Introduced Mammalian Predators Induce Behavioural Changes in Parental Care in an Endemic New Zealand Bird

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Ab ac

The introd ction of predator mammals to oceanic islands has led to the e tinction of man endemic birds. Altho gh introd ced predators sho ld fa o r changes that red ce predation risk in s r i ing bird species, the abilit of island birds to respond to s ch no el changes remains nst died. We tested hether no el predation risk imposed b introd ced mammalian predators has altered the parental beha io r of the endemic Ne Zealand bellbird (*A a a*). We e amined parental beha io r of bellbirds at three oodland sites in Ne Zealand that differed in predation risk: 1) a mainland site ith e otic predators present (high predation risk), 2) a mainland site ith e otic predators e perimentall remo ed (lo risk recentl) and, 3) an off-shore island here e otic predators ere ne er introd ced (lo risk al a s). We also compared parental beha io r of bellbirds ith t o closel related Tasmanian hone eaters (*P* spp.) that e ol ed ith nati e nest predators (high risk al a s). Increased nest predation risk has been post lated to fa o r red ced parental acti it , and e tested hether island bellbirds responded to ariation in predation risk. We fo nd that females spent more time on the nest per inc bating bo t ith increased risk of predation, a strateg that minimised acti it at the nest d ring inc bation. Parental acti it d ring the nestling period, meas red as n mber of feeding isits/hr, also decreased ith increasing nest predation risk across sites, and as lo est among the hone eaters in Tasmania that e ol ed ith nati e predators. These res lts demonstrate that some island birds are able to respond to increased risk of predation b no el predators in a s that appear adapti e. We s ggest that conser ation efforts ma be more effecti e if the take ad antage of the abilit of island birds to respond to no el predators, especiall   hen the elimination of e otic predators is not possible.

C a : Massaro M, Starling-Windhof A, Briskie JV, Martin TE (2008) Introd ced Mammalian Predators Ind ce Beha io ral Changes in Parental Care in an Endemic Ne Zealand Bird. PLoS ONE 3(6): e2331. doi:10.1371/jo rnal.pone.0002331

E : Peter M. Bennett, Uni ersit of Kent, United Kingdom

R c March 18, 2008; **Acc** April 28, 2008; **P b** J ne 4, 2008

F : This research as financiall s pported b grants from the Perc Sladen F nd, the Brian Mason Tr st, the Association for the St d of Animal Beha io r and the Uni ersit of Canterb r to J. Briskie, as ell as postdoctoral fello ships from the Uni ersit of Canterb r and the Fo ndation for Research, Science and Technolog (UOCX0601) to M. Massaro.

C I : The a thors ha e declared that no competing interests e ist.

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