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Checklist of metazoan parasites recorded in Anura and Urodela from Turkey

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Abstract: A checklist of metazoan parasites of Anura and Urodela in Turkey has been compiled from parasitological studies done in Turkey between 1960 and 2013. The list of parasite species is arranged by phylum and class, providing parasite name, location of the caught Anura and Urodela hosts, and date of published record. Seventy parasite species belonging to phylum Platyhelminthes (including 7 species of Monogenea, 24 species of Digenea, and 2 species of Cestoda), phylum Nematelminthes (including 30 species of Nematoda), phylum Acanthocephala (6 species), and phylum Annelida (1 species) are listed from 24 host species, which were collected from different parts of Turkey. The parasite–host list is organized on a taxonomic basis and provides information for the species of host(s) infected, the known geographic distribution in Turkey, and the published sources for each host and locality record.

Key words: Anura, Urodela, metazoan, parasite, Turkey

1. Introduction

This study summarizes the current literature as to parasites of Anura and Urodela from Turkey. Over the years, there have been many taxonomic studies, especially of the helminths of some animals from Turkey. There are 16 Anura and 16 Urodela species in Turkey (Budak and Göçmen, 2005; Frost, 2010). The first study on helminthes of Anura and Urodela was performed by Schad in 1960. Most of the helminthological studies on these animals were carried out after 1995. Recently, a review study about helminth parasites of Turkish anurans was conducted (Amin et al., 2012). Today, all of Anura, with the exception of *Pelobates fuscus*, and all of Urodela, with the exceptions of *Lyciasalamandra helverseni*, *Lyciasalamandra flavimembris*, *Neurergus crocatus*, *Salamandra salamandra*, *Salamandra infraimmaculata*, *Ommatotriton ophryticus*, and *Lissotriton vulgaris*, have been studied helminthologically. Consequently, 70 species of Anura and Urodela parasites were recorded in Turkey.

The aim of this review was to assist researchers by presenting a checklist of helminth parasite species of Anura and Urodela from Turkey.

2. Materials and methods

All relevant published papers from 1960 to 2013 were examined. The studies performed concerned the parasites of anurans and urodeles from different regions of Turkey. Forty-two papers were used in the checklist.

3. Results

There are 70 species of parasites that are associated with host specimens. Parasites inhabit Anura and Urodela inner organs, especially the gastrointestinal system. The phylum Nematelminthes is dominant with 30 species, followed by the phylum Platyhelminthes.

4. Discussion

Forty-two studies about parasites of Anura and Urodela have been published in Turkey since 1960. Thirty-four of them were about Anura. Seven of them were about Urodela and 1 of them was about both Anura and Urodela. Fifty-two species out of 70 parasite species were found in Anura, 10 parasite species were found in Urodela, and 8 parasite species were found in both Urodela and Anura. The information about these parasite–host species is given in Table 1. All of detailed knowledge about parasite species has been presented in Table 2. Fifty-two of these parasite species have been described at species level, while 18 of them have been described at genus level. Schad et al. (1960) showed distribution of *Bufo regularis* in Turkey, but it has been established in recent systematic papers that this species has no distribution in Turkey (Frost 2010).

H: Host **P:** Parasite

ANURA

H: *Pelophylax ridibundus* (*Rana ridibunda*) Pallas, 1771

P: *Codonocephalus urnigerus* (Rudolphi, 1819)

P: *Diplodiscus subclavatus* (Pallas, 1760)

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- P: *Diplodiscus* sp. Diesing, 1836
P: *Gorgodera* sp. Looss, 1899
P: *Gorgoderina* sp. Looss, 1902
P: *Gorgodera cygnoides* (Zeder, 1800)
P: *Gorgoderina vitelliloba* Looss, 1902
P: *Pleurogenoides* sp. Travassos, 1921
P: *Pleurogenoides medians* (Olsson, 1876)
P: *Pleurogenoides stromi* (Travassos, 1930)
P: *Pleurogenes claviger* (Rudolphi, 1819)
P: *Plagiorchis* sp. Lühe, 1899
P: *Rauschiella* sp. Babero, 1951
P: *Bucephalus polymorphus* (Baer, 1827)
P: *Candidotrema loossi* (Afrika, 1930)
P: *Prosotocus confusus* (Looss, 1894) Looss, 1899
P: *Brachycoelium salamandrae* (Frölich, 1789)
P: *Haematoloechus breviansa* (Sudarikov, 1950)
P: *Haematoloechus variegatus* (Rudolphi, 1819)
P: *Encyclometra colubrimurorum* (Rudolphi, 1819)
Dollfuss 1929
P: *Opisthoglyphe ranae* (Frolich, 1791)
P: *Rhabdias bufonis* (Schrank, 1788) Stiles and Hassall,
1905
P: *Cosmocerca* sp. Diesing, 1861
P: *Cosmocerca ornata* (Dujardin, 1845)
P: *Cosmocerca commutata* (Diesing, 1851)
P: *Cosmocercoides* sp. Wilkie, 1930
P: *Neoxysomatium* sp. Ballesteros-Martinez, 1945
P: *Eustrongylides* sp. Jägerskiöld, 1909
P: *Abbreviata* sp. (Travassos, 1920) Schulz, 1927
P: *Oxysomatium brevicaudatum* (Zeder, 1800) Railliet
and Henry, 1916
P: *Neoxysomatium brevicaudatum* (Zeder, 1800)
P: *Oswaldocruzia* sp. Travassos, 1917
P: *Oswaldocruzia filiformis* (Goeze, 1782) Travassos,
1917
P: *Eustrongylides excisus* (Jägerskiöld, 1909)
P: *Foleyella* sp. Seurat, 1917
P: *Acanthocephalus* sp. Koelreuter, 1771
P: *Acanthocephalus ranae* (Schrank, 1788) Lühe, 1911
P: *Pomphorhynchus laevis* Müller, 1776
P: *Pomphorhynchus spindletrancatus* Amin, Abdullah
and Mhaise, 2003
P: *Centrorhynchus* sp. Lühe, 1911
P: *Hirudo medicinalis* Linne, 1758
H: *Rana macrocnemis* Boulenger, 1885
P: *Polystoma* sp. Zeder, 1800
P: *Polystoma macrocnemis* Biserkov, Yıldırımhan,
Uğurtaş, 2001
P: *Pleurogenes claviger* (Rudolphi, 1819)
P: *Pleurogenoides medians* (Olsson, 1876)
P: *Opisthoglyphe rastellus* (Olsson, 1875) Looss, 1907
P: *Haplometra cylindracea* (Zeder, 1800)
P: *Gorgoderina vitelliloba* Looss, 1902
P: *Rhabdias* sp. Stiles and Hassall, 1905
P: *Rhabdias bufonis* (Schrank, 1788) Stiles and Hassall,
1905
P: *Oswaldocruzia filiformis* (Goeze, 1782) Travassos,
1917
P: *Cosmocerca* sp. Diesing, 1861
P: *Cosmocerca ornata* (Dujardin, 1845)
P: *Oxysomatium brevicaudatum* (Zeder, 1800) Railliet
and Henry, 1916
P: *Acanthocephalus ranae* (Schrank, 1788) Lühe, 1911
H: *Rana holtzi* Werner, 1898
P: *Diplodiscus subclavatus* (Pallas, 1760)
P: *Pleurogenoides medians* (Olsson, 1876)
P: *Opisthoglyphe rastellus* (Olsson, 1875) Looss, 1907
P: *Opisthoglyphe ranae* (Frolich, 1791)
P: *Gorgoderina vitelliloba* Looss, 1902
P: *Haplometra cylindracea* (Zeder, 1800)
P: *Cosmocerca ornata* (Dujardin, 1845)
H: *Rana camerani* Boulanger, 1886
P: *Polystoma* sp. Zeder, 1800
P: *Pleurogenoides medians* (Olsson, 1876)
P: *Haplometra cylindracea* (Zeder, 1800)
P: *Opisthoglyphe rastellus* (Olsson, 1875) Looss, 1907
P: *Cosmocerca ornata* (Dujardin, 1845)
P: *Gorgodera cygnoides* (Zeder, 1800)
P: *Gorgoderina vitelliloba* Looss, 1902
P: *Nematotaenia dispar* (Goeze, 1782) Lühe, 1899
P: *Oswaldocruzia filiformis* (Goeze, 1782) Travassos,
1917
P: *Rhabdias bufonis* (Schrank, 1788) Stiles and Hassall,
1905
P: *Acanthocephalus ranae* (Schrank, 1788) Lühe, 1911
H: *Rana tavasensis* Baran and Atatür, 1986
P: *Haplometra cylindracea* (Zeder, 1800)
P: *Cosmocerca ornata* (Dujardin, 1845)

