

Soundings



American Cetacean Society- Monterey Bay Chapter

March 2013

PO Box H E, Pacific Grove, CA 93950

AMERICAN CETACEAN SOCIETY- MONTEREY BAY CHAPTER

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

(Across from the American Tin Cannery Outlet Stores)

Meeting is open to the Public

Date: Thursday, March 28, 2013 Time: 7:30 PM.

PLEASE JOIN US AT 7:00 FOR REFRESHMENTS

Speaker: Virginia Bria and Art Haseltine

Subject: Diving with Beluga Whales

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In July 2011, Virginia Bria, Art Haseltine, and three other intrepid divers ventured to the town of Churchill, Canada – on the shores of Hudson Bay. Their primary goal was to take underwater photographs of the white beluga whales (ghosts of the sea). Their presentation will show the results of this underwater photographic challenge. Additionally, they will share an overview of Churchill, Hudson Bay, polar bears, dog sledding, and an excursion onto the subarctic tundra.

Virginia Bria has studied art and photography at Pratt Institute, NY. A lifelong passion for photography and the marine environment lead naturally to diving and underwater photography. Virginia's photos are used by several environmental NGOs, and she is past president of the Northern California Underwater Photographic Society. Virginia travels extensively, and resides in Marin County, California. (www.bellasirenaimages.com)

Art Haseltine is a marine biologist and underwater photographer. He is retired from the California Department of Fish and Game, where he worked with shellfish aquaculture on the Big Sur coast. Art makes black-and-white prints of underwater marine life while remaining loyal to the west coast tradition of fine-art photography. The white beluga whales have been high on his bucket list. Art has lived in Carmel since 1969. (www.fotosea.com)

CALENDAR

Every Monday in April: Viva Vaquita benefit at Hula's Island Grill, 622 Lighthouse Ave, Monterey. 10% of all purchases benefits the most endangered vaquita porpoise. Open at 4 on April 1,8,15, 22 & 29. vivavaquita.org

April 20-21: Moss Landing Marine Lab Open House 2013. Activities will include lectures, demonstrations, open labs, arts and crafts, puppet shows, SLEWTHS sea lion demo, and much more. For a complete schedule of activities go to www.mlml.calstate.edu/

April 27: Monterey Bay National Sanctuary 2013. Sanctuary Currents Symposium. "Change: Observations on the Shifting Ecology of the Sanctuary." California State University Monterey Bay

June 24-30: Marine Mammal Courses at Moss Landing Marine Laboratory. Techniques and Theories of Animal Training. Bio 348 . For a complete class description and further info please contact Dr. Jenifer A. Zeligs at: slewths.mlml.calstate.edu/

June 29, 9am-1:30pm: ACS Monterey Bay Chapter Summer Whale Watch Fundraiser. "Searching For Natures Giants." We will be searching the biggest animal to have ever lived, the Great Blue Whale. We will also be searching for humpback, fin, minke, and killer whales. Albacross and numerous seabirds are also likely to be encountered.

For reservations and Info call: 831-901-7259

July 18-24: Marine Mammal Courses at Moss Landing Marine Laboratory. Working With Marine Mammals: Bio 347. For a complete class description and further info please contact Dr. Jenifer A. Zeligs at: slewths.mlml.calstate.edu/**G**

GENETIC STUDY PURSUES ELUSIVE GOAL: HOW MANY HUMPBACKS EXISTED BEFORE WHALING?

From Science Daily

Published: 2/13/13

Scientists from Stanford University, the Wildlife Conservation Society, the American Museum of Natural History, and other organizations are closing in on the answer to an

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important conservation question: how many humpback whales once existed in the North Atlantic?

Building on previous genetic analyses to estimate the pre-whaling population of North Atlantic humpback whales, the research team has found that humpbacks used to exist in numbers of more than 100,000 individuals. The new, more accurate estimate is lower than previously calculated but still two to three times higher than pre-whaling estimates based on catch data from whaling records.

Known for its distinctively long pectoral fins, acrobatics, and haunting songs, the humpback whale occurs in all the world's oceans. Current estimates for humpback whale numbers are widely debated, but some have called for the level of their international protection to be dropped.

The study appears in the recently published edition of Conservation Genetics. The authors include: Kristen Ruegg and Stephen Palumbi of Stanford University; Howard C. Rosenbaum of the Wildlife Conservation Society and the American Museum of Natural History; Eric C. Anderson of the National Marine Fisheries Service and University of California-Santa Cruz; Marcia Engel of the Instituto Baleia Jubarte/Humpback Whale Institute, Brazil; Anna Rothschild of AMNH's Sackler Institute for Comparative Genomics; and C. Scott Baker of Oregon State University.

