

Soundings



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

SEPTEMBER 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**

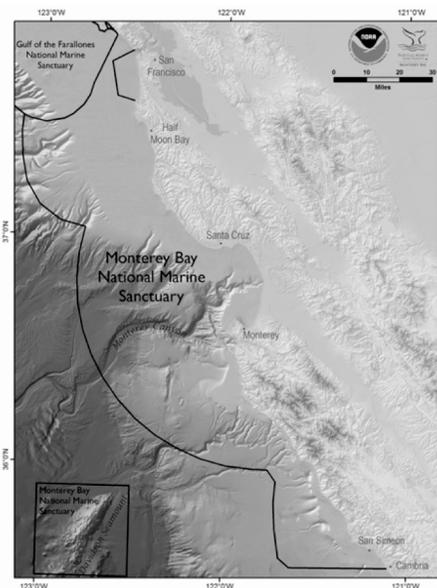
DATE: THURSDAY, SEPTEMBER 30, 2010

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

SPEAKER: Lori Beraha, Naturalist

**Title: Cetaceans of Monterey Bay: What I have seen and
learned over the past 6 years working as a marine naturalist
on Monterey Bay.**

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Monterey Bay is an amazing place for marine life. The richness and diversity of marine life is the result of many factors coming together right here off our coast. With upwelling currents, a variety of substrates and very deep water close to shore, this is truly an amazing place to be on the water to explore, observe and study marine life, and, in particular, whales, dolphins and porpoises.

Our speaker has spent 6 years as a marine naturalist on Monterey Bay and she has lots to report on. Lori will share her experiences with us about the smallest cetacean in the Bay, the harbor porpoise, the largest cetacean on the planet, the blue whales and lots of cetaceans in between. She will highlight the most interesting behaviors and comment on changes she has noted over the seasons.

This year has been an extraordinary year for cetaceans in Monterey Bay and Lori will share some of her observations and insights about this phenomenon as well.

Please join us for a special “Bay cruise” lead by Lori. This will be an informative and entertaining evening about the cetaceans living in our own Monterey Bay

CALENDAR

Sept 11: ACS National Fundraiser Reception with chef Wendy Brodie in Carmel. Contact kreznick@acsonline.org or 310-548-6279 to RSVP

Sept 23-26: Monterey Bay Birding Festival. Watsonville Civic Center. Festival includes 3 pelagic birding field trips. For more info please call 831-600-8893

Oct 1-Oct 31: PGMNH Exhibit-Glow: Living Lights. The science of Bioluminescence. For more info go to www.pgmuseum.org

Nov 4-7: Sitka Whale Fest. A celebration of Sitka's diverse and abundant marine mammal populations. Speakers include Roger Gentry, Jonathon Stern, Frances Gulland, Doug De Masster and Dr. Michael Castellini. Whale Watch field trips are included. For more info please call 907-747-7964 or go to www.sitkawhalefest.org

November 11-14: Western Society of Naturalist 91st Annual Meeting: San Diego, CA. For more info go to www.westernsocietyofnaturalist.org

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 acsonline.org. Local Monterey Bay ACS chapter volunteers are

needed, and sign-ups will be available at the monthly meetings.

BOOK RECOMMENDATION

earth by Bill Mckibben

A great book that embraces local, smaller scale ways of living. An important book for humans and cetaceans.

Deep Blue Home: An Intimate Ecology of Our Wild Ocean By Julia Whitley

HABITATS ALIVE! An ecological guide to California's diverse habitats. In depth information on 53 California Habitats from the rocky inter-tidal to the desert plant communities. Published by the California Institute of Biodiversity.

FOR YOUNG READERS: Dinosaur Discoveries from A-Z Alphabetical listing of dinosaurs discovered over the last twenty years. By William Stout (Prehistoric Life Murals)

ACS Monterey Bay fundraising trip on 8/28 was a gargantuan success! Participants were treated to sightings of Fin whales, Blue whales, Humpback whales, Risso's dolphins and Dall's porpoise. Thank you to Captain Richard Ternullo and Monterey Bay Whale Watch for their generous donation to make the trip possible. Naturalists Jerry Loomis and Lori Beraha did outstanding narration during the excursion.

Many thanks to Sally Eastham, Jerry Loomis and Cheryl Butner for their participation at the ACS Monterey Bay exhibition table at the recent Blue Ocean Film Festival.