- P: *Acanthocephalus ranae* (Schrank, 1788) Lühe, 1911
H: *Rana dalmatina* Bonaparte, 1839
P: *Polystoma* sp. Zeder, 1800
P: *Diplodiscus subclavatus* (Pallas, 1760)
P: *Pleurogenoides medians* (Olsson, 1876)
P: *Pleurogenes claviger* (Rudolphi, 1819)
P: *Rhabdias bufonis* (Schrank, 1788) Stiles and Hassall, 1905
P: *Oswaldocruzia filiformis* (Goeze, 1782) Travassos, 1917
P: *Cosmocerca ornata* (Dujardin, 1845)
P: *Oxysomatium brevicaudatum* (Zeder, 1800) Railliet and Henry, 1916
P: *Acanthocephalus ranae* (Schrank, 1788) Lühe, 1911
H: *Pseudepidalea viridis* (*Bufo viridis*) Laurenti, 1768
P: *Polystoma viridis* Euzet, Combes, Butchvarov, 1974
P: *Pleurogenoides medians* (Olsson, 1876)
P: *Proteocephalus* sp. Weinland, 1858
P: *Nematotaenia dispar* (Goeze, 1782) Lühe, 1899
P: *Rhabdias* sp. Stiles and Hassall, 1905
P: *Rhabdias bufonis* (Schrank, 1788) Stiles and Hassall, 1905
P: *Oswaldocruzia* sp. Travassos, 1917
P: *Oswaldocruzia filiformis* (Goeze, 1782) Travassos, 1917
P: *Cosmocerca commutata* (Diesing, 1851)
P: *Cosmocerca ornata* (Dujardin, 1845)
P: *Cosmocercoides* sp. Wilkie, 1930
P: *Neoxysomatium brevicaudatum* (Zeder, 1800)
P: *Oxysomatium brevicaudatum* (Zeder, 1800) Railliet and Henry, 1916
P: *Aplectana brumpti* Travassos, 1931
P: *Acanthocephalus ranae* (Schrank, 1788) Lühe, 1911
H: *Bufo bufo* Linnaeus, 1758
P: *Rhabdias bufonis* (Schrank, 1788) Stiles and Hassall, 1905
P: *Oswaldocruzia* sp. Travassos, 1917
P: *Oswaldocruzia filiformis* (Goeze, 1782) Travassos, 1917
P: *Aplectana acuminata* (Schrank, 1788) Railliet and Henry, 1916
P: *Aplectana macintoshii* (Stewart, 1914)
P: *Cosmocerca ornata* (Dujardin, 1845)
P: *Oxysomatium brevicaudatum* (Zeder, 1800) Railliet and Henry, 1916
P: *Acanthocephalus ranae* (Schrank, 1788) Lühe, 1911
H: *Bufo regularis* Reuss, 1833
P: *Oxysomatium brevicaudatum* (Zeder, 1800) Railliet and Henry, 1916
P: *Aplectana schneideri* (Travassos, 1931)
P: *Oswaldocruzia filiformis* (Goeze, 1782) Travassos, 1917
H: *Bombina bombina* Linnaeus, 1767
P: *Opisthoglyphe ranae* (Frolich, 1791)
P: *Rhabdias bufonis* (Schrank, 1788) Stiles and Hassall, 1905
P: *Cosmocerca* sp. Diesing, 1861
P: *Acanthocephalus ranae* (Schrank, 1788) Lühe, 1911
H: *Hyla savignyi* Audouin, 1827
P: *Polystoma integerrimum* (Frölich, 1791) Rudolphi, 1808
P: *Diplodiscus subclavatus* (Pallas, 1760)
P: *Halipegus kessleri* (Grebnitzky, 1872) Wlassenko, 1929
P: *Pleurogenoides medians* (Olsson, 1876)
P: *Nematotaenia dispar* (Goeze, 1782) Lühe, 1899
P: *Aplectana brumpti* Travassos, 1931
P: *Cosmocerca commutata* (Diesing, 1851)
H: *Hyla arborea* Linnaeus, 1758
P: *Polystoma skrjabini* Buchvarov, 1984
P: *Pleurogenoides medians* (Olsson, 1876)
P: *Encyclometra colubrimurorum* (Rudolphi, 1819) Dollfuss 1929
P: *Proteocephalus* sp. Weinland, 1858
P: *Cosmocerca commutata* (Diesing, 1851)
P: *Cosmocerca ornata* (Dujardin, 1845)
P: *Oswaldocruzia filiformis* (Goeze, 1782) Travassos, 1917
P: *Acanthocephalus ranae* (Schrank, 1788) Lühe, 1911
H: *Pelobates syriacus* Boettger, 1889
P: *Polystoma* sp. Zeder, 1800
P: *Aplectana brumpti* Travassos, 1931
P: *Oxysomatium brevicaudatum* (Zeder, 1800) Railliet and Henry, 1916
P: *Skrjabinelazia taurica* Sypliaxov, 1930
P: *Polystoma nacialtuneli* sp. nov. Yıldırımhan, Du Perez and Verneau, 2012