"We're certain that humpback whales in the North Atlantic have significantly recovered from commercial whaling over the past several decades of protection, but without an accurate size estimate of the pre-whaling population, the threshold of recovery remains unknown," said Dr. Kristen Ruegg of Stanford University and the lead author of the study. "We now have a solid, genetically generated estimate upon which future work on this important issue can be based."

"Our current challenge is to explain the remaining discrepancy between the historical catch data and the population estimate generated by genetic analyses," said Dr. Howard Rosenbaum, study co-author and Director of the Wildlife Conservation Society's Ocean Giants Program. "The gap highlights the need for continued evaluations of

whale populations, and presents new information informing the debate and challenges associated with recovery goals."

"We have spent a great deal of effort refining the techniques and approaches that give us this pre-whaling number," said Dr. Steve Palumbi of Stanford. "It's worth the trouble because genetic tools give one of the only glimpses into the past we have for whales."

Reaching some 50 feet in length, the humpback whale was hunted for centuries by commercial whaling fleets in all the world's oceans. Humpbacks had predictable migration routes and were reduced to several hundred whales in the North Atlantic. The global population was reduced by possibly 90 percent of its original size. The species received protection from the International Whaling Commission in North Atlantic waters in 1955 due to the severity of its decline.

Since that time, the humpback whales of the North Atlantic have made a remarkable comeback; experts estimate the current size of the North Atlantic's humpback whale population to be more than 17,000 animals. North Atlantic humpback whales are now one of the best-studied populations of great whales in the world and the mainstay of a multi-million dollar whale-watching industry.

But estimating the number of whales that existed prior to commercial whaling is a far more difficult problem, critical in determining when the total population has recovered. Historical catch data from the logs of whaling vessels suggest a population size between 20,000-46,000 whales, but the current genetic analysis indicates a much larger pre-whaling population. The results of the genetic analysis indicate that the North Atlantic once held between 45,000 -- 235,000 humpback whales (with an average estimate of 112,000 animals).

A previous study using the mitochondrial DNA of humpbacks in the North Atlantic suggested a higher pre-whaling population size; an average of 240,000 individuals. To increase the accuracy of the current analysis, the team measured nine segments in the DNA sequences throughout the genome (as opposed to just one DNA segment used in the previous study).

Palumbi, who participated in the first humpback genetic analysis, added: "The International Whaling Commission reviewed the results of the first study and recommended we improve the method in six specific ways. We've done that now and have the best-ever estimate of ancient humpback populations."

Scott Baker, Associate Director of Oregon State University's Marine Mammal Institute and a co-author said: "These genetic estimates greatly improve our understanding of the genetic diversity of humpback whales, something we need to understand the impact of past hunting and to manage whales in the uncertain future."

The research team analyzed genetic samples from whales in the North Atlantic as well as the Southern Hemisphere. Southern Atlantic whales were used to answer one of the six IWC questions: was there intermixing of whale populations across the equator? The samples were analyzed by sequencing specific regions of DNA in known genes. By comparing the genetic diversity of today's population to the genetic mutation rate, Ruegg and colleagues could estimate the long-term population size of humpbacks. They also showed no substantial migration of humpbacks whales across the Equator between the Southern and Northern Atlantic, and no movement from the Pacific to the Atlantic. The team recently used the same techniques to estimate pre-whaling numbers for the Pacific gray whale and the Antarctic minke whale. A difference of two to three times also was recorded between the genetic and catch estimates for the grey whale population, but were exactly on target for the Antarctic minke whale, which has not been extensively hunted.

This work was supported by a grant from the Lenfest Ocean Program.

FOSSILS REVEAL FOUR NEW SPECIES OF ANCIENT WHALES

By Breanna Draxler

Published: 2/19/13

Paleontologists in California announced this week that fossils excavated in the early 2000s represent four new species of ancient whales. The toothed baleen whales apparently

stuck around longer than scientists once thought, and they may hold clues about how and when whales evolved from toothy giants to the baleen-equipped beasts we see today.

It all began with a road-widening project that was slowly making its way through a rock outcrop in California's Laguna Canyon in 2000. During such construction work the state requires paleontologists to be on site just in case they stumble upon something interesting. In this case they found something interesting indeed: hundreds of exciting fossilized sea creatures, 30 whale skulls among them.

