North Carolina Sea Grant

www.ncseagrant.org

Winter 2007

Greetings!

Happy winter to you all!

I'm always curious about objects that are traveling around in the ocean, objects that might eventually wash up on shore. What got me thinking about this was the incident after the Thanksgiving storm, a nor'easter that lashed the Outer Banks before and during the holidays. During that storm, a ship cruising in the Atlantic lost four containers far offshore.

Think about the mass! We're talking about containers the size of train cars or the

size of the load of most 18wheelers — four of them.



floating around in the North Atlantic!

On Nov. 30, one of those lost containers washed up on the southern part of Hatteras Island and broke open, spilling its cargo. Hundreds of bags of Doritos in various flavors littered the beach. And then came the scavengers — residents and guests hit the beach to help "clean up" the spill. I'm thinking that the local grocery stores won't sell any Doritos for a long while — thank goodness for vacuum packing.

A few days later, the U.S. Coast Guard reminded mariners that having only one container wash ashore meant that there might be three more floating around, creating a danger to navigation. Think about it — these containers are roughly 40 feet long. Of course, the others may have broken upon impact and drifted to

the ocean floor. Reports were that one "missing" container was full of Frito-Lay products and the others were filled with paper goods. Too bad one wasn't full of onion dip — what a party that would have been!

Several science lessons have integrated information from lost shipping containers and data from ocean drifters, including sea-beans, MIBs (messages in bottles), and rubber duckies. Curtis Ebbesmeyer, an oceanographer from the Seattle area, has been studying container spills for years. He once told me that roughly 10,000 containers are lost overboard in the world's ocean annually. That's a lot of stuff floating around the ocean, isn't it?

Here are a few examples from the North Pacific and the North Atlantic. For additional details on other flotsams, see Ebbesmeyer's Web site: www.beachcombers.org.

Do you remember the Nike shoe spill in 1990? A large container ship heading from Korea to Seattle lost 21 containers during a storm in late May. Five of those huge boxes contained Nike-brand sneakers headed for U.S. markets. Four of the five broke open, spilling 61,820 Nike athletic shoes into the North Pacific!

Six months later, hundreds of Nike shoes started washing up on the shores of Washington, Oregon, California, and western Canada. Lucky beachcombers organized swap meets to try to match up pairs.

How about the spill of children's bathtub toys in early 1992? During a severe storm, 12 containers were lost from a ship heading to Tacoma from Hong Kong. One container held 28,800 floating toys, including equal numbers of yellow ducks, red beavers, green frogs, and blue turtles. Those little guys cruised along the

Continued

surface for miles, eventually showing up along Alaska beaches. Some made it as far as Hawaii!

As an aside, Ebbesmeyer thinks that now is the time for some of the bathtub toys lost in the Pacific in 1992 to be showing up on North Atlantic beaches. According to an oceanographic model, some of the floating toys were transported through the Bering Strait into the Arctic Ocean, where the pack ice has taken them over the North Pole and into the North Atlantic! When walking the NC beaches, keep an eye out for children's bathtub toys!

Found any Legos lately? In mid-February 1997, the *Tokio Express* was hit by a rogue wave off Land's End, England. It lost 62 containers overboard. One of those held almost half a million Lego pieces, including 26,000 yellow life preservers; 97,500 gray scuba tanks; 418,000 pairs of fins in blue, red, or black; 383,244 daisies; 33,941 black and green dragons; and 4,200 black octopuses!

And speaking of objects that float in our ocean, the 11th Annual International Sea-Bean Symposium and Beachcombers' Festival in Cocoa Beach, Fla., in October was a great learning experience. Ebbesmeyer spoke on objects drifting in our ocean, and Alan Rammer with the Washington Department of Fish and Wildlife gave an interesting presentation on west coast beachcombing.

The beaning this year wasn't the best, but we had a good time, and found a few sea-beans for our growing collections. JoAnne Powell of the N.C. Maritime Museum again won the "Cool Bean Award" by finding a nypa palm seed during the Saturday morning Bean-A-Thon. In 2004, she won for finding a deer hoof seed.

If you're doing some winter beachcombing and you find something unusual — like a Lego, or a rubber duckie, or a sea-bean — get in touch with me! I want to hear about your odd beach finds.

COSEE SE Summer Programs www.scseagrant.org/se-cosee/

The Center for Ocean Sciences Education Excellence SouthEast (COSEE SE) has set two summer workshops for 2007.

• The Ocean Sciences Education Leadership

Institute will be held June 24-30 at the UGA Marine Education Center and Aquarium, Skidaway Island, Savannah, Ga.

• The Coastal Legacy Multicultural Marine Science workshop will be held June 25-29 on North Carolina's Outer Banks, Manteo.

This year, the institute will focus on undersea research and technology. Participants will build and test their own Remotely Operative Vehicle (ROV) from the Massachusetts Institute of Technology Sea Grant SEA PERCH program.

The teachers will take the ROVs back to their classrooms. The students will then discover how ROVs are used to study the sea floor, including habitats and geology and the effects of surface storms on the bottom.

