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Additional information on Misonne's swollen-nose gecko, *Rhinogecko misonnei* de Witte, 1973 (Squamata, Geckonidae) in Iran

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***Abstract.*—Three adult specimens of Misonne's swollen-nose gecko (*Rhinogecko misonnei*) were collected in the west of Dasht-e-Lut desert in eastern Iran during fieldwork conducted April to August 2009. The new locality of the species is situated about 100 km west of the type locality. Information on habitat, pholidosis, and coloration is given. This record indicates a wider distribution of *Rhinogecko misonnei* in southeastern Iran.**

Key words. Misonne's swollen-nose gecko, *Rhinogecko misonnei*, Iran, distribution, new locality

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Introduction

Misonne's swollen-nose gecko (*Rhinogecko misonnei*) was first described from "Dasht-e-Lut" (30°13′N, 58°47′E) by de Witte (1973). The holotype (IRSNB 2514) is kept in the L 'Institute Royal des Sciences Nnaturelles de Belgiques (Brussels). Szczerbak and Golubev (1996) placed this species in the genus *Agamura*, whereas, according to Anderson (1999), *Rhinogecko* is a distinct genus. No other specimens have been available until during fieldwork in Kerman Province from 30 April to 13 August 2009, three specimens of *Rhinogecko misonnei* were collected. As there are no data on the distribution and description of this species beyond that of the type description, this information and some ecological data are presented here.

Methods and materials

Three specimens were collected from three localities as follows: ZMSBUK 700 (♂): 30º34'40.18"N, 57º51'9.03"E, 306 m elevation. ZMSBUK 701 (♀): 30º33'5.30"N, 57º51'50.24"E, 300 m elevation. ZMSBUK 702 (♀): 30º29'42.03"N, 57º44'12.01"E, 368 m elevation. This area is situated in the west of Lut block (National Geosciences Database of Iran 2010) in southeastern Iran. Specimens were deposited in the Zoological Museum Shahid Bahonar University of Kerman (ZMSBUK).

We examined a set of six morphometric, and eight meristic characters and compared these characters with the holotype. The following characters were used for morphological analysis, (abbreviations and measurement details are given in parentheses): snout-vent length (SVL; from tip of the snout to cloaca), tail length (TaL; from cloaca to tip of the tail), head height (HH; behind eyes), head width (HW; behind eyes), orbit diameter (OrD; from anterior to posterior margin of orbit), ear length (EaL; at widest point of the ear opening). All measurements were taken with calipers to the nearest 0.1 mm.

For better comparison of the specimens, several ratios were calculated. These are head ratio (HHW; head height to width ratio × 100), ear ratio (EED; ear opening to eye diameter ratio ×100), and body length ratio (SVL/TL).

Meristic characters: number of transverse ventral scales (TVe; across midbody), number of longitudinal ventral scales (LVe; between mental and cloaca), number of active precloacal pores (PPo; in male only), number of supralabials (SLa), number of infralabials (ILa), number of enlarged scales on lower surface of thigh (LsT), number of scales across the head (SaH; interorbital, the scales on the ridge above the eyes were not counted), and number of scales around dorsal tubercles (SdT).

Results

Nasal shields of these specimens distinctly swollen and erect, forming a short tube-like structure (Fig. 4, A); the nasal caruncle formed by three nasal scales (Fig. 4, D);

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Table 1. Measurements for *Rhinogecko misonnei*. Character abbreviations as explained in the text. Asterisk indicates holotype and paratype (Szczerbak and Golubev 1996).

	IRSNB 2514, BZ 24.703 Reg. 25/6*	ZMSBUK 700	ZMSBUK 701	ZMSBUK 702
Sex		**male**	**female**	**female**
SLa	9-12	12-13	12-12	9-10
ILa	8-11	9-10	9-9	9-10
TVe	26-28	22	22	26
LVe	120	123	120	127
SdT	8-9	9-10	9-10	9-10
SaH	16	17	15	19
LsT	9-12	12	12	11
PPo	4-8	6	-	-
SVL	56.9-61.0mm	56 mm	60 mm	56 mm
TaL	58.0-73.0mm	-	75 mm	-
HH	-	6.6 mm	7.7 mm	5.5 mm
HW	-	9.7 mm	11 mm	9.2 mm
OrD	-	4.6mm	4.1mm	4.0mm
EaL	-	2.0mm	2.0mm	2.0mm
SVL/TL	0.84-0.96	-	0.80	-
HHW	56	68	71	60
EED	53	43	48	50

22-26 scales across abdomen; a row of 11-12 enlarged scales on lower surface of thigh (Fig. 4, G); Tail slightly longer than body. Complete measurements of all specimens are presented in Table 1.

