

# Birds on repeat: Do playbacks hurt fowl?

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Credit: AI-generated image ([disclaimer](#))

In the forests of Ecuador, plain-tailed wrens nest in bamboo thickets, singing complex and continuous melodies. Residing nearby are rufous antpittas, small, secretive birds that hop like thrushes and whistle in mossy forests. Together, their songs fill parts of the South American Andes.

Birdwatchers often seek out rare and beautiful [birds](#) like the wren and

antpitta using "playbacks" – or recordings of bird songs – to draw such them out from their hideaways. But does such babbling-on-repeat harm the birds?

Using the emphatic sounds of both bird species, a Princeton University researcher has – for the first time in peer-reviewed research – examined the effects of birdwatchers' "playbacks" in the wild. In *PLOS One*, he shows that playbacks do have potentially negative consequences, especially in terms of birds' energies.

"Playbacks would be harmful if a species becomes stressed, expends energy, or takes time away from other activities to respond to these recordings," said J. Berton C. Harris, a postdoctoral fellow studying under Professor David Wilcove from the Woodrow Wilson School of Public and International Affairs' Program in Science, Technology and Environmental Policy.

Working in a southern Ecuadorian biological reserve, Harris studied the effects of both single and repeated playbacks on wrens and antpittas. In his first trial, he introduced single playbacks to 24 groups of wrens and 12 groups of antpittas. Along with David Haskell from the University of the South in Tennessee, Harris monitored both [bird species](#) for one hour after playing a five-minute, self-recorded song.

Harris' results show that, after the single playbacks, both wrens and antpittas sang more often. Both species also tended to repeat these songs more often after listening to the playbacks. This could be harmful to the birds, Harris said, if it zaps them of too much energy.

"Birds could be wasting their time and energy by responding to non-existent intruders. When male birds respond to birdwatchers' playbacks to defend their territories, they may spend less time caring for their nestlings, experience higher levels of stress hormones or be subject to a

romantic coup from other males while away from their mates."

In the second part of the study, Harris and Haskell monitored the effects of daily playback on groups of plain-tailed wrens. Like the first experiment, he played the birds' song once for five minutes, recording the birds' responses for one hour. This was done daily for two-and-a-half weeks.

Although the vocal response was strong for the first 12 days, the wrens eventually habituated and stopped responding – suggesting that playbacks have minimal effects on wrens. One group of wrens, seemingly uninterested, even built a nest near a playback site. Harris says this behavior should nudge scientists to consider birdwatching activity when selecting research sites so that results aren't biased.

"Birdwatchers are ardent conservationists, and they want to minimize their impact while observing secretive birds," Harris said. "They promote environmental conservation by funding ecotourism infrastructure, especially in developing countries, where tourism can provide local people alternatives to habitat exploitation. Unfortunately, as evidenced by this research, birdwatchers may also have [negative effects](#) on ecosystems."

Harris suggests that future studies be conducted in order to better understand how playbacks may affect other aspects of a bird's life.

"Studies of the effects of playback on bird reproductive success have not yet been done. And until such studies are available, it'd be wise for birdwatchers to be cautious of the negative effects. For example, it might make sense to minimize the use of playback with endangered species or in areas that host a lot of [birdwatchers](#)."

**More information:** The paper, "Simulated Birdwatchers' Playback

Affects the Behavior of Two Tropical Birds," was first published online Oct. 11 in *PLOS One*.

Provided by Princeton University

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