

WWF International Corals Initiative

Greater Antilles marine ecoregion

Geographic location: North-western Antillean islands including Bahamas, Cayman Islands (UK), Cuba, Dominican Republic, Florida Keys (USA), Haiti, Jamaica, Puerto Rico (USA), Turks and Caicos Islands (UK)

Background

The Caribbean coastal shelf in the Greater Antilles ecoregion spans 70 million km², covering three extensive island chains. These archipelagoes are made up of cays and small islands, extensive mangrove stands, shallow sea grass beds and coral reefs. Among these, the Florida Keys are home to the world's third-largest coral barrier reef. Nearby in the western Bahamas, Andros Barrier Reef is considered one of the finest in the Caribbean, while further east, an area of submerged and uplifted marine terraces has been designated as a World Heritage Site. This ecoregion also contains Particularly Sensitive Sea Areas.

An extravagant variety of life relies on the region's rich marine ecosystems - some 6,000 species in the Florida Keys alone. Stoplight parrotfish, clown wrasse, and Nassau grouper join the humpback whale and other endangered species such as the West Indian dugong (manatee) and the marine turtle in the Caribbean dance of life. Important migratory fish, including tuna and sharks, move through the waters, while Cuban and American crocodiles inhabit the coastal margins. And thousands of migratory birds - from flamingoes to white-tailed tropicbirds to black-capped petrels - make their temporary or permanent homes here.

Marine turtles – critically endangered
Five species of turtle swim the Greater Antillean waters, all critically endangered. Several countries have reported increases in nesting at certain key nesting sites, although most of these increases appear to be a direct result of better monitoring and enforcement. While it appears that exploitation of the animals and their products is in decline, markets do continue to exist. Many Caribbean turtle populations have not yet rebounded and continue to be affected by current exploitation.

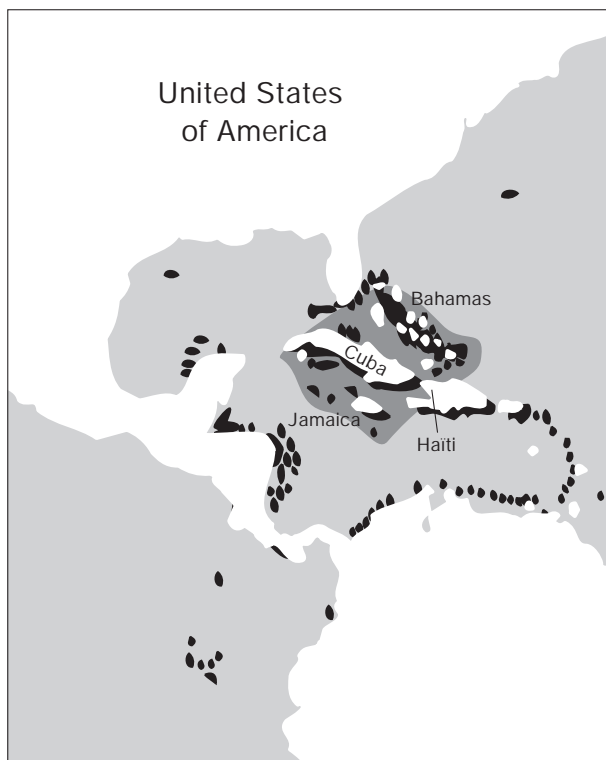
Improved protection, education, reduced demand, and altered cultural values have certainly contributed to a reduction in turtle catch. Some countries are now actively managing and conserving marine turtles (although next to nothing has been done in others). Yet, despite shared populations of this highly migratory species, there is little coordination among countries. Regional cooperation would be an enormous step forward to ensure the conservation of Caribbean marine turtles.

Main threats and issues

Tourism has grown to be the largest industry in the Greater Antilles, focused on 'sun, sand and scuba' vacation packages. The Caribbean attracts more than half of the world's 10 million scuba divers every year, and is growing at a phenomenal annual rate of 20%. More than 3 million tourists a year, for instance, visit the fragile Florida Keys ecosystem. Uncontrolled development has serious implications for coral reef health: damage from diving and boating, the depletion of fisheries (often to supply tourists with their favorite dishes), and water pollution from coastal development are all taking their toll.

Tourism adds to the already high population pressures, characterized by densities exceeding 500 people per km² on some islands, poverty, and high growth rates. Poor agricultural practices, eroded sediment from coastal deforestation and dredge-and-fill operations result in the loss of mangroves and over-exploitation of coral reef resources. Point sources of pollution, including sugar cane mills, food-processing plants, and mines have further damaged important habitats, including sea grass beds and their associated fish nurseries.

Ineffective fisheries management and illegal and destructive fishing also pose problems in some areas. Fishermen primarily target spiny lobster, queen conch and the few



remaining spawning aggregations of snapper and grouper, but serial over fishing has increased pressure on less-desirable species as well. The number of domestic and foreign fishing boats compared to the capacity for enforcement poses a real challenge for effective management, as does our incomplete understanding of reef ecology and reliance on conventional management tools. The depletion of reef populations further weakens the ecosystem's resilience to other threats, including coral bleaching. Many reefs in the Greater Antilles experienced substantial bleaching and death as a result of the 1998 - 1999 El Niño warming event.

WWF Activities

WWF's work in the Greater Antilles is currently focused on Cuba and the Florida Keys. Represented by WWF-Canada since 1987, WWF was the first - and is still the only - international NGO to establish a broad and substantial conservation program in Cuba. Strong partnerships have been built with a variety of agencies that actually deliver conservation in Cuba. President Fidel Castro has expressed his "total support" for WWF co-operation in field and policy aspects of conservation.

Cuba's fisheries have been relatively well managed and benefited from the slow pace of post-revolution economic activities, but this is changing as more 'market' oriented initiatives are launched with domestic and foreign investment. The prospect of eventual political change and adoption of a market economy gives urgency to the need to protect the island's nature while the opportunity still exists. Currently, WWF is working toward a representative network of marine protected

areas (MPAs) conserving one quarter of the island's nearshore habitats, with particular emphasis on coastal zones and coral reefs. WWF is also supporting implementation of Cuba's proposed marine World Heritage Site, which would encompass the major reefs and mangroves of its southern shore, from the Jardines de la Reina west to Los Canarreos.

In the Florida Keys, WWF-US recently played a leading role in creating the United States' largest fully-protected marine reserve, which now protects nearly 200 square nautical miles of the region's healthiest reefs, highest biodiversity and cleanest waters from all extractive activity. The Tortugas Reserve encompasses some of the most important spawning sites for fish and invertebrates in the southeastern US, and is situated in strong currents, ensuring that it will help replenish depleted reef populations and fisheries throughout the region.

The reserve's unprecedented success is due largely to the innovative, consensus-based process of the Tortugas 2000 Working Group, which brought 25 local stakeholders together. These commercial and recreational fishermen, divers, conservationists, business owners, scientists, resource managers, agency staff and others worked in partnership for nearly two years to identify common interests, review extensive data, and design a reserve with benefits for everyone. The Tortugas Reserve process - where every step was consensus based and socioeconomic impacts were minimized - is increasingly recognized as an international "gold standard" for making marine conservation decisions, and WWF is using it as a model to create similar initiatives elsewhere around the world.

WWF is also focused on improving management of the Florida Keys National Marine Sanctuary (a 2,800 square nautical mile zoned marine protected area that includes the Tortugas Reserve), and reversing significant declines in water quality due to wastewater pollution and the diversion of water flows from the adjacent Everglades ecosystem.

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