

Cite this article: Rzayev F.H., Nasirov A.M., Gasimov E.K. A systematic review of the parasites (Plathelminthes: Cestoda) of the domestic goose (*Anser anser dom.*). The Journal of V. N. Karazin Kharkiv National University, Series "Biology", 2021, 36, 58–73.

UDC: 576.895.132

A systematic review of the parasites (Plathelminthes: Cestoda) of the domestic goose (*Anser anser dom.*)

F.H. Rzayev, A.M. Nasirov, E.K. Gasimov

In many countries, poultry (including *Anser anser dom.*) play an important role in meeting population needs for meat. One of the factors that affect directly the meat quality and the industrial products obtained from domestic waterfowl are helminths, which cause diseases in their hosts. Helminthological research of the helminth fauna of domestic geese has been carried out in many countries, including Azerbaijan. Nevertheless, there is no general survey or species list of the world fauna of the domestic goose helminths. Tapeworms (Class: Cestoda) also parasitize the geese, causing them serious harm. Taking into account the relevance of the topic, we set the task to determine and systematize the species composition of tapeworms parasitizing the domestic goose (*A. anser dom.*) with the use of extensive literature data and our personal material. The species list is arranged in alphabetical order, families, genera and species of cestodes follow the nomenclature and classification by Khalil et al. (1994) and Olson et al. (2001), with updates by Kuchta et al. (2008) and Caira et al. (2014). We also took into account the classification adopted from the database of Fauna Europaea. Each species is provided with the following data: scientific name, author and year of description, synonyms, final, intermediate and auxiliary hosts, habitat in the bird body, collecting localities, geographic distribution, prevalence (PI) and intensity (II) of infection, and literature sources. An analysis of the worldwide literature and our personal data has established that 147 helminth species (Trematoda – 64 species, Cestoda – 33, Nematoda – 46, Acanthocephala – 4) are hitherto known from the domestic goose. The 33 tapeworm species of this list belong to five families (Dilepididae – 1 species, Hymenolepididae – 27, Mesocestoididae – 1, Paruterinidae – 1, and Diphyllobothriidae – 3). In Azerbaijan, 11 cestod species were found in the domestic goose. Six of them (*Diochis inflata*, *Drepanidotaenia lanceolata*, *D. przewalskii*, *Fimbriaria fasciolaris*, *Tschertkovilepis setigera*, *Ligula intestinalis*) were registered in the course of our helminthological studies. The cestodes *D. inflata* and *L. intestinalis* were recorded in domestic geese in Azerbaijan for the first time. Five helminth species (*Dilepis undula*, *Drepanidotaenia lanceolata*, *Ligula interrupta*, *L. intestinalis*, *Schistocephalus solidus*) parasitize both birds and mammals (*D. lanceolata* in humans). Of these, two species (*D. lanceolata* and *L. intestinalis*) were found in Azerbaijan.

Key words: cestodes, systematic list, domestic goose parasites, infection rates, geographical distribution.

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Poultry (including *Anser anser dom.*) play an important role in meeting the population needs for meat in many countries. One of the factors that affect directly the meat quality and the industrial products obtained from domestic waterfowl are helminths that cause diseases in the hosts. Helminthological studies of domestic geese were carried out in many countries (Czaplinski, 1956; Lapage, 1961; Vasilev, 1962; Spasskaya, 1966; McDonald, 1969; Smogorzhevskaya, 1976), including Azerbaijan (Shakhtakhtinskaya, 1952, 1959; Shirinov, 1961; Vahidova, 1978; Vahidova et al., 1982). In recent years (2005–2020), we have studied the helminth fauna of domestic waterfowl (geese and ducks), developed methods for controlling the main helminthiases, and investigated ultrastructure of the helminth species of practical importance (Rzayev, 2011, 2013; Rzayev, Ibrahimova, 2015; Seyidbeyli, Rzayev, 2016, 2018; Seyidbeyli, Maharramov, 2018; Rzayev et al., 2020, 2021; Seyidbeyli et al., 2020). The tapeworms (Class: Cestoda) parasitize geese, causing them serious harm. Some species (*D. undula*, *D. lanceolata*, *S. solidus*) recorded in domestic waterfowl can infect mammals, including human. It should be noted that despite the practical importance, there is no general overview of the helminth fauna of the domestic goose. Only some articles for specific regions are available. Taking into account the relevance of the topic, we set the task to determine and systematize species composition of the tapeworms parasitizing domestic geese (*A. anser dom.*) based on our personal material and extensive literature data.

The list of cestodes is arranged in alphabetic order; families, genera and species follow the nomenclature and classification by Khalil et al. (1994) and Olson et al. (2001), with the updates by Kuchta et al. (2008) and Cairns et al. (2014). We also took into account the classification adopted from the database of Fauna Europaea (<http://www.faunaeur.org>). Each species is provided with the following data: scientific name, author and year of description, synonyms, final, intermediate and auxiliary hosts, habitat in the bird body, collecting localities, general geographic distribution and the regions/countries of the records in domestic goose, prevalence (PI) and intensity (II) of infection, and literature sources. Six cestode species were identified using a Zeiss Primo Star light microscope. Of these, four species (*Diorchis inflata*, *Drepanidotaenia lanceolata*, *Fimbriaria fasciolaris*, *Tschertkovilepis setigera*) were prepared for microscopic studies and photographed using an EOS D 650 Canon camera. Since *D. przewalskii*, *Ligula intestinalis* are of considerable length, their preparations were not made.

Phylum: Platyhelminthes Gegenbaur, 1859

Class: Cestoda Rudolphi, 1808

Order: Cyclophyllidea Braun, 1900

Family: Dilepididae Fuhrmann, 1907

Genus: *Dilepis* Weinland, 1858

Species: *Dilepis undula* Schrank, 1788

Syn.: *Taenia undula* Schrank, 1788; *T. undulata* Rudolphi, 1810; *Dilepis vulpis* Petrov & Janchev, 1960; *Malika daviesi* Mathevossian, 1963; *Hymenolepis angulata* (Rudolphi, 1810) Parona, 1899; *H. pyramidalis* Sinitzin, 1896; *H. undulata* (Rudolphi, 1810) Parona, 1899.

Final host: *Anser anser* dom.

Intermediate hosts: *Eiseniella tetraedra* Savigny, 1826; *Allolobophora longa* Ude, 1885; *Lumbricus terrestris* L., 1758 (Rysavý, 1973).

Habitat: Small intestine.

Distribution: Holarctic (Schmidt, 1986). Czech Republic (PL 0.1 %) (Busta, 1980).

Family: Hymenolepididae Ariola, 1899

Genus: *Aploparaksis* Clerc, 1903

Species: *Aploparaksis furcigera* Rudolphi, 1819

Syn.: *Aploparaksis japonensis* Yamaguti, 1935; *A. pseudofurcigera* Mathevossian, 1946; *A. rhomboidea* (Dujardin, 1845) Linstow, 1905; *Taenia lineata* Bloch, 1779; *T. longirostris* Froelich, 1803; *T. trilineata* Batsch of Rudolphi, 1819; *T. furcigera* Rudolphi, 1819; *T. conica* Molin, 1858; *T. caecalis* Geibel, 1866; *T. rhomboidea* Dujardin, 1845; *Dicranotaenia furcigera* (Nitzsch, 1819) Stiles, 1896; *D. rhomboidea* (Dujardin, 1845) Railliet, 1893; *Diplacanthus furcigera* (Nitzsch, 1819) Cohn, 1899; *Hymenolepis furcigera* (Nitzsch, 1819) Railliet, 1899.

Final host: *Anser anser* dom.

Intermediate hosts: *Lumbriculus variegatus* Muller, 1774; *Limnodrilus* sp.

Habitat: Small and large intestine, caecum.

Distribution: Holarctic (Schmidt, 1986; Spasskaya, 1966). Russia – Yakutia, Kamchatka (Petrochenko, Kotelnikov, 1976; Ryzhikov, 1967; Spasskaya, 1966; Ryzhikov et al., 1974; Ryzhikov, Gubanov, 1959; Tolkacheva, 1971; Spassky, 1965), Slovakia (Hanzelova et al., 1995), Poland (Lapage, 1961; Czaplinski, 1956).