- H: *Pelodytes caucasicus* Boulenger, 1896**
P: *Gorgodera cygnoides* (Zeder, 1800)
P: *Rhabdias bufonis* (Schrank, 1788) Stiles and Hassall, 1905
P: *Agfa tauricus* (Korol and Spiridonov, 1991)
P: *Aplectana brumpti* Travassos, 1931
P: *Cosmocerca ornata* (Dujardin, 1845)
P: *Oswaldocruzia filiformis* (Goeze, 1782) Travassos, 1917
P: *Pseudoacanthocephala caucasicus* (Petrotchenko, 1953) Petrotchenko, 1958
- URODELA**
- H: *Lyciasalamandra atifi* Başoğlu, 1967**
P: *Rhabdias bermani* Rausch, Rausch and Atrashkevich, 1984
P: *Aplectana acuminata* (Schrank, 1788) Railliet and Henry, 1916
P: *Cosmocerca longicauda* (von Linstow, 1885)
- H: *Lyciasalamandra fazilae* Başoğlu & Atatür, 1974**
P: *Aplectana linstowi* (Yorke and Maplestone, 1926)
P: *Cosmocerca longicauda* (von Linstow, 1885)
- H: *Lyciasalamandra antalyana* Başoğlu & Baran, 1976**
P: *Angiostoma aspersae* Morand, 1986
P: *Aplectana acuminata* (Schrank, 1788) Railliet and Henry, 1916
P: *Cosmocerca longicauda* (von Linstow, 1885)
- H: *Lyciasalamandra luschani* Steindachner, 1891**
P: *Angiostoma aspersae* Morand, 1986
- H: *Lyciasalamandra billae* Franzen & Klewen, 1987**
P: *Aplectana acuminata* (Schrank, 1788) Railliet and Henry, 1916
- P: *Cosmocerca longicauda* (von Linstow, 1885)
P: *Angiostoma aspersae* Morand, 1986
- H: *Triturus cristatus* Laurenti, 1768**
P: *Hedruris androphora* Nitzsch, 1821
P: *Spiroxys contortus* Rudolphi, 1819 (larvae)
- H: *Triturus vittatus* Gray, 1835**
P: *Oswaldocruzia filiformis* (Goeze, 1782) Travassos, 1917
P: *Megalobatrachonema terdentatum* (Linstow, 1890)
P: *Oxysomatium brevicaudatum* (Zeder, 1800) Railliet and Henry, 1916
- H: *Triturus karelini* Strauch, 1870**
P: *Oxysomatium brevicaudatum* (Zeder, 1800) Railliet and Henry, 1916
- H: *Mertensiella caucasica* Waga, 1876**
P: *Euzetrema caucasica* Timofeeva and Sharpilo, 1979
P: *Brachycoelium salamandrae* (Frölich, 1789)
P: *Opisthoglyphe rastellus* (Olsson, 1875) Looss, 1907
P: *Nematotaenia dispar* (Goeze, 1782) Lühe, 1899
P: *Amphibiocapillaria tritonispunctati* (Diesing, 1851) Moravec, 1982
P: *Aplectana acuminata* (Schrank, 1788) Railliet and Henry, 1916
P: *Cosmocerca longicauda* (von Linstow, 1885)
P: *Mertensinema iberica* Sharpilo, 1976
P: *Acanthocephalus ranae* (Schrank, 1788) Lühe, 1911
- H: *Neurergus strauchi* Steindacher, 1888**
P: *Cosmocerca commutata* (Diesing, 1851)
P: *Aplectana acuminata* (Schrank, 1788) Railliet and Henry, 1916

Table 1. Number of parasite and host species.

Parasite group	Number of parasites species	Number of host species
Monogenea	7	8
Digenea	24	12
Cestoda	2	5
Nematoda	30	24
Acanthocephala	6	11
Annelida	1	1
TOTAL	70	

Table 2. The list of parasite–hosts, locality, and record date and author.

