Cross-Country Collaborators

BirdSleuth teachers bring peer review to the eighth grade

Peer review is a tried-and-true part of science in academia, but some students are getting their first taste of it in middle-school, not graduate school. As part of the Cornell Lab's BirdSleuth program, eighth-graders have started sharing research ideas with other students from across the country. These online "pen pals" help the students refine their studies, learning biology through watching the birds in their own neighborhoods.

The idea to collaborate began with a middle-school teacher from Hillsboro, Oregon, named Phil Kahler. He teamed up with Elizabeth Eubanks, a teacher in Boynton Beach, Florida, and Jennifer Fee, BirdSleuth project leader at the Cornell Lab.

The team brainstormed the basics of an online peer review system that could allow their far-flung students to swap ideas. Using the Internet, students posted, read, and reviewed all of their work on an online forum called a wiki, and even met each other via the video-chating program Skype.

Eubanks asked her students to develop their own questions about the birds living in their backyards. Anthony Zaleski, for example, wondered whether birds preferred feeders placed in sheltered areas near trees, or in open areas. As he worked, Anthony posted ideas to the wiki forum. Classmates offered reality checks, asking whether Anthony's yard was big enough to make the comparison, and warning him about squirrels interfering with the experiments. (In response, Anthony installed squirrel guards on his feeders.)

In October 2009, Eubanks's students began their experiments. Meanwhile, in Oregon, Kahler's students logged on to the Florida wiki, chose two students' questions to review, and introduced themselves to their pen pal partners. Celeste Roman was one of Anthony's reviewers. On the wiki, she said she disagreed with his conclusions but suggested using a new graph in which his data were easier to see.

In mid-December, the schools switched roles. The Oregon students began developing their research questions, and the Florida students offered peer review. Anthony's results are featured in this year's edition of Classroom BirdScope, which will be issued this winter.

"They all loved working with another school across our country. It also gave them a fresh set of people to work with," Eubanks said, peers who could offer new viewpoints. She said she would love it if her class could Skype with a Cornell Lab researcher next year.

Over the next few years BirdSleuth will begin to collaborate internationally by allowing students in the United States to share their research with schoolchildren in Latin America.

Kahler, Eubanks, and Fee will speak about their work at the National Science Teacher Conference in California next year—finally getting together in person after all their online work.

—Lisa DeRado
Project assistant, BirdSleuth