Genus: *Cloacotaenia* Wolffhügel, 1938

Species: *Cloacotaenia megalops* Nitzsch, 1829

Syn.: *Taenia megalops* Nitzsch in Creplin, 1829; *T. cylindrica* Krefft, 1871; *Hymenolepis megalops* (Nitzsch, 1829) Parona, 1899; *Drepanidotaenia megalops* (Nitzsch, 1829) Hutyra & Marek, 1906; *Weinlandia megalops* (Nitzsch, 1829) Mayhew, 1925; *Lallum magniparuterina* Johri, 1960; *Orlovilepis megalops* (Nitzsch in Creplin, 1829) Spassky et Spasskaja, 1954.

Final host: *Anser anser* dom.

Intermediate hosts: *Cyparis pubera* Muller, 1776.

Habitat: Cloaca, large intestine.

Distribution: Cosmopolitan (McDonald, 1969).

Genus: *Dicranotaenia* Railliet, 1892

Species: *Dicranotaenia coronula* (Dujardin, 1845) Railliet, 1892

Syn.: *Taenia coronula* Dujardin, 1845; *Hymenolepis coronula* (Dujardin, 1845) Railliet, 1899; *H. megaloystera* Linstow, 1905; *H. controversa* (Mayhew, 1925) Fuhrmann, 1932; *H. querquedula*

Fuhrmann, 1920; *H. makundi* Singh, 1952; *H. apicaris* Sharma, 1943; *H. anceps* Linton, 1927; *H. parvisaccata* Shepard, 1943; *H. macrostrobilooides* (Mayhew, 1925) Fuhrmann, 1932; *H. sacciperium* Mayhew, 1925; *H. mergi* Yamaguti, 1940; *Weinlandia coronula* (Dujardin, 1845) Mayhew, 1925; *W. querquedula* (Fuhrmann, 1920) Mayhew, 1925; *W. controversa* Mayhew, 1925; *W. macrostrobilooides* Mayhew, 1925; *Dicranotaenia mergi* Yamaguti, 1940; *D. apcaris* (Sharma, 1943) Yamaguti, 1950; *D. pseudocoronula* Skrjabin et Mathevossian, 1945; *D. deglandi* Skrjabin et Mathevossian, 1942; *D. anceps* (Linton, 1927) Lopez-Neyra, 1942; *D. kutassi* Mathevossian, 1945; *D. makundi* (Singh, 1943) Yamaguti, 1959; *D. parvisaccata* (Shepard, 1943) Yamaguti, 1959; *Diplacanthus coronula* (Dujardin, 1845) Colin, 1899.

Final host: *Anser anser* dom.

Intermediate hosts: *Cyclocypris laevis* Muller, 1776; *C. cinerea* Brady, 1868; *C. ovum* Jurine, 1820; *C. globosa* Sars, 1863; *Eucypris virens* Jurine, 1820; *Potamocypris ophthalmica* Fischer, 1855; *Candona candida* Muller, 1776; *Cypridopsis vidua* Muller, 1776; *Dolerocypris fasciata* Muller, 1776; *Heterocypris incongruens* Ramdohr, 1808; *Notodromas monacha* Muller, 1776; *Physocypria fadeevi* Dubowsky, 1927; *Eucyclops agilis* Koch, 1838; *Mesocyclops oithonoides* Sars, 1863; *Cypria ophthalmica* Jurine, 1820.

Auxiliary hosts: *Lymnaea ovata* Draparnaud, 1805; *L. palustris* Muller, 1774; *L. vulgaris* Hartmann, 1840.

Habitat: Small intestine, caecum.

Distribution: Holarctic, Neotropical and Australian regions (Spasskaya, 1966; Schmidt, 1986; Macko, 1991). Russia – Krasnoyarsk, Amur, Rostov regions, Siberia (Petrochenko, Kotelnikov, 1976; Ryzhikov, 1967; Spasskaya, 1966; Spassky, 1963; Ryzhikov et al., 1974; Belyaeva, 1961; Ryzhikov, Timofeeva, 1961; Fedyushin, 1937), Ukraine – Dnipropetrovsk, Odesa, Mykolaiv, Kyiv, Khmelnitskyi, Volyn regions, the Black Sea coast (PL 0.1 %, II 4 ind.) (Smogorzhevskaya, 1976), Turkey – Marmara, Ankara regions (Gicik, Arslan, 2003), China – Qingyuan (PL 13.03 %) (Wang et al., 2012), Czech Republic and Slovakia (Barus et al., 1977; Hanzelova et al., 1995), Bulgaria – around Danube and Rositsa rivers (Marinova et al., 2013), Azerbaijan – Khachmaz and Shabran regions (PL 4.8 %, II 2–3 ind.) (Vahidova et al., 1982; Vahidova, 1978; Shakhtakhtinskaya, 1952, 1959; Shirinov, 1961).

Genus: *Diorchis* Clerc, 1903

Species: *Diorchis inflata* (Rudolphi, 1819) Clerc, 1903. Fig. 1.

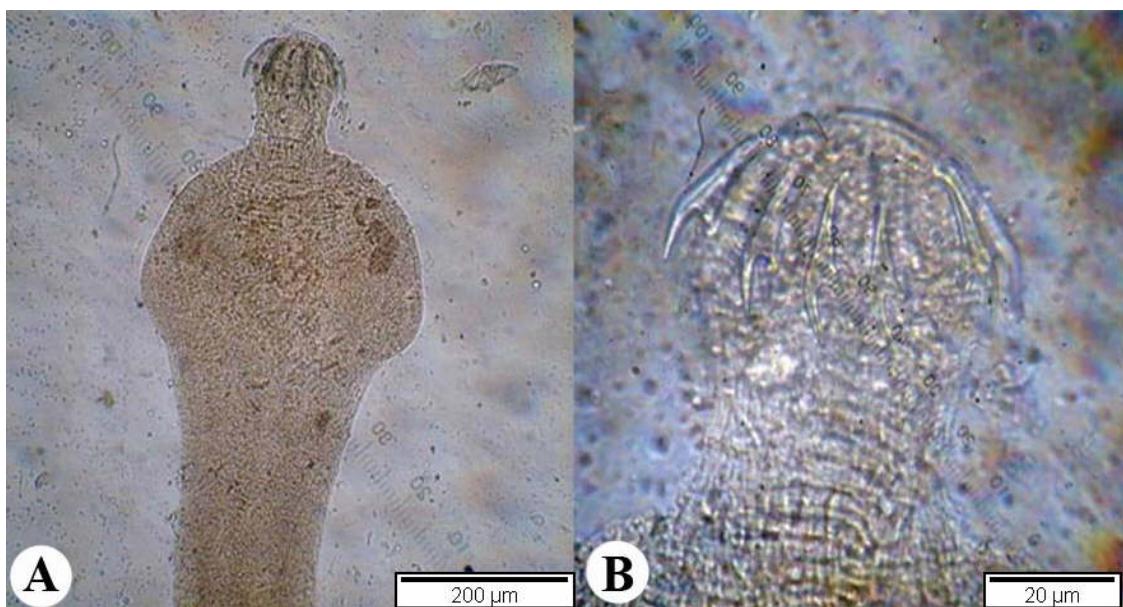


Fig. 1. Cestode *Diorchis inflata*. A – scolex, B – hooks of scolex. Photo: F. Rzayev

Syn.: *Drepanidotaenia inflata* Rudolphi, 1819; *D. inflate* (Rudolphi, 1819) Farona, 1800; *Taenia inflata* Rudolphi, 1819; *T. fulicarum* Gmelin, 1790; *T. fulicae* Rudolphi, 1810; *T. inflate* Rudolphi, 1819; *Halysis fulicarum* (Gmelin, 1790) Zeder, 1803; *Diplacanthus (Dilepis) inflata* (Rudolphi, 1816) Cohn, 1896;

Hymenolepis inflata (Rudolphi, 1819) Railliet, 1800; *Diorchis americana* Ransom, 1909; *D. endacantha* (Dubinina, 1953) Spassky, 1963; *D. turkestanica* Skrjabin, 1914; *Aploparaksis endacantha* (Dubinina, 1954) Spasskaya, 1966.

Final host: *Anser anser* dom.

Intermediate hosts: *C. vidua*; *C. laevis* (McDonald, 1969).

Habitat: Intestine.

Distribution: Europe, Asia, Africa and North America (McDonald, 1969; Spasskaya, 1966). We registered this parasite for the first time in domestic goose in Azerbaijan – Shabran Region, Gala-Alty village (PL 1.72 %, II 2–4 ind.).

