

SAVE THE WHALES

Save The Whales purpose is to educate children and adults about marine mammals, their environment and their preservation.

Gray Whales Global Warming

Emaciated gray whales are increasingly being observed by scientists on the Pacific Coast of the United States who fear that the skinny grays are a sign that global warming is wreaking havoc in the whales' Bering Sea summer feeding grounds. They are concerned that the same phenomenon is cutting back reproduction in the Pacific whale population to the point it could be facing a new crisis, after supposedly recovering in the mid-1990s when they were removed from the endangered species list.

The gray whale is best known for its annual migration north and south along the coast of western North America. This marathon 10,000-14,000 mile round trip is among the longest known of any animal and is viewed by a fascinated public from boats and the shore.

"The gray whales are migrating later, not going as far north, and are producing fewer calves," stated Steven Swartz, head researcher with the National Marine Fisheries Service. With his team, Swartz meticulously photographs and identifies the migrating grays, and estimates that at least ten percent of the population is seriously skinny. "Instead of looking plump coming off the summer months, they have noticeable depressions behind the head, with scapulas visible through the skin, and concave sections above the tail." He added. "This is enough to cause alarm."

Swartz has studied the Pacific whale population since 1977. He saw the last major whale die-off in 1999 when an El Nino warming cycle left traditional northern feeding grounds barren and claimed one third of the population.

He has partnered with scientists at the Autonomous University of Baja Sur Mexico since 1996, keeping tabs on the whales' calving and long migration. The most recent gray whale survey in 2001 showed a decrease of thirty percent in five years. Researchers are now holding their breath while final tabulations are completed on a current survey, and are bracing for another drop, said Swartz.

There is no indication of disease yet in the population but with less food, the migrating whales are stopping to eat along the way. They have been straining mysid shrimp from kelp beds off California and British Columbia and skimming surface waters all along the West Coast for krill-like crustaceans. This opportunistic feeding has risks, as it can expose the whales to harmful parasites and other hazards.

It used to be rare to sight gray whales off Barrow, Alaska, but in recent years they have become summertime regulars as they search for food along the shoreline. Eastern Pacific gray whales historically congregated during the summer months in the shallows of the Chirikov Basin, located in the north Bering Sea and noted for its vast seafloor carpets of crustaceans named amphipods. The whales would eat them in large quantities to gain weight before their long journey to Baja.

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Iceland To Stop Issuing Whaling Permits

At the end of August, Iceland announced that it will not issue further commercial whaling quotas after existing permits expire on August 31. The reason given was poor market demand, particularly from Japan. Therefore, government officials see no reason to allow more whaling until "market conditions improve."

Last October, Iceland created an international upheaval when they announced they would resume commercial whaling. Their annual quotas totaled 30 minke whales and 9 fin whales. Fins, an endangered species, are second only to the blue whale in length.

Seven of each whale has been killed and the meat put into cold storage, as no buyers have been found, either domestically or in Japan. The high toxic levels of North Atlantic whale meat are a major concern.

This outcome was predicted by conservationists. In October 2006, Arni Finnsen from the Iceland Nature Conservation Association, said, "There is no market for this meat in Iceland, there is no possibility to export it to Japan; the government appears to have listened to fishermen who are blaming whales for eating all the fish. This decision is giving the finger to the international community."

Icelandic whalers continue to insist on the need for continued hunts in order to build up markets. Despite the current halting of commercial whaling, Iceland continues to hunt whales, as does Japan, under the guise of "scientific research."

Bajii Sighting

The Chinese media reported in August, 2007, that a businessman in Anhui Province filmed a big white animal with his digital camera. It was confirmed to be a Bajii dolphin, the first sighted in the Yangtze River since last year. At that time, a scientific expedition could not find a Bajii and they were declared extinct.

While there is hope that the Bajii are not extinct, extensive conservation efforts would be necessary by the Chinese government to protect these animals, which did not happen in previous years.

1880s Weapon Found in Body of Bowhead Whale

The massive body of a slaughtered bowhead whale contained a fragment of a bomb lance used by commercial whalers in the 1800s and suggested that the whale could have been more than 130 years old. It was killed in a traditional hunt carried out by the Inupiat people off the coast of Alaska in May 2007. Bowheads grow to 60 feet, weigh one ton at birth, and can weigh more than 120,000 pounds as adults.

Craig George, a wildlife biologist with the North Slope Borough's Department of Wildlife Management, said, "It was probably at least a yearling when it was struck, because the whalers never took calves."

