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More about pelvic spurs in Australian snakes and Pygopids

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Introduction

I have already discussed (Hoser, 1985) the sexual role of pelvic spurs in Boids and certain legless lizards - the Pygopodidae, (which also possess rudimentary hind limbs).

In this short paper I present some more recent findings on the subject.

Spurs in Pygopids

In a previous paper (Hoser, 1985) I noted that the Burton's legless lizard *Lialis burtonis* possessed pelvic spurs in addition to rudimentary hind limbs; however, it now appears that only some individuals possess these spurs and that these appear to be males.

I have also found this to be true of the Scalyfoot (*Pygopus lepidopodus* - plate 1), and I now speculate that pelvic spurs are probably present in all pygopids of the genera *Lialis*, *Pygopus* and *Delma*.

In *L. burtonis* and *P. lepidopodus* the spurs are placed some way beyond the vent (at the sides) and in the case of the Scalyfoot the spurs are up to five mm beyond the vent (plate 2). The rudimentary hind limbs are placed at the sides of and anterior to the vent although they do cover the pelvic spurs when folded against the sides of the body (the normal position).

That the pelvic spurs on the Scalyfoot are considerably further from the vent than on the Burton's legless lizard is possibly a result of the much longer rudimentary limbs possessed by the Scalyfoot allowing the spurs to remain covered in normal circumstance from the vent.

I suggest that there may be some advantage in Pygopids having their spurs covered whilst engaged in normal locomotion.

I still have not heard of any observations relating to mating in any pygopid so it must remain speculation that these spurs are in fact used whilst copulating.

### Spurs in Pythons

Two male Green pythons *Chondropython viridis* were found to have unusually large pelvic spurs, measuring approximately 2-3cm in length (plate 3).

(When mating the male Green Python uses his spurs in the usual python manner by digging them into and gaining purchase on the female's tail).

I do not know how common these "enlarged" pelvic spurs are in this or any other python species but to the best of my knowledge this condition is not common and I have not seen any references in the literature, nor have I personally noticed them in any of a variety of species of pythons.

The enlarged pelvic spurs were of similar "one scale" construction to those of other pythons.

As suggested previously, protruding pelvic spurs would be an obvious hinderance to locomotion in most legless reptiles. Therefore the obvious question is how do some male Green Pythons get away with such large unconcealable spurs?

I can only speculate that these snakes have less need for unhindered movement than other species of python.

As a footnote, the Green Python with enlarged spurs mentioned above mated with a female that produced fertile eggs on two occasions.

### References

1. Hoser, R.T. (1985) The role of pelvic spurs. Herptile; Journal of the International Herpetological Society, 10, 3, 95.

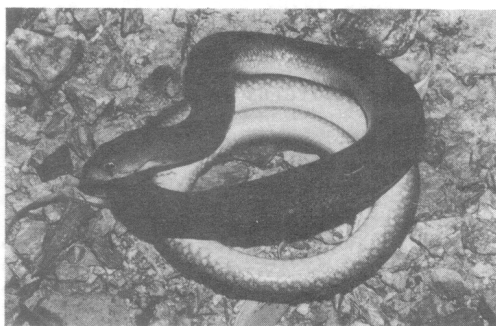
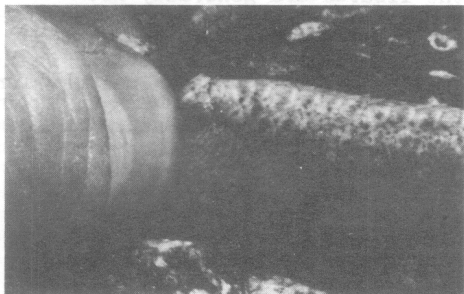
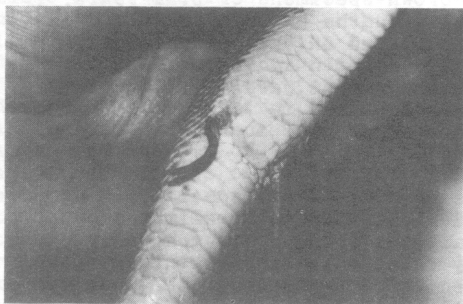


plate 1 - *Pygopus lepidopodus*, female, Mt. Glorious, Qld, Aust.



Mt. Glorious  
specimen

plate 2 - *Pygopus lepidopodus*, male, with rudimentary hind limb raised to show pelvic spur (at end of finger nail).



Specimen held  
by  
Niel Charles  
(Qld)

plate 3 - *Chondrophython viridis*, male, locality unknown showing enlarged pelvic spurs.