

Soundings



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

JULY 2010



The American Cetacean Society, Monterey Bay Chapter
Annual BBQ!

When? Saturday, July 10, 2010 at 5:00 P.M.

Where? Indian Village, Pebble Beach

Honoring Steven K. Webster, Ph.D.



\$15 per person

Send payment to: ACS, P.O. Box HE, PG, 93950 by July 7
Call Diane Glim at 646-8743 for reservations or information

Bring your own table service.
B.Y.O.B.

INSIDE THIS ISSUE

CALENDAR.....	2
HUMPBACK WHALES FORM FRIENDSHIPS	3
WHALES CLOSER TO US THAN THOUGHT, SAY SCIENTISTS	4
SPERM WHALES MAY PUT A GENTLE (AND UNWITTING) BRAKE ON CLIMATE CHANGE	5
NEW STUDY SHOWS DECLINE IN ENDANGERED VAQUITA POPULATION.....	6
PELAGIC SHARK FOUNDATION TEAMS WITH HOPKINS MARINE STATION TO TRACK BASKING SHARKS IN MONTEREY BAY	7
SIGHTINGS.....	7
MEMBERSHIP.....	8

CALENDAR

Pacific Grove Museum of Natural History
 Depicting Nature: Albert T. Rome (1885-1959)
 June 20-Sept 11. This exhibit features beautiful
 paintings and photographs of our local landscapes
 and seascapes.

**July 10 (Sat) 5pm: Monterey Bay Chapter
 Annual Summer BBQ in honor of Dr. Steven
 Webster. Indian Village, Pebble Beach off
 Dunes Road between Bird Rock and Seal
 Rock. For information please call Diane Glim
 at 831-646-8743 Everyone Invited. Mail \$15
 check per person to PO Box HE Pacific Grove,
 93950 . Visit www.starrsites/acsmb.com**

July 24 (Sat): ACS National Blue Whale Trip will
 take place on the Condor Express based out of
 Sea Landing in Santa Barbara, CA. Depart at 8am
 and return at 4pm. For more info and reservations
 call Bernardo Alps at 310-548-0966

Aug 14: ACS National Blue Whale Trip will
 take place on the Condor Express based out of
 Sea Landing in Santa Barbara, CA. Trip departs
 at 8:00am and returns at 4:00pm. For more info
 and reservations please call Bernardo Alps at
 310-597-0449

Aug 14 (Sat) 12 noon-5pm: MBARI'S Open
 House will feature science and technology
 exhibits, deep sea video of Monterey Bay,
 research presentations, and children's activities.
 Lectures will be held in the Pacific Forum.

Aug 25-29: Blue Ocean Film Festival. Monterey,
 CA. A global Ocean Film and Conservation
 Event (www.bluefilmfest.com). Festival Speakers
 and Film Makers Include Dr. Sylvia Earl,
 Howard and Michele Hall, David Doubilet, Jean
 Michel Cousteau.

**Aug 28, 9am-1pm: ACS Monterey Bay
 Chapter Summer Blue Whale Fundraiser.
 Cost-\$50.00 Boat-Sea Wolf 2. Location-
 Monterey Bay Whale Watch-Fisherman's
 Wharf, Monterey, CA. ACS naturalists and
 whale experts will be on board. Other whales
 of the summer include blue, humpback, fin,**

American Cetacean Society-Monterey Bay

**minke and killer whales. Abundant krill have
 already attracted blue whales (see sightings
 listings) For more info and reservations call
 Tony Lorenz at 831-901-7259 or Diane Glim at
 831-646-8743. Mail \$50 payment per person to
 PO Box HE PG, CA 93950.**

September 11 (Sat): Channel Islands Adventure:
 San Miguel Island (Cabrillo's Landing). Trip
 departs from Island Packers in the Ventura
 Harbor. Marine Mammal Observations Included
 For more info call 310-548-7562

Aug. 29 (Sun) 11am-3pm Pacific Grove
 Museum of Natural History Science Sunday:
 Dinosaur Day- Includes speakers, hands on arts
 and crafts all focused on fossils and dinosaurs