Species: *Diorchis stefanskii* Czaplinski, 1956

Final host: *Anser anser* dom.

Intermediate hosts: *C. vidua*; *C. ovum*; *Macrocylops fuscus* Jurine, 1820; *D. fasciata*; *N. monacha*.

Habitat: Small intestine, large intestine.

Distribution: Holarctic (Spasskaya, 1966; Schmidt, 1986). Ukraine (PL 0.03 %, II 1 ind.) (Smogorzhevskaya, 1976), Bulgaria (Marinova et al., 2013; Vasilev, 1973), Slovakia (Hanelova et al., 1995), Czech Republic (Barus et al., 1977).

Genus: *Diplopisthe* Jacobi, 1896

Species: *Diplopisthe laevis* Bloch, 1782

Syn.: *Taenia laevis* Bloch, 1782; *T. trichosoma* Linstow, 1882; *T. bifaria* (Siebold, 1846) Creplin, 1846; *T. tuberculata* Krefft, 1871; *Halysis laevis* (Bloch, 1782) Zeder, 1803; *Diplopisthe laevis* (Bloch, 1782) Jacobi, 1806; *Drepanidotaenia laevis* (Bloch, 1782) Clerc, 1903; *Cotugnia bifaria* (Siebold, 1846) Diamare, 1803; *Ophryocotyle tuberculata* (Krefft, 1871) Blanchard, 1891; *Hymenolepis trichosoma* (Linstow, 1882) Yamaguti, 1959; *Diplopisthe lata* Fuhrmann, 1900.

Final host: *Anser anser* dom.

Intermediate hosts: *Macrocylops albodus* Jurine, 1820; *Mesocyclops leuckartii* Claus, 1857; *Acanthocyclops viridis* Jurine, 1820; *M. fuscus*; *C. vidua*; *H. incongruens*.

Habitat: Small intestine.

Distribution: Cosmopolitan (Spasskaya, 1966; Schmidt, 1986). Poland (Lapage, 1961; Bezubik, 1956).

Genus: *Echinocotyle* Blanchard, 1891

Species: *Echinocotyle anatina* Krabbe, 1869

Syn.: *Hymenolepis anatina* Krabbe, 1869; *Taenia anatina* Krabbe, 1869; *Drepanidotaenia anatina* (Krabbe, 1869) Railliet, 1863; *Diplacanthus anatina* (Krabbe, 1869) Cohn, 1800; *Dicranotaenia anatina* (Krabbe, 1869) Wolffhögel, 1900; *Anatinella anatina* (Krabbe, 1869) Spasskaya, 1961; *Drepanidolepis anatina* (Krabbe, 1869) Spasskii, 1963.

Final host: *Anser anser* dom.

Intermediate hosts: *Eucypris crassa* Muller, 1885; *Acanthocyclops bicuspidatus* Claus, 1757; *Acanthocyclops vernalis* Fischer, 1853; *Gammarus pullex* L., 1758; *C. ophthalmica*; *C. pubera*; *C. ovata*; *P. ophthalmica*.

Habitat: Small intestine, large intestine.

Distribution: Turkey – Kars district (Gicik, Arslan, 2003), Slovakia and Czech Republic (Barus et al., 1977).

Genus: *Drepanidotaenia* Railliet, 1892

Species: *Drepanidotaenia lanceolata* (Bloch, 1782) Railliet, 1892. Fig. 2.

Syn.: *Taenia lanceolata* Bloch, 1782; *T. anseris* Bloch, 1779; *T. acutissima* Pallas, 1781; *T. anserum* (Frisch, 1727) Rudolphi, 1810; *Halysis lanceolata* (Bloch, 1782) Zeder, 1803; *Hymenolepis lanceolata* (Bloch, 1782) Weinland, 1858; *Diplacanthus lanceolata* (Bloch, 1782) Cohn, 1899; *Hymenolepis anserum* (Frisch, 1727) Fuhrmann, 1908; *Drepanidotaenia lobata* Szpotanska, 1931.

Final host: *Anser anser* dom.

Intermediate hosts: *Acanthocyclops nanus* Sars, 1863; *Ectocyclops phaleratus* Koch, 1838; *A. bicuspidatus*; *A. vernalis*; *A. viridis*; *Cyclops diaphanus* Fischer, 1853; *C. furcifer* Claus, 1857; *C. globosus* Baird, 1843; *C. insignis* Claus, 1857; *C. strenuus* Fischer, 1851; *C. vicinus* Uljanin, 1875; *Eucypris macruroides* Lilljeborg, 1901; *E. macrurus* Sars, 1863; *E. serrulatus* Fischer, 1851; *E. speratus* Lilljeborg, 1901; *M. albidus*; *M. fuscus*; *Mesocyclops crassus* Fischer, 1853; *M. dybowskii* Lande, 1890; *M. leuckarti*; *M. oithonoides*; *Paracyclops affinis* Sars, 1863; *P. fimbriatus* Fischer, 1853; *Tropocyclops prasinus* Fischer, 1860; *Diaptomus gracilis* Sars, 1863; *D. sarsi* Rylov, 1923; *D. spinosus* Daday, 1891.

Auxiliary hosts: *Lymnaea auricularia* L., 1758.

Habitat: Small intestine.

Distribution: Cosmopolitan (Spasskaya, 1966; Schmidt, 1986). Tajikistan – Dushanbe (Borgarenko, 1981), Kyrgyzstan (Ablasov, 1953), Russia – Kaluga, Bryansk, Kursk, Yaroslavl, Ryazan, Amur, Omsk regions, Karachay-Cherkessia and Bashkortostan (Engasheva, 2012; Akbaev, 2015; Sidiki, 1999; Zakhryalov, Savinkova, 1962; Kopyrin, 1946; Mukhametshin, 2004), Ukraine – Poltava (Yevstafyeva, Yeresko, 2018; Yevstafyeva et al., 2018; Yuskov, Melnychuk, 2020; Yevstafyeva et al., 2020), Turkey – Kars district, Ankara (PL 7.4 %) (Gicik, Arslan, 2003; Guchlu, 1992), China – Qingyuan, Guangdong (PL 2.42 %) (Wang et al., 2012), Slovakia and Czech Republic (Barus et al., 1977; Hanelova et al., 1995), Bulgaria (Marinova et al., 2013), Azerbaijan – Guba, Khachmaz, Astara, Shabran, Zagatala, Masally, Ujar and Yevlakh regions (PL 19 %, II 1–32 ind.) (Vahidova et al., 1982; Vahidova, 1978; Shakhtakhtinskaya, 1952, 1959; Shirinov, 1961).

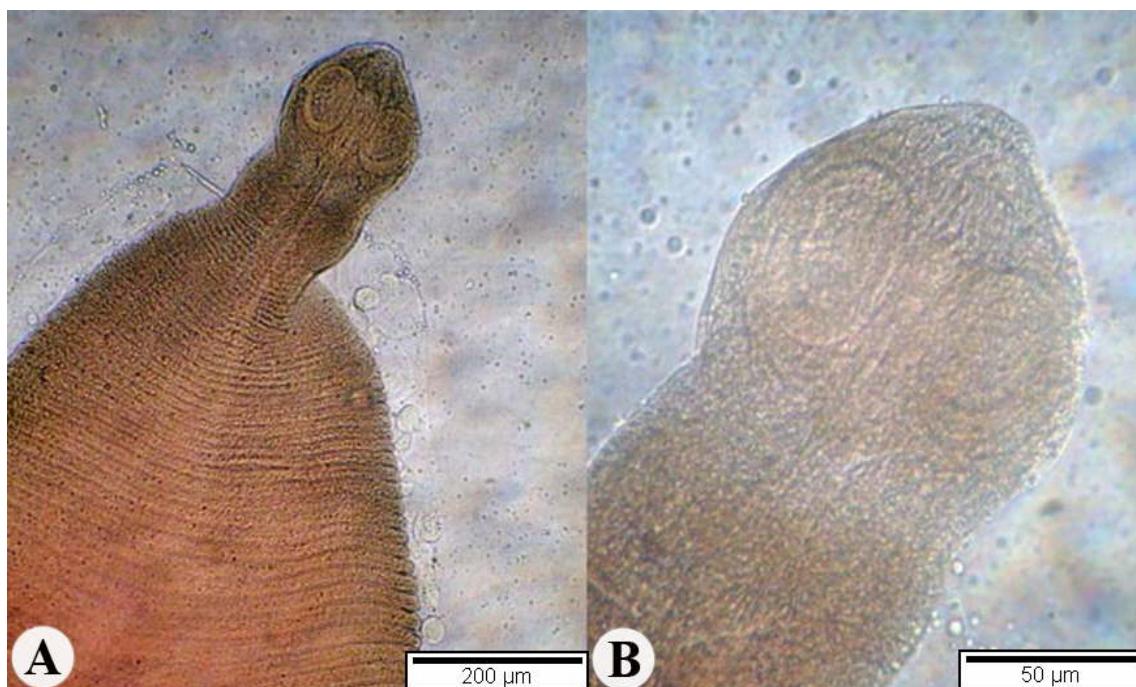


Fig. 2. Cestode *Drepanidotaenia lanceolata*. A – strobila and scolex, B – scolex. Photo: F. Rzayev

We recorded this parasite from the Shabran and Lankaran regions (PL 2.59 %, II 3–43 ind.), and the Nakhchivan AR – Babek Region (PL 2.72 %, II 1–2 ind.).

