

Soundings



American Cetacean Society- Monterey Bay Chapter
PO Box H E, Pacific Grove, CA 93950

November-December 2010

**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, DECEMBER 2, 2010

TIME: 7:30 PM. PLEASE JOIN US AT 7:00 FOR REFRESHMENTS

**Speaker: Scott A. Shaffer, Ph. D.,
Assistant Professor of Biology
Department of Biological Sciences,
San Jose State University**

**Title: “Have Wings Will Travel: Around the Pacific Ocean
with Migrating Sooty Shearwaters”.**

In summer and fall, observers on whale watching trips or from shore frequently see dense flocks of dark, mid-sized seabirds over the Bay, often feeding in association with marine mammals. This species is the subject of our program this month.

Scientists have long known that Sooty Shearwaters breed in New Zealand and Chile and migrate to feeding grounds in the Northern Hemisphere. But the details of this remarkable trans-equatorial migration have only recently emerged from a study using electronic tracking tags to follow individual



birds. The flights of sooty shearwaters, total population about 20 million, documented in this study encompass the entire Pacific Basin and represent the longest animal migration routes ever recorded using electronic means – around 39,000 miles. These seabirds cross the equator twice a year in pursuit of an endless summer in which food resources tend to be always at their peak.

Our speaker was part of this study known as TOPP (Tagging of Pacific Pelagics) together with scientists from many other universities.

We hope you will join us to learn more about this fascinating study.

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**REGISTER NOW FOR THE 12TH
INTERNATIONAL AMERICAN
CETACEAN SOCIETY
CONFERENCE TAKING PLACE
IN MONTEREY,
NOVEMBER 12-14,
Whales 2010: Inspiring a New Decade of
Conservation**

**A New Decade, New Challenges,
New Opportunities
to Make A Difference
Embassy Suites Conference Center,
Monterey**

Full conference, single day, and half day registrations available at door Full conference registration tickets include Friday night reception, all plenary sessions, panels, poster sessions, book signings, art show, and lunch on both Saturday & Sunday.

**Banquet is NOT included in conference ticket price and must be purchased separately.

- * Student full conference rate: \$195
- * Member full conference rate: \$230
- * Member Saturday or Sunday single day rate: \$120 – includes lunch
- * Member ½ day Saturday or Sunday: \$55 – does not include lunch
- * Saturday night banquet and John Heyning Award: \$45
- * Friday 1/2 day whalewatching: \$65
- * Friday full day whalewatching: \$100

CONFERENCE SCHEDULE

FRIDAY

5:30 - 6:30pm Registration desk is open for check-in and those who have not yet registered
6:30 - 9:30pm Welcome Reception, Embassy Suites Ballroom
7:30 - In the Eye of the Whale, featuring an exhibit of life-size, high-resolution photographs of whales - Bryant Austin, Artist
8:00 pm The Adventures of a Whale Painter: 50 Years in Pursuit of Cetological Correctness - Richard Ellis, Artist/Writer

SATURDAY

7:00 - 8:15 am Registration desk is open for check-in and those who have not yet registered
8:15 - 8:30 Welcoming Remarks - Kathy Zagzebski, ACS President

Whales in 2010 – Where We Are
8:30 - 9:00 Whales of the World: New Developments in Whale Research in the North Pacific and Challenges Whales Face – John Calambokidis
9:00 - 9:30 Small Cetaceans of the World – Tom Jefferson
9:30 - 10:00 The Most Endangered Cetaceans – Bernd Würsig
10:00 - 10:15 Break
10:15 - 10:45 Large Whale “Hotspots” – 2010-2020
10:15 - 10:45 Right Whales: Surviving the Times? – Brenda Rone
10:45 - 11:15 Out of Sight But Not Out of Mind: Using Tag Technology to Understand Humpback Whale Foraging – Ari Friedlaender
11:15 - 11:45 Cetacean Cultures and Cetacean Rights – Hal Whitehead
11:45 Announcements
12:00 - 1:00 pm Lunch

Dolphins in Distress
1:00 - 1:30 Over-fished and Under-appreciated: Conservation and Management of Hawai’i’s False Killer Whales - Our Next Endangered Species? – Robin Baird
1:30 - 2:00 The Status and Recent Trends of Cook Inlet Beluga Whales – Rod Hobbs
2:00 - 2:30 Biology and Status of the World’s Freshwater Cetaceans – Randy Reeves
2:30 - 2:45 Break