Sept. 23-26: Monterey Bay Birding Festival at
 the Watsonville Civic Plaza. Festival will include
 more than 65 lectures, workshops, and tours. A
 pelagic seabirding trip will be included. For more
 info go to Monterey Bay Birding Festival .com

Nov.12-14: The American Cetacean Society 12th
 International Conference will be held in
 Monterey at the Embassy Suites Hotel and
 Conference Center. Speakers include Richard
 Ellis, John Calambokidis, Thomas Jefferson,
 Bernd Wursig, and Robin Baird. The conference
 will also include two whale watch trips, kayaking
 along Cannery Row, a Point Lobos interpretive
 hike and a marine life photo contest. For a full
 schedule and prices please go to aconline.org.
 Local volunteers are needed. Call Diane Glim
 831-646-8743 or sign-up at the monthly
 meetings.

SUMMER CLASSES

Point Lobos Summer Adventure 2010

Session 2- July 5 thru July 16

Kids 9-15 will learn about sea life, mammals,
 birds, invertebrates, go hiking, and build sand
 castles. For more info go to www.pointlobos.org.

UCSC Summer Marine Science Courses:

Session Two: July 26-August 27, 2010

Marine Science Illustration SCIC 126

Biology of Marine Mammals Bio 129

HUMPBACK WHALES FORM FRIENDSHIPS

BY MATT WALKER

Humpback whales form lasting bonds, the first baleen whales known to do so.

Individual female humpbacks reunite each summer to feed and swim alongside one another in the Gulf of St Lawrence, off Canada, scientists have found.

Toothed whales, such as sperm whales, associate with one another, but larger baleen whales, which filter their food, have been thought less social.

The finding raises the possibility that commercial whaling may have broken apart social groups of whales.

FRIENDS REUNITED

Details of the discovery are published in the journal *Behavioral Ecology and Sociobiology*.

Dr Christian Ramp and colleagues of the Mingan Island Cetacean Study group based in St Lambert, Canada have been studying whales in the Gulf of St Lawrence since 1997.

Together with researchers from Germany and Sweden, the scientists are recording the movements of baleen whales including blue, fin, minke and humpback whales, adding to a set of data that stretches back 30 years. Where do they meet, and how do they recognise each other?

Baleen whales, which are the largest of all whales, possess huge baleen plates in their mouths, which they use to filter out small prey such as krill and plankton from the water. Using photographic identification techniques, the researchers can spot which individual whales appear from one year to the next.

During this study, they have found that the same humpback whales reunite each year.

Having spent the rest of the year apart migrating and breeding, individual humpbacks somehow find each other again in the open ocean

each summer, spending the season feeding together.

The longest recorded friendships lasted six years, and always occurred between similar-aged females, and never between females and males.

"I was very surprised by the prolonged duration," Dr Ramp told the BBC.

"I was expecting stable associations within one season, not beyond. I was particularly surprised by the fact that only females form these bonds, especially females of similar age."

UNDERWATER ENIGMA

The discovery has puzzled the researchers who made it.

"In toothed whales, you find strong bonds in killer whales, between entire families, and sperm whales between females and juveniles. They basically stay together all their life. There are also strong associations in bottlenose dolphins," Dr Ramp adds.

But "as far as we know, baleen whales are regarded as less social than toothed whales."

There is some evidence that humpbacks in Alaska form stable groups to feed on herring, and female right whales are thought to be more gregarious than males.

However, until now, baleen whales have not been known to reestablish bonds between individuals from one year to the next.

Forming such friendships clearly benefited the female humpbacks, as those that had the most stable and long-lasting associations gave birth to the most calves.

Dr Ramp and his colleagues suspect that the whales form bonds to improve their feeding efficiency each year.

"Staying together for a prolonged period of time requires a constant effort. That means that they feed together, but likely also rest together. So an individual is adapting its behaviour to another one."



How the whales find each other each summer is also an enigma.

"It's an excellent question and I would like to know the answer," says Dr Ramp.

"Where do they meet, and how do they recognise each other?"

He suspects the whales use sound to find and recognise other individuals.

WHALING WIPE OUT

So far, studies on blue and fin whales suggest that these species do not form such friendships.

But the discovery that humpbacks do might have further implications.