Color pattern

Dorsum gray, light brown to gray-brown, with five broad dark brown crossbars, seven on tail, limbs with broad brown bars less dark than those of body and tail, anterior labial scales with dark brown spots, venter whitish (Fig. 3).

Distribution and habitat

This species is known from the remote Dasht-e Lut desert in southeastern Iran (Fig. 2) and reported from Pakistan (Balochistan) (Anderson 1999; Khan 2004; Sindaco and Jeremcenko 2008). Lut block is an elongated territory with general NS trend extending from Jazmurian in the south to Gonabad in the north. This zone has a length of 800 km and 200-250 km width. In the main Lut block, only Permian limestone of the whole Paleozoic era is exposed. Shallow marine Mesozoic sedimentary rocks, as well as sporadic outcrops belonging to Shirgesht, Padeha, Sardar, and Jamal formations are exposed. Continental Neogene-Quaternary deposits cover the surface of Lut block (http://ngdir.ir; National Geosciences Database of Iran 2010). These specimens were collected at midnight when air temperature was between 25ºC to 41ºC. The vegetation is dominated by *Seidlitzia rosmarinus* and *Tamarix* sp. (Fig. 1.). Syntopic lizard species are *Bunopus tuberculatus*, *Teratoscincus keyserlingii*, and *Phrynocephalus maculatus maculatus*.

Discussion

Except for the description of this species from the east of Dasht-e-Lut by de Witte (1973) and reinvestigations by Szczerbak and Golubev (1996) and Anderson (1974, 1999), no additional information has been available until during fieldwork in the western area of Dasht-e-Lut, three specimens of *Rhinogecko misonnei* were collected. In pholidosis and coloration, specimens almost agree with the descriptions of *R. misonnei* given by Anderson (1999), Szczerbak and Golubev (1996), and Rastegar-Pouyani et al. (2006), except for the number of scales across abdomen (22-26 instead of 26-28), wider range of LVe; (120-127 instead of 120), and number of scales around dorsal tubercles (9-10 instead of 8-9).

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Figure 2. The habitat of *Rhinogecko misonnei*: (A) ZMSBUK 700 and 701; (B) ZMSBUK 702.