Porpoises and Places in Peril
2:45 - 3:15 Effects of the BP Oil Spill on Marine Mammals of the Gulf of Mexico – Teri Rowles
3:15 - 3:45 End of the Line: The Recovery and Conservation of the Vaquita – Lorenzo Rojas-Bracho
3:45 - 4:15 Importance of Taxonomy for Conservation of Finless Porpoises – John Wang
4:30 - 5:30 Poster session, art show, book signings (Jim Darling, Elin Kelsey, Kathleen Dudzinski/Toni Frohoff, Carrie Newell)
6:00 - 7:00 Music/Socialize (Banquet participants only, banquet location)

7:00 - 9:00 Banquet and Awards Ceremony -
Small Cetaceans in a Rapidly Changing World –
Randy Wells. (John Heyning Award Presentation,
Photo Contest and Poster Contest Awards Announced)

SUNDAY

8:00 - 9:00 am Registration desk is available
9:00 - 9:15 Opening Remarks
9:15 - 10:15 Keynote Speaker – Conservation,
Crisis, and Human Perception – Tim Ragen
10:15 - 10:30 Break
The Next Decade of Cetacean Conservation
10:30 - 11:00 Worldwide Mass Strandings of
Beaked Whales: Changing Patterns and Their
Probable Causes – Bob Brownell
11:00 - 11:30 Politics: The Past, Present, and
Future of the IWC – Sue Fisher
11:30 - 12:00 Cetaceans and Climate Change:
What Can We Expect? – Ian Dutton
12:00 - 1:00 Lunch
1:00 - 1:30 Voices of the Great Whales,
Drowning in a Sea of Noise – Chris Clark
1:30 - 2:00 Marine Spatial Planning and
Cetacean Conservation – Pat Halpin
2:00 - 2:30 Whale Health and Conservation in
an Urban Ocean – Rosalind Rolland
2:30 - 2:45 Break
2:45 - 4:00 “The Cove”– Screening clip and
Q&A with Louie Psihoyos, Film Director
4:00 - 4:30 What Can ACS Do? What Can We
Do? – Kathy Zagzebski and Cheryl McCormick, ACS
Executive Director
4:30 Formal Sessions Adjourn.
Unmoderated Open Discussion Opportunity

A FOND FAREWELL FROM YOUR PRESIDENT

Dear Friends of Whales,

Thank you for allowing me to serve as president of the Monterey Bay Chapter of the American Cetacean Society for the last two years. It has been a gratifying experience to work with all of you and to feel the passion for cetaceans and marine life that you exude.

Please welcome Randy Puckett as the 2011-2012 chapter president, taking the helm once again in January. Randy was the first president of the Monterey Bay Chapter when it was chartered in 1985.

Every board member has contributed to the success of ACS Monterey Bay. Bob Mannix

and Alan Baldrige have provided exemplary programs for our monthly meetings. Alan and Sheila Baldrige are instrumental to the process of requesting and awarding research grants, with at least three research grants funded by ACS/MB per year. Treasurer Katy Castagna is commendable for her work getting grants sent to students in Mexico, setting up and maintaining a separate Viva Vaquita bank account, in addition to her astute management of ACS/MB income, expenditures and taxes. Thanks to Tony Lorenz and Mary K. Paul for the quality and content of the monthly newsletter, *Soundings*. Appreciation goes to Evelyn Starr for providing us with our website, www.starrsites.com/acsmb/ Sally Eastham works tirelessly to keep membership up to date. Our chapter membership is around 160, with renewals and new memberships vital for growth. Sally and Barbara Oliver both spend time every month getting the newsletters from the printer to the post office and into members' hands. Thank you. Tony Lorenz does outstanding work organizing the two whalewatching fundraisers held each year, as well as the National Conference trips. Thank you to Jerry Loomis for his narrative on the whale watching trips and for serving as National member-at-large Thank you to education co-chair Rene Rodriguez (with wife Morgen Puckett) for inviting 5th graders from Martin Luther King Academy in Salinas each year to accompany us on the January Gray Whale trip. Many thanks to secretary Gina Thomas, who provides meticulous minutes from the quarterly board meetings, and conservation chair, Carol Maehr, who monitors whale conservation issues and delivered a powerful presentation to President Obama's Ocean Task Force on behalf of ACS/MB. I am also filled with gratitude for our two at-large board members, Dave Zaches and Art Haseltine. Both have been generous with knowledge and financial contributions and have brought a solid sense of purpose to the board.