Four new species of whale were among the findings that paleontologist Meredith Rivin presented at the AAAS annual meeting on Sunday, as reported by ScienceNow. The whale bones date back 17 to 19 million years, upending scientists' previously held theory that these species were extinct five million years prior.

Rivin said these fossils represent the most recent known whales that still had teeth, as opposed to the baleen we see in whales' mouths today. These newfound species are not a direct ancestor of modern whales, but they are part of the same suborder and were probably contemporaries of baleen whales' predecessors.

The California find wasn't the first time scientists happened upon fossilized whale skeletons during road construction, either. In a similarly fortuitous find along Chile's Pan-America highway in 2001, crews were excavating an ancient shallow Chilean tidal flat when they came across 45 whale skeletons.

Since the highway crew was anxious to move forward with construction, the scientists digitized the fossils in place to create 3-D models of the skeletons before they were paved over.

"This is one of those examples of a technological answer to a scientific question," said Nick Pyenson, one of the researchers with the Smithsonian National Museum of Natural History, in a AAAS press conference on Sunday. "This is, I think, in many ways, the next big thing for being able to document the natural world."

CALIFORNIA'S LEATHERBACKS DECLINING BY 6 PERCENT PER YEAR

By Teri Shore

Published: 2/26/13

Western Pacific leatherback sea turtles that feed on jellyfish along the U.S. West Coast are part of a population that continues to slide toward extinction. New science published today chronicles a massive 78 percent decline in the number of leatherback nests between 1984 and 2011 at a key nesting beach in Indonesia.

Researchers from the University of Alabama working with Indonesian researchers predicted that the leatherbacks could go extinct in 20 years if new conservation measures are not immediately implemented. About 75 percent of Western Pacific leatherbacks nest on the Bird's Head Peninsula in Papua, Indonesia. Anywhere from 100 to 300 swim the California coast every year, about 16 percent of the population, according to recent estimates.

The sea turtles need full protection of nesting beaches as well as protection from longline, drift gillnet and other commercial fisheries that snag and kill them in the Pacific Ocean.

The new science provides additional evidence for not allowing swordfish gillnetters along the California coast to fish in the Pacific Leatherback Conservation Area, which would increase captures of these disappearing turtles. The Pacific Fishery Management Council will vote on whether to allow drift gillnetters to capture leatherbacks as bycatch when fishing for swordfish along the California coast at its March 10 meeting in Tacoma, Washington.

GREAT WHITE SHARKS OFF CALIFORNIA GAIN MORE PROTECTION

By Steve Gorman

Published: 3/1/13

Great white sharks off the coast of California gained new protection on Friday as regulations took effect designating them candidates for listing under the state's Endangered Species Act.

The world's largest predatory fish, whose fossil record by some estimates dates back some 16 million years, has been off-limits to commercial and sport fishing under California law since 1994.

But great whites, particularly as juveniles, are still snared as unintentional "bycatch" in gill-net fishing for halibut, swordfish and white sea bass off California and Mexico's Baja Peninsula. Such bycatch, or also known as incidental taking, has been unrestricted.

Under the sharks' new status, gill-net fishermen will be required to obtain special state permits to allow bycatch of great whites but on a restricted basis.

The permits are likely to entail limits on the amount of time gill-nets can be in the water, where they can be placed and how many sharks can be caught before fishing is ordered halted, state Fish and Wildlife Department biologist Traci Larinto said.

Violations would be treated as criminal misdemeanors, but it was not yet clear what penalties such an offense would carry.

Before Wednesday, there were no limits on bycatch and no penalties for incidental killing of great whites, though fishermen were supposed to throw surviving sharks back or turn them over to scientists studying the species.

The five-member California Fish and Game Commission voted unanimously on February 6 to name the great white shark as the first marine animal granted candidate designation under the state Endangered Species Act.

If formally listed, fishery management bodies would be required to develop measures to minimize bycatch. In the meantime, candidate status carries the same legal force as an actual listing.

The panel acted after environmental groups presented data collected in 2011 and 2012 showing adults and sub-adults of the species numbering fewer than 340 in two principal feeding grounds off central California and Baja.

The survey, the first tally of great whites along the U.S. Pacific Coast, provided no comparison numbers. Commercial fishing industry groups have questioned whether the tally, which may seem small, might actually reflect a healthy number for an apex marine predator, and whether it represents a growing or shrinking population.

Larinto cited recent data suggesting that more than half of young great whites snared in gill-nets survive. Of 94 caught inadvertently and turned over to scientists between 2006 and 2011, 55 were later released alive, most with research tags.

She said those figures probably represent the majority of great white bycatch off California south of Santa Barbara.