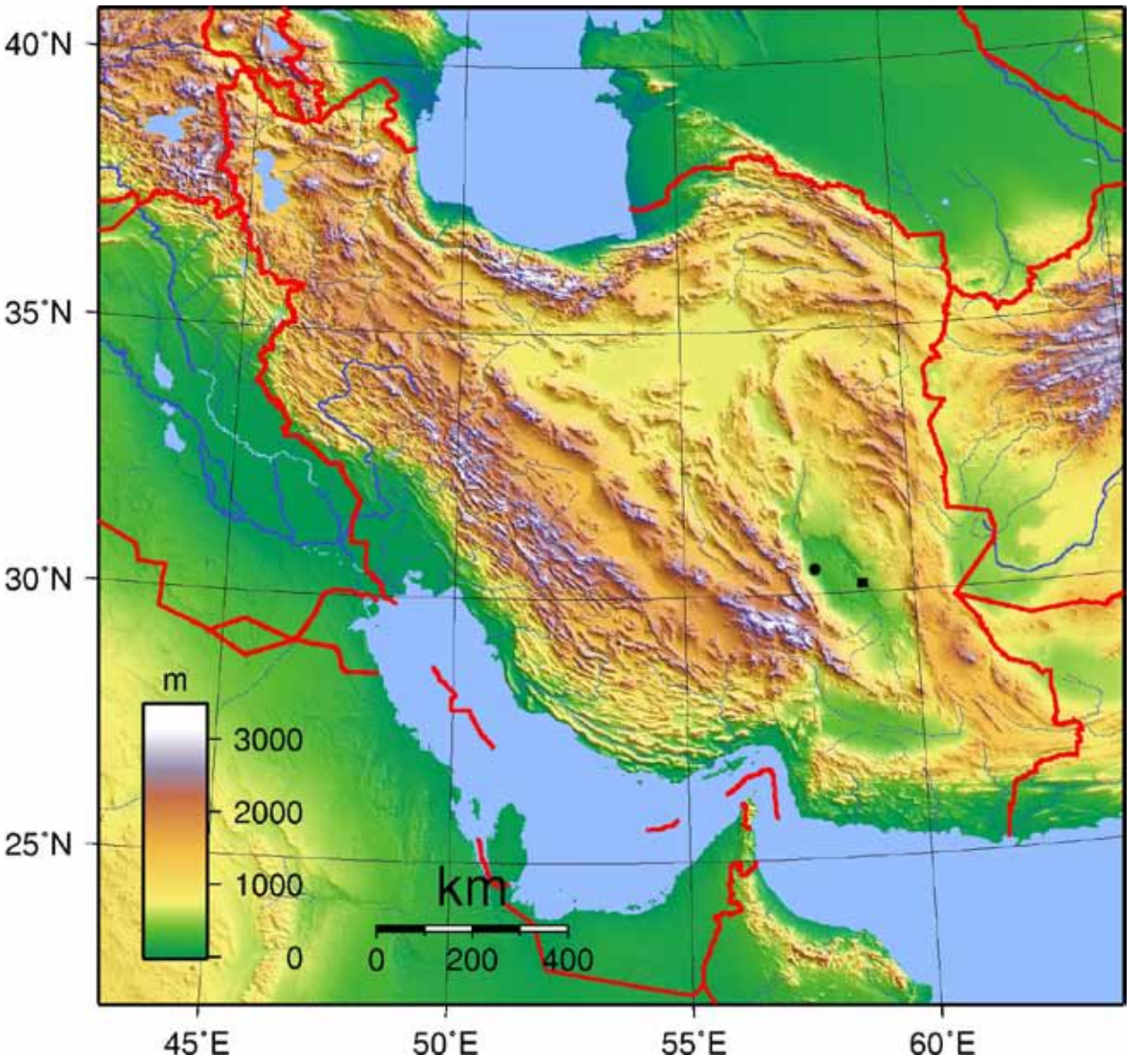

Figure 2. Distribution of *Rhinogecko misonnei* in Iran. Filled square: type locality (de Witte 1973). Filled circle: new locality.

