



South Carolina Marine Mammal Stranding Network



What's New?

Well, 2011 has been another strange stranding year. Or, if you've only been paying attention for two years, it's about the same as last year. For the second year in a row, we had an unusually large number of strandings toward the end of winter (potentially related to another unusually cold winter) and a very quiet fall, which is traditionally the peak stranding season for our state. This year's late winter stranding peak was strong enough to merit official designation by the National Marine Fisheries Service as an Unusual Mortality Event. Please see Wayne McFee's summary in this newsletter. You will also want to see his account of an unusual dolphin stranding – death by sheephead.

The SCMMSN website (<http://bccmws.coastal.edu/stranding>) has been up and running all year, providing information on the Network's mission, personnel, ways to help, South Carolina marine

mammal related news, general information on marine mammals and the species that have stranded on our coast, classroom links, our projects and publications and FAQ's. Species Fact Sheets were recently created with local information on strandings. You may also access stranding statistics by year and by month on our website. A links page was created providing access to most (if not all) marine mammal stranding networks in the US.

The South Carolina Marine Mammal Stranding Network is now part of social media. We joined Facebook and we hope you will 'like' our page (<http://www.facebook.com/pages/South-Carolina-Marine-Mammal-Stranding-Network/177864235606242>). CCU student Daniela Cardoso Da Silva has done a fantastic job putting this together and keeps the posts coming (thank goodness, as I am social net-

working inept). In our Facebook page, we will keep you up-to-date on stranding news, quick facts and information on ongoing research, volunteer training workshops and fundraisers.

Stranding response in South Carolina has benefited greatly from NOAA Prescott funding, but these funds are not guaranteed forever, and the network is putting together our first fundraising efforts. Daniela is organizing a SCMMSN golf tournament fundraiser in Myrtle Beach in July, and an 'Adopt a Dolphin' program is on its way. This symbolic adoption of one of our resident bottlenose dolphins from photo-ID research will get you an adoption certificate with the chosen dolphin's picture and history. More to come this spring.

As always, thank you to the many dedicated network volunteers in SC!

Rob Young
SCMMSN Coordinator

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The South Carolina Marine Mammal Stranding Network is administered by Coastal Carolina University under the authority of the National Oceanic and Atmospheric Administration (NOAA Stranding Agreement Letter, under authorization of Sections 112(c) and 403 of the Marine Mammal Protection Act)



Stranding News

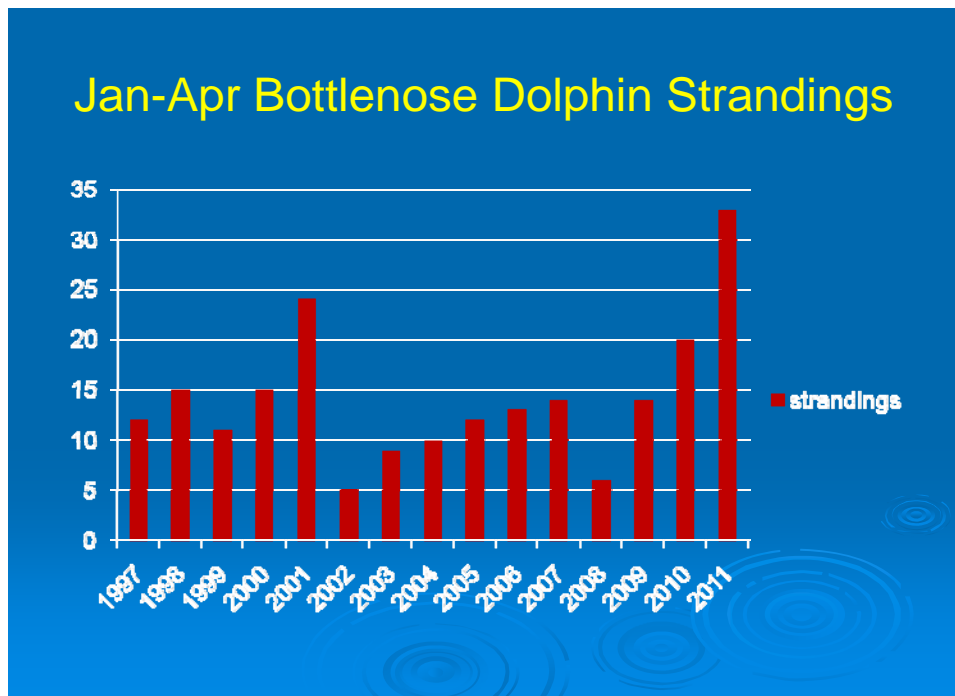
Unusual Mortality Event (UME) of Bottlenose Dolphins Declared in South Carolina