Species: *Drepanidotaenia przewalskii* (Skrjabin, 1914) Lopep-Neyra, 1942

Syn.: *Hymenolepis przewalskii* Skrjabin, 1914.

Final host: *Anser anser dom.*

Intermediate hosts: *E. serrulatus*; *M. crassus*; *M. leuckarti*; *M. oithonoides*.

Auxiliary hosts: *L. auricularia*.

Habitat: Small intestine.

Distribution: Russia – Bashkortostan (Spasskaya, 1966; Spassky, 1963; Mukhametshin, 2004), Azerbaijan – Salyan, Yevlakh, Shabran regions (PL 6.2 %, II 1–11 ind.) (Shirinov, 1961). We recorded this species from the Barda Region (PL 0.24 %, II 6–23 ind.).

Genus: *Fimbriaria* Froelich, 1802

Species: *Fimbriaria fasciolaris* Pallas, 1781. Fig. 3.

Syn.: *Taenia fasciolaris* Pallas, 1781; *T. anatis* Müller, 1780; *T. malleus* Goeze, 1782; *T. trilineata* Batsch, 1786; *Alyselminthus malleus* (Goeze, 1782) Zeder, 1800; *Fimbriaria malleus* (Goeze, 1782) Froelich, 1802; *F. mitra* Froelich, 1802; *Halysis malleus* (Goeze, 1782) Zeder, 1803; *Taenia pediformis* Krefft, 1871; *Epision plicatus* Linton, 1892; *Notobothrium arcticum* Linstow, 1905.

Final host: *Anser anser dom.*

Intermediate hosts: *A. bicuspidatus*; *A. vernalis*; *A. viridis*; *Cyclops gigas* Claus, 1857; *C. strenuus*; *C. vicinus*; *E. serrulatus*; *M. albidus*; *M. crassus*; *M. leuckarti*; *M. oithonoides*; *P. fimbriatus*; *Diaptomus vulgaris* Schmeil, 1896; *D. coeruleus* Fischer, 1853; *C. laevis*; *C. vidua*; *Gammarus lacustris* Sars, 1863; *G. locusta* L., 1758; *G. maeoticus* Sovinskij, 1894; *Fontogammarus obesus* Sars, 1894; *Cloeon dipterum* L., 1761.

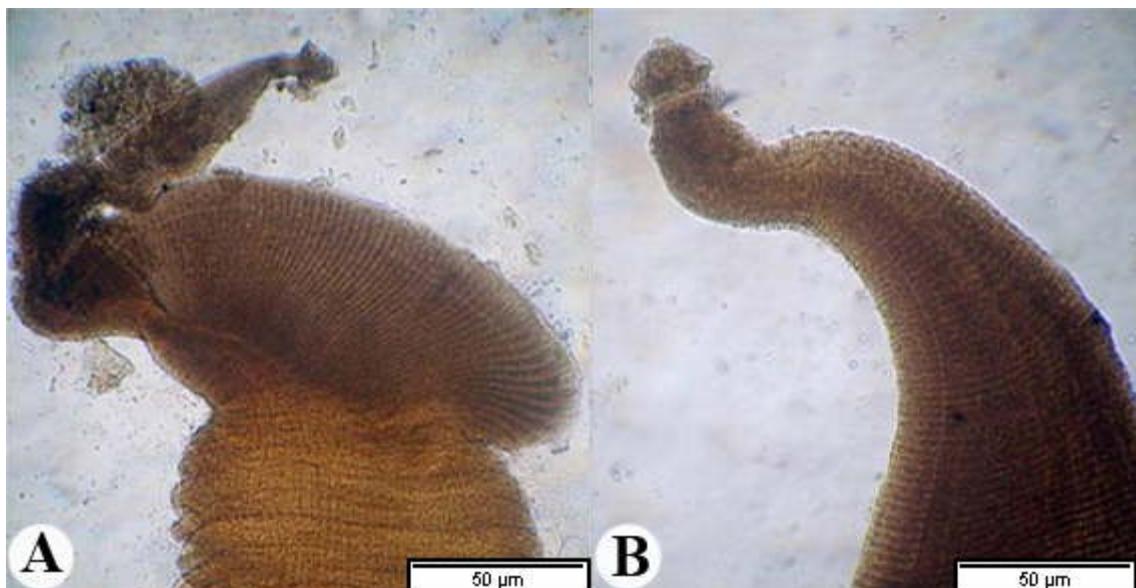


Fig. 3. Cestode *Fimbrilaria fasciolaris*. A and B – pseudoscolex and scolex. Photo: F. Rzayev

Habitat: Small intestine.

Distribution: Cosmopolitan (Spasskaya, 1966; Schmidt, 1986). Russia – Bryansk, Kursk, Amur, and Yaroslavl regions, Krasnoyarsk Krai (Sidiki, 1999; Ryzhikov, 1967; Ryzhikov et al., 1974; Spasskaya, 1966), Ukraine (Yuskiv, Melnychuk, 2020), Turkey (Merdivenci, 1967; Guchlu, 1992), Slovakia and Czech Republic (Barus et al., 1977), Bulgaria – Rositsa River and Sofia (Marinova et al., 2013; Vasilev, 1962, 1973).

We recorded this helminth from Azerbaijan – Kurdamir, Masally, Bilasuvar, Khachmaz regions (PL 6.52 %, II 1–15 ind.), Nakhchivan AR – Babek, Sharur, Kengerly, Ordubad regions (PL 11.4 %, II 2–4 ind.).

Genus: *Gastrotaenia* Wolffhügel, 1938

Species: *Gastrotaenia dogieli* Gynezynskaja, 1944

Syn.: *Apora dogieli* Gynezynskaja, 1944; *Gastrotaenia cygni* Wolffhügel of Maksimova, 1963.

Final host: *Anser anser dom.*

Intermediate hosts: *Diatomus* sp.; *Arctodiaptomus bacillifer* Koelbel, 1885; *A. salinus* Daday, 1885.

Habitat: Gizzard – under lining.

Distribution: Kyrgyzstan (Spasskaya, 1966).

Genus: *Microsomacanthus* Lopez-Neyra, 1942

Species: *Microsomacanthus abortiva* (Linstow, 1904) Lopez -Neyra, 1942

Syn.: *Abortilepis abortiva* Linstow, 1904; *Taenia abortiva* Linstow, 1904; *Hymenolepis abortive* Linstow, 1904; *H. volute* (Linstow, 1901) Fuhrmann, 1921; *H. upsilon* Rosseter, 1911; *Weinlandia abortive* (Linstow, 1901) Mayhew, 1925.

Final host: *Anser anser dom.*

Intermediate hosts: *Gammarus pulex* L., 1758.

Habitat: Caecum, small intestine.

Distribution: Bulgaria – Rositsa River (Marinova et al., 2013).

Species: *Microsomacanthus collaris* Batsch, 1786

Syn.: *Hymenolepis collaris* Batsch, 1786; *H. sinuosa* Railliet, 1899; *Myxolepis collaris* Batsch, 1786; *Taenia sinuosa* Zeder, 1803; *T. collaris* Batsch, 1786; *Weinlandia collaris* (Batsch, 1786) Mayhew, 1925; *Dicranotaenia collaris* Batsch, 1786; *Myxacanthus collaris* (Batsch, 1786) Oshmarin, 1963; *Sobolevianthus collaris* (Batsch, 1786) Ablasov, 1953.

