

Helminth Fauna of the Anatolian Worm Lizard, *Blanus Strauchi* (Bedriaga, 1884) From Hatay

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SUMMARY: 15 Anatolian worm lizards, *Blanus strauschi*, (1 juvenile, 9 adult males, 5 adult females) which were collected in the Hatay province of Turkey were investigated for the presence of helminth fauna. At the end of the study, 2 species of helminth were found. These are *Parapharyngodon micipsae* and *Thelastomatoid* nematoda (Nemathelminthes). This is the first study that has been carried out on *Blanus strauschi* both in Turkey and the world. The parasites found make a new record for Turkey.

Key Words: *Blanus strauschi*, Nemathelminthes, Hatay.

Hatay'da Yayılış Gösteren Kör Kertenkele (*Blanus strauschi* (Bedriaga, 1884))'nın Helmint Faunası

ÖZET: Hatay'dan toplanmış olan 15 Kör Kertenkele (*Blanus strauschi*) (1 juvenil, 9 Erkek, 5 Dişi) helmint faunasını belirlemek üzere incelenmiştir. Çalışma sonucunda 2 helmint türüne rastlanmıştır. Bunlar Nemathelminthes'e ait *Parapharyngodon micipsae* ve *Thelastomatoid* nematod'dur. Bu çalışma Dünya'da ve Türkiye'de Kör Kertenkele üzerinde yapılan ilk çalışmadır. Bulunan parazit türleri ülkemiz için yeni kayıttır.

Anahtar Sözcükler: Kör kertenkele, Nematod, Hatay.

INTRODUCTION

The Anatolian worm lizards, *Blanus strauschi*, (Bedriaga, 1884) a limbless lizard externally resembling an earthworm, with a total length up to 19-20 cm. Inhabits some Aegean islands, Turkey, Syria and N Iraq; with a vertical distribution to 1400 m. In Turkey known from the southern parts of W Anatolia, S and SE Anatolia. Lives under stones or in soil within sparsely vegetated bushy areas. Sometimes seen within or at the edges of woods. Feeds on insects (1). To our knowledge, there are no published reports of helminthes in *B. strauschi*. The purpose of this paper is to present the initial formal list of helminth species harbored by *B. strauschi*.

MATERIALS AND METHODS

Fifteen Anatolian lizards, *Blanus strauschi*, (1 juvenile, 5 female, 9 male) were collected by hand between 2000-2008 from Hatay province, Samandag (36°07'N, 35°56'E; elevation 20 m; N = 15).

Lizards were humanely dissection with sodium pentobarbital. The body cavity was opened and digestive tract was removed. The esophagus, stomach, small and large intestines, and lungs were opened and seperately examined for helminths under a dissecting microscope. Helminths were killed in hot saline solution; nematodes were fixed in 70% ethanol and mounted in glycerol. Identifications are based upon the reference keys of Baker (2), Jex et al. (3), Maplestone (4), Masova et al. (5), Sharpilo et al. (6) and Yamaguti (7). Helminth voucher specimens were deposited in the helminth collection of Uludag University Museum of Zoology, Bursa, Turkey; worm lizard specimens were deposited in the Department of Biology, Uludag University, Bursa, Turkey.

RESULTS

Fifteen Anatolian worm lizards were examined for helminths between 2000-2008. 9 of them male, 5 of them female and 1 of them juvenil lizard.

14 lizards were parasitized by nematodes. These are *Parapharyngodon micipsae* (Seurat, 1917) Freitas, 1957 (Figure 1, 2, 3, 4) (11 specimens) and *Thelastomatoid* nematodes (Figure 5, 6, 7, 8) (232 specimens) which are parasites of invertebrates (Table 1).

