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The nene, Hawaii's state bird, came back from near extinction through a captive breeding program. Nonetheless, it remains endangered.

On the Brink of Extinction

Birds are under siege. A recent World Conservation Union report says 12 percent of all birds on the planet are threatened with extinction, and a team of Stanford University ecologists believes up to 14 percent worldwide could be extinct within a century. By then a quarter of all birds may be as good as gone, says Stanford conservation ecologist Cagan Sekercioglu. Their populations could become so small that their ecological contribution would be virtually nil.

The losses would be devastating. Many birds are important pollinators and seed dispersers; their absence would have wide ecological ramifications. Others eat insects or are important links in the food chain. Still others are scavengers that clear away carcasses or keep pests in check. In India, for example, a rapid decline of vultures in the 1990s led to a rise in feral dogs—and rabies outbreaks. "There are consequences when birds are not doing their ecological jobs," says Sekercioglu.

Researchers blame humans. The World Conservation Union ranks the loss of native habitat and the introduction of invasive species as the most crucial problems, but unchecked activities like fishing, hunting, and logging play a role—as does human-induced climate change. Worst off are specialists—birds that eat only one type of food and live in only one place. Because they are so intertwined with their environments, they can't adapt to changes. Marine birds are also particularly at risk because they are long lived, slow breeding, and prone to accidental death by longline fishing.

All is not gloomy, however. In November, for example, for the first time in 22 years a California condor born in the wild fledged from a nest in the Golden State, near Hopper Mountain National Wildlife Refuge. "There is plenty of cause for optimism," says Sekercioglu. "We hope that we are wrong and that by 2100 the current conditions pushing birds toward extinction will have changed. We hope people will prove us wrong by taking the necessary conservation actions." ***—Megan Mansell Williams***

LET HAL MODERATE YOUR NEXT MEETING

In business meetings and in classrooms, big talkers can drown out quieter participants. Joan Morris DiMicco of the MIT Media Lab is tackling this social problem with Second Messenger, a computer system that readily shows who is getting cut out of the conversation.

Second Messenger uses microphones to record each participant in a meeting and creates graphic displays to identify different speakers. Over time, a computer screen builds up a picture of who is doing the most talking, by representing each person as a colored bar whose length depends on how much of the time he or she took center stage. DiMicco's tests show that when people are shown this display during a meeting, alpha types tend to pull back, although wallflowers remain relatively quiet. Simply quelling dominant voices helps restore balance and allows for more informed decision making, she argues: "It's dangerous to have a group where everyone is saying, yeah, yeah, yeah, and just agreeing with the majority opinion, because the majority opinion can be wrong." *—Chris Jozefowicz*