

ISRAEL SOUTH RED SEA EXPEDITION, 1962. REPORTS

NO. 4

A COLLECTION OF REPTILES FROM THE DAHLAK ARCHIPELAGO

(RED SEA).

by

J. H. HOOFIEN AND Z. YARON

21827



The small herpetological collection which is the subject of the present report was made incidental to the main, oceanographic and marine-biological aims of the Israel South Red Sea Expedition (CLARK, 1962; OREN, 1962). The junior author had the good fortune to participate in this venture and the bulk of the specimens described here, was collected by him together with some random notes on their habitats and behaviour.

A survey of the pertinent literature, and our own rather meagre results tend altogether to indicate that we are dealing with an impoverished insular herpetofauna of recent creation, and of comparatively limited general interest.

SCORTECCI (1930b: 205) compiled a check-list (*elenco*) of the reptile species recorded from the whole of Eritrea until that date; which, however, ignores the material gathered by the "POLA" expedition (STEINDACHNER, 1901). Our present contribution adds a single species (*Chelonia mydas*) to that Eritrean check-list.

SCORTECCI (o.c.) mentions five reptile species from the Dahlak Archipelago proper, out of which only two are identical with species recorded by us. We are, therefore, in a position to add seven new species to SCORTECCI's inventory of the Archipelago making twelve in all for the time being. At the same time we have made an attempt to trace all previous records from the Archipelago to their original sources.

TESTUDINES

Chelonia mydas (Linnaeus) 1758.

DERANIYAGALA, 1939: 229 (§5) and 1953 (pl. 5); CARR, 1952: 345; * WERMUTH & MERTENS, 1961: 235.

MATERIAL: Our material consists of two adult carapaces, each measuring 68 cm. lengthwise in a straight line, purchased from fishermen of Nocra village.

The colour of the horny shields is an almost uniform pure ochraceous brown without any hint of a greenish or olivaceous tinge. The marginal indentations above the region of emergence of the hind limbs are faint (perhaps slightly more marked on the dexter sides — both carapaces being somewhat asymmetrical in this respect). These characters would place our material in the nominate subspecies, pertaining to the Atlantic and Mediterranean — an allocation which would not be in

An asterisk (*) preceding a reference to literature indicates that we have adopted the respective author's views on the systematic position and the appropriate nomenclature of the taxon being dealt with in each instance.

accordance with the prevailing conception that populations from the Red Sea should necessarily belong to the Pacific and Indian Ocean races. We therefore prefer to label our material with the binomen only.

Mentioned, in a general way, by ROGHI and BASCHIERI (1956: 201, 277).

Eretmochelys imbricata bissa (RÜPPELL) 1835.

* WERMUTH & MERTENS, 1961: 238-240.

MATERIAL:

E62/2209 A halfgrown complete specimen, purchased alive from fishermen of Nocra. Carapace 27 cm.

E62/1929 Major portion of a large adult skull, with horny maxillary sheath, found at a distance of 100 meters from the shore on Entedebir Island.

Mentioned, in a general way, by ROGHI and BACHIERI (1956, 201, 277).

SQUAMATA — SAURIA

Pristurus flavipunctatus rupestris BLANFORD 1874.

* HAAS, 1943: 11; * HOOFIEN 1960 (1961): 494; see also STEINDACHNER, 1901: 327, and SMITH, 1935: 65.

MATERIAL:

E62/1930 Entedebir Island; on coral rock.

E62/1986 Entedebir Island; at night, on surface of soil, among annual vegetation.

E62/2354 Entedebir Island; from under coral rock.

E62/2355 Entedebir Island; as foregoing.

E62/2346 Romia Island, Dahlak Archipelago.

In all five specimens the enlarged supracaudal crest of scales terminates at the root of the tail, without invading the sacral region. In this context we consider it significant that the majority of the geckoes were collected on the surface in rocky surroundings entirely devoid of trees. One of us (Hoofien, o.c.) has had a previous opportunity to suggest that the nominate subspecies may possibly be only an arboreal ecotype of the widespread, terrestrial, *rupestris*.