BLUE WHALES ALIGN THE PITCH OF THEIR SONGS WITH EXTREME ACCURACY, STUDY FINDS

ScienceDaily (Aug. 2, 2010) — Blue whales are able to synchronize the pitch of their calls with an extremely high level of accuracy, and a very slim margin of error from call to call, according to a new study of the blue whale population in the eastern North Pacific. Results were published in the *Journal of the Acoustical Society of America*.

The authors suggest that the uniform pitch used by blue whale populations could allow individual whales to locate potential mates by swimming toward them or away from them.

"Blue whales in a given population have been observed to align their pitch to a common value, but we have now been able to determine just how accurately they are able to do so," said Roger Bland, professor of physics at San Francisco State University.

Bland and colleagues analyzed recordings of 4,378 blue whale songs, off the California coast, and focused on the whales' B calls -- the long, sad moan that typically forms the second half of the blue whale song that is specific to the eastern North Pacific population. They found that the whales all produce the B call at the same pitch, at a frequency of 16.02 Hz, exactly four octaves below middle C.

"We found that blue whales are capable of very fine control over the pitch of their call -- both in reproducing their call at the same pitch every time and in synchronizing their pitch with others," Bland said.

The study found a remarkably small variation in pitch from call to call. In musical terms, the half-tone change of pitch between the notes C and C Sharp is a 6 percent increase in pitch, whereas the variation

observed between the blue whale's B calls was a 0.5 percent change in pitch.

The authors suggest that there may be an adaptive advantage to the whales tuning into a common pitch. "If whales are so super accurate in always calling at the exact same pitch, then it's possible that they could be able to detect tiny shifts in other whales' calls caused by the Doppler shift," Bland said. The Doppler shift is the apparent increase or decrease in pitch that is heard when the source of sound is moving toward or away from an individual, for example the change in pitch heard when a vehicle with a siren passes by.

Previous research has suggested that the blue whale song is produced only by males, and appears to be sung when the whales are traveling. "Given that blue whales can travel up to 5 meters per second, it's feasible that females could locate calling males by listening for the changes in the male's pitch," Bland said.

Underwater recordings were captured at the Pioneer Seamount Underwater Observatory, 50 miles off the California coast, over a three-month period in 2001.

The study's results are consistent with recent research suggesting that blue whales across the world have decreased their pitch over the last few decades. "We found the frequency of the B call to be 16 Hz in 2001, which fits well with the downward trending curve that has been observed in previous research."

Bland co-authored the paper with Michael D. Hoffman, a former student at SF State, and Newell Garfield, professor of geosciences and director of the Romberg Tiburon Center for Environmental Studies at SF State.

sciencedaily.com/releases/2010/08/100802141907.htm

NEW U.S. SEAFOOD IMPORT RULES WOULD REDUCE HARM TO MARINE MAMMALS IN FOREIGN FISHERIES

Sea Turtle Restoration Project is seeking support from ocean conservation groups, U.S. commercial and recreational fishers, restaurants and supermarkets and other organizations and coalitions who support the strongest protections for marine mammals in international wild-capture fisheries.

Please join us in establishing standards for imported seafood as required under the Marine Mammal Protection Act – a goal of zero by-catch of marine mammals. Support new regulations on imported seafood that will require all nations selling fish to the U. S. to prove that harm to marine mammals and other protect species was minimized or eliminated.

BACKGROUND

The U.S. is a very close second to Japan as the biggest importer of seafood in the world, consuming more than 5 billion pounds of fish every year. Americans eat 16 pounds of seafood per capita, 80 percent of it imported. This hunger for fish takes a major toll on the oceans and marine mammals.

Every year hundreds of thousands of whales, dolphins, sea lions and other marine mammals are captured or killed by international fishing fleets, mostly in drift gillnets. Gillnets and long-lines also capture threatened and endangered sea turtles, seabirds and other marine wildlife. Millions of pounds of fish caught in these deadly fisheries are allowed to enter the U.S. in violation of the U.S. Marine Mammal Protection Act (MMPA), which requires a ban on imported fish caught in ways that harm marine mammals in excess of U. S. standards for domestic fisheries.

Specifically, Section 101(a)(2) of the MMPA [16 U.S.C. § 1371(a)(2)], requires that the U.S.:

“ban the importation of commercial fish or fish products that have been caught with commercial fishing technology which results in the incidental kill or incidental serious injury of marine mammals in excess of United States standards.”

