

July 2022

# Notes of a Naturalist

A newsletter bringing you the species, landscape, history, and happenings of the Taft-Nicholson Center



## The Buzz on Pollinators

July often means peak wildflower season, and this month did not disappoint. Thanks to spring rain, the Centennial Valley has been blanketed in colorful blooms and abuzz with pollinators. Around three quarters of all flowering plants rely on other species for pollination, though these pollinators don't often get the recognition they deserve.

The honeybee is perhaps the most well-known pollinator. This species that was brought over from Europe often gets most of the attention, but there are at least 4,000 other bee species that are native to North America. The number of bee species in Montana is still unknown, but entomologists at Montana State University have set out on a 15-year study to document the state's wild bee species. Five years into the study, researchers have so far documented 450 species and are estimating that there may be up to 1,000.

Montana is home to 28 species of bumble bee, more than half of the total number of bumble bee species found on the entire continent. Bumble bees are better suited for colder climates than most other bees. In addition to their furry coats, they are also quite efficient at warming themselves by "shivering" using their flight muscles. They can then transfer the resulting heat to other parts of their body. Their ability to thermoregulate means that bumble bees are some of the earliest pollinators to appear in the spring and last to be seen in the fall.



Ornate Checkered Beetle

Along with the more well-known bees and butterflies, many other invertebrates including moths, flies and even beetles also play important roles as pollinators. Ornate checkered beetles are a great example. Adults primarily eat pollen and will disperse pollen between flowers in their foraging process. They've been known to eat bees that visit these flowers as well. Ornate checkered beetles also lay their eggs on flowers, where the larvae will hatch and stow away on a bee back to its nest. There, the beetle larvae will eat the bee's larvae and the provisioned food.

The white-lined sphinx moth is perhaps one of the most spectacular moth pollinators. Sphinx moths or hawk moths start off as hornworms, large caterpillars that are notorious for being garden pests, often decimating plants as they feed on leaves. In Centennial Valley, they are often seen munching on fireweed. After their transformation to moths, their diet switches to nectar. Unlike most other moths who are primarily nocturnal, sphinx moths can often be seen out during the day. They are also referred to as hummingbird moths, a name that aptly describes their size and foraging technique.



White-lined Sphinx Moth

These large moths have a wingspan of up to 3 inches and hover while feeding, much like hummingbirds do.

Hummingbirds themselves are of course also important pollinators. The rufous and broadtail hummingbirds found in Centennial Valley are particularly fond of paintbrush, larkspur, columbine and other colorful tubular flowers that offer sweet nectar rewards. Their high-sugar diet will sometimes get supplemented with protein in the form of gnats, aphids, and other tiny insects.

## Lakeview Happenings

Our faculty fellows joined us this month, coming from various departments at the University of Utah. You can read more about the fellows and their research [here](#).



This month we also welcomed back Montana State University's Osher Lifelong Learning Institute. The group delved into a 3 day experience of Centennial Valley, led by former Red Rock Lake Wildlife Refuge manager and Centennial Valley expert Bill West!



Wyss Scholars from various universities across the country held a retreat here, where they had an opportunity for quality bonding time and learned from experts about natural resource management and environmental policy.

We also had the honor of hosting a group of scientists and artists from the University of Utah, Michigan State University, and All My Relations Collective. They worked on a collaborative project focusing on Indigenous perspectives and decolonizing narratives surrounding dark skies.



And we finally have our new telescope up and running! We're looking forward to a new way of sharing the beauty of dark skies with visitors to the center.

## Meet the Artist: Hope Tucker



American artist Hope Tucker reconceptualizes what we know as a daily form of narrative through THE OBITUARY PROJECT. She has animated cyanotypes of downwinders; recorded mobile phone footage of the last public phone booths of Finland; written the text of a video out of paper clips, a Norwegian symbol of solidarity and nonviolent resistance; retraced the path of protest that closed the only nuclear power plant in Austria; and preserved reckonings made by travelers to the site of the first detonation of an atomic bomb. [www.theobituaryproject.org](http://www.theobituaryproject.org)

