

Some further comments in relation to Australian Pythons - (Boidae) and their classification.

Raymond Hoser,
170 Lawson Street,
Redfern,
NSW 2016
Australia.

Introduction.

The information presented here is additional to that provided in previous papers (Hoser , 1981a, 1981b, 1981c & 1982). Four aspects of Australian Pythons are discussed, they are;

1. a "new" intergrade of *Morelia spilota*, (*M.s.spilota* x *M.s.ssp.*)
2. a range extension for *Morelia spilota ssp.*, (Inland Eastern Australian Carpet Snake).
3. the differences between Water pythons (*Liasis mackloti* and *Liasis fuscus*),
4. *Python oenpelliensis*, *Python timorensis* and related snakes.

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1. A new intergrade of *Morelia spilota*.

Bathurst is a city located immediately west of the Great Dividing Range, west of Sydney, N.S.W. and according to most previous texts lies just west of the range of *Morelia spilota spilota* (the Diamond Python), and just east of the range of *Morelia spilota ssp.* (the Carpet snake /python - Eastern Australian inland form). Distribution maps in Cogger (1986) and Hoser (1982) have excluded the possibility of intermediate forms of *M. spilota* south of Barrington Tops (NSW) .

The ranges of *Morelia s. spilota* and *Morelia spilota ssp.* were presumed to be separated by the "cold" country immediately west of the great dividing range. Intergrade *M. spilota* in Barrington Tops and the mid north coast (NSW) are crosses between *M. s. spilota* and *M. s. macropsilia* . Intergradation between *M. s. spilota* and *M. s. ssp.* has not previously been recorded. (Intergrades between *M. s. macropsilia* and *M. s. ssp.* are known).

In 1985 Mr William Bennett of St. Clair, NSW. informed me of a 'Carpet snake' in his possession (fig 1.) , from Bathurst NSW.

Inspection of the snake revealed a *Morelia* unlike any I had seen before. Its characteristics were intermediate between *M. s. spilota* and *M. s. ssp.*. The snake was about two metres in length and heavily built. Dorsally it was dark brownish black in colour with large yellow blotches (but not the typical *M. s. spilota* colour).

The head, whilst being intermediate in characteristics between the two forms was closest to the western type in shape and colour. The snake was very docile in behaviour. In the twelve months that Mr. Bennett held the snake it did not grow, indicating that it was a mature specimen when caught.

The above suggests that the ranges of the three eastern forms of *Morelia spilota* are probably more continuous than previously suspected. It is a possibility that natural intergrades of *Morelia spilota* exist further south than Bathurst although probably not as far south as the NSW/Victoria border (which is about the limit of *Morelia spilota spilota* distribution). Further fieldwork is required.

2. A range extension for *Morelia spilota ssp.* - Eastern Australian Inland Carpet Snake.

Recently I photographed a *Morelia spilota* from Birdsville, Queensland where they are apparently common in suitable habitat along watercourses (fig 2.). The snakes from this area are essentially the same morph as those found further south - the Eastern Australian Inland form. Birdsville is located near the common border of the Northern Territory, South Australia and Queensland, in Queensland's black soil "channel country". *Morelia spilota* had not previously been recorded from this part of Australia. The range extension is important as it brings the known range of Eastern *Morelia spilota* within 500Km of the known range of *Morelia spilota bredli*. However the Simpson Desert probably provides an effective barrier between the two subspecies. The finding of *Morelia spilota ssp.* at Birdsville also indicates that this subspecies is likely to be found throughout the Channel Country of inland Queensland indicating a more northerly range than shown previously in Hoser (1982).

3. The differences between Water Pythons *Liasis mackloti* and *Liasis fuscus*.

Since 1982 a number of people have informed me of differences between "Australian water pythons" and those from the Islands north of Australia (Papua New Guinea/Indonesia). In Hoser (1982) *Liasis mackloti* and *Liasis fuscus* were treated as one species - probably incorrectly.

There has been, and still is, uncertainty as to the relationship between these snakes. My experience is limited to

Australian specimens only. From the photographs in Stafford's book (1986) I would assume that there are probably two species involved. It appears that Stafford wasn't sure as to whether one or two species were involved. Stafford gave both scientific names *Liasis mackloti* and *Liasis fuscus* then proceeded to deal with them as one species.

