Red-headed woodpeckers (*Melanerpes erythrocephalus*) are boldly colored, medium-size woodpeckers that are native to North America. Although the species was once considered common, the woodpecker’s numbers have declined over the last 50 years, namely due to habitat loss. Conservation efforts are underway to help restore the species, and the Woodpecker Cavity Cam Project invites you to play a role in the overall conservation success story by participating in cutting-edge, real-world research.

The Woodpecker Cavity Cam Project study site is based at the Cedar Creek Ecosystem Science Reserve in Eastern Minnesota (see “Study site”). The research site features the oak savanna habitat and is home to over 100 breeding red-headed woodpecker adults each year. Researchers have deployed nest cavity cams at this location to study the woodpeckers and life at the cavity nest sites (see Figure 1). Red-headed woodpeckers nest (and roost) in tree cavities, and they have also been observed using wood utility poles in places where their preferred native habitat is lacking. The woodpeckers are considered *primary cavity nesters*, meaning that they excavate and create the openings in trees that they use as habitat. Many other animal species such as squirrels, bats, and other birds (i.e., chickadees and nuthatches) also use the holes. Animals such as these are considered *secondary cavity dwellers*. Secondary cavity users do not build or create openings, but rather depend on other species such as the red-headed woodpeckers to excavate the holes.

Red-headed woodpeckers can be fierce defenders of their territory; however, much is still unknown about their behavior and interactions at the nest cavity site. The Woodpecker Cavity Cam Project

**FIGURE 1:** A red-headed woodpecker appears on cavity cam video as part of the Woodpecker Cavity Cam Project.
Woodpecker Cavity Cam Project at a glance

When: Anytime

How: Visit the project home (see “Project home”) to get started and begin classifying what you observe.

Where: Online

Time needed: 5 minutes (or as often as you like!)

Special equipment needed: None

Cost: Free

Contact for more information: Visit the Project’s talk page: https://www.zooniverse.org/projects/elwest/woodpecker-cavity-cam/talk

Safety: As with any science lab, classroom, or field activity, always ensure that you are following recommended safety practices; for more information on safety in the science classroom, visit www.nsta.org/safety.

HELPFUL PROJECT LINKS

Project home—https://www.zooniverse.org/projects/elwest/woodpecker-cavity-cam

Project education page—https://www.zooniverse.org/projects/elwest/woodpecker-cavity-cam/about/education

Project link on SciStarter—https://scistarter.org/woodpecker-cavity-cam

Research page—https://www.zooniverse.org/projects/elwest/woodpecker-cavity-cam/about/research

Study site—https://www.cedarcreek.umn.edu/

This column is the result of a partnership between SciStarter and the National Science Teaching Association. For more information about SciStarter and other citizen science projects, please visit www.scistarter.org.
in the project advances a greater understanding of red-headed woodpeckers, especially relating to the habitat that supports nest success and survival. After viewing the cavity cam video clips, students may be able to generate additional questions as their curiosity is sparked.

**Materials you will need:**
- A computer (or device) with internet access

The project provides an array of educational resources that are available online for teachers and students. The resources were developed in 2021 by Minnesota Master Naturalists and volunteers (see “Project education page”). Free downloadable activities, games, quizzes, presentations, and more are available for the classroom. The resources facilitate extended exploration into the project topic and help to supplement the overall learning experience.

Immersion in the project and its educational activities will provide students with authentic science experience as they address research questions relating to nesting behaviors, competition, influences of nest success, predation, and more—while also adding to a greater understanding of red-headed woodpeckers and their important role in the environment.

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