Final host: *Anser anser dom.*

Intermediate hosts: *Cyclops lucidulus* Koch, 1838; *A. bicuspidatus*; *A. vernalis*; *A. viridis*; *C. strenuus*; *E. agilis*; *E. serrulatus*; *M. leuckarti*; *M. oithonoides*; *D. coeruleus*; *G. pulex*.

Auxiliary hosts: *L. palustris*; *L. vulgaris*.

Habitat: Small intestine.

Distribution: Cosmopolitan (Spasskaya, 1966; Schmidt, 1986). Ukraine (PL 7.7 %, II 1–1342 ind.) (Smogorzhevskaya, 1976), Russia – Far East, Eastern and Western Siberia, along the Volga River (Ryzhikov, 1967; Spasskaya, 1966; Ryzhikov et al., 1974), Georgia (Petrochenko, Kotelnikov, 1976), Slovakia and Czech Republic (Barus et al., 1977), North America (Ransom, 1909), Azerbaijan – Astara, Shabran, Khachmaz regions (PL 1.3 %, II 1–34 ind.) (Vahidova et al., 1982; Vahidova, 1978; Shakhtakhtinskaya, 1952, 1959; Shirinov, 1961).

Species: *Microsomacanthus compressa* Linton, 1892

Syn.: *Taenia compressa* Linton, 1892; *Hymenolepis compressa* (Linton, 1892) Kowalewski, 1904; *H. megarostellis* (Solovev, 1911) Skrjabin, 1914; *H. solowiowi* Skrjabin, 1914; *Nadejdolespis solowiowi* (Skrjabin, 1914) Yamaguti, 1959.

Final host: *Anser anser dom.*

Intermediate hosts: *C. strenuus*; *M. albidus*; *M. leuckarti*.

Auxiliary hosts: *Anisus spirorbis* L., 1758; *L. ovata*; *L. palustris*; *L. peregra* Muller, 1774; *L. stagnalis* L., 1758; *Planorbis planorbis* L., 1758; *Valvata cristata* Muller, 1774; *Viviparus viviparus* L., 1758.

Habitat: Small intestine.

Distribution: Holarctic (Spasskaya, 1966; Schmidt, 1986). Russia (Petrochenko, Kotelnikov, 1976; Ryzhikov, 1967; Spasskaya, 1966), Azerbaijan – Astara, Shabran, Gusar, Salyan, Khachmaz, Yevlakh, Ujar, Masally, Lankaran regions (PL 14.5 %, II 1–21 ind.) (Vahidova, 1978; Shirinov, 1961).

Species: *Microsomacanthus microsoma* Creplin, 1829

Syn.: *Taenia microsoma* Creplin, 1829; *Diplacanthus microsoma* (Creplin, 1829) Cohn, 1899; *Drepanidotaenia microsoma* (Creplin, 1829) Parona, 1899; *Hymenolepis microsoma* (Creplin, 1829) Railliet, 1890; *Weinlandia microsoma* (Creplin, 1829) Mayhew, 1925; *Monocercus lymnaei* Willot, 1883; *Cysticercus lymnaei* (Willot, 1883) Lühe, 1910.

Final host: *Anser anser dom.*

Intermediate hosts: *E. agilis*; *E. serrulatus*; *Gammarus locusta*; *Ampithoe rubricata* Montagu, 1808; *Pallasea quadrispinosa* Sars, 1867.

Auxiliary hosts: *Lymnaea lagotus* Schrank, 1803; *L. peregra*; *L. stagnalis*.

Habitat: Small intestine.

Distribution: Russia – Far East and Western Siberia (Petrochenko, Kotelnikov, 1976; Ryzhikov, 1967; Spasskaya, 1966).

Species: *Microsomacanthus paracompressa* Czaplinski, 1956

Syn.: *Hymenolepis paracompressa* Czaplinski, 1956.

Final host: *Anser anser dom.*

Intermediate hosts: *A. bicuspidatus*; *A. viridis*; *C. gigas*; *E. macruroides*; *E. serrulatus*; *M. albidus*; *M. crassus*; *M. leuckarti*; *M. oithonoides*; *P. fimbriatus*.

Auxiliary hosts: *Lymnaea ampla* Hartmann, 1821; *L. auricularia*; *L. ovata*; *L. palustris*; *L. peregra*; *L. stagnalis*; *P. planorbis*; *V. viviparus*.

Habitat: Small intestine.

Distribution: Palaearctic (Spasskaya, 1966; Schmidt, 1986). Russia – Kaluga, Kursk, Ryazan regions, Khabarovsk Krai (Engasheva, 2012; Shirinov, 1961), Poland (Czaplinski, 1956; Shirinov, 1961), Ukraine – shore of the Black Sea (PL 0.5 %, II 2–123 ind.) (Smogorzhevskaya, 1976), Kazakhstan – Pavlodar (Egizbaeva, 1962, 1963, 1964, 1971; Belokobylenko, 1962, 1963, 1964).

Species: *Microsomacanthus paramicrosoma* Gasowska, 1931

Syn.: *Hymenolepis paramicrosoma* Gasowska, 1931; *Microsomacanthus paramicrosoma* (Gasowska, 1932) Ablasov, 1957.

Final host: *Anser anser dom.*

Intermediate hosts: *A. bicuspidatus*; *A. viridis*; *E. serrulatus*; *M. albidus*; *M. crassus*; *M. leuckarti*; *M. oithonoides*; *P. fimbriatus*; *D. sarsi*.

Auxiliary hosts: *P. planorbis*; *L. auricularia*; *L. ovata*; *L. palustris*; *L. peregra*; *L. stagnalis*.

Habitat: Small intestine.

Distribution: Holarctic (Spasskaya, 1966; Schmidt, 1986). Ukraine (PL 0.9 %, II 4–3010 ind.) (Smogorzhevskaya, 1976), Russia – Khabarovsk Krai and Amur Region (Zakhryalov, Savinkova, 1962; Ryzhikov et al., 1974; Shirinov, 1961), Kazakhstan – Pavlodar (Egizbaeva, 1962, 1963, 1964, 1971; Belokobylenko, 1962, 1963, 1964).

Genus: *Retinometra* Spasskii, 1955

Species: *Retinometra longicirrosa* (Fuhrmann, 1906) Spassky, 1963

Syn.: *Hymenolepis longicirrosa* Fuhrmann, 1906; *H. fasciata* (Krabbe, 1869) Railliet, 1899; *H. fasciculata* Ransom, 1909; *Alyselminthus crenatus* (Goeze, 1782) Zeder, 1800; *Halysis crenata* (Goeze, 1782) Zeder, 1803; *Diplacanthus (Dilepis) fasciata* (Krabbe, 1869) Cohn, 1899; *Drepanidotaenia fasciata* (Krabbe, 1869) Railliet, 1893; *Sphenacanthus fasciculata* (Ransom, 1909) López-Neyra, 1942; *Hymenosphenacanthus fasciculata* (Ransom, 1909) Yamaguti, 1959; *Retinometra fasciculata* (Ransom, 1909) Spasskaya, 1965.

Final host: *Anser anser* dom.

Intermediate hosts: *A. viridis*; *C. strenuus*; *E. agilis*; *E. serrulatus*; *M. leuckarti*; *D. coeruleus*; *D. sarsi*.

Habitat: Small intestine.

Distribution: Palaearctic (Spasskaya, 1966; Schmidt, 1986). Russia – Kaluga, Kursk, Bryansk, Tula, Yaroslavl, Ryazan, Omsk, Chelyabinsk regions, Bashkortostan, Western Siberia, mouth of the Volga River (Engasheva, 2011, 2012; Sidiki, 1999; Petrochenko, Kotelnikov, 1976; Ryzhikov et al., 1974), Slovakia and Czech Republic (Busta, 1980; Barus et al., 1977), Bulgaria (Marinova et al., 2013), China (Tseng, 1932), North America (Ransom, 1909), Ukraine (PL 3.8 %, II 2–7 ind.) (Smogorzhevskaya, 1976).

Species: *Retinometra longistylosa* Tseng-Shen, 1932

Syn.: *Hymenolepis longistylosa* Tseng-Shen, 1932; *Dicranotaenia longistylosa* (Shen Tseng, 1932) López Neyra, 1942; *Stylolepis longistylosa* (Shen Tseng, 1932) Yamaguti, 1959.

Final host: *Anser anser* dom.