Hemidactylus turcicus turcicus (LINNAEUS) 1758.

* LOVERIDGE, 1947: 142, 147.

MATERIAL:

E62/1987, E62/1988 and E62/1989 Entedebir Island; at night, on rocky soil, among dense annual vegetation.

E62/2394 Dahlak Kebir; from under stone.

Mentioned by STEINDACHNER (1901: 327) from Nocra ("Nakra"), and by LOVERIDGE (o.c.) from Dahlak.

Tarentola annularis annularis (GEOFFROY) 1827 (?)

* LOVERIDGE, 1947: 323; HOOFIEN, 1962: 54 (ecology).

MATERIAL:

E62/2216 Entedebir Island; at night, on firm sandy soil with annual vegetation.

E62/2400 Entedebir Island; shot at dusk on an anthill with active ants (feeding ?)

Mentioned by BOULENGER (1896: 550) from Dahlak and Nocra. LOVERIDGE (o.c. p. 329, footnote) gives reason to believe that STEINDACHNER's record of "*Tarentola mauritanica*" from Dahlak (STEINDACHNER, 1901: 328) also refers to the present species.

Chalcides ocellatus (FORSKAL) 1775.

* SCORTECCI, 1930a: 13; * VINCIGUERRA, 1931: 100.

MATERIAL:

E62/1943 Entedebir Island; a few mummified fragments of the posterior portion of a large adult, found on top of sandy soil.

As far as can be made out, this specimen had only 24 scales around the body. The ocelli, on the posterior portion available, are numerous and well-developed. A light lateral streak is n o t e v i d e n t. Our fragments can contribute but little to the much discussed problem posed by the alleged subspecies diagnosed by the Boulengers — "*padre e figlio*" — for these parts of East Africa. We are inclined to follow their critics, referred to above, in avoiding any such allocation;— the more so since we are acquainted with the pronounced variability within this species in Israel.

Mentioned by BOULENGER (1896: 551) from Dahlak and by STEINDACHNER (1901: 330) from Nocra ("Nakra") Island.

Eremias olivieri martini BOULENGER 1897.

* HAAS, 1951: 274, 276; BOULENGER, 1897: 467 (*Eremias Martini*), and 1921: 263, 270 (*Eremias guttulata martini*).

MATERIAL:

E62/2395 Dahlak Kebir Island, Northern Part, near Gembeli, from under stone; juvenile, indifferent state.

E62/2396 Dahlak Kebir Island, Northern Part, near Gembeli, from under stone; juvenile, tail largely missing.

E62/2397 Dahlak Kebir Island, Northern Part, near Gembeli, from under stone; adult female.

E62/2398 Dahlak Kebir Island, Northern Part, near Gembeli, from under stone; adult male.

Our small series may present a useful contribution to the knowledge of this interesting form. It agrees well with the description and the statistical data given in Boulenger's monograph. The numbers of dorsal scales across the body are 35,37,37 and 42 — the latter only exceeding slightly the maximum number given by BOULENGER.

BOULENGER's misstatement concerning the condition of the lower eyelid in *E. martini* (1897: 467) was not repeated by the same author in his later Monograph. We refer future investigators to the "window" of the lower eyelid in the drawing

of *Eremias "guttulata"* by F. ANGEL in ROCHON-DUVIGNEAUD (1943: 438, 439—fig. 290-3) which may be assumed to have been derived from some form of *E. olivieri* and which depicts with reasonable accuracy the condition found in our material.

STEINDACHNER's record (1901: 330) of *Eremias guttulata* from Dahlak and Nocra probably also refers to the present form.

SQUAMATA — OPHIDIA

Leptotyphlops sp. indet.

MATERIAL:

E62/1931 Entedebir Island; at night, crawling on surface of soil in one of the tents of the expedition.

We have failed in our efforts to identify our small specimen (140 mm total length) with any of the numerous nominal species previously described or recorded from the general region of the Red Sea. SCORTECCI (1928: 297) as well as notably PARKER (1949: 19) comment on the unsatisfactory taxonomic state of this genus; to which we do not propose to add, at the present stage, yet another new name and description, based on a single specimen only, of a doubtfully new form.

