

STELLWAGEN BANK E-NOTES: sanctuary news & events

May 2012



A North Atlantic right whale skim feeds in waters near the sanctuary.

Credit: SBNMS file photo. Taken under NOAA Fisheries Permit #605-1904.

Happy
20th!
Sanctuary
Celebrates
Its 20th
Anniversary
in 2012



A right whale tail decorates the
Whale Alert app icon.
Download the app free of charge
from the App Store.

Free *Whale Alert* app released

New iPad, iPhone app helps mariners avoid endangered right whales

Mariners along the U.S. East Coast will now have a new iPad and iPhone application that warns them when they enter areas of high risk of collision with critically endangered right whales. The free *Whale Alert* app provides one source for information about right whale management measures and the latest data about right whale detections, all overlaid on NOAA digital charts.

“Whale Alert represents an innovative collaboration to protect this critically endangered species,” said David Wiley, Stellwagen Bank sanctuary research coordinator and project lead. “Whale conservation is greater than any one organization and this project shows how many disparate organizations can unite for a good cause.”

A key feature of *Whale Alert* is a display linking near real-time acoustic buoys that listen for right whale calls to an iPad on a ship’s bridge showing the whale’s presence to captains transiting the shipping lanes in and around Stellwagen Bank National Marine Sanctuary. “The idea that right whales are directly contributing to conservation through their own calls is pretty exciting,” said Christopher Clark, whose team at the Bioacoustics Research Program at the Cornell Lab of Ornithology helped develop the acoustic detection and warning system.

For more information
on *Whale Alert*, visit
[http://stellwagen.noaa.gov/
protect/whalealert.html](http://stellwagen.noaa.gov/protect/whalealert.html)

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EDITOR: Anne Smrcina

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North Atlantic right whales, which live along North America's East Coast from Nova Scotia to Florida, are one of the world's rarest large animals and a species on the brink of extinction. Recent estimates put the population of North Atlantic right whales at approximately 350 to 550 animals. Collision with ships is a leading cause of right whale death.

"Massport is proud to be part of this effort. We are working with our cruise and shipping vessel partners to educate mariners about the whales, and the importance of this great new tool," said Michael Leone, port director for the Massachusetts Port Authority. "The maritime community has always sought ways to increase right whale survival. Whale Alert does this by using science and technology to let mariners know where their vessel is in relation to the whales and conservation measures."

The link to the listening network is only part of what Whale Alert does. The app uses GPS, Automatic Identification System, Internet and digital nautical chart technologies to alert mariners to NOAA's right whale conservation measures that are active in their immediate vicinity. NOAA is the U.S. agency with responsibility for protecting and recovering this endangered species.

"Endangered right whales are particularly vulnerable to being run over and killed by ships, but we can save them. Right whales need dramatic conservation progress to survive. This new iPad app gives these whales a fighting chance," said Patrick Ramage, Whale Program Director for the International Fund for Animal Welfare and one of the collaborators on Whale Alert.

"The app also moves whale conservation into the 21st century," said Brad Winney, Co-Founder of EarthNC, Inc., developer of the Whale Alert mobile application. "Whale Alert highlights the powerful role today's web and mobile based technologies can have in the preservation efforts of endangered species worldwide."

Whale Alert has been developed by a collaboration of government agencies, academic institutions, non-profit conservation groups and private sector industries, led by scientists at NOAA's Stellwagen Bank National Marine Sanctuary. Participating organizations include Bioacoustics Research Program at Cornell University, Center for Coastal and Ocean Mapping at the University of New Hampshire, EarthNC, Excelerate Energy, EOM Offshore, Gaia GPS, International Fund for Animal Welfare, Massachusetts Port Authority, NOAA Fisheries Service, National Park Service, Cape Cod National Seashore, NYK Line (North America), United States Coast Guard and the Woods Hole Oceanographic Institution.

Event commemorates 100th anniversary of *Titanic* sinking

Stellwagen Bank sanctuary maritime archaeologist Deborah Marx represented NOAA at a National Park Service ceremony to remember the loss of the *Titanic*. It was from the coastal bluffs overlooking the Atlantic that operators at the Marconi Wireless Station, now part of the Cape Cod National Seashore, sent some of the last messages to the *Titanic* on that fateful night (April 14-15, 1912).

Marx joined William Burke, cultural resource program manager of Cape Cod National Seashore and Mark Wilkins, maritime historian from Mystic Seaport in sharing thoughts on why the *Titanic* story is everlasting and what is being done to preserve and protect the ship's remains. USCG staff laid a wreath at sea at the end of the April 14 ceremony. Massachusetts Maritime Academy cadets used red (dot) and white (dash) flags to send the Morse Code message "R" for "ready." A shore-side wreath was placed in waters outside the surf zone the following morning.



