Soundings

AMERICAN CETACEAN SOCIETY
Monterey Bay Chapter

JULY 2014

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

Don't Miss ACSMB's Annual BBQ!

Growing into our 35th year

3 pm – 6 pm on July 26th
Veterans Memorial Park – follow the signs

Tri tip, chicken, salads, beans, bread, and cake!
We will have water, soft drinks and coffee;
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$20.00 per person
Send payments by July 23 to:
PO Box HE, Pacific Grove, CA 93950

The BBQ replaces our regular monthly meeting at Hopkins Boatworks Hall. Join us for the BBQ and then again at our next meeting on Thursday, August 28.

BBQ Questions call 831-373-4281

INSIDE THIS ISSUE

Coming in August:
Join us on Thursday, August 28 for a presentation by photographer Jodi Frediani, who will present on humpback whales in Monterey Bay.

CALENDAR

Jul. 20: Seymour Center Science Sunday: Mapping Marine Mammal Health. Presentation by Dr. Clair Simeone, Conservation Medicine Veterinarian from the Marine Mammal Center. Sunday, July 20, 2014 from 12:00pm-1:00pm. For more info please go to seymourcenter.ucsc.edu

Jul. 26: ACS Los Angeles "Summertime Blues" Whale Watch Adventure. Explore the Santa Barbara Channel in search of the Great Blue Whale. Saturday, July 26, 2014 from 8:00am-4:00pm. For reservations and more information go to acs-la.org

UC Santa Cruz Summer Marine Mammal Course

Jul. 28 – Aug. 29: Biology 129: Biology of Marine Mammals; Biology 139L: Biology of Marine Mammals Laboratory. Class location is at UCSC's Long Marine Lab. For more info please go to summer.ucsc.edu

Aug. 8: Should I Get A Bigger Boat? Shark Attacks on Boats, People, Dogs, and Seals. Lecture by Dr. Ralph Collier and Peter Howorth. Friday, August 8, 2014 at 7:00pm at the Santa Barbara Maritime Museum. For tickets please go to sbmm.org

Aug. 16: ACS National Blue Whale Fundraiser
When: Sat. August 16, 2014, 8:00 am-4:00 pm
Where: Santa Barbara, CA
Boat: Condor Express
Cost: $105.00 Non Members, $95.00 Members
For reservations and information please contact Diane Alps at 310-548-6279.

Nov. 7-9: American Cetacean Society 14th International Conference at the Hyatt Regency in Newport Beach, CA: Tuned in to Whales, Conservation, Research and Education.

BOOK RECOMMENDATIONS

War of the Whales: A True Story, by Joshua Horwitz. 2014 Simon & Schuster.

Albatross, by Graham Barwell. 2014 Reaktion Books.

Blue Mind: The Surprising Science That Shows How Being Near, In, On or Under Water Can Make You Happier, More Connecter, and Better at What You Do, by Wallace J. Nichols. 2014 Little, Brown and Company.

Out of the Blue: A Guide to the Marine Mammals of Sri Lanka, Southern Indian Ocean and the Maldives, by Howard Martenstyn. 2013.

WORLD'S BIGGEST-EVER FLYING BIRD DISCOVERED: TWICE AS BIG AS THE ROYAL ALBATROSS

July 7, 2014 — Scientists have identified the fossilized remains of an extinct giant bird that could be the biggest flying bird ever fo und. With an estimated 20-24-foot wingspan, the creature surpassed size estimates based on wing bones from the previous record holder -- a long-extinct bird named*Argentavis magnificens* -- and was twice as big as the Royal Albatross, the largest flying bird today. Scheduled to appear online the week of July 7, 2014, in the journal *Proceedings of the National Academy of Sciences*, the findings show that the creature was an extremely efficient glider, with long slender wings that helped it stay aloft despite its enormous size.

The new fossil was first unearthed in 1983 near Charleston, South Carolina, when construction workers began excavations for a new terminal at the Charleston International Airport. The specimen was so big they had to dig it out with a backhoe. "The upper wing bone alone was longer than my arm," said author Dan Ksepka of the National Evolutionary Synthesis Center in Durham, North Carolina.

Now in the collections at the Charleston Museum, the strikingly well-preserved specimen consisted of multiple wing and leg bones and a complete skull. Its sheer size and telltale beak allowed Ksepka to identify the find as a previously unknown species of pelagornithid, an extinct group of giant seabirds known for bony tooth-like spikes that lined their upper and lower jaws. Named '*Pelagornis sandersi*' in honor of retired Charleston Museum curator Albert Sanders, who led the fossil's excavation, the bird lived 25 to 28 million years ago -- after the dinosaurs died out but long before the first humans arrived in the area.