STEINDACHNER's damaged specimen of *Glauconia cairi* from Dahlak (1901: 333) should be re-examined, if it still can be found.

Coluber florulentus GEOFFROY 1827 (?)

* PARKER, 1949: 37, 43-44; JAN, 1876: 48/VI/4-4^c; ANDERSON, 1898: 258.

MATERIAL:

E62/2345, Entedebir Island; found climbing a smooth cliff wall, near a body of brackish water, in the "Devil's Crack" (STEINITZ, in litt.).

E62/2393, Entedebir Island; found climbing in a bush, growing inside a shallow brackish water well ("Bitter Well").

The scansorial habits observed in both instances, and the association with bodies of water which may be potable to these snakes, should be compared with FLOWER (1933: 811-812). This author has also commented on the variability of colour and pattern found in this species. Our two preserved specimens have a very dark-gray ground colour charged with black markings, conforming in pattern (though not in shading) with the specimen figured by JAN (o.c.). Specimen No. 2345 is unique in having both preoculars not in contact with the frontal. Further data are tabulated below.

Specimen No.	Sex	Dorsals	Ventrals	Anal	Subcaudals	H & B Length	Total Length
No. 2345	♂	21	188	1/1	91/91	310 mm.	413 mm.
No. 2393	♂	21	194	1/1	86/86	232 mm.	307 mm.

Both the ventral and the subcaudal counts in our material fall somewhat below the inferior limits of variability hitherto found in this species. The following comparative table (males only) illustrates this point.

Source	Ventrals	Subcaudals
ANDERSON 1898: 258 Nile Valley	205-215	88-103
PARKER 1949: 42 Nile Valley	192-214	88- 97
SCORTECCI 1930a: 17 and 1930b: 200		
LOVERIDGE 1945: 2 Eritrea, Highlands	195-203	90- 99
PARKER 1949: 42 Somalia	197-205	101-104
J.H.H. & Z.Y. ut supra Dahlak Archipelago	188-194	86- 91

FOX (1948: 262) states that there are numerous exceptions to the rule that reduction of meristic characters in populations of snakes follows the transition from warmer to cooler regions. It seems that our material, derived from one of the warmest localities on the globe, represents one of these exceptions.

*

The three reptile species which appear in SCORTECCI's list (1930b: 205 etc.) for localities in the Dahlak Archipelago and which are not represented in our small collection, are listed below for the sake of completeness of the record: —

Acanthodactylus boskianus
Zamenis (=Coluber) rhodorhachis
Dispholidus typus

We are, moreover, strongly tempted to surmise that the snake which allegedly bit and nearly killed the lone police-constable on duty at Nocra village, some time previous to the expedition's visit, may plausibly have been an *Echis carinatus*. We assume that this is also the "asp" referred to by ROGHI AND BASCHIERI (1956: 70).

*

We owe a debt of gratitude to Prof. H. STEINITZ, Jerusalem, for permission to study this small collection, and for advice, to Dr. ROBERT F. INGER, Chicago, for the loan of a specimen, and to Dr. J. EISELT, Vienna, for information furnished to us.

SUMMARY

The reptiles collected by the Israel South Red Sea Expedition (1962) in the Dahlak Archipelago include nine species, seven of which are not included in the check-list published by SCORTECCI (1930b).

Received May 1963.

