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Strophurus Ciliaris (Northern Spiny-Tailed Gecko) Communal Nesting

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All males examined from February (N = 2), March (N = 7), April (N = 9), June (N = 1), July (N = 1) were undergoing spermiogenesis (seminiferous tubules are lined by sperm or groups of metamorphosing spermatids). It thus appears the *S. maculatus* males examined exhibited an extended period of sperm production. The only male examined from August contained a regressed testis in which the seminiferous tubules contained spermatogonia and Sertoli cells. Before the significance of this single male with a regressed testis can be ascertained, examination of additional specimens are needed. The smallest reproductively active males both measured 48 mm SVL (FMNH 182450, 182407) and were collected in February and April, respectively.

Monthly stages in the ovarian cycle are in Table 1. Four stages were observed: 1) quiescent, no yolk deposition; 2) early yolk deposition, vitellogenic granules in ooplasm; 3) enlarged follicles > 5 mm; 4) oviductal eggs. Mean clutch size (N = 6) = 3.7 ± 1.6 SD, range = 2–6. Clutches of two and six eggs represent new minimum and maximum clutch sizes for *S. maculatus*. The smallest reproductively active female 51 mm SVL (FMNH 182474) contained two enlarged ovarian follicles (> 5 mm) and was collected in May. Whether the nine *S. maculatus* females from February–March with quiescent ovaries indicates a period of female reproductive inactivity will require further study.

I thank Alan Resetar (FMNH) for permission to examine *S. maculatus*.

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STROPHURUS CILIARIS (Northern Spiny-tailed Gecko). COMMUNAL NESTING. Communal nesting is widespread in reptiles, and is more common than currently appreciated because the eggs and nests of many species are either unknown or rarely recorded in nature (Doody et al. 2009. *Quart. Rev. Biol.* 84:229–252). One group with secretive nests are the diplodactylid geckos. Unlike the hard-shelled eggs of gekkonid geckos, which are often deposited in relatively conspicuous sites (e.g., under bark, logs, or rocks, on cave walls, in houses), the pliable-shelled eggs of diplodactylid geckos are generally deposited underground where higher humidity or soil moisture is required to promote successful development (Bustard 1968. *Copeia* 1968:162–164). Details of the eggs and nests of most of the ~125 diplodactylid species are thus, unknown. Accordingly, communal nesting is rarely reported in these species (Doody et al., *op. cit.*). Herein we report on eight communal nests of *Strophurus ciliaris* that were found while excavating the nesting warrens (groups of burrows) of the Yellow-Spotted Monitor (*Varanus panoptes*) in tropical northern Australia.

During May and June 2013 we studied the nesting biology of *V. panoptes* (data reported elsewhere) at El Questro Wilderness Park in the east Kimberley Region of Western Australia (15.895033°S, 128.132456°E). The area consists of savannah woodland situated in the wet-dry tropics, with distinct wet (Nov–March) and dry (April–Oct) seasons. The nesting warrens, each comprising 6–21 burrows within a ca. 10 m² area, were in sandy soils of sandhill habitat along creeks and rivers. Warrens were excavated by hand (with the aid of shovels and picks) to a depth of up to 3.6 m (Doody et al. 2014. *J. Herpetol.* 48: *in press*). During the excavation process we found 15 *S. ciliaris* eggs and 48 eggshells comprising 11 nests in small, back-filled chambers constructed in the floor of burrows of four *V. panoptes* nesting warrens at two locations. One warren contained no *V. panoptes* eggs in that year

(but contained eggshells from previous years). Nest depths were < 1 m; depths of three of the nests averaged 45 cm (range = 30–60 cm). We incubated four of these eggs to hatching under ambient temperatures in a makeshift field laboratory; all were confirmed to be *S. ciliaris*. Hatching dates were 10, 16, 22, and 28 June. We assumed that the remaining eggs and eggshells were also *S. ciliaris* based on their similar size and shape, and the absence of other pliable-shelled gecko species in the study area.

There are three interesting implications of our findings. First, like other geckos, *S. ciliaris* lays two eggs. Thus, eight (73%) of the clutches represented communal nests. Second and relatedly, it is interesting (and possibly a novel finding) that *S. ciliaris* mothers added their eggs to other clutches that were completely buried. In at least six of the communal nests the eggs were together within the same back-filled chamber excavated by the first mother. Communal back-filled reptile nests generally involve clusters of nests, rather than egg complements of multiple mothers in one chamber (Doody et al., *op. cit.*). If the alternative is true, that multiple mothers excavated or entered a single nest to lay at the same time, this also represents an interesting and novel finding (although it is considered less likely). Third, our data suggest that *S. ciliaris* is a common burrow associate of *V. panoptes*, at least during nesting. The distributions of the two species overlap in the Kimberley region of Western Australia, the Top End of the Northern Territory, and the gulf country and central desert regions of Queensland (Wilson and Swan. 2008. *A Complete Guide to Reptiles of Australia*, New Holland, Sydney. 512 pp.). The severe population-level declines incurred by *V. panoptes* due to poisoning by invasive Cane Toads, *Bufo marinus* (Doody et al. 2009. *Anim. Conserv.* 12:46–53), could thus eventually reduce nesting sites for *S. ciliaris* and other burrow associates (we also found the eggs of *V. gouldii*, and adults of 14 species of reptiles and amphibians in the warrens). The functional role of *V. panoptes* burrows in the savannah woodland ecosystem thus needs more scientific attention, particularly in areas ahead of the Cane Toad front in the west Kimberley region.

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TRAPELUS SAVIGNII (Egyptian Sand Agama). REPRODUCTION. *Trapelus savignii* is known from Egypt and Israel where