Our chapter has benefitted from the support of Princess Monterey Whale Watching and Monterey Bay Whale Watch on Fisherman's Wharf throughout the years. We are grateful for their knowledge and generosity, and encourage

members to patronize those establishments when whale watching.

I'm filled with appreciation to the members who have worked our booth and represented ACS at events, particularly at the West Coast Whale Rally in May, 2010. Thank you to all who have contributed refreshments at our monthly meetings, too. If you are inspired to learn more about becoming a board member or officer with the Monterey Bay Chapter of the American Cetacean Society, please let me or another board member know.

The formation of the Viva Vaquita Task Force has been an important accomplishment for our chapter. We can only hope that our combined efforts with Mexico will help save the vaquita from extinction. Thank you to Randy Puckett for offering his scale model bronze vaquita sculpture as a fundraiser. His generous offer expires at the end of 2010, so please do consider a purchase to help the vaquita.



Here's wishing the wonderful members of the Monterey Bay Chapter of the American Cetacean Society a very happy holiday season. Thank you for your support! See you at the December 2nd meeting.

- Diane Glim

VAQUITA VANISHING

By Stefanie Kaku

Several days ago I attended a meeting of the local chapter of the American Cetacean Society. The featured speaker was Chuck Davis, a well-known and respected marine photographer/cinematographer. Before the main event, Alan Baldrige, board member of the ACS Monterey Bay and marine conservationist, was asked to say a few words about sightings and happenings of interest to the group. The local ACS has taken a special interest in promoting

awareness and conservation of the vaquita (*Phocoena sinus*), a porpoise found only in a relatively small area in the far northern part of the Sea of Cortez. Although it is one of only 6 species of true porpoises, and has the distinction of being the smallest cetacean, I'm not even sure I'd ever been aware of its existence until I saw it mentioned on the ACSMB website perhaps 5 months ago. That evening Mr. Baldrige spoke again about the critical situation of this marine mammal. It could be extinct in 12 months.

12 months? I'd consciously heard of it an eyeblink ago, maybe half that time. 12 months.

Heartbreaking and stark, his words tolled in me like the oddly mournful and ominous sound of a buoy in heavy fog, sounding alarmingly closer than it is. I had a familiar hitch in my throat; my heart felt small and tight. Now, getting me to cry is not much of a challenge but this time I held on and swallowed hard. And yet this seems to be something actually worth grieving.

The Mexican government has taken an unprecedented interest in saving this species; there is a sanctuary now for the vaquita but the refuge is smaller than the actual range of the animal. The main threat to the vaquita is the use of gillnets by local fishers. Gillnets are notorious for the proportion of bycatch, a strangely neutral term for an appalling waste. The vaquitas become part of that haul as they become entangled in the nets and quickly drown. Counts of vaquitas currently are 100-250; estimates of vaquitas caught in nets range from 40- 85 annually. Females of breeding age produce only up to one offspring every other year and the population has declined more than 55% in ten years. There is no accurate count of vaquitas that are killed as many of them are thrown back into the sea once

drowned; some fishers don't want the refuge extended. There is no accurate count of live vaquitas either as they are not only rare but elusive. Just by the numbers, saving the vaquita is a colossal challenge.

Technically the vaquita sanctuary is a no-fishing zone; however, not only is it difficult to enforce but porpoises are wild animals and don't acknowledge the invisible safe boundary. The fishers are trying to bring in commercially viable catch, especially shrimp. Shrimp is the most lucrative commercial seafood worldwide, and much of it is bound for the U.S. market. It is the demand of the consumer to buy, serve and eat the tasty little crustaceans that drives the shrimp industry, which in this case is of the cottage variety of individual fishers who use the nets which drown the porpoises. And we must know by now that sheer environmental moral outrage does not always work to make an industry change course. If it did, why after several decades of awareness and protest are we still hearing the same unsupportable excuses from virtually the same countries who continue to hunt whales? The quickest and most effective pressure nowadays seems to be the power of consumerism. Now in the vaquita's situation these are local fishing people who are trying to survive and feed their families; they are not commercial fishing companies running large shrimping operations as observed in 1940 by Ed Ricketts and John Steinbeck,

"...There were twelve boats in the combined fleet including the mother ship, and they were doing a very systematic job, not only of taking every shrimp from the bottom, but every other living thing as well." As lamented in *The Log from the Sea of Cortez*, published 1951.

