

Permit 2026-006

Response Summary:

Name:

Cole Knaus

Department or Organization:

The Ohio State University

Email Address:

knaus.35@osu.edu

Are you requesting renewal of a previously approved permit applicaton?

No

Type of activities at The University of Akron Field Station and Bath Nature Preserve

Research

Title of project or class name and course number:

Finding Reintroduction Sites for the Endangered Rusty Patched Bumble Bee

Date/Dates requested:

August-September 30, 2026 & 2027

Number of people in group:

3

I am requesting permission to use a Research Area.

Yes

I am requesting permission to use a Sensitive Area.

Yes

I am requesting permission to use areas outside of the designated Research or Sensitive Areas.

No

I would like to use the Martin Center for Field Studies and Environmental Education for this prop...

No

Will the activity involve destructive sampling/collecting?

Yes

Which Research Areas?

Panzner Wetland Wildlife Reserve

Which Sensitive Areas?

Bath Pond

Garden Bowl

Please explain how the material will be collected (including equipment), and an estimate of how m...

120 bumble bee specimens will be collected via handheld aerial nets, kept individually in 5 dram 0.63 oz plastic vials, and placed in a cooler. Only males and workers will be collected (no queens will be kept). These specimens will then be transferred to The Ohio State University's Rothenbuhler Bee Lab.

Provide a brief description of (1) your proposed activities, (2) goals, and (3) impacts of your u...

This is a USFWS-funded project with a full title of: "Investigating rusty patched bumble bee (*Bombus affinis*) habitat suitability for recovery efforts across Conservation Units." Objective 1 of the project is evaluating resident bumble bee community composition and functional traits at high suitability sites (Conservation Units 1, 2, 3, and 4). This includes surveying for *B. affinis* and its co-occurring species at new sites in Wisconsin, Iowa, Ohio, Indiana, Michigan, and Pennsylvania. Objective 2 is ground truthing high suitability sites for future reintroduced *B. affinis* populations to determine if the sites have a high probability of supporting the reintroduced colonies based on parasite prevalence, floral resource availability, and exposure to pesticide on pollen from wild-caught bumble bees in Conservation Units 1–4. Based on predictions from climate suitability models, the Field Station and Bath Nature Preserve fall under climatically suitable habitat for the rusty-patched bumble bee in the present and decades into the future. By collecting bumble bee specimens at these locations, we will be able to determine their ability to support reintroduced colonies of the *B. affinis* and the health of the bumble bee populations at

these sites.

By checking this box, I agree to the above terms and state that all of the above information is c...

I agree