The fragment of the bomb lance was given to scientists by the Inupiat whalers, George said. This particular device was easy to date because it was patented. The Inupiat have long said that bowhead whales live for the equivalent of two human lifetimes. George further stated, "What's their traditional knowledge. We're still catching up."

This information adds to recent findings that indicate bowhead whales have life spans that extend past a century. Newly accumulated information includes the discovery of old stone tools, last used in the 1880s, as well as analysis of the lenses of whales' eyes.

While commercial whaling is now banned by international agreement, natives from Alaska, the Chukotka region of eastern Russia, and Greenland are permitted to hunt a fixed number of whales for traditional, non-commercial consumption. In Alaska, meat from hunted whales is distributed to all residents of the hunters' villages.

Proof of Age Needed

Since 1981, Alaskan whale hunters have found at least six harpoon heads in bowhead whales that they have killed in the Beaufort Sea, southwest of the Arctic Ocean. The harpoon heads were made of stone or ivory. Anthropologists at the Smithsonian Institution in Washington, DC, estimate that they are between 130 and 200 years old and were probably used by Inupiat hunters in the late 1700s.

This circumstantial evidence led George and fellow researchers to believe that bowhead whales, named for their exaggerated jaw curve, could have a life span of more than 200 years. With blubber more than a foot thick and shielded by heavy bones in their skulls, their heads are used to break holes in sea ice. Bowheads spend their entire lives in northern waters.

The giant tortoise and the giant clam, which some have claimed can live about 150 and 220 years, are the only other animals with similarly long life spans. Scientific data was needed, however, to prove the whales' longevity.

Researchers turned to Jeffrey Bada and his colleagues at the Scripps Institution of Oceanography in La Jolla, CA. Bada, a geochemist, determines the age of living things by studying changes in levels of aspartic acid, an amino acid found in the eye lens and teeth. George sent Bada 48 frozen bowhead eyeballs, each about the size of a billiard ball, he and other biologists had saved from

whale hunts in Barrow, Gambell, Wainwright, Point Hope, and Savoonga from 1978 to 1997. George knew the relative ages of the sampled whales, but he didn't tell Bada, who nonetheless determined which sample came from an infant, a juvenile, or an adult.

By conducting aspartic acid racemization measurements using an HPLC/fluorescence detection method, Bada analyzed the bowhead eye lenses to estimate the whale's age at the time of death. The eye lens of a bowhead whale is made up of dozens of layers of protein, much like an onion. The first layer is completely formed while the animal is still in the womb, and then becomes biologically inactive. Following the onset of inactivity, racemization of amino acids begins and can be measured to estimate the amount of time since the initial deposit of the layer. Similar to the rings on a tree trunk, the lens of a

whale's eye is made of concentric spheres of protein, with the oldest rings nearest the center.

Proteins are synthesized from L-amino acids. Once the L-form is incorporated, it begins to racemize. The longer the racemization process continues, the closer to 1 the ratio between the D- and L-forms becomes. By measuring the degree of aspartate racemization at the centermost sphere, researchers estimate the age of dead whales.

This ratio allows chemists to approximate a birth date of a bowhead whale by estimating how long it has been since the first layer in the eye lens formed.

The proteins in each lens nucleus were acid hydrolyzed into free amino acids, which were then derivatized. The levels of D- and L-aspartic acid were analyzed by ion exchange chromatography or reversed-phase HPLC. The relative proportions of each enantiomer were measured using fluorescence detection.

According to Bada, aspartic acid was used because it has the fastest racemization rate. Unfortunately, none of the proteins' amino acids racemize as fast and thus, there is, in general, no detectable amounts of racemization other than for aspartic acid, he explains. Bada found that most of the adult whales were between 20 and 60 years old when they died, but five males were much older. One was 91, one was 135, one 159, one 172, and the oldest whale was 211 years old at the time of its death. He explained that the method of measuring changes in aspartic acid to determine age has an accuracy range of about 16 percent. This means that bowheads may be the oldest mammals that exist.

George speculated that bowheads live so long because their cold water environment, without abundant food, forces them to maintain a great body mass, an effective system for fat storage and an efficient means to keep warm. The stress of living in arctic waters may nurture the whale's pattern of slow growth and long life. "They just take longer to do what mammals do farther south," said Craig, who added that he has taken a bowhead's approach to higher education as he pursues a Ph.D. through the University of Alaska Fairbanks. "Like me - I'm closing in on 50 and I'm still in graduate school."

Source: *Alaska Science Forum*



U.N. Says Global Warming is the Result of Mankind

A draft U.N. report states that mankind is to blame for climate change but governments still have time to slow accelerating damage at moderate cost if they act quickly. The European Union states that speed is necessary to hold temperature rises to a maximum 2 Celsius (3.6 Fahrenheit) above pre-industrial times, but this goal is almost out of reach.