Parasite and host	Locality	Author and record date
PHYLUM: PLATYHELMINTHES		
CLASS: MONOGENEA		
P: <i>Polystoma</i> sp. Zeder, 1800		
H: <i>Rana macrocnemis</i>	Bursa	Yıldırımhan et al., 1997a
H: <i>Rana camerani</i>	Kayseri, Kars	Yıldırımhan et al., 2006c
H: <i>Rana dalmatina</i>	Edirne, Bursa, Adapazarı	Düşen et al., 2009
H: <i>Pelobates syriacus</i>	Bursa, Konya, Edirne	Yıldırımhan and Bursey, 2010
P: <i>Polystoma nacialtuneli</i> sp. nov. Yıldırımhan, Du Perez and Verneau, 2012		
H: <i>Pelobates syriacus</i>	Bursa, Konya, Edirne	Yıldırımhan et al., 2012a
P: <i>Polystoma integerrimum</i> (Frölich, 1791) Rudolphi, 1808		
H: <i>Hyla savignyi</i>	Hatay	Yıldırımhan et al., 2012b
P: <i>Polystoma macrocnemis</i> Biserkov, Yıldırımhan, Uğurtaş, 2001		
H: <i>Rana macrocnemis</i>	Bursa	Biserkov et al., 2001
H: <i>Rana macrocnemis</i>	Bursa	Yıldırımhan et al., 2006b
P: <i>Polystoma viridis</i> Euzet, Combes, Butchvarov, 1974		
H: <i>Bufo (Pseudepidalea) viridis</i>	Bursa	Yıldırımhan, 1999
H: <i>Bufo (Pseudepidalea) viridis</i>	Çanakkale	Düşen et al., 2010
H: <i>Bufo (Pseudepidalea) viridis</i>	Denizli	Düşen, 2011
P: <i>Polystoma skrjabini</i> Buchvarov, 1984		
H: <i>Hyla arborea</i>	Antalya	Düşen and Öz, 2004
H: <i>Hyla arborea</i>	Bursa, Edirne, Sakarya	Yıldırımhan et al., 2006a
P: <i>Euzetrema caucasica</i> Timofeeva and Sharpilo, 1979		
H: <i>Mertensiella caucasica</i>	Trabzon	Yıldırımhan et al., 2005a
CLASS DIGENEA		
P: <i>Pleurogenes claviger</i> (Rudolphi, 1819)		
H: <i>Rana ridibunda</i>	Edirne, Bursa	Oğuz et al., 1994
H: <i>Rana macrocnemis</i>	Bursa	Yıldırımhan et al., 1997a
H: <i>Rana ridibunda</i>	Niğde	Topçu and Bayrak, 2000
H: <i>Rana ridibunda</i>	Eğirdir Lake	Kır et al., 2001
H: <i>Rana macrocnemis</i>	Bursa	Yıldırımhan et al., 2006b
H: <i>Rana dalmatina</i>	Edirne, Bursa, Adapazarı	Düşen et al., 2009
P: <i>Diplodiscus</i> sp. Diesing, 1836		
H: <i>Rana ridibunda</i>	Sivas	Saygı and Başibüyük, 1990
H: <i>Pelophylax ridibundus</i>	Muğla	Unal et al., 2007
P: <i>Diplodiscus subclavatus</i> (Pallas, 1760)		
H: <i>Rana ridibunda</i>	Edirne, Bursa	Oğuz et al., 1994
H: <i>Rana ridibunda</i>	Edirne, Bursa	Yıldırımhan et al., 1996
H: <i>Rana ridibunda</i>	Niğde	Topçu and Bayrak, 2000
H: <i>Rana ridibunda</i>	Eğirdir Lake	Kır et al., 2001
H: <i>Rana holtzi</i>	Çiniligöl, Karagöl	Topçu, 2002
H: <i>Rana ridibunda</i>	Bursa, İstanbul, Kütahya	Yıldırımhan et al., 2005b
H: <i>Rana ridibunda</i>	Antalya	Düşen and Öz, 2006
H: <i>Rana dalmatina</i>	Edirne, Bursa, Adapazarı	Düşen et al., 2009
H: <i>Rana ridibunda</i>	Çanakkale	Düşen et al., 2010

Table 2. (continued).

H: <i>Hyla savignyi</i>	Hatay	Yıldırımhan et al., 2012b
P: <i>Bucephalus polymorphus</i> (Baer, 1827)		
H: <i>Rana ridibunda</i>	Eğirdir Lake	Kır et al., 2001
P: <i>Pleurogenoides sp.</i> Travassos, 1921		
H: <i>Pelophylax ridibundus</i>	Muğla	Unal et al., 2007
P: <i>Pleurogenoides medians</i> (Olsson, 1876)		
H: <i>Rana ridibunda</i>	Edirne, Bursa	Oğuz et al., 1994
H: <i>Rana ridibunda</i>	Edirne, Bursa	Yıldırımhan et al., 1996
H: <i>Rana ridibunda</i>	Niğde	Topçu and Bayrak, 2000
H: <i>Rana holtzi</i>	Çiniligöl, Karagöl	Topçu, 2002
H: <i>Hyla arborea</i>	Antalya	Düşen and Öz, 2004
H: <i>Rana ridibunda</i>	İstanbul, Bursa	Yıldırımhan et al., 2005b
H: <i>Rana camerani</i>	Kayseri, Kars	Yıldırımhan et al., 2006c
H: <i>Rana macrocnemis</i>	Bursa	Yıldırımhan et al., 2006b
H: <i>Rana ridibunda</i>	Antalya	Düşen and Öz, 2006
H: <i>Rana ridibunda</i>	Hazar Lake	Sağlam and Arıkan, 2006
H: <i>Rana camerani</i>	Antalya	Düşen, 2007
H: <i>Rana dalmatina</i>	Edirne, Bursa, Adapazarı	Düşen et al., 2009
H: <i>Bufo (Pseudepidalea) viridis</i>	Çanakkale	Düşen et al., 2010
H: <i>Rana ridibunda</i>	Çanakkale	Düşen et al., 2010
H: <i>Bufo (Pseudepidalea) viridis</i>	Amasya, Çorum, Tokat	Düşen and Oğuz, 2010
H: <i>Hyla savignyi</i>	Hatay	Yıldırımhan et al., 2012b
P: <i>Pleurogenoides stromi</i> (Travassos, 1930)		
H: <i>Rana ridibunda</i>	İstanbul	Yıldırımhan et al., 2005b
P: <i>Halipegus kessleri</i> (Grebnitzky, 1872) Wlassenko, 1929		
H: <i>Hyla savignyi</i>	Hatay	Yıldırımhan et al., 2012b
P: <i>Encyclometra colubrimurorum</i> (Rudolphi, 1819) Dollfuss 1929 (metacercariae)		
H: <i>Hyla arborea</i>	Antalya	Düşen and Öz, 2004
H: <i>Rana ridibunda</i>	Antalya	Düşen and Öz, 2006
P: <i>Gorgoderia sp.</i> Looss, 1899		
H: <i>Rana ridibunda</i>	Sivas	Saygı and Başibüyük, 1990
P: <i>Gorgoderina sp.</i> Looss, 1902		
H: <i>Rana ridibunda</i>	Sivas	Saygı and Başibüyük, 1990
P: <i>Gorgoderina vitelliloba</i> Looss, 1902		
H: <i>Rana ridibunda</i>	Edirne, Bursa	Yıldırımhan et al., 1996
H: <i>Rana macrocnemis</i>	Bursa	Yıldırımhan et al., 1997a
H: <i>Rana ridibunda</i>	İstanbul, Kütahya	Yıldırımhan et al., 2005b
H: <i>Rana ridibunda</i>	Hazar Gölü	Sağlam and Arıkan, 2006
H: <i>Rana camerani</i>	Kayseri, Kars	Yıldırımhan et al., 2006c
H: <i>Rana holtzi</i>	Niğde	Yıldırımhan et al., 2006b
H: <i>Rana macrocnemis</i>	Bursa	Yıldırımhan et al., 2006b
H: <i>Rana ridibunda</i>	Antalya	Düşen and Öz, 2006
H: <i>Rana ridibunda</i>	Çanakkale	Düşen et al., 2010
H: <i>Rana ridibunda</i>	Amasya, Çorum, Tokat	Düşen and Oğuz, 2010
P: <i>Gorgoderia cygnoides</i> Zeder, 1800		
H: <i>Rana ridibunda</i>	Edirne, Bursa	Yıldırımhan et al., 1996

Table 2. (continued).

