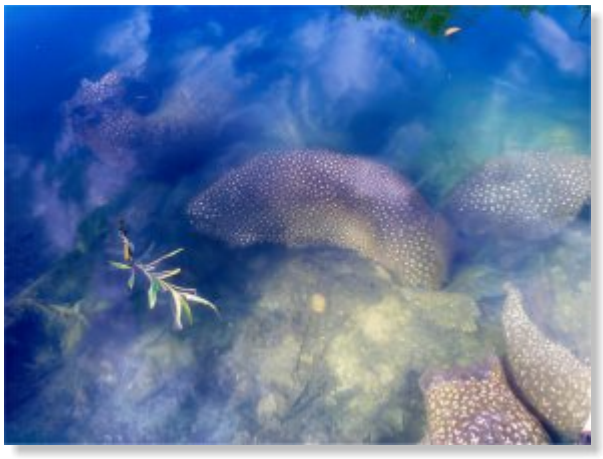
Pond Views

Magnolia Pond #23

Magnolia's 'Moss Animals'

Wildlife abounds at Magnolia Point: deer, gators, fox & coyote, herons on errands, golfers & joggers, bass, bunnies, 'dillers & mailbox killers, possum & *geese*...a lot of *these*!



And another animal you don't see everyday: *Bryozoans*. Commonly known as 'moss animals', are not plants, though you might think so, seeing them for the first time. They're aquatic invertebrates that live in colonies, typically attached to submerged surfaces such as rocks, plants, or man-made structures. They can be found in both marine and freshwater environments, although the freshwater species are the focus here.

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Magnolia Pond #37 (west end of Shinnecock) - Photo K. Follansbee

Pectinatella magnifica is a species of bryozoan found most recently in a pond at Magnolia Point, is known for its large gelatinous colonies. These colonies can vary in size and can be as large as a basketball, making them quite conspicuous in freshwater ecosystems. They are found in slow-moving or stagnant freshwater bodies such as lakes, ponds, and slow-moving rivers. 'Moss animals' can thrive in a variety of water conditions but are often associated with nutrient-rich environments.

Spoiler Alert! The life cycle of *Pectinatella magnifica* involves both sexual and asexual reproduction. Asexual reproduction occurs through budding, where new zooids (individual members of the colony) develop from the parent zooid. Sexual reproduction involves the release of sperm and eggs into the water, with fertilization occurring externally. The fertilized eggs develop into larvae, which eventually settle and develop into new colonies.

Pectinatella magnifica, like other bryozoans, contributes to the health of freshwater lakes and ponds in several ways:

Water Filtration: Bryozoans are filter feeders: they filter small particles, including bacteria, algae, and organic matter, from the water. By doing so, they help to maintain water clarity and reduce the abundance of certain microorganisms.

Habitat and Food Source: The colonies provide habitat and a food source for various aquatic organisms, including microinvertebrates and small fish, thereby contributing to the overall biodiversity of the ecosystem.

Nutrient Cycling: They play a role in nutrient cycling by removing excess nutrients from the water, thus helping to prevent eutrophication, a process where excessive nutrients lead to algal blooms and oxygen depletion, harming other aquatic life.

Stabilization of Sediments: The presence of bryozoans can help stabilize sediments, preventing erosion and maintaining the overall ecological balance of the aquatic environment.

While *Pectinatella magnifica* and other bryozoans can contribute positively to the health of the lakes and ponds here, certain conditions can lead to their overgrowth, causing issues such as clogging of waterways and pond inlet structures or overflows. As with any species, a balance is necessary to ensure that their presence does not disrupt the natural equilibrium of the ecosystem.

-Editor

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