

AUSTRALIAN PYTHONS (PART III)

THE LARGER LIASIS

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In the last article I discussed Liasis childreni and Liasis perthensis. In this article I intend to discuss the other four members of the genus Liasis occurring on the Australian mainland. These are: The Water Python Liasis fuscus (= Liasis mackloti), The Olive Python Liasis olivaceous, The Scrub Python Liasis amethystinus (kinghorni) (= Python amethystinus) and Liasis oenpelliensis (= Python oenpelliensis) to be discussed in that order. According to McDowall (1975) one of the important distinguishing features between the genera Liasis and Python is the fact that the snakes he groups into genus Liasis do not have highly prehensile tails whilst those he groups into the genus Python do. Using this criterion and others given by McDowall (1975) Liasis amethystinus and Liasis oenpelliensis should be classified as Python amethystinus and Python oenpelliensis. However the four snakes described in this article all fit within Cogger's 1979 definition of the genus Liasis. Although I shall arbitrarily class all four discussed snakes in the genus Liasis, this is only an arbitrary classification and can be readily opposed with certain arguments. I stress that this article is not intended to be one about the finer points of Python taxonomy but rather a generalised discussion about four Australian pythons.

THE WATER PYTHON (LIASIS FUSCUS) (=LIASIS MACKLOTI)

Description

The Water Python is a robustly built snake, with a long head slightly distinct from the neck. Dorsally its colour is a uniform iridescent dark, blackish brown with the ventral surface being dull to bright yellow, with the yellow colour extending onto the lower few rows of lateral body scales. The underside of the tail is a dark blackish brown. The throat is cream in colour.

The scalation is smooth, with 47-51 mid-body rows, 270-300 ventrals, a single anal and 60-75 paired subcaudals.

This snake averages about two metres in adult total length but occasional specimens may reach three metres.

Habits

This snake is found throughout the monsoonal belt of northern

Australia, encompassing parts of Western Australia, the Northern Territory and Queensland. It does not occur in permanently arid regions.

Water Pythons are generally nocturnal in habit and most specimens are captured moving across roads at night in areas adjacent to water. Gow (1976) records one "specimen moving round at midday in the extreme heat". If captured during the day this species is usually found in hollow logs, down holes, in vegetation, or under creeks and river banks.

The Water Python is, like many pythons, an opportunistic feeder, eating a variety of vertebrates. Because of its habitat preferences Water Pythons often take large numbers of young crocodiles. Crocodiles occur throughout the range of this snake. Water Pythons themselves are occasionally taken by crocodiles as well as other predators such as feral cats, foxes and dingoes. Water Pythons tend to have a docile nature, rarely attempting to bite. Two Water Pythons I photographed were fast moving and very restless and thus it was much harder than usual for me to obtain suitable photos of them. These habits along with the superficial resemblance to the Taipan lead many people to kill Water Pythons by accident.

In the wild Water Pythons presumably mate in the cooler months, producing roughly a dozen eggs in spring. These hatch in early summer to give young measuring roughly 30cm in length. This species does carry out maternal care of its eggs by coiling around them, but it appears unable to raise its body temperature by rapid muscular constrictions when doing so (Ross 1978).

In Captivity

This species is not nearly as widely kept as some other species of Australian Python both within Australia and in other countries. This is not due to the rarity of the species but rather the remoteness of its habitat. Where the Water Python does occur other species of Python are usually found in greater abundance; particularly Children's Pythons.

Because of their relative uncommonness in captivity and their high price in any market, specimens held in captivity tend to be kept well. Like most pythons, the Water Python is also very easy to keep. It is moderately prone to mouthrot, pneumonia and other common python diseases, and specimens have been known to survive heavy mite infestations.

Like all the larger Liasis discussed in this article, the Water Python may be successfully kept in relatively small cages with few furnishings. A Mr. G. Johnson of Sydney has maintained one adult Water Python for a number of years in a 1.3 metre aquarium furnished with gravel on the floor, a couple of logs, a retirement box and a water dish. Other Sydney herpetologists successfully keep their Water Pythons in similar conditions. In all four pythons discussed in this article, perhaps the most important single factor for success in keeping them in captivity is never to let temperatures get too low (i.e. below 15°C). If temperatures are lowered too much then canker and pneumonia may apparently spontaneously appear (Hopgood 1981).

