## 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 shold faior changes that red ce predation risk in signification ris 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 perimental 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 fond 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 results 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.

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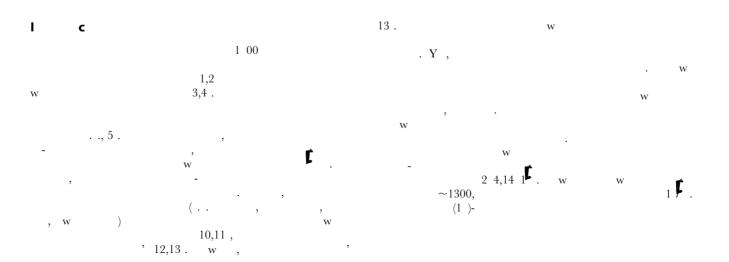
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(Mustela erminea, M. furo M. nivalis) (Trichosurus vulpecula).  $\sim 40\%$  w 3, 1, 7, 1 7 1 . W W W W (Anthornis melanura),

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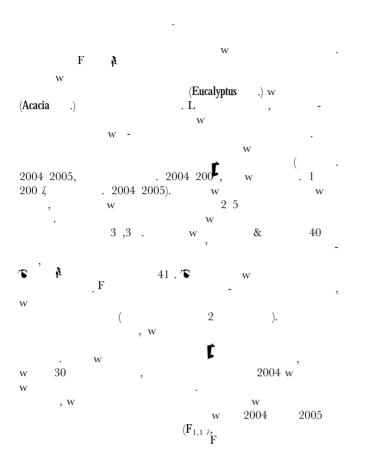
St d areas (2**4** 34 ) 2**f** . w w w w  $(35^\circ 2$  ' , 1 74°44′ . (1) ), Ű ~22 W **L**<sub>5</sub>  $(42^\circ20'$  , 1  $\mathcal{B}^\circ40'$ , (2) ). 15 w 2004 w , 1 B 200 7,  $(42^{\circ}22'$ 240 (3) w 10 w 1 20, w W

12. w

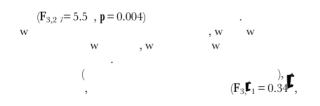
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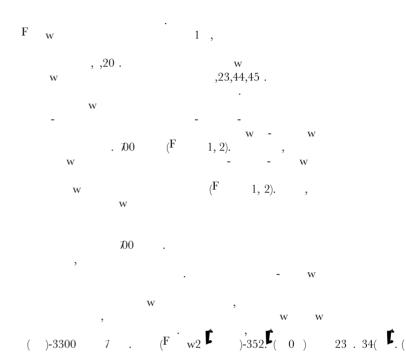
dynamys taitensis), , (Circus approximans), - (Eudynamys taitensis), , (Circus approximans), - (Eu-(Chrysococcys lucidus) (Hoplodactylus duvaucelii). , w - w

700 , w .



$$\begin{array}{c} \mathbf{p} = 0. \ ). \\ \mathbf{p} = 1 \ ) \\ \mathbf{r} = 1 \ ) \\ .5\% \ (\pm 1. \ \mathcal{B}, \ \mathbf{n} = 22) \end{array} , \begin{array}{c} \mathbf{p} \\ \mathbf{p} \\ .2\% \ (\pm 1. \ 1, \ \mathbf{n} = 1 \ \mathbf{p} \\ \mathbf{w} \\ \mathbf{v} \\ \mathbf{v} \end{array} , \begin{array}{c} \mathbf{p} \\ \mathbf{p} \\ \mathbf{r} \\ \mathbf{p} \\ \mathbf{r} \\ \mathbf$$





3.14  $(\pm 0.0, n = 5)$ w ( ), 3.0  $(\pm 0.15, n = 12)$ ), 3.0**L**  $(\pm 0.0, n = 51)$ w ( ). w 3 (n = 3). (n = **C** W ) 2 w

43 w  $(13.2\pm0.20, \mathbf{n}=5)$ w  $(13.4\pm0.12, \mathbf{n}=1)$  43 w .

## Dс

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