

***Acanthodactylus boskianus* (Daudin 1802) Bosc's Lizard**

(Figs. 47 and 48)

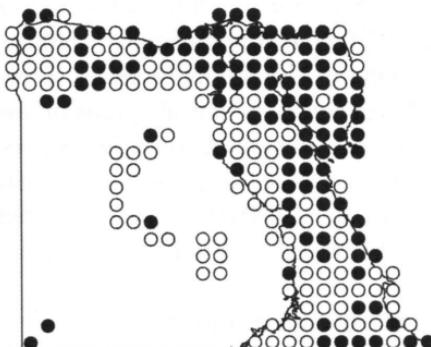
Lacerta bosiana Daudin 1802: 188. Type locality: "L'Ile Saint-Domingo" (in error, probably Mediterranean Egypt [Anderson 1999]), Holotype: MNHN 2762.

Acanthodactylus boskianus Lataste 1885

Arabic: *sihliya khishna*

Taxonomy: Three subspecies are often recognized: *A. b. asper* (Audouin 1829) occupying the greater part of the species range, *A. b. euphraticus* Boulenger 1919 found in Iraq and the nominate subspecies confined to parts of lower Egypt. This simple division is not satisfactory, as some characters of *A. b. euphraticus* are not consistent, while *A. b. asper* encompasses much variation (Arnold 1983). Some workers opted not to recognize any of the subspecies, such as Salvador (1982) and Leviton et al. (1992). While, both Marx (1982) and Saleh (1997) only recognized the occurrence of *A. b. asper* in Egypt.

Throughout its vast range extending from Mauritania to Iran *A. boskianus*, as currently understood, is highly variable; to the extent some populations might be specifically distinct. Recently Harris and Arnold (2000) suggested that Arabian and North African populations of *A. boskianus* might be paraphyletic. Even within Egypt the species shows a great deal of variation. It is almost certain that more than one



Bosc's Lizard
(*Acanthodactylus boskianus*)

species are encompassed within this taxon. However, the traditional view of dividing the taxon into two subspecies is maintained here, pending the results of a more in-depth investigation.

The nominate subspecies from the Delta is distinct, having more numerous dorsals and reaching larger sizes than most other populations of *A. boskianus* s.l. in Egypt currently referred to *A. b. asper*. Populations of both subspecies approach each other on the margins of the Delta, usually with little indication of intergradation. Within *A. b. asper*, the nominal subspecies occupying the remainder of the country, much variation is noted. Some of these variations might reflect phenotypic environmental adaptations (Arnold 1983). However, in some cases morphologically distinct populations abut each other without intergradation, or in one case at least are sympatric (or even syntopic) over a wide geographic areas.

Salvador's (1982) analysis of some philodotic characters of several Egyptian populations is rather problematic, as the accuracy of some of the counts he made seems suspect. One outstanding discrepancy is the dorsal counts of animals from St. Katherine, which are said to have between 39–48 dorsals (i.e., well within the range of the nominate subspecies). Examination of the same material used by Salvador (FMNH material) revealed a range of between 30–38 dorsals (typical of *A. b. asper*). The source of this anomaly is not known.

Subspecies in Egypt:

Acanthodactylus boskianus boskianus (Daudin 1802)

Acanthodactylus boskianus boskianus Boulenger 1920

Acanthodactylus boskiana Flower 1933

Acanthodactylus boskianus asper Marx 1968 (part), Saleh 1997 (part)

Acanthodactylus boskianus Salvador 1982, Arnold 1983

Diagnosis: Medium-sized lizard, adults up to 79 mm SVL (Boulenger 1920). Snout moderate; 4 supralabials anterior to the eye, subocular isolated from lip. Dorsal scales fairly small, imbricate, strongly keeled; size of dorsals and their degree of keeling increases posteriorly. Average number of dorsals and ventrals at mid-body is 45 (range 39–55) and 12, respectively; average number of femoral pores 24 (21–31) (based on a sample of 23 Egyptian specimens). Dorsal side of tibia covered with uniform keeled scales. Digits with 3

rows of scales. All digits are strongly fringed, subdigital scales with multiple keels. Dorsal surfaces olive gray, with 5 longitudinal blackish stripes, the median stripe forking on the neck. Venter is white. Males larger than females and usually lose the contrasting dorsal pattern when fully adult. Ventral side of the tail in females turns red during the breeding season. Tail blue in juveniles. Hemipenis with two subequal lobes; clavula complexly folded in cross-section.

