

Range extension of the Western Heath Dragon, *Rankinia adelaidensis adelaidensis* (Squamata: Agamidae)

S A Thompson¹, G G Thompson² & J E Oates¹

¹Coffey Environments, Dilhorn House,
2 Bulwer St, Perth 6000

✉ scott_thompson@coffey.com
✉ jessica_oates@coffey.com

²Centre for Ecosystem Management, Edith Cowan
University, 100 Joondalup Drive, Joondalup, WA, 6027
✉ g.thompson@ecu.edu.au

Manuscript received October 2007; accepted February 2008

Abstract. Two recent captures and a sighting of *Rankinia adelaidensis* increase its recorded geographical distribution in a southerly direction. In accordance with other recent range extensions recorded south of the Swan River, it is probable that the geographical distributions for other species will be extended into the southern coastal plain with further surveys.

Key words: Dragon lizards, geographic range, Western Australia, Swan coastal plain

Introduction

The Mandurah, Dawesville and Yalgorup-Peel regions have been subject to substantial development pressure over the past few years. Current and planned developments within the region have seen the clearing of many remnant bushland patches on the outskirts of existing suburbs, and the clearing of smaller patches of remnant habitat within established suburbs. Vertebrate fauna surveys associated with environmental impact assessments (EIAs) for new developments have provided valuable information on terrestrial fauna located in the region.

Davis & Bamford (2005) reported the first record of *Lerista lineopunctulata* and second record of *L. lineata* from the Yalgorup area. Davis & Bamford (2005) suggested that further fauna work in the area may resolve the southerly distribution of other fossorial reptile species.

The Western Heath Dragon, *Rankinia adelaidensis*, is separated into two disjunct subspecies, *Rankinia a. adelaidensis* and *R. a. chapmani*. Storr *et al.* (1983) describe the distribution of *Rankinia a. adelaidensis* as 'midwest and lower west coasts of Western Australia, from a little north of the Murchison to a little south of the Swan River and inland to Coorow and Muechea' and *R. a. chapmani* as 'southern semiarid zones from Stirling Range east to Yorke Peninsula'. This range extension

relates to *R. a. adelaidensis* subspecies. This species was formally placed in the genus *Tympanocryptis adelaidensis* (Gray 1841), while Melville *et al.* (2001) suggested that it should be placed in *Ctenophorus*.

The habitat of *R. a. adelaidensis* was described by Bush *et al.* (1995; 2007) as low coastal vegetation on beaches and dunes, including heathlands and Banksia woodlands on the Swan Coastal Plain.

We report here two recent captures that are outside the published geographical distribution for this dragon but within known suitable habitat.

According to records in the Western Australian Museum database, the previous most southerly records of *R. a. adelaidensis* are from Jandakot (13 records), Yangebup, Gosnells and a single record from Caddadup Reserve, Mandurah. There is also a 1957 record from the south-west cape region at Deepdene in 1957 (R12427). Given the single record in 1957 and geographical isolation of the record, it is unknown whether it is a genuine record or an error in the database. Figure 1 indicates the recorded locations of *R. a. adelaidensis* in the WA museum collections and the extension to its published distribution represented by the three observations reported here.

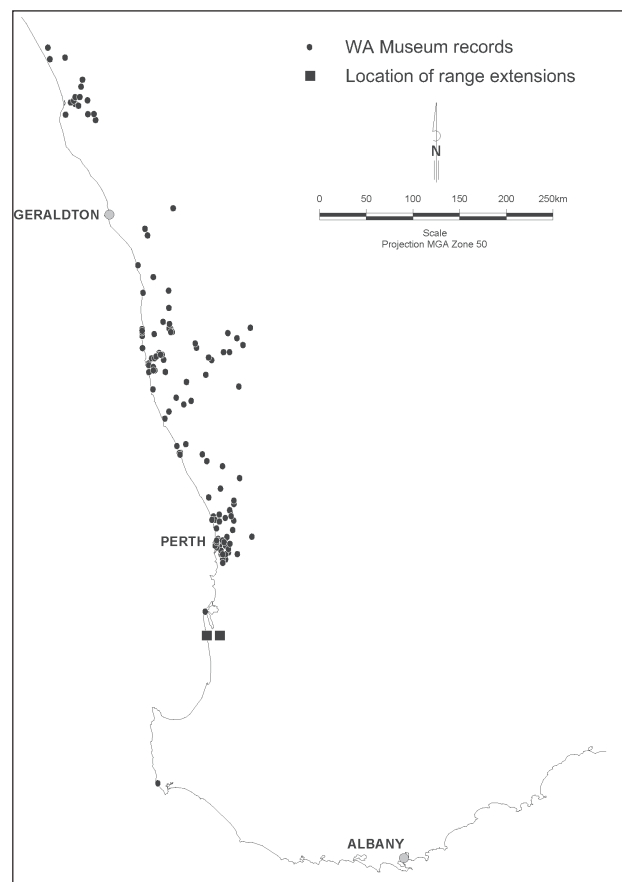


Figure 1. Location of specimens of *Rankinia a. adelaidensis* based on Western Australian Museum records, squares represent recent observations reported here.

Observations

On 18th January 2007 two specimens were captured at Preston Beach (MGA 50 373356E 6364661N). The specimens were captured in funnel traps (Thompson & Thompson, 2007) as part of an EIA for a proposed development in the region. The habitat was coastal heath of *Agonis flexuosa*, *Spyridium globulosum* and *Acacia rostellifera* shrubland on coastal sand. Specimens were not vouchered with the WA Museum as they were confidently identified and released at the point of capture. In addition to the captures reported here, the authors are aware of another observation recently lodged with the WA Museum. This is shown in Figure 1 to the north of the two captures reported here.

Discussion

Davis & Bamford (2005) reported an extension to the known distribution of *Lerista lineopunctulata* and *L. lineata* south of Perth. The range extension of *R. a. adelaidensis* reported here, combined with range extensions reported by Davis & Bamford (2005), raises the possibility of additional records of other Swan Coastal Plain fauna species currently known from north of the Swan River basin being recorded further south.

Given the development pressures currently being experienced in the Mandurah, Dawesville and Yalgorup-Peel regions, it is likely that fauna surveys conducted as part of EIAs in the region will extend the known distribution of some other species. The status of the Deepdene record requires clarification, possibly by surveying the location of this record.

References

- Bush B, Maryan B, Browne-Cooper R & Robinson D 1995 Reptiles and Frogs of the Perth Region. University of WA Press, Perth.
- Bush B, Maryan B, Browne-Cooper R & Robinson D 2007 Reptiles and Frogs in the Bush: Southwestern Australia. University of WA Press, Perth.
- Cogger H G 1992 Reptiles and Amphibians of Australia. Reed, Sydney.
- Davis R A & Bamford M J 2005 A range extension for *Lerista lineopunctulata* with notes on *Lerista lineata*. The Western Australian Naturalist 25: 59–60.
- Melville J, Schulte J A & Larson A 2001 A molecular phylogenetic study of ecological diversification in the Australian lizard genus *Ctenophorus*. Journal of Experimental Zoology 291: 339–353.
- Storr G M, Smith LA & Johnstone R E 1983 Lizards of Western Australia II: Dragons and Monitors. Western Australian Museum, Perth.
- Thompson G G & Thompson S A (2007) Usefulness of funnel traps in catching small reptiles and mammals, with comments on the effectiveness of the alternatives? Wildlife Research 34: 491–497.
- Wilson S K & Knowles D G 1992 Australia's Reptiles: A Photographic Reference to the Terrestrial Reptiles of Australia. Cornstalk, Sydney.