

INDIAN RIVER LAGOON

Although the word "river" appears in its name, the Indian River Lagoon is not a river in any sense of the term. A river, by definition, has headwaters and flows to a mouth. The Indian River Lagoon has no headwaters, has no mouth, and when it does "flow," it often flows in many different directions depending on winds, tides, and several other factors. The Indian River Lagoon is an estuary, a body of water where freshwater draining from the land mixes with the ocean's salt water. The result is an environment teeming with plant and animal life.

The Indian River Lagoon is a special type of estuary called a lagoon, a body of water separated from the ocean by barrier islands, with limited exchange with the ocean through inlets. The Indian River Lagoon is North America's most diverse estuary with more than 2,200 different species of animals and 2,100 species of plants. The lagoon extends about 150 miles through five coastal counties along Florida's Atlantic coast, from Ponce De Leon Inlet to Jupiter Inlet.

Popular as a recreation area, the Lagoon comprises three major water bodies; Mosquito Lagoon, Banana River, and the Indian River Lagoon proper. The Lagoon varies in width from ½ mile to 5 miles and averages only 3 feet in depth. It serves as a spawning and nursery ground for many different species of oceanic and lagoon fish and shellfish. The lagoon also has one of the most diverse bird populations anywhere in America. Nearly 1/3 of the nation's manatee population lives here or migrates through the Lagoon seasonally. In addition, its ocean beaches provide one of the densest sea turtle nesting areas found in the Western Hemisphere.

Nearly 1 million people live and work in the Indian River Lagoon region, attracted here by the mild climate and the resources of the Lagoon. The Lagoon accounts for \$300 million in fisheries revenues, includes a world-renowned \$2.1 billion citrus industry, and generates more than \$300 million in boat and marine sales annually. The Lagoon contains five state parks, four federal wildlife refuges and a national seashore. These protected water support threatened and endangered species, and provide recreational areas. All of these factors make the Indian River Lagoon a unique resource that needs to be preserved and protected.

However, environmental threats, the result of human settlement in the Lagoon area over the past 100 years, have encroached from all directions to threaten the fragile balance of Lagoon life. In trying to make the area more suitable for human habitation, man has upset the ecological balance in the area. The bushy mangrove trees along the shores and in the marshlands that help hold the soil in place have been depleted significantly by development. Impoundments to eradicate mosquitoes and large-scale channeling for flood control, development and agricultural purposes have altered the ecosystems in and near the Lagoon.

The problems are complex, ranging from excessive nutrients (nutrient loading) which have affected the number and types of fish and wildlife found in the Lagoon to man's activities threatening the area's manatee population. The complexities of this Lagoon system make it what it is. Unfortunately, it is in peril of losing its unique character and wealth of resources. Efforts are under way on many fronts to achieve a scientific understanding of the Lagoon's life systems and dynamics in the hope that it may be restored and maintained in a healthy state.

Only one thing is for sure, the future of the Indian River Lagoon will be what we make it.