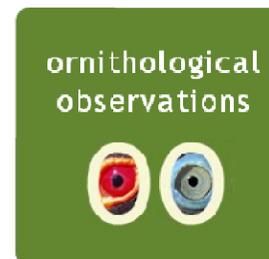


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INVASIVE HOUSE MOUSE *MUS MUSCULUS* IN THE DIET OF A TROPICAL SEABIRD

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Tromelin is a small (<1 km²) coralline island in the South-western Indian Ocean. It once supported a large breeding seabird population, including Greater *Fregata minor* and Lesser Frigatebirds *F. arial*, Masked *Sula dactylatra* and Red-footed Boobies *S. sula*, Sooty Tern *Onychoprion fuscatus*, and Brown Noddy *Anous stolidus* (Le Corre 1996). Breeding has also been suspected for Lesser Noddy *A. tenuirostris*, Fairy Tern *Gygis alba*, Red-tailed *P. rubricauda* and White-tailed Tropicbirds *P. leptrus* (Le Corre 1996). Today only Masked and Red-footed Booby breed there. This demise in Tromelin's seabird populations is the result of human perturbations (mainly direct exploitation and disturbance at colonies), although predation and disturbance by invasive mammals will almost certainly have contributed in some way (Le Corre 1996). Norway Rats *Rattus norvegicus* were introduced onto Tromelin around the 17th century and the House Mouse *Mus musculus* followed sometime thereafter. Rats were successfully eradicated in 2005 however, but mice persist in large numbers (unpub. data).

During a 37 day field excursion (16 April – 22 May 2013) to monitor the populations of Red-footed and Masked Boobies at Tromelin

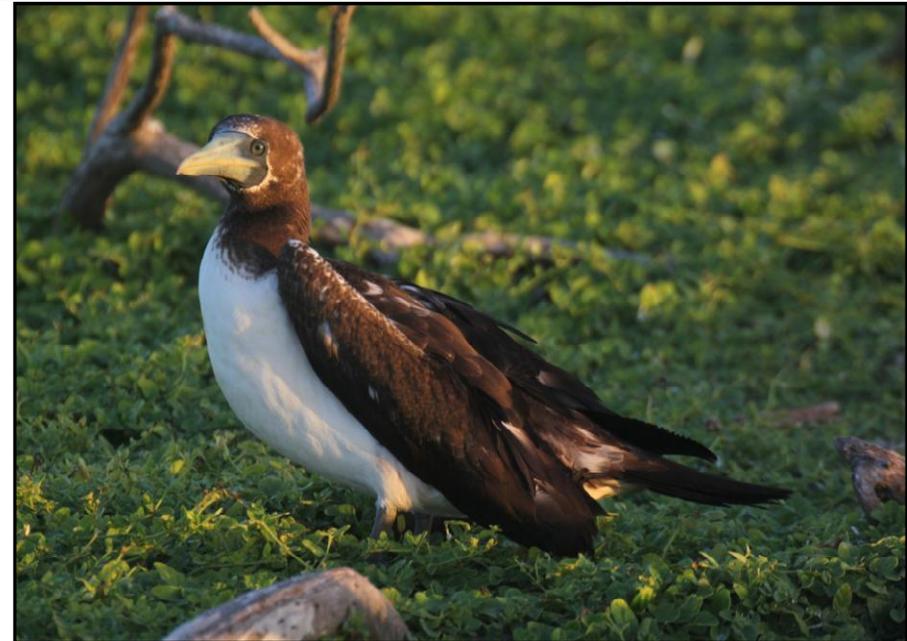


Fig 1 - Juvenile Masked Booby *Sula dactylatra* photographed soon after it was observed pursuing, killing and eating an invasive House Mouse *Mus musculus* at Tromelin Island, South-western Indian Ocean.

(DK Danckwerts)

Island, I made regular observations on the diet of both species. Many seabird species regurgitate instinctively when threatened and this is the case in the boobies (Duffy and Jackson 1986). During the field excursion 227 and 97 Red-footed and Masked Boobies were handled respectively, and most (>70 %) of these regurgitated whole or partially digested prey. These samples were visually examined in the field.

The diet of both species consists almost exclusively of small pelagic fish (>97 %), but squids were also noted occasionally (<3 %). Fish were mainly of the family *Exocoetidae*, although small tunas



Scombrinae and Dolphinfish *Coryphaena hippurus* were recorded on fewer than five occasions. There seems to be little interspecific or ontogenetic variation in the diets. This result, although broad, is consisted with more precise information from other colonies in the western Indian Ocean (e.g. Asseid *et al.* 2006; Weimerskirch *et al.* 2006, 2009).

Furthermore, a single observation was made of a juvenile Masked Booby pursuing, killing and swallowing a House Mouse. The mouse in question was watched from a distance of less than 5 m as it approached the booby. Surprisingly the bird launched towards the mouse capturing it in its bill. It was repeatedly thrown into the air, presumably to kill it, after which it was swallowed.

This behaviour is seemingly rare in this species, but poses an interesting case. To my knowledge this is the first time that seabird predation on small invasive mammals has ever been documented. Photographs were taken of the bird only seconds after the incident occurred (Fig 1) but unfortunately the mouse is no longer visible.

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