Researchers have no doubt that *P. sandersi* flew. It's paper-thin hollow bones, stumpy legs and giant wings would have made it at home in the air but awkward on land. But because it exceeded what some mathematical models say is the maximum body size possible for flying birds, what was less clear was how it managed to take off and stay aloft despite its massive size.

To find out, Ksepka fed the fossil data into a computer program designed to predict flight performance given various estimates of mass, wingspan and wing shape. *P. sandersi* was probably too big to take off simply by flapping its wings and launching itself into the air from a standstill, analyses show. Like Argentavis, whose flight was described by a computer simulation study in 2007, *P. sandersi* may have gotten off the ground by running downhill into a headwind or taking advantage of air gusts to get aloft, much like a hang glider.

Once it was airborne, Ksepka's simulations suggest that the bird's long, slender wings made it an incredibly efficient glider. By riding on air currents that rise up from the ocean's surface, *P. sandersi* was able to soar for miles over the open ocean without flapping its wings, occasionally swooping down to the water to feed on soft-bodied prey like squid and eels.

"That's important in the ocean, where food is patchy," said Ksepka, who is now Curator of Science at the Bruce Museum in Greenwich Connecticut.

Researchers hope the find will help shed light on why the family of birds that *P. sandersi* belonged to eventually died out, and add to our understanding of how the giants of the skies managed to fly.

This is a reconstruction of the world's largest-ever flying bird, *Pelagornis sandersi*, identified by Daniel Ksepka, Curator of Science at the Bruce Museum in Greenwich, Conn. (Credit: Reconstruction art is by Liz Bradford).

http://www.sciencedaily.com/releases/2014/07/140707152414.htm

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Whales as Ecosystem Engineers: Recovery from Overhunting Helping to Buffer Marine Ecosystems from Destabilizing Stresses

July 3, 2014 — Consider the subtleness of the sea; how its most dreaded creatures glide under water, unapparent for the most part," wrote Herman Melville in *Moby Dick.* Today, we no longer dread whales, but their subtlety remains. "For a long time, whales have been considered too rare to make much of a difference in the oceans," notes University of Vermont conservation biologist Joe Roman. That was a mistake.

In a new paper, Roman and a team of biologists have tallied several decades of research on whales from around the world; it shows that whales, in fact, make a huge difference -- they have a powerful and positive influence on the function of oceans, global carbon storage, and the health of commercial fisheries. "The decline in great whale numbers, estimated to be at least 66% and perhaps as high as 90%, has likely altered the structure and function of the oceans," Roman and his colleagues write in the July 3, 2014, online edition of *Frontiers in Ecology and the Environment, "* but recovery is possible and in many cases is already underway."

Whale benefits

"The continued recovery of great whales may help to buffer marine ecosystems from destabilizing stresses," the team of scientists writes. This recovered role may be especially important as climate change threatens ocean ecosystems with rising temperatures and acidification. "As long-lived species, they enhance the predictability and stability of marine ecosystems," Roman said.

Baleen and sperm whales, known collectively as the "great whales," include the largest animals to have ever lived on Earth. With huge metabolic demands -- and large populations before humans started hunting them -- great whales are the ocean's ecosystem engineers: they eat many fish and invertebrates, are themselves prey to other predators like killer whales, and distribute nutrients through the water. Even their carcasses, dropping to the seafloor, provide habitat for many species that only exist on these "whale falls." Commercial whaling dramatically reduced the biomass and abundance of great whales.

"As humpbacks, gray whales, sperm whales and other cetaceans recover from centuries of overhunting, we are beginning to see that they also play an important role in the ocean," Roman said. "Among their many ecological roles, whales recycle nutrients and enhance primary productivity in areas where they feed." They do this by feeding at depth and releasing fecal plumes near the surface -- which supports plankton growth -- a remarkable process described as a "whale pump." Whales also move nutrients thousands of miles from productive feeding areas at high latitudes to calving areas at lower latitudes.

Sometimes, commercial fishermen have seen whales as competition. But this new paper summarizes a strong body of evidence that indicates the opposite can be true: whale recovery "could lead to higher rates of productivity in locations where whales aggregate to feed and give birth," supporting more robust fisheries.

As whales recover, there may be increased whale predation on aquaculture stocks and increased competition -- real or perceived -- with some commercial fisheries. But the new paper notes " a recent investigation of four coastal ecosystems has demonstrated the potential for large increases in whale abundance without major changes to existing food-web structures or substantial impacts on fishery production."

