

A new locality of the Starred Agama  
*Laudakia stellio* (LINNAEUS, 1758),  
from Sinop, north Anatolia

Previous studies presented records of *Laudakia stellio* (LINNAEUS, 1758) from western, southern, central, and southeastern Anatolia (BAŞOĞLU & BARAN 1977; BARAN & ÖZ 1985; BARAN et al. 1989). Evidence

from the northern limits of distribution of *L. stellio* in central Turkey refer to Amasya and Tokat only (BARAN et al. 1989); to date there are no records from north of the Black Sea Mountains. BARAN et al. (1989) still thought that the absence of *L. stellio* from the coasts of the Black Sea is natural, and if there were specimens they should be rare and refer to introduced individuals (Fig. 2).

Two males, three females, and one juvenile *L. stellio* were collected on June 18, 2009, at Sinop castle and Sarıkum (Fig. 1), North Anatolia, Black Sea Region of Turkey (42°01'N, 34°55'E, 10 m a.s.l.), collectors M. TOSUNOĞLU, Y. E. DİNÇASLAN and ÇİĞ, DEM GÜL; collection kept at ÇOMU (Çanak-kale Onsekiz Mart University, museum number: 110/2009), the collection being connected to ZDEU (Zoology Department Ege University) (LEVITON et al. 1985).

In all specimens under examination, the ground coloration of the dorsum varied from greenish to blackish tones, with various more or less distinct blue scales present. The venter was cream, with some black maculation. Coloration of the upper head

Table 1: Pholidosis counts, morphological measurements (mm) and indexes of five specimens of *Laudakia stellio* from Sinop, Black Sea coast, Turkey. SE – standard error of the mean, SD – standard deviation.

Parameter	n	Minimum	Maximum	Mean/Mittel	SE	SD
Snout-vent length - Kopf-Rumpf-Länge	5	91.09	106.80	98.50	3.18	7.11
Tail length - Schwanzlänge	3	120.00	143.00	129.67	6.89	11.93
Head length - Kopfänge	5	23.32	32.24	27.41	1.51	3.38
Head width - Kopfbreite	5	19.24	25.00	21.72	1.11	2.47
Forelimb length - Vorderbeinlänge	5	45.21	55.08	49.48	1.78	3.98
Hindlimb length - Hinterbeinlänge	5	61.62	77.43	68.89	2.99	6.69
Tail length / Snout-vent length						
Schwanzlänge / Kopf-Rumpf-Länge	3	1.31	1.43	1.37	0.04	0.06
(Head length / Head width) x 100	5	121.21	130.78	126.17	2.06	4.60
(Kopfänge / Kopfbreite) x 100						
(Head length / Snout-vent length) x 100	5	25.55	30.19	27.71	0.74	1.66
(Kopfänge / Kopf-Rumpf-Länge) x 100						
Snout-vent length / Head length						
Kopf-Rumpf-Länge / Kopfänge	5	3.31	3.91	3.62	0.10	0.21
Head length / Head width						
Kopfänge / Kopfbreite	5	1.21	1.31	1.26	0.02	0.05
Hindlimb length / Forelimb length						
Hinterbeinlänge / Vorderbeinlänge	5	1.33	1.42	1.39	0.02	0.04
Sublabialia	5	10	12	11.20	0.37	0.84
Supralabialia	5	10	13	11.60	0.51	1.14
Ventralia	5	40	49	43.80	1.96	4.38
Subdigitalia of hindlimb fourth toe						
Subdigitalia der vierten Zehe	5	21	26	23.20	1.02	2.28
Subdigitalia of forelimb third finger						
Subdigitalia des vierten Fingers	5	18	20	19.00	0.45	1.00
Scale number of 5th tail segment						
Schuppen im 5. Schwanzwirtel	5	16	18	16.80	0.37	0.84



Fig. 1: Habitat of *Laudakia stellio daani* (BEUTLER & FRÖR, 1980) at Sinop Castle, Black Sea coast of Turkey.

scales was greenish blue, the ground coloration of the gular region was cream with dark longitudinal stripes. Vertebral spots were ill defined, scattered and had no transversal branches.

Morphological measurements, ratios, index values and pholidosis counts of the specimens are presented in Table 1. Morphometric data, pholidosis, color and pattern characteristics of the specimens were in agreement with the description of *Laudakia*

*stellio daani* (BEUTLER & FRÖR, 1980) and other data about Turkish Starred Agamas published by BARAN et al. (1989), et al. (2003) and ALMOG et al. (2005).