The 21-page study (release set for November) outlines possible responses to global warming but cautions that some impacts are already inevitable, such as a gradual rise in sea levels set to last for centuries. The report gives a first overview of 3,000 pages of research by the U.N.'s climate panel already published in three installments this year about the science, the likely impacts, and the costs of slowing climate change.

The authoritative summary, obtained by Reuters and meant to guide governments in working out how to slow warming, reiterates that humans are to blame for climate change but that clean technologies are available to offset the most harmful emissions. "Most of the observed increase in globally averaged temperatures since the mid-20th century is very likely due to the observed increase in anthropogenic (from human activities) greenhouse gas concentrations," it says. Very likely means at least 90 percent probability, up from 66 percent in a previous report by the U.N.'s Intergovernmental Panel on Climate Change (IPCC) in 2001 when the link was only judged "likely." The IPCC draws on work by 2,500 scientists.

A table in the report indicates worsening damage such as bleached corals, coastal flooding, increasing costs of treating disease, deaths from heatwaves and rising risks of extinctions of species of animals and plants. Under a range of scenarios, such thermal expansion of the oceans alone would bring sea level rises of 0.4 to 3.7 meters in coming centuries, without counting any melting of ice in glaciers or in the vast Greenland or Antarctic ice sheets. (Source, Reuters report.)

Bush Administration Being Sued over Endangered Species

The Center For Biological Diversity has filed formal notice of their intent to sue the U.S. Department of Interior for interference with 55 different endangered species cases in 28 states over the last several years. Among claims by the lawsuit are: unqualified, nonscientist bureaucrats edited scientific documents, overruled scientific experts and falsified economic analyses to justify lessening endangered species protections mandated by federal law.

The suit addresses removal of one species from the endangered species list, refusal to grant Endangered Species Act protections to three other species, proposals to remove or downgrade protection for seven animals, and the stripping of protection from 8.7 million acres of critical habitat for animals across the country.

Kieran Suckling, policy director of the Center for Biological Diversity, states, "It puts the Bush administration on trial at every level for systematically squelching government scientists and installing a cadre of political hatchetmen in positions of power." Suckling maintains that de-emphasizing endangered species comes straight from the White House.

Florida Everglades Taken Off List

The Florida Everglades were taken off a U.N. list of World Heritage sites considered "in danger." The Interior Department claims removal from the list recognizes progress in Everglades restoration. However, environmental groups state the decision is based on politics, not progress. Bill Nelson (D-FL) chairs a subcommittee overseeing U.N. activities, and wants to know why the Everglades are no longer considered in danger.

FLUKES DOWN

TO JUDGE SUSAN DAUPHINE of

Monterey County, California, for allowing pesticide application to continue on 54 acres of farmland in Moss Landing, CA. Residents near the site had requested a restraining order to block more applications of pesticides. Fumigation was halted, but the injunction was denied by the judge stating that not enough evidence was given to support it. Rodoni, owner of the property, wants to change his fields to grow strawberries which are disease prone. Highly toxic fumigants are applied that include chloropicrin, Telone and methyl bromide. Moss Landing is home to Elkhorn Slough, habitat to sea otters and other marine mammals and birds.



FLUKES UP

TO TYSON FOODS who recently announced

that they plan to raise chickens without antibiotics. Antibiotics and related drugs in the U.S. are used in healthy animals. Bacteria consistently exposed to drugs develop resistance to them. When the drugs are subsequently used in humans, they do not provide beneficial results.



TO REYKJAVIK, ICELAND for being chosen by the *Daily Grist*, an online environmental news source, as the greenest city on Earth. The capital city is committed to provide its heat and electricity from entirely renewable geothermal and hydro-power sources, and determined to be fossil-fuel-free by 2050.

TO POPE BENEDICT XVI for leading the Vatican's environmental campaign when he headed a youth festival in September attended by 300,000 young Roman Catholics in Loreto, Italy. Prayer books were made of recycled paper, hydrogen cars were on display, and trees were planted in areas of Southern Italy recently overrun by forest fires. The Vatican is becoming greener by installing photovoltaic cells on the roof of its main auditorium and joining a reforestation project aimed at offsetting its CO₂ emissions.

