

# *Acanthodactylus opheodurus* Arnold, 1980 in the Levant revisited, and the striped patterns of Levantine *Acanthodactylus*

(Reptilia: Lacertidae)

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**Abstract.** The distribution of the Arabian desert lizard *Acanthodactylus opheodurus* Arnold, 1980 in the Levant is re-examined. West of Jordan it is almost limited to the ‘Arava Valley, absent from most of the Negev and from Sinai. This correction of an earlier report derives from re-identification of specimens, relying on the colour pattern difference from the syntopic sibling *A. boskianus asper* (Audouin, 1829). The vertebral dark stripe is simple in *A. opheodurus* but forked in *A. boskianus*. The vertebral stripe is forked but light-colored in two geographically adjacent related taxa, *A. b. boskianus* (Daudin, 1802) of northern Egypt and *A. schreiberi syriacus* Boettger, 1878 of coastal Israel.

**Key words.** Colour-pattern, distribution, Egypt, Israel, Sinai.

## Introduction

The syntopic occurrence of related lizard species – sibling species (sensu MAYR 1965), congeners or merely family members – usually raises two challenges for both the species involved and the investigator. First, identification of individuals as to their specific affiliation (although this is sometimes aided by behavioral signals). Second, resource partitioning, particularly food. Both may be moderated by character displacement, as exemplified in the geckos *Ptyodactylus guttatus* von Heyden, 1827 and *P. hasselquistii* (Donndorff, 1798), which are easier to distinguish where they coexist in Sinai (WERNER & SIVAN 1993, 1994). Certain morphological differences may imply also a divergence in diet but this is more laborious to prove. Sometimes mere identification is difficult.

Before 1980 the four *Acanthodactylus* species then known in Israel, *A. beershebensis* Moravec et al., 1999 (then within *A. pardalis* (Lichtenstein, 1823)), *A. boskianus asper* (Audouin, 1829), *A. schreiberi syriacus* Boettger, 1878 and *A. scutellatus* (Audouin, 1829), sympatric but mostly not syntopic were easily identified (BARASH & HOOFIEN 1956). In 1980, *A. opheodurus*, a sibling species of *A. boskianus*, albeit much smaller, was described from Arabia and the ‘Arava Valley of Israel (ARNOLD 1980), and thus was added to Israel’s fauna. Its discovery explained how some “*A. boskianus*” from Israel could be conspicuously sexually mature at a “juvenile” body size. It became necessary to examine whether the museum material of “*A. boskianus*” from the Negev desert of southern Israel and the contiguous Sinai desert of Egypt actually included some similarly striped *A. opheodurus*. In this context, “striped” means that the dorsal body coloration of, at least, the juveniles comprises alternate contrasting very dark and very light longitudinal stripes (Fig. 1).