

## Terrestrial bird habitat imperiled

by Scott\_LaFee

In the first study of its kind, researchers at the University of California San Diego and Princeton have projected how changes in climate and land use over the next century will affect the world's 8,750 terrestrial bird species. The news is not good.

**HABITAT IMPERILED** - The chocolate-backed kingfisher is a common sight in African rain forests, but it is among the many bird species projected to lose more than half of their range by 2100. CNS Photo courtesy of Walter Jetz / UCSD. Even under the most optimistic scenarios, said Walter Jetz, an assistant professor of biology at UCSD, the ranges of at least 400 species will be cut in half by the year 2050. By 2100, 900 bird species would have their home range reduced by 50 percent or more.

"Some bird species that we do not currently consider threatened will become imperiled as a result. Others may be driven to extinction," said Jetz, who co-authored the study with David S. Wilcove and Andrew P. Dobson of Princeton University. Their findings appear in the journal PLoS Biology.

As the basis for their work, Jetz and colleagues used the Millennium Ecosystem Assessment - a project in which 1,000 experts from 100 countries analyzed how economic and demographic trends were likely to affect natural resources.

"Economists and others made forecasts about the future needs of humans," said Jetz. "Then natural scientists translated what that meant for nature."

Over the resulting scenarios, Jetz laid range data gathered on every known species of land-based bird. Even under the most benign scenarios, Jetz said birds did not fare well.

The most imminent threat is not climate change, but deforestation and human encroachment, particularly in

the tropics, where bird species are diverse but frequently limited to relatively small areas.

"This is akin to killing two birds with one stone," said Wilcove. "Deforestation drives tropical species to extinction and also contributes to global climate change. Climate change, in turn, drives temperate species to extinction."

Birds are not the only species likely to be affected, the scientists said. As birds disappear, species that rely on them (such as plants that use bird pollinators) and even whole ecosystems will suffer. Humans, too.

"These hundreds of bird species headed toward extinction are like thousands of dying canaries in coal mines," said co-author Dobson, an evolutionary biologist. "It's time we paid attention to them."

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