

Stranding Networks

ADMINISTER THE THREE R'S IN THE AMERICAN ATLANTIC

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Aligned along the edge of the western North Atlantic Ocean is the U.S. Atlantic seaboard, a heavily populated region of coastal cities, maritime ports, military bases, and tourist beach destinations that covers more than 25,000 miles of coastline and spans 14 U.S. states from Florida to Maine. It is inevitable that sea turtles and human activities will intersect in the coastal waters and beaches of this highly trafficked zone. This story is about the region's ongoing programs that **Rescue, Rehabilitate, and Release** (the three Rs) thousands of sea turtles annually and about the network of dedicated organizations and passionate professionals, volunteers, and public supporters who make it all happen.

U.S. recovery plans for all five sea turtle species found in the region encourage strong stranding and salvage networks that are overseen by the U.S. National Oceanic and Atmospheric Administration (NOAA) and the U.S. Fish and Wildlife Service. Those networks are made up primarily of nongovernmental organizations that voluntarily engage in the three Rs as first responders to emergencies and unusual events involving sea turtle mass mortalities, injuries, and illness. They are responsible for systematic data collection on stranded animals, and they ensure that all distressed animals are transferred to professional centers for treatment and rehabilitation for eventual release to the wild.

Some of those organizations have cared for animals and have been at the forefront of sea turtle husbandry and medical care for more than 30 years. Many are public aquariums accredited by the Association of Zoos and Aquariums, including the New England Aquarium, National Aquarium in Baltimore, Virginia Aquarium & Marine Science Center, three North Carolina Aquariums, South Carolina Aquarium, and SeaWorld Orlando. Most of those have a small number of sea turtles on public display as conservation ambassadors, in addition to committing substantial resources to the recovery of wild populations.



A juvenile green turtle is measured prior to release in Florida, U.S.A. After swallowing a fishhook, the turtle underwent surgery and recovery at Loggerhead Marinelife Center in Juno Beach. © LOGGERHEAD MARINELIFE CENTER, TAKEN UNDER FLORIDA MARINE TURTLE PERMIT MTP-18-086

Other network organizations are focused more exclusively on marine animal rehabilitation, such as the Loggerhead Marinelife Center in Florida, Georgia Sea Turtle Center, Karen Beasley Sea Turtle Rescue and Rehabilitation Center (North Carolina), Sea Turtle Recovery (New Jersey), Riverhead Foundation for Marine Research and Preservation (New York), and National Marine Life Center (Massachusetts). All of those groups have conservation of sea turtles and their natural habitats firmly embedded in their missions.

In the past 10 years, along the U.S. Atlantic coast nearly 10,000 sea turtles in need of attention from natural or human impacts have been rescued. Cold stunning (hypothermia) is the single most common cause, followed by entanglement in active and discarded fishing gear, hookings, boat strikes, ingestion of marine debris, harmful algal blooms, and disease. Cold-stunning events alone can bring more than 600 sea turtles into rehabilitation facilities in a single season, mostly juvenile Kemp's ridleys (see *SWOT Report*, vol. XI, pp. 42–43). Over the past decade, more than 40 leatherbacks were disentangled from fishing gear.

Despite the serious illnesses and injuries associated with stranded sea turtles and despite rehabilitation periods that can range from several days to multiple years, on average more than 70 percent are

successfully released and reintegrated into their natural populations. In addition, the rehabilitation process provides significant opportunities for study, leading to advances in medical care and increasing knowledge of sea turtle biology and life history. The expertise of U.S. eastern seaboard experts has even been called upon outside the region—for instance, when the BP Deepwater Horizon oil spill in the Gulf of Mexico mobilized Atlantic regional expertise in support of rehabilitation efforts for hundreds of affected sea turtles (see *SWOT Report*, vol. VI, pp. 16–21).

In the big picture, rehabilitated sea turtles have only a limited potential for direct conservation effects. Although the animal welfare benefits are significant, the total numbers of rehabilitated animals are relatively small compared to the size of sea turtle populations. Yet in another critical arena, the sea turtle recovery actions are having a major effect—in the court of public opinion. Another area of agreement among all recovery plans is the need for public education and community engagement. Most threats to sea turtles, such as fisheries bycatch, vessel strikes, oil pollution, and ingestion of marine debris, can be reduced through human behavior changes, and those changes begin with an informed and engaged public that supports sea

turtle protection and stewardship of ocean ecosystems. Rehabilitation programs have proved to be unmatched for galvanizing public attention and support. People have a natural desire to be a part of programs to help sea turtles in their own backyard, and this reaction, in turn, opens doors to developing better public support for broader and more comprehensive conservation actions.

In one example that brings this story of the three Rs full circle, the Association of Zoos and Aquariums has developed a program called Saving Animals From Extinction (SAFE). Led by a number of aquariums involved in sea turtle rehabilitation, the SAFE Sea Turtles Program is just getting under way. SAFE brings together a collective of organizations to tackle some of the world's most critical sea turtle conservation needs. Sea turtles' natural environments have never been more severely affected by humans than they are today. Regional rehabilitation efforts have been very successful in generating a foundation of public support. The next step will be to build on that success, to come together, and to focus our collective efforts on sea turtle conservation where it is needed most. The conservation engine that has been stoked for decades by sea turtle rescue, rehabilitation, and release is ready to roll. ■