surveys conducted since 2004. Finally, SWFSC is conducting a habitat analysis based around their surveys (but with comparison to other data) similar to what was done off Southern California, but using some new approaches.

With the precedence of setting shipping lanes with whale distribution in mind, new information from continued research can lead to refinement of the lane changes off Central California, and hopefully more substantial changes off Southern California. One hurdle off Southern California is the reluctance of the Navy to have shipping lanes designated through some of their training and operating areas. While this seems reasonable, these Navy areas encompass large portions of the Southern California Bight, including alternate routes to those through the Santa Barbara Channel. Several environmental groups have mobilized to pressure the Navy to allow lanes through some of these areas.

An ambitious collaborative effort on how to address the issue of ship strikes off the Central California coast (into and out of San Francisco Bay) was undertaken by a Joint Working Group (JWG) on vessel strikes and ship noise. (See photo next page, and also their report at http://sanctuaries.noaa.gov/protect/shipstrike/pdfs/strikes_acoustic.pdf.) This group included representatives from environmental groups, the shipping industry, independent scientists, and government managers that worked collaboratively in 2011 and 2012 before issuing recommendations in June 2012. While their recommendations on ship strikes included some of the shipping lanes changes going to effect in June 2012, they also agreed on a far-reaching plan for responding to less predictable aspects of whale

Ship Strikes, cont.

distribution that can change from year to year and through the season. Selective speed zones would be established in areas of known whale concentration, with the goal to get ships to either slow down on those routes or take a different route that would avoid whales.

To inform these decisions, the JWG recommended establishment of a real-time sighting network off Central California that would include a wide variety of platforms already out on the water (ships, fishermen, whale watch operators) combined with some selective surveys. The most ambitious elements of this were the plans to have the ships themselves participate in collecting sightings. Ships are ideal stable high platforms, transiting multiple times a day through the exact locations of greatest interest. While the goal is for ships' crew to report sightings, the JWG recognized that putting trained observers on the ships would be useful for helping to get things started and train ship's personnel. An important concern from the industry officials was that such an observer would best be someone familiar with the maritime industry and who had the necessary security clearances. Starting last month, with the help of NOAA and cooperation of the shipping industry including the Pacific Merchant Shipping Association and APL, the first of these trips was successfully conducted with an experienced biologist from Cascadia Research (Kiirsten Flynn), who had worked in the maritime industry. Additionally, the west coast sanctuaries and others like PRBO have been working with Earth NC on an iPad application (Spotter) to aid in reporting sightings from many platforms, and the industry is helping to develop informational materials for use in the program.



A collaborative effort on addressing ship strikes off the Central California coast (into and out of San Francisco Bay) was undertaken by a Joint Working Group on vessel strikes and ship noise. See their report at http://sanctuaries.noaa.gov/protect/shipstrike/pdfs/strikes_acoustic.pdf). Photo by S. Hutto/NOAA.

There was some debate within the JWG on the timing of the implementation and whether the selective speed zones should be voluntary or mandatory. The group agreed to an initial twoyear period (through the end of 2014) where these measures would be allowed to be developed and undertaken voluntarily, and if that process was not proving successful then they would become mandatory (the group recommended that NOAA begin the process of getting the authority and rules in place for this so it would not cause an additional delay). As a final measure, the group also recommended that if this effort to dynamically identify whale sensitive areas was not successful by the end of 2017, that a speed restriction be enacted for the entire region. While slowing ships has some clear benefits for reducing the lethality of ship strikes, the more targeted approach has the added effect of also encouraging spatial separation between ship traffic and whale habitat.

There have been several parallel efforts related to ship speed, not just related to ship strikes but also because slowing ships can reduce noise generated, decrease fuel use, and lower air pollution emissions. Slower ship speeds are associated with a lower likelihood of a ship strike resulting in a fatal interaction with a whale. How slowing ships would alter the incidence of ship strikes of whales has been harder to determine; this is dependent on how whales react to ships approaching on a collision course, and likely varies by whale species. Cascadia Research's studies have continued to look at how blue whales respond to closely approaching ships and how this varies with ship speed. Due to the numerous environmental benefits of slowing ship speed, this is certainly an important strategy, although it may not be as effective as separating ships and whales.

Overall, the efforts undertaken to date have made important progress and have also shown some important progress in collaboration between the industry, managers, environmentalists, and scientists. However, only small measures have taken effect that would only minimally reduce ship strikes. Effectively reducing this threat will require continued implementation of some of the recommendations that have been made, as well as a continued search for new measures. It will require the involvement and pressure for action from groups like ACS and other concerned members of the public to help bring about change.

References

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Dolphins successfully navigate around a large freighter off of the Southern California coast. Photo by Melissa Galieti.

John Calambokidis is a Research Biologist and one of the founders of Cascadia Research, a non-profit research organization formed in 1979 based in Olympia, Washington. He periodically serves as an Adjunct Faculty at the Evergreen State College. His primary interests are the biology of marine mammals and the impacts of humans. As a Senior Research Biologist at Cascadia Research he has served as Project Director of over 100 projects. He has authored two books on marine mammals as well as more than 150 publications in scientific journals and technical reports. He has conducted studies on a variety of marine mammals in the North Pacific from Central America to Alaska. He has directed long-term research on the status, movements, and underwater behavior of blue, humpback, and gray whales.

From Your ACS National President, Diane Glim.....

This Spyhopper Issue is Dedicated to ACS Member, Kim Valentine

Welcome to the summer edition of the *Spyhopper*! Vessel collisions with whales have been an issue of grave concern for decades. In this issue, John Calambokidis of Cascadia Research describes the latest actions taken to avoid ship strikes off the US west coast. His piece updates a *Spyhopper* article that he wrote in June, 2011.