TO AUSTRALIAN POWER COMPANY ENVIROMISSION, set to become the world's leader in renewable energy technology through their proposed Solar Tower project, a \$225 million green power experiment to construct a 1,600 foot tower with enough generating capacity to fuel 100,000 homes. The tower acts like a giant greenhouse. Instead of relying on solar cells, it harnesses the sun's energy to create warm air currents that will drive a series of power generating turbines inside the tower. Located under the glaring sun of the Australian outback, the 50 megawatt pilot project will stand taller than Chicago's Sears Tower; it is 260 feet in diameter at the base. The capacity for the technology is far greater though, and has gained the attention of Chinese investors.

TO HOLLAND AMERICA for outfitting America's *Zaandam* with a seawater scrubber system designed to reduce pollution caused by engine emissions. Developed by a subsidiary of BPMarine, the system uses seawater to reduce sulfur dioxide and particle emissions from diesel exhaust. The seawater is treated to remove any harmful materials, while the calcium carbonate naturally occurring in seawater renders the remaining sulfur oxides harmless by converting them into neutral salts.

U.S. Naval Sonar Testing Injures and Kills

In August 2007, U.S. District Judge Florence-Marie Cooper (Central District, CA) issued a temporary injunction banning the use of mid-frequency active sonar by the U.S. Navy in exercises off the Southern California coast through 2009. The judge noted that the Navy's own evaluation states the sonar exercises could disrupt up to 170,000 marine mammals, and may cause permanent injury and death. The court characterized the Navy's proposed mitigation measures as woefully inadequate and ineffectual.

The Navy planned to use mid-frequency sonar systems which generate underwater sound loud enough to blast thousands of square miles of ocean with dangerous levels of noise pollution. The Navy refuses to: use larger safety zones to protect marine mammals close to sonar ships; avoid key whale habitat; monitor for marine mammals 30 minutes before training begins; reduce solar power during times of poor visibility when whales are difficult to see; and allow for reasonable avoidance of migrating gray whales.

The court found a probability that the Navy had not complied with three federal environmental and administrative laws. According to a report by the scientific committee of the International Whaling Commission, the evidence linking sonar to a series of whale strandings in recent years is very convincing and appears overwhelming. Yet, in spite of this report, the use of deadly sonar in the world's oceans is spreading.

Right Whale Mothers and Calves Given Protection

Right whales are the most endangered whale species. They will now get extra protection in their calving grounds off the coasts of Georgia, South Carolina and Florida. The National Marine Fisheries Service (NMFS) has announced a seasonal closure of the gillnet fishery in this area where the whales and calves are most vulnerable. This victory is due in large part to the many letters and emails sent to NMFS by the public.

Polar Bears: A Question of Survival

Scientists predict that two-thirds of the world's polar bears will be gone, and the entire population of Alaska will disappear by 2050. The cause is thinning ice from global warming in the Arctic. The only polar bears expected to survive through the end of the century will be those in the northern Canadian Arctic islands and the west coast of Greenland, reports the U.S. Geological Survey (USGS).

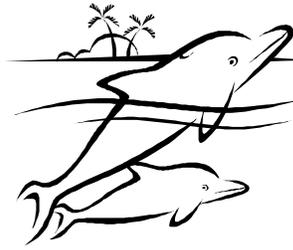
Polar bears hunt from sea ice for seals, their primary food. Rarely do they catch seals on land or in the open sea. The general decline of Arctic sea ice appears to have been underestimated.

USGS issued nine separate reports on polar bears, including projections for one group in the Southern Beaufort Sea and two in Canada, that are among the 19 distinct populations. These reports are to help guide Interior Secretary Dirk Kempthorne's decision - expected in January - to add the polar bear to the endangered species list.

Kassie Siegel of the Center for Biological Diversity said, "The good news is that there is still time to save polar bears. Our hope lies in a rapid response, including both deep and immediate carbon dioxide reductions and a full-court press on other greenhouse pollutants such as methane." Fish and Wildlife officials have received 600,000 public comments so far on the proposed listing. The plight of the polar bears seems to have struck a public nerve.

Deaf Dolphin Gives Birth

Last November in Vero Beach, Florida, a stranded deaf Atlantic bottlenose dolphin delivered her calf at a marine mammal rehabilitation center in the Florida Keys. Her calf, a male, was born June 11,



2007. He was approximately 42 inches long and weighed about 30 pounds, according to officials at the Marine Mammal Conservancy (MMC). "The calf looks great. It's swimming real well and breathing normally," said MMC president Robert Lingenfelter.

Mother and calf bonded immediately and both appeared well. The mother named Castaway vocalized to her calf and the baby answered back, said Lingenfelter. But he did not believe that Castaway could process the calf's return sounds. "Castaway's vocalizations are not normal," Lingenfelter said. "She speaks in a monotone, similar to the way that people who cannot hear speak."