Coast Guardsmen lay a wreath to commemorate the 100th anniversary of the sinking of the *Titanic*.

David Wiley profiled in new *Wildlife Heroes* book

David Wiley, research coordinator for NOAA's Stellwagen Bank National Marine Sanctuary, is featured in a new book "Wildlife Heroes: 40 Leading Conservationists and the Animals They are Committed to Saving" by Julie Scardina and Jeff Flocken. The book combines real-life stories, photography and animal information to make the case that it is not too late to save species in decline. It is available in bookstores and online. The authors are donating 100 percent of their profits to helping wildlife and supporting the book's heroes.

Named in the book as one of the 40 top wildlife conservationists of our time, Wiley is praised for his vision, determination and success in his efforts to protect endangered whales in and around the sanctuary. The authors highlight Wiley's groundbreaking research that led to the



Dr. David Wiley

relocation of shipping lanes within the sanctuary and the world's first real-time system for notifying ships about the locations of whales in their paths.

Wiley's outreach work to increase the commercial shipping industry's compliance with NOAA's Ship Strike Reduction Rule won the International Society for Marine Mammalogy's award for Excellence in Science Communication. He also worked with fishermen to redesign fishing gear to reduce the risk of whale entanglement and pioneered methods to successfully rescue mass-stranded whales and dolphins.

Ocean drifters deployed in sanctuary by area students and NOAA Deputy Administrator Dr. Kathryn Sullivan



Dr. Kathryn Sullivan addresses Drifter Day participants before heading out to the sanctuary. Photo: John Galluzzo

A NOAA ocean drifter and a “homemade” version were deployed in the sanctuary by students from the Gates Intermediate School and NOAA Deputy Administrator Kathryn Sullivan on April 17.

“A drifting buoy is like a 21st century message in a bottle, except it is equipped with oceanographic and climate sensors that let it transmit scientific measurements by satellite, helping us understand the oceans,” said Dr. Sullivan.



Along with the Gates students, middle school students from Boston Latin Academy and Samana, Dominican Republic (where our sister sanctuary is located) have adopted the NOAA buoy, affectionately named “Stella.”

Accompanying “Stella” was “Wally,” a student-built drifter designed by NOAA Fisheries ocean modeler James Manning from the Northeast Fisheries Science Center. Manning’s past work modeling lobster larval dispersal indicates that Stellwagen Bank may be seeding waters that head out to Georges Bank.

The deployment of the drifters was preceded by exhibits, R/V *Auk* tours and formal presentations at the New England Aquarium in Boston. Dr. Sullivan met with the students and offered insights on marine science careers, and her experiences as both a NASA astronaut (the first woman to walk in space) and as chief scientist at NOAA.

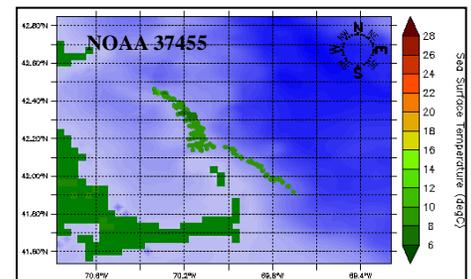
The NOAA drifter is expected to have a seagoing life of about 400 days. After only one week, it had already swept by Stellwagen Bank.



Dr. Kathryn Sullivan and students from the Gates Intermediate School deploy a NOAA drifter buoy. Photo: Ken Kostel

To follow Stella’s track, visit the Adopt-a-Drifter page at www.adp.noaa.gov/earthday/boston.html

To follow Wally’s track, visit www.nefsc.noaa.gov/drifter/drift_sbnms_2012_1.html



The Adopt-a-Buoy website provides tracks of NOAA drifter buoys. Eight days after its sanctuary deployment, buoy 37455 had already passed Stellwagen Bank.

Research in sanctuary shows seasonal and daily variations in right whale calling

In a recently released paper, scientists report that a passive acoustic monitoring system installed in the sanctuary recorded North Atlantic right whales more often and over longer time periods than previously believed based on conventional visual techniques.

The marine autonomous recording units were deployed for 13 months in the sanctuary (Jan. 2006 to Feb. 2007) and for seven months (Nov. 2004 to May 2005) on Jeffreys Ledge. The research focused on the distinctive up-calls of these social animals.

In the sanctuary, up-calls were detected year-round, except during July and August, and calling rates were highest from January through May, peaking in April. At Jeffreys Ledge, up-calls occurred throughout all recording months, with the highest numbers from November through February. Up-calls were heard extensively in the wintertime, suggesting that these areas are important overwintering grounds for right whales. Additionally, up-calls showed a strong diel (daily) trend in both areas, with

significantly more calls occurring during twilight than dark and light periods.