The idea for this ship strike article was generated by a panel discussion at the ACS San Francisco Bay Chapter meeting on May 28. President Lynette Koftinow organized an impressive panel of experts to discuss what is being done to alleviate the pressures of whales caught in the shipping lanes. It turns out that much progress has been made on the west coast, with hope that implementation will take place on the east coast to ease mortality on the right whale.

It is with sincere regret that I report the passing of a friend to whales and the American Cetacean Society, Kim Valentine. Kim was instrumental in revitalizing the inactive San Diego Chapter of ACS and served as its president through 2012. She was particularly concerned about the vaquita and went to the Sea of Cortez on an exploratory expedition in 2010. Kim most recently worked in the Arctic as a marine mammal observer. Kim was only 56 when she died on 5/11/13.

The American Cetacean Society continues to be an active and vital organization committed to cetacean welfare, and a solid membership is key to our strength. Please remember to keep your membership active and keep ACS in mind when deciding what you can do to help whales.

We have undergone changes in the staff and board of directors since January. Kaye Reznick left her staff position as ACS Office Manager but continues to serve as editor of the *Spyhopper* and *Whalewatcher* publications. Patty Hager has stepped into the Office Manager position at the ACS headquarters in San Pedro as our only other paid part-time employee. The American Cetacean Society is led by a hard-working team of volunteer Board Members, and we welcome your input, suggestions and interest in serving on the board. The American Cetacean Society National Board Members 2013-2014 are listed at the end of this issue. You can learn more about them at www.acsonline.org.

Please enjoy this issue of *Spyhopper*. Visit us online anytime at www.acsonline.org or on our Facebook page. Join us on August 10 for our annual whale watching trip from Santa Barbara on the Condor Express. Attend an informative monthly meeting at one of our chapters, while we work on bringing more chapters onboard from New England and Florida. Most of all, keep informed and active about cetaceans. They need us.

Respectfully,

Niane Glim



Viva Vaquita

by Ayla Glim

"Hey! Hey, help me!"

Carlos whipped his head toward the call, setting down his rapidly cooling thermos of black coffee on the red cooler next to him. His father, Miguel, stood just a few feet away, struggling to hoist a large net over the starboard side of their small, salty fishing boat. He was having much more trouble than usual; a thin sheen of sweat had moistened his muscular, scarred arms. Carlos immediately stood upright and strode purposefully towards the edge, pushing his thick black hair out of his face.

With the strength of both men, the gillnet easily lifted up and over the side of the boat and hit the deck with a wet SMACK! The silver, glittering fish within wriggled restlessly, their scales pressed against the mesh of the net. Any other day, Carlos would be overjoyed to see such a plentiful bounty – the more fish, the more food for his family. He had been hoping to buy his girlfriend, Rosa, a bouquet of flowers for her birthday...it was not often he could afford such a luxury. But something odd caught his eye, cutting his internal celebration short.

Among the metallic luster of the fish was an animal the size of a small child. Its body was the lightest shade of gray, punctuated by dark markings at the extremities. Carlos thought it looked rather like a little girl had been through her mother's makeup and vigorously applied all of the shadow she could find to her eyes and lips. These eyes, however, were no longer capable of sight.

The animal's dorsal fin and left flipper were entangled hopelessly in the net. Signs of struggle were apparent, and Carlos could see that the more the animal had attempted to free itself, the more the mesh had increased its hold. He swallowed forcefully, grimacing, and looked to his father. To his surprise, Miguel's features were tight with anger. "What's wrong?"

"That, son, is the vaquita. And it's going to put us in the poorhouse."

The vaquita ("little cow") has only been known to the scientific world since 1958. Its shy, elusive nature granted it status as a legendary creature, gleefully hidden within the warm waters of the Gulf of California, Mexico. Fully grown at five feet long, this porpoise holds the title of the world's smallest species of cetacean—and the most critically endangered marine mammal in existence. Approximately 125-150 individuals are known to exist today.

Unlike most porpoises, the vaquita only gives birth once every other year, which keeps their already miniscule population low. Their tendency to shy away from people and boats may seem to



Photo of vaguita killed in fishermen's nets in the Gulf of California.

help with self-preservation, but as so few people ever actually get a glimpse of the porpoise, awareness of their presence remains unfortunately nonexistent within the minds of many residents of the Gulf. Were they able to freely observe the vaquita's lifestyle, they would bear witness to intimate families of two to eight, basking in the warm, clean waters of the Gulf and snacking on a treasure trove of squid and crustaceans.

As populations in the Gulf of California grew, fishing methods became less and less rudimentary. The gillnet, with its incredibly effective rate of success and efficiency, quickly gained prominence as the go-to method. It was so efficient, in fact, that strict regulations were attached to its use due to the remarkably high amount of by-catch the nets were yielding. The totoaba (*Totoaba macdonaldi*), a fish native to the Gulf, flourished plentifully before the introduction of commercial fishing in its home. By 1975, its capture was prohibited due to the catch falling from 2,000 metric tons to a mere 50 in the span of thirty years. Yet the totoaba is still caught, owed entirely to the domination of the gillnet industry and its tendency to trap unwanted passerby. The vaquita is an unfortunate member of this group, nearly always appearing as a corpse trapped in the gillnets' all encompassing hold.

A very large portion of those who live along the coast of the Gulf of California depend exclusively on fishing to support their family. The gillnet is, without question, the most effective way to reap the benefits of the Gulf's waters. However, the dangers of the gillnet undoubtedly put the continued existence of the vaquita in mortal peril. The situation becomes an endless loop, a catch-22: Force fishermen to separate themselves from the industry that has been feeding their family for generations—or save a species on the very verge of extinction within the next two years? How do you choose?