Dr Ramp speculates that humpback whales associating with one another may have made it easier for them to be caught in the past by commercial whalers.

As yet, there is no evidence to support this. But if that did occur, it would also mean that whaling may have removed social groups of humpbacks, and their preference to form friendships with other whales.

"Maybe the social traits are re-evolving due to rebounding populations, or they are completely different to the ones before, due to changes in the environment."

Story from BBC NEWS:

http://news.bbc.co.uk/go/pr/fr//earth/hi/earth_news/newsid_8722000/8722626.stm

WHALES CLOSER TO US THAN THOUGHT, SAY SCIENTISTS

BY MARLOWE HOOD

PARIS (AFP) June 19 – As the future of whales once more comes under global debate, some scientists say the marine mammals are not only smarter than thought but also share several attributes once claimed as exclusively human.

Self-awareness, suffering and a social culture along with high mental abilities are a hallmark of cetaceans, an order grouping more than 80 whales, dolphins and porpoises, say marine biologists.

If so, the notion that whales are intelligent and sentient beings threatens to demolish, like an explosive harpoon, the assumption that they are simply an animal commodity to be harvested from the sea.

That belief lies at the heart of talks unfolding at the International Whaling Commission (IWC), meeting from Monday to Friday in Agadir, Morocco.

A fiercely-contested proposal would authorise whale hunts by Japan, Norway and Iceland for 10 more years, ending a 24-year spell in which these nations -- tarred as outlaws by a well-organised green campaign -- have snubbed or sidelined the IWC's moratorium on whaling.

"We now know from field studies that a lot of the large whales exhibit some of the most complex behaviour in the animal kingdom," said Lori Marino, a neurobiologist at Emory University in Atlanta, Georgia.

A decade ago, Marino conducted an experiment with bottlenose dolphins in which she placed a small mark on their body and had the mammals look at themselves in a mirror.

By the way the dolphins reacted to the image and then looked at the spot, it was clear that they had a sense of self-identity, Marino determined.

For Georges Chapouthier, a neurobiologist and director of the Emotion Centre at Pierre and Marie Curie University in Paris, self-awareness means that dolphin and whales, along with some higher primates, can experience not just pain but also suffering.

Unlike nociception -- a basic nerve response to harmful stimuli found in all animals -- or lower-order pain, "suffering supposes a certain level of cognitive functioning," he said in an interview.

"It is difficult to define what that level is, but there's a lot of data now to suggest some higher mammals have it, including great apes, dolphins and, most likely, whales."

As for intelligence, cetaceans are second only to humans in brain size, once body weight is taken into account.

More telling than volume, though, are cerebral areas which specialise in cognition and emotional processing -- and the likelihood that this evolution was partly driven by social interaction, according to several peer-reviewed studies.

Some scientists suggest this interaction can best be described as culture, a notion usually reserved for homo sapiens.

"Evidence is growing that for at least some cetacean species, culture is both sophisticated and important," said Hal Whitehead, a professor at Dalhousie University in Halifax, in the Canadian province of Nova Scotia.

If culture is learned behaviour passed on across generations that is different from one community to the next, then humpback whales, to cite one example, are rather cultured indeed.

"At any time during the winter breeding season, all the males in any ocean sing more or less the same elaborate song, but this communal song evolves over months and years," Whitehead and colleagues noted in a study in the journal *Biological Conservation*.

Scientists have also observed orcas, or killer whales, learning from other orcas from a geographically separate group how to steal fish from so-called longlines used by commercial fishing boats.

Two orca communities that rarely intermingle despite sharing the same waters off the coast of Vancouver Island, meanwhile, have learned to divide their natural bounty: and one group eats fish and the other mammals, especially seals, Whitehead reported.

Such findings are disturbing factors in the calculus of conservation.

"If we wipe out a sub-group, it is more than killing a certain number of individuals. It could actually wipe out an entire culture," Marino said.

At a meeting of the American Association for the Advancement of Science (AAAS) in February, scientists concluded that new data on cognition and culture among whales should be the guideline for international wildlife policy.

To date that hasn't happened in any international forum, including the IWC, said

Margi Prideaux, head of cetacean conservation at the Whale and Dolphin Conservation Society.