By requiring foreign nations to prove that their fishing methods do not result in harm to marine mammals in excess of U.S. standards before allowing those nations to export fish and fish products to the U.S., MMPA section 101 ensures that the U.S.’s considerable economic power provides an incentive to conserve, rather than obliterate, marine mammal populations. It also serves to protect U.S. fishers from unfair competition by foreign fishers operating without appropriate restraints on fishing practices.

Until now the U.S. government has not enforced the MMPA for seafood imports nor defined what it means to comply with U.S. standards. National Marine Fisheries Service is now taking the first steps towards developing regulations to ensure that all seafood sold in the U.S. meets or exceeds domestic standards for protecting marine mammals from being harmed or killed as by-catch in commercial fisheries.

An advanced notice of proposed rulemaking to define U. S. standards and describe procedures for enforcing those standards for protecting marine mammals under the MMPA was published on April 30, 2010. The deadline for public comment was extended to Aug. 30, 2010. The rulemaking was in response to a May 2008 petition by Turtle Island Restoration Network (TIRN) and Center for Biological Diversity (CBD) requesting that the United States government start enforcing the longstanding requirements of the MMPA to protect marine mammals by banning swordfish imports from nations that had not submitted proof that their fisheries

did not injure and kill marine mammals in excess of U.S. standards. The rulemaking is broader and seeks to establish and define U.S. standards for all imported seafood.

www.seaturtles.org

FINAL PUSH TO PASS AB 1998 TO SAVE SEA TURTLES

(Editor's Note: At the time of this printing AB 1998 was defeated by the California Senate so there is no need to contact our Senators on this issue).

The California Senate is set to vote on AB 1998 before the end of the month. Take action and send a letter to your California Senator to support AB 1998 to ban single-use plastic bags to ensure we win this battle to lead our nation in reducing plastic waste!

Scientific studies on plastic ingestion by sea turtles all over the world prove conclusively that sea turtles are at great risk from suffocation, drowning, and death from pelagic plastic debris, especially plastic bags. The Sea Turtle Restoration Project's marine biologist, Dr. Chris Pincetich, authored a report summarizing the ocean plastic epidemic and its impacts on sea turtles. Go to salsa.democracyinaction.org/o/1723/p/dia/action/public/?action_KEY=3977 to read our new report, *A Ban on Plastic Bags Will Save the Lives of California's Endangered Leatherback Sea Turtles*.

Californians use an estimated 19 billion single-use plastic bags every year. It is estimated that 90% of floating debris in the oceans is plastic. Plastic lasts for hundreds to thousands of years in our environment and may never biodegrade in the ocean.

CALIFORNIA GREAT WHITE SHARK POPULATION ON THE RISE, SCIENTIST SAY

Pete Thomas, GrindTV.com (Aug. 9)

"Shark Week" is over but a leading scientist's revelation that great white sharks appear to be growing in number off California is sure to generate more heightened interest in the apex predators -- particularly among swimmers and surfers.

"I think there are more sharks," Christopher Lowe, a professor at Cal State Long Beach and director of the university's Shark Lab, said during an exclusive phone interview. "And that's not a bad thing; it's a good thing."



© Doug Perrine/Seapics.com

It's the first declaration by a prominent shark researcher that a recovery of the embattled great white shark -- the world's most notorious predator -- seems to be occurring.

A longstanding statewide ban on fishing for white sharks, an increased survival rate among young white sharks because of fishing gear restrictions, and an expanding sea lion population as a prey source are chief reasons for the comeback.

Lowe, who has performed extensive tagging of juvenile white sharks off Southern California, and has pored over data dating back generations, said personal observations and increased incidental catch rates of small white sharks by commercial fishermen help support his contention. Lowe said he has data to support the steady increase in catch rates since 1994, but could not provide figures

while forthcoming a scientific paper on this issue is in review.

Salvador Jorgensen, leader of the white shark research team at Stanford University's Hopkins Marine Station, did not disagree with Lowe's assessment but was more guarded when asked for a response.

"If what we are seeing is truly an increase in the white shark population that would be a relief," Jorgensen said. "Currently we are finding that the total number of adult white sharks along the west coast of North America is much smaller than many people expected."

While the prospect of great whites multiplying off the Golden State might trouble beachgoers, particularly in the middle of summer, Lowe said he does not believe a growing population would result in more attacks on humans.

"The fact that we see so few adult white sharks around populated areas tends to suggest that they don't want to be around places where people are," the scientist said. "People aren't being bumped. People aren't being hit. My guess is that sharks are actually avoiding areas of high human population."