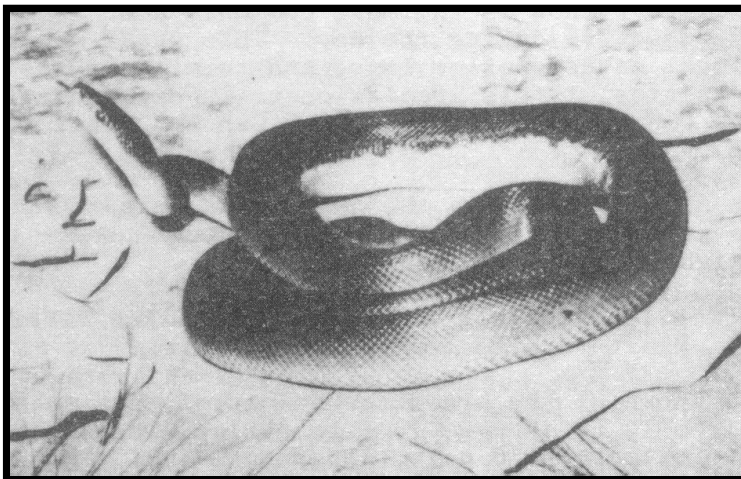
Although the Water Python has not been bred as frequently as Liasis childreni, and pythons of the genus Morelia, it does not appear to be a hard species to breed. The slight paucity of cases is probably due to the very small number of specimens in captivity and not to the difficulty in breeding. Like the Black-Headed Python (Aspidites melanocephalus) this species commonly mates without producing eggs. Separation of the sexes prior to a planned mating is strongly advised for the Water Python. The need for significant cooling of males prior to successful breeding in this species may not be necessary.

When eggs are produced they should be incubated at 32°C. Humidity should be kept high.

In 1974 the Royal Melbourne Zoo produced hybrid pythons from a Liasis fuscus (female) and a Morelia spilotes variegata (male). Some of the hybrid young (now adult) are still alive.

Liasis fuscus (= mackloti) MALE

Water Python, Northern Queensland



THE OLIVE PYTHON (LIASIS OLIVACEOUS)

Description

The Olive Python is one of Australia's largest snakes, being exceeded in length only by Liasis (=Python) oenpelliensis and Liasis amethystinus (The Scrub Python). It has a long head distinct from neck, body long but robust and loose-skinned, (Gow 1976). Dorsally its colour is generally drab olive green to pale fawn or rich brown, merging on the lower scale rows with the creamy white ventral surface. The lips are cream in colour, finely dotted with pale grey or brown.

The scalation is smooth with 65-75 mid-body rows, 345-370 ventrals, a single anal and 95-110 mainly divided subcaudals. The Olive Python averages 2.5 metres in length but specimens over four metres have been recorded.

Habits

The Olive Python is found throughout monsoonal Australia west of the Great Dividing Range (in Eastern Australia). Its distribution extends more than half-way down the coast of Western Australia and includes arid areas in that state. Kinghorn (1969) calls this snake the Olive Rock Python, a near-perfect description as it adequately describes this snake's colour as well as the habitat it most commonly frequents. In many rocky parts of Western Australia such as the famous Wittenoom Gorge (Lat. 22°15', Long. 118°18') the Olive Python is the most commonly seen species of snake, often being seen active during the day. This snake may be found in rock crevices, caves, hollow logs, and termite mounds. Large population densities of this species occur in extremely rocky areas such as in the rugged mountains near Shay Gap W.A. (Lat. 20°15', Long. 120°25').

Although often day-active the Author has only found Olive Python active at night in the wild. Most specimens are caught on roads at night in suitable habitats.

This species feeds mainly on mammals including Wallabies (Hoser 1981a). Monitors also feature in its diet.

Little is known of the breeding biology of this species except that it lays from 12 to 40 eggs in late spring, which hatch after a period of approximately 50 days (Kinghorn 1969). Young measure around 35cm in length.

Olive Pythons tend to have a docile temperament, only biting if greatly agitated.

In many parts of Australia this species is commonly confused with the Brown and King Brown snakes, but may be distinguished by its very distinct head. (Hoser 1981). Unfortunately it seems not enough people in the Australian bush will go to the trouble to learn how to correctly identify local snakes.

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Natives of the central north (Newcastle waters to Katherine) believe the Olive Python to be the Goorijalpongo, the earthly form taken by Bollong the mythical rain serpent, creator of all material things (Worrell 1951).

In Captivity

Excluding Liasis perthensis and Liasis (=Python) oenpelliensis the Olive Python is the least commonly kept Australian python in captivity. This species has been kept successfully in conditions identical to those described for Liasis fuscus (The Water Python) and thus the recommendations for keeping Water Pythons would apply to this species. Obviously a drier cage for Liasis olivaceous would probably have some advantages as this is a snake that often inhabits dry places. This species appears to have only been bred once and that case was a number of years ago (1973). Unfortunately the details of that particular case are scanty.

Procedures for successfully breeding this snake are probably somewhat similar to those of other pythons, (i.e. separation of sexes prior to a planned mating, possibly some cooling of the males, etc.). A 100% hatch rate for eggs of this species was obtained with an incubation temperature ranging between 25.5°C and 30°C and moderate to high humidity.

