

ACANTHODACTYLUS AEGYPTICUS (Egyptian Fringe-fingered Lizard). REPRODUCTION. *Acanthodactylus aegypticus* is a small- to medium-sized lizard (adults up to 52 mm SVL) from Egypt and Israel that lives in shifting and semi-stabilized sands (Baha El Din 2007. Zool. Mid. East 40:21–32; Bar and Haimovitch 2011. A Field Guide to Reptiles and Amphibians of Israel. Herzilya, Israel. 245 pp.). *Acanthodactylus aegypticus* females produce 2 or 3 clutches of 2–3 eggs per reproductive season (Bar and Haimovitch 2011, *op. cit.*). In this note I add information on the reproductive cycle of *A. aegypticus* from a histological examination of gonads from museum specimens from Israel.

A sample of 34 *A. aegypticus* consisting of 14 mature males (SVL = 39.6 mm ± 2.1 SD; range = 37–43 mm; 7 mature females (mean SVL 40.0 mm ± 1.8 SD; range = 38–43 mm), and 13 unsexed subadults (mean SVL = 30.2 mm ± 3.3 SD; range = 25–35 mm) collected in Israel between 1944–2015 and deposited in the Steinhardt Museum of Natural History at Tel Aviv University, Tel Aviv, Israel (TAUM; specimens examined, by region; Northern Negev: TAUM 1028, 1030, 1037, 1208, 3429, 3681, 3990, 3995, 4473, 4859, 4863, 5531, 5532, 5987, 6000, 6436, 9171, 16220, 17252, 17254, 17257, 17260–17262, 17266, 17267, 17271, 17287, 17293, 17297, 17299, 19417; Southern Coastal Plain: TAUM 16688; Central Negev: TAUM 16848).

A cut was made in the lower abdominal cavity and the left testis or left ovary was removed, embedded in paraffin, cut into 5- μ m sections and stained by Harris hematoxylin followed by

eosin counterstain. Enlarged follicles (> 4 mm) or oviductal eggs were counted only. Histology slides were deposited at TAUM.

Two stages were present in the testis cycle of *A. aegypticus*: (1) Recrudescence: characterized by a renewal of germinal epithelium with proliferation of primary, secondary spermatocytes, spermatids (but no sperm) for the upcoming period of spermiogenesis; (2) Spermiogenesis: seminiferous tubules are lined by sperm or clusters of metamorphosing spermatids. Males undergoing spermiogenesis by month were: February (N = 1), March (N = 2), April (N = 4), May (N = 2), June (N = 1), September (N = 1), December (N = 1). One testis exhibiting recrudescence was found in each of August and September, which typically occurs prior to the start of spermiogenesis. Goldberg (2014. Herpetol. Bull. 128:20–21) similarly found recrudescence in one September *A. beershebensis* male from Israel, males of this species from October and November were undergoing spermiogenesis, suggesting similarities between the timing of events in the reproductive cycles of *A. aegypticus* and *A. beershebensis*. The smallest reproductively active *A. aegypticus* males (e.g., undergoing spermiogenesis) measured 37 mm SVL and were collected in March (TAUM 4473) and April (TAUM 5987, 19417). The start of spermiogenesis during autumn appears common in spring reproducing lizards from Israel as was noted for: *Ptyodactylus guttatus* (Goldberg 2011. Herpetol. Rev. 42:433), *Mesalina guttulata* (Goldberg 2012. Zool. Mid. East 56:27–30), *Phoenicolacerta laevis* (Goldberg 2013. Herpetol. Rev. 44:512).

Three stages were observed in the ovarian cycle of *A. aegypticus* (Table 1): (1) quiescent: no yolk deposition in ovarian follicles; (2) enlarged ovarian follicles > 5 mm; (3) oviductal egg. Mean clutch size for 4 females was 1.3 ± 0.50 SD; range = 1–2 eggs. The smallest reproductively active females measured 38 mm SVL and were collected in April (TAUM 16848) and June (TAUM 17262). No evidence of production of multiple egg clutches was found as evidenced by concurrent yolk deposition in a gravid female. One is a new minimum clutch size for *A. aegypticus*.

Acanthodactylus aegypticus along with four other congeners found in Israel are spring breeders: *A. beershebensis* (Goldberg 2014, *op. cit.*), *A. boskianus* (Goldberg 2013. Zool. Mid. East. 59:16–19), *A. ophiodurus* (Disi et al. 2001. Amphibians and Reptiles of the Hashemite Kingdom of Jordan, An Atlas and Field Guide. Edition Chimaira, Frankfurt am Main, 408 pp.), and *A. scutellatus* (Perry and Dmi'el 1994. J. Arid Environ. 27:257–263). With 44 species of *Acanthodactylus* listed in Uetz et al. (2020. The Reptile Database, <http://www.reptile-database.org>; 15 July 2020), reproductive examination of numerous other congeners are warranted to ascertain the diversity of reproductive cycles exhibited by members of *Acanthodactylus*.

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TABLE 1. Three stages in the ovarian cycle of *Acanthodactylus aegypticus* from Israel.

Month	N	Quiescent	Enlarged follicles > 5 mm	Oviductal egg
April	3	0	2	1
June	3	1	1	1
November	1	1	0	0