"A vaquita? Really? I thought those were long gone!" Carlos eagerly examined the porpoise, his mind suddenly overwhelmed by a long-stashed memory of an enthusiastically scribbled drawing he had created on his first day of kindergarten. Shadowy eyes, dramatic lips, a tail visible over the horizon—his teacher had asked if it was a mermaid, but Carlos shook his head firmly. "It's a vaquita! Mommy says I will see one when I'm big enough to go fish with Daddy!" His teacher touched his shoulder softly, smiling, and told him that no one had seen a vaquita in years—it wasn't likely he was going to find one. Carlos disregarded this statement easily. If no one could find one, then fine. He would be the first! He would be famous! And with the promise of glory filling his head, he picked up the yellow crayon and began to draw the rising sun.

"We're throwing it back."

Miguel's sudden words hurled Carlos back from his reverie. He blinked, disbelief clouding his face. "What? Why?" A razor glinted menacingly in the clenched fist of Miguel as he dropped to his knees next to the still-glittering pile of fish. He worked doggedly to cut away the mesh that had so firmly held the porpoise in its death stance.

"Because," he grunted, "once the government and those conservation groups find out another one's been caught, they'll cut off our range even more. And this net, well..." he swooped the razor horizontally an inch from his neck, making Carlos wince.

"Can't we use it for meat, at least? Or ask the government to do something?" Carlos sputtered, but his father shook his head. "We can't let them see it at check-in. They'll report us," Miguel said, gesturing vaguely to the small shack on the distant dock where their catch was documented daily.

"But -"

Miguel raised his hand, the edge of finality radiating sharply. "Carlos, you have to understand. I don't want to get involved in this. Our family is not going to stop eating because of an animal that we barely see." He paused, regarding his son carefully. "Why do you care about this so much?"

Carlos started to answer, but stopped short. He realized that no response was at the ready – all he could think of was his drawing, prudently labeled and stored away by his mother, and the promise that simple picture had held. He felt he was betraying his friendship with the Gulf by discarding one of its precious residents. He took the lives of many fish every day, it was true, but the payout was clear and necessary: his family was able to survive. But tossing overboard a creature so rare, so helpless, so small – Carlos knew, from somewhere rooted deep inside of him, that this was wasteful and just plain wrong.

Miguel watched his son search for a reply. "You know," he began hesitantly, "I think there's some information in city hall. Brochures, or something. I've seen 'em there a couple of times. Do whatever you want to do. But for now, this is our only option."

The vaquita landed with a small splash in the frothy ocean, sinking quickly into its gluttonous depths.

The following day, Carlos's white sneakers crunched noisily on the gravel path leading up the small hill to his front door. The autumn afternoon was pristine – doughy white clouds lolled high in the sky, contrasting with the vast expanse of sea stretching below. The Gulf was a clean, safe environment for the aquatic ecosystem that thrived there, placidly allowing the fishermen to plunder its bounty in exchange for the respect it undoubtedly deserved. Carlos always regarded the ocean with a sense of awed familiarity, having been tossed among the temperamental waves since before he could form full sentences. This familiarity was precisely why the situation from the previous day had so thoroughly shaken him; he could barely remember the last time anything about the water had elicited surprise, let alone weaken the smile that usually adorned his face.

Carlos looked down at the stack of brochures clutched in his hand as he pushed open his blue, weathered front door. He was hopeful that the information contained within would help clear out the questions that had been buzzing inside of his brain ever since he saw that



Vaquita, cont.

vaquita get swallowed by his friend, the sea.

A tempting, spicy aroma greeted him as he entered the small entry hall. Passing the cheerful kitchen, he stopped briefly to peck his mother's cheek before settling down at the wide dining table, setting the brochures on top of the maroon table-cloth. He propped his legs up on the adjacent chair, grabbed a pencil, and began to read.

Because of the delicate relationship between those who depend on the Gulf for their livelihood and the unintentional destruction of a species, finding solutions to save the vaquita has proved extremely difficult. Possible answers have been uncovered, though each has its own set of potential drawbacks.

The most prevalent of the strategies for change come in the form of "buy-out" and "rent-out" programs. The Mexican government has offered compensation for fishermen who are willing to turn in their permits for good, with the hope of taking up alternative business ventures. Although the permits are taken, the fishermen retain their rightful property, which include boats, nets, and gear. Should their job search prove fruitless, it is highly possible that some may continue to fish illegally to supplement their family's income. The buy-out program has been met with much resistance, due to the declining economy in this particular area of Mexico and the way it severs the long-lasting bond between fishermen and the sea.

The rent-out program has seen similar opposition. This system replaces the highly effective gillnets with alternative, vaquita-safe methods of fishing. The glaring problem with this switch is the potential lack of sufficient catches without the reassuring promise of success that the gillnet provides.

Despite the underwhelming results from these programs, steps can be taken to ensure the continued existence of this unique creature. Support of the Mexican economy, simply by traveling there and expressing interest in the vaquita's situation, will help create a more favorable economic climate and thus provide more jobs. The decline of the gillnet industry – and exploration of alternative, equally

effective methods – can by instigated by a noticeable public stance: refusal to buy fish or shrimp caught in this manner from this particular area. And finally, support of conservation measures and politicians who have good environmental records could make a world of difference.

Awareness of the vaquita's plight is the ultimate key. Simply by passing information to family, friends, teachers, and students emphasizing the clean environment they live in and the bright, clear, beautiful future that is in danger of being snuffed out before our very eyes could save the vaquita from its imminent extinction.

Carlos joined his father on the dock early the next morning, eager to share what he had learned from hungrily consuming the contents of the brochure. He wasn't sure how Miguel would react to his suggestion – trading in their gillnet from something less dangerous – since their family's very livelihood could be at stake with this risky switch. But Carlos figured that if one less gillnet was in the Gulf, one more helpless creature could be saved. Before him stretched the wide sea, filling his nose with a familiar briny aroma. The first string of morning pelicans sailed precariously close to the glassy surface, joyfully stretching their wings and scanning the waves for their next catch. He smiled, rejoicing in the simple beauty, knowing his father enjoyed it every bit as much as he did. He had to believe in this mutual connection if his plan was to succeed. Bracing himself, he clapped his hand on his father's shoulder and climbed into the boat.

