



# THE ANGUILLA NATIONAL TRUST

## Preservation For Generations

### Eco-Corner

#### **Mangroves: Seeing the Forests *and* the Trees**

Mangrove forests, at first glance, may seem like muddy, murky areas full of mosquitoes, other insects, and crabs. They used to be plentiful in Anguilla but then, in the mid- and late-1990s, this small island was hit by two powerful hurricanes that devastated the environment and put enormous stress on its people. Anguillians, though, were resilient and were able to pick up the pieces and rebuild their houses and businesses. The natural environment had to do the same. Most trees re-grew their leaves (and branches), the water slowly drained from the land, and the birds returned to the ponds. But even five and ten years later, it has not recovered completely. The fragile habitats that tropical coastal ecosystems are known for – the coral reefs, seagrass beds, and mangrove forests – were the hardest hit and the extent and health of them, post-hurricane, is nowhere near what they used to be.

Already stressed by other factors including the impacts of coastal development, the hurricanes nearly pushed the health and integrity of the coastal habitats over the edge. Although most attention and concerns when it comes to coastal environments tends to be focussed on the state of the island's coral reefs, mangrove forests cannot and should not be forgotten.

While there are over 50 species (or types) of mangroves worldwide, buttonwood are the most common in Anguilla. Small stands of black, white, and red mangroves, with their long roots curving and dipping into the water are also scattered mostly in south-central and south-east coastal areas of the island. They thrive in areas where the land meets the water and although they can grow into trees that are taller than 40 metres, mangrove trees in Anguilla are much shorter because of the conditions under which they live – relatively limited amount of rain, a limestone-based ground, low natural soil and nutrient content, and strong winds.

Regardless, their productivity, however, is astounding. Reports indicate that these ecosystems can produce over 23 tonnes of leaf litter, flowers, and branches in a single year – all of which becomes scattered on the mangrove forest floor. These materials are important sources of organic matter that, in turn, provide energy and minerals to other organisms that live in the coastal and marine environments.

Mangrove forests also act as nursery areas for a variety of animals, including fish. They serve as a type of safe haven where young fish are more protected than in the open ocean (or even on the coral reefs) and where they can find a constant food supply. Other organisms such as crabs use these forests as hiding and feeding places. The trees' intricate root system, meanwhile, help to protect shorelines from erosion, serve as sediment traps (which protect both coral reefs and seagrass beds from being smothered and suffocated) filter contaminants and nutrients (again, protecting coral reefs and seagrass beds from pollution and from nutrient overload), and provide a buffer to other coastal forests which cannot survive in salty conditions.

But they are under threat. Despite being one of the most important habitats in the world, their significance tends to go unappreciated. Their swamp-like qualities – muddy, sticky, and insect-ridden – often puts them at the forefront of environmental destruction because it is felt that they do not provide anything useful. Seen as a good source of firewood and as ideal places to build – they are right next to the water! – they tend to be cut down and/or filled in with little regard to what is lost.

One stand that was severely damaged by Hurricane Luis (1995) and again by Hurricane Lenny (1999) was the mixed mangrove stand found in Little Harbour. Unlike many other areas on the island that were

equally damaged, this mangrove system has made a strong come-back. Bordering on the salt pond and extending out to the eastern side of the bay, the mangroves are representative of what the ecosystem should look like: they reflect the general diversity typical of the small island. A dense stand of red mangrove fringes three sides of the pond (the east, north, and west) and smaller stands of black and white mangrove and buttonwood are found on the south. While they continue to regenerate (particularly the buttonwood) and become denser each year, their progress is being hampered by the construction of luxury homes that both require space and an unobstructed view. Valuable habitat for approximately 30 different species of birds is further threatened by such development.

While it is clear that coastal development will continue to take place on the island (land lining the coast has become prime real estate since the 1980s and the accompanying tourism boom), there are certain areas that the level and type of development should be done in a careful and balanced way (for example, in Little Harbour). Difficult questions need to be asked, including: What are the risks on the surrounding area and the entire island if mangroves and other sensitive coastal environments are destroyed or damaged? Are the end products really worth those risks? Should a line be drawn, and if so, where? And who should be responsible for drawing that line? As the island nation continues on this development path and as the world makes adjustments to deal with climate change, these questions (amongst many others) need to be answered – not just by those in government, but also by all citizens of Anguilla.

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**Eco-Corner is a regular feature provided by the Anguilla National Trust in co-operation with The Anguillian. The Anguilla National Trust welcomes questions, comments, and suggestions. If you would like to voice your opinions and/or concerns, please contact the Trust at 497 5297 or at [axanat@anguillanet.com](mailto:axanat@anguillanet.com). Together we can make a difference. *Preservation for Generations.*** 