Watch whales

In death, whale carcasses store a remarkable amount of carbon in the deep sea and provide habitat and food for an amazing assortment of creatures that only live on these carcasses. "Dozens, possibly hundreds, of species depend on these whale falls in the deep sea," Roman notes.

"Our models show that the earliest human-caused extinctions in the sea may have been whale fall invertebrates, species that evolved and adapted to whale falls," Roman said, "These species would have disappeared before we had a chance to discover them."

Until recently, ocean scientists have lacked the ability to study and observe directly the functional roles of whales in marine ecosystems. Now with radio tagging and other technologies they can better understand these roles. "The focus of much marine ecological research has been on smaller organisms, such as algae and planktonic animals. These small organisms are essential to life in the sea, but they are not the whole story," Roman said.

New observations of whales will provide a more accurate understanding of historical population dynamics and "are likely to provide evidence of undervalued whale ecosystem services," note the ten scientists who co-authored this new paper, "this area of research will improve estimates of the benefits -- some of which, no doubt, remain to be discovered -- of an ocean repopulated by the great whales."

After feeding at depth, sperm whales off the coast of Sri Lanka return to the surface — and poop. This "whale pump" provides many nutrients, in the form of feces, to support plankton growth. It's one of many examples of how whales maintain the health of oceans described in a new scientific paper by UVM's Joe Roman and nine other whale biologists from around the globe. (Credit: Tony Wu).

http://www.sciencedaily.com/releases/2014/07/140703102957.htm

Orca Expert's Dire Warning about Puget Sound Orcas

by Gary Chittim

July 3, 2014 — One of the world's most respected Orca researchers is warning we are at the survival crossroads for the Pacific Northwest pods. The endangered Southern Resident Orcas that frequent Puget Sound are not rebuilding their numbers as hoped.

Ken Balcomb, founder of the Center for Whale Research, is doing what he's done for 40 years. Photographing and recording the Southern Resident orcas.

"Fortunately every day I spend with whales doesn't count in the life span," said Balcomb.

But when the excitement of the chase is over, when he stands on the edge of his peaceful paradise, reality darkens the view of his subjects.

"The animals that are out there that are over 40 years old, there's a bunch of them swimming around," said Balcomb. "It's been two years since the J, K, and

L pods have produced a baby that has survived more than a month."

"We've got less than 20 reproductive age females at present and not many coming up through the ranks. We can't have a population without reproduction," he added.

Balcomb knows these whales better than anyone. He has snapped tens of thousands of frames documenting their births, deaths and lives for 40 years. Federal agencies have depended heavily on his work for their plan to help the orcas recover.

But when he reads the government's latest report on that plan, he feels even worse about the orcas' future.

"I'm disappointed," he said. "It's a very glossy summary for the public and Congress to look at how the money was spent."

Balcomb feels the report wastes time on concepts like pressure from whale watching boats and pollution and misses the key factor in the decline of the killer whales.

"And it's going to continue to decline until we do something about Chinook salmon stocks throughout their range," he said.

Unlike other orcas whose numbers are increasing, the Southern Residents are almost exclusive eaters of Chinook salmon.

"We've just seeing the continuation of a downhill population trend in Chinook salmon."

The federal report admits the lack of food is a problem, but concentrates more on controlling the whale watching fleet.

Balcomb would rather see federal agents be more aggressive with salmon restoration than pushing back the whale watching fleet.

He has watched the Southern Resident population drop from 87 to 79 during the time they have been under federal protection.

"When we get to 70, I'm going to stop counting because nobody's paying attention."

Until then, he'll keep searching for what he wants to see most.

"A new baby."

He keeps searching even during days when the whales are hard to find and harder to photograph.

"There is some good news, a group is heading this way, we're going to get respectfully close and get a good look at them.

And that's when something happened, something to give Balcomb and his crew a brief moment of hope. An amorous young male nicknamed Nigel makes his move on a female.

"In about 17 months from now, we may have another little J baby with an L daddy."

The orcas are still trying.

"We just have to give them a chance," said Balcomb. "We've still got something here that's worth saving."

And Balcomb will keep trying too.

http://www.king5.com/news/environment/Orca-experts-dire-warning-about-Puget-Sound-orcas-265780971.html

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Suit Filed to Ensure Foreign Fisheries Meet American Standards for Dolphin and Whale Safety:

Nearly Half of Seafood Consumed in U.S. Not Certified to Meet U.S. Requirements

July 2, 2014 — Each year, nearly half of the more than 5 billion pounds of seafood consumed by Americans — including tuna, swordfish, shrimp, cod and other fish — comes from foreign fisheries that have not been shown as meeting U.S. whale and dolphin protection standards. The United States is required to insist on such proof before foreign seafood may lawfully be imported into the United States. A lawsuit filed today by conservation groups seeks to protect marine mammals by requiring the government to ensure that all imported, wild-caught fish meet U.S. standards.