Medical problems associated with this species are also virtually unknown but presumably similar to those of other pythons.

AUSTRALIAN SCRUB PYTHON LIASIS AMETHYSTINUS (KINGHORNI) STULL (= PYTHON AMETHYSTINUS (KINGHORNI))

Description

The Scrub Python is Australia's largest snake, with specimens up to 8.5m in length known.

Scrub Pythons (Liasis amethystinus) have a large broad head, distinct from the long, thin neck and body. The build is light and the tail is long and tapering. The colour is iridescent olive-yellow to brown dorsally with numerous dark brown to black irregular and transverse bands often connected along the lower flanks to form one or more longitudinal latter lower 'stripes' (Cogger 1979). The head is usually a uniform light brown in colour although it occasionally carries spots or streaks. The dorsal pattern usually becomes obscure posteriorly. Ventrally the snake is creamy white.

The scalation is smooth with 35-49 mid-body rows, 279-344 ventrals, a single anal and 80-120 mainly divided subcaudals.

This snake averages 3 to 4 metres in length. "Australian" Scrub Pythons may be distinguished from other scrub pythons (Liasis amethystinus amethystinus) by the presence of one or more interparietal scales, higher average number of ventrals and mid-body rows, and generally more distinct markings (Stull 1933).

Habits

The Scrub Python (Liasis amethystinus) is found only in North-east Queensland and adjacent islands in Australia. Scrub Pythons also occur in New Guinea and adjacent islands. Although its range coincides with that of the tropical rain-forest habitat in the Australian region, Scrub Pythons are found in a variety of habitats, from rain-forest to open savannah woodland, monsoon forest and scrubby vegetation on coral cays (Cogger 1979). Scrub Pythons are particularly abundant in some river gorges and around swamps behind sand dunes adjacent to the sea. Scrub Pythons are known to occur in mangrove swamps although Carpet Pythons (Morelia spilotes variegata) and Water Pythons (Liasis fuscus) are more common in this habitat.

This mainly nocturnal species is usually caught either sunning itself by day or moving about at night. Because of the numerous good roads in North Queensland many herpetologists capture Scrub Pythons by night spotting rather than by day. This species where it occurs is often very common (Cogger pers. comm.). In the Song of the Snake by Eric Worrell (1958) he cites a case of a day he went looking for Scrub Pythons in a Queensland Gorge. He said "By dusk we had caught thirteen pythons, one nice black snake and a green tree snake". A fairly reliable place for finding Scrub Pythons in the wild is around fruit bat colonies in swamps and forests. The snakes feed on bats whenever necessary. For an average 3½ metre specimen, that may mean only a dozen bats per year, out of a colony numbering perhaps thousands.

The diet of this species includes any large endotherms, but Scrub Pythons seem to be particularly fond of domestic fowls. This results in many farmers killing Scrub Pythons.

Mating occurs around the end of the wet season (April-May) and eggs are laid three months later. They take roughly ten weeks to hatch with fifteen eggs constituting an average clutch. On hatching the young measure between 45 and 60cm (Gow 1976).

Most Scrub Pythons are of very unpredictable temperament and due to its size, bites can be painful, particularly if the snake's teeth break and remain in the wound inflicted. The author held one adult male Scrub Python for 2½ years in which time it never attempted to bite its owner.

In Captivity

Within Australia this species appears to cause great husbandry problems. Specimens kept at Taronga Zoo, Sydney and The Australian Reptile Park have died. It is a well-known fact that Scrub Pythons are highly prone to the ravages of worms, mouthrot and pneumonia. This species has an excellent resistance to mite infestation, although if mites are left on the snake for too long, death will result. G. Johnson (pers. comm.) knows of specimens dying directly or indirectly as a result of excessive heat or cold, and has postulated that the inability of this species to tolerate temperature excesses has prevented its range from extending south where it

is cooler or west where it is generally hotter. More evidence for a high degree of heat sensitivity in this species is given by Hoser (1981b). The specimen held for 2½ years by the author (which was later stolen) never had any husbandry problems. It was housed in a large cage with natural furnishings and of sufficiently high and stable temperature. Other Scrub Pythons have been kept successfully in very small cages with nothing more than newspaper on the floor and a water dish for a number of years.

To breed this species, separation of the sexes is advisable (for a period of several weeks) before a planned mating. Although Scrub Pythons will maternally incubate eggs, because of the high risk of crushing eggs during maternal incubation in captivity, I would advise artificial incubation of the eggs. A temperature of 32°C and near 100% humidity should produce hatching success.

A few years ago the Royal Melbourne Zoo produced hybrid pythons from a Liasis amethystinus kinghorni female and a Morelia s. variegata male. The young hybrids are still alive.