The " Indonesian form " has a mottled pattern and different head morphology to the unmarked " Australian form " - however, the exact distribution of the "Indonesian form " is uncertain. It is also not known if the Australian form extends into Papua New Guinea although Cogger (1986) makes no mention of a New Guinea distribution for *Liasis fuscus* in his text. The type specimen of *fuscus* came from Bowen , Queensland (Worrell, 1970) so the name *fuscus* can only be applied to the Australian form - if the name *fuscus* is indeed valid. I do not know the source of the type *mackloti* although it was described earlier than *fuscus*. This means that if the types are of the same species the name *mackloti* applies.

However, most authors including Ross (1978) refer to the Indonesian Water python as *Liasis mackloti* . Recently I have seen *fuscus* (Australian) and *mackloti* treated as synonyms in some USA reptile price lists - underlining the confusion herpetologists have in relation to Water pythons.

At this stage an inspection of the type specimen of *mackloti* is required - to determine whether the snake is a mottled form or not, and following this a detailed review of the Water python species group - throughout the Australasian region.

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4. *Python oenpelliensis*, *Python timorensis* and related snakes.

Recently I have inspected live specimens of *Python oenpelliensis* (Oenpelli python) and seen a number of photographs of *Python timorensis* (Timor python). It appears, superficially at least, that these two snakes are very closely related. From my very limited information I would speculate that the above two species are more closely related to one another than they are to *Python amethystina*, Doug Kirkner (pers comm.) who has seen living specimens of both *Python oenpelliensis* and *Python timorensis* - concurs with the above. However, I feel that all three snakes form a "species group " distinct from other Australian pythons. Cogger (1968) places the two Australian species (above) in the genus *Morelia* with which these snakes undoubtedly share many affinities. These " affinities " include scalation, dentition and prehensile tails. By default *Python timorensis* must be included with the other two larger Australian species. However, I believe that ,

taxonomically , the above three snakes should be placed apart from the Carpet snake *Morelia* by either placement in a separate genus or sub-genus.

Stafford (1968) has published comparative head photos of *Python oenpelliensis* and *Python amethystina* which show the dramatic differences in head scalation between the two species. Most specimens of *Python amethystina* are potentially aggressive whereas most *Python oenpelliensis* are very docile - even when freshly caught.

An interesting similarity between *Python oenpelliensis* and *Python amethystina* and probably shared by *Python timorensis* is a limited ability to change colour pattern intensity in relation to external environmental influences over a relatively short period (within 24 h.). Other *Morelia* lack this ability.

It should be noted that the use of the generic names *Python* and *Liasis* for snakes mentioned in this paper is done for reasons of convenience and lack of alternative names and not because the author necessarily feels that those generic names should, or should not, be applied to these taxa.

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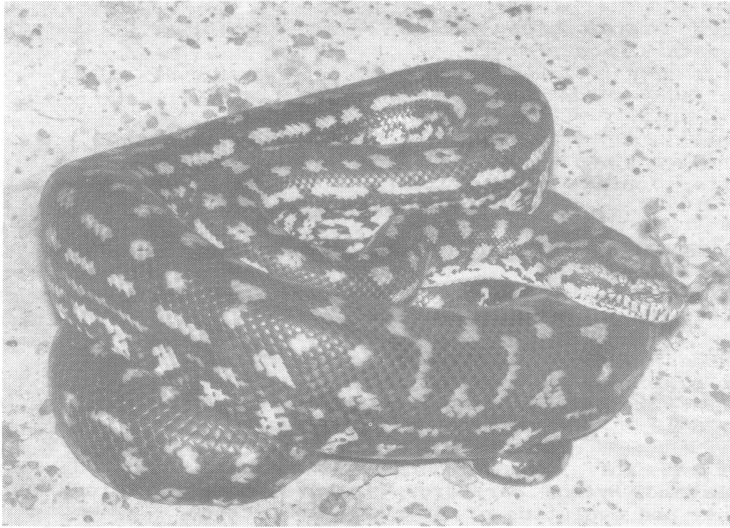


fig. 1. *Morelia spilotes* (intergrade) from Bathurst, N.S.W.



fig.2 *Morelia spilota* ssp. from Birdsville, Qld., - same subspecies as found in Inland Victoria and N.S.W.