Ayla Glim is a 2013 graduate of Humboldt State University with a degree in English. She has been interested in weaving short fictional accounts around real environmental issues to encourage readers to become more involved. Living near the Pacific Ocean throughout her life has given Ayla a deep appreciation of the powerful connection between the marine and terrestrial environments.



Chapters in Action

Uko Gorter, Puget Sound

As is the case every year, spring seems to ring a myriad of whale and marine related events throughout the Puget Sound region. So, not surprisingly, we have been quite busy with educational outreach and marine mammal related festivals.

Our monthly Speaker Series is going strong and is still held at the Phinney Neighborhood Center in Seattle every third Wednesday. In January, we welcomed Sally Mizroch, who presented her talk on the line-transact survey work that was performed as part of the IWC's, "Pacific Ocean Whales and Ecosystem Research" (POWER) cruises.

Peggy Foreman of NOAA Fisheries –NWR, in Seattle, gave a talk on NOAA's education and outreach efforts in February. Peggy was a former ACS/PS board member and education chair, but continues to make her mark on educating students about the marine environment and about what NOAA Fisheries does in the Pacific Northwest.

In March we were really thrilled to invite Joe Gaydos of the SeaDoc Society who gave a his wonderful talk, titled: "Bears to Barnacles, Incredible Animals of the Salish Sea."

ACS-PS president Uko Gorter, and past president, Joe Olson presented a double feature in April on the mechanics of sound production in whales and the basics of sound in water, titled "Of Monkey Lips and Melons" and "Of Micropascals and Masking," respectively.

Chris Bassett, of the UW Mechanical Engineering and Applied Physics Lab, gave a succinct presentation on underwater noise in Puget Sound, highlighting his personal work on the tidal energy project in Admiralty Inlet, in May.

Our last Speaker Series guest speaker will be Erin Ashe, of Oceans Initiatives (Vancouver Island, BC), who will present her important work on Pacific white-sided dolphins. After our usual summer hiatus, will resume our monthly talks in September. Check our ACS-Puget Sound Chapter Facebook page and website for regular updates.

On April 19 and 20, ACS-PS chapter participated at the Seattle Aquarium's "Marine Mammal Mania" event with the orca, or killer whale, as its theme. We staffed a table with marine mammal artifacts and information, and ACS-PS president Uko Gorter gave a presentation about Orcas of the World.

Twice a year we present lectures on the Washington State ferry between Seattle and Bainbridge Island as part of the "Sound Off" educational outreach event for the Mount Tahoma Junior High School. The lectures are also open to the regular ferry riders. This year's event was held on Tuesday, April 23.

A more expanded lecture on "Orcas of the World" was given for the The Whale Trail (www.thehwaletrail.org) on Thursday, April 25, at C&P Coffee House in West Seattle.

As of this writing, we are working on a Student Travel Grant for students to present their work at the upcoming biennial conference of the Society for Marine Mammalogy (www.marinemammalscience.org), in Dunedin, New Zealand. We are still accepting donations for additional grant funding. Stay tuned for more updates.

The American Cetacean Society was represented by Joy Primrose (ACS-OR president) and Uko Gorter (ACS-PS president) at the recent "Moby Doll Orca Symposium: Reflections on Change" on Saturna Island, BC, May 24-26. The symposium marks the 50th anniversary of the first (unintended) capture of a killer whale, "Moby Doll," for the Vancouver Aquarium. This triggered a series of fascinating events that resulted in profound changes in the relationship between humans and killer whales (orcas). Well-known researchers that include, John Ford, Ken Balcomb, Greame Ellis, Lance Barrett-Lennard, and Peter Ross presented talks ranging from the whaling-era and conditions in the 60s to future challenges. We promise to report back on this unique gathering. Keep up with our chapter on our website at www.acspugetsound.org.

Sandy Rosenberg, San Diego

The San Diego chapter is back to full speed with speakers booked well into the fall. Recent speaker topics have included what happens after whales die, plans of the San Diego Zoo for participating in efforts to save the vaquita, and tips for photographing wildlife. We had a great time talking with folks at San Diego's huge Earth Day event.



San Diego chapter members at Earth Day event this April

Jerry Loomis & Diane Glim, Monterey Bay

The Monterey Bay Chapter sprang into action in 2013 with a successful Gray Whale Watching trip, generously donated by owner Benji Shake and Capt. Leon Oliver of Princess Monterey. Forty inland schoolchildren were treated to their first encounter with whales and dolphins onboard the 100-foot vessel. It was also time to take part in the annual Whalefest event at Custom House Plaza in Monterey where numerous organizations gathered to celebrate the winter Gray Whale migration. Chapter President, Jerry Loomis, and the newly-installed National President, Diane Glim, attended the annual meeting of the ACS National Board at ACS headquarters in San Pedro.

Monthly meetings have been filled to capacity with outstanding speakers. Casey T. Clark, an ACS-MB research grant recipient, gave a well-organized talk on the population composition of overwintering Humpback whales on the central coast of California. Dr. William Gilly of Hopkins Marine Station was at home for his presentation about the carnivorous Humboldt squid. Chapter board member Art Haseltine and Virginia Bria presented a program about their experiences diving and photographing beluga whales in Hudson Bay. Life-size whale photographer, Bryant Austin, shared engaging stories about his encounters with favorite humpback, sperm and minke whales. May's program brought down a packed house as Doug Cheeseman gave one of the most memorable presentations in recent years about hippo and whale evolution, which was dedicated to founding chapter member Alan Baldridge. ACS-MB chapter historian Tim Thomas will deliver a program about whaling and fishing in Monterey Bay in June. ACS-MB set up a booth for Earth Day at Cal State University at Monterey Bay that was well-received. *Viva Vaquita* benefitted from a month-long fundraiser at Hula's Island Grill in Monterey.



Randy Puckett's beautiful sculpture, The Breach, will be auctioned off at the July 27 BBQ to raise funds for chapter research grants.