Because Castaway can't hear, MMC officials installed a dolphin "hat" of sorts, electronically connecting Castaway's habitat with a lagoon at Dolphins Plus, a research and interactive educational facility a few miles away. Underwater speakers and microphones were installed at both locations and connected via phone lines donated by AT&T.

Unfortunately, the calf only lived for a few days after being named Wilson by the MMC staff. Cause of death is unknown.

After Castaway's first stranding, she was initially deemed healthy enough for release after convalescing for more than two months at the Mote Marine Laboratory in Sarasota, FL. But instead of swimming offshore, she returned to the beach three times and was then transported to the Keys. In July 2007, Castaway was moved to Dolphins Plus Research and Education Facility in Key Largo, FL which will be her permanent home. Upon arrival, she immediately accepted a meal; it appears that she is quite comfortable in her surroundings.

Inspirations

The Inspirations section under ABOUT US on our website savethewhales.org features the talents of children and adults who have impressed us with their creativity in different forms. Inspirations is divided into three sections: Fundraisers, Letters and Poems. We welcome all contributions.

Honoring Orca Capture Victims

On the 37th anniversary of the Penn Cove capture, Orca Network held its annual commemoration of all of the orcas taken from the San Juan Islands off the state of Washington during the capture era. The sole survivor, Lolita, presently lives alone at the Miami Seaquarium where she has been for 37 years. During the capture period, 45 Southern Resident orcas were captured and taken to marine parks, while another dozen or more were killed during the capture process.

When a count of the remaining population was completed in 1976, it was learned that one third to one half had been taken from their home waters. The removal of these younger whales made an impact on this small, fragile population that is felt today.

Saving Whales for Alison Rodecker Ongoing

Save The Whales has received additional funds from Perth Amboy, New Jersey School District in memory of Alison Rodecker, the daughter of Perth Amboy Superintendent of Schools, John M. Rodecker, and his wife Lynn. Contributing schools are:

Ignacio Cruz Early Childhood Center \$525

School Seven Early Childhood Center (included with Ignacio Cruz)

James J. Flynn School \$300

Robert N. Wilentz School \$450

William C. McGinnis School \$68

Perth Amboy High School \$650

Perth Amboy Adult Education Center (included with PA high)

Jack Rodecker \$100

Donations reported in our last newsletter

Dr. Herbert N. Richardson 21st Century School \$250

Edward J. Patten School \$365

Total donations: \$2,708 for Whales on Wheels WOW!

Save The Whales received a video from the schools depicting their range of productions. The effort and care put into the multiple creations is a loving tribute to the Rodeckers and Alison's memory.

Member Has Yearly Fundraiser

Alex Verron of Connecticut has had a fundraiser for Save The Whales four years in a row. This year, he raised an impressive \$1,469 by holding a donation party where he auctioned and raffled Save The Whales products. The funds Alex raised will be used for our school education and outreach program, Whales On Wheels WOW! Many thanks for your dedicated support, Alex.

Vacation Bible School Raises Funds

The Frankford Plains United Methodist Church in Augusta, N.J., held its yearly vacation Bible School in August. The theme was "Underwater Bible Adventures," and their mission project was Save The Whales. The children were told that they are called to be good stewards of what God has created for us. In addition to collecting \$300 for Save The Whales, the children learned many facts concerning efforts to save the whales. Thank you, children, for your meaningful contribution to saving whales.

I Am The Whale

I am like silver waves crashing
through the water.

When you see me,
you feel safe.

The sapphire-colored world
is my home.

My skin is smoother than
the smoothest sea.

I am a powerful being.

My eyes are bluer than
the deepest blue.

My breed is dying.

I must fight.

So, I will leave you, but

I tell you now,

I Am The Whale.

Rowan McMillan, age 8
California

The following letter was written by a 10-year old boy
in the U.K. to his Member of Parliament

Dear Mr. Richard Ottoway M.P.,

I am 10 years old, I live in Croydon and I am currently at Whyteleafe School doing a project on marine conservation. I would like to draw your attention to the accidental killing of whales courtesy of helium balloons.

I understand that they look good and are fun to watch floating off into the atmosphere, but the point is that they drop down as LITTER. The majority of it comes down into the sea.

When the balloons and litter float around in the sea the marine animals innocently mistake them for food such as jellyfish and squid. After the animals have attempted to eat the balloon or litter they choke on it or the litter clogs their breathing or food pipes. e.g. on New Jersey Beach a young sperm whale was found with a balloon lodged in its stomach preventing the passage of food. A leatherback turtle (which is an endangered species) starved to death because a latex balloon halted the passage of food to its stomach. The only thing found in its intestines in a post mortem was three feet of nylon string attached to the balloon.