Intermediate hosts: unknown.

Habitat: Small intestine.

Distribution: China (Tseng, 1932).

Genus: *Sobolevianthus* Spasskii & Spasskaya, 1954

Species: *Sobolevianthus fragilis* (Krabbe, 1869)

Syn.: *Taenia fragilis* Krabbe, 1869; *Hymenolepis fragilis* (Krabbe, 1869) Dubinina, 1951; *Drepanidotaenia fragilis* (Krabbe, 1869) Cohn, 1901.

Final host: *Anser anser* dom.

Intermediate hosts: Crustacea.

Habitat: Small intestine.

Distribution: Palaearctic (Spasskaya, 1966; Schmidt, 1986). Slovakia and Czech Republic (Barus et al., 1977).

Species: *Sobolevianthus gracilis* Zeder, 1803

Syn.: *Halysis gracilis* Zeder, 1803; *Taenia gracilis* (Zeder, 1803) Rudolphi, 1810; *Drepanidotaenia gracilis* (Zeder, 1803) Railliet, 1803; *Diplacanthus (Dilepis) gracilis* (Zeder, 1803) Cohn, 1890; *Hymenolepis gracilis* (Zeder, 1803) Railliet, 1800; *H. meleagridis* Clerc, 1902; *Weinlandia gracilis* (Zeder, 1803) Mayhew, 1925; *Fuhrmaniella gracilis* (Zeder, 1803) Shen Tseng, 1932; *Sphenacanthus gracilis* (Zeder, 1803) López-Neyra, 1942.

Final host: *Anser anser* dom.

Intermediate hosts: *Candonia compressa* Koch, 1838; *C. neglecta* Sars, 1887; *C. rostrata* Brady, 1889; *Cyclocypris dispersa* Sars, 1863; *C. globosa*; *C. vidua*; *Cypria opthalmica* Jurine, 1820; *D. fasciata*; *Eucypris virens* Jurine, 1820; *H. incongruens*; *N. monacha*; *A. viridis*; *C. vicinus*; *E. serrulatus*; *M. albidus*; *M. crassus*; *M. leuckarti*; *M. oithonoides*; *P. fimbriatus*; *D. sarsi*; *D. spinosus*; *Eudiaptomus graciloides* Lilljeborg, 1888.

Auxiliary hosts: *L. palustris*; *L. vulgaris*.

Habitat: Small intestine.

Distribution: Holarctic, Indomalaya (Spasskaya, 1966; Schmidt, 1986). Ukraine – AR of Crimea, Dnipropetrovsk, Odesa, Mykolaiv, Kyiv, Khmelnitskyi, Volyn regions (PL 0.3 %, II 1–16 ind.) (Smogorzhevskaya, 1976; Pashchenko, 1951; Golubev, 1963), Bulgaria – River Rositsa (Marinova et al., 2013), Slovakia and Czech Republic (Barus et al., 1977), North America (Ransom, 1909), Russia – Krasnoyarsk Krai, Amur Region (Ryzhikov, 1967; Ryzhikov et al., 1974; Belyaeva, 1961; Ryzhikov, Timofeeva, 1961), Azerbaijan – Shabran Region (PL 1.8 %, II 6–58 ind.) (Vahidova et al., 1982; Vahidova, 1978; Shirinov, 1961).

Species: *Sobolevianthus krabbeella* Hughes, 1940

Syn.: *Hymenolepis krabbeellus* Hughes, 1940; *H. krabbeella* Hughes, 1940; *Sobolevianthus krabbeellus* Hughes, 1940.

Final host: *Anser anser* dom.

Intermediate hosts: Crustacea.

Habitat: Small intestine, caecum.

Distribution: Palaearctic (McDonald, 1969). Russia – South of Ural (Ryzhikov, 1967).

Species: *Sobolevianthus octacanthus* Krabbe, 1869

Syn.: *Sobolevianthus octacantha* Krabbe, 1869; *Hymenolepis octacantha* Krabbe, 1869; *Taenia octacanthus* Krabbe, 1869; *Taenia octacantha* Krabbe, 1869; *Drepanidotaenia octacantha* (Krabbe, 1869) Cohn, 1901; *Weinlandia octacantha* (Krabbe, 1869) Mayhew, 1925; *Sphenacanthus octacantha* (Krabbe, 1869) López-Neyra, 1942; *Dicranotaenia octacantha* Krabbe, 1869.

Final host: *Anser anser* dom.

Intermediate hosts: *C. vicinus*; *E. serrulatus*; *M. oithonoides*; *H. incongruens*.

Habitat: Small intestine.

Distribution: Palaearctic (McDonald, 1969). Azerbaijan – Shabran Region (PL 0.9 %, II 1–3 ind.) (Vahidova et al., 1982; Vahidova, 1978; Shirinov, 1961).

Genus: *Tschertkovilepis* Spasskii & Spasskaya, 1954

Species: *Tschertkovilepis krabbei* Kowalewski, 1895

Syn.: *Taenia krabbei* Kowalewski, 1894; *T. conscripta* Railliet & Henry, 1909; *Drepanidotaenia krabbei* (Kowalewski, 1891) Zürn, 1898; *D. conscripta* (Railliet & Henry, 1909) López-Neyra, 1909; *Hymenolepis krabbei* (Kowalewski, 1894) Joyeux & Baer, 1936; *H. tenuirostris* Rudolphi, 1819; *H. conscripta* (Railliet & Henry, 1909) Fuhrmann, *Tschertkovilepis krabbei* Kowalewski, 1894; 1924; *T. conscripta* (Railliet & Henry, 1909) Yamaguti, 1959; *Monosacanthus tenuirostris* Rudolphi, 1819.

Final host: *Anser anser* dom.

Intermediate hosts: *E. agilis*; *C. strenuus*; *C. serrulatus*; *M. oithonoides*; *M. crassus*; *M. leuckarti*; *A. vernalis*; *E. macrurus*; *E. serrulatus*; *D. vulgaris*; *G. pulex*.

Auxiliary hosts: *L. Auricularia*.

Habitat: Small intestine.

Distribution: Holarctic (Czapliński, Jarecka, 1967; Schmidt, 1986). Ukraine (Smogorzhevskaya, 1976; Spasskaya, 1966; Yusikiv, Melnychuk, 2020), Russia – Bryansk, Kursk, Orel, Yaroslavl, Omsk, Amur, Novosibirsk regions, St. Petersburg, Rybinsk reservoir, Tatarstan (Spasskaya, 1966; Sidiki, 1999; Kopyrin, 1946; Zakhryalov, Savinkova, 1962; Ryzhikov et al., 1974), Belarus (Ryzhikov, 1967), Slovakia and Czech Republic (Barus et al., 1977), Bulgaria (Marinova et al., 2013), Poland (Bezubik, 1956; Czapliński, 1956), North America (Ransom, 1909).

Species: *Tschertkovilepis setigera* Frölich, 1789. Fig. 4.

Syn.: *Hymenolepis anseris* Skrjabin & Matevosyan, 1942; *H. setigera* (Frölich, 1789) Railliet, 1899; *Taenia setigera* Frölich, 1789; *T. setigera* Frölich, 1789; *T. setosa* Rudolphi, 1810; *T. fasciata* Rudolphi, 1810; *Halysis setigera* (Frölich, 1789) Zeder, 1803; *Drepanidotaenia setigera* (Frölich, 1789) Railliet, 1893.

Final host: *Anser anser* dom.

Intermediate hosts: *A. bicuspidatus*; *C. gigas*; *C. strenuus*; *E. serrulatus*; *E. speratus*; *M. leuckarti*; *M. oithonoides*; *D. coeruleus*; *D. sarsi*; *Cypris pubera*; *Anonyx nugax* Phipps, 1774; *G. locusta*.

Auxiliary hosts: *L. auricularia*; *L. ovata*; *L. palustris*; *L. stagnalis*.

Habitat: Small intestine.

