A NEW SUBSPECIES OF ELAPID (SERPENTES: ELAPIDAE) FROM NEW GUINEA

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INTRODUCTION

The herpetofauna of northern Australia and New Guinea have been the subject of intense study over recent years as more specimens have been exported to the USA and Europe. In recent years a number of new skinks, monitors, pythons and elapids have been described from the Islands north of Australia, including the New Guinea landmass. This paper continues this reclassification process by formally naming the New Guinea subspecies of the Eastern Brown Snake (*Pseudonaja textilis*).

PREAMBLE

Most authors recognise just one form of the Eastern Brown Snake (*Pseudonaja textilis*). This is in spite of a number of other names used for variants of this species as set out in Cogger et. al. (1983) and also by Wells and Wellington (1983 and 1985).

Some regional variants of the Eastern Brown Snake were elevated to full species status by Wells and Wellington in 1983. They expanded this process in their paper Wells and Wellington (1985).

This author's view is that the move was not warranted, but that the variants described are however validly named subspecies.

They are thus classified here as follows:

> ***Pseudonaja textilis textilis* (Dumeril, Bibron and Dumeril, 1858) the type species from Eastern NSW and nearby areas.**
>
> ***Pseudonaja textilis inframacula* (Waite, 1925) from the Eyre Peninsula, SA - usually darker than the nominate subspecies.**
>
> ***Pseudonaja textilis bicucullata* (McCoy, 1879) from Victoria- a slightly smaller variant than the nominate subspecies.**
>
> ***Pseudonaja textilis ohnoi* Wells and Wellington, 1985 from Central Australia. Believed to be restricted to the McDonnell Ranges of Central Australia.**

It is certain that other variants within Australia await formal recognition.

The status of the specimens from the Kimberley region of WA and the reddish brown animals from the Western Plains of NSW is uncertain.

The species *Pseudonaja textilis* is variable in colour, although most adults are uniform in colour dorsally. They may range from light tan, through dark brown, russet and orange to almost black, or any shade in between the preceding. The belly is usually cream or yellowish-orange with scattered darker blotches. Hatchlings vary between localities. However most for further information about separating these similar genera.

Photos of *Pseudonaja textilis* in life are provided by Ehmann (1992), Gow (1989), Hoser (1989), and Mirtschin and Davis (1992), Storr, Smith and Johnstone (1986), Worrell (1970) and other authors.

PSEUDONAJA TEXTILIS PUGHI SUBSP. NOV.

Holotype:

A male specimen in the American Museum of Natural History (AMNH 73959) collected by the Archbold Expedition in 1953 from Baiawa, Moi Biri Bay, Milne Bay Division, Papua 9°35'S, 149°25'E.

It has 17 mid body rows, 205 ventrals, divided anal, over 25 subcaudals.

Paratype:

A female snake with a skinned head in the American Museum of Natural History (AMNH 73949) from Menapi, Cape Vogel, Milne Bay Division, Papua 9°40'S, 150°05'E, also collected by the Archbold Expedition in 1953. The snake had 17 mid body rows, 200 ventrals, divided anal and over 45 subcaudals.

Diagnosis:

Pseudonaja textilis pughi is the New Guinea variant of the Eastern Brown Snake. Physically, adult *Pseudonaja textilis pughi* are essentially similar to northern Australian *Pseudonaja textilis* save for the fact that they have 12 solid maxillary teeth as opposed to 9-11 in north Australian specimens (McDowell 1967). This is one of several diagnostic traits.

In terms of colouration, anecdotal evidence suggests that New Guinea specimens are darker on average than their Eastern Australian counterparts.

Specimens seen by this author in life have had the following colour traits. The adults have always had a head lighter in colour than the body. This head colour has varied from a orangeish yellow-brown in colour to an almost whiteish-brown (depending on the specimen), while the dorsal body colour has remained a somewhat darker olive to brownish colour, with less red and yellow hue than in the head.

The anterior tips of the scales are lighter than the posterior ones, which may be nearly black; although there is no etching as such, as seen in some other kinds of elapids. However at a distance these snakes appear to be an even olive-brown dorsally. Ventrally, specimens are a yellowish colour, with each scale usually having a thin orange blotch or smudge at the posterior of each scale, these markings not necessarily being even across the entire ventral surface of the scales.