These are only two graphic examples of the thousands of marine animals killed every year by balloons.

There are lots of alternatives to helium balloons outdoors, such as kites, flowers, windsocks and even tethered balloons. For competitions, instead of releasing balloons outside and seeing how far they get you could release them indoors and see which one drops last, or release 5-15 balloons to the ceiling and take it in turns to pull them down until the winning ticket is found.

What I would like to happen is people to be aware of their actions. I would like it to become law that balloons are only sold with a bold warning explaining exactly what the consequences are.

You may think that this issue does not affect people in the Croydon area, but on my fifth birthday I let off some balloons for my birthday party at home. One of these balloons traveled all the way to France but we didn't hear back from the others, so it is possible that they landed in the sea.

If you could help me raise awareness issues and reduce the littering of our oceans, I would be very grateful. I hope I have made my point to you.

Yours sincerely,

Charlie Sussemilch

June 2007

Please see Balloon Alert under savethewhales.org/TakeAction/BalloonAlert

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Summer/Fall 2007

Tagging Ocean Animals

Tagging of Pacific Predators is a 10-year project (headquartered at Hopkins Marine Station, Long Marine Lab, and NOAA's Southwest Fisheries Center in Pacific Grove, both in California) that is putting satellite tags on thousands of the Pacific Ocean's top predators. Its new site (<http://www.topp.org>) uses the latest Web technology to connect humans who love and are intrigued by the oceans with the lives of ocean-going animals. It features animated maps of migrating white sharks, leatherback turtles, salmon sharks and elephant seals, with 18 more species to come. Researchers blog daily, currently from a shark-tagging cruise off California, a turtle-tagging expedition in Indonesia, and a black-footed albatross fledgling tagging in Midway Atoll. By downloading a widget, kids (and adults) can maintain a direct connection to a live wild migrating animal in the Pacific Ocean.

Other features on TOPP.org include videos, updated ocean news, photo-of-the-day, ask-a-researcher, and feature stories about the research, the animals and the scientists.

The site was created by the same team behind the Great Turtle Race (<http://www.greatturtlerace.com>). That project demonstrated that the approach of engaging the general public with interactive graphics combined with stories that explain the science by using multimedia tools and by linking directly to a living, migrating animal, is a powerful way to educate people.

Fossil Whale Bones in Japan

Researchers at a museum in central Japan claim that their right whale fossils are at least 5 million years old, which would make them the oldest fossilized whale remains in the world. The skeleton was first uncovered in 1938 when people found the whale's spine and rib bones on the ground. Because the country was at war, the bones were left undisturbed.

In 1967, researchers returned to the site but the exposed skeleton parts had been scattered or lost. The skull and upper jaw parts were excavated, but it wasn't until recently that the museum could afford to get the bones dated.

While of the right whale genus, the fossil is believed to have belonged to a different species from those of other right whale fossils found to date. Right whale skeletons have been found in Europe, but the Nagano fossils and their dating suggest that right whales may have originated in the North Pacific.

Whale Bones Found at Trader Joe's, Monterey CA

While working on the foundation for a Trader Joe's (specialty grocery store chain) in Monterey, California, workers uncovered a pit full of whale bones. Ellie Reese, an archeologist hired by the building contractor, was asked to evaluate the bones. Because the bones aren't connected, she said, they would have been discarded presumably sometime during the whaling industry, which takes us back to the 19th century.

In the 1800s, whaling was prevalent in Monterey and humpbacks and gray whales were killed and brought ashore so their blubber could be removed. It was then heated to extract oil.

The bones were discovered at the last few feet of the dig, and work was stopped immediately so the bones could be assessed.

Save The Whales Outreach 2007-2008

Whales on Wheels WOW™ - Save The Whales continues its educational program, Whales On Wheels WOW™ in Monterey and Santa Cruz Counties in California. Included in the presentations are whale bones, dolphin skulls, baleen, visual aides, whale vocalizations, and hands-on activities. Maris Sidenstecker, marine biologist and co-founder - Save The Whales, and Tom Kieckhefer, marine biologist, bring their love of marine mammals and the ocean environment to children and adults. Tom also does otter programs, as he has researched otters for many years. Thank you to members and contributors whose support makes this program possible. To date over 275,000 students have seen WOW!

Songs to Save Our Planet - Joan Cobb Hopkins wrote the lyrics for *Sing To Save The Whales* which is found on our website. Now, Joan has written the words and music for a CD titled *Songs to Save Our Planet* for Save The Whales. Maggy May Trout, who may be heard on our website, will be on the CD, along with other talented soloists and a children's chorus from the International School of Monterey, CA. The

songs, with their important messages, include *The Pollution Solution* and *It's Earth Day Now*.