H: <i>Rana ridibunda</i>	Bursa	Yıldırımhan et al., 2005b
H: <i>Rana camerani</i>	Kayseri, Kars	Yıldırımhan et al., 2006c
H: <i>Rana ridibunda</i>	Antalya	Düşen and Öz, 2006
H: <i>Pelodytes caucasicus</i>	Trabzon	Yıldırımhan et al., 2009
H: <i>Rana ridibunda</i>	Çanakkale	Düşen et al., 2010
H: <i>Rana ridibunda</i>	Amasya, Çorum, Tokat	Düşen and Oğuz, 2010
P: <i>Haplometra cylindracea</i> (Zeder, 1800)		
H: <i>Rana holtzi</i>	Niğde	Yıldırımhan et al., 2006b
H: <i>Rana camerani</i>	Kayseri, Kars	Yıldırımhan et al., 2006c
H: <i>Rana macrocnemis</i>	Bursa	Yıldırımhan et al., 2006b
H: <i>Rana camerani</i>	Antalya	Düşen, 2007
H: <i>Rana macrocnemis</i>	Antalya	Düşen, 2007
H: <i>Rana tavasensis</i>	Denizli	Düşen, 2012
P: <i>Rauschiella</i> sp. Babero, 1951		
H: <i>Rana ridibunda</i>	Edirne, Bursa	Yıldırımhan et al., 1996
P: <i>Haematoloechus variegatus</i> (Rudolphi, 1819)		
H: <i>Rana ridibunda</i>	Edirne, Bursa	Yıldırımhan et al., 1996
H: <i>Rana ridibunda</i>	Hazar Lake	Sağlam and Arıkan, 2006
P: <i>Haematoloechus breviansa</i> (Sudarikov, 1950)		
H: <i>Rana ridibunda</i>	Edirne, Bursa	Yıldırımhan et al., 1996
H: <i>Rana ridibunda</i>	İstanbul	Yıldırımhan et al., 2005b
H: <i>Rana ridibunda</i>	Antalya	Düşen and Öz, 2006
H: <i>Rana ridibunda</i>	Amasya, Çorum, Tokat	Düşen and Oğuz, 2010
P: <i>Opisthoglyphe ranae</i> (Frolich, 1791)		
H: <i>Rana ridibunda</i>	Edirne, Bursa	Yıldırımhan et al., 1996
H: <i>Rana ridibunda</i>	Niğde	Topçu and Bayrak, 2000
H: <i>Bombina bombina</i>	Sakarya, Edirne	Yıldırımhan et al., 2001
H: <i>Rana holtzi</i>	Çiniligöl, Karagöl	Topçu, 2002
H: <i>Rana ridibunda</i>	İstanbul, Bursa	Yıldırımhan et al., 2005b
H: <i>Rana ridibunda</i>	Antalya	Düşen and Öz, 2006
H: <i>Rana ridibunda</i>	Amasya, Çorum, Tokat	Düşen and Oğuz, 2010
P: <i>Opisthoglyphe rastellus</i> (Olsson, 1875) Looss, 1907		
H: <i>Mertensiella caucasica</i>	Trabzon	Yıldırımhan et al., 2005a
H: <i>Rana camerani</i>	Kayseri, Kars	Yıldırımhan et al., 2006c
H: <i>Rana holtzi</i>	Niğde	Yıldırımhan et al., 2006b
H: <i>Rana macrocnemis</i>	Bursa	Yıldırımhan et al., 2006b
H: <i>Rana camerani</i>	Antalya	Düşen, 2007
P: <i>Candidotrema loossi</i> (Afrika, 1930)		
H: <i>Rana ridibunda</i>	Edirne, Bursa	Yıldırımhan et al., 1996
P: <i>Prosotocus confusus</i> (Looss, 1894) Looss, 1899		
H: <i>Rana ridibunda</i>	Edirne, Bursa	Yıldırımhan et al., 1996
H: <i>Rana ridibunda</i>	İstanbul, Bursa	Yıldırımhan et al., 2005b
H: <i>Rana ridibunda</i>	Antalya	Düşen and Öz, 2006
P: <i>Codonocephalus urnigerus</i> (Rudolphi, 1819)		
H: <i>Rana ridibunda</i>	Edirne, Bursa	Yıldırımhan et al., 1996
H: <i>Rana ridibunda</i>	İstanbul	Yıldırımhan et al., 2005b

Table 2. (continued).

H: <i>Rana ridibunda</i>	Antalya	Düşen and Öz, 2006
P: <i>Plagiorchis</i> sp. Lühe, 1899		
H: <i>Rana ridibunda</i>	Sivas	Saygı and Başbüyük, 1990
H: <i>Pelophylax ridibundus</i>	Muğla	Unal et al., 2007
P: <i>Brachycoelium salamandrae</i> (Frölich, 1789)		
H: <i>Mertensiella caucasica</i>	Trabzon	Yıldırımhan et al., 2005a
H: <i>Rana ridibunda</i>	Antalya	Düşen and Öz, 2006
H: <i>Rana ridibunda</i>	Çanakkale	Düşen et al., 2010
Classis: Cestoda		
P: <i>Proteocephalus</i> sp. Weinland, 1858 (plerocercoid stage)		
H: <i>Bufo (Pseudepidalea) viridis</i>	Bursa	Yıldırımhan, 1999
H: <i>Bufo (Pseudepidalea) viridis</i>	Niğde	Topçu and Bayrak, 2000
H: <i>Hyla arborea</i>	Antalya	Düşen and Öz, 2004
P: <i>Nematotaenia dispar</i> (Goeze, 1782) Lühe, 1899		
H: <i>Bufo (Pseudepidalea) viridis</i>	Bursa	Yıldırımhan, 1999
H: <i>Mertensiella caucasica</i>	Trabzon	Yıldırımhan et al., 2005a
H: <i>Rana camerani</i>	Kayseri, Kars	Yıldırımhan et al., 2006c
H: <i>Bufo (Pseudepidalea) viridis</i>	Çanakkale	Düşen et al., 2010
H: <i>Bufo (Pseudepidalea) viridis</i>	Amasya, Çorum, Tokat	Düşen and Oğuz, 2010
H: <i>Bufo (Pseudepidalea) viridis</i>	Denizli	Düşen, 2011
H: <i>Hyla savignyi</i>	Hatay	Yıldırımhan et al., 2012b
Phylum: Nemathelminthes		
P: <i>Rhabdias</i> sp. Stiles and Hassall, 1905		
H: <i>Bufo (Pseudepidalea) viridis</i>	Turkey	Schad et al., 1960
H: <i>Rana macrocnemis</i>	Turkey	Schad et al., 1960
P: <i>Rhabdias bufonis</i> (Schränk, 1788) Stiles and Hassall, 1905		
H: <i>Rana ridibunda</i>	Edirne, Bursa	Yıldırımhan et al., 1996
H: <i>Rana ridibunda</i>	Bursa	Yıldırımhan et al., 1997b
H: <i>Bufo bufo</i>	Bursa	Yıldırımhan et al., 1997b
H: <i>Bufo (Pseudepidalea) viridis</i>	Bursa	Yıldırımhan, 1999
H: <i>Bombina bombina</i>	Edirne, Sakarya	Yıldırımhan et al., 2001
H: <i>Rana ridibunda</i>	Eğirdir Lake	Kır et al., 2001
H: <i>Rana camerani</i>	Kayseri, Kars	Yıldırımhan et al., 2006c
H: <i>Rana macrocnemis</i>	Bursa	Yıldırımhan et al., 2006b
H: <i>Rana ridibunda</i>	Hazar Lake	Sağlam and Arıkan, 2006
H: <i>Rana ridibunda</i>	Antalya	Düşen and Öz, 2006
H: <i>Bufo bufo</i>	Trabzon	Yıldırımhan and Karadeniz, 2007
H: <i>Rana dalmatina</i>	Edirne, Bursa, Adapazarı	Düşen et al., 2009
H: <i>Pelodytes caucasicus</i>	Trabzon	Yıldırımhan et al., 2009
H: <i>Bufo bufo</i>	Denizli	Düşen, 2011
H: <i>Bufo (Pseudepidalea) viridis</i>	Denizli	Düşen, 2011
P: <i>Rhabdias bermani</i> Rausch, Rausch and Atrashkevich, 1984		
H: <i>Lyciasalamandra atifi</i>	Antalya	Yıldırımhan et al., 2012c
P: <i>Oswaldocruzia</i> sp. Travassos, 1917		
H: <i>Bufo (Pseudepidalea) viridis</i>	Turkey	Schad et al., 1960
H: <i>Rana ridibunda</i>	Edirne, Bursa	Yıldırımhan et al., 1996