Today there are groups working with the governments of the concerned nations involved to offer alternatives; so far these alternatives are not providing a satisfactory solution for the fishers and so the use of gillnets continues. However, unlike the vaquita, humans can adapt.

In the meantime, it may seem ridiculous but I am going to stay away from eating shrimp. It may seem especially fruitless as I already consume very little since I know that most are not

brought to market in an ecologically sound manner. An argument can easily be made that it would be more beneficial to find out the origin of the shrimp on the menu and order it if it is from a "good" source, and so use my hard-earned dollars to encourage sustainable fishery practices. But how do I know that they are really the eco-friendly carefully harvested domestic variety, and not imported gillnet caught shrimp from Mexico? Do I ask to see a prawn passport? Should my dinner decision become Checkpoint Charlie? To me it seems that reducing overall consumption and demand is ultimately more sound. And so for the time being, no shrimp-stuffed tofu or seafood combo wraps for me. Maybe I'll just eat more peanuts. As far as I know, they're not a particularly destructive crop. As well as being a cheap and frequently domestically-grown source of protein, fat, carbohydrates and fiber, they are in fact legumes, which means they are happily industrious little nitrogen-fixers. For me, giving up shrimp is a small sacrifice. I am, after all, an omnivore.

Do I really think that my gesture will have an impact? Not really. Ultimately it is a not a solution but a solo effort to avoid possibly causing more harm. It may also partially be a distraction from other more snightmarish environmental woes competing for attention in my shrinking brain. The result I do intend is that every time I think of ordering shrimp, I think of the vaquita; maybe I'll donate the few dollars I saved not ordering it. Or maybe I'll talk to someone about the little desert porpoise on the brink. But I, like the fishers, can exercise free will and practice adaptation. The vaquita cannot. It can only be.

And even then, soon it will probably cease even that.

Does it really matter so much, losing one particular species of porpoise? In the bigger picture maybe it's a minor loss, an extinctive footnote. But if we can't save a type of animal that seems to be universally recognized as not only one of the most beautiful, but also one of the most intelligent, what does that say about our other more encompassing environmental prospects?

This summer I had the opportunity to go on a whale watching trip. Despite my history of motion sickness I decided to go mostly because at the time, and still as I write this, there was an unusually large number of humpback and blue whales locally. On this trip I saw my first living, breathing blue whale. As it calmly went about its way as our boat came closer, I was overwhelmed and could not even take out my camera, unwilling to miss even a second of staring through tears behind sunglasses. As a kid learning about whales decades ago, I did not think I'd ever see a blue whale. Their rarity seemed like extinction was inevitable in my lifetime. And yet here they are, feeding in the bounty off our beautiful coast. For the locals living on shore near the waters of the vaquita, some believe the animal is a myth as they've never seen one.

So we still have the blue whales and we still marvel. But how many other named and unnamed species have we lost? How many more are we willing to allow vanishing? It seems the popular stance to showcase the danger of destroying our planet as it affects us, those in charge of the destruction. But does it really come down to "what's in it for me?". Or does the planet and its mysteriously intricate, intimately connected web deserve to live in its own right? Do we sacrifice the vaquita because we don't care enough not to, or do we try to protect it not because maybe it has some as yet unknown benefit to our survival but instead just because it is? Porque la vaquita vive.

So I'm taking a stand. I'm putting money in the donation can and sending it online. And I'm becoming emotionally allergic to shrimp. Naïve? Yes. Pointless? Probably. Symbolic? Absolutely. And I'm doing it anyway.

¡Viva la vaquita, y viva la vida!

© Stefanie Kaku, August 2010---- haverstef@hotmail.com
For more information: www.vivavaquita.org;
www.vaquita.tv; www.cetosresearch.org/research/vaquita/vaquita.htm

SAYING NO TO SHARK-FIN SOUP, AND TRADITION

By Larry Pynn, (Vancouver Oct 25, 2010)
The dangerous allure of shark-fin soup and the grassroots movement to combat it

Tai Cheng's father Derick, a prominent Chinatown businessman, was okay with not serving shark-fin soup at his son's wedding.