The habitat characteristics of *L. stellio* as described in BAŞOĞLU & BARAN (1977), BARAN (1980), BARAN & ATATÜR (1998) and GÖÇMEN et al. (2003) from other regions in Turkey were similar to the habitat characteristics observed at the sites where the specimens from Sinop and its surroundings were



Fig. 2: Distribution of *Laudakia stellio daani* (BEUTLER & FRÖR, 1980) in Turkey, showing the main range areas according to the literature. The new record from Sinop, is marked by a star.  
 1 - West Anatolia (BAŞOĞLU & BARAN 1977; BARAN & ÖZ 1985; BARAN et al. 1989; BARAN & ATATÜR 1998; TOK 1999), 2 - South Anatolia (BAŞOĞLU & BARAN 1977; BARAN & ÖZ 1985; BARAN et al. 1989; BARAN & ATATÜR 1998; BUDAK et al. 1998; KUMLUTAŞ et al. 2004), 3 - Hatay Region (BARAN & ÖZ 1985; BARAN et al. 1989; BARAN & ATATÜR 1998; UĞURTAŞ et al. 2000; GÖÇMEN et al. 2003), 4 - Southeastern Anatolia (BARAN & ÖZ 1985; BARAN & ATATÜR 1998; BARAN et al. 1989; BARAN 1980), 5 - North Anatolia (BARAN et al. 1989).

collected. The authors are positive that field-work along the Turkish coast of the Black Sea, will reveal the presence of the species *L. stellio* at various additional localities.

**ACKNOWLEDGEMENTS:** The project acknowledged was generously funded by the Çanakkale Onsekiz Mart University BAP (Scientific research projects) under the Project number 2009/37.

**REFERENCES:** BARAN, İ. (1980): Doğu ve güneydoğu Anadolu'nun kaplumbağa ve kertenkele faunası [Turtle and lizard fauna of East and Southeast Anatolia].- Ege Üniversitesi Fen Fakültesi Dergisi, İzmir; (Ser. B) 4: 203-219. BARAN, İ. & ÖZ, M. (1985): Anadolu *Agama stellio* (Agamidae, Reptilia) Populasyonlarının Taksonomik Araştırılması.- Doğa Bilim Dergisi, Ankara: (A2) 9 (2): 161-169. BARAN, İ. & KASPAK, M. & ÖZ, M. (1989): On the distribution of four species of *Agama* (Agamidae) in Turkey.- Zoology in the Middle East, Heidelberg; 3: 37-48. BARAN, İ. & ATATÜR, M. K. (1998): Türkiye Herpetofaunası (Kurbaba ve Sürüngenler) [Herpetofauna of Turkey (Amphibia and Reptilia)], Ankara (Çevre Bakanlığı), 214 pp. BAŞOĞLU, M. & BARAN, İ. (1977): Türkiye Sürüngenleri. Kısım 1. Kaplumbağa ve Kertenkeleler [The Reptiles of Turkey, Part 1. Turtles and Lizards].-Ege Üniversitesi Fen Fakültesi Kitaplar Serisi, İzmir; 76: 1-272. BUDAK, A. & TOK, C. V. & MERMER, A. (1998): A report on reptiles collected from Kumluca-Kalkan (Antalya), Turkey.- Turkish Journal of Zoology, Ankara; 22 (3): 185-189. GÖÇMEN, B. & TOSONOĞLU, M. & TAŞKAVAK, E. (2003): A taxonomic comparison of the Hardun, *Laudakia stellio* (Reptilia: Agamidae), populations of southern Turkey (Hatay) and Cyprus.- Zoology in the Middle East, Heidelberg; 28: 25-32. KUMLUTAŞ, Y. & ÖZDEMYR, A. & ILGAZ, Ç. & TOSONOĞLU, M. (2004): The amphibian and reptile species of Bozdağ (Ödemiş).- Turkish Journal of Zoology, Ankara; 28 (4): 317-319. LEVITON, A. E. & GIBBS, R. H. Jr. & HEAL, E. & DAWSON, C. E. (1985): Standards in herpetology and ichthyology: Part I. Standard symbolic codes for institutional resource collections in herpetology and ichthyology, Copeia, Washington; 1985 (3): 802-832. TOK, C. V. (1999): Reşadiye (Datça) Yarımadası Kertenkeleleri Hakkında (Gekkonidae, Agamidae, Chamaelonidae, Lacertidae, Scincidae, Amphisbaenidae).- Turkish Journal of Zoology, Ankara; 23 (1): 157-175. UĞURTAŞ, İ. & YILDIRIMHAN, H. S. & ÖZ, M. (2000): Herpetofauna of the eastern region of the Amanos Mountains (Nur).- Turkish Journal of Zoology, Ankara; 24 (3): 257-261.

**KEYWORDS:** Reptilia: Squamata: Sauria: Agamidae: *Laudakia stellio*, distribution, new record, Sinop, Black Sea coast, Turkey

**AUTHORS:** Çiğdem GÜL (corresponding author), Çanakkale Onsekiz Mart University, Faculty of Arts and Sciences, Department of Biology, Terzioğlu Campus, 17100, Çanakkale, Turkey < gulcigdem@comu.edu.tr > < gulcigdem17@hotmail.com >; Yunus Emre DİNÇASLAN, Sinop University, Faculty of Arts and Sciences, Department of Biology, 57000, Sinop-Turkey; Murat TOSONOĞLU, Çanakkale Onsekiz Mart University, Faculty of Arts and Sciences, Department of Biology, Terzioğlu Campus, 17100, Çanakkale, Turkey