Table 2. (continued).

H: <i>Bufo bufo</i>	Bursa	Yıldırımhan et al., 1997b
P: <i>Oswaldocruzia filiformis</i> (Goeze, 1782) Travassos, 1917		
H: <i>Rana macrocnemis</i>	Turkey	Schad et al., 1960
H: <i>Bufo regularis</i>	Turkey	Schad et al., 1960
H: <i>Rana macrocnemis</i>	Bursa	Yıldırımhan et al., 1997a
H: <i>Bufo (Pseudepidalea) viridis</i>	Bursa	Yıldırımhan, 1999
H: <i>Bufo (Pseudepidalea) viridis</i>	Niğde	Topçu and Bayrak, 2000
H: <i>Rana ridibunda</i>	Bursa, Rize	Yıldırımhan et al., 2005b
H: <i>Hyla arborea</i>	Bursa, Edirne, Sakarya	Yıldırımhan et al., 2006a
H: <i>Rana camerani</i>	Kayseri, Kars	Yıldırımhan et al., 2006c
H: <i>Rana macrocnemis</i>	Bursa	Yıldırımhan et al., 2006b
H: <i>Rana ridibunda</i>	Hazar Lake	Sağlam and Arıkan, 2006
H: <i>Bufo bufo</i>	Trabzon	Yıldırımhan and Karadeniz, 2007
H: <i>Triturus vittatus</i>	Bursa	Yıldırımhan, 2008
H: <i>Pelodytes caucasicus</i>	Trabzon	Yıldırımhan et al., 2009
H: <i>Rana dalmatina</i>	Edirne, Bursa, Adapazarı	Düşen et al., 2009
H: <i>Bufo (Pseudepidalea) viridis</i>	Çanakkale	Düşen et al., 2010
H: <i>Bufo bufo</i>	Amasya, Çorum, Tokat	Düşen and Oğuz, 2010
H: <i>Bufo (Pseudepidalea) viridis</i>	Amasya, Çorum, Tokat	Düşen and Oğuz, 2010
H: <i>Rana ridibunda</i>	Amasya, Çorum, Tokat	Düşen and Oğuz, 2010
H: <i>Bufo bufo</i>	Denizli	Düşen, 2011
H: <i>Bufo (Pseudepidalea) viridis</i>	Denizli	Düşen, 2011
P: <i>Cosmocerca</i> sp. Diesing, 1861		
H: <i>Rana ridibunda</i>	Sivas	Saygı and Başbüyük, 1990
H: <i>Rana ridibunda</i>	Edirne, Bursa	Yıldırımhan et al., 1996
H: <i>Rana ridibunda</i>	Bursa	Yıldırımhan et al., 1997b
H: <i>Rana macrocnemis</i>	Bursa	Yıldırımhan et al., 1997a
H: <i>Rana ridibunda</i>	Niğde	Topçu and Bayrak, 2000
H: <i>Bombina bombina</i>	Edirne, Sakarya	Yıldırımhan et al., 2001
H: <i>Pelophylax ridibundus</i>	Muğla	Unal et al., 2007
P: <i>Cosmocerca commutata</i> (Diesing, 1851)		
H: <i>Bufo (Pseudepidalea) viridis</i>	Turkey	Schad et al., 1960
H: <i>Bufo (Pseudepidalea) viridis</i>	Bursa	Yıldırımhan, 1999
H: <i>Hyla arborea</i>	Antalya	Düşen and Öz, 2004
H: <i>Rana ridibunda</i>	Antalya	Düşen and Öz, 2006
H: <i>Neurergus strauchii</i>	Malatya, Bitlis	Yıldırımhan, 2007
H: <i>Bufo (Pseudepidalea) viridis</i>	Denizli	Düşen, 2011
H: <i>Hyla savignyi</i>	Hatay	Yıldırımhan et al., 2012b
H: <i>Neurergus strauchii</i>	Bingöl	Koyun et al., 2013
P: <i>Cosmocerca ornata</i> (Dujardin, 1845)		
H: <i>Bufo (Pseudepidalea) viridis</i>	Turkey	Schad et al., 1960
H: <i>Rana macrocnemis</i>	Turkey	Schad et al., 1960
H: <i>Rana ridibunda</i>	Turkey	Schad et al., 1960
H: <i>Rana ridibunda</i>	İstanbul, Bursa, Kütahya, Rize	Yıldırımhan et al., 2005b
H: <i>Hyla arborea</i>	Bursa, Edirne, Sakarya	Yıldırımhan et al., 2006a
H: <i>Rana camerani</i>	Kayseri, Kars	Yıldırımhan et al., 2006c

Table 2. (continued).