But Cheng's mother, Roxy, had her doubts.

Shark-fin soup is traditional at such banquets. Failure to serve it could send the wrong message to the 680 guests assembling at the Floata Seafood Restaurant on Keefer Street.

"She was worried about the backlash, the stigma, the talk in the community," Cheng explained.

As it turns out, nobody complained and everyone was forced to take a fresh look at the ecological impact of their culture — in this case, the global decline in shark populations.

"There is no purpose other than the fact it's a sign of wealth," said Cheng's bride, Julianna Paik, who's of Korean descent. "Ask yourselves why you're choosing to serve it.

Understand all aspects of that dinner and make a conscious choice, not just because of tradition or to show that your family is wealthy."

Not far away, restaurant manager Daniel Chow sat down with The Vancouver Sun as the mid-week luncheon crowd eased.

"In my opinion, it's about time to stop it," he said of the global slaughter of sharks. "Sharks are the top of the food chain. Once no shark, the ocean will lose the balance."

His boss is sympathetic, but not quite as committed. He doesn't want the restaurant's name published in the paper.

Chow understands the desire to meet the demands of customers.

Shark-fin soup is also a lucrative item that restaurants cannot easily dismiss.



“It’s the meaning of high class,” he explained. “The ancient Chinese people, they used to do it. They’d like to eat something that’s hard to get. Like shark fin — they have to get the shark to get out the fin. Once they’re used to it, ‘Oh, I’m rich, I can afford to eat something expensive.’”

The long-standing view at wedding banquets: “If you don’t serve shark fin, that means no respect.”

SHARKS IN DECLINE

Yet the impact is enormous. Shark populations are in free fall around the globe, with as many as 73 million thought to be traded annually for their fins, and Canada’s Asian communities are contributing to the conservation crisis.

Scientists warn that the removal of a top predator will have serious ecological consequences, and they appreciate grassroots efforts within the Chinese community to make a difference.

“We have to stop that,” asserted Dennis Thoney, director of animal operations for the Vancouver Aquarium. “We need to educate Asians about shark-fin soup. The fishery just cannot handle that.”

Chow’s restaurant charges \$25 for an individual bowl, although one can pay many times that, depending on the quality and the size of the fin. Herbal shops in Chinatown can charge more than \$600 a pound for better fins.

During cooking, shark fin becomes long and transparent, like vermicelli. “It doesn’t have any taste,” Chow said, noting the soup base is the “soul of the soup” with ingredients such as pork, chicken bones and ham (for the salt).

Larger and thicker fins fetch the highest price, especially the dorsal fin on the back of the shark.

“It’s getting more popular,” Chow said. “Chinese society is getting rich, so many occasions.”

The demand led the Green Party of Canada, in 2007, to call for a ban on the import of shark fins. Shark Truth, an organization founded

by Simon Fraser University business graduate Claudia Li, supports that ban in hopes of putting an end to shark-fin soup.

Nick Dulvy, co-chair of the shark specialist group for the International Union for Conservation, supports efforts within the Asian community to educate consumers about the impact of their actions.

“That’s the way forward,” he said. “There is a sense that people in the Chinese community want the opportunity to do something about the consumption of shark-fin soup.”

Chow said he asks, but does not push, customers to consider an alternative to shark-fin soup when planning a wedding banquet.

“It’s a first step,” he said. “If they’re open to the idea, I’ll suggest something else.”

Options include other expensive soups, perhaps one with rare mushrooms or another type of seafood, such as fish maw (swim bladder). “Find a substitute to shark fin ... otherwise it won’t be stopped.”

Some young Asian couples are taking a position on their own against shark-fin soup at their weddings.

“I feel proud when they do that,” Chow said. “But it’s still small. You’ll have to wait for a certain long time to change peoples’ minds.”

LACK OF ACTION

International government action to save sharks has proven largely futile.

Even the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) achieves limited success.

“The problem with CITES is that countries that have an enormous vested interest in the economics of fisheries hold sway,” Dulvy said.

