Use of mist nets for bird capture safe, effective

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A Kansas State University graduate student has contributed to research showing the use of mist nets to capture birds for scientific studies isn't ruffling many feathers.

Gina Barton, San Jose, Calif., a master's student at K-State's Division of Biology, was part of a national collaborative effort to assess the risks of using mist nets. The results were recently published in the journal *Methods in Ecology and Evolution*, "How safe is mist netting? Evaluating the risk of injury and mortality to birds."

To effectively monitor avian wildlife populations, scientists often rely on capture-and-release procedures using the nets.

"A mist net is similar to a volleyball net. The birds fly into it and become tangled," Barton said. "We use these nets to catch birds and collect information like age, sex and weight."

"Mist nets and mark/capture are absolutely necessary for the scientific study of bird populations, and also for the creation of essential guides for birders," said Dave Rintoul, associate director of the Division of Biology.

The Handbook of Field Methods for Monitoring Landbirds provides a guideline of mortality rates no higher than 1 percent when using mist nets for capture and study. But the results from the research Barton was involved with revealed that of approximately 620,000 captures, the

average rate of mortality was much lower, at only 0.23 percent, while injuries resulting from the nets were 0.59 percent.

"This paper shows that mortality and injury rates will usually be low when conducting studies using mist nets. Now, it has been quantified and stated in a peer reviewed journal," Barton said.

Barton views the publication as beneficial because not only is there now documentation of the low incident rate, but also because it can provide important training information about which species of birds are more prone to certain injuries and stress.

"You often learn which species are susceptible from experience, but ecologists who use mist nets now have a reference they can use to modify procedures to reduce the risks for vulnerable species," Barton said.

Prior to her time at K-State, Barton trapped and banded birds as the land bird program supervisor for the San Francisco Bay Bird Observatory. Like most ecologists who trap birds, she takes many factors into account when she sets up a mist net to ensure the safety of the birds, including weather, placement of the net and use of well-trained individuals to minimize handling time with the birds.

"Mist nets are a widely used tool to assess the health of bird populations," Barton said. "Researchers do not like to talk about injuries or mortalities that may occur, but this study demonstrates that mist netting is a safe method for gathering information to better understand an organism."

Provided by Kansas State University