

Recycled plastic bottle caps can help clean lagoon water!!!



Naturally occurring “good” bacteria within the water column and in the sediments help to remove nitrogen from the water. Unfortunately, “good” bacteria grow best only in the right conditions. Partially due to the deterioration of the lagoon over time, including the build-up of “muck,” we are seeing less favorable habitats for these specific bacteria to live and carry out the “good” biochemical reactions that remove nitrogen. In degraded areas, we can provide the “good” bacteria a place to live on bottle caps, creating effectively a pro-biotic for the lagoon. A similar approach is used in home aquaria where plastic balls are used in a filter to promote the growth of “good” bacteria. Plastic bottle caps can achieve the same result and we are seeking help collecting the large quantities of bottle caps needed to make this project possible on a large scale. Bottle caps are perfect for this application because they are available globally, can be obtained relatively inexpensively and could be used to improve water quality in rural and underrepresented communities worldwide.

Donations: We are working on collecting as many plastic bottle caps as we can and we would very much appreciate your help! Donation boxes are located at Brevard Zoo and at the SunShope located in downtown Melbourne. You can also contact geringa2016@my.fit.edu for more information or to discuss other drop-off options 😊

NOTE: Bottle caps are contained in mesh sacks to prevent them from escaping into the open environment, and by submerging the bottle caps, they are protected from ultraviolet light that would lead to the formation of microplastics. This biochemical process to remove nitrogen only works when caps are placed in appropriate areas and **just throwing your trash in the lagoon will not help!**