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Notes on some snakes (Reptilia, Squamata) of the Hastings Point area, north-eastern New South Wales, Australia

With 2 Figures

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Abstract: Biological/ecological notes are provided on the following 8 species of snakes (Class Reptilia) from the Hastings Point area, north-eastern New South Wales: *Ramphotyphlops wiedii* (Peters) (Typhlopidae), *Morelia spilota* (Lacépède) (Boidae), *Amphiesma mairii* (Gray) (Colubridae), *Dendrelaphis punctulatus* (Gray) (Colubridae), *Demansia psammophis* (Schlegel) (Elapidae), *Pseudechis porphyriacus* (Shaw) (Elapidae), *Pseudonaja textilis* (Duméril, Bibron & Duméril) (Elapidae) and *Vermicella annulata* (Gray) (Elapidae). *Demansia psammophis* and *Pseudonaja textilis* are illustrated in colour.

Zusammenfassung: Biologisch-ökologische Notizen über folgende 8 Schlangenarten aus dem Küstengebiet von Hastings Point, N.S.W., Australien (28° 20′ S, 153° 35′ E) werden mitgeteilt: *Ramphotyphlops wiedii* (Peters) (Typhlopidae), *Morelia spilota* (Lacépède) (Boidae), *Amphiesma mairii* (Gray) (Colubridae), *Dendrelaphis punctulatus* (Gray) (Colubridae), *Demansia psammophis* (Schlegel) (Elapidae), *Pseudechis porphyriacus* (Shaw) (Elapidae), *Pseudonaja textilis* (Duméril, Bibron & Duméril) (Elapidae) und *Vermicella annulata* (Gray) (Elapidae). *Demansia psammophis* und *Pseudonaja textilis* werden farbig abgebildet.

Das untersuchte Gebiet ist im jüngst vergangenen Jahrzehnt durch intensive Erfassung und Dokumentation der Insektenfauna bekannt geworden.

Introduction

The township of Hastings Point, New South Wales (28° 20′ S, 153° 35′ E), is situated on the coast and is bordered by a complex system of small hills, creeks, sand dunes and a variety of vegetation habitats, such as mangroves, *Melaleuca* forests, heathlands and woodlands. The area is biologically diverse, despite residential development in the area and other changes to the natural habitat. The dune system from the shoreline to the older Holocene systems some 200–400 metres from the waterline has suffered extensive changes in most places over the past 50 years, but there are some virtual pristine areas remaining, while much of the disturbed areas have displayed extensive regrowth.

Some noteworthy native plants of the area include the following: *Banksia aemula* R.Br., *B. robur* Cav., *Conospermum taxifolium* Sm., *Persoonia lanceolata* Andr. and *P. pinifolia* R. Br. (Proteaceae), *Hibbertia* spp. (Dilleniaceae), *Ricinocarpos pinifolius* Desf. (Euphorbiaceae), *Acacia sophorae* (Labill.) R.Br., *A. suaveolens* (Sm.) Willd. and *A. ulicifolia* (Salisb.) Court (Mimosaceae), *Aotus ericoides* (Vent.) G. Don, *Dillwynia retorta* (Wendl.) Druce, *Gompholobium virgatum* Sieb. ex DC., *Kennedia rubicunda* Vent. and *Phyllota phylicoides* (Sieb. ex DC.) Benth. (Fabaceae), *Baeckea stenophylla* F. Muell., *Callistemon pachyphyllus* Cheel, *Eucalyptus* sp., *Leptospermum semibaccatum* Cheel, and *L. whitei* Cheel (Myrtaceae), *Boronia falcifolia* A. Cunn. ex Lindley and *Zieria smithii* Andr. (Rutaceae), *Brachyloma daphnoides* (Sm.) Benth., *Epacris obtusifolia* Sm., *Sprengelia sprengelioides* (R.Br.) Druce and *Styphelia viridis* Andr. (Epacridaceae), *Dampiera stricta* (Sm.) R.Br. (Goodeniaceae), *Sowerbaea juncea* Sm. (Liliaceae), *Patersonia sericea* R.Br. (Iricaceae), *Lomandra longifolia* Labill. (Lomandraceae), *Gahnia sieberiana* Kunth and *G. erythrocarpa* R.Br. (Cyperaceae), *Xyris gracilis* R.Br. (Xyridaceae) and *Cassytha glabella* R.Br. (Cassythaceae).