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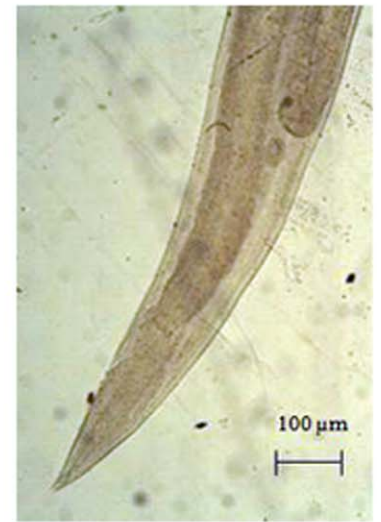
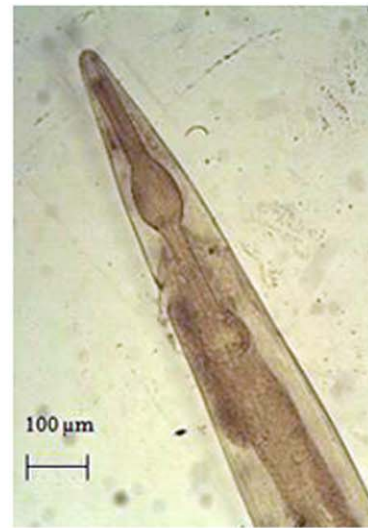
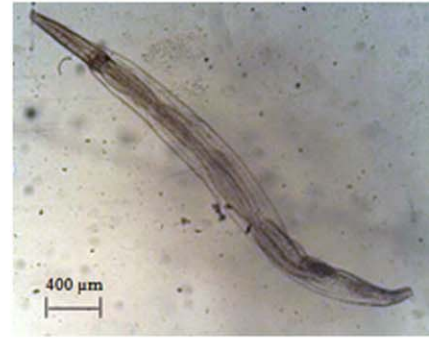
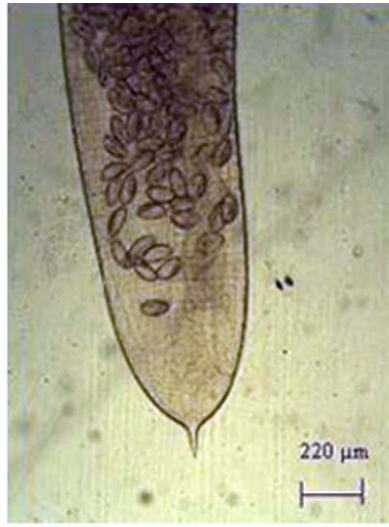
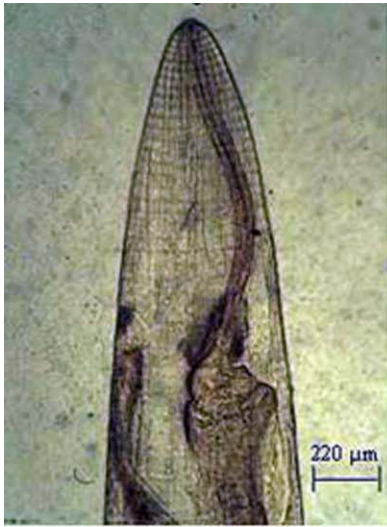
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Figures :
1 and 2. *Parapharyngodon micipsae* female,
3 and 4. *Parapharyngodon micipsae* male,
5. *Thelastomatoid* nematoda female anterior part,
6. *Thelastomatoid* nematoda female posterior part,
7. *Thelastomatoid* nematoda male general view,
8. *Thelastomatoid* nematoda male posterior part

Table 1. Prevalence, mean intensity, abundance, position in lizard infected lizards and total parasite in *Blanus strauschi*

	Parasite	
	<i>Thelastomatoid nematoda</i>	<i>P. micipsae</i>
Position in Lizard	Intestine	Intestine
Prevalence (%)	93.33	33.3
Mean Intensity	16.57	2.2
Abundance	15.46	0.73
Infected Lizard	14	5
Total Parasite	232	11
Min-Max number of the parasite	1-62	1-4

DISCUSSION

Fourteen (93%) of 15 *Blanus strauschi* harbored 243 helminths representing 2 species: 8 lizards harbored 1 species; 5 lizards harbored 2 species, and 1 harbored 4 species.

There are 53 species of lizards known from Turkey: 4 species Agamidae, 1 Species Amphisbaenidae, 2 species of Anguidae, 1 species of Chamaeleonidae, 6 species of Gekkonidae, 30 species of Lacertidae, 8 species of Scincidae and 1 species of Varanidae (1). To our knowledge, helminth lists are available for 6 species of Turkish lizards, *Anguis fragilis*, *Lacerta viridis*, *Laudakia caucasica*, *Laudakia stellio* *Podarcis taurica* and *Hemidactylus turcicus* (8, 9, 10). This report presents an initial helminth for a seventh species. Schad et al. (8) reported *Anguis fragilis*, *L. viridis*, and *Podarcis taurica* to harbor *Oswaldocruzia filiformis* (Goeze, 1782) and *Oxysomatium brevicaudatum* (Zeder, 1800); *L. viridis* and *P. taurica* also harbored *Skrjabinelazia taurica* Sypliaxov, 1930. Yıldırımhan et al. (9) reported *L. caucasica* and *L. stellio* to harbor *Foleyella candezei* (Fraipoint, 1882) Seurat, 1917 and *Parapharyngodon tyche* Sulahian and Schacher, 1968; *L. caucasica* also harbored *Oochoristica tuberculata* (Rudolphi, 1819) Lühe, 1898 and *Thelandros baylisi* (Chatterji, 1935) Petter, 1966; *L. stellio* also harbored *Parapharyngodon kasauli* (Chatterji, 1933) Markov and Bognadov, 1965, *Strongyluris calotis* Baylis and Daubney, 1923, *Thelandros taylori* (Chatterji, 1935) Petter, 1966 and *Ascaridoidea* gen. sp. .

Additional studies will be required before the component community of helminths infecting Turkish lizards can be determined. Currently, we can say that Turkish lizards are infected by generalist nematodes.

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