Seagrass on the May Field Trip

If you were on the river that morning just north of the Stuart causeway you may have seen five mermaids doing the stingray shuffle. Or maybe they were manatees? After all, they were in the water, heads down - bottoms up, looking for manatee grass. Turns out it was five intrepid cocoplums on a Saturday field trip to identify local native seagrasses in the Indian River.

As I was instructed the stingray shuffle involves moving by sliding your feet rather than lifting up with each step. It's a simple preventative gait that avoids potentially stepping down on a ray and encountering the painful and venomous barb. It was also a forceful reminder that the Indian River lagoon is alive. There may be human paddle boarders, kayakers, and motor boaters on the surface but all around them under the water is a complex web of plants and animals that rely on each other for food, shelter, reproduction and their very survival.

Earlier in the week at our May meeting Kathryn Tiling talked about her dissertation project on Indian River Lagoon Seagrasses and the research she is conducting at the Florida Oceanographic Coastal Center. Seagrass, she reminded us, is not grass, which has its own defining botanical characteristics. Of the seven known seagrasses in the Indian River Lagoon, Kathryn's work focuses on Shoal Grass (Halodule wrightii) a pioneer species that can colonize previously uninhabited or endangered areas, bringing after it a succession of more diverse and interconnected life forms. Manatee grass provides food for manatees and turtle grass for turtles. In addition, seagrass clears water of sediment, snags algae and slows water thereby providing a nursery and refuge for wildlife.

Like an oak tree a seagrass is a vascular plant with differentiated parts including roots that anchor the plant in place and take up nutrients, a stem providing transport of nutrients and microbes within the individual, chlorophyll holding blades that capture energy from the sun and even flowers for sexual reproduction. They also reproduce laterally through rhizomes and produce clones extending an individual out into a potential underwater meadow. Unlike giant oaks tiny seagrasses live entirely underwater but only at depths shallow enough to allow penetration of sufficient light for photosynthesis. When the waters of our Indian River Lagoon are darkened by muck runoff and algal blooms the health of seagrass is seriously compromised.

While wading in a few feet of river water we donned masks and

dunked our heads in. First we found manatee grass identifiable by the cylindrical, firm spaghetti like feel of the each blade. As a backyard gardener this was a new experience for me but I was in excellent company. Two of the four other cocoplums with me that morning are professionals, Pam Hopkins, a researcher at Florida Oceanographic Society and Lorene Bachman, ecological lab manager for the Loxahatchee River District. In spite of my inexperience they made me feel comfortable and welcome. We all giggled about our sun protective costumes, protective footgear and ungainly poses in the water. I struggled a bit to keep my buoyant body and head close enough to the river bottom to see the grasses growing in place. With guidance from Lorene and Pam we located paddlegrass (Halophila decipiens) and Johnson's Seagrass (Halophila johnsonii) a threatened species and itself a food source for endangered manatees and threatened sea turtles. The cloudy skies made seeing in the water more challenging but kept us cooler than we might have been in full May sun.

As we shuffled out of the river Pam found a tiny starfish clinging to her clothing and gently released it back to the water. Smaller than a fingernail the tiny animal must have hitched a ride, as she felt underwater for identifying features among the plants. I marveled at the contrast in size between huge manatees and the tiny grasses that sustain them. It would take far more seagrass than we found to feed a cow and her calf. How important the health of these little plants is to the great diversity of life in our own Indian River Lagoon. I'm glad to have spent the time venturing out into the water to see and feel these often overlooked Florida Native Plants growing in our own local waterways.

Ellen Broderick May 2014