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## ***Telescopus gezirae* Broadley, 1994: A NEW RECORD LOCALITY FROM ERITREA IN THE HERPETOLOGICAL COLLECTION OF THE TRIESTE NATURAL HISTORY MUSEUM**

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**Riassunto** – *Telescopus gezirae* Broadley, 1994 risulta segnalato ad oggi solamente per due località del Sudan centrale. Nel presente lavoro viene descritto un ulteriore dato relativo a questa specie, proveniente da Tessenei, Eritrea.

**Parole chiave:** *Telescopus gezirae*, Eritrea, nuove località.

**Abstract** – *Telescopus gezirae* Broadley, 1994 is presently known from only two specimens from two localities in central Sudan. In this contribution, a new specimen from a new locality is reported from Tessenei, Eritrea.

**Key words:** *Telescopus gezirae*, Eritrea, new locality.

### **1. – Introduction**

The herpetological collection of the Trieste Natural History Museum (Museo Civico di Storia Naturale di Trieste: hereafter MCSNTS) is constituted by 2998 catalogued samples.

The origin of the collection may correspond to the date of the foundation of the MCNSTS, in 1846. Starting from this date, the collection saw a rapid increase in its content, through donations from private citizens, but above all thanks to various scientific expeditions (cfr: Marchesetti, 1884, 1890; Muller, 1931, Mezzena, 1989). A significant contribution came thanks to the scientific activity of Josef Muller, who held the position of director of the MCSNTS from 1928 to 1945 and who made several research trips, both in Europe and in Africa, where the former Italian colonies were located (Muller, 1937).

The expedition in Eritrea is well documented by Muller himself (1937). Muller states

that during the expedition, which took place thanks to the former Istituto Sieroterapico Milanese (Milanese Serum Therapy Institute), numerous samples were collected and subsequently deposited at the MCSNTS and that Muller himself dealt with the study of the snakes. In the following years, further specimens sent to Muller by various collaborators who worked for the Serum Institute and who were in Eritrea were added to the collection. One of these collaborators was Antonio Remedelli, who collected the snake reported in this note in 1935. For some reasons these specimens, despite Muller's willingness to study snakes from Eritrea (Muller, 1937), remained undetermined to these days.

## 2. – Material examined

Specimen n. inv. 185: 1 ex, Tessenei (Eritrea). Remedelli leg. 1935

The specimen is preserved in alcohol and there is no indication about sex and determination (Fig. 1).

To correctly determine the snake the following characters were selected: number of supralabials (SL), number of infralabials (IL), mid-body scales (MBS), number of ventral scales (V), number of subcaudal (SC) scales, number of dorsal spots, anal scale, pupil shape, frontal shape, total length (TotL), Snout vent length (SVL), tail length (TL) and sex.

In the following table, we list the main characters of pholidosis and ornamentation. The color is probably partially altered due to prolonged storage (almost 90 years). For comparison we report also the same characters of the only two known specimens of *Telescopus gezirae* (holotype: Natural History Museum of Zimbabwe=NMZB 11807 from Blue Nile 30 Km of Sennar, Sudan; and Natural History Museum London=NHMUK 1927.8.18.2 from Wad Medani (=Wad Madani) Sudan: cfr. Crochet P.A. *et al.*, 2008).

Based on Broadley's description of *Telescopus gezirae*, the only other species of *Telescopus* present in Eritrea, *Telescopus obtusus* (Reuss, 1834), does not exhibit the characters detected in the MCSNTS specimen.

Characters	MCSNTS inv. 185	NMZB 11807	NHMUK 1927.8.18.2
SL right	10 (4/5 touch the eye)	9 (4/5 touch the eye)	9 (4/5 touch the eye)
SL left	9 (4/5 touch the eye)	9 (4/5 touch the eye)	9 (4/5 touch the eye)
IL right	12	11	
IL left	11	11	
V	208	195	207
SC	49 + 1 apical	52	49
MBS	21	21	21
Anal sc.	divided	divided	
Dorsal spot	35	34 (36: tail tip bleached)	37 + 11
Tot L	445 mm	500 mm	
SVL	390 mm	420 mm	
TL	55 mm	80 mm	
Pupil shape	vertical	vertical	
Frontal shape	subtriangular	subtriangular	
sex	Young male	male	

**Tab 1:** Comparison of the main characters between the MCSNTS specimen and the other two known *Telescopus gezirae* specimens (for abbreviations see text).

