

Discourage voice playbacks in the breeding season

Vyas *et al.* (2013) made heavy use of call playbacks to assess the status of the Brown Fish Owl *Ketupa zeylonensis* during its breeding season, in the vicinity of an actively nesting pair. In light of published evidence on the detrimental effects of call playbacks (some reviewed below), we believe that this methodology, in the otherwise good article, was unethical. Ornithological journals should exercise greater caution and discretion while considering papers that have indiscriminately used call playbacks, especially during the critical breeding season.

It is well known that birds are most sensitive to disturbance during breeding (Götmark 1992; Knight & Cole 1995; Şekercioglu 2002). Birders and researchers must exercise proper restraint during this critical time of avian lifecycle. Owls may alter their territorial boundaries when confronted with repeated playbacks (Smith 1987), and such super-stimuli may lead to habituation (Harris & Haskell 2013) that may make them ignore legitimate threats. The American Birding Association's (2015) Code of Birding Ethics specifically prohibits the use of playbacks for any rare bird, and large owls, by their very nature of being top predators, are locally rare everywhere.

Song playbacks can significantly increase stress in birds and take time away from critical activities. Red-winged Blackbirds responded to playbacks by increased song rate and intensity of displays (Yasukawa *et al.* 1982). Rufous Antpittas *Grallaria rufula* and Plain-tailed Wrens *Pheugopedius euophrys* produced more vocalisations following the use of call playbacks (Harris & Haskell 2013). Similarly, Zebra finches *Taeniopygia guttata* that were subjected to song supplements from their own colony sang more than control males (Waas *et al.* 2005). The increase in vocalisations and displays could indicate high stress levels and could entail expenditure of more time and energy in responding to the playback. This can negatively impact breeding success by taking time away from foraging and other maintenance activities. Moreover, luring a male bird away from its nest or territory makes the nest vulnerable for predation or desertion (Şekercioglu 2002), or the territory likely to be usurped by other males.

Playbacks can cause more than mere stress and loss of time or territory. Mennill *et al.* (2002) showed that high-ranking male Black-capped Chickadees *Poecile atricapilla* that lost song contests with simulated aggressive males lost paternity in their nests because their females sought extra-pair copulations with adjacent males. This artificially induced decrease in nesting success of dominant, presumably more robust, males could result in negative fitness consequences for the population. Playbacks can also induce aggressive behaviour in tropical non-migratory species when it is unwarranted. Male Spotted Antbirds *Hylophylax naevioides* showed spikes in testosterone levels when subjected to playbacks from potential enemies, even in the non-breeding season when their gonads are fully regressed (Wikelski *et al.* 1999).

The first author of this letter leads birding tours regularly to the tropics, to areas highly frequented by birders. He has anecdotal evidence of the effects of playbacks by birders seeking a glimpse of rare or elusive species. In the Northern Range of Trinidad (West Indies), local, highly experienced bird guides lament that the Scaled Antpitta *G. guatemalensis* is not seen in areas it used to frequent before the digital revolution (which made broadcasting equipment more portable and ubiquitous), ostensibly because it has been driven away by song playbacks by overzealous birders (Mahese Ramlal, *verbally*). In a general discussion on the subject

in Birding Australia (birding-aus@vicnet.au), Paul McDonald was apt, "Birders are effectively simulating the resident bird 'losing' to the mp3 player that it fails to evict from its territory".

Usage of playbacks is an invaluable tool for field ornithologists, and we are certainly not discouraging all such studies. Vyas *et al.* (2013) could have attempted their call playback surveys in the non-breeding season. Owls are generally known to respond to playbacks at any time of the year (Palmer & Rawinski 1986; Redpath 1994) since calling behaviour in owls may be as important for intra-pair communication as territory defence (Ganey 1990).

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