"Americans would be appalled if they knew their Friday-night fish dinner might be killing imperiled whales and dolphins around the world," said Sarah Uhlemann, senior attorney and international program director of the Center for Biological Diversity. "It's time to make *all* seafood 'dolphin-safe.'"

Across the globe, more than 650,000 whales, dolphins and other marine mammals are killed each year in fishing gear. Ensnared in nets, wrapped in fishing lines or snagged on fishing hooks, they become unintentional bycatch of commercial fisheries and either drown or are tossed overboard to die.

The United States is the second largest importer of seafood in the world, behind Japan, importing approximately 90 percent of its seafood, about half of which is wild-caught.

Under U.S. fishery regulations, U.S. fishers have been required to modify their fishing gear, avoid marine mammal hot-spots or take other measures to limit the risk of entanglement. Yet many foreign commercial fishing fleets continue to offer few if any safeguards for marine mammals or even document how many endangered animals are caught.

Since 1972 the United States has been required by the Marine Mammal Protection Act to only allow the

importation of fish or fish products caught in a manner that meets U.S. standards for protecting marine mammals. Although the United States has enforced the provision for yellowfin tuna in the eastern tropical Pacific Ocean, it has ignored the law for all other fish, allowing imports without proof that U.S. standards have been met. Today's lawsuit seeks to compel the U.S. to issue much-delayed regulations implementing this critical provision of law.

"The U.S. can — and by law, must — wield its tremendous purchasing power to save dolphins and whales from foreign nets," said Todd Steiner, biologist and executive director of Turtle Island Restoration Network. "We have the right to ensure that the seafood sold in the US is caught in ways that minimize the death and injury of marine mammals."

Fishing gear poses a significant risk to marine mammals worldwide and threatens the very existence of some of the planet's most charismatic species. These animals include the Gulf of California's critically imperiled vaquita, the endangered North Atlantic right whale, spinner dolphins in the Indian Ocean, sperm whales in the Mediterranean, and false killer whales off Hawaii.

"It's time for the government to act," said Zak Smith with the Natural Resources Defense Council. "When this important provision of law is implemented it will help save thousands of whales and dolphins around the world."

Today's lawsuit was filed by the Center for Biological Diversity, Turtle Island Restoration Network and the Natural Resources Defense Council in the U.S. Court of International Trade in New York.

http://www.nrdc.org/media/2014/140702.asp

Trove of Ancient Marine Fossils Surprises Bay Area Dam Builders

by Amy Hubbard

July 7, 2014 — Crews had no clue when work started on a Bay Area dam in 2011 that they would stumble onto a trove of marine fossils many millions of years old. Hundreds of specimens have been found at the Calaveras Dam site near Milpitas, Calif.

Although the area has its share of fossils, the concentration at this site has scientists excited.

Among the 529 specimens inventoried are scallops as big as dinner plates, a hippo-like mammal called a Desmostylus, megalodon sharks, and whales with and without teeth. Most of the fossils are believed to be about 20 million years old.

The Desmostylus is a member of the only order of marine mammal to have gone extinct. The animal is believed to have had massive limbs, a stubby tail and an elongated head with tusks. But the prehistoric megalodon was an even more massive beast. Considered the largest shark ever to have lived, it had huge serrated teeth and at 60 feet and 100 tons dwarfed the Tyrannosaurus rex.

That's heady stuff for paleontologists.

Ancient treasure has been known to get in the way of modern construction. You may recall five years ago when the Los Angeles County Museum of Art was digging an underground garage and ran into a nearly intact Columbian mammoth, later named Zed. Excavation equipment shaved off the top of his skull, as the Los Angeles Times reported.

Construction ground to a halt as researchers unearthed the largest known cache of ice age fossils.

But the new treasure chest has barely caused a blip in work on the Calaveras Dam.

"The fossils didn't delay the project," Betsy Lauppe Rhodes, a spokeswoman with the San Francisco Public Utilities Commission, told The Times. What did delay the project, she said, was the discovery of two ancient landslides.

The slides would have made the dam site unsafe, so three years and several hundred million dollars were tacked on to the project to move vast amounts of earth and make the site stable. As the San Jose Mercury reports, the silver lining was that more fossils were uncovered.

There's been no danger to the fossils as a result of construction, Rhodes said. "That which was in the way of construction was removed quickly or stabilized and protected until we were able to remove them safely at a later time."

