

LIFE HISTORY NOTES

African Herp News publishes brief notes concerning the biology of the herpetofauna of the African continent and adjacent regions, including the Arabian peninsula, Madagascar, and other islands in the Indian Ocean.

A standard format is to be used, as follows: **SCIENTIFIC NAME**; **Common name** (using Bill Branch's *Field Guide to the Snakes and other Reptiles of Southern Africa*, 1988, for reptiles; and Passmore & Carruthers' *South African Frogs*, 1995, for amphibians, as far as possible); **Keyword** (this should be one or two words best describing the topic of the note, *i.e.* Reproduction, Avian predation *etc.*); the **text** (in brief English with only essential

references quoted and in abbreviated form); **Locality** (country, province or state, location, latitude and longitude if available and quarter-degree grid unit; elevation above sea level; use metric distances); **Date** (day, month, year); **Collector(s)**; **Place of deposition and museum accession number** (required if specimens are preserved); Submitted by: **NAME**, address in parentheses.

New South African province names must be used.

Notes submitted in an incorrect format/style will be returned to the authors.

colouration of the lower part of the belly and hind legs - characteristic of the species (Passmore & Carruthers, 1995, *South African Frogs - A complete guide*. Southern Book Publishers and Witwatersrand University Press, Johannesburg) - which was clearly visible through the binoculars as the birds were at close range (<6 m). During the rest of the day the pair was observed catching four more platannas in the same manner. Woolly-necked Storks are opportunistic feeders taking any prey small enough to catch and swallow (Maclean 1985, *Roberts' Birds of Southern Africa*, Trustees of John Voelcker Bird Book Fund, Cape Town).

On 17 July 1996 the resident Hamerkop (*Scopus umbretta*) was observed capturing a platanna, with which it flew off as it was quickly approached by the pair of storks. The Hamerkop feeding on platannas is not surprising as Maclean (*op. cit.*) reported that frogs comprise the major part of their diet.

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ANURA

PIPIDAE

XENOPUS MUELLERI
Tropical Platanna
AVIAN PREDATION

On 16 July 1996, while bird watching at the Kumasinga hide, Mkuzi Game Reserve (27°39'S, 32°13'E; 2732CA), KwaZulu-Natal, a pair of Woolly-necked Storks (*Ciconia episcopus*) was observed catching several *Xenopus muelleri*. The pan was drying up and extended some 15 x 10 m in surface area with an average depth of approximately 10-15 cm. The pair of storks worked side by side, systematically searching through the mud. In a period of some 10 min they caught and consumed two water scorpions and one small tilapid fish (cf. *Oreochromis mossambicus*). Suddenly one of the storks jerked its bill sideways and in one movement flung an adult *Xenopus* onto the bank. It was immediately grabbed and manoeuvred in the bill. The platanna kicked desperately, at which time the stork dropped it and repeatedly stabbed it with its bill. This lasted approximately 5 min, after which time the stork picked up the limbless carcass, rinsed it in the pan, and finally swallowed it. The platanna was identified by the bright yellow

TESTUDINES

TESTUDINIDAE

HOMOPUS SIGNATUS SIGNATUS
Namaqualand Speckled Padloper
CAPTIVE BREEDING

Published data on the reproduction of padlopers (*Homopus*) are very scarce. Published data on captive breeding results are even more scarce. Two male (carapace length 74.4-84.1 mm, mass 50-70 g) and two female (carapace length 104.0-106.0 mm, mass 140-150 g) *Homopus s. signatus* were collected in September 1995, a few hundred meters south-east of Springbok (2917DB) in Namaqualand, South Africa. In The Netherlands they were housed in an indoor enclosure (120 cm long x 80 cm wide x 60 cm high) in which southern hemisphere climatic conditions prevailed (Table 1). The largest of the two males died on 23 December 1995 without eating voluntarily in captivity. Both females produced one egg each, one being laid on 31 October and the other on 27 November 1995, presumably resulting from fertilization in nature as mating activity had only rarely been observed before then. No nesting behaviour occurred. Both eggs were incubated at constant temperatures (28-32°C) in a mixture of vermiculite and water (1:3 weight-based ratio). Relative humidity fluctuated (30-60%). The substrate was re-moistened after 100 days incubation. The first egg hatched on 27 February 1996; the second egg showed no signs of embryonic development. The appearance of the hatchling was similar to that described by Morgan (1993, *J. Herpetol. Assoc. Afr.* 42: 34). From the first day the hatchling fed on apples, tomatoes, and avies *etc.*

Following egg-laying the activity levels of the adults decreased and remained low during summer and the subsequent winter, although all adults continued feeding (three times weekly on vegetable matter). Mating activity was observed throughout the year at a low frequency. With rising temperatures during June/July 1996, general activity levels, including mating activity, increased considerably. Daily mating attempts by the male

were observed, but actual copulations were uncommon.

During attempted mating, females were constantly followed by males and occasionally mounted after introductory head bobbing by both sexes. The frequency of mating attempts decreased from the beginning of September. One female produced clutches of a single egg on 22 July and 3 September 1996, without attempting to bury them. The second female produced clutches (single eggs) on 12 August, 19 September and 27 October 1996. This female showed a willingness to bury the eggs, initially by using her forelimbs, and later by means of her hindlimbs. Digging was noticed only in those parts of the enclosure with shallow soil, but high soil temperature due to local heating. All eggs were laid at sites protected by overhanging rock slabs. Eggs were incubated in vermiculite at a daily temperature rhythm (12 h 26°C; 12 h 32°C) as described above. As a result of the daily temperature cycle the relative humidity fluctuated (45-75%). The eggs of the first female hatched on 8 November (carapace length 30.8 mm, mass 7 g) and 24 December 1996. The eggs of the second female hatched on 30 November 1996 and 26 January 1997. The last egg of the second female did not exhibit signs of embryonic development. Hatching tortoises lacked remains of yolk sacs and fed from the first day.

This appears to be the first report of success in the breeding of *H. s. signatus* in captivity, without the female having been collected in a gravid condition from a wild population.

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