

'Mafia' behavior noted in birds

by Bend_Weekly_News_Sources

It's well known that some species of birds lay their eggs in other species' nests, to force others to raise their offspring. Now, researchers have identified a new low in the behavior of some of these "parasite" birds: they retaliate mafia-style against those that reject their imposition, by ransacking their nests.

Many species, notably cuckoos, are brood parasites that lay their eggs among unwitting hosts. A warbler next parasitized with cowbird eggs. (Courtesy PNAS)

Some of the free-loaders lay eggs that look like the hosts' eggs, explaining why the hosts accept them. But in other cases, the intruders' eggs look dramatically different from those of the hosts; this is the case with the parasitic brown-headed cowbird. That raises the question of why the victim parents accept the eggs. Although some of them toss the alien eggs from their nest, it happens seldom enough that the parasite strategy works as a whole. One explanation could be that the free-loaders enforce acceptance by destroying the eggs or nests of hosts that reject their eggs. While such behavior has been reported in a cuckoo species, controlled studies haven't been performed, according to the investigators in a new study, which sought to remedy this.

They controlled cowbirds' access to the nest of a host, the warbler. They then manipulated the warblers' rejection of cowbird eggs to see the consequences. The reported results: cowbirds ransacked 56 percent of rejecter nests, compared to just 6 percent of accepter nests. Ransacking was not limited to retaliatory situations, though. Cowbirds allowed access to host nests also were found to ransack one in five non-parasitized nests. This suggests cowbirds "farm" for hosts, destroying warbler nests so they can lay their eggs after the hosts rebuild, the scientists argued. Supporting this notion, they added, cowbirds parasitized 85 percent of rebuilt nests. Overall, rejecter warblers produced fewer offspring than accepters, suggesting hosts may be better off in evolutionary terms accepting cowbird eggs, the investigators said. The research, by Jeff Hoover, Illinois Natural History Survey, in Champaign, Ill., and Scott K. Robinson of the Florida Museum of Natural History in Gainesville, Fla., is to appear this week in the early online edition of the research journal *Proceedings of the National Academy of Sciences*.

Courtesy PNAS and World Science staff

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