**Tab 1:** Comparazione dei principali caratteri rilevati sull'esemplare del MCSNTS e gli altri due esemplari noti (per le abbreviazioni vedi il testo).

## 3. – The locality of capture

At the time of the expedition made by Muller in Eritrea, from December 1934 to January 1935, Tessenei was an Italian colony and was affected by a vast process of agricultural transformation and development. During the Fascist period, in fact, the whole area around Tessenei (called also Villaggio Gasperini from the name of the former governor of Eritrea) was extensively remodelled, carrying out extensive deforestation of the existing vegetation to make room for endless cotton fields. A dam was also built to collect the water of the river Gash to allow irrigation of the cultivated fields (Cattaneo, 2019).

Muller himself in the fifteenth volume of the proceedings of the Trieste Museum gives a brief description of the environment encountered during his trip to Eritrea: "...border station leading to Cassala ... the long stretch of road crosses the west-

ern lowlands of Eritrea, an immense plateau with steppe vegetation; here and there some huge Baobabs. In the surroundings of Tessenei you arrive at the dry bed of the Gash river; whose large barrage dams ensure water for the irrigation of cotton crops” (translated from Italian).

No other information is available about the exact environment of the capture locality.

#### 4. – Discussion

While the nomenclature, systematics and phylogenetics of the snakes of the genus *Telescopus* inhabiting Africa and the Arabian Peninsula were recently reviewed and investigated (Crochet *et al.* 2008, Smid *et al.*, 2019) their biology and their distribution are still poorly known. This is certainly linked to a lack of research, partly due to the difficult geopolitical conditions of some territories, but also to the elusive and nocturnal habits of the various *Telescopus* species. Two of these seem to be however very rare or at least very rarely found: *Telescopus gezirae* Broadley, 1994 and *Telescopus pulcher* (Scortecci, 1935). But while for the latter one there are two recent observations of animals that were photographed and observed alive in the wild (Mazuch *et al.*, 2018), for *Telescopus gezirae* there are only 3 finds, two of which are rather old, and no live specimens have been observed or photographed.

*Telescopus gezirae* of MCSNTS (inv. 185) was the second of the known specimens to be caught (1935), but unfortunately it was not studied and remained undetermined till now. The last one to have been captured was the one described by Broadley (NMZB 11807: Blue Nile, 30 km of Sennar, Sudan, late 1966, G.R.C. Van Someren leg.), which represents the holotype of *gezirae*, while the first one comes from Wad Medani (=Wad Madani) (NHMUK 1927.8.18.2), a place quite close to Broadley’s one (about 100 km) and positioned in the same valley (Blue Nile).

From this point of view, Tessenei’s data appears rather surprising. In fact, as the crow flies, the distance between Tessenei and the two already known locality previously exceeds 500 km. Because of the great distances reported above, it is probable that the distribution of *T. gezirae* is widely underestimated.

This brief note, in addition to highlighting an important distributive data, once again underlines the importance of having preserved materials for comparisons and reviews in collections.

The specimen preserved in the Trieste Natural History Museum is now labelled as:

*Telescopus gezirae* (Broadley, 1994) – 1 young male Tessenei dint (Eritrea) 1935. A. Remedelli leg. A. Dall’Asta det. 2021.

Lavoro consegnato il 04/05/2021

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A



B



C

**Fig. 1** – MCNSTS n. 185: *Telescopus gezirae* (Broadley, 1994) – 1 young male, Tessenei dint. (Eritrea) 1935. A. Remedelli leg. A. Dall'Asta det. 2021. View of the studied specimen (A); detail of the head from the right side (B) and from above (C) (photo: A. Dall'Asta).

**Fig. 1** – MCNSTS n. 185: *Telescopus gezirae* (Broadley, 1994) – 1 maschio giovane: Tessenei dint. (Eritrea) 1935. A. Remedelli leg. A. Dall'Asta det. 2021. Visuale dell'esemplare esaminato (A); particolare della testa dal lato destro (B) e dall'alto (C) (foto A. dall'Asta).