

Virginia Breeding Bird Atlas project relies on volunteers to update data

Feb. 10, 2017 – Many people recognize the most common bird species in Virginia, but according to **Ashley Peele**, a research associate with the college's [Conservation Management Institute](#)^[1], there is still much that scientists don't know about these species.

To fill those knowledge gaps, Peele is coordinating the second [Virginia Breeding Bird Atlas](#)^[2]. This statewide project sponsored by the Virginia Department of Game and Inland Fisheries gathers data collected by volunteer birders over a five-year period to determine where birds are living and breeding. "We tend to assume that common birds stay common," Peele said. "But bird populations can begin to decline without us even realizing it. The atlas will provide an overview and assess the status of all bird species in the state, not just the ones that we're already monitoring."

Another atlas of this type was conducted in the 1980s, but birding atlases should be re-published every 15 to 20 years. "We want to document evidence that birds are breeding, where they are choosing to do so, and how it compares to Virginia bird populations 25 years ago," Peele said.

To gather data most efficiently, Peele and her team use a system that divides the state into 4,400 blocks, each measuring about nine square miles. A subset of priority blocks are targeted first to ensure that each part of the state receives equal coverage. "Once we survey those priority blocks, we can start filling in the gaps between them," she explained.

Volunteers are recording more data than in most citizen science endeavors. "Birders are often asked to do basic surveys just to identify and count birds. Instead of focusing on numbers, we want people to slow down and make behavioral observations," Peele said. "We want to know where birds are, how and where they're breeding, how habitat degradation and loss affect populations, how landscape changes affect populations, and how we might mitigate those effects."

Scott Klopfer, director of the Conservation Management Institute, explained that in addition to gathering valuable data about bird populations, the project also highlights the importance of citizen science in natural resource management. "Watching birds provides birders with a window into what's going on in natural resources," he said.

The project's 450 volunteers have completed their first year of data collection, taking observations from 37 percent of the total blocks and 45 percent of the priority blocks. So far, their work is paying off. "In the first atlas, 191 species were identified as breeders in Virginia," Peele said. "At the end of this first year, we've already identified over 210 species and confirmed that 174 of those species are currently breeding."

Volunteers submit their findings to the atlas' own [eBird](#)^[3] portal, an online resource maintained by the Cornell Lab of Ornithology. eBird allows citizen scientists to submit observational data that is then fed into Cornell University's larger mainframe, enabling Peele and other researchers to analyze the data.

The European starling, northern cardinal, and American robin are among the most abundant species from the atlas' first breeding season, which ran from March to September 2016. In addition, five new breeding species were confirmed, including the Mississippi kite, magnolia warbler, and yellow-bellied

sapsucker.

According to Peele, the data collected by volunteers have far-reaching implications. "This research will help inform bird conservation plans for the Virginia Department of Game and Inland Fisheries, help researchers statewide gather information on conservation and management strategies, and improve general knowledge about what's going on with bird populations in the state."

To keep up momentum from the first year, Peele hopes to expand the project's volunteer base. "We want to open up the field of bird conservation to the public and engage anyone who's interested in birds and better understanding them," said Peele, who hopes to attract volunteers from western and southwestern Virginia, where the rural, less populated grids allow diverse bird populations to thrive.

Klopfer also stressed the need for volunteers to serve in other capacities besides birding. In particular, he described a need for volunteers willing to help birders using traditional pen and paper recording methods to input their data into the online database. "There's a fairly large segment of the birding community that isn't familiar with this online technology, and we don't want data entry to be an obstacle for them," he explained.

(Left-right): Project coordinator Ashley Peele and volunteers Ellison Orcutt, who serves as regional coordinator, Kim Harrell, and Sujan Henkanaththegeedara at the Amelia Wildlife Management Area about 25 miles southwest of Richmond. Photo by Meghan Marchetti.

Links

- [1]. <http://cmi.vt.edu>
- [2]. <http://amjv.org/index.php/vabba2/>
- [3]. <http://ebird.org/content/atlasva/>