Zeke Grader, a spokesman for the Pacific Coast Federation of Fishermen's Associations, said fishermen and environmentalists share an interest in keeping great white populations healthy since they are vital to maintaining a balanced marine environment.

For instance, great whites are important in controlling the population of sea lions and other marine mammals that prey on salmon and other commercially valuable fish, Grader said.

Scientists consider the West Coast population of the shark to be genetically distinct and isolated from other great whites worldwide, thought to number several thousand off Australia, South Africa, New Zealand and in the Atlantic Ocean. Australia and South Africa have listed their great whites as endangered.

The Fish and Wildlife Department will recommend by next February whether great whites warrant formal listing, with the Fish and Game Commission making the final decision. Environmental groups also seek to list California's great whites under the U.S. Endangered Species Act.

While the great white is among three shark species most associated with attacks on humans - along with bull sharks and tiger sharks - such encounters are exceedingly rare. But great whites hold a special place in the popular imagination due mainly to their size, with some specimens known to have reached 20 feet in length and 5,000 pounds (2,268 kilograms).

FRED BENKO: 1939-2013

GREAT CAPTAIN OF THE *CONDOR EXPRESS*, FOUNDER OF SEA LANDING

By Hillary Hauser

Published: 3/8/13

Fred Benko — who built the Sea Landing center on the waterfront and captained the Condor and Condor Express to fame as the best whale-watching boats in the world — died Thursday morning, and it is impossible to think of the Santa Barbara Harbor without him. He was 73 years old.

It's also hard to think that Captain Fred won't be around all the numerous nonprofit events he attended and supported with his longtime wife, Hiroko. "Hello, you beautiful woman!" he'd say — to every woman — and, to his friends and acquaintances and fishermen and philanthropists alike, he'd give a strong handshake, a grin, and unique pleasantness.

Though a salty character most known for his association with the sea and the harbor, Fred was also a serious singer who toured Europe and helped form the Santa Barbara Civic Light Opera. He got his start at the age of 8 as a soprano in a boys' choir, performing at St. Paul's Episcopal Church in Akron, Ohio. He was paid a quarter for each rehearsal. He sang in Handel's *Messiah*, and did a lot of Bach — "Remember," he once said, "this was an Episcopalian church."

By the time he wrapped it up with the boys' choir at the age of 14, Benko had gone from soprano to bass, but he quit singing to play football. He once said his real singing got its start in the Marine Corps, but then he "got into the wrong crowd" and spent a couple of years on the beaches of North and South Carolina, Georgia, and elsewhere, "running around with a guitar and singing for beer."

He eventually landed in Washington, D.C., performing at the Cellar Door in Georgetown and, after that, the Bitter End in New York City. In 1963, he toured Europe as a solo act in a U.S. Food and Agriculture exhibition of American music. He was about to perform in Amsterdam when John F. Kennedy was assassinated. "They loaded us on a plane the next morning and brought us home," Benko recalled.

He met his first wife on that plane and ditched singing to become a corporate salesman as well as a father to a son, Matt, and daughter, Dody. During one of his West Coast trips, he discovered Santa Barbara and gave up sales for fishing. The Santa Barbara Harbor became his home.

In 1973, Captain Fred founded a charter service on the breakwater side of the harbor, where he moored the *Hornet* and other boats that took people sport fishing, out to the Channel Islands, and on evening coastal cruises. (From the beach, you could hear his party cruises from very far away!)

When Fred's business was moved to the other side of the

harbor, he wasn't so happy about it and worried that he'd lose business because all the tourists were on the breakwater, not "way over there." But away he went, to the other side, where he established *Sea Landing* with its own building and series of docks for his sport fishing boats *Hornet*, *Island Fox*, and *Sea Hawk*, which were moored next to an impressive fleet of dive boats and the original *Condor*, built in 1979. Many a boat captain today will say they got their training, sea legs, and love of the sea from Fred Benko.

In 1985, Captain Fred sold his boats and the *Sea Landing* itself to Glen Fritzier so that he could go into whale watching full-time. When submarine blasting was halted in the Santa Barbara Channel, the whales — grays, humpbacks, finbacks, and even the majestic blues — began to come back. Fred took the greatest pride in saying that anyone who wanted a near-guarantee to see a blue whale came to Santa Barbara for that purpose — and they did come from all over, including Japan, Germany, and Australia.

In 2002, Fred launched the new, modern *Condor Express*, and his business became even more renowned. Mat Curto, who came to work for Benko in 1995, became operations manager for the *Condor Express* cruise business, giving Fred more time to talk to people about marine life.