For the past 10 years I have been studying and documenting the insect fauna of the area and have produced a number of papers dealing with Coleoptera and other insects (e.g. HAWKESWOOD 1987, 1988, 1991a–c, 1992a–e, 1995; HAWKESWOOD & DAUBER 1991, 1993; HAWKESWOOD & LE BRE-

TON 1992; HAWKESWOOD, TAKIZAWA & JOLIVET 1997). This paper deals with my observations and other notes on the snake fauna of the area. Another paper will be produced on the bird fauna at a later stage.

Annotated list of species

1. *Ramphotyphlops wiedii* (Peters, 1867) (Typhlopidae).

This is one of Australia's 28 species of blind snakes, which are non-venomous and harmless. They are all oviparous and feed principally on ants and termites, and the distribution of many species is closely correlated with the distribution of the termites upon which they feed (WAITE 1918; COGGER 1986, 1996).

One specimen of this species was found in the grounds of the North Star Caravan Resort at Hastings Point in the summer of 1994/1995 during the early morning near one of the ablution blocks. No others have been since sighted in the area as far as I am aware. These are secretive animals, and except when dug from the ground or from termite nests, or uncovered by moving rocks or logs, blind snakes are usually seen only when moving about the surface of the ground at night, especially in warm weather and/or after rain (COGGER 1986, 1996).

2. *Morelia spilota* (Lacépède, 1804) (Boidae) [Carpet or Diamond Python].

This species is relatively common and widespread in the area and over the years, a number of large specimens have been observed by residents on the Hastings Point to Cabarita Beach area. About 5 years ago, a medium to large specimen slithered onto the beach north of Hastings Point and swallowed a rolled up towel that was lying there. When the owners of the towel arrived back at the spot, most of the towel had been swallowed by the serpent. It was reported in the local newspaper with the explanation that the colour and shape of the towel had resembled a prey item for the snake. The snake was captured and one of the local veterinarian surgeons operated on the snake to remove the beach towel.

During October 1993, a medium sized specimen was observed by the author slithering over a minor road near Cudgen, about 4 km to the north-west of Hastings Point at about 20.00 hrs (Eastern Australian Standard Time). This is the only specimen I have actually seen out in the open within the area during 1990–1997.

This mostly nocturnal or crepuscular species is very widespread throughout northern, eastern and southern Australia where it occurs under an enormous variety of conditions, from rainforest on the east and north-east coasts to the central Australian deserts (COGGER 1986, 1996). Snakes are often arboreal, but in many areas they live in the burrows made by other animals (WORRELL 1966; COGGER 1986, 1996).

3. *Amphiesma mairii* (Gray, 1841) (Colubridae) [Keelback or Freshwater Snake].

During January 1994, I observed one specimen of this species slithering amongst grass and other vegetation at the edge of a *Melaleuca* swamp at Kingscliff, 12 km to the north of Hastings Point, New South Wales. I tried to follow its movements but it disappeared into thicker vegetation and leaf litter.

This is a semi-aquatic species almost invariably found in close proximity to streams, swamps and lagoons, where it feeds on frogs; the snake is both diurnally and nocturnally active, but is usually more often encountered at night (COGGER 1986, 1996).

4. *Dendrelaphis punctulatus* (Gray, 1827) (Colubridae) [Common Green Tree Snake].

This tree snake is relatively common in the Hastings Point area and to the west. Over the years, a number of specimens have been found in trees and on the ground at the North Star Caravan Park and elsewhere and it is commonly encountered amongst foliage of banana trees (*Musa paradisiaca* and other *Musa* spp., Musaceae) in the area.

As the common name suggests, the Green Tree Snake spends most of its time active in trees and shrubs, although may frequently forage on the ground (COGGER 1986, 1996). The food of this

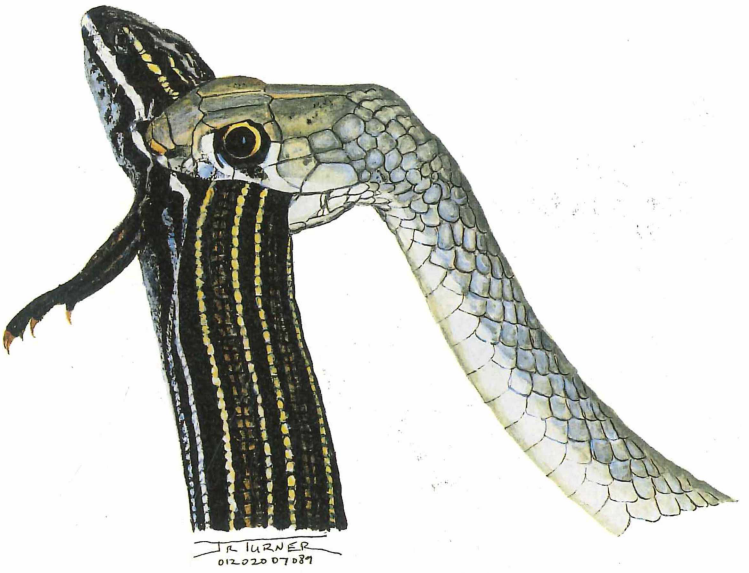

Fig. 1. Yellow-faced Whip-snake [*Demansia psammophis* (Schlegel, 1873)]. (Painting: J. R. Turner).

