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Short Communication / *Kısa Bilimsel Çalışma*

A case of *Synhimantus (Synhimantus) laticeps* (Rudolphi, 1819) Railliet, Henry and Sisoff, 1912 (*Nematoda, Acuariidae*) in common kestrel (*Falco tinnunculus*)

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Summary: Twelve female and one male nematodes were identified as *Synhimantus (Synhimantus) laticeps* from a stomach of common kestrel (*Falco tinnunculus*) which was brought to Ankara University Faculty of Veterinary Medicine, Laboratory of Parasitology Department. Parasites were examined and measured under microscope, and photos of important parts for the diagnosis were taken. This study has importance as it is the first case about kestrels in Turkey.

Keywords: Common kestrel, *Falco tinnunculus*, stomach, *Synhimantus (S) laticeps.*

Bir bayağı kerkenezde (*Falco tinnunculus*) *Synhimantus (Synhimantus) laticeps* (Rudolphi, 1819) Railliet, Henry ve Sisoff, 1912 (*Nematoda, Acuariidae*) olgusu

Özet: Bu çalışmada, Ankara Üniversitesi Veteriner Fakültesi Parazitoloji Anabilim Dalı laboratuvarına getirilen bir kerkenezin (*Falco tinnunculus*) midesinden toplanan 12 dişi ve bir erkek nematodun ölçümleri yapılmış ve teşhis için önemli morfolojik yapıların fotoğrafları çekilerek *Synhimantus (Synhimantus) laticeps* türüne ait oldukları belirlenmiştir. Bu çalışma, Türkiye'de kerkenezlerde bildirilen ilk olgu olması açısından önem taşımaktadır.

Anahtar sözcükler: *Falco tinnunculus*, kerkenez, mide, *Synhimantus (S) laticeps*.

Acuariidae is a very large family related to *Spirurida* order *Acuarioidea* superfamily. This family includes genera such as *Acuaria, Aviculariella, Cheurexia, Cosmocephalus, Dispharynx, Echinuria, Seuratia, Synhimantus* etc (22). After Chaboud (1975), *Dispharynx,* has been examined under *Synhimantus. Synhimantus (Dispharynx)* genus is seperated from that of *Synhimantus (Synhimantus)* in that it is in front of the body and by the fact that cordons which are specific to these parasites are not anostomosing with each other (11, 14, 21, 22, 24).

Synhimantus (S.) species are located in gizzard, oesophagus, glandulous and muscular ventriculus of many poultry as well as their small intestine, and which can cause mucosal oedema, multifocal petechial bleeding, catarrhal exudate, papillomatous formations and ulcers in the giblets (5, 16, 18). The parasite has cosmopolite distribution and it was reported from Europe (Bulgaria, France, Germany, Spain) (1, 7, 10, 20, 22), Asia (China, Iraq, Japan, Russia) (2, 5), Africa (Algeria, Egypt) (5), South America (Cuba, Brazil) and Australia (5, 12, 23).

Two species of *Synhimantus* were recorded from different birds in Turkey. These are *Synhimantus (S.) laticeps* reported from hawk (21) and falcon (19), while *S. (Dispharynx) nasuta* from chicken (13, 15), magpie (6) and pigeon (8, 9).

In this study, 13 adult *Synhimantus (S.) laticeps* (12 females and 1 male) are collected from stomach of a kestrel (Figure 1).

Common kestrel *(Falco tinnunculus; Falconiformes; Falconidae)* is one of daylight predatory birds which can be seen at mountains, valleys, forestlands and moorlands, farming areas or even in urban areas. In their natural habitat, they can travel to long distance and feed small mammals, birds, reptiles and insects (3, 4).

A stomach of common kestrel, which was sent in December 2014 to our laboratory, composes the study material. After the stomach was washed with physiological saline solution (FTS), parasites which are located in mucosa are gathered with fine forceps and washed in FTS. Collected parasites were fixed in 70% warm alcohol and kept in glycerine alcohol (5% glycerine+ 95% (70%) alcohol) until measurements were carried out. After parasites were make pellucid in lactophenol, they were examined and measured under microscope, and photos of important parts for the diagnosis were taken.

Figure 1. Adult parasites located in mucosa of stomach.
Şekil 1. Mide mukozasına yerleşmiş olgun parazitler.

Females (n=12) were measured 6.28-10.86 mm length, 3.08-5.59 mm wide; 2009,39- 3720,36 µm glandulous oesophagus length; 407,84-1084,27 µm muscular oesophagus length; 555,96-1412,04 µm cordon length; 309,96-5083,17 µm distance of the vulva to back end. Eggs which are oval-shaped, thick skinned and developed or developing were carrying embryos. Egg measurements were 36,90-44,28 X length 22,14-24,60 µm wide.

Male (n=1) was measured 5.93 mm length, 2.38 mm wide. Muscular oesophagus length 329,64 µm; 398,52 µm cordon length; 258,63 µm right spiculum length; 706,27 µm left spiculum length. The spiculums were seen in complex structure. Distance of the spiculum to back end was 250,92 µm.

The important structures and egg of *Synhimantus (S.) laticeps* photos are given in Figures 2, 3, 4.