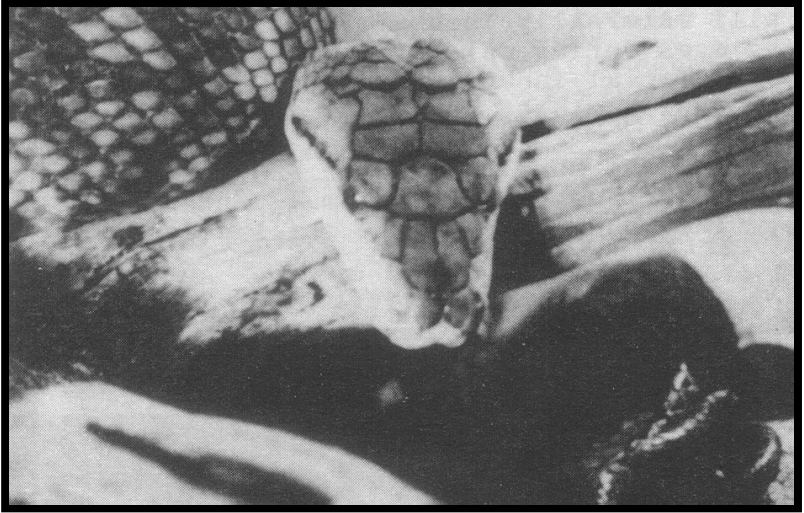


Liasis amethystinus MALE

Scrub Python, Cooktown, Queensland

Liasis amethystinus

Close-up of head to show large scales.

THE NORTHERN TERRITORY ROCK PYTHON (LIASIS (=PYTHON) OENPELLIENSIS)Description

This is the most recently described Australian python and probably the least known.

Liasis oenpelliensis has a largish head, distinct from neck, and is of slender build with a long tapering tail. Dorsally it is fawny brown becoming pale grey on the sides (Cogger 1979). It has a series of irregular dark brown blotches along the length of the back and sides tending to be aligned in four or five longitudinal rows. There is a dark brown temporal streak on each side (Cogger 1979). The pattern becomes reticulate on the tail. Ventrally the snake is white. The scalation is smooth with 70 mid-body rows, 429-445 ventrals, a single anal and 155-163 mainly divided subcaudals. An interesting feature of the scalation of this snake is that about 50% of the central scales correspond to double not single rows of dorsal scales. (Gow 1977). This snake averages 3.5 metres in length but larger specimens certainly occur.

Habits

This snake is little known, but appears to be associated with the sandstone formations of western Arnhem land (Gow 1977), (Cogger 1979). It is believed that this snake is not rare where it occurs and that the lack of specimens caught to date by herpetologists (less than 20) is due to the lack of fieldwork by herpetologists in the area and not its rarity. Specimens caught in the past may have been overlooked as other species (such as Liasis childreni, Morelia s. variegata). The breeding biology of this species is effectively unknown, although it is presumed to be similar to that of the other three large Australian Liasis. Feeding behaviour is also unknown. This snake appears to be at least partially diurnal in habit. (Begg and Martin 1980). The Northern Territory Rock Python appears to always have a docile nature.

In Captivity

This is probably Australia's least-kept python. Within Australia, very few specimens have been kept in captivity. A specimen held at Taronga Park Zoo, Sydney, died of obscure causes. It has been suggested that that snake might have died due to neglect. It is believed that some herpetologists in Canada hold large numbers of Liasis oenpelliensis and have also bred them. I cannot verify the reports I have had stating this, however.

For keeping and breeding this python I can simply recommend general python-keeping procedures, similar to those recommended for keeping the other three larger Australian Liasis.

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POSTSCRIPT:

On 20.7.81, Mr. Laurie A. Smith published two articles in Records of the West Australian Museum, dealing with Australian pythons. One new species (Python carinatus) and two new subspecies (Liasis olivaceous barroni and Python spilotos imbricatus) were described. Python carinatus (which is related to Python (=Morelia spilotes variegata but is more rugose) and Python spilotos imbricatus will be discussed in Part IV of Australian Pythons (next Herptile).

The use of the generic name Python by Laurie Smith and Grahame F. Gow in recent publications point towards the discarding of use of the generic name Morelia for some Australian pythons. (Although Morelia will be used in Australian Pythons Part IV).

Briefly, Liasis olivaceous barroni is the Pilbara region race of the more widely distributed Liasis olivaceous olivaceous and Liasis olivaceous barroni appears to grow larger than Liasis olivaceous olivaceous from which it is distinguished by having fewer mid-body rows (58-63 vs. 61-72) and more ventrals (374-411 vs. 355-377). Liasis olivaceous barroni is reasonably common where it occurs.

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