harmless, diurnal snake consists of frogs and birds, although reptiles and occasionally small mammals are eaten (Cogger 1986, 1996).

5. *Demansia psammophis* (Schlegel, 1873) (Elapidae) [Yellow-faced Whip-snake, Fig. 1].

This is probably the most common snake in the Hastings Point area, and I have seen a number of specimens in the field, under rocks, logs, while a number of burnt and dying specimens were observed on charred ground after the bushfires of 1992–1993 in heathland to the immediate north and west of Hastings Point. Over the years several specimens have been sighted slithering through sections of the North Star Caravan Resort, but due to their quickness are seldom captured.

This species is one of the most common and widespread of Australian snakes, occurring throughout most of continental Australia, where it is found in a wide range of habitats and feeds on diurnal lizards (Cogger 1986, 1996).

6. *Pseudechis porphyriacus* (Shaw, 1794) (Elapidae) [Red-bellied Black Snake].

A number of specimens of this snake have been sighted in the area by the author and others and a small specimen was once run over a tractor during clearing operations of some heathland at the back of the North Star Caravan Resort at Hastings Point during 1993.

This is common diurnal snake in eastern Australia, where it is usually found associated with streams, swamps and lagoons; it feeds primarily on frogs, but reptiles and small mammals are also eaten (Worrell 1966; Cogger 1986, 1996).

7. *Pseudonaja textilis* (Duméril, Bibron & Duméril, 1854) (Elapidae) [Eastern Brown Snake, Fig. 2].

Of all the snakes listed in this paper, this deadly species has been encountered by me in the field the most times. I have encountered it resting on sand under overhangs near the mouth of Cudgen Creek, resting on tracks in heathland near the beach and further inland, and once a very large specimen, about 1.2 metres long was run over on the road behind the Hastings Point sewerage works which is adjacent to a *Melaleuca* swamp.

This species is widespread in eastern Australia from north Queensland to Victoria and South Australia, where it occupies a wide range of habitats from dry, rocky hillsides and coastal wet sclerophyll forests to inland grasslands and arid scrubs; it feeds primarily on small mammals and reptiles (Worrell 1966; Cogger 1986, 1996).

Fig. 2. Eastern Brown Snake [*Pseudonaja textilis* (Duméril, Bibron & Duméril, 1854)]. (Painting: J. R. Turner).

8. *Vermicella annulata* (Gray, 1841) (Elapidae) [Bandy-bandy].

One specimen of this species was observed in a drain on the North Star Caravan Resort during 1993.

This is a nocturnal burrowing snake, found in a great range of habitats from wet coastal forests to desert sandhills; they apparently feed on blind snakes (family Typhlopidae, see above) (Cogger 1986, 1996).

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Berichtigungen

In Mauritiana 17, Heft 2, auf S. 250 in der 8. Zeile von oben lies: „200 Jahre", und auf S. 358 im ersten Abschnitt der Antwort an die Brehmforscher lies in der 2. Zeile: „... in Sachen (Hobby-) Wissenschaft ...".

In der Reihe „Altenburger naturwissenschaftliche Forschungen", die ebenfalls vom Mauritianum herausgegeben wird, erschien als Heft 13 die Arbeit „Die Fundstellen eozäner Floren des Weißelster-Beckens und seiner Randgebiete" von D. H. MAI und H. WALTHER. In zwei Abbildungsunterschriften dieser Arbeit sind Standortangaben zu korrigieren. In beiden Fällen befinden sich der in der Bildunterschrift genannte und der abgebildete Standort jeweils in unmittelbarer Nachbarschaft des anderen.

Richtig ist unter Abb. 2: „Tagebau Haselbach, Blick zur Brikettfabrik *Regis* ...", und unter Abb. 10: „Tagebau *Groitzscher Dreieck* bei Borna, ..." (entspricht etwa dem Aufschlußstand um 1990).