Art Haseltine and Virginia Bria share their experiences diving and photographing belugas in Hudson Bay.

The annual Blue and Humpback Whale Watching fundraiser is scheduled for June 29 with Monterey Bay Whale Watch.

Former ACS National President and current ACS Monterey Bay treasurer, Katy Castagna, will be honored for her many contributions at the annual chapter BBQ and fundraiser on July 27, 2013. Past-president and sculptor, Randy Puckett, donated at cost his Humpback whale sculpture, *The Breach*, to raise funds for chapter research grants. It will be raffled on 7/27/13 at the BBQ, and winners do not need to be present to win.

Three student research grants of \$1500 each were awarded this year to two graduate students at Moss Landing Marine Laboratories in Moss Landing and one student at the National Polytechnic Institute in La Paz, Mexico.

Grants were awarded to:

- Moss Landing graduate student **Angela Szesciorka** to study the behavior of humpback whales when they encounter ships between San Francisco and Los Angeles.
- **Jacqueline Schwartzstein**, also a graduate student at Moss Landing, to study the group of gray whales that spend summers feeding off Washington state rather than continuing on to the Arctic with the rest of the migrating population.
- **Jorge Alberto Mares Mayagoitia**, a student in the Marine Mammals Ecology Laboratory in La Paz, to study the feeding habits of male sperm whales that visit the Gulf of California during the summer breeding seasons.

Lynette Koftinow, San Francisco Bay

It has been a busy spring season for SF Bay ACS chapter: participating in educational outreach events, monthly presentations, and a wonderful whale watching trip.

Our 2013 Earth Day Event (Saturday April 20) was a wonderful celebratory event. Lynette Koftinow (president), Dave Thompson (vice-president), Melanie Smith (education and research intern), member/volunteers Diane Straus and Gilda Favilla of SF Bay ACS chapter and Cara Gallagher, president of SF Bay ACS Student Coalition, were participants at the The Pacifica Beach Coalition's Earth Day event "Take a Bite Out Of Litter." This year's theme was sharks with keynote speaker David McGuire of Shark Stewards.

We, along with hundreds of others, began our morning "cleaning up Pacifica," ranging from the beaches to schools, areas around town, to edges of roadsides. Afterwards we enjoyed our SF Bay ACS chapter tabling event. Many friends stopped by in support and we met many new people that we were able to share ACS information with. We felt honored that Pacifica Coalition now uses the ACS educational tool of the *Whale rope*. They had added two new side ropes for the different species of turtles (last year's theme) and sharks, this year's theme. To add to our celebration, there were gray whales off shore all day giving us a spectacular show! A perfect way for us to tell people about the whales and to go look for the whales; or when people came to us asking what type of whales they had just seen we could inform them! It was so easy to talk to them about the whales with Uko Gorter's beautiful "Whales of the World" poster. The day was filled with guest speakers, music, and many organizations sharing their knowledge.

Lynette Koftinow and Melanie Smith had at fabulous day at Skyline College, San Bruno, on April 24. We were invited to be one of the educational outreach organizations for their Earth Week. It was wonderful to share our organization's information with all the inquisitive



Melanie Smith, Education and Research Intern and now ACS-SF Bay board member, is an invaluable asset for community outreach and education.



ACS-SF Bay members take part in the Pacifica Beach Coalition's Earth Day Event.

students and staff. We know that we educated many about cetaceans and our oceans, and may have some great new volunteers working with us.

We have been so fortunate to have Melanie Smith working with us as an Education and Research Intern. Melanie has been a great asset in educating others about SF Bay ACS at the SF Ocean Film Festival, Pacifica Beach Coalition Earth Day, Skyline College Earth Day, working on various outreach projects, posting informative cetacean links on our Facebook page, and now creating an educational program to take into schools. Melanie is a senior with Oregon State University, pursuing a B.S. in Fisheries and Wildlife Science emphasizing research and conservation. Though born and raised surrounded by cornfields in Illinois, the ocean and the life it holds has fascinated her since she was a child. She moved west to arm herself with the education and tools she would need to eventually bring conservation back to the Midwest and expose the connection they too have with the ocean, despite the distance.

After three months working as our intern, she is now our Education and Research Board member.

We had an outstanding Whale Watching trip with Oceanic Society out of Half Moon Bay on Saturday, April 27. We were treated to a beautiful morning, from calm seas to amazing sightings. Our first sighting was of a gray whale mother and calf pair as we left the harbor. We then traveled northwest to "the zone" where abundant fish/whale sightings had been detected. Once there, we were mesmerized for almost an hour by a side lunge feeding humpback. Upon getting underway to return to the harbor, we observed the most fabulous continuous display by two humpbacks that were breaching and throwing their flukes high in the air in synchronicity and one at a time! You know when the naturalist is "OMGing" it is great! Hope all



of you who missed this trip can join us on our next trip!

Our April 30 presentation by Frances C. Robertson (University of British Columbia), SF Bay ACS Student Travel Grant Awardee and Honorable Mention awardee of the National ACS conference Poster contest, was fascinating to our packed room of attendees.

"A question of availability: The variable detectability of bowhead whales exposed to seismic sounds Bowhead whales (Balaena mysticetus) are known to alter their diving behaviour when exposed to seismic sounds."



ACS-SF Bay experienced amazing sightings on their April 27 whale watching trip with Oceanic Society. Photo by Lynette Koftinow.

On May 28 we were very proud to present our Acoustic Impact and Ship Strike Issue Panel:

Protecting endangered species and sanctuary resources is a priority issue for the National Oceanic and Atmospheric Administration (NOAA). To address this issue locally, Gulf of the Farallones (GF) and Cordell Bank (CB) Sanctuary Advisory Councils formed a Joint Working Group (JWG) on Vessel Strikes and Acoustic Impacts, represented by a diversity of stakeholders including the shipping industry, and the conservation and scientific communities. Staff from federal agencies (including NMFS, the Sanctuaries, and the U.S. Coast Guard), as well as members of the scientific community and environmental organizations served as technical experts to the JWG.