The dam project will be completed at the end of 2018, she said. As for the fossils, the Mercury notes, they are destined for a to-be-determined Bay Area museum.

http://www.latimes.com/science/sciencenow/la-sci-sn-calaveras-dam-fossils-discovery-20140707-story.html

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Alan Baldridge: 1933 – 2014

PACIFIC GROVE, CA – The birds and mammals of the Monterey Bay lost a loyal friend and protector with the passing of Alan Baldridge, 80, who died May 28, with his soulmate Sheila at his side.

After moving to the Monterey Peninsula in 1966, Alan became an expert on the identification, ecology, biology and conservation of local marine mammals, seabirds, and land birds. His passion for, and careful observation of these animals was shared in writing, teaching, and organizing efforts on their behalf. He co-authored in 1980, The Bird Year about the

seasonal habitats and ecology of Monterey's birdlife, and then Gray Whales in 1991, a classic, for the Monterey Bay Aquarium.

During nearly 30 years as librarian at Stanford University's Hopkins Marine Station, Alan was a tireless and life-long educator who was generally considered the "go-to" naturalist when government officials or news reporters wanted to know something about things that fly over, swim in or wash up on the shores of Monterey Bay. He inspired countless marine biologists, ornithologists and field birders with his passion for the ecology and conservation of the diversity of wildlife, which also took him on numerous travels throughout the world. His narrations on Monterey Bay pelagic trips were detailed accounts of the lives of both seabirds and mammals. At a physical therapy session the day before his death, Alan was joyfully educating the therapist about the pelicans she watches soaring over the ocean.

Alan's efforts in protecting wildlife included helping to establish the Monterey Bay Chapter of the American Cetacean Society. He was a major driver in establishing the Elkhorn Slough National Estuarine Research Reserve, the Monterey Bay National Marine Sanctuary and the Monterey Peninsula Regional Park District. Alan served on the boards of the Monterey Peninsula Audubon Society, Friends of the Sea Otter, Friends of Hopkins Marine Station and was a trustee for Myers Oceanographic and Marine Biology Trust.

A native of Darlington, England, Alan lived through World War II bombings, and graduated with a master's degree in library science. He courted a Scottish lass named Sheila Gibson by taking her for motorcycle rides to sewage ponds to watch birds. In spite of this they married in 1960, moved to the United States in 1962 and settled in Pacific Grove in 1966. Alan took the library position at Hopkins, while Sheila worked in a similar position at Moss Landing Marine Labs. From 1974-1978, Alan was librarian at the University of Miami Rosensteil School of Marine Science, before returning to Hopkins.

Along with his wife Sheila, Alan is survived by his brother, Ken and wife, Kath, and family of Darlington, and cousins, Joan and Frederick Frater and family of Rickmansworth, England.

The family would like to especially thank caregiver Doug Cupp for all his help and kindness to Alan during the last two years.

A memorial service will be scheduled at a future date.

In lieu of flowers, the family suggests any memorial contributions be made to: The Earl and Ethel Myers Oceanographic & Marine Biology Trust, P.O. Box 3221, Monterey, CA 93942; Point Blue Conservation Science (PRBO fund), 3820 Cypress Drive #11, Petaluma, CA 94954; Monterey Bay Chapter of the American Cetacean Society student research grants, P.O. Box HE, Pacific Grove, CA 93950.

Published in The Monterey Herald from May 31 to June 2, 2014

SIGHTINGS

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

Date	#	Type of Animal(s)
6/30 pm	2 40	Humpback Whales Risso's Dolphins
6/30 am	8 3 80	Humpback Whales Blue Whales Risso's Dolphins
6/29 am	11 1 90 3	Humpback Whales Blue Whale Risso's Dolphins Harbor Porpoise
6/28 am	13 100 5	Humpback Whales Risso's Dolphins (including young calves) Harbor Porpoise
6/27 pm	10 1 1 12 3	Humpback Whales Blue Whale Fin Whale Risso's Dolphins Harbor Porpoise
6/27 am	13 1 25 15	Humpback Whales Blue Whale Risso's Dolphins Harbor Porpoise
6/26 late pm	33 100	Humpback Whales Risso's Dolphins
6/26 pm	24 100	Humpback Whales Risso's Dolphins
6/26 am	8 100	Humpback Whales Risso's Dolphins
6/25 am	21 200	Humpback Whales Risso's Dolphins
6/23 am	23 15 8	Humpback Whales Risso's Dolphins Harbor Porpoise
6/22 am	25 1 12 20 10	Humpback Whales Minke Whale Pacific White-sided Dolphins Risso's Dolphins Harbor Porpoise

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Monterey Bay Chapter
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