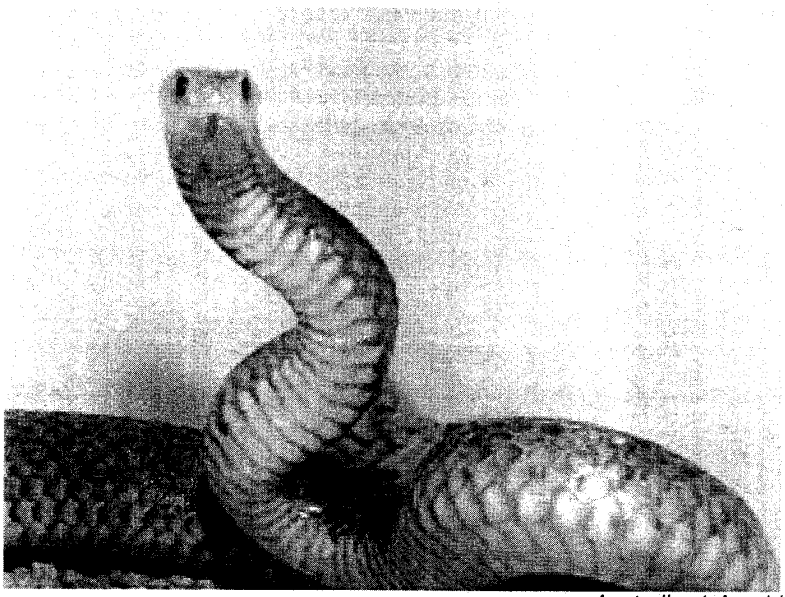
The subspecies is found throughout Island New Guinea, including Irian Jaya, wherever suitable habitat occurs and is common in some areas. All *Pseudonaja textilis* in New Guinea are *Pseudonaja textilis pughi.*

Contrary to a number of assertions in recent times as published on the internet and elsewhere, including O'Shea (1996) (who then rebuts the theory), *Pseudonaja textilis pughi* are not Australian *Pseudonaja textilis* introduced onto the Island of New Guinea this century by inadvertent means. Such a theory cannot explain the wide distribution of the species on New Guinea, including the fact that populations are widely separated by unsuitable habitat.

The subspecies prefers open Savannah woodland habitat and is common around Merauke, Irian Jaya (Tim Nias, personal communication, February 2001). *Pseudonaja textilis pughi* like other *Pseudonaja textilis* are not commonly kept in captivity due to their relative aggressive nature and toxic venom. The shortage of captives is not because they are rare in the wild or hard to find as this is not the case. However when kept, *Pseudonaja textilis* have presented few problems. They feed readily on mice (which they usually hold by coiling around when envenoming as seen in Australian *P. textilis* as shown in Hoser (1989)). This author knows of no breeding records for *Pseudonaja textilis pughi* but doubts that the species would be difficult to breed.

This subspecies is no doubt commonly confused with other species it is sympatric with, including the New Guinea Pailsus *Pailsus rossignollii*, Papuan Taipan *Oxyuranus scutellatus* and Papuan Black Snake *Pseudechis papuanas*.

Size records and claims for this species should be generally treated with skepticism. Larger specimens tend to increase more in girth than length, thereby easily leading observers to overestimate the length of larger specimens. Any alleged "monsters" should be retained and lodged in a museum on death.



Captive Eastern Brown Snake *Pseudonaja textilus* (Bob Withey)

CONSERVATION

There are no known or foreseen threats. This author sees no reason to restrict the relatively minor trade in live specimens of this subspecies.

ETYMOLOGY

Named after Mick Pugh. Mick and his wife Mip (whom this species is not named after) have kept and bred numerous species of snakes and lizards for a number of decades in their home town of Geelong, Victoria. Mick Pugh became the second president of the Victorian Association of Amateur Herpetologists (VAAH), one of Australia's leading herpetological societies (founded by Neil Davie). Mick (and a team of loyal helpers) built on Davie's start to create a hugely successful society with substantial assets and financial backing, furthering the dissemination of information to budding herpetologists throughout Australia and elsewhere.

ACKNOWLEDGMENTS

Numerous people provided assistance's in this and related projects. This was mainly in the form of providing literature or providing of study specimens in their care (including museum specimens).

These people included Chris Banks, Brian Barnett, William Bennett, Stuart Bigmore, Joe Bredl (senior and family), Stefan Broghammer, Roland Burrell, Brian Bush, John Cann, Peter and Steve Comber, Tom Crutchfield, Neil Davie, Chris Durham, Euan Edwards, Scott Eipper, Andrew Getties, Dale Gibbons, Russell Grant, Allen Greer, Axel Groenveld, Chris Hay, Matt Hingley, Bob Irwin, Clinton and Debbie Logan, Bill Love, Andrew Lowry, Samuel McDowell, Hayden McPhee, Tim Mensforth, Damien Morphou, Mark O'Shea, Roy Pails, Rob Porter, Mick and Mip Pugh, Ian Renton, Peter Richardson, Frederico Rossignoli, Ross Sadlier, Neil Sonneman, Grant Turner, Paul Woolf, Peter and Judy Wybrow, and Frank Yuwono.

A large number of museum curators freely shared their data with this author and/or made specimens available. Most are not acknowledged here by name.

Many other keepers who freely allowed the author to observe live snakes in their care have also been omitted from this list.

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