H: <i>Rana holtzi</i>	Niğde	Yıldırımhan et al., 2006b
H: <i>Rana macrocnemis</i>	Bursa	Yıldırımhan et al., 2006b
H: <i>Bufo bufo</i>	Trabzon	Yıldırımhan and Karadeniz, 2007
H: <i>Rana camerani</i>	Antalya	Düşen, 2007
H: <i>Rana macrocnemis</i>	Antalya	Düşen, 2007
H: <i>Pelodytes caucasicus</i>	Trabzon	Yıldırımhan et al., 2009
H: <i>Rana dalmatina</i>	Edirne, Bursa, Adapazarı	Düşen et al., 2009
H: <i>Bufo bufo</i>	Çanakkale	Düşen et al., 2010
H: <i>Bufo (Pseudepidalea) viridis</i>	Çanakkale	Düşen et al., 2010
H: <i>Rana ridibunda</i>	Çanakkale	Düşen et al., 2010
H: <i>Bufo (Pseudepidalea) viridis</i>	Amasya, Çorum, Tokat	Düşen and Oğuz, 2010
H: <i>Rana ridibunda</i>	Amasya, Çorum, Tokat	Düşen and Oğuz, 2010
H: <i>Bufo bufo</i>	Denizli	Düşen, 2011
H: <i>Bufo (Pseudepidalea) viridis</i>	Denizli	Düşen, 2011
H: <i>Rana tavasensis</i>	Denizli	Düşen, 2012
P: <i>Cosmocercoides</i> sp. Wilkie, 1930		
H: <i>Bufo (Pseudepidalea) viridis</i>	Bursa	Yıldırımhan, 1999
H: <i>Rana ridibunda</i>	Hazar Gölü	Sağlam and Arıkan, 2006
P: <i>Neoxysomatium</i> sp. Ballesteros-Martinez, 1945		
H: <i>Rana ridibunda</i>	Antalya	Düşen and Öz, 2006
P: <i>Neoxysomatium brevicaudatum</i> (Zeder, 1800)		
H: <i>Bufo (Pseudepidalea) viridis</i>	Bursa	Yıldırımhan, 1999
H: <i>Rana ridibunda</i>	Rize	Yıldırımhan et al., 2005b
H: <i>Rana ridibunda</i>	Hazar Lake	Sağlam and Arıkan, 2006
P: <i>Oxysomatium brevicaudatum</i> (Zeder, 1800) Railliet and Henry, 1916		
H: <i>Bufo regularis</i>	Turkey	Schad et al., 1960
H: <i>Bufo (Pseudepidalea) viridis</i>	Turkey	Schad et al., 1960
H: <i>Rana macrocnemis</i>	Turkey	Schad et al., 1960
H: <i>Rana ridibunda</i>	Turkey	Schad et al., 1960
H: <i>Bufo bufo</i>	Bursa	Yıldırımhan et al., 1997b
H: <i>Pelobates syriacus</i>	Bursa	Yıldırımhan et al., 1997b
H: <i>Bufo (Pseudepidalea) viridis</i>	Niğde	Topçu and Bayrak, 2000
H: <i>Triturus vittatus</i>	Bursa	Yıldırımhan, 2008
H: <i>Triturus karelinii</i>	Bursa	Yıldırımhan, 2008
H: <i>Rana dalmatina</i>	Edirne, Bursa, Adapazarı	Düşen et al., 2009
H: <i>Bufo bufo</i>	Çanakkale	Düşen et al., 2010
H: <i>Bufo (Pseudepidalea) viridis</i>	Çanakkale	Düşen et al., 2010
H: <i>Rana ridibunda</i>	Çanakkale	Düşen et al., 2010
H: <i>Bufo bufo</i>	Amasya, Çorum, Tokat	Düşen and Oğuz, 2010
H: <i>Bufo (Pseudepidalea) viridis</i>	Amasya, Çorum, Tokat	Düşen and Oğuz, 2010
H: <i>Rana ridibunda</i>	Amasya, Çorum, Tokat	Düşen and Oğuz, 2010
H: <i>Pelobates syriacus</i>	Bursa, Konya, Edirne	Yıldırımhan and Bursey, 2010
H: <i>Bufo bufo</i>	Denizli	Düşen, 2011
H: <i>Bufo (Pseudepidalea) viridis</i>	Denizli	Düşen, 2011
P: <i>Megalobatrachonema terdentatum</i> (Linstow, 1890)		
H: <i>Triturus vittatus</i>	Bursa	Yıldırımhan, 2008

Table 2. (continued).