REFERENCES

- ANDERSON, J. 1898. *Zoology of Egypt*. Vol. 1, Reptilia and Batrachia, Bernard Quaritch, London.
- BOULENGER, G.A. 1896. A List of the Reptiles and Batrachians collected by Dr. Ragazzi in Shoa and Eritrea. *Ann. Mus. Civ. Stor. Nat. Genova*, **16**: 545-554.
- , 1897. Description of a new Lizard from Obok — *Eremias Martini*. *Ann. Mag. nat. Hist.* (6) **19**: 467-468.
- , 1921. *Monograph of the Lacertidae*. Vol. 2. British Museum (Nat. Hist.), London.
- CARR, A. 1952. *Handbook of Turtles*. Comstock and Cornell Univ. Ithaca, N.Y.
- CLARK, E. 1962. Expedition returns from Red Sea. *Copeia*, **1962**(3): 678.
- DERANIYAGALA, P.E.P. 1939. *The Tetrapod Reptiles of Ceylon*, Vol. 1 — Testudines and Crocodylians. Colombo.
- , 1953. *A Colored Atlas of Some Vertebrates from Ceylon*. Vol. 2 — Tetrapod Reptilia, Colombo.
- FLOWER, S.S. 1933. Notes on the recent Reptiles and Amphibians of Egypt etc. *Proc. Zool. Soc. London*, **1933**: 735-851.
- FOX, W. 1948. Effect of Temperature on Development and Scutellation in the Garter Snake etc. *Copeia*, **1948**(4): 252-262.
- HAAS, G. 1943. On a Collection of Reptiles from Palestine, Transjordan and Sinai. *Copeia*, **1943**(1): 10-15.
- , 1951. Remarks on the Status of the Lizard *Eremias olivieri* AUDOUIN. *Copeia*, **1951**(4): 274-276.
- HOOFIEN, J. H. 1960 (1961). A Collection of Gekkonid Lizards from French Somaliland. *Ann. Mag. nat. Hist.* (13)3: 493-495.
- , 1962. An Unusual Congregation of the Gekkonid Lizard *Tarentola annularis* (Geoffroy). *Herpetologica*, **18**(1): 54-56.
- JAN, G. 1876. *Iconographie Générale des Ophidiens*, t.3. Milan et Paris.
- LOVERIDGE, A. 1945. On a Collection of Reptiles from Eritrea. *Notulae Naturae, Philadelphia*, **1945** (151): 1-4.
- , 1947. Revision of the African Lizards of the Family Gekkonidae. *Bull. Mus. Comp. Zool. Harv.*, **98**(1): 1-468.
- OREN, O.H. 1962. The Israel South Red Sea Expedition. *Nature* (London), **194**(4834): 1134-1137.
- PARKER, H. W. 1949. The Snakes of Somaliland and the Sokotra Islands, *Zool. Verh. Leiden*, No. 6: 1-115.
- ROCHON-DUVIGNEAUD, A. 1943. *Les Yeux et la Vision des Vertébrés*. Masson, Paris.
- ROGHI G. and F. BASCHIERI, 1926, *Dahlak* Nicholas Kaye, London.
- SCORTECCI, G. 1928. Rettili dell Eritrea esistenti nelle collezioni del Museo Civico di Milano. *Atti Soc. ital. Milano*, **67**(3/4): 290-339.
- , 1930a. Contributo alla conoscenza dei Rettili e degli Anfibi della Somalia, dell 'Eritrea e dell' Abissinia *Boll. Mus. Zool. Anat. Univ. Torino*, (3)41(10): 1-20.
- , 1930b. Rettili ed anfibi raccolti dal Prof. E. Zavattari in Eritrea. *Atti. Soc. ital. Milano*, **69**: 193-217.
- SMITH, M. A. 1935. *The Fauna of British India*. Vol. 2, Sauria, London.
- STEINDACHNER, F. 1901. Bericht über die herpetologische Aufsammlungen, Expedition S.M. Schiff "Pola" in das Rothe Meer. *Denkschr. Akad. Wiss. Wien*, **69**: 325-335.
- VINCIGUERRA, D. 1931. Spedizione del Barone Raimondo Franchetti in Dancalia. Rettili, Batraci e Pesci. *Ann. Mus. Civ. Stor. Nat. Genova*, **55**: 96-108;
- WERMUTH, H. & R. MERTENS. 1961. *Schildkröten, Krokodile, Brückenechsen.*, Fischer, Jena.
- c.o. B.L.L.B-M., P. O. Box 2, Tel-Aviv, Israel and Department of Zoology, Tel-Aviv University, Tel-Aviv, Israel.

