

Project Bee Watch: Increasing the Awareness of Pollinators through Citizen Science

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Media outlets such as National Geographic have reported on the decline of pollinators around the world. In a 2017 report published by the Center for Biological Diversity, more than half of native bees are declining in North America. Project Bee Watch, which began in 2018, is the first of its kind to use citizen scientists to determine the status of pollinators in southwestern Pennsylvania. The Project is different compared to others in that its scope is local, which ensures a “human connection” with the volunteers; and volunteers identify all wildflowers and pollinators that visit their sample plots versus only focusing on one type of pollinator. In 2018, a trial run of the project took place at a 17-acre meadow property owned by the non-profit organization, Allegheny Land Trust. Volunteers were trained to identify and record wildflowers and pollinators within one-square meter plots for sampling periods lasting 15 minutes.

Nine volunteers surveyed 124 sampling plots, which accounted for 31 hours of data. Thirty-six wildflower taxa were identified, with *Asclepias tuberosa* (Butterfly Weed), *Asclepias syriaca* (Common Milkweed), and *Solidago spp.* (Goldenrod) being the most visited by pollinators. Nearly 60% of the pollinators were bees, with beetles and flies accounting for most of the remaining 40%. Bee density was 11 bees per acre per minute, with *Apis mellifera* (Honey Bee), *Bombus spp.* (Bumble Bee) and Sweat Bees in the Halictidae Family being the most common bee taxa. The citizen scientists from 2018 will serve as ambassadors for the Project’s expansion in 2019. Additional partners will improve the value of the data and help spread communication of the results. We hope that Project Bee Watch will become a model for future pollinator studies using citizen scientists.