Distribution: Palaearctic, Indomalaya (Spasskaya, 1966; Schmidt, 1986). Ukraine – Odesa, Mykolaiv, Kyiv, Poltava regions (PL 4.9 %, II 1–200 ind.) (Smogorzhevskaya, 1976; Andriyevskaya, 1960; Pashchenko, 1951; Sergiyenko, 1968; Yevstafyeva, Yeresko, 2018; Yevstafyeva et al., 2018, 2020; Yusikiv, Melnychuk, 2020), Russia – Bashkortostan, Dagestan; Kaluga, Kursk, Ryazan, Bryansk,

Yaroslavl, Omsk, Novosibirsk, Amur regions (Mukhametshin, 2004; Engasheva, 2012; Sidiki, 1999; Aliyev, 2006; Gorshkov, 1937; Kopyrin, 1946; Tolkacheva, 1968; Ryzhikov et al., 1974), Turkey – Kars district (Kurtpinar, Merdivenci, 1956; Gicik, Arslan, 2003), Slovakia and Czech Republic (Barus et al., 1977), Bulgaria – Pavlikeni Region, Veliko Tarnovo Region, Elena Region (Marinova et al., 2013).

We recorded *T. setigera* from the Absheron Region (PL 1.72 %, II 30–39 ind.) and the Nakhchivan AR – Sharur Region (PL 2.72 %, II 2–3 ind.) of Azerbaijan.

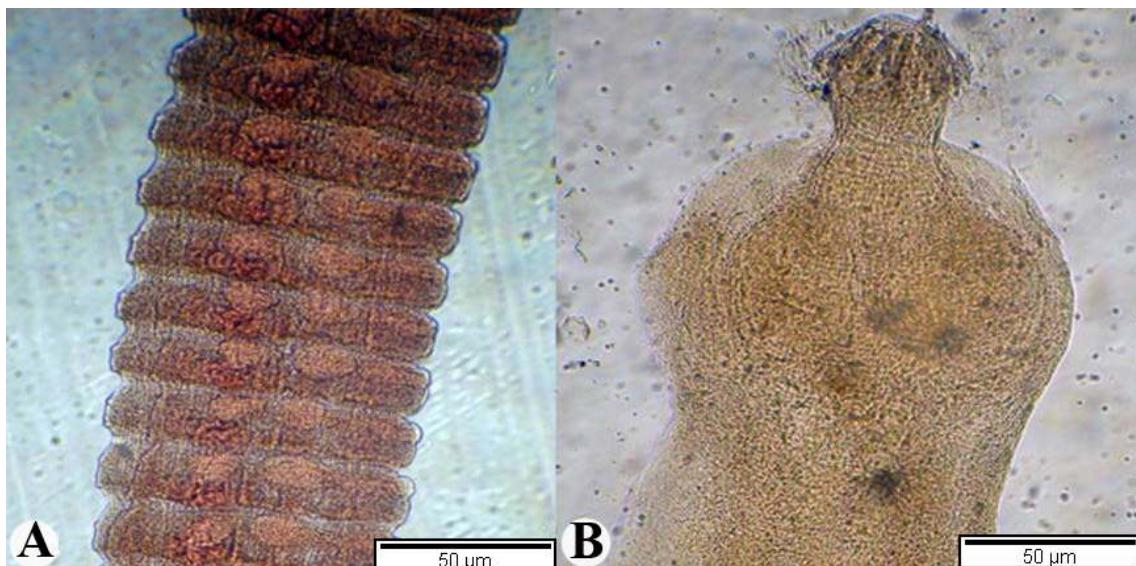


Fig. 4. Cestode *Tschertkovilepis setigera*. A – adult strobila – mature proglottids, B – scolex. Photo: F. Rzayev

Genus: *Wardium* Mayhew, 1925

Species: *Wardium aequabilis* Rudolphi, 1810

Syn.: *Dicranotaenia aequabilis* Rudolphi, 1810; *Taenia aequabilis* Rudolphi, 1810; *Hymenolepis aequabilis* (Rudolphi, 1810) Railliet, 1800; *Hymenofimbria aequabilis* (Rudolphi, 1810) Spasskii, 1961.

Final host: *Anser anser* dom.

Intermediate hosts: *C. laevis*; *M. fuscus*.

Habitat: Small intestine.

Distribution: Russia (Petrochenko, Kotelnikov, 1976; Ryzhikov, 1967; Spasskaya, 1966).

Species: *Wardium creplini* Krabbe, 1869

Syn.: *Hymenolepis creplini* Krabbe, 1869; *H. pingi* Shen Tseng, 1932; *Taenia creplini* Krabbe, 1869; *Dicranotaenia creplini* (Krabbe, 1869) Stossich, 1898; *D. pingi* (Shen Tseng, 1932) López-Neyra, 1942; *Wardium pingi* (Shen Tseng, 1932) Ablasov, 1955.

Final host: *Anser anser* dom.

Intermediate hosts: unknown.

Habitat: Small intestine.

Distribution: China (Tseng, 1932).

Family: Mesocestoididae Fuhrmann, 1907

Genus: *Mesocestoides* Vaillant, 1863

Species: *Mesocestoides imbutiformis* Polonio, 1860

Syn.: *Taenia imbutiformis* Polonio, 1860.

Final host: *Anser anser* dom.

Intermediate hosts: unknown.

Habitat: Intestine.

Distribution: Georgia (Ryzhikov, 1967).

Family: Paruterinidae Fuhrmann, 1907
Genus: *Metroliasthes* Ransom, 1900

Species: *Metroliasthes lucida* Ransom, 1900

Final host: *Anser anser* dom.

Intermediate hosts: *Chorthippus curtipennis* Harris, 1835; *Melanoplus femur-rubrum* De Geer, 1773; *Paroxya clavuliger* Serville, 1838.

Habitat: Small intestine.

Distribution: Cosmopolitan (McDonald, 1969).

Order: Diphyllobothriidea Kuchta, Scholz, Brabec, Bray, 2008

Family: Diphyllobothriidae Lühe, 1910

Genus: *Ligula* Bloch, 1782

Species: *Ligula interrupta* Rudolphi, 1810

Syn.: *Digamma interrupta* Rudolphi, 1810; *L. abdominalis carassi* Gmelin, 1790; *L. abdominalis ciprinorum* Gmelin, 1790; *L. carassi* (Gmelin, 1790) Zeder, 1803; *L. constringens* Rudolphi, 1810; *L. caprionis* Rudolphi, 1810; *L. digramma* Creplin, 1839; *Diplogonoporus brauni* Leon, 1907.

Final host: *Anser anser* dom.

Intermediate hosts: *A. bicuspidatus*; *A. vernalis*; *A. viridis*; *C. furcifer*; *C. insignis*; *C. strenuus*; *E. serrulatus*; *M. albidus*; *M. fuscus*; *P. fimbriatus*; *Acanthodiatomus denticornis* Wierjeski, 1887; *D. gracilis*; *E. graciloides*; *Heterocopa appendiculata* Sars, 1863.

Auxiliary hosts: *Abramis brama* L., 1758; *A. sapo* Pallas, 1814; *Barbus lacerta* Heckel, 1843; *Carassius auratus* L., 1758; *C. carassius* L., 1758; *Cyprinus carpio* L., 1758; *Gobio gobio* L., 1758; *Leuciscus brandti* Dybowski, 1872; *Rhodeus sericeus* Bloch, 1782; *Rutilus rutilus* L., 1758; *Saurogobio dabryi* Bleeker, 1871.

Habitat: Intestine.

Distribution: Europe, Asia (McDonald, 1969).

Species: *Ligula intestinalis* (Linnaeus, 1758) Gmelin, 1790

Syn.: *Fasciola intestinalis* Linnaeus, 1758; *F. abdominalis* Goeze, 1782; *Taenia cingulum* Pallas, 1781; *Ligula cingulum* (Pallas, 1781) Rudolphi, 1810; *L. piscium* Bloch, 1782; *L. avium* Bloch, 1782; *L. abdominalis* (Goeze, 1782) Gmelin, 1790; *L. simplicissima* Rudolphi, 1802; *L. alternans* Rudolphi, 1810; *L. contortrix* Rudolphi, 1810; *L. edulis* Briganti, 1819; *L. uniserialis* Rudolphi of Creplin, 1839; *L. monogramma* Creplin, 1839; *Dibothrium ligula* Donnadeau, 1877; *Braunia jasseiensis* Leon, 1908; *Monogramma uniserialis* (Rudolphi, 1810) Kholodkovsky, 1915.

Final host: *Anser anser* dom.

Intermediate hosts: *A. bicuspidatus*; *A. vernalis*; *C. strenuus*; *E. serrulatus*; *M. albidus*; *M. leuckarti*; *M. oithonoides*; *D. gracilis*; *D. sarsi*; *E. graciloides*.

Auxiliary hosts: Pisces.

Habitat: Small intestine.