“It comes down to who has the most influence and power and carry the most votes on the day. At the moment, while many countries are concerned about pelagic sharks, the reality is that the bulk of countries are not voting to list sharks under CITES.”

A study published online recently in *Progress in Oceanography* by Peter Jacques of the University of Central Florida, found that globally

active shark management is “nearly non-existent,” while pressures on sharks, through practices such as finning, have increased over the past 20 years.

Jacques noted that “there are blocs of countries working actively against shark listings in CITES, and intense financial interests for fins at stake in legal and illegal markets, where organized crime syndicates have infiltrated the industry, complicating the geopolitical possibility of effective conservation.”

Dulvy, who also is Canada research chair in marine biodiversity and conservation at SFU, said oceanic sharks are often caught as “collateral” damage of our desire to eat bluefin tuna and swordfish.

“Instead of keeping the shark, they cut off the fins and throw the live shark back overboard. The business that runs the fishing fleet is making money from tuna and swordfish, but the fishermen on the boats are supplementing their salary by keeping these fins. They’re making a bit of money on the side ... trying to make a living like you or me.”

More countries are banning the inhumane and wasteful practice of finning and requiring fishermen to at least bring the whole shark back to the dock; that way, officials have a better idea of the species and numbers being impacted.

Ernie Cooper has closely followed the international trade in wildlife for more than 20 years as Canada’s first wildlife inspector with Environment Canada, and now as a wildlife trafficking specialist with the World Wildlife Fund.

At the latest CITES meeting in March 2010 in Qatar, the U.S. sought to list hammerhead and oceanic white-tip sharks under Appendix II, which would require export permits and the assurance of government that the trade is not detrimental to the species.

But international politics combined with poor attendance due to the high costs of visiting the Gulf state conspired against the interests of conservation, Cooper said.

Japan did its homework and lined up enough opposition to defeat a more contentious proposal that would have banned the commercial

trade in Atlantic bluefin tuna, a species highly valued for sushi but in decline.

“That was the real battle,” Cooper said. “Japan, as the primary market, pulled out all the stops to ensure the bluefin tuna proposal didn’t pass.”

Libya called for a vote early in the discussion — which every country has the right to do — and limited discussion on the merits of the proposal. “It’s politics. Let’s just say Libya did what it was supposed to do.”

The vote: 72 out of 129 CITES members voted against the trade ban, 43 voted in favour, 14 abstained. A two-thirds majority is needed to pass under CITES rules. CITES has 175 member countries.

Once the bluefin tuna listing was defeated, the sharks fell as well. Proposals by the European Union to list the spiny dogfish and porbeagle shark also failed, with Canada opposing listing of the dogfish but supporting porbeagle.

To date only three shark species have been listed under CITES Appendix II: the basking shark and whale shark are killed mainly for their fins and meat, and the great white shark for its jaws and teeth.

Even so, the giant retail website, eBay, brazenly lists great white shark teeth for sale, mostly from China, but also the U.S.

“When it comes to the wildlife trade, it’s always about the money,” confirmed Cooper, describing Vancouver as a “major entry point” for Asian wildlife products entering Canada.

THE AWE OF WILD SHARKS

As for newlyweds Paik and Cheng, both Vancouver lawyers, their conservation journey only began at their wedding.

By committing not to serve shark-fin soup, they entered and won a Shark Truth contest that took them to Mexico’s Mayan Riviera near Cancun last August. There, they snorkelled with whale sharks — the largest fish in the ocean, at well over 10 metres — that had gathered to feed on plankton.

“It was overwhelming,” Paik said. “You see them coming up through the darkness with

their mouth open. They're scary looking because of the image we have of Jaws, but they're harmless, very gentle, and so beautiful."

Cheng was unfazed by the fact the sharks were big enough to swallow him.

"It was very calming to be in the water with them. They were just minding their own business."

canada.com/business/Saying+shark+soup+tradition/3720005/story.html

KILLER WHALES ENDANGER OTTERS IN SOUTHWEST ALASKA, REPORT SAYS

RECOVERY: 5-year plan aims to ease human, natural threats.

By Mary Pemberton (The AP Oct 15th, 2010) A report by government scientists identifies killer whales as the No. 1 reason there are so few sea otters in southwest Alaska.

