

A Closer Look!

When we spend time in nature we often pay attention to the big, beautiful organisms. In turn, these species appear in conversations about preservation, conservation and biodiversity. **But what about all the little guys?** The organisms too small to see with human eyes? This project uses microscope technology and photography to help people see the amazing creatures we normally can't. **My hope is to inform you on some micro-organisms who live in the freshwater ecosystem of Rabbit's Pond on campus and how they play an important role in supporting biodiversity and human health and wellbeing!** As climate change looms, awareness of these species and their positive impacts on humans **helps us understand the necessity of protecting them, and by extension, ourselves.**



This micro-organism is a planktonic crustacean species belonging to the **Daphnia genus** (the specific species of Daphnia is indeterminable) from Rabbit's Pond near the Sanctuary's entrance. As a type of zooplankton, Daphnia such as the one photographed, serve as **food for species higher up in trophic pyramid, indirectly supporting the broader Rabbit Pond ecosystem.** As a form of zooplankton, Daphnia are likely to **aid carbon cycling or other nutrient cycling in the Rabbit Pond ecosystem.** These processes make nutrients readily accessible for other biological processes which **could have positive health implications for our community.** Because the Rabbit Pond ecosystem holds recreational and personal value for many, the **Daphnia also indirectly support those in our campus community (and potentially beyond) through cultural modes.**

This micro-organism appears to be another **Daphnia**. Like before, these Daphnia support the Rabbit Pond ecosystem by being **food for species such as fish.** They provide the same value to humans as the Daphnia organism above. One interesting feature to note is the darker region in the bottom left portion of the Daphnia, which seems to be a **cluster of eggs.** **Female Daphnia are capable of producing many offspring,** an important contribution to the overall positive impacts Daphnia can have.



This is a type of **copepod, a crustaceous micro-organism.** Like Daphnia, copepods **serve as food for many fish,** benefiting the consumers higher on the trophic pyramid and **indirectly supporting the broader Rabbit Pond ecosystem.** **Copepods benefit humans by removing carbon** from the atmosphere through biological processes. In the Rabbit Pond ecosystem, copepods continue to lessen the carbon in the atmosphere, **contributing to the overall offsetting of climate change by copepods, which benefits all humans.** Copepods also have the ability to **limit malaria** by eating mosquito larvae, potentially **protecting humans** in the area/those who interact with Rabbit Pond **from illness.** Finally, like Daphnia, due to how they support the broader Rabbit Pond ecosystem, **copepods also indirectly support any recreational value or personal value people may find in the area.**



I encourage you to make your own art inspired by ecosystems on campus that you see connects to conversations around conversation and biodiversity. Once you're done, post your awesome art to your Instagram account and tag **@agreenerblue** to spread awareness!