Leslie Abramson: Resource Protection Specialist with the Gulf of the Farallones National Marine Sanctuary, John Berge: Pacific Merchant Shipping Association, Jackie Dragon: Greenpeace, Lance Morgan, Ph.D.: president Marine Conservation Institute, Frances Gulland: Senior Scientist at The Marine Mammal Center and one of three Commissioner positions at the U.S. Marine Mammal Commission, Michael Carver: Deputy Superintendent for Cordell Bank National Marine Sanctuary(CBNMS), Michael Jasny: NRDC (focus on legal and acoustics issues), Carol Keiper: Marine ecologist and founding board member/researcher with Oikonos Ecosystem Knowledge, and John Calambokidis (Olympia, WA): Cascadia Research.

Please join us for our summer presentation lineup:

June 7: Travesia: Journey of the Gray Whale

We are honored to be partnering with this important organization and having a special presentation by *Proyecto Ballena Gris* Friday, June 7. The focus of this presentation will be to present a deeper view about the context, goals, and activities included in their general project (not only the exhibition), and to invite attendants to support and follow this initiative. In partnership with the Consulate General of Mexico in San Francisco, this special traveling exhibit makes its only U.S. stop at the San Francisco Zoo, open to the public June 8. Proyecto Ballena Gris:http://www.proyectoballenagris.com

- June 25: Algalita Marine Research Institute's "Tsunami and Plastic Pollution expedition"
- July 30: Jerry Loomis "Whale Watching in the Sea of Cortez, Laguna Magdelena, and Laguna San Ignacio"
- August 27: Teri Shore, Program Director at Turtle Island Restoration Network "The rare snubnose dolphins along the remote Kimberley coast of Northwest West Australia"

Sabena Siddiqui, Student Coalition

This spring, we continued our existing campaigns, placing an emphasis on sustainable seafood. We have now handed out over 2000 Seafood Watch Cards from the Monterey Bay Aquarium to students around campus. Furthermore, we have been talking to local restaurants and businesses, beginning a push for small, local owners to offer more or exclusively sustainable options on their seafood menus. The Student Coalition also led a water quality testing of our local waterway, emphasizing the importance of water quality to local biomes and to the oceans, as what we do here eventually finds its way there.

From May 13 -May 16, three of our officers attended the Blue Vision Summit in Washington, D.C., attending talks by policy makers, industry representatives and scientists and lobbying to our national representatives about the importance of ocean issues to the entire nation. While on Capitol Hill, we advocated for an act that seeks to curtail the import of Illegal, Unreported, and Unregulated Fish into the United States from foreign waters, the SAFE Seafood act that would require that information on where fish were obtained, the process they went through to get to the market, as well as a standardized system for naming seafood, to better police the misreporting of seafood. We had a great time, and were able to reach out to other groups and participate in making better ocean policy a reality.

With the conclusion of the school year, our efforts are now focused on the foundation of new Student Coalition chapters around the country. If you or a youth you know are interested in starting a Coalition at your high school or university, contact our President, Sabena Siddiqui at siddiqis@indiana.edu

Joy Primrose, Oregon

On April 6, 2013 our first class of ACS Certified Oregon Marine Naturalists graduated. We had a wonderful, diverse group of eleven students who brought enthusiasm, knowledge, hard work and fun to class. They all gave a presentation at our monthly speaker series meeting on April 6, each one on a different cetacean found off the Oregon Coast.

Our chapter held a beach clean-up in Newport in partnership with the Surfrider Foundation on May 18, 2013. Members showed up to volunteer in spite of the drizzle and wind.

On June 8 our speaker series meeting was held at the Newport Public Library. Chelsea Lincoln presented her research on Bottlenose Dolphins from her spring 2013 internship at Mote Marine Laboratory in Florida. Also on June 8 we had a table providing information and activities and gave a presentation at the Oregon Coast Aquarium for World Oceans Day.

July 20 & 21 we will have a booth in the Children's Village at da Vinci Days on the Oregon State University Campus in Corvallis. We will provide fun activities and education about cetaceans during this art and science festival.

Mike Makofske, Orange County

The spring highlight for the OC chapter was our special Earth Day fundraising whale watch on April 21 with Dana Wharf Whale Watching. About 100 people participated, including several who made the trip down from the Los Angeles area – thanks for coming, everybody!

We were hardly out of the harbor when we learned that some gray whale cow/calf pairs had been "coddling" and nursing in the small coves of South Laguna Beach, so our captain, Jack Van Dyke, steered us to the spot and we stayed right there for most of the two-hour trip, admiring and photographing as the grays rolled, milled, spy-hopped and at times seemed to pose for all the photogs on board the Dana Pride. Several onlookers said it was the best graywhale action they'd seen outside of Baja.



ACS-OC board member Irene Gilgoff photographed this gray whale calf who was with its mother in the coves a bit north of Dana Point on the ACS-OC April 21 Fundraiser with Dana Wharf Whale Watching.

The trip was successful financially, too, and we owe a very big thank-you to Dana Wharf's General Manager, Donna Kalez, and all her crew members for letting us use the Pride and helping us promote the trip.

Cetaceans have continued to put on a show off OC. Besides the beloved grays, we had early visits from blues, fins and humpbacks for a couple of weeks in April – so many that it made the national news. After a while the bigger whales moved on, but the grays have continued their strong parade up the coast as they did last year.

Our chapter had booths at the Dana Point Festival of Whales and the Earth Day festival at the Muth Interpretive Center in Newport's Back Bay – always a fun event with lots of school kids coming by to answer their "scavenger hunt" question: "What's the biggest whale?" We're always surprised at how many kids know the answer without having to look at Uko's poster!

