## John D. MacArthur Beach State Park: an ecological pearl amidst the urban sea of southeast Florida

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Since planting roots in southeast Florida, I hunt for pockets of natural coastline interspersed throughout the urban-dominated landscape. One such place is situated near the northern tip of the regional conurbation. A swim, paddle, or stroll about the grounds of John D. MacArthur Beach State Park – located on an almost unspoiled slice of coast in northern Palm Beach County – offers glimpses of what southeast Florida's tropical coastal habitat resembled prior to the arrival of Spanish ships in the sixteenth century when Jeaga Indians paddled local waters using dugout canoes. In the concrete jungle that is present-day southeast Florida, this protected area is bursting with vegetation and wildlife.

Founded in 1989 to preserve some of the area's environmental treasures, which include seven plant and twenty-two animal species recognized as threatened or endangered, this oasis lies on more than 400 acres between the Atlantic Ocean and Lake Worth Lagoon. It's comprised of four major habitats: *maritime hammock*, containing an assemblage of tropical and temperate trees like strangler fig, gumbo limbo, and live oak; *estuary*, hosting aquatic species tolerant of brackish water such as manatees, checkered puffers, and fiddler crabs; *beach and dunes*, bolstering the shoreline while protecting low-lying inland areas (Figure 1); in addition to the *Anastasia Limestone Rock Reef*, formed from limestone over 125,000 years ago and, unlike many reefs along the southeast Florida coast, visible from shore. The park also features Munyon Island, referred to as Nuctsachoo or Pelican Island by the Seminoles. More than a century ago, this island reputedly supported one of the greatest wading bird rookeries in all of south Florida.

Spending a day at John D. MacArthur Beach State Park, one can discover the wonders of nature. Let's amble along the park's beach. We pause, glancing east to behold a shimmering ocean illuminated by the refulgent morning sun, a hint of salt in the air, sounds of crashing waves, the steady southern winds suspend gulls in midair – seemingly frozen – while a fling of sandpipers race by our feet, giving chase to retreating water. The raw grandeur is spellbinding. Or imagine sitting on sand admiring undulating waves when suddenly, out of the blue (literally), hundreds of glistening bait fish erupt through the ocean's surface only a few yards away, the menacing shadow of a nurse shark in hot pursuit. That same beach is dotted with sea turtle nests for much of the year. As of late August 2020, there were 1,606 loggerhead nests, 48 leatherback nests, and 826 green turtle nests, not to mention two resident, juvenile loggerhead sea turtles greeting guests from within saltwater tanks at the welcome center.

Kayaking among mangroves, their unmistakably entangled roots hugging opposite banks of the estuary, places me within talking distance of bottlenose dolphins or a manatee mother and calf. During another trip, I marveled from my kayak as a snowy egret and spider played a high stakes game of "hide and seek" on a mangrove limb; the bird meticulously craning its elongated neck around either side of the branch as the spider instinctually shuffled the opposite way, engaged in a dance – back and forth, back and forth – finally culminating in an unsuccessful strike flinging the crawler into the cool water below, a temporary reprieve and chance to live another day. Over time, I have encountered an array of variously colored birds there as well: striking pinks of roseate spoonbills, iridescent purples and greens of purple gallinules, and blue-gray feathers of great blue herons. Experiences like these are transcendent yet only a microcosm of the park's splendor. Undisturbed places on Florida's southeast coast are worth exploring and protecting. John D. MacArthur Beach State Park is a regional gem, not only as a relic of the region's little remaining natural land but as an educator about coastal ecosystems and the species found within. For these reasons, we must champion southeast Florida's few protected coastal areas, including John D. MacArthur Beach State Park and others, which are ecological pearls amidst the urban sea of southeast Florida.



Figure 1. A northfacing view of the beach and dunes at John D. MacArthur Beach State Park. Photo by author.