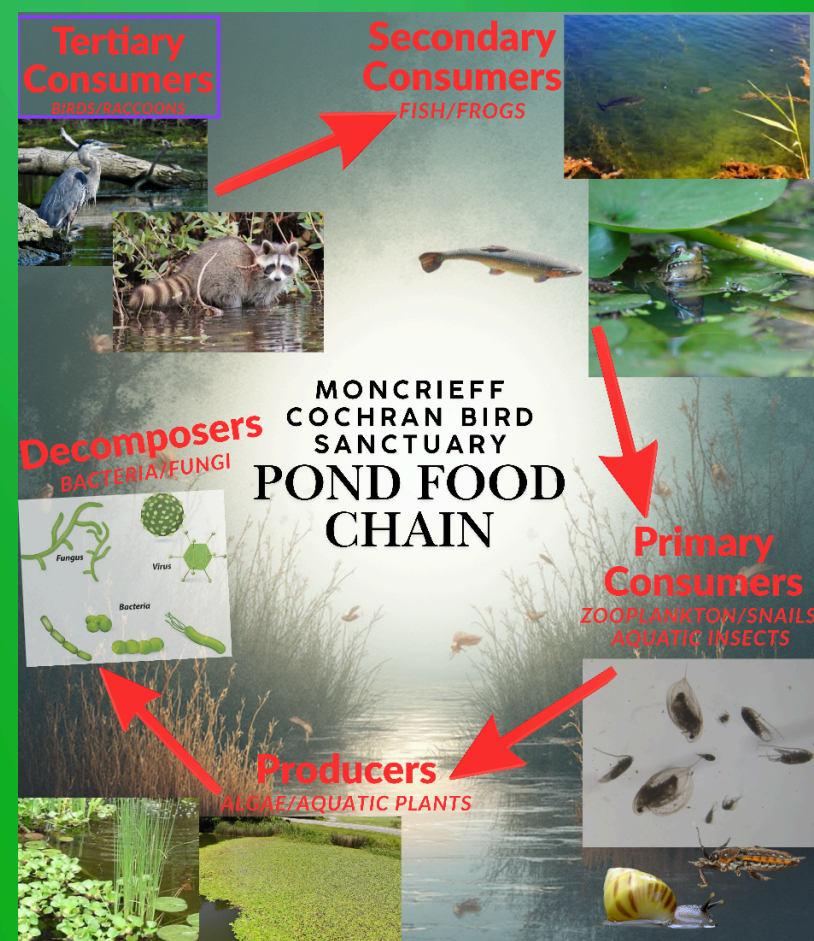


Pond Ecosystem in the Sanctuary

HOW DIFFERENT SPECIES AND FACTORS IN THE POND PLAY A ROLE IN BIODIVERSITY AND CONSERVATION



Biodiversity

Species diversity within the Sanctuary pond is critical to the ecosystem. It helps to maintain a balanced environment that is less vulnerable to human intervention which includes practices like fishing and damming. Within the ecosystem exists species including primary producers like algae, and different levels of consumers like zooplankton, fish, and birds. In pond ecosystems, aquatic life attracts many bird species for practices such as predation or nesting. Furthermore, decomposers play a role in breaking down dead plant material and reprocessing important nutrients.



I encourage you to make your own artwork with the nature you find here and to share it with us on Instagram! @agreenerblue #DrawnToEarth



Bottom-Up and Top-Down Effects

Bottom-up control refers to the factors below the surface that influence the food chain. In the Sanctuary pond, some bottom-up factors include nutrients, sunlight, and pH. Sunlight is vital for photosynthesis, the nutrients nitrogen and phosphorus are essential to healthy plant growth, and higher pH in the water often supports aquatic life. Furthermore, in the Sanctuary, top-down control focuses on how predators at the top of the food chain, influence the environment through trophic cascades. In the pond, these predators can include birds, raccoons, and large fish and together they can affect factors like zooplankton and algae populations, plant development, and critical environmental processes like nutrient cycling.

Connection to Conservation

My collage artwork and my photographs incorporate the many different aspects of the Sanctuary pond. By highlighting the food chain in the collage, my artwork shows how each species plays a role in the environment, whether that is as a top predator, primary producer, or even a decomposer. By capturing, a wide range of species, my artwork demonstrates the interconnectedness of the pond ecosystem. Each species and aspect that is highlighted in the art has some value in the ecosystem, reminding us that conserving this natural space is not just about certain species, rather it is about keeping the pond healthy in its entirety.

Ecosystem Services

The pond provides a great deal of benefits to us humans. These include provisioning services like freshwater, cultural services like recreation, supporting services like nutrient and water cycling, and regulating services like balancing water runoff. Examples of these services include:

- Fishing/Relaxing or observing
- Freshwater storage
- Nutrient cycling/Water cycling
- Habitat for species that humans rely on