A few of us remembering Captain Fred now will see him in our minds' eye as Dick Deadeye in the Civic Light Opera performance of Gilbert and Sullivan's *H.M.S. Pinafore* at the Lobero Theatre. At the time, we all thought he'd been type-cast: the villainous pirate with the black eyepatch. "He's an ugly son-of-a-gun, and he has bad habits," said Benko of the role, with a big laugh. "He has a pessimistic attitude, so the crew hates him. At one point, they throw him overboard, but he crawls back on board again."

Ah, Fred! You have gone to the Great Overboard in the Sky, and you're not going to crawl back on board again. What can we do but wish you a bon voyage and hopes that your sailing is peaceful. We give our love to Matt and Dody, your sisters Kathy and Diane, your mother Dorothy (oh, those bridge games we played!), and of course Hiroko, who voyaged by your side as your wife for 29 years.

Hillary Hauser, a pianist as well as executive director of *Heal the Ocean*, once provided piano accompaniment for Fred's private solo performance of Schubert's "Ave Maria."

<u>SIGHTINGS</u> Compiled by Monterey Bay Whale Watch.					
Date	#	Type of Animal(s)			
			2/19 a.m.	1	Humpback Whale
			2/18 p.m.	12	Gray Whales (9 Southbound, 3 Northbound)
3/5 a.m.	11	Gray Whales			
	300	Long-beaked Common Dolphins	2/18 a.m.	3	Gray Whales (Northbound!)
	15	Risso's Dolphins	2/17 p.m.	4	Gray Whales
3/4 p.m.	6	Gray Whales	2/17 a.m.	2000	Long-beaked Common Dolphins
3/4 a.m.	8	Gray Whales			
	1	Humpback Whale (breaching)		50	Risso's Dolphins
	200	Pacific White-sided Dolphins	2/17 early a.m.	1200	Long-beaked Common Dolphins
3/3 p.m.	1	Gray Whale	2/16 p.m.	15	Gray Whales
	2	Humpback Whales		45	Long-beaked Common Dolphins
3/3 a.m.	4	Gray Whales			
	2	Humpback Whales		70	Risso's Dolphins
	5	Pacific White-sided Dolphins	2/16 a.m.	2	Gray Whales
	150	Risso's Dolphins		2	Humpback Whales
3/2 p.m.	2	Humpback Whales		75	Long-beaked Common Dolphins
3/2 a.m.	2	Gray Whales			
	2	Humpback Whales		60	Risso's Dolphins
	200	Pacific White-sided Dolphins	2/16 early a.m.	2	Humpback Whales
	100	Risso's Dolphins		500	Pacific White-sided Dolphins
3/2 early a.m.	20	Gray Whales	2/15 p.m.	12	Gray Whales
	2	Humpback Whales		40	Long-beaked Common Dolphins
	200	Pacific White-sided Dolphins			
3/1 p.m.	3	Gray Whales	2/15 a.m.	9	Gray Whales
	2	Humpback Whales		400	Long-beaked Common Dolphins
	5	Risso's Dolphins			
3/1 a.m.	2	Humpback Whales		25	Risso's Dolphins
2/27 p.m.	1	Gray Whale	2/14 p.m.	14	Gray Whales
	100	Pacific White-sided Dolphins		300	Long-beaked Common Dolphins
	15	Long-beaked Common Dolphins			
	3	Risso's Dolphins	2/14 a.m.	40	Risso's Dolphins
2/27 a.m.	14	Gray Whales		30	Gray Whales
2/25 p.m.	6	Gray Whales		4	Blue Whales
2/25 a.m.	9	Gray Whales		2	Killer Whales
2/24 p.m.	2	Gray Whales		1	Fin Whale
2/24 a.m.	4	Gray Whales		200	Risso's Dolphins
	2	Killer Whales	2/13 a.m.	7	Gray Whales
	100	Common Dolphins		1	Humpback Whale
2/23 a.m.	2	Killer Whales (Stubby & Fat Fin)		1	Blue Whale
	200	Long-beaked Common Dolphins	2/12 p.m.	3	Risso's Dolphins
				1	Blue Whales
2/22 a.m.	2	Gray Whales	2/12 a.m.	15	Fin Whale
2/21 p.m.	3	Gray Whales		3	Gray Whales
2/21 a.m.	3	Gray Whales	2/11 p.m.	3	Blue Whales
	100	Long-beaked Common		3	Gray Whales
			2/11 a.m.	2	Blue Whales
					Gray Whales

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kmarypaul@gmail.com