Our February 28 meeting featured Tamara Galvan of the Pacific Marine Mammal Center in Laguna Beach. They've been swamped this year with undernourished sea lions. We invited Tamara to be our guest on our whale-watch trip as a thankyou for all PMMC does for sea animals. At our May 23 meeting guest speaker Capt. Todd Mansur of Dana Wharf was our speaker.

Upcoming - On June 27 Dr. Lani Stelle of University of Redlands will speak, and our fall naturalist classes start August 22. Details on all of this can be found at www.acsorangecounty.org.



"Hula Hoop" Dolphin Delights Cetacean Lovers

Steve O'Toole, an ACS-Orange County Board Member and naturalist often seen on weekend boats out of Dana Point, CA, is getting a lot of attention for a photo he took of a bottlenose dolphin breaching and spinning, causing a couple of watery "Hula Hoops" to appear around its midsection. Steve took the photo while working as a volunteer Naturalist on board Dana Wharf Whale Watching's catamaran.

The photo was picked up for Dana Wharf's Facebook page, and then by reporter Pete Thomas for his Pete Thomas Outdoors blog. It took off from there, with mentions on ABC's World News Tonight, the local NBC and Fox affiliates in Los Angeles, GrindTv, Yahoo.com's home page, the Orange County Register (both web and print), the Huffington Post and many other media outlets worldwide. And, of course, it was featured on the ACS-OC Facebook page and ACS National's Facebook as well. It's delighted hundreds of thousands of viewers in those venues, and this example of a wondrous cetacean continues to get passed on . . . and on . . .

Don't Miss "Behemoths of the Deep" - ACS National All-Day Whale Watch!

Come along on Saturday, August 10 for ACS National's annual "Blue Whales: Behemoths of the Deep" all-day whale watch with Condor Express of Santa Barbara, CA! The Condor Express is a famous catamaran that operates in one of the best whale-watching locales in the world – the Santa Barbara Channel. Every summer the channel is full of blue whales, humpbacks, several species of dolphin, sea lions – and you never know what else! The Condor has even spotted bald eagles on a couple of trips this summer.

Your fellow whale-watchers will be a knowledgeable, enthusiastic crowd, and you won't forget this great day on the water! Tickets (\$100 for ACS Members, \$110 for non-members) are available on Eventbrite at http://acsbluewhales.eventbrite.com, or you can follow the link from the ACS home page: www.acsonline.org.

For more information, call or e-mail ACS's trip coordinator, Diane Alps, at (424) 888-4346 or dalps@acsonline.org. The trip could sell out, so get your tickets now. See you there!



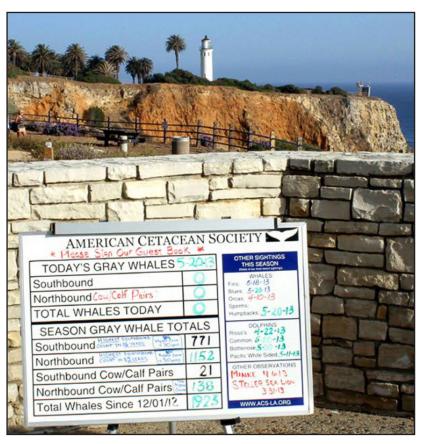
Photo by ACS-OC naturalist, James Gresham, taken on the 2012 "Behemoths of the Deep" trip.

Diane Alps, Los Angeles

The Los Angeles Chapter of ACS has had a exciting springtime. Our Speaker Series received rave reviews each month, our Cabrillo Whale Watch Naturalist program celebrated its 41st season with 95 active volunteers and our Gray Whale Census and Behavior Project reported record-breaking numbers of whales!

The ACS-LA Speaker Series meets at the Cabrillo Marine Aquarium on the last Thursday of each month, September through May. This spring the following experts enthralled ACS-LA members, local students and other community members:

- Plight of Cetaceans in Southern California by Michelle Berman, Associate Curator of Vertebrate Zoology, Santa Barbara Natural History Museum
- Ocean Journeys and Ocean Noise, by Brandon Southall, Ph.D., Southall Environmental Associates
- Marine Mammals of Southern California: The Last Twenty Million Years by Meredith Rivin, Curator of Paleontology at the John D. Cooper Archaeology and Paleontology Center, a partnership between CSU Fullerton and OC Parks
- Southern California Whale Watching in the 21st Century by Bernardo Alps, Field Researcher, Point Blue Conservation Science and Research Associate, Cabrillo Marine Aquarium



ACS-LA Gray Whale Census and Behavior Project located at Point Vicente, Rancho Palos Verdes, CA: This season's final counts of gray whales, and extraneous marine mammal sightings (December 1, 2012 - May 20, 2013). Photo by Alisa Schulman-Janiger.

The Cabrillo Whalewatch Naturalist program wrapped up its 41st season with a bang! Our volunteers engaged and educated passengers, mostly students, aboard local whale watching boats from Redondo Beach, San Pedro and Long Beach. In total, they volunteered 5,100 hours! Wow! We start training again the first Tuesday of October - we hope you'll be part of the celebration next year.

Another hard-working team of volunteers are our Gray Whale Census and Behavior Project volunteers. The 2012-2013 season was record-breaking! Census volunteers spotted 1152 northbound gray whales this season, which was the highest count in the last 12 years. The northbound gray whale calf count (138 cow/calf pairs) was our 7th highest in 30 years!

New and exciting news includes ACS-LA's partnership with the Muskwa Club, a youth organization that began when President William Whittenbury was in 3rd grade. He is now in high school and he is making waves in the whale conservation community! William and his club have designated July 6 as "Save the Vaquita Day." In partnership with ACS-LA and other ACS chapters, the inaugural Save the Vaquita Day will be represented nationwide: from Waikiki to Gloucester, Mass.! Watch for next summer's Save the Vaquita Day at an ACS chapter near you.