Distribution: Europe, Asia, North America, Africa (McDonald, 1969). We registered this parasite for the first time in domestic goose in Azerbaijan – Masally Region (PL 0.36 %, II 1–3 ind.).

Genus: *Schistocephalus* Creplin, 1829

Species: *Schistocephalus solidus* Müller, 1776

Syn.: *Taenia solidus* Muller, 1776; *T. solida* Müller, 1776; *T. acutissima* Pallas, 1781; *Rhytis solida* (Müller, 1776) Zeder, 1800; *Bothriocephalus solidus* (Müller, 1776) Rudolphi, 1810; *Schistocephalus solidus* (Müller, 1776) Steenstrup, 1857; *S. dimorphus* Creplin, 1829; *Dibothrium ligula* Donnadeau, 1877.

Final host: *Anser anser* dom.

Intermediate hosts: *A. bicuspidatus*; *A. vernalis*; *A. viridis*; *C. furcifer*; *C. strenuus*; *C. vicinus*; *E. macrurus*; *E. macruroides*; *E. serrulatus*; *M. albidus*; *M. fuscus*; *M. leuckarti*; *D. gracilis*; *E. graciloides*.

Auxiliary hosts: Pisces.

Habitat: Small intestine.

Distribution: Russia (Ryzhikov, 1967).

An analysis of literature data and the results of our research has established that a total of 147 helminth species (Trematoda – 64, Cestoda – 33, Nematoda – 46, Acanthocephala – 4) is hitherto known in domestic geese. The recorded tapeworms belong to five families (Dilepididae – 1 species, Hymenolepididae – 27 species, Mesocestoididae – 1 species, Paruterinidae – 1 species,

Diphyllobothriidae – 3 species). In Azerbaijan, 11 cestod species were found in domestic geese. Six of them (*Diorchis inflata*, *Drepanidotaenia lanceolata*, *D. przewalskii*, *Fimbriaria fasciolaris*, *Tschertkovilepis setigera*, *Ligula intestinalis*) were registered in the course of our helminthological studies. The cestodes *D. inflata* and *L. intestinalis* were found in domestic geese in Azerbaijan for the first time. Five species (*Dilepis undula*, *Drepanidotaenia lanceolata*, *Ligula interrupta*, *Ligula intestinalis*, *Schistocephalus solidus*) parasitize both birds and mammals (*D. lanceolata* also in humans). Of these, two species (*D. lanceolata*, *L. intestinalis*) occur in Azerbaijan.

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Систематичний огляд паразитів (Plathelminthes: Cestoda) свійської гуски (*Anser anser dom.*)

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Птахівництво має важливу роль у забезпеченні населення більшості країн світу м'ясною продукцією, в тому числі м'яском водоплавних птахів, включаючи свійську гуску – *Anser anser dom.* Одним з факторів, які безпосередньо впливають на якість м'яса і отримуваної з нього промислової продукції, є гельмінти, які викликають захворювання у господарів. Паразитологічні дослідження з метою вивчення гельмінтофауни свійських гусей проводилися в багатьох країнах, включаючи Азербайджан. Стъожкові черви (клас: Cestoda) також паразитують у гуски, завдаючи їй серйозної шкоди. Оглядова інформація з вивчення світової гельмінтофауни свійських гусей відсутня. З огляду на актуальність теми, на основі власних матеріалів і великої кількості літературних даних ми поставили завдання визначити і систематизувати видовий склад стъожкових червів, паразитуючих на свійських гусях. Список видів цестод представлений в алфавітному порядку, родини, роди і види відповідають номенклатурі і класифікації Khalil et al. (1994) і Olson et al. (2001) з оновленнями Kuchta et al. (2008) і Caira et al. (2014). Ми також врахували класифікацію, прийняту в базі даних Fauna Europaea. Для кожного виду представлено таку інформацію: наукова назва, автор і рік опису, синоніми, основні, проміжні і резервуарні господарі, локалізація в тілі птаха, місця збору в Азербайджані, географічне поширення, екстенсивність та інтенсивність інвазії, літературні джерела. На підставі літературних і власних даних встановлено, що до теперішнього часу у свійських гусей було зареєстровано 147 видів гельмінтів (Trematoda – 64, Cestoda – 33, Nematoda – 46, Acanthocephala – 4). Виявлені 33 види стъожкових червів належать до п'яти родин (Dilepididae – 1, Hymenolepididae – 27, Mesocestoididae – 1, Paruterinidae – 1, Diphyllobothriidae – 3), з них 11 видів зустрічаються у свійських гусей в Азербайджані. Шість видів (*Diorchis inflata*, *Drpanidotaenia lanceolata*, *D. przewalskii*, *Fimbriaria fasciolaris*, *Tschertkovilepis setigera*, *Ligula intestinalis*) були відзначені в ході наших гельмінтологічних досліджень. На території Азербайджану у свійських гусей вперше були виявлені цестоди *D. inflata* i *L. intestinalis*. П'ять видів гельмінтів (*Dilepis undula*, *Drepanidotaenia lanceolata*, *Ligula interrupta*, *L. intestinalis*, *Schistocephalus solidus*) паразитують як у птахів, так і у ссавців (*D. lanceolata* в тому числі у людини). Два з них (*D. lanceolata*, *L. intestinalis*) зареєстровані в Азербайджані.

Ключові слова: цестоди, систематичний список, паразити свійської гуски, показники інвазії, географічне поширення.

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Систематический обзор паразитов (*Plathelminthes: Cestoda*) домашнего гуся (*Anser anser dom.*)

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Птицеводство играет немаловажную роль в обеспечении населения большинства стран мира мясной продукцией, в том числе мясом водоплавающих птиц, включая домашнего гуся – *Anser anser dom.* Одним из факторов, напрямую влияющих на качество мяса и получаемой из него промышленной продукции, являются гельминты, вызывающие заболевания у хозяев. Паразитологические исследования с целью изучения гельминтофагии домашних гусей проводились во многих странах, включая Азербайджан. Ленточные черви (класс: *Cestoda*) также паразитируют у гуся, нанося ему серьезный вред. Обзорной информации по изучению мировой гельминтофагии домашних гусей нет. Учитывая актуальность темы, на основе собственных материалов и обширных литературных данных мы поставили задачу определить и систематизировать видовой состав ленточных червей, паразитирующих на домашних гусях. Список видов цестод представлен в алфавитном порядке, семейства, роды и виды соответствуют номенклатуре и классификации Khalil et al. (1994) и Olson et al. (2001) с обновлениями Kuchta et al. (2008) и Cairns et al. (2014). Мы также учли классификацию, принятую в базе данных Fauna Europaea. Каждый вид снабжен следующей информацией: научное название, автор и год описания, синонимы, основные, промежуточные и резервуарные хозяева, локализация в теле птицы, места сбора в Азербайджане, географическое распространение, экстенсивность и интенсивность инвазии, литературные источники. На основании литературных и собственных данных установлено, что до настоящего времени у домашних гусей было зарегистрировано 147 видов гельминтов (Trematoda – 64, Cestoda – 33, Nematoda – 46, Acanthocephala – 4). Обнаруженные 33 вида ленточных червей относятся к пяти семействам (Dilepididae – 1, Hymenolepididae – 27, Mesocestoididae – 1, Paruterinidae – 1, Diphyllobothriidae – 3), из них 11 видов встречаются у домашних гусей в Азербайджане. Шесть видов (*Diorchis inflata*, *Drpanidotaenia lanceolata*, *D. przewalskii*, *Fimbrilaria fasciolaris*, *Tschertkovilepis setigera*, *Ligula intestinalis*) были отмечены в ходе наших гельминтологических исследований. На территории Азербайджана у домашних гусей впервые были обнаружены цестоды *D. inflata* и *L. intestinalis*. Пять видов гельминтов (*Dilepis undula*, *Drepanidotaenia lanceolata*, *Ligula interrupta*, *L. intestinalis*, *Schistocephalus solidus*) паразитируют как у птиц, так и у млекопитающих (*D. lanceolata* в том числе у человека). Два из них (*D. lanceolata*, *L. intestinalis*) зарегистрированы в Азербайджане.

Ключевые слова: цестоды, систематический список, паразиты домашнего гуся, показатели инвазии, географическое распространение.

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Подано до редакції / Received: 15.04.2021

Прорецензовано / Revised: 30.04.2021

Прийнято до друку / Accepted: 15.05.2021