

White Paper for the Loggerhead Sea Turtle in the Marine Environment
Prepared by the International Working Group
for the Conservation of the Northwest Atlantic Loggerhead Nesting Population

What is the International Working Group for the Conservation of the Northwest Atlantic Loggerhead Nesting Population?

The International Working Group for the Conservation of the Northwest Atlantic Loggerhead Nesting Population is an international expert working group composed of representatives of governmental bodies and sea turtle scientists from The Bahamas, Canada, Cuba, Italy, Mexico, Morocco, Portugal (Azores), Spain, and the United States. The Working Group first met in July 2009 in Melbourne Beach, Florida, USA, home of one of the most important nesting beaches for Northwest Atlantic loggerheads, to discuss the status of loggerheads in each individual country and how to improve conservation of loggerheads at an international level. The second meeting was held in September 2010 in Horta, Azores, Portugal, which hosts one of the most important foraging grounds for oceanic stage loggerheads from the Northwest Atlantic nesting population. The Working Group seeks to improve the conservation and management of the Northwest Atlantic loggerhead nesting population through increased international cooperation to address the threats on the nesting beaches and in the marine environment.

Statement of the Issue

Northwest Atlantic loggerheads nest in The Bahamas, Cuba, Mexico, and the United States and represent about 40% of loggerhead nesting worldwide. Hatchlings from this nesting aggregation passively drift in the North Atlantic gyre to the eastern Atlantic and Mediterranean, where they spend their early developmental years. About 7 to 12 years later, they return to foraging grounds in the western Atlantic and females begin nesting at approximately 32-35 years of age.

From 1998-2010, a 25% decline has been observed in nest production in Florida, which hosts one of the two largest nesting aggregations of loggerhead sea turtles in the world. Loggerheads face many threats in their terrestrial and marine environments. On the nesting beaches, key threats include habitat loss and habitat degradation from coastal development, beach armoring, light pollution, predation, and, in some countries, poaching. In the marine environment, loggerhead sea turtles face several key threats at all life stages, including bycatch in pelagic and coastal fisheries, marine pollution/marine debris, and vessel strikes. Bycatch in diverse fisheries is currently a major concern for the recovery of the Northwest Atlantic nesting population and is undermining conservation efforts. Fishing gears that pose the greatest

concern at this time are longlines, trawls, and gillnets. Interactions and mortalities from these gears need to be reduced.

The international community has recognized several of these threats in various forums and has initiated some actions to address them. The International Maritime Organization is working on marine pollution/marine debris. The Food and Agriculture Organization of the United Nations, International Convention for the Conservation of Atlantic Tunas, International Council for the Exploration of the Sea, and Convention on the Conservation of Migratory Species of Wild Animals have all recognized the issue of sea turtle bycatch in fisheries and have begun to take steps to address it. The Convention on International Trade in Endangered Species of Wild Fauna and Flora lists loggerhead sea turtles in Appendix I, which prohibits commercial trade. In addition to these frameworks, loggerheads are listed as threatened and endangered in the principal biodiversity conservation agreements, such as the Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR Convention), Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (Cartagena Convention), and Convention for the Protection of the Mediterranean Sea against Pollution (Barcelona Convention). At the European level, loggerheads are included in Annex II and IV of the Habitat Directive, and in each of the Working Group countries loggerheads are protected by national legislation. Because loggerheads are migratory, Range States have a shared responsibility and interest in the issues both on the nesting beaches and on the foraging grounds. In addition, there are many countries that use and/or impact resources within the North Atlantic – these countries share responsibility to protect loggerheads and the ecosystems upon which they depend.

Priority Recommendations for the Marine Environment

The Loggerhead Working Group acknowledges the work that has been accomplished by the organizations and Conventions referenced above and wishes to draw attention to the current status of the species and what more needs to be done in the terrestrial (see separate white paper for the Terrestrial Environment) and marine environments through the following recommendations.

I. What We Need to Work Toward – A Greater Understanding of Loggerhead’s Life Cycle

While there is a general understanding of the Northwest Atlantic population, significant gaps remain in our understanding of the complex life cycle of these loggerheads.

- a. Need for Demographic Data** -- Connectivity between rookeries and foraging grounds , as well as connectivity among foraging grounds remains to be documented for both oceanic and coastal populations. To be able to assess population trends and evaluate

management options, oceanic and coastal populations need to be assessed for abundance, and critical demographic parameters including size/age structure, , and survivorship need to be determined.

II. What We Can Do Now -- Actions for All Fisheries

While we need to learn more about loggerhead sea turtles, we already have evidence that they are important to the ecosystems upon which they depend, and thus protecting them is an important part of ecosystem based management.

- a. **Observer Programs** -- Traditional observer programs or electronic monitoring alternatives are needed for fisheries likely to interact with sea turtles.
- b. **Spatial and Temporal Management** -- Factors influencing the impact of bycatch have been identified and should be considered to manage the fisheries to minimize impacts on sea turtles. During their oceanic life stages, loggerheads tend to aggregate at certain oceanographic features, and fisheries operating in such high sea turtle density zones are likely to have loggerhead turtle bycatch. Thus, spatial and temporal management can be an important tool in fishery management. Sea turtle protection areas, seasonal closures, and emergency closures are all important management tools to reduce sea turtle bycatch.
- c. **Outreach** -- Outreach to fishing communities is needed to ensure they understand the importance of sea turtles and why bycatch mitigation and safe handling and dehooking is important. Particular attention should be paid to fishermen in developing countries so that they have the resources and information to appropriately address sea turtle bycatch.

III. Actions by Gear Type

- a. **Longlines** -- Pelagic longlines are most often fishing on the high seas, so management requires international efforts. There are existing policies to reduce mortality of turtles in longline fisheries that are not yet fully implemented. Participating parties to the International Convention for the Conservation of Atlantic Tunas, International Council for the Exploration of the Sea, General Fisheries Commission for the Mediterranean, North East Atlantic Fisheries Commission, and/or Regional Advisory Committees for fisheries need to act immediately to assess, manage, and monitor sea turtle bycatch in fishing activities. Existing longline fisheries should be subject to binding measures to reduce sea turtle bycatch and mortality, and longline fishing effort should not increase without binding measures for sea turtle conservation. These measures should include the following provisions:
 - Reduce the number of daylight hours that the gear is in the water.

- Ensure leader lines are sufficiently long to allow a hooked turtle to reach the ocean's surface to breathe.
 - Avoid the use of light sticks.
 - Use bait type and baiting techniques that minimize turtle captures.
 - Use hook sizes and hook types that minimize turtle captures and deep-hooking. Case by case assessment is important as the effects of "J" vs "Circle" hooks and hook size on target catch and turtles of different sizes require basic information.
 - Provide training and information on safe handling and dehooking protocols to fishermen and fisheries observers in order to reduce post-hooking mortality.
 - Avoid areas of high turtle density.
- b. Gillnets** -- Gillnets are used in domestic fisheries and are a source of mortality throughout the loggerhead's range. Often, mortality rates are high. Range States need to assess the risk posed by this gear, and manage and monitor the threat.
- c. Trawls** -- Trawling is used in both domestic and international fisheries. Due to long tow times, drowning of sea turtles is a problem. Shorter tow times or use of turtle excluder devices should be implemented whenever possible. Research is needed to demonstrate the feasibility of these minimization measures in some fisheries.