The U.S. Fish and Wildlife Service's proposed five-year, \$15 million recovery plan for sea otters in the Aleutian Islands considered a slew of possible reasons for the perilously low numbers found in some areas.

The draft recovery plan released this week said there is only one threat considered to have high importance: predation by killer whales, with sharks perhaps being a factor.

Nearly all other factors, including climate change and impacts from humans, were considered to have low importance.

The report said there may be "few actions that can be taken" to mitigate predation by killer whales. "But the sea otter recovery program should search for solutions and be open to novel ideas," the report said.

The southwest Alaska sea otter population, which has declined by more than 90

percent in some areas, has been listed as threatened since 2005. In 1976, there were an estimated 94,050 to 128,650 sea otters. Now, there are an estimated 53,674 animals, and perhaps fewer.

The recovery plan does identify some other potential threats to sea otters, most importantly the role of disease and whether there is adequate oil-spill response in southwest Alaska.

While the report clearly points to killer whales, it also highlights other big concerns, said Brendan Cummings, senior counsel with the Center for Biological Diversity.

"If you had a tanker break up in the Aleutian chain, it could be absolutely catastrophic for sea otters," he said.

One-hundred years ago, fur harvesting nearly wiped out the world's population of northern sea otters. By the time international treaty protection was granted in 1911, there were fewer than 1,000 sea otters in 13 remnant colonies. They eventually repopulated much of their original habitat.

The southwest Alaska population began its steep decline

in the mid-1980s.

If fully implemented, the recovery plan would cost \$15 million over the next five years. There is a 120-day public comment period.

The plan calls for dozens of actions in five units stretching along more than 1,500 miles of shoreline, from the western Aleutian Islands to Kodiak and the Alaska Peninsula.

Actions include monitoring the population, protecting habitat, managing the impact of human uses and protecting sea otters from human as well as natural threats.



The plan also considers potential threats from biotoxins, contaminants, food limitations, commercial fishing, the subsistence harvest, loss of habitat and illegal take.

"Actions should be taken wherever possible to mitigate threats from any source, and thereby minimize mortality and maximize productivity," the report says.

FIRST GENETIC EVIDENCE FOR LOSS OF TEETH IN THE COMMON ANCESTOR OF BALEEN WHALES

ScienceDaily (Oct. 1, 2010) — In contrast to a toothed whale, which retains teeth that aid in capturing prey, a living baleen whale (e.g., blue whale, fin whale, humpback, bowhead) has lost its teeth and must sift zooplankton and small fish from ocean waters with baleen or whalebone, a sieve-like structure in the upper jaw that filters food from large mouthfuls of seawater.

Based on previous anatomical and fossil data studies, scientists have widely believed that both the origin of baleen and the loss of teeth occurred in the common ancestor of baleen whales about 25 million years ago. Genetic evidence for these, however, was lacking.

Now biologists at the University of California, Riverside provide the first genetic evidence for the loss of mineralized teeth in the common ancestor of baleen whales. This genomic record, they argue, is fully compatible with the available fossil record showing that the origin of baleen and the loss of teeth both occurred in the common ancestor of modern baleen whales.

"We show that the genetic toolkit for enamel production was inactivated in the common ancestor of baleen whales," said Mark Springer, a professor of biology, who led the research. "The loss of teeth in baleen whales

marks an important transition in the evolutionary history of mammals, with the origin of baleen laying the foundation for the evolution of the largest animals on Earth."

Previous studies have shown that the dental genes enamel, ameloblastin, and amelogenin are riddled with mutations that disable normal formation of enamel, but these debilitating genetic lesions postdate the loss of teeth documented by early baleen whale fossils in the rock record.

Springer's team focused on the evolution of the enamelysin gene, which is critical for enamel production in cetaceans and other mammals. Cetacea includes toothed whales (e.g., sperm whales, porpoises, dolphins) and baleen whales.



They found that the enamelysin gene was inactivated in the common ancestor of living baleen whales by the insertion of a "transposable genetic element" -- a mobile piece of DNA.

"Our results demonstrate that a transposable genetic element was inserted into the protein-coding region of the enamelysin gene in the common ancestor of baleen whales," Springer said. "The insertion of this transposable element disrupted the genetic blueprint that provides instructions for making the enamelysin protein. This means we now have two different records, the fossil record and the genomic record, that provide congruent support for the loss of mineralized teeth in the common ancestor of baleen whales."