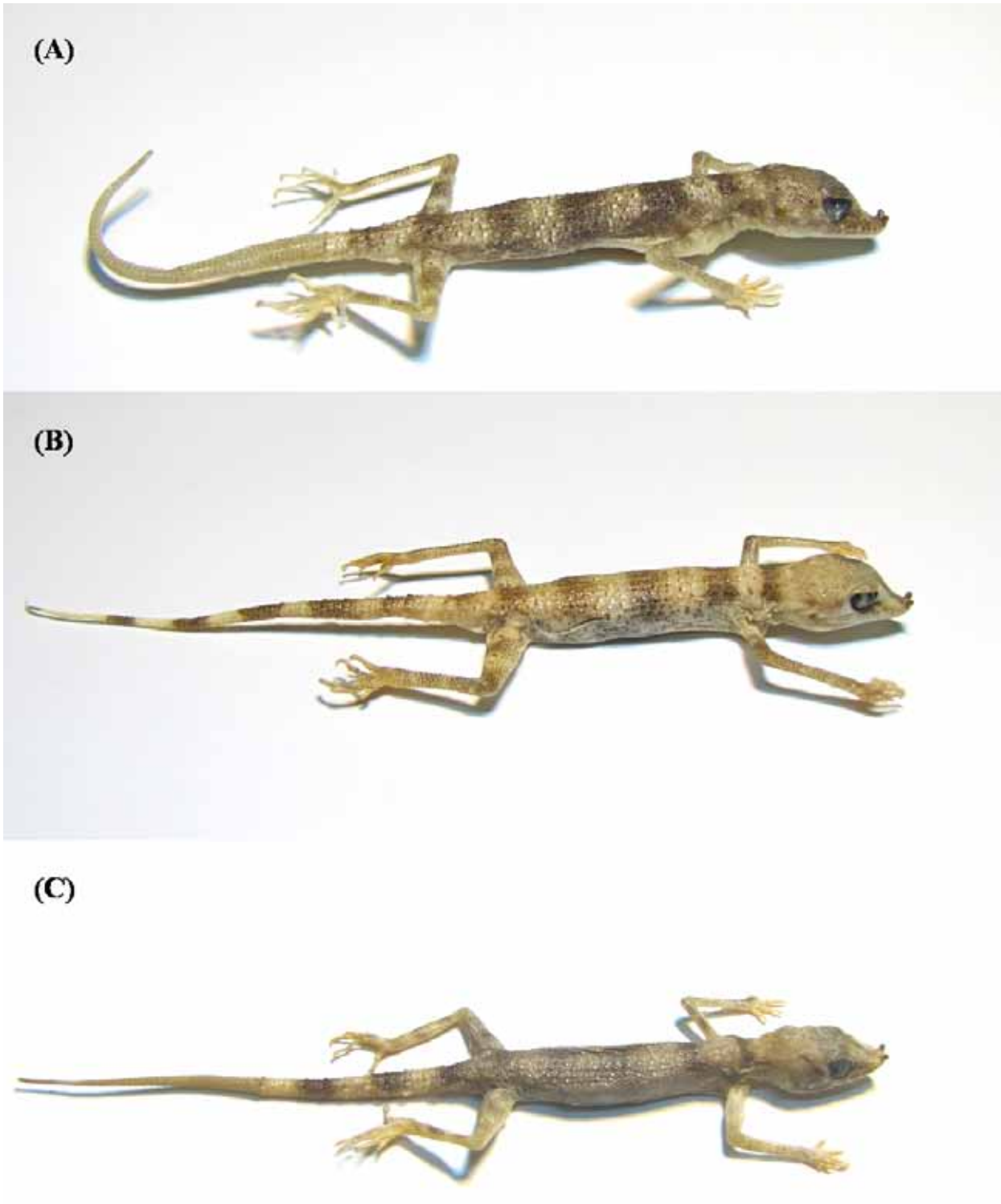

Figure 3. *Rhinogecko misonnei*. (A) ZMSBUK 700; (B) ZMSBUK 701; (C) ZMSBUK 702.

