

ADDITIONS TO THE REPTILES KNOWN FROM ISLANDS IN THE HOUTMAN ABROLHOS, WESTERN AUSTRALIA

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Records from the literature and Museum collections indicate that 23 reptile species are known to occur on islands of the Houtman Abrolhos, a figure confirmed by How *et al.* (2004). During a brief inventory survey of the major 'high rock' islands (those representing remnants of the original mainland) in the Pelsaert, Easter and Wallabi Groups during April 2003, How *et al.* (2004) documented 17 reptile species, none of which were additions to the known herpetofauna of the archipelago. That survey, and previous sampling reported in literature and in Museum collections, relied on opportunistic collection using standard foraging techniques (rock rolling, hand capture and head torching) to document the herpetofauna.

This note reports on the results of sampling using fenced pitfall traps. No previous examination

of the Abrolhos herpetofauna has employed this systematic technique. We used it to determine the likelihood of detecting cryptic or fossorial species on the two largest islands in the Houtman Abrolhos, East and West Wallabi. Concurrently, we used conventional opportunistic searching to search specific microhabitats on these two islands and to document the herpetofauna of other islands in the Abrolhos.

Fenced pitfall (20 litre buckets) trap lines were operated from 7–11 November 2005, 8–12 February 2007 [East Wallabi only] and 8–12 January 2008. Elliott traps ("medium sized", Elliot Scientific Co., Upwey Victoria) were positioned near pitfall trap lines during both the 2005 and 2007 survey periods. Intensive opportunistic survey was undertaken on East and West Wallabi Islands for several hours each day

during these periods. Long Island [11ha] was subjected to several hours of opportunistic searching in November 2005; Middle [20ha], Murray [4.2ha] and Rat [61ha] Islands in February 2007 and again in January 2008; North Island [181ha] in February 2007; and Pigeon [4.3ha], Oystercatcher [4.6ha], Seagull [7.7ha] and Pelsaert [166ha] Islands in January 2008. These surveys were conducted with financial support from a generous bequest from the estate of the late Dr Dennis King, the Western Australian Museum Foundation, the Department of Environment and Conservation and the University of Western Australia.

On East Wallabi Island two taxa were collected that had not been recorded previously in the Abrolhos (the Ornate Gecko, *Diplodactylus ornatus* and an undescribed worm lizard, *Aprasia* sp.). Conversely, we were unable to confirm the presence of *Delma grayii* on West Wallabi, represented by a unique specimen collected by W.B. Alexander in 1913. In addition, these surveys recorded only the second captures of the Burrowing Skink, *Lerista elegans*; the Spiny-tailed Gecko, *Strophurus spinigerus*; and the blind snake *Ramphotyphlops australis* on East Wallabi Island.

Two individuals of the undescribed *Aprasia* sp. were collected by opportunistic raking in the decaying roots of dead shrubs on the near-coastal dunes behind Turtle Bay, East Wallabi Island. Both the blind snake and the

Ornate Gecko were recorded from pitfall traps, the former in two separate locations on East Wallabi and the gecko adjacent to the dense thicket at the western end of the airstrip. A solitary Carpet Python, *Morelia spilota*, was captured, measured and released during the 2005 survey. However, a pilot reported seeing one at Turtle Bay in winter 2006 but there has been only one other photographic record of this species from East Wallabi in the last decade (A. Desmond pers. comm.). The population of this charismatic species on East Wallabi is exceptionally low and perhaps facing imminent extinction. No sign or sightings were made of the Carpet Python in 2007 or 2008 from East Wallabi, despite extensive opportunistic travel and searching over the entire island.

A rarely observed mating aggregation of pythons was photographed on West Wallabi Island where a large female was being courted by five males. The python population on West Wallabi has been the subject of detailed study by some of us (RAH and DJP) over the last decade. The first specimens of the skinks, *Morethia lineoocellata* and *Lerista elegans* and only the second specimens of *Lerista lineopunctulata* and the banded snake, *Simoselaps littoralis*, were made during the survey of West Wallabi Island.

Several taxa were encountered on Pigeon Island (Wallabi Group), that had not previously

been recorded there. The geckos, *Crenadactylus ocellatus*, *Gehyra variegata* and *Heteronotia binoei*, along with the skinks, *Cryptoblepharus plagiocephalus* and *Ctenotus fallens* were recorded for the first time. Three other species had been recorded previously, *Nephrurus milii*, *Egernia kingii* and *E. stokesii*, making this a remarkably rich reptile assemblage for such a small island. Molecular evidence will be used to determine if this richness is accounted for by recent introductions to the island as a consequence of intensive use of the island seasonally by crayfishers or whether it represents diversity stemming from the original isolation of 'mainland' populations.

New records from Seagull Island (Wallabi Group) were made of the gecko, *Heteronotia binoei* and the skink, *Egernia stokesii*, during January 2008.

Two additional gecko species, *Gehyra variegata* and *Heteronotia binoei* were recorded for Rat Island (Easter Group). Neither of these species were represented in the collections of the Western Australian Museum and no previous mention of these species

on Rat Island was located in the literature. Further specimens of the small skink, *Lerista distinguenda*, previously collected on the island, will allow for a detailed comparison with the morphologically similar *Lerista elegans* which occurs on several other Houtman Abrolhos islands. No additional taxa to those known previously (How *et al.* 2004) were found on Pelsaert, Middle or Murray Islands in the Pelsaert group.

The total number of reptile taxa now known to occur on the islands of the Houtman Abrolhos is 25. The richest assemblages are found on East and West Wallabi islands with 19 species recorded on each. There are three reptile species unique to East Wallabi and one to West Wallabi within the Houtman Abrolhos.

REFERENCES

- HOW, R.A., PEARSON, D. J., DESMOND, A. and MARYAN, B. 2004. Reappraisal of the reptiles on the islands of the Houtman Abrolhos, Western Australia. *Western Australian Naturalist*. 24: 172–178.



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