LACERTIDAE

***Pedioplanis undata* A. Smith 1838**
Western Sand Lizard

REPRODUCTION

Pedioplanis undata occurs from southern Angola to northern and central Namibia (Branch, 1998). There is a report from a field guide that mating occurs in November – January and young hatch in January – March (Branch, 1998). In this note I add information on *P. undata* reproduction including a clutch size and the first information on the testicular cycle.

Seventeen *P. undata* from Namibia deposited in the Natural History Museum of Los Angeles County (LACM), Los Angeles, California collected 1972 and 1973 were examined. These included specimens from Erongo Region (LACM 77521, 77529 – 77531, 77533 – 77538), Khomas Region (LACM 77743, 77749), and Otjozondjupa Region (LACM 77749, 77750, 77776, 77784, 77832). The samples consisted of 13 males (SVL (mean ± SD) = 49.7 mm ± 4.8, range: 43 – 58 mm), three females (SVL (mean ± SD) = 50.0 mm ± 2.6, range: 47 – 52 mm) and 1 subadult (SVL = 38.0 mm). Lizards were collected between 31 October and 12 November 1972, during November 1972 or during November 1973.

For histological examination, the left testis was removed from males to study the testicular cycle and the left ovary was removed from females to check for the presence of vitellogenesis (yolk deposition) and/or corpora lutea. Counts were made of oviducal eggs. Slides were stained with Harris haematoxylin followed by eosin counterstain. Histology slides were deposited at LACM. An unpaired t-test was used to compare male versus female body sizes (SVL).

There was no significant size difference between male and female mean body sizes (unpaired t-test, $P = 0.917$). The only stage observed in the testicular cycle was sperm formation (= spermiogenesis) in which the seminiferous tubules are lined by groups of spermatozoa and/or metamorphosing spermatids. This condition was observed in ten specimens collected in October – November and three males collected in November. The smallest reproductively active males measured 43 mm SVL (LACM 77521, 77537), respectively.

The smallest reproductively active female (early yolk deposition) measured 47 mm SVL (LACM 77743) and was collected November 1972. A second female collected 31 October – 12 November (LACM 77535) contained quiescent ovaries (no yolk deposition). A third female (LACM 77832) collected November that measured 52 mm SVL contained 7 oviductal eggs which is the first egg clutch reported for *P. undata.*

Based on the above data, the reproductive cycle of *P. undata* begins slightly earlier than the congeners *P. lineoocellata* and *P. namaquensis*, studied from South Africa by Goldberg (2006a) and Goldberg (2006b) in which reproduction was mainly concentrated in summer (Goldberg, 2006a,b). In contrast, reproduction was underway in spring in *P. burchelli* from South Africa (Nkosi *et al.*, 2004). Thus it appears there is interspecific variation in the onset of reproduction in African species of *Pedioplanis.* Examination of *P.undata* from additional months are needed to fully ascertain its reproductive cycle.

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References

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