

Florida Master Naturalists Launch New Marine Microplastics Monitoring Project in St. Lucie

Florida Master Naturalists Cheryl McCormick and Bob Calhoun are participating in the new Florida Microplastic Awareness Project. They are working under the direction of Ken Gioeli, FMN program lead instructor, and Leroy Creswell, the regional coordinator in this citizen science and education campaign funded by the NOAA Marine Debris Program. Their participation in the Microplastic Awareness Project is being conducted as their final research project in the UF Master Naturalist Program in St Lucie County.

What are marine microplastics? By definition, they are plastic pieces smaller than 5 millimeters in size. We have all seen plastic bottles, bags, monofilament lines and other bits of plastic debris in the water or on the beach. Given enough time, most plastics will break down to this size and smaller, and if that isn't bad enough, they adsorb toxins, they never biodegrade, and they are eaten by marine life.

Does your toothpaste glow, your body scrub shine, and shampoo glisten? These products could be filled deliberately with microbeads, small bits of plastic to scrub, shine, or fill. If your personal care products contain the ingredient POLYETHYLENE, you are using products with microplastics. These microplastics often cannot be removed by wastewater treatment plants, and can be discharged into coastal water bodies in treated effluent.

Two St. Lucie County master naturalists are trying to help the PlasticAware Project. They take samples from the surface waters of the Indian River Lagoon and the Fort Pierce Inlet and analyze the water samples for microplastics. The samples are run through the filtering process and the filter papers are observed under a microscope with at least a 20x magnification to sort the microplastic (5mm or less) from sand grains and pieces of algae and other organics. The number and each type of plastic (fibers, fragments, microbeads, and plastic-wrap type films) are counted and recorded on the data sheet with the corresponding location (GPS coordinates). This data is entered online and submitted to Maia McGuire, the state-wide project coordinator.

This plastic marine debris problem seems immense and nearly hopeless. How can two individuals make a difference when the oceans are full of plastic waste larger than the area of the USA and still increasing? Well, if even one out of 10 of you who read this article turn over your personal care products and reject those with polyethylene in the ingredient list, or spread this information to another, or explore the website www.plasticaware.org, then they HAVE made a difference.

Please feel free to contact the Florida Master Naturalists if you have questions about the Florida Microplastic Awareness Project.

Cheryl McCormick cherylmccormick@gmail.com

Bob Calhoun rcalhnc@gmail.com