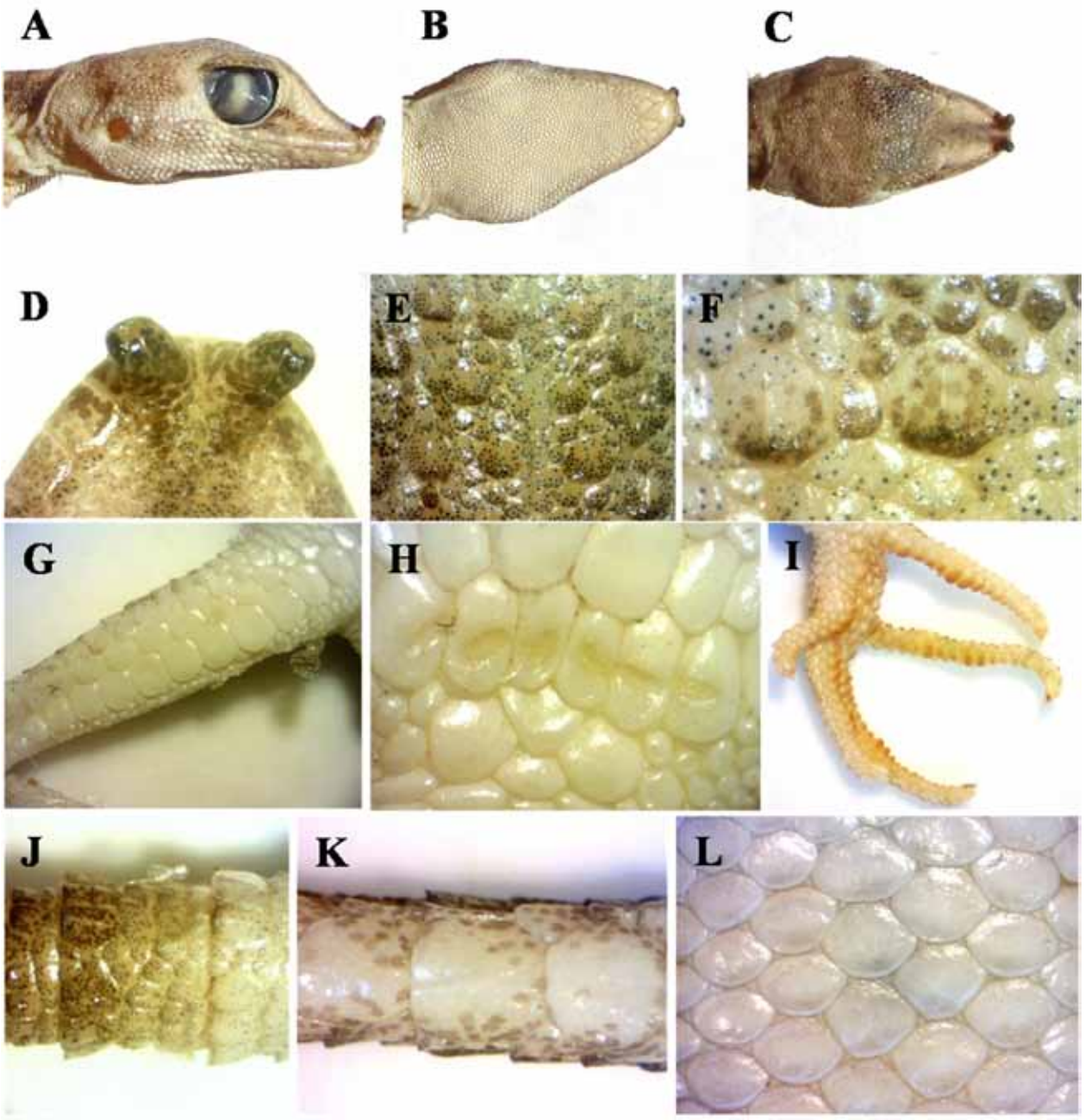

Figure 4. *Rhinogecko misonnei*: (A) head from side; (B) head from below; (C) head from above; (D) snout from above; (E,F) dorsum; (G) femoral scale; (H) preanal pores; (I) ventral surface of digit; (J) tail from above; (K) tail from below; (L) belly.

Literature cited

Anderson SC. 1974. Preliminary key to the turtles, lizards and amphisbians of Iran. *Fieldiana: zoology* 65(4):27-44.

Anderson SC. 1999. *The Lizards of Iran*. Society for the Study of Amphibians and Reptiles. Vii + 442 p.

de Witte GF. 1973. Description d'un Gekkonidae nouveau de l'Iran (Reptilia, Sauria). *Bulitin d' Institut. Royal des. Sciences Naturelles de. Belgique* 49(1):1-6.

Khan MS. 2004. Annotated checklist of amphibians and reptiles of Pakistan. *Asiatic Herpetological Research* 10:191-201.

National Geosciences Database of Iran. 2010. Lut Block. [Online]. Available: http://www.ngdir.com/GeoportalInfo/SubjectInfoDetail.asp?PID=18&index=7 [Accessed: 24 August 2010].

Papenfuss T, Shafiei Bafti S, Sharifi M. 2008. *Agamura misonnei*. In IUCN 2010. *IUCN Red List of Threatened Species*. Version 2010.4. [Online]. Available: http://www.iucnredlist.org [Accessed: 10 May 2011].

Rastegar-Pouyani N, Johari SM, Parsa H. 2006. *Field Guide to the Reptiles of Iran. Volume 1: Lizards*. Razi University, Iran. 119 pls., 139 p. [In Persian].

Sindaco R, Jeremcenko V. 2008. *The Reptiles of the Western Palearctic*. Societas Herpetologica Italica. 579 p.

Szczerbak NN, Golubev LM.1996. *The Gecko Fauna of the USSR and Adjacent Regions* [English edition; translated from the Russian by Michael L. Golubev and Sasha A. Malinsky; Alan E. Leviton and George R. Zug (editors)]. Society for the Study of Amphibians and Reptiles, Ithaca, New York. 232 p.

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