"Aside from a narrow focus on killing methods -- what type of harpoon grenade, for example, is most humane -- ethics or the status of whales as sentient beings do not figure in talks at the IWC," she said.

news.yahoo.com/s/afp/20100620/sc_afp/environmentwhalingiwscience#bd

SPERM WHALES MAY PUT A GENTLE (AND UNWITTING) BRAKE ON CLIMATE CHANGE

Sperm whale faeces may help oceans absorb carbon dioxide from the air, scientists say. Australian researchers calculate that Southern Ocean sperm whales release about 50 tonnes of iron every year. This stimulates the growth of tiny marine plants - phytoplankton - which absorb

CO2 during photosynthesis. The process results in the absorption of about 400,000 tonnes of carbon - more than twice as much as the whales release by breathing, the study says. The researchers note in the Royal Society journal *Proceedings B* that the process also provides

more food for the whales, estimated to number about 12,000.

Phytoplankton are the basis of the marine food web in this part of the world, and the growth of these tiny plants is limited by the amount of nutrients available, including iron.

FAECAL ATTRACTION

Over the last decade or so, many groups of scientists have experimented with putting iron into the oceans deliberately as a "fix" for climate change. Not all of these experiments have proved successful, the biggest, the German Lohafex expedition, put six tonnes of iron into the Southern Ocean in 2008, but saw no sustained increase in carbon uptake. Although 400,000 tonnes of carbon is less than one-ten-thousandth of the annual emissions from burning fossil fuels, the researchers note that the global total could be more substantial. There are estimated to be several hundred thousand sperm whales in the



oceans, though they are notoriously difficult to count; and lack of iron limits phytoplankton growth in many regions besides the Southern Ocean.

So it could be that whale faeces are fertilising plants in several parts of the world. Crucial to the idea is that sperm whales are not eating and defecating in the same place - if they were, they could just be absorbing and releasing the same amounts of iron.

Instead, they eat their diet - mainly squid - in the deep ocean, and defecate in the upper waters where phytoplankton can grow, having access to sunlight.

Releasing the iron here is ultimately good for the whales as well, say the researchers - led by Trish Lavery from Flinders University in Adelaide. Phytoplankton are eaten by tiny marine animals - zooplankton - which in turn are consumed by larger creatures that the whales might then eat.

The scientists suggest a similar mechanism could underpin the "krill paradox" - the finding that the abundance of krill in Antarctic waters apparently diminished during the era when baleen whales that eat krill were being hunted to the tune of tens of thousands per year.

news.bbc.co.uk/2/hi/science_and_environment/10323987.stm#

NEW STUDY SHOWS DECLINE IN ENDANGERED VAQUITA POPULATION

New research released last week shows that the population of the world's most critically endangered marine mammal, the vaquita, fell by more than half since the last population study a little over a decade ago, from 567 individuals to 250.

On Thursday, Mexico's Ministry of Environment and Natural Resources announced that results of a recent abundance study showed that the estimated vaquita population dropped sharply between 1997 to 2008, when the latest study was completed.

The new estimate paints a clearer picture of the status of the planet's most endangered porpoise. Until recently, scientists had used a population figure based on estimated rates of

decline among the species, which put scientists' best guess at about 150 vaquita.

The vaquita is a tiny porpoise just a few feet long that only lives in a small area of the northern end of the Gulf of California, inside the Baja Peninsula. Shy and reclusive, it faces its biggest threat from local fishermen's gill nets, which sometimes trap and drown the rare animals.

With no accurate count on vaquita numbers in a decade, scientists decided to perform a new survey in late 2008 using acoustic and visual monitoring to estimate the population, said Tim Gerrodette, a marine biologist and research scientist involved with the study through NOAA's National Marine Fisheries Service.

"We gathered new data on which to base a new estimate of abundance," Gerrodette said.

Scientists were quick to point out that the 250 estimate does not indicate a rise in population over the 150 number that had been in use since 2007: the 150 figure was not based on observational data—just predictive models based on the 1997 data.

Both the 1997 and 2008 population estimates, however, come with a high degree of uncertainty, Gerrodette said—actual current numbers of vaquita could range from 100 to 400 individuals. The 250 figure is simply the researchers' best estimate. Factoring that figure with the 567 from the earlier study puts the vaquita depopulation at an annual decline rate of 7.4 percent, he said.

