LACERTIDAE

***Meroles reticulatus* Bocage, 1867**
Reticulate Sand Lizard

REPRODUCTION

Meroles reticulatus is known from coastal areas of the northern Namib Desert from near Walvis Bay to southern Angola (Branch, 1998: *Field Guide to Snakes and other Reptiles of Southern Africa.* Third edition. Struik, Cape Town). Additionally, Branch (1998, *op. cit.*) reports that a female from October contained four large eggs. In this note I add information on *M. reticulatus* reproduction including clutch size and timing of egg production. The first information on the testicular cycle, and minimum sizes for male and female reproductive activity are also presented.

Thirteen *M. reticulatus* from the Erongo Region, Namibia deposited in the Natural History Museum of Los Angeles County (LACM), Los Angeles, California were examined. The sample included six males (SVL (mean ± SD) = 48.5 mm ± 3.8 mm, range: 41 – 51 mm), three females (SVL (mean ± SD) = 47.3 mm ± 2.1 mm, range: 45 – 49 mm), and four juveniles (SVL (mean ± SD) = 35.3 ± 2.5 SD, range: 34 – 39 mm) collected in November 1972 and January 1976 (LACM 77669, 77675 – 77685, 127488).

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 oviductal 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) using Instat vers. 3.0b, Graphpad Software, San Diego, CA.

There was no significant size difference between male and female mean body sizes (unpaired *t*-test, $P = 0.645$). 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 November ($n = 6$). The smallest reproductively active male measured 41 mm (LACM 77679) and was collected November 1972.

One female (LACM 77682) from November exhibited early yolk deposition and would have subsequently produced eggs. One female (LACM 77681) from November measured 45 mm SVL and was reproductively inactive. The smallest reproductively active female (LACM 127488) measured 48 mm SVL, was collected in January, and contained three oviductal eggs - a new minimum clutch size for the species.

Of four subadult *M. reticulatus* from November, three measured 34 mm, and one measured 39 mm. The gonads of the three 34 mm *M. reticulatus* were extremely small and their sex could not be reliably determined; the 39 mm specimen was a female with inactive ovarian follicles.

The congeneric *Meroles cuneirostris* from Namibia (Goldberg & Robinson, 1979: *Herpetologica* **35**: 169–175) exhibited a prolonged reproductive cycle with a short period of inactivity in austral autumn. *Meroles suborbitalis* from South Africa (Goldberg, 2006: *Texas Journal of Science* **58**: 250–262) also followed a prolonged period of reproduction. Examination of *M. reticulatus* from additional months are needed to fully characterize its reproductive cycle.

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Submitted by
Stephen R. GOLDBERG, Whittier College, Department of Biology, PO Box 634, Whittier, California 90608, USA. E-mail: sgoldberg@whittier.edu.

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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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Submitted by
Stephen R. GOLDBERG, Whittier College, Department of Biology, Whittier, California 90608 U.S.A. E-mail: sgoldberg@whittier.edu

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GEKKONIDAE

***Cyrtopodion scabrum* Heyden, 1827**
Keeled Rock Gecko

PREDATION

On 22 July 2009 at 09h00 I observed an adult *Cyrtopodion scabrum* fall prey to a Great Grey Shrike (*Lanius excubitor*) whilst exposed and moving between rocks recently disturbed during maintenance activities. *C. scabrum* are generally viewed as anthropogenous nocturnal semi-terrestrial geckos that forage on insects around sources of artificial light (Werner, 1991; Disi et al., 2001).

This small to medium sized gecko is widely distributed from Eritrea through to Pakistan including most of the Arabian Peninsula (Leviton *et al.*, 1992; Disi *et al.*, 2001). As a smallish nocturnal gecko it's predators are expected to be many although diurnal avian predators were not expected.

The situation which led to this specific individual's demise was out of the ordinary. During maintenance work at the King Khalid Wildlife Research Centre in central Saudi Arabia, approximately 80 km north of Riyadh, I noticed a *C. scabrum* moving around on rocks after having been disturbed, seemingly searching for an alternative hiding place. Whilst I was observing this an adult Great Grey Shrike perched nearby and showed interest in the distressed gecko, although it was initially put off by my presence. After a while hunger overcame prudence and the shrike attacked the gecko, seized it behind the head and consumed it, including the tail which the gecko had shed on being caught.

Shrikes are often considered raptor-like passerines preying mainly on a diverse range of invertebrates (mainly insects) and small vertebrates (Cramp & Perrins, 1993) including smaller birds (e.g. Warblers, House Sparrows and sub-adult Larks from Saudi Arabia – Robinson, *pers. comm.*). Vertebrates are consumed in relation to the season and latitude (i.e. increased vertebrates in the diet during summer and the further north one travels) with reptiles forming a small proportion of the diet (e.g. 0.5% of diet during winter in Bulgaria, (Nikolov *et al.*, 2004)).

Although my sighting of *C. scabrum* falling prey to a Great Grey Shrike could be viewed as an opportunistic meal for the shrike and not so an unusual outcome given the situation, this sighting not only confirms the dangers nocturnal species face when negotiating daylight hours, but adds the Great Grey Shrike to the list of predators *C. scabrum* has from Saudi Arabia.

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