Whale watching in Santa Barbara is HOT, and the ACS-LA Summertime Blues (and Humpbacks!) trip is right around the corner! We're looking forward to another exciting adventure aboard the newly re-launched Condor Express, arguably one of the best whale watching boats on the western seaboard!

Happy whales! Happy whale watching!



ACS/LA Gray Whale Census and Behavior Project located at Point Vicente, Rancho Palos Verdes, CA: Group portrait of Gray Whale Census observers at our annual Pot-luck and Volunteer Recognition May 5, 2013. Photo by Alisa Schulman-Janiger.

The Next Whalewatcher is in Progress!

As you know, our American Cetacean Society's journal, the "Whalewatcher," continues to be immensely popular. Since 2009, we decided to make them more thematic, which has proven to be most successful and an added value to our readers. Since that time, we have also enlisted guest editors who have graciously helped with establishing a theme and shaping content. For the last four issues we have had the distinct privilege to work with: Tom Jefferson (vaquita and Phocoenid issue); Ian Dutton (cetaceans and climage change issue); Bob Pitman (killer whale issue), and Hal Whitehead (sperm whale issue).

This time we are very excited to welcome James Sumich as our guest editor for our upcoming special gray whale issue. James Sumich is Professor Emeritus of Biology at Grossmount College. He has studied gray whales for nearly three decades and has taught college courses on marine mammals for nearly as long. His research has focused on the ecological physiology of baleen whales, particularly the energetics of their seasonal fasting migrations.

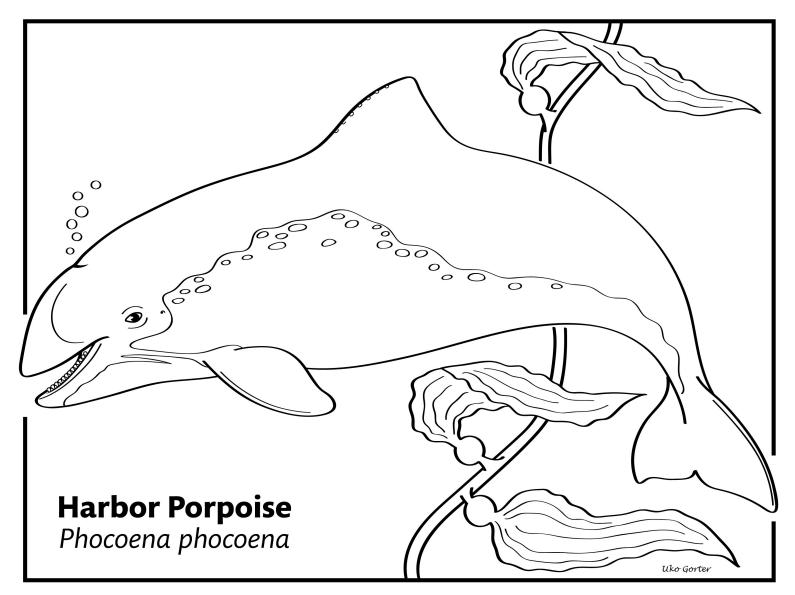
Besides the contributing articles from Jim, we are pleased to work with: Wayne Perryman, John Calambokidis, Frances Gulland, David Weller, Aimee Lang, Steven Swartz, Jorge Urban, David Rugh, Craig Matkin, John Durban, David Duffus, and Celia Condit as contributors to this invaluable gray whale issue.

The special issue will be solely dedicated to the gray whale, *Eschrichtius robustus*. Topics will range from migratory census techniques to gray whale health, protected areas, whale watching, and climate change. We will also address the eastern and western gray whale population definition, killer whale predation, genetics, and much, much more.

As you have come to expect from ACS, this will be a high quality publication. One to hold on to! We hope to have this issue in the mail to our ACS members around September 15.

For Kids Who Love Cetaceans

Color the Harbor Porpoise!



Membership in ACS Photo @Michael Ho, http://MichaelDanielHo.com

Membership in ACS Puts You in Good Company

The American Cetacean Society (ACS) protects whales, dolphins, porpoises, and their habitats through public education, research grants, and conservation actions. Founded in 1967, ACS was the first whale conservation organization in the world.

ACS is a 501(c)(3) non-profit organization with national headquarters based in San Pedro, California. We have active chapters in Los Angeles, San Diego, Orange County, Monterey, San Francisco, Puget Sound, and Oregon, and a Student Coalition based in Bloomington, IN. We also have new chapters forming in New England and Florida. Members live throughout the United States and in more than a dozen countries.

Join us in our mission, and help us spread the word! You will find many opportunities for education and involvement as an ACS member. You can join/renew or make a donation by using the form below, or go to www.acsonline.org and enroll or donate using PayPal. We hope to see you on the active rolls, and would love to have you share in our upcoming Whalewatcher journals and online Spyhopper newsletters.

Thank you, Your friends at ACS



Please join, renew, and/or donate!

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San Pedro, CA 90733-1391 Do you have particular areas of interest in cetacean education,								
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If you have questions, please call our national office at 310-548-6279 or e-mail acsoffice@acsonline.org

A Legacy of Conservation

The legacy of ACS will be the pivotal role it has played for over 40 years in protecting the world's "ambassadors of the seas." Part of your legacy can be in the support you provide toward this cause. You don't need to be wealthy to make a gift that will have an impact on the future of whales, dolphins, and porpoises and their habitats. A charitable bequest to ACS in your will or living trust will serve as a powerful testimony to your conviction that this work is important to the health and biodiversity of our marine ecosystem.

I hope you'll join me in including ACS in your estate planning. I can't think of a better gift for our children and grandchildren.

Niane Slim

All information about charitable bequests is held in the strictest confidence.

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I have established a charitable bequest to the American Cetacean Society. Please add my (our) name(s) to the Legacy of Conservation Display at ACS Headquarters and in the Spyhopper publications.						

Thank you for supporting ACS and our mission.

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AMERICAN CETACEAN SOCIETY



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