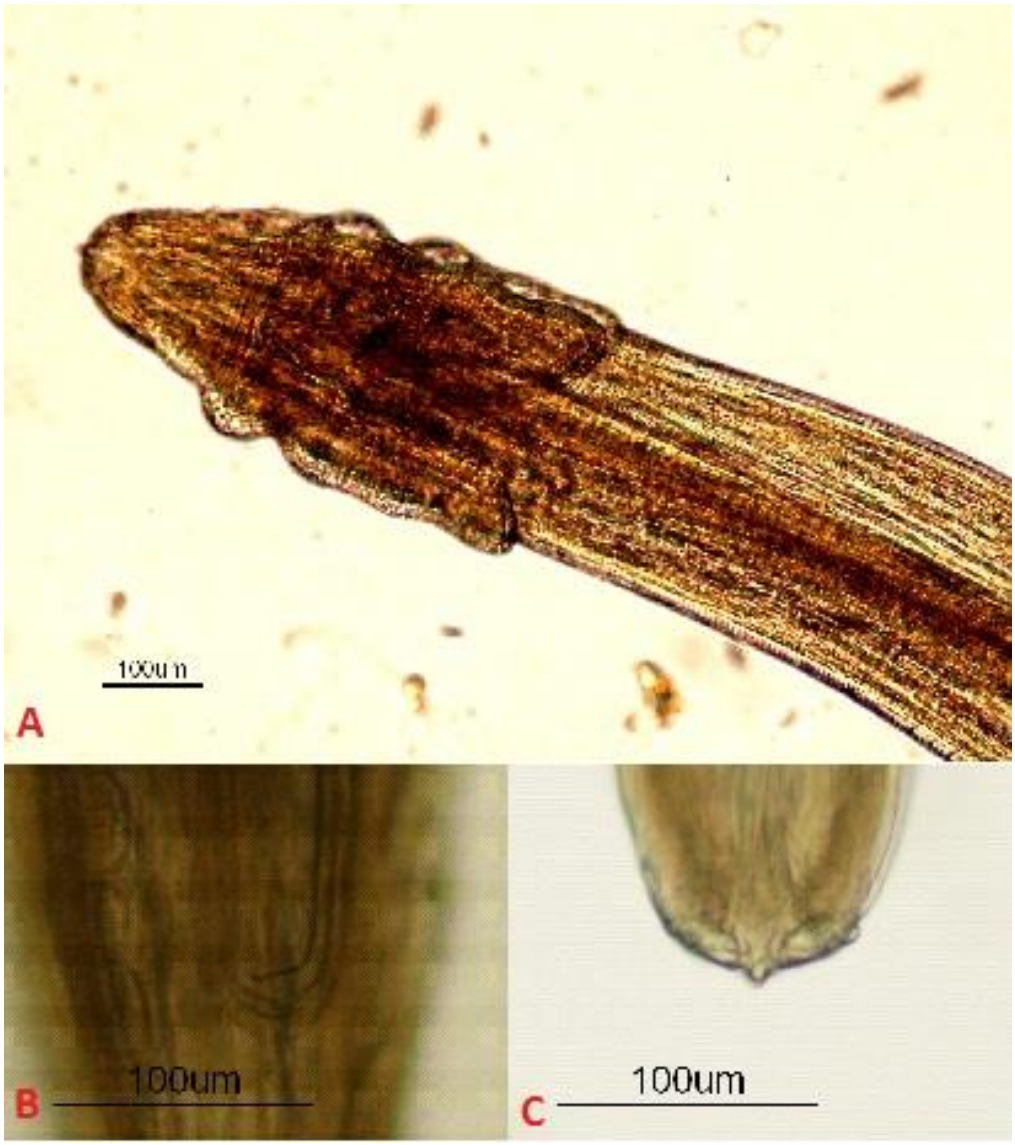

Figure 2. A. Front end of female *Synhimantus (Synhimantus) laticeps*. B. Anostomosed cordons C. Pseudolabia and buccal capsule.
Şekil 2. A. Dişi *Synhimantus (Synhimantus) latiseps*'in ön ucu. B. Anastomozlaşan kordonlar. C. Pseudolabia ve ağız kapsülü.

Figure 3. D. Back end of male *Synhimantus (Synhimantus) laticeps*. E. Back end of female parasites. F-G. Vulva.
Şekil 3. D. Erkek *Synhimantus (Synhimantus) latiseps*'in arka ucu. E. Dişi arka uç. F-G. Vulva.

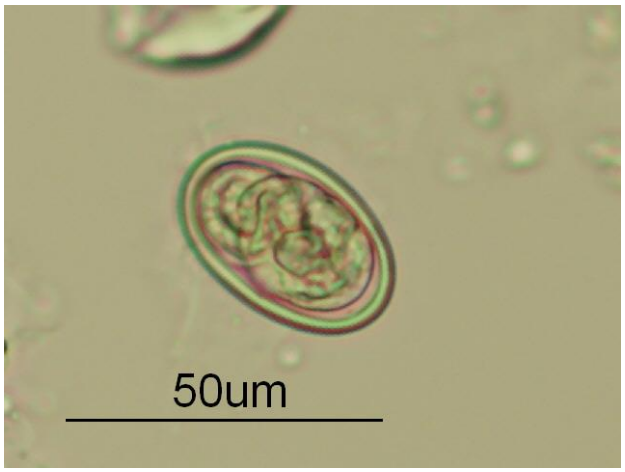

Figure 4. Egg of *Synhimantus* (*Synhimantus*) laticeps.
Şekil 4. *Synhimantus* (*Synhimantus*) latiseps yumurtası.

Morphological features gathered from the study are compatible with classical informations (11, 14, 18, 22). The parasite measurements values are similar to those of literature knowledge with little differences. These differences are considered to arise from host species (1, 21).

Synhimantus (S.) laticeps cases in Spain were reported by Sanmartin et al. (17) and Acosta et al. (1) before from common kestrels. This study has importance as it is the first case from *Synhimantus (S.) laticeps* in kestrels in Turkey.

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