The CD is in production, and its completion will be announced.



One Dog, Many Dolphins

About five years ago, a fluffy gray dog waltzed his way into Dolphin Reef in Eilat, Israel. He went down to the pier and sat gazing at the dolphins. For hours, he would sit staring at the dolphins and, of course, the dolphins being curious creatures themselves found him very interesting. After gaining some confidence, the dog decided to take the big plunge and join the dolphins in the water. From then on, Joker would swim with them every day.

Joker is a very special dog, not only because he swims with dolphins, but for many other traits. One of the most interesting things is that he comes to Dolphin Reef by foot each day from town, which is a few kilometers away, and spends the day at Dolphin Reef. When it's time to go home he usually hitches a ride with one of the workers. He waits at the entrance of Dolphin Reef, and when one of the workers he recognizes comes up the stairway towards the parking lot he joins him. Once the car door opens he jumps in with a look that says, "Are you ready to go?"

One time Joker took a ride with the wrong person and ended up a long way from home. His frantic owners checked everywhere but he was not to be found. By advertising via websites and the national paper, his owners received word - after a few weeks - that a dog fitting Joker's description was on a farm approximately 100 km away. To everyone's relief, it was Joker.

He was back at Dolphin Reef the next day, happy as ever, and swimming with the dolphins. If you travel to Dolphin Reef, you will see Joker at the end of the pier gazing at the dolphins with a big smile on his face.



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Their food source, amphipods, grows in tubes on sandy or muddy sea floors. Since amphipods cannot move around, they depend on bits of algae to come close to them so that they can use their antennae to pull the food into their mouths. Confetti is another food source that showers down from shaggy mats of algae that grow on the underside of ice sheets at the ocean's surface. Another source is brought by ocean currents which carry a mix of algae or plankton. These supplies have diminished or been cut off as the northern Bering Sea shifts from a seasonally ice-dominated region to more of an open ocean, and new types of fish migrate to the area, consume the amphipods and compete with the whales. The whales are struggling to adapt to the rapid changes. Other species that feed on the bottom, such as walrus and sea ducks, are declining.

The National Marine Fisheries Service keeps watch 12 hours a day from March to June and counts each gray whale that passes by the Piedras Blancas Lighthouse on California's Central Coast.

New Study on Gray Whale Populations

It is now estimated that the Pacific gray whale populations may have been three to five times larger than previously believed, according to a new study published in the *Proceedings of the National Academy of Sciences*. S. Elizabeth Alter, Eric Rynes and Stephen Palmi have conducted a genetic analysis to calculate back the pre-whaling size of the Pacific gray whale populations. They found that levels of genetic variation in eastern Pacific gray whales were higher than expected. These results enabled the authors to estimate that the historic population of all Pacific gray whales could have averaged 96,000 whales. This is substantially higher than the current population estimated at 22,000.

This research has several implications for gray whales and ocean management, and asks the question of whether gray whale protection should be enlarged. The growing threats of climate change, overfishing, ship strikes, and pollution may undermine their ability to recover. This underscores the necessity that protection of this species should be increased.

Five Dolphins Shot to Death in Southern California

Within a one-week period five dead dolphins washed ashore in San Diego County. Federal officials said that they had never seen this many dead dolphins with bullet wounds, as they usually get one nationwide report yearly of a dolphin with a bullet wound. The long-beaked common dolphins were all discovered between May 29 and June 5, and photos showed their normally sleek gray skin mottled with bloodstains from the bullets.

Necropsies revealed healthy dolphins with stomachs full of fish. It is speculated that they were shot with the same gun. A National Oceanic & Atmospheric Administration spokesman said that it usually turns out to be one fisherman who takes out his frustration on marine mammals that eat their catch.

A reward is offered up to \$2,500 for information on the deaths. If apprehended, the perpetrator could face civil penalties of up to \$12,000 or a criminal fine of up to \$20,000 in addition to jail time.

The Holidays are Coming. For a great selection of holiday gifts, please check out Save The Whales' WHALE STORE at our website www.savethewhales.org.

Cetacean Deaths

Fin Whale and Gray Whale - Northern California

The body of a 60-foot female fin whale washed ashore on the Mendocino Coast of Northern California. The whale was dead about a week and a half before it came onshore near the city of Westport. Many persons took advantage of the location just off Highway 1 to go down to the beach and view the body. Unfortunately, some people purposely ran over the whale's body in their 4-wheel drive vehicles. In June, the badly decomposed body of a small gray whale (18-20 feet) washed ashore in Mendocino County.