P: <i>Eustrongylides</i> sp. Jägerskiöld, 1909		
H: <i>Rana ridibunda</i>	Antalya	Düşen and Öz, 2006
P: <i>Eustrongylides excisus</i> (Jägerskiöld, 1909)		
H: <i>Rana ridibunda</i>	İstanbul	Yıldırımhan et al., 2005b
H: <i>Rana ridibunda</i>	Hazar Lake	Sağlam and Arıkan, 2006
P: <i>Abbreviata</i> sp. (Travassos, 1920) Schulz, 1927		
H: <i>Rana ridibunda</i>	Antalya	Düşen and Öz, 2006
P: <i>Aplectana acuminata</i> (Schrank, 1788) Ralliet and Henry, 1916		
H: <i>Mertensiella caucasica</i>	Trabzon	Yıldırımhan et al., 2005a
H: <i>Bufo bufo</i>	Trabzon	Yıldırımhan and Karadeniz, 2007
H: <i>Lyciasalamandra billae</i>	Antalya	Yıldırımhan and Öz, 2008
H: <i>Lyciasalamandra antalyana</i>	Antalya	Yıldırımhan et al., 2011
H: <i>Lyciasalamandra atifi</i>	Antalya	Yıldırımhan et al., 2012c
H: <i>Neurergus strauchii</i>	Bingöl	Koyun et al., 2013
P: <i>Aplectana macintoshii</i> (Stewart, 1914)		
H: <i>Bufo bufo</i>	Trabzon	Yıldırımhan and Karadeniz, 2007
P: <i>Aplectana brumpti</i> Travassos, 1931		
H: <i>Bufo (Pseudepidalea) viridis</i>	Turkey	Schad et al., 1960
H: <i>Pelobates syriacus</i>	Turkey	Schad et al., 1960
H: <i>Pelodytes caucasicus</i>	Trabzon	Yıldırımhan et al., 2009
H: <i>Pelobates syriacus</i>	Bursa, Konya, Edirne	Yıldırımhan and Bursey, 2010
H: <i>Hyla savignyi</i>	Hatay	Yıldırımhan et al., 2012b
P: <i>Aplectana linstowi</i> (Yorke and Maplestone, 1926)		
H: <i>Lyciasalamandra fazilae</i>	Antalya	Yıldırımhan et al., 2012c
P: <i>Aplectana schneideri</i> (Travassos, 1931)		
H: <i>Bufo regularis</i>	Turkey	Schad et al., 1960
P: <i>Agfa tauricus</i> (Korol and Spiridonov, 1991)		
H: <i>Pelodytes caucasicus</i>	Trabzon	Yıldırımhan et al., 2009
P: <i>Cosmocerca longicauda</i> (von Linstow, 1885)		
H: <i>Mertensiella caucasica</i>	Trabzon	Yıldırımhan et al., 2005a
H: <i>Lyciasalamandra billae</i>	Antalya	Yıldırımhan and Öz, 2008
H: <i>Lyciasalamandra antalyana</i>	Antalya	Yıldırımhan et al., 2011
H: <i>Lyciasalamandra fazilae</i>	Antalya	Yıldırımhan et al., 2012c
H: <i>Lyciasalamandra atifi</i>	Antalya	Yıldırımhan et al., 2012c
P: <i>Angiostoma aspersae</i> Morand, 1986		
H: <i>Lyciasalamandra billae</i>	Antalya	Yıldırımhan and Öz, 2008
H: <i>Lyciasalamandra antalyana</i>	Antalya	Yıldırımhan et al., 2011
H: <i>Lyciasalamandra luschani</i>	Antalya	Yıldırımhan et al., 2011
P: <i>Skrjabinelazia taurica</i> Sypliaxov, 1930		
H: <i>Pelobates syriacus</i>	Bursa, Konya, Edirne	Yıldırımhan and Bursey, 2010
P: <i>Mertensinema iberica</i> Sharpilo, 1976		
H: <i>Mertensiella caucasica</i>	Trabzon	Yıldırımhan et al., 2005a
P: <i>Amphibiocapillaria tritonispunctati</i> (Diesing, 1851) Moravec, 1982		
H: <i>Mertensiella caucasica</i>	Trabzon	Yıldırımhan et al., 2005a
P: <i>Hedruris androphora</i> Nitzsch, 1821		
H: <i>Triturus cristatus</i>	Turkey	Schad et al., 1960

Table 2. (continued).

P: Spiroxys contortus Rudolphi, 1819		
H: <i>Triturus cristatus</i>	Turkey	Schad et al., 1960
P: Foleyella sp. Seurat, 1917		
H: <i>Pelophylax ridibundus</i>	Muğla	Unal et al., 2007
Phylum: Acanthocephala		
P: Acanthocephalus sp. Koelreuter, 1771		
H: <i>Rana ridibunda</i>	Sivas	Saygı and Başbüyük, 1990
H: <i>Rana ridibunda</i>	Niğde	Topçu and Bayrak, 2000
P: Acanthocephalus ranae (Schrank, 1788) Lühe, 1911		
H: <i>Rana ridibunda</i>	Edirne, Bursa	Oğuz et al., 1994
H: <i>Rana ridibunda</i>	Edirne, Bursa	Yıldırımhan et al., 1996
H: <i>Rana macrocnemis</i>	Bursa	Yıldırımhan et al., 1997a
H: <i>Bufo (Pseudepidalea) viridis</i>	Bursa	Yıldırımhan, 1999
H: <i>Rana ridibunda</i>	Niğde	Topçu and Bayrak, 2000
H: <i>Bombina bombina</i>	Sakarya, Edirne	Yıldırımhan et al., 2001
H: <i>Rana ridibunda</i>	Eğirdir Lake	Kır et al., 2001
H: <i>Hyla arborea</i>	Antalya	Düşen and Öz, 2004
H: <i>Mertensiella caucasica</i>	Trabzon	Yıldırımhan et al., 2005a
H: <i>Rana ridibunda</i>	İstanbul, Bursa, Rize	Yıldırımhan et al., 2005b
H: <i>Rana camerani</i>	Kayseri, Kars	Yıldırımhan et al., 2006c
H: <i>Rana macrocnemis</i>	Bursa	Yıldırımhan et al., 2006b
H: <i>Rana ridibunda</i>	Antalya	Düşen and Öz, 2006
H: <i>Rana ridibunda</i>	Hazar Lake	Sağlam and Arıkan, 2006
H: <i>Bufo bufo</i>	Trabzon	Yıldırımhan and Karadeniz, 2007
H: <i>Rana macrocnemis</i>	Antalya	Düşen, 2007
H: <i>Rana dalmatina</i>	Edirne, Bursa, Adapazarı	Düşen et al., 2009
H: <i>Rana ridibunda</i>	Amasya, Çorum, Tokat	Düşen and Oğuz, 2010
H: <i>Bufo bufo</i>	Denizli	Düşen, 2011
H: <i>Rana ridibunda</i> , <i>R. tavasensis</i> , <i>R. macrocnemis</i> , <i>R. dalmatina</i> , <i>Hyla arborea</i> , <i>Bufo bufo</i>	Denizli, Antalya, Burdur, Bursa, Sakarya	Heckmann et al., 2011
H: <i>Rana tavasensis</i>	Denizli	Düşen, 2012
P: Centrorhynchus sp. Lühe, 1911		
H: <i>Rana ridibunda</i>	İstanbul	Yıldırımhan et al., 2005b
P: Pomphorhynchus laevis Müller, 1776		
H: <i>Rana ridibunda</i>	Amasya, Denizli	Düşen and Oğuz, 2008
H: <i>Rana ridibunda</i>	Amasya, Çorum, Tokat	Düşen and Oğuz, 2010
P: Pomphorhynchus spindlettrancatus Amin, Abdullah and Mhaise, 2003		
H: <i>Pelophylax ridibundus</i>	İşık Lake, Denizli	Heckmann et al., 2010
P: Pseudoacanthocephala caucasicus (Petrotchenko, 1953) Petrotchenko, 1958		
H: <i>Pelodytes caucasicus</i>	Trabzon	Yıldırımhan et al., 2009
Phylum: Annelida		
P: Hirudo medicinalis Linne, 1758		
H: <i>Rana ridibunda</i>	Edirne, Bursa	Yıldırımhan et al., 1996
H: <i>Rana ridibunda</i>	Eğirdir Lake	Kır et al., 2001
H: <i>Rana ridibunda</i>	İstanbul	Yıldırımhan et al., 2005b

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