

NC Aquarium at PKS honors volunteers

Last year, 272 volunteers gave more than 20,500 hours of service to the North Carolina Aquarium at Pine Knoll Shores. The aquarium recently honored them for their dedication and valuable contributions at an awards ceremony, where a few volunteers were singled out for special awards.

Congratulations to the 2013 Volunteer of the Year, Gervase Motes of Newport, cited for serving extended stints as the costumed shark mascot, Friendly Finley, and assisting with husbandry tasks. Brian Balthrop of Newport earned the Order of the Spadefish Award for excellence in customer service while staffing the information desk four times a week.

Barbara Neptune and Nancy Aitken of Morehead City and Karen Naftzger of Emerald Isle were recognized with Above and Beyond Awards for going beyond the call of duty.

Distinguished Volunteer Service awards went to Barbara Yankauskas and Jim Yankauskas of Pine Knoll Shores, Maggie Rauschenberg of Swansboro, Jeff Brown of New Bern, Tom Ruddiman of Cape Carteret, Sharon Lewis of Emerald Isle and Kaye Jones of Fredericksburg, Virginia.

Hubert Bowen was chosen as the 2013 Volunteer Diver of the Year and Jason Johnson as Volunteer Rookie Diver of the Year. The Wednesday A Team took the honors for Dive Team of the Year. Members include team leader Allan Lloyd and Warren Lloyd, Amanda Lloyd and Tom McNamara.

Volunteers provide visitors with assistance at the information desk, as exhibit interpreters, at the two touch pools and during events. Volunteer divers assist with dive programs and exhibit maintenance.

We are living on this planet
as if we have another one to go to.



REDUCE, REUSE, RECYCLE.

Are Bacteria in Your Oysters?

By Jean McDanal

The answer is “yes,” but don’t panic. It’s not necessarily a bad thing. Bacteria are single-cell living organisms that are microscopically small. Most don’t make us sick; in fact, they aid in digestion, help in the production of yogurt and cheese, break down materials and provide vitamins. Bacteria are everywhere, including coastal waters, and are found in most seafood. These and other points were discussed on Monday, March 10, at the Science Café, sponsored by GO-Science and the North Carolina Biotechnology Center, in a program on “Keeping Oysters Safe to Eat” at the Crab’s Claw restaurant in Atlantic Beach. Brett Froelich, Ph.D., research associate at the UNC Institute for Marine Sciences, presented information on his research that focuses on the impact of bacteria on oysters.

Dr. Froelich’s research zeroes in on the *Vibrio* bacteria found worldwide. They occur naturally in oysters. The oysters’ gills act as filters for the bacteria and, therefore, are a good source for studying the bacteria.

Now, the good news and bad news. First, the bad. Raw oysters can lead to as little as an upset stomach to a flesh-eating infection and, in rare cases, a blood infection that is fatal 50% of the time. This last one is usually associated with other risks such as liver disease and an immune deficiency. The good news, however, is that North Carolina has not had a single case.

There are a number of myths associated with making raw oysters “safe” before eating them. The following is accurate information:

- Drowning them in hot sauce will not kill the bacteria.
- Avoiding polluted waters will not make a difference.
- A person can’t tell if an oyster is bad.
- Drinking alcohol while eating oysters won’t kill the bacteria.
- Just a couple of oysters can hurt. In a group study of people sick from oysters, 25 percent had eaten a dozen or more, but 33 percent had eaten only one oyster.
- Eating oysters in months that don’t have an “R”—usually the summer months, which is spawning time for the oysters—makes no difference.

There is a connection between temperature and the number of bacteria. For instance, during January and February, the bacteria count is one cell per gram. The number rises as the temperature does so that by March and April there are 1,000 cells per gram; and the number continues to rise through October. By November, however, the number is back down.

Dr. Froelich’s research has taken into account the salinity of the water as well as the temperature. What his research shows is that even though the temperature rises, if the amount of salt in the water rises as well, the number of bacteria is reduced significantly. Using this information, it would be possible to map out oyster-growing regions that indicate high salinity even though temperatures are high as well. The ultimate goal of this research is to develop “a salinity/temperature profile that can serve as an indicator of risk of infection from *Vibriosis* when consuming raw oysters.” Guidelines could be developed to produce the safe harvesting of oysters without cumbersome governmental regulations.

According to the North Carolina Department of Environment and Natural Resources (<http://portal.ncdenr.org/web/mf/oysters-scallops-and-clams>), North Carolina oyster harvesting is limited to the months of October through March. Oysters can live to be 40 years old and measure eight inches. Most are harvested at three years of age, measuring three inches. The oyster industry must adhere to governmental regulations administered by the U.S. Food & Drug Administration.

If this information makes you wary of oysters, the solution is to just cook them. It will destroy all bacteria in the process.

The next Science Café sponsored by GO-Science (www.go-science.org) will be in May and will address marine animals. You may register online at their website.