

New study may give hope that ivory-billed woodpeckers still around

January 16 2009



Ivory-billed woodpecker

Until credible sightings popped up three years ago, the scientific world was in agreement that ivory-billed woodpeckers had gone the way of the dodo. A new study conducted by University of Georgia researchers reveals that the ivory-billed woodpecker could have persisted if as few as five mated pairs survived the extensive habitat loss during the early 1900's. A new paper published in the online journal *Avian Conservation and Ecology* by researchers at the Warnell School of Forestry and Natural Resources adds another angle to the ongoing debate about modern existence of the birds.

Crow-sized and native to America's ancient southeastern bottomland

forests, the ivory-billed woodpecker was thought to have gone extinct following indiscriminate logging in the 1940s until reports began surfacing in the flooded forests of eastern Arkansas in 2004. Crisp photographic or genetic evidence continues to evade eager seekers, however, and controversy has raged about whether there were even enough of the woodpeckers left to keep the species going through the latter part of the 20th century.

"It doesn't prove that they do exist," said Warnell Professor Michael Conroy. "It just shows that they could have persisted."

Conroy is one of several scientists on the team who conducted a population viability analysis, which was funded by the U.S. Fish and Wildlife Service. Also on the team are Warnell post-doctoral students Brady Mattsson and Rua Mordecai, Warnell professors James Peterson and Robert Cooper, and Danish researcher Hans Christensen.

The ivory-billed woodpecker—nicknamed the "Lord God Bird" for its impressive physique and bold black and white plumage—has been the subject of intense debate among bird researchers. James Tanner, the only scientist to have studied this woodpecker intensively, estimated that only 24 breeding pairs remained in the 1930s. Although there have been credible sightings of the birds in Arkansas, Tennessee and the Florida panhandle, undisputed evidence of the woodpeckers has eluded ornithologists since the work of Tanner in the early 1900s. This lack of solid documentation has led many to question whether the ivory-billed woodpecker could still exist.

To find out, the U.S. Fish and Wildlife Service ordered a multi-state, intensive search effort for the elusive bird and a population viability analysis, which, among other things, assesses the population size and other factors required for the population to persist over specified time frames.

Mattsson, a former doctoral student working with Cooper, took the lead on the modeling project by constructing the population model and conducting the analysis. Based on information gleaned from the literature and unpublished sources on closely-related species of woodpeckers, Mattsson considered plausible ranges of initial population size, reproduction rates and adult survival rates to play games of "what if" with simulated woodpecker populations. What he found was that as few as five breeding pairs of these large woodpeckers could have ensured the persistence of ivory-billed woodpeckers in wooded swamps of the southeastern U.S. to this day.

He said his model is not meant to prove their existence, but "it gives people involved with the research team hope that they're still out there," and shows that sufficient levels of reproduction and survival are as important, if not more important, than large numbers of individuals for ensuring persistence of the species.

Cooper said that initially it was thought that the ivory-billed woodpeckers had a very small chance of persisting through modern times, but he believes Mattsson's analysis shows that the probability is larger than originally suspected.

Conroy is optimistic about implications from their findings for similar species thought to have blinked out of existence.

"I think it gives us hope that remnants of [species] out there that we thought were extinct are still out there," he said.

The paper is available online at www.ace-eco.org/vol3/iss2/art5/

Source: University of Georgia

Citation: New study may give hope that ivory-billed woodpeckers still around (2009, January 16)
retrieved 19 April 2024 from <https://phys.org/news/2009-01-ivory-billed-woodpeckers.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.