

John D. MacArthur Beach State Park



John D. MacArthur Beach State Park comprises 436 acres of diverse subtropical coastal habitat and is one of the last undeveloped areas in coastal Palm Beach County. The estuary system is the largest natural community found in the Park. Estuaries and their surrounding wetlands are bodies of water usually found where fresh water meets the sea. Estuaries are home to unique plant and animal communities that have adapted to brackish water—a mixture of fresh water draining from the land and salty seawater.

All animals, plants, and other resources are protected in Florida’s State Parks. Please take nothing but pictures and memories. For your protection and that of the resources, please stay on designated trails and obey all Park signs.

John D. MacArthur Beach State Park
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 North Palm Beach, FL 33408

 Park Office 561-624-6950
 Nature Center 561-624-6952
 Beach Outfitters Gift Shop
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www.macarthurbeach.org

Estuary Guide



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Estuaries are among the most productive ecosystems in the world. Many animals rely on estuaries for food, places to breed, and migration stopovers.

Often referred to as the “Nursery of the Ocean,” estuaries provide food and shelter to many juvenile commercial and recreational fish species.

Invertebrates

Barnacles (*Balanus amphitrite*) Inside the rings of plates, the animal lies on its back and uses its fan-like legs to catch food.



Blue Crab (*Callinectes sapidus*) This crab is a good swimmer, and is easy to identify by their blue claws and legs.

Crown Conch (*Melongena corona*) This gastropod is a carnivore, and can be identified by the prominent white spines on each of its whorls. The female is slightly larger than the male.



Eastern Oyster (*Crassostrea virginica*) Oyster keep the water clean by filtering up to 50 gallons of water a day.

Fiddler Crab (*Uca pugnax*) This crab is easy to identify: males have a distinctive enlarged claw, which resembles a fiddle.



Hermit Crab (*Pagurus annulipes*) Hermit crabs are common in south Florida, and all inhabit snail shells. Like all hermit crabs, this smaller crab can be aggressive in defending its home.



Horseshoe Crab (*Limulus polyphemus*) This animal has a smooth brown carapace and a long tail. They are related to spiders.

Mangrove Tree Crab

(*Aratus pisonii*) This crab is olive brown/green and is approximately 2.7 cm in size. They live near mangroves and will climb the trees when the tide comes in.



Pink Shrimp (*Penaeus duorarum*) This shrimp is thin and translucent, and their antennae is longer than their body length. They burrow during the day and are active in the evening.



Vertebrates

Atlantic Needlefish (*Strongylura marina*) This fish has long needlelike jaws with tiny teeth used to catch prey sideways. They can be found near the surface of the water.



Checkered Pufferfish (*Sphoeroides testudineus*) This fish is yellowish with a square network of lines and white underneath. Pufferfish contain a toxin that can be fatal if eaten.



Great Barracuda (*Sphyraena barracuda*) This long, tubular fish has a very pointed snout filled with two rows of teeth. It can swim up to 35 mph.

Lined Seahorse (*Hippocampus erectus*) This species relies on camouflage, since its swimming skills are poor. The male carries the embryo in his brood pouch.



Sheepshead (*Archosargus probatocephalus*) This fish has 5-6 dark, slightly diagonal stripes and molar-like crushing teeth for their omnivorous diet. They are commonly 1-8 lbs.

Southern String Ray (*Dasyatis americana*) This animal has a flattened, diamond-shaped body, more angular than other rays. If stepped on, they use their spine as a defense mechanism.



Striped Mullet (*Mugil cephalus*) This fish is a bluish-gray or greenish color, becoming silver along the sides of the body. They are often seen jumping out of the water.

Florida Manatee

(*Trichechus manatus latirostris*) This gentle and slow-moving animal can sometimes visit the estuary, playing an important role in influencing the plant growth.



Plants



Black Mangrove (*Avicennia germinans*) This tree has black bark and pneumatophores, roots that stick up from the ground in order to allow gas exchange. Salt crystals can often be seen on the leaves.

Red Mangrove (*Rhizophora mangle*) This tree has dark red wood, thin gray bark, and prop roots. Propagules, which are seedlings, grow to almost a foot long before dropping in the water.



White Mangrove (*Laguncularia racemosa*) This tree is the least salt tolerant of the three mangrove species. In the spring, they produce greenish-white flowers.