The study, which appeared online in the *Proceedings of the Royal Society B: Biological Sciences*, included eight baleen whale species and representatives of all major living lineages of

Cetacea. The researchers examined protein-coding regions of the enamelysin gene for molecular cavities that are shared by all baleen whales.

Next, the researchers plan to piece together the complete evolutionary history of a variety of different tooth genes in baleen whales to provide an integrated record of the macroevolutionary transition from ancestral baleen whales that captured individual prey items with their teeth to present-day behemoths that entrap entire schools of minute prey with their toothless jaws.

Springer was joined in the study by UC Riverside's Robert W. Meredith, a postdoctoral associate and the first author of the paper; John Gatesy, a professor of biology; and Joyce Cheng, an undergraduate researcher.

The National Science Foundation supported the study through grants to Springer and Gatesy.

SIGHTINGS compiled by Monterey Bay Whale Watch. For complete listing and updates see www.gowhales.com/sighting.htm

Date	#	Type of Animal(s)
10/27 p.m.	3	Humpback Whales
10/27 a.m.	3	Humpback Whales
	25	Pacific White-sided Dolphins
	14	Risso's Dolphins
	15	Northern Right Whale Dolphins
10/26 a.m.	1	Blue Whale
	200	Pacific White-sided Dolphins
	150	Risso's Dolphins
	20	Northern Right Whale Dolphins
10/25 a.m.	10	Risso's Dolphins
10/24		Poor weather
10/23 p.m.	3	Humpback Whales (breaching)
10/23 a.m.	5	Humpback Whales
	20	Risso's Dolphins
	1500	Northern Right Whale Dolphins
10/22 p.m.	2	Blue Whales
	150	Risso's Dolphins
	20	Northern Right Whale Dolphins
10/22 a.m.	1	Blue Whale
	2300	Risso's Dolphins
	200	Northern Right Whale Dolphins
	2	Blue Sharks
10/21 p.m.	5	Blue Whales
10/21 a.m.	3	Humpback Whales
	15	Risso's Dolphins
10/20 p.m.	3	Blue Whales
10/20 a.m.	2	Humpback Whales

	200	Risso's Dolphins
10/19 p.m.	1	Blue Whale
	34	Risso's Dolphins
	2	Blue Sharks
10/19 a.m.	150	Pacific White-sided Dolphins
	400	Risso's Dolphins
	400	Northern Right Whale Dolphins
10/18	5	Blue Whales
	150	Risso's Dolphins
10/17 p.m.	3	Humpback Whales
	8	Killer Whales
10/17 a.m.	1	Humpback Whale
	4	Blue Whales
	6	Killer Whales
10/16 p.m.	10	Humpback Whales
10/16 a.m.	23	Humpback Whales
	350	Risso's Dolphins
	1000	Northern Right Whale Dolphins
10/15 p.m.	5	Humpback Whales
10/15 a.m.	1	Humpback Whale
	1	Blue Whale
	20	Risso's Dolphins
10/14 p.m.	2	Humpback Whales (breaching)
10/14 a.m.	1	Humpback Whale
	3	Blue Whales
	400	Risso's Dolphins
	20	Northern Right Whale Dolphins
	2	Harbor Porpoise
10/12 a.m.	13	Humpback Whales
	2	Blue Whales
	40	Risso's Dolphins
10/11 p.m.		Rough sea - no trip
10/11 a.m.		Rough sea - no trip
10/10 p.m.		Rough sea - no trip
10/10 a.m.	9	Humpback Whales
10/9 p.m.	9	Humpback Whales
	1	Ocean Sunfish
10/9 a.m.	3	Humpback Whales
	70	Risso's Dolphins
10/8 a.m.	1	Blue Whale
	5	Killer Whales
	60	Risso's Dolphins
10/7 p.m.	6	Humpback Whales
	5	Killer Whales
	30	Risso's Dolphins
	1	Leatherback Sea Turtle

BOOK RECOMMENDATIONS

Marine Mammal Ecology and Conservation. A Handbook of Techniques. Oxford University Press. Edited by Ian L. Boyd, W. Don Bowen and Sara J. Iverson

The Wave: In Pursuit of the Rogues, Freaks, and Giants of the Ocean By Susan Casey (Author of The Devil's Teeth)

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