The researchers note that year-round monitoring such as this type of passive acoustic monitoring may play an important role in reducing ship strike mortality for this endangered species.

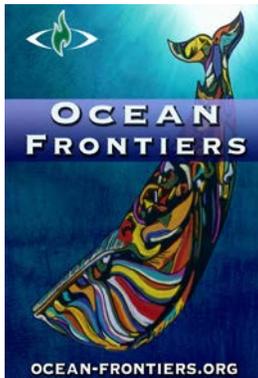
The article “Seasonal and diel variation in North Atlantic right whale up-calls: implications for management and conservation in the northwestern Atlantic Ocean” by Sarah Mussoline, Denise Risch, Leila T. Hatch, Mason T. Weinrich, David N. Wiley, Michael A. Thompson, P.J. Corkeron and Sofie M. Van Parijs is in *Endangered Species Research* 17: 17-26 (2012). The article is freely available for download at www.int-res.com/abstracts/esr/v17/n1/

Leila Hatch is the sanctuary’s marine ecologist; Dave Wiley is our research coordinator and Mike Thompson is our GIS Analyst

20th Anniversary Calendar

- May 15-June 25 Student Marine Art Exhibit with Massachusetts Marine Educators on display at NOAA Fisheries NE Regional Office, Gloucester
- May 16 *Technologies for Stellwagen Bank National Marine Sanctuary Research and Beyond*. Panel and Discussion
Sponsored by Mass. Ocean Technology Network and Marine Technology Society-NE. For information, contact: maggielmerrill@gmail.com
- May 19 Endangered Species Day Program -- *Ocean Frontiers* documentary at Cape Cod National Seashore, Eastham. 2pm.
- June 1 Opening of the sanctuary-sponsored "*Animals without Passports*" exhibit at the Cape Cod Museum of Natural History
- June 2 Cape Cod Maritime History Symposium/Cape Cod Maritime Days – "*Don't Give Up the Ship*" – The Battle of Massachusetts Bay, June 1, 1813 talk by Matthew Lawrence
- June 3 World Oceans Day at New England Aquarium
- July 20-21 *Stellwagen Revealed* – a Sanctuary Celebration Event in Woods Hole – concerts, lectures, children's programs, films
Check the sanctuary website for more information closer to the date

View the full year's calendar on our website – <http://stellwagen.noaa.gov>



Ocean stewardship documentary draws crowds

Greenfire Productions' *Ocean Frontiers* film is drawing crowds at showings around New England. The sanctuary's role in the shifting of the Boston shipping lanes is featured in the film's first case study.

At the East Coast premiere, held at the New England Aquarium's IMAX theater (April 3) and co-hosted by the sanctuary, a capacity crowd of more than 350 viewed the film and stayed for a panel discussion. Another sanctuary co-hosted showing, at the Cape Cod Museum of Natural History, filled the museum's hall on Earth Day.

Look for additional showings around the sanctuary region. We will be hosting a screening at the Cape Cod National Seashore on May 19 and at our Scituate Annex in May (TBD). Check our website for dates and times.

Science on Screen matches Dave Wiley with Star Trek IV on May 14

The sanctuary's research coordinator is going Hollywood. Well, not exactly red carpet California, but Coolidge Corner Theater, Boston. On May 14, Dave Wiley will be introducing the film *Star Trek IV: The Voyage Home* and talking about his work studying the underwater behaviors of whales. *Science on Screen* pairs feature films and documentaries with presentations by experts from the world of science and technology. This is the seventh season that the Coolidge Corner Theater is offering the program.

NOAA issues new rules for recreational cod fishermen

Effective May 1, 2012, recreational anglers on private, party or charter vessels in federal waters of the Gulf of Maine, including Stellwagen Bank National Marine Sanctuary, must comply with the following rules:

- ✿ The minimum cod fish size is **decreasing** from 24 to 19 inches (total length).
- ✿ The per-angler possession limit is **decreasing** from 10 to 9 fish.

The fishing season is not changing, and remains April 16-October 31. For more news about Gulf of Maine cod status and rules, go to

www.nero.noaa.gov/nero/hotnews/gomcod

June 8 is World Oceans Day

World Oceans Day is an international, annual celebration of the ocean. This year's theme is "Youth: the Next Wave for Change."

NATIONAL MARINE SANCTUARY SYSTEM



Scale varies in this perspective. Adapted from National Geographic Maps.

National Marine Sanctuaries
1972-2012: Celebrating 40 Years

Gerry E. Studds
Stellwagen Bank
National Marine Sanctuary
1992-2012: Celebrating 20 Years



<http://stellwagen.noaa.gov/>