Externship Descriptions

Field Sciences

Kevin Atterberg

Des Moines Parks & Recreation

Des Moines, IA

Kevin's externship with Des Moines Parks and Recreation was to collect quantitative data about the Monarch butterfly, in the hopes of creating larger natural habitats to increase the population of this species. Kevin visited all 75 parks in the Des Moines metro area. While in the parks he located and documented the 4 distinct types of milkweed (common, butterfly, swamp, and whorled). Once he located a plant he checked the plant for caterpillars, eggs, and butterflies. As for other data points collected: the eggs were counted, butterflies counted and sexed, and caterpillars staged (growth level - 1st - 5th instar). After reviewing a park Kevin judged the layout to see if a prairie habitat was possible to be placed in the park.

Megan Bezdicek

State Hygienic Lakeside Lab

Milford, IA

Megan participated in an Iowa STEM Externship at the Iowa Lakeside Laboratory located in Milford, Iowa, on Little Miller's Bay in West Lake Okoboji. She worked in the Water Quality Lab where her main focus area was on the watersheds draining into Little Miller's Bay. She took samples and tested the water quality on three different watersheds. Once the samples were collected, Megan then took them to the water quality lab and ran tests for total phosphorus, orthophosphate, nitrate, turbidity, pH, and flow.

Lauren Buffington

Neal Smith National Wildlife Refuge

Prairie City, IA

While working at the Refuge, Lauren assisted in reconstruction work, which included: planting native species, identifying and removing invasive species, taking detailed data on species present on the Refuge, collaborating with other interns and biologists on a Monarch research endeavor, completing frog, bird, and plant surveys, and monitoring the bison and elk populations. The amazing team at Neal Smith have also agreed to collaborate with Lauren and her teaching team to bring some of these experiences to Southeast Polk's environmental learning center, where junior high and high school students have been working on prairie and stream reconstruction.

Molly Crock

Jones County Conservation

Center Junction, IA

Molly worked with Jones County Conservation to implement a bluebird research project. The research she conducted was to compare the effectiveness of how the addition of "skylights" detours unwanted birds from nesting in bluebird houses. After the houses were installed, she built QR codes which described the research and asked volunteers to monitor the boxes for the effectiveness of the skylight as well as how the temperature of the box was affected. She also wrote curricula for schools to implement this research project into their schools by providing them the activity and two bluebird boxes to compare the skylights' effectiveness.

Doug Engel
Iowa DNR
Manchester, IA

Manchester Trout Hatchery produces all of the trout that are caught in the state of Iowa. Doug assisted hatchery staff with daily hatchery work such as taking Dissolved Oxygen readings, feeding trout, cleaning raceways, and stocking trout into various streams in the area. Many of the concepts that Doug learned will be able to be collaborated with his in 7th grade science class as they look at real world issues that face freshwater ecosystems.

Spencer Mesick
US Army Corps of Engineers
Rock Island, IL

US Army Corps of Engineers
Rock Island District

Spencer's summer Externship has been targeted at improving the sustainability of the forests along the upper Mississippi River. The main job of the Corp is to maintain the depth of the Mississippi for barge transportation, which involves having to dredge out the bottom of the Mississippi. This dredge material is then dumped on Corp-owned land, and the Corp works hard to ensure that the new plant growth occurring on the dredge material is better for wildlife that the plants previously grew in that location. Spencer's job this Summer involved identifying the types, health and age of trees on Corp owned land. Understanding the types, health and age of trees helps the Corp know where to dump future dredge material and how to grow a healthy environment on the dredge.