Fisheries Linked to Decline of Waved Albatross Population

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Fishermen caught and killed about 1 percent of the world's waved albatrosses in a year, according to a new study by Wake Forest University biologists.

"If that happens every year, that is not sustainable," said Jill Awkerman, a Wake Forest graduate student who is the lead author of the study published online Sept. 26 in the journal *Biological Conservation*. "In a matter of decades, you could be talking about extinction."

Awkerman's research shows the waved albatrosses are unintentionally killed when caught in fishing nets or on fishing hooks, but are also intentionally harvested for human consumption.

She worked with David Anderson, professor of biology at Wake Forest, on the study. Since 1999, Anderson and his research team have studied survival rates of waved albatrosses on Española Island in the Galapagos Islands, located off the coast of Ecuador. Española is a small island where almost all of the waved albatrosses in the world nest and breed.

Identification bands from 23 waved albatrosses killed in 2005 were returned to the researchers by fishermen. The researchers put bands on a total of 2,550 albatrosses, so almost one out of every 100 birds is being killed unintentionally or intentionally by fishermen.

As part of the study, the researchers and colleagues in Peru also surveyed 37 major fishing communities to investigate albatross interactions with

fisheries in the main areas where they forage for food off the Peruvian coast. They sent observers out on fishing vessels to find out what happens when fishermen encounter the giant seabirds. The observers found that some albatrosses became tangled accidentally in submerged gillnets. Although some of the birds caught in nets could be released, fishermen often killed them for food instead. The fishermen also intentionally caught albatrosses on baited hooks.

More males (82 percent of all captures) were killed than females, Awkerman said. That is particularly troubling because albatrosses require both parents to raise chicks. Fewer males in the population limit the number of breeding pairs. For a species that depends on a lifespan of several decades to successfully reproduce even one offspring that outlives the parent, the implications of their shortened lives are grim.

“Fishing mortality could be partially responsible for an apparent decline in the breeding population,” Awkerman said. “Our study puts together a frightening picture of what the potential for this species is. But, with educational outreach and further research there is potential to turn this around before too much damage is done.”

Communicating with the fishermen about the consequences to the species of killing each waved albatross is the key, Awkerman said. Collaborators in Peru continue discussions with both fishermen and government officials to address these conservation concerns. “Our study has already had a positive political effect, alerting the Ecuadorian and Peruvian Ministries of Environment of the problem occurring in their two countries, and they have recently had meetings to begin to deal with it,” Anderson said.

Source: Wake Forest University