Southern California is a nursery area for juvenile great whites, who feed on small fishes, rays and other sharks during the summer months. Some of these sharks, measuring to about seven feet, are seen each summer by beachgoers.

There have been only eight fatalities attributed to white sharks off California dating to 1926, according to the University of Florida's International Shark Attack File. The last fatality involved an attack by an adult white shark on a swimmer

off a northern San Diego County beach in April 2008.

White sharks are found in all major oceans and "red-listed" by the International Union for Conservation of Nature as a globally threatened species. The California Department of Fish and Game banned fishing for white sharks in 1994 because of concern for their survival.

Jorgensen said a joint population study of adult white sharks by Stanford University, U.C. Davis and Montana State University is still under peer review, so he could not volunteer a number. Lowe said his paper, produced with the help of colleagues, contains a compelling argument to support a likely recovery.

Adult great whites congregate each fall near elephant seal rookeries off Central California. A separate population gathers during the same period at remote Guadalupe Island west of Baja California.

Among the threats white sharks have faced globally are trophy hunting for jaws and teeth -- which became widespread after the release of the movie "Jaws" in the mid-1970s -- and commercial fishing for fins and flesh.

It almost seems implausible, in an era during which so many species of sharks are over-fished and believed to be in decline, that any species could mount a comeback.

But considering the changing landscape of California, a comeback and its

timing make sense. The ban on fishing for white sharks -- for sport or commercially -- was imposed in 1994. That same year, voters approved a measure outlawing the



Image courtesy of Christy Fisher / Sharkdiver.com

deployment of gillnets within three miles of the California coast.

In Southern California, this zone is where juvenile white sharks spend the summer preying on small fishes, rays and other sharks, before swimming into warmer Mexican waters during the winter.

White sharks are still being caught unintentionally beyond the three-mile mark -- The increase in these captures is what helps support evidence of a comeback -- but those sticking closer to shore are no longer imperiled by the indiscriminate nets, until they venture into Mexican waters.

Adult white sharks, meanwhile, now have a seemingly endless bounty of sea lions on which to prey, along with the elephant seals they prefer.

Sea lions, once routinely slaughtered by fishermen, were spared under the Marine Mammal Protection Act of 1972. Ten years later, their population was estimated at 145,000 in a range from the Sea of Cortez within Mexico to British Columbia, Canada, with only 50,000 in the Southern California Bight.

According to the most recent National Marine Fisheries Service estimate, there are at least 238,000 sea lions in U.S. waters, the majority of which reside off Southern California.

"So if you add those two things together, you've got a restored forage base for the adults and you've got better survivorship of the pups," Lowe said. "So what we think we're seeing from the fishery catch data and some of the other anecdotal pieces, is the actual recovery of the white shark population."

The biologist added that while Southern Californians should not expect a spike in shark attacks on humans, those who spend lots of time in or near the ocean might witness more sea lions with bite marks, and

more surface attacks by white sharks on the pinnipeds.

"I think the white shark population is going to do what it's supposed to do: help regulate marine mammal populations," Lowe said, explaining that apex predators play a vital role in maintaining a healthy marine ecosystem.

To be sure, fishermen whose livelihoods are threatened by pesky sea lions, which decimate catches and destroy gear, will cheer alongside marine conservation groups for more signs of a white shark comeback.

Swimmers and surfers? They're probably not so enthusiastic.

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

<u>Date</u>	<u>#</u>	<u>Type of Animal(s)</u>
8/26 p.m.	14	Humpback Whales
	1	Blue Whale
	1	Harbor Porpoise
8/26 a.m.	19	Humpback Whales
	3	Blue Whales
	15	Risso's Dolphins
8/25 p.m.	7	Humpback Whales
	20	Risso's Dolphins (with calves)
8/25 a.m.	40	Humpback Whales
	100	Risso's Dolphins
8/24 a.m.	24	Humpback Whales
	2	Blue Whales
8/23 a.m.	19	Humpback Whales
	2	Blue Whales
	320	Risso's Dolphins
8/22 p.m.	18	Humpback Whales
	4	Blue Whales
8/22 a.m.	18	Risso's Dolphins
	24	Humpback Whales
	3	Blue Whales
8/21 pm.	22	Humpback Whales
	2	Blue Whales
8/21 a.m.	37	Humpback Whales
	2	Blue Whales
	8	Killer Whales
8/20 p.m.	1	Mola Mola
	20	Humpback Whales
	200	Risso's Dolphins
	10	Northern Right Whale Dolphins

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Monterey Bay Chapter
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