Minke Whale - Ireland

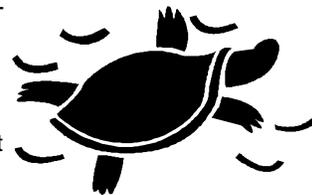
Nic and Wendy Slocum of Whale Watch West Cork, Ireland, emailed photos of a dead minke whale floating offshore near Cork, Ireland. Save The Whales' marine biologist Tom Kieckhefer viewed the photographs, and said that he believes that the fresh scarring and bleeding along the ventral peduncle and tail do not look like killer whale teeth rake marks, but more like abrasions. Tom said it looks as if 2-3 big gashes along the dorsal side of the peduncle might be large propeller wounds. It is possible the whale was coming up to breathe when hit by the propeller, and then tried to roll out of the way when further abrasions occurred.

Cuvier's Beaked Whale - California

A Cuvier's beaked whale washed ashore in Monterey, California. It was the first time in 20 years that a Cuvier's had washed ashore there, and an autopsy is pending to pinpoint its cause of death.

Kemp's Ridley Sea Turtles Make Comeback

Kemp's Ridley sea turtles, the smallest and most endangered of the sea turtles nesting on American shores, have made their own astounding comeback due to an ongoing partnership between biologists, regulatory entities, environmentalists and fishermen. The turtles were added to the Endangered Species List in 1970 when researchers could only confirm a few hundred nest sites; Kemp's Ridelys now number in the tens of thousands.



A key part of the restoration plan was the establishment of a turtle camp in Tepehuajes, Mexico. Hatchlings are raised in captivity by biologists and released into the Gulf of Mexico when they can fend for themselves. Mexican and American shrimpers played an active role in the reinstatement efforts and even funded the creation of the turtle camp.

The Kemp's Ridley project is an example of the restoration of an endangered species program that's worked very well, says Les Hodgson, a shrimp wholesaler in Brownsville, Texas, who has led the shrimping industry's involvement in the restoration work. And the health of the marine environment - which our shrimpers rely on - is dependent on the health of the species. It has a ripple effect. Since our living is derived from the Gulf of Mexico, it's in our best interest not to lose the Kemp's Ridley turtle.

But vulnerable sea turtles still have many hurdles in Mexico. In late August, Mexican police seized 57,000 eggs of endangered turtles from smugglers in the southern state of Oaxaca. Many of the eggs were from olive ridley turtles, listed as endangered by the U.S. Endangered Species Act.

Fishermen From Wales -

Invent Greenbox to Capture Greenhouse Gases

A box that can be fixed to the exhaust outlet of any vehicle that can safely capture greenhouse gas emissions has been invented by three fishermen from Wales.

In addition to reducing the vehicle emissions by 85% to 95%, the Greenbox is able to provide the raw ingredients for new biofuel production. When the Greenbox is full, it can be detached from the vehicle and sent to a bioreactor where it provides food to algae that can then be converted to bio-diesel.

Through a chemical reaction, the captured gases from the box would be fed to algae, which would then be crushed to produce a bio-oil. This extract can be converted to produce a biodiesel almost identical to normal diesel.

This biodiesel can be fed back into a diesel engine, the emptied Greenbox can be affixed to the car, and the cycle can begin again. The process also yields methane gas and fertilizer, both of which can be captured separately. The algae required to capture all of Britain's auto emissions would take up around 1,000 acres.



The Constant Gardeners

If you have a lawn, you have probably mowed it several times this summer and, if you have a gasoline-powered mower, you have been putting excessive amounts of pollution into the environment.

One mower used weekly during the growing season pollutes as much as 43 late-model cars driven 12,000 miles a year, says Sam Atwood, spokesperson for the South Coast Air Quality Management District, the smog control agency for four urban counties in Southern California. They're little pollution factories on wheels.

Gas lawn mowers produce high levels of carbon monoxide, as well as hydrocarbons and nitrogen oxides, which combine in the presence of heat and sunlight to form ground-level ozone, an odorless gas. The EPA estimates that approximately 54 million Americans cut their lawns with gas mowers. Combined with leaf blowers, weed whackers and other gas-powered garden equipment, this equipment contributes to nearly five percent of the nation's air pollution in the summer months. Electric mowers have been on the market but they were often impractical because they require an extension cord. Several companies are selling cordless mowers that run on rechargeable batteries. Cordless mowers are quieter than regular machines and require lower maintenance. Push mowers are the best choice, particularly if you have a small area.



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