The one certainty seen from the new data is that vaquita numbers are definitely going down.

"Whether the population is 100 or 400 is not the critical issue. The key findings of the 2008 study are that the total population size is small, and that it has declined since 1997," Gerrodette said.

Regardless of the exact number, vaquita conservationists say they know what needs to be done to save the species, which is in distinct danger of going extinct—get the gill nets out of the water.

<http://www.takepart.com/news/2010/06/08/new-study-shows-decline-in-endangered-vaquita-population#>

PELAGIC SHARK FOUNDATION TEAMS WITH HOPKINS MARINE STATION TO TRACK BASKING SHARKS IN MONTEREY BAY

BY ALIA WILSON

SANTA CRUZ June 16 - Twenty years after he founded the Pelagic Shark Research Foundation after spotting an injured basking shark, Sean Van Sommeran is getting back to his roots by ramping up the nonprofit organization's basking shark tagging efforts.

The organization, in collaboration with the Stanford's Hopkins Marine Station - the country's oldest west coast marine lab - landed an internal National Oceanic and Atmospheric Administration grant for basking shark research this week.

"Dr. Steven G. Wilson of Stanford's Hopkins Marine Station applied for a grant with another scientist and myself as co-authors for a study of basking sharks in the Monterey Bay area," Van Sommeran said. "While basking sharks had never been tagged with transmitters in Pacific Ocean until recently, Monterey Bay is considered a former and potential basking shark hot-spot as there was a former commercial and sport harpoon fishery for baskers here until they went commercially extinct in the mid-1950s."

Despite nearly 50 years of not being fished, the population of basking sharks remain relatively low along the California Coast, Van Sommeran said.

Basking sharks were located and tagged in Southern California near the Coronado Islands earlier this month by researchers with NOAA fisheries.

The sharks are found around the world but are seen mostly near shore in warm waters, and came to the San Diego coast where there is an ample supply of plankton to eat, Wilson said. Before the June 6 tagging, a basking shark had never been tagged in the Pacific Ocean, Van Sommeran said.

Wilson, who declined to say how much the NOAA grant is for, said it will cover the costs of three electronic tags and several days of boat and spotter aircraft time.

"The tags will be deployed from one of Sean's boats and the grant would cover his fuel and personnel costs," Wilson said. "I'm looking forward to working with Sean and we hope to use the funds to learn more about the habits and habitats of a California native that may be at risk."

The Pelagic Shark Research Foundation based in Moss Landing has tracked and tagged sharks including great whites for 20 years.

"It's a really important opportunity to gather information," Van Sommeran said. "We hope to get tags out this first year."

http://www.mercurynews.com/breakingnews/ci_15311141?nlick_check=1#

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

Date	#	Type of Animal(s)
6/25 a.m.	6	Killer Whales* predation on sea lion
	120	Pacific White-sided Dolphins
	500	Risso's Dolphins
	600	Northern Right Whale Dolphins
6/24	12	Blue Whales
	50	Pacific White-sided Dolphins
	30	Risso's Dolphins
6/23 p.m.	1	Humpback Whale
6/23 a.m.	600	Pacific White-sided Dolphins
	250	Risso's Dolphins
	300	Northern Right Whale Dolphins
6/22 p.m.	3	Humpback Whales
	200	Risso's Dolphins
6/22 a.m.	1	Humpback Whale
	1000	Pacific White-sided Dolphins
	50	Risso's Dolphins
6/21 p.m.	500	Northern Right Whale Dolphins
	2	Humpback Whales
	4500	Pacific White-sided Dolphins
6/21 a.m.	150	Northern Right Whale Dolphins
	3	Humpback Whales
6/20 p.m.	450	Pacific White-sided Dolphins
	4	Humpback Whales
6/20 a.m.	2	Blue Whales
	4	Humpback Whales
	8	Blue Whales
	150	Pacific White-sided Dolphins
	50	Risso's Dolphin

*Transient types

Skipped dates indicate no trip

American Cetacean Society
Monterey Bay Chapter
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