By Wayne McFee

On May 6, 2011, the National Marine Fisheries Service (NMFS) declared an Unusual Mortality Event (UME) of bottlenose dolphins in South Carolina. National Centers for Coastal Ocean Science personnel identified an increase in bottlenose dolphin strandings from February through May 2011. All four months were well above the historical average plus two standard deviations, which is one criterion NMFS uses to consider a UME designation. Thirty-seven bottlenose dolphins stranded in SC from February 27 to May 26. Since 1997, the average number of strandings during the same time period was 12.8. The UME designation will allow for the funding of analyses of tissues collected from these animals to elucidate a potential cause for the increase in strandings. However, the advanced decomposition of most carcasses may render a cause inconclusive. Causes of past UME's of bottlenose dolphins in the US include toxins, infectious diseases, ecological factors (e.g. harmful algal blooms), and unknown causes. This winter was an anomaly with water temperatures reaching below 8°C for a prolonged period of time beginning in late December 2010 and extending through mid-February. This anomaly greatly reduced certain fish and shrimp stocks, primary food re-

sources for bottlenose dolphins. It is therefore plausible that reduced food resources affected dolphin survival during this time. A similar, though not as extensive, dolphin mortality occurred in 2001 when water temperatures were below 8°C for a prolonged period of time. While this scenario is plausible, other factors may have contributed to the high mortality. So far, analyses on samples collected by the SCMMSN have ruled out algal toxins (domoic acid) and toxoplasmosis (a bacterial disease) as a cause. Histological analyses on the few fresh dead dolphins have not revealed many consistencies in pathology, though one dolphin showed evi-

dence of a viral infection similar to what was seen in the 1987-88 die-off of bottlenose dolphins along the US east coast. As a result, tissue samples are now being analyzed by the University of Florida Veterinary Pathology Lab for a viral etiology. Those results are pending and will be discussed in a later newsletter. NOS personnel would like to thank all the SCMMSN volunteers for their timely notification and response to these strandings. These assessments are critical to understanding how climate may affect marine species mortality, and to detect pathogens that may proliferate through populations that live in our coastal waters.



2011 Wrap-Up

With a few days left in the calendar year, a total of 76 marine mammal strandings have been recorded for South Carolina in 2011. This is just short of the 2001 record of 80. Most were bottlenose dolphins, but the list also included a few pygmy and dwarf sperm whales, a true sperm whale, a right whale, and a Gervai's beaked whale. A manatee swam through a culvert and was stuck in an enclosed marsh pond in Garden City (Horry County), but fortunately it found its own way out overnight on the next high tide. Despite the cold winter, we did not have any seal sightings this year. Last year had a number of seals, but since this winter was similar to last year's, there must be more to the seal sightings than just temperature. You can find out more about any of these species on the SCMMSN web site.



Featured Species: West Indian Manatee

West Indian Manatees (*Trichechus manatus*) are divided into 2 subspecies, the Antillean manatee (*Trichechus manatus manatus*) and the Florida manatee (*Trichechus manatus latirostris*). Florida manatees live year-round along the Florida coast, estuaries and major rivers. They are known to migrate as far north as Rhode Island in the Atlantic and as far west as Louisiana in the Gulf of Mexico during the summer. Manatees are the only marine mammal that routinely moves from salt to fresh water and back without physiological restrictions.

Manatees have a large, round body, thin caudal peduncle ending in a round flat tail. There are sparse coarse hair along wrinkled skin. Whiskers are found along upper and lower jaw. Pectoral fins are mobile with 3-4 nails. Color may vary from gray to brown with shading

caused by algae and barnacles on the back. Manatees may form mating groups or share resources in short lived groups. The basic social structure is mother-calf pair. They are herbivorous, eating both aquatic and semi-aquatic plants.



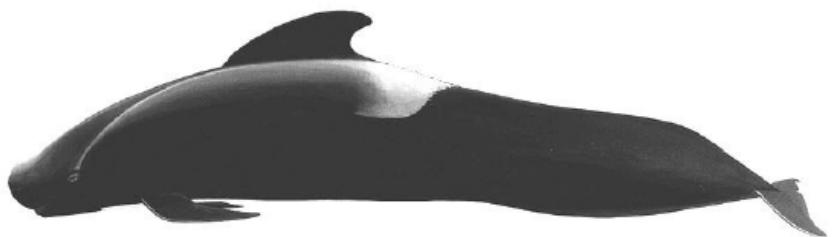
This manatee attracted a crowd after it swam through these culverts and was temporarily trapped in a small marsh pond in Murrells Inlet. Technically, the SCMMSN does not respond to manatees, as they are overseen by the USFWS instead of NOAA/NMFS, but we help out of course. (photos, Rob Young)

Featured Species: Short-finned Pilot Whale

Short-finned Pilot Whales (*Globicephala macrorhynchus*) inhabit warm waters, ranging from New Jersey to Florida and the Gulf of Mexico in the United States' Atlantic coast. Its also common in the Caribbean. They differ from their cold-water relative, the Long-finned Pilot Whale, mainly in distribution, pectoral fin size and number of teeth. Skull analyzes might be necessary to identify the species. They vary in size from 16 to 24 feet (4 to 6 m) with males being larger than females. Males also have larger dorsal fin and more pronounced melon.

Short-finned Pilot Whales have a long, dark body with light patch behind the broad-based falcate dorsal fin. They have light patches on the throat and urogenital area. The melon is pronounced and pectoral fins are short.

They are generally pelagic, feeding mainly on squid and occasionally on fish and octopus. These whales are highly social, living in small family groups of 15 to large herds and often associate with other cetaceans. Despite its social nature, only single strandings have been reported in South Carolina, an average of one every three years, with the last one in 2010.



Source: FAO Species Identification Guide: Marine Mammals of the World, 1993.



To report stranded marine mammal, please call the
SCDNR Wildlife Hotline:
1-800-922-5431



Our work is made possible by the NOAA Fisheries
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Please visit our website (<http://bccmws.coastal.edu/stranding>)
for more information. Your gift is highly appreciated!



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