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

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**SUMMARY**: 15 Anatolian worm lizards, *Blanus strauchi*, (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 strauchi* both in Turkey and the world. The parasites found make a new record for Turkey.

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

**INTRODUCTION**

The Anatolian worm lizards, *Blanus strauchi*, (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. strauchi*. The purpose of this paper is to present the initial formal list of helminth species harbored by *B. strauchi*.

**MATERIALS AND METHODS**

Fifteen Anatolian lizards, *Blanus strauchi*, (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), Mapleston (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 juvenile 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).
Figures:
1 and 2. Parapharyngodon micropsae female,
3 and 4. Parapharyngodon micropsae 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
Helmint fauna of B. strachi

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

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

DISCUSSION

Fourteen (93%) of 15 Blanus strauchi 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 Amphibiaenidae, 2 species of Anguidae, 1 species of Chamaeleonidae, 6 species of Gekkonidae, 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 Hemidacylus 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 Oswaldocria filiformis (Goeze, 1782) and Oxysomatium brevicaudatum (Zeder, 1800); L. viridis and P. taurica also harbored Skrjabinenlazia taurica Sypliaxov, 1930. Yıldırımhan et al. (9) reported L. caucasica and L. stellio to harbor Foleyella candezi (Fraipont, 1882) Seurat, 1917 and Parapharyngodon tyche Sulahian and Schacher, 1968; L. caucasica also harbored Oochoristica tuberculata (Rudolph, 1819) Lühe, 1898 and Thelandros baylisi (Chatterji, 1935) Petter, 1966; L. stellio also harbored Parapharyngodon kasaũli (Chatterji, 1933) Markov and Bognadov, 1965, Strongylurus 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.

KAYNAKLAR