Research from Gray's Reef National Marine Sanctuary, as well as efforts by NOAA's Office of Ocean Exploration and the National Undersea Research Program, will bring to life underwater exploration and technology.

For more information, please contact Margaret Olsen, COSEE SE education specialist, olsen@uga.edu.

Coastal Legacy participants will explore the physical forces that create barrier island dynamics — common to North Carolina, South Carolina and Georgia — to measure coastal processes.

By investigating regional geology, currents, waves and weather, educators will learn how researchers use technology to measure the processes and enhance their earth science and physical sciences classes. Multicultural strategies that maximize learning in the science classroom will be examined. Marine careers, past and present, will combine knowledge of maritime history of the Pea Island Lifesavers with oceanographic concepts in the Graveyard of the Atlantic.

For more information about Coastal Legacy, contact Elizabeth Rogers Joyner, COSEE SE curriculum specialist, *elizabeth.joyner@scseagrant.org.*

Both COSEE SE workshops are designed for middle and high school teachers, preservice teachers, and informal educators in North Carolina, South Carolina, and Georgia. Teachers who teach in schools with high percentages of underrepresented and underserved populations are encouraged to apply.

Applications for both workshops are available online at the Web site.

Ask the Aquariums ncaquariums.com/askaquarium/archives.htm

Take notice of a special feature on the North Carolina Aquariums' Web site: "Ask the Aquari-

um" archives. The educational column features a single topic written by aquarium educators and distributed to more than 30 newspapers statewide as a public ser-



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vice. Examples of featured questions include:

- Do alligators have ears?
- What is a shark's sixth sense?
- Do we have manatees in NC?
- How can you tell the age of a fish?
- When is a good time to find shells.

These archives are in printer-friendly format, include nice photos, and can be used by educators and students alike. Take advantage of this educational element offered by the NC Aquarium.

NC Coastal Reserves www.ncnerr.org

A lot of information can be found on the North Carolina National Estuarine Research Reserve Web site. From the home page, you can delve inside to discover current events, upcoming teacher workshops, field trip opportunities, and detailed information about each of the 10 reserve sites in North Carolina. Educators can download lesson plans or learn about resources available for free loan through the Coastal Aquatic Lending Library.

Data from the water quality and weather station on Masonboro Island are available in near real-time at this Web site: *cdmo.baruch.sc.edu/QueryPages/dualmap.cfm*.

This telemetry installation is part of the

ongoing effort to integrate the National Estuarine Research Reserve System-Wide Monitoring Program (SWMP) into the Integrated Ocean Observing System (IOOS). At www.ncnerr.org/weather_water/index.html, educators can find descriptions of data and how they are collected. Don't miss out on another good state agency resource!

Penguin Facts/Activities www.hallmarkchannelpress.com

If you love those waddling birds in tuxedos, you're in luck. Over Thanksgiving weekend, the Hallmark Channel debuted "March of the Penguins," a beautifully filmed documentary about the challenges that emperor penguins face living on the Antarctic continent.

The Hallmark Channel's Web site now includes supplementary resources that can be used in most education settings, including the classroom.

Finding this material takes a little digging, but it's worth the effort. Once on the home page, click on "Shows" at the top of the page; then scroll down the alphabetical listing and click on "March of the Penguins." Clicking on "Features" on the left hand side of the page will take you to a listing of documents that contain scientific information and fun facts about Antarctica and penguins in general, and about emperor penguins in particular.

And FYI – "March of the Penguins" gave the Hallmark Channel its highest-ever rating! According to Nielsen Media Research, over 7.5 million viewers watched this Academy Awardwinning feature on Nov. 25.

Nautical Word Origins

"A stitch in time saves nine" – meaning doing things right the first time (and not having to do them over again). This saying came from the tale that sail-maker's assistants were required to have nine stitches per inch when sewing sails.

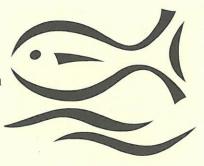
If there were less than nine stitches in one inch, the sail-maker would rip out the stitches and make the assistant redo them. In addition, for each inch that had less than nine stitches, the guilty assistant would receive nine lashes from the cat o' nine tails!



"Pouring oil on troubled waters" – meaning to sooth a tense situation. Years ago, sailors would

pour oil on the ocean's surface during rough weather to calm bumpy seas.

"You scratch my back and I'll scratch yours" – meaning to look out for one another. When



flogging was a regular occurrence on sailing ships, sailors would make an informal pact with each other. If one would go easy when flogging the other, the favor would be returned in the future.

Reprinted with permission from *Captain Bucko's Nauti-Words Handbook (ISBN 0-595-31529-1)* by Roger Paul Huff; published in 2004 by iUniverse, Inc.

To Contact Me

My mailing address is: North Carolina Sea Grant, P.O. Box 699, Manteo, NC 27954. To reach me, call: 252/475-3663; fax: 252/475-3545; e-mail: terrikh@csi.northcarolina.edu.

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Best Fishes!



Terri Kirby Hathaway Marine Education Specialist North Carolina Sea Grant terrikh@csi.northcarolina.edu

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N.C. Sea Grant NC State University Box 8605 Raleigh, NC 27695-8605

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