Meet the Staff of the University of New England's Marine Animal Rehabilitation Center

A member of NOAA Fisheries Stranding Network in the Northeast

Ever wonder what it takes to rehabilitate an injured or sick seal or sea turtle? A good place to start would be the Marine Animal Rehabilitation Center (MARC) at the University of New England. MARC is part of the University's Marine Science Education and Research Center, a state-of-the-art facility for marine education and research, which has been in operation since August 2001. Based in Biddeford ME, MARC is authorized by NOAA Fisheries to rehabilitate, study, and release stranded marine mammals and sea turtles rescued from coastal New England waters.

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Keith Matassa, program coordinator, Marine Animal Rehabilitation Center

Under the Marine Mammal Protection Act, only trained personnel can assist stranded and injured marine mammals. With the help of dozens of trained student and community volunteers, MARC's three animal care staff treated 97 seals and cetaceans along the Maine shore in 2011 alone.

MARC Rehabilitation Coordinator, Keith Matassa, prepares to release gray seals at a local beach in Maine. Photo Credit: Marissa Simoneau

"We have a talented and experienced staff who work hard to help each animal that comes into our facility, first in identifying what's wrong with the animal and then in determining how best to treat it," said Program Coordinator, Keith Matassa. "Through our ongoing research, we seek to better understand what causes these animals to strand in the first place and how these diseases may tie into environmental and human health."

MARC makes it a priority to attempt to identify what might be behind a single animal stranding and stranding events involving multiple animals, which can result in a large number of deaths, like the 2006 harbor seal Unusual Mortality Event (UME) that affected hundreds of seals in New England. In fact, in 2008 Keith Matassa was awarded NOAA's David St. Aubin Award of Excellence for his contribution to the Network during the 2006-2008 Pinniped/Morbillivirus UME.

"Keith put in a great deal of time and effort to develop morbillivirus sampling protocols and train our Stranding Network members, well beyond the call of duty," said Mendy Garron, marine mammal stranding coordinator, NOAA Fisheries, Northeast Region.

MARC's Animal Care Technicians work directly with stranded animals and monitor for signs of disease that may indicate larger issues within the population. "We collect blood and tissue samples and then have a series of tests run at our own facility as well as at outside national laboratories." said Shannon Prendiville, Animal Care Technician.

When UME's occur, MARC closely coordinates with other stranding partner facilities, NOAA and federal laboratories to share information and learn more about the cause of the event.

When do seals typically strand?

Maine is known to be the primary birthing ground for East Coast Harbor seals. "Harbor Seal Pup season" also directly coincides with New England's popular summer beach season. As a result, the majority of the early summer patients in May and June at MARC are abandoned harbor seal pups that are collected from area beaches. "It is not uncommon for a mother seal to abandon its pup when it encounters humans or dogs on the beach. The early pups may be only hours, days, or weeks old when they arrive at MARC, where they receive nutritional and medical support," said Asheley Simpson, animal care technician at MARC.

Technician Asheley Simpson tube feeds a gray seal pup at MARC. Photo Credit: Shannon Prendiville, MARC.

As mid-summer arrives, an older group of pups (several months old), which may not have learned the proper skills to survive once they have weaned from their mothers, arrive at MARC. These animals, known as "weanlings" are usually severely underweight, often dealing with wounds, injuries, and respiratory infections.

Treating Sea Turtles

MARC also assists with the recovery of endangered sea turtles by acting as a secondary rehabilitation facility for cold-stunned (hypothermic) turtles that strand on Cape Cod beaches every fall. Generally, turtles start to appear on beaches when the water temperature drops to the low 50's. For the past seven years, MARC has aided the Massachusetts-based effort by taking in anywhere from 1 – 20 turtles when the number of stranded sea turtles exceeds the capacity of the New England Aquarium. MARC has rehabilitated

Animal Care Technician, Shannon Prendiville, discusses with Adam Kennedy (staff biologist at New England Aquarium's Rescue and Rehabilitation program) a sea turtle's healed injury prior to release, while Asheley Simpson looks on. Photo Credit: Kurt Hood, NEAq

and released Kemp's ridley, loggerhead, and green sea turtles. Each year is a different story. The quantity, species and size of turtles, and stranding network needs are unique for each sea turtle stranding season.

Once in rehabilitation sea turtles are examined, evaluated, and stabilized. A treatment plan is made with the MARC veterinarians. To avoid additional damage to the tissues of the body, the animals are slowly warmed up over several days, bringing their body temperatures from as low as the mid 30's to the mid 70's. Through this time the turtles are supported with fluid therapy, given antibiotics and antifungals, and blood work and radiographs are evaluated. Commonly, the turtles will develop pneumonia and other infections, as well as frost-bite injuries as a result of extended exposure to the cold.

"We want to do everything we can to help these animals recover, but the general public can help out too by remembering that these are wild animals and that they shouldn't get too close when they encounter a stranded marine animal on the beach," said Kristen Patchett, senior animal care technician/volunteer coordinator.

Kristen Patchett, Senior Animal Care Technician, monitors a harbor seal's recovery following surgery. Photo Credit: Shannon Prendiville, MARC

Members of the public are urged to contact the Maine Marine Animal Reporting Hotline at 1-800-532-9551 if they think an animal might be in trouble.

To learn more about the University of New England Marine Animal Rehabilitation Center visit their website at http://www.une.edu/marc