Habitat and ecology: Found in sandy areas in coastal regions and among cultivations. Inhabits more mesic habitats than any other *Acanthodactylus* found in Egypt. Often associated with salt-marsh vegetation.

Range: Lower Egypt.

Distribution in Egypt: Nile Delta, lower Nile Valley, and coastal North Sinai, east to Zaranik.

Status and conservation needs: Locally common. Much of this subspecies' habitats in the Nile Delta and Valley are under intense development pressure, and much of the available habitat has been reduced to very small isolated patches. *A. boskianus* is classified as Least Concern by IUCN (2005).

Acanthodactylus boskianus asper (Audouin 1829)

Lacerta aspera Audouin 1829, Type locality: Egypt. Holotype: not located.

Scapteira inaequalis Gray 1838

Acanthodactylus boskianus var. *asper* Lataste 1885

Lacerta longicauda Hemprich and Ehrenberg 1899

Acanthodactylus boskianus asper Boulenger 1920, Marx 1968, Saleh 1997

Acanthodactylus boskiana Flower 1933,

Acanthodactylus boskianus Salvador 1982, Arnold 1983

Diagnosis: Medium-sized lizard, largest Egyptian specimen 76 mm SVL (male from the Eastern Desert). Snout moderate; 4 supralabials anterior to the eye, subocular isolated from lip. Dorsal scales fairly small, imbricate, strongly keeled; size of dorsals and their degree of keeling increases posteriorly. Average number of dorsals and ventrals at mid-body is 35 (range 29–43) and 12, respectively; average number of femoral pores 22 (18–28) (based on a sample of 61 Egyptian specimens). Dorsal side of tibia usually covered with enlarged keeled

scales. Digits with 3 rows of scales. All digits are strongly fringed, subdigital scales with multiple keels. Dorsal surfaces sandy, with 5 longitudinal blackish stripes, the median stripe usually forking on the neck. Venter is white. Males larger than females and usually lose the contrasting dorsal pattern when fully adult. Ventral side of the tail in females turns red during breeding season. Tail usually blue in juveniles. Hemipenis with two subequal lobes; clavulae complexly folded in cross-section.

Variation: There is considerable morphological variation among Egyptian populations, which is not fully understood yet. These variations mainly concern the number of dorsals, size, shape of head, and other minor philodotic differences, as well as pattern and color. In some cases tail color in juveniles also differs. There are no obvious differences in hemipenal morphology; all populations have generally similar subequal lobes, with clavulae more or less typical of *A. boskianus* s.l. (cf. Arnold 1983).

Habitat and ecology: A taxon with wide ecological amplitude, found in a variety of habitats, but typically found on coarse substrates with moderate vegetation cover. It is the commonest diurnal reptile in wadis of the Eastern Desert and Sinai, from an altitude of over 1,500 m down to sea level, where it is also common in littoral habitats. In the Western Desert it is found in very arid parts, but where a minimal amount of vegetation is present; in the oases it is often found in very sandy habitats in syntopy with *A. scutellatus* and *A. longipes*.

Range: North Africa, Arabia, Iran, south to Sudan.

Distribution in Egypt: One of the most common, prominent, and widespread reptiles in Egypt, found in all suitable locations in both the Eastern and Western Deserts and Sinai.

Status and conservation needs: Common and widespread. *A. boskianus* is classified as Least Concern by IUCN (2005).