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[1]Institut Méditerranéen d'Ecologie et de Paléoécologie, IMEP-CNRS, UMR 6116& IRD 193, Université Paul Cézanne –Bâtiment Villemin, Domaine du Petit Arbois, Aix-en-Provence cedex 04, France
[2]CEFE CNRS 5175, Université Paul Valéry, Montpellier, France
[3]IMEP IRD193, Centre IRD de Nouméa, BPA5, Nouméa cedex, Nouvelle-Calédonie, France
[*]Corresponding author: lacoste_diane@yahoo.fr

Invasive rats (*Rattus* spp.) are renowned bird predators and have been identified as a leading cause of island bird population declines and extinctions. Recently, new questions have been raised regarding the mechanisms and the severity of impact of invasive rat predation on bird populations. We investigated the predatory capacity of the invasive black rat *Rattus rattus* on bird eggs using captive trials on wildtrapped individuals. Five factors were specifically tested for their influence on egg predation success: egg size, egg state, rat body mass, gender and habitat. Our results showed that rats only managed to prey on intact eggs when these were small (canary) and that they had great difficulty preying on medium-sized (hen) and even small (quail)-sized intact eggs, regardless of the rat' body mass, gender and habitat. Conversely, rats preyed extensively on previously damaged eggs of all sizes. Our findings suggest that preying on intact bird eggs without specific learning skills, such as rolling an egg to break it, may be challenging for the black rats. Moreover, our findings strongly indicate that bird susceptibility to egg predation by rats varies with island contexts and may depend on a combination of multiple additive and synergic factors. Experiments that allow for testing the multiple evolutionary and ecological factors explaining between-island or between-population variation in rodent impacts are needed to promote a better overview of the processes involved in bird population declines.

Keywords : bird vulnerability, egg predation, feeding trials, introduced rats, predatory capacity, *Rattus rattus*.