



Adult Trematodes (Platyhelminthes) of freshwater fishes from Argentina: a checklist

Authors: Núñez, Margarita Ostrowski de, Arredondo, Nathalia J., and Pertierra, Alicia A. Gil de

Source: *Revue suisse de Zoologie*, 124(1) : 91-113

Published By: Muséum d'histoire naturelle, Genève

URL: <https://doi.org/10.5281/zenodo.322669>

BioOne Complete (complete.BioOne.org) is a full-text database of 200 subscribed and open-access titles in the biological, ecological, and environmental sciences published by nonprofit societies, associations, museums, institutions, and presses.

Your use of this PDF, the BioOne Complete website, and all posted and associated content indicates your acceptance of BioOne's Terms of Use, available at www.bioone.org/terms-of-use.

Usage of BioOne Complete content is strictly limited to personal, educational, and non-commercial use. Commercial inquiries or rights and permissions requests should be directed to the individual publisher as copyright holder.

BioOne sees sustainable scholarly publishing as an inherently collaborative enterprise connecting authors, nonprofit publishers, academic institutions, research libraries, and research funders in the common goal of maximizing access to critical research.

Adult Trematodes (Platyhelminthes) of freshwater fishes from Argentina: a checklist

Margarita Ostrowski de Núñez¹, Nathalia J. Arredondo^{1,2*} & Alicia A. Gil de Pertierra²

¹ Instituto de Biodiversidad y Biología Experimental y Aplicada (IBBEA, CONICET), Ciudad Autónoma de Buenos Aires, Argentina. E-mail: ostrowskimargarita@gmail.com

² Laboratorio de Helmintología, Departamento de Biodiversidad y Biología Experimental, Facultad de Ciencias Exactas y Naturales, Ciudad Universitaria, Int. Güiraldes 2160, Pabellón II, 4° Piso, Universidad de Buenos Aires. E-mail: helmintog.fcen.uba.ar

* Corresponding author; E-mail: natha_ar12@yahoo.com.ar

Abstract: This work provides information on the occurrence of adult trematodes (Aspidogastrea and Digenea) in freshwater fishes from Argentina. To date, a total of 77 trematode species belonging to 21 families have been recorded. Haploporidae, Allocreadiidae and Cryptogonimidae (15, nine and nine species, respectively) showed the highest species richness, whereas the number of species ranged from one to seven species for the other 18 families. Of these, five new species have been recently described in Argentina; nine were cited for the first time; 17 had new host records, and 28 were reported from new localities. The orders Characiformes, Perciformes and Siluriformes harboured the highest richness of trematode species.

Keywords: Biodiversity - Aspidogastrea - Digenea - New hosts - First records - New localities.

INTRODUCTION

The first study of Trematoda of freshwater fishes in Argentina was conducted by Szidat (1951), and since then several new species have been described. Since the study of South-American trematodes by Kohn *et al.* (2007) and other work of parasites restricted to the middle Paraná River (Chemes & Takemoto, 2011), 15 new species of freshwater fish trematodes have been described and/or recorded for this region, making a total of 199 fully identified species at the adult stage. Recently, an attempt was made to provide a worldwide overview on freshwater fish trematodes (Choudhury *et al.*, 2016; Scholz *et al.*, 2016).

The freshwater fish fauna of Argentina consists of more than 500 species, with new species being constantly described (Menni, 2004; Cussac *et al.*, 2009; Almirón *et al.*, 2008, 2015; Mirande & Koerber, 2015).

The objective of the present checklist is to update the diversity of adult trematodes from freshwater fishes from Argentina. It is based on published papers cited in the references, and records of species cited for the first time or that were found in new hosts and localities, which were obtained by the authors during the last 26 years.

MATERIAL AND METHODS

The checklist is based upon published papers between 1951 and 2016. The Trematoda are presented according to families in alphabetical order; each taxon contains information on the species such as authority and year, synonyms, acronyms of museums for the deposited material, host(s) (including type host and country), localities (including type locality and country), site of infection, life cycle (when it is completely known), references and remarks (when justified). A list of fish hosts and their trematodes is also included. The classification for trematodes follows the Keys to the Trematoda (Gibson *et al.*, 2002; Jones *et al.*, 2005; Bray *et al.*, 2008) and the fish classification is according Fishbase (Froese & Pauly, 2016).

Acronyms for the helminthological collections are: BMNH - British Museum of Natural History, London, United Kingdom; CHIOC - Helminthological Collection of the Oswaldo Cruz Institute, Rio de Janeiro, Brazil; IPCAS - Institute of Parasitology, Academy of Science of the Czech Republic, Ceské Budějovice, Czech Republic; MACN-Pa - Museo Argentino de Ciencias Naturales "Bernardino Rivadavia", Buenos Aires, Argentina; MLP

- Museo de La Plata, Buenos Aires, Argentina; NHM - Naturhistorisches Museum Wien, Vienna, Austria; NSMT-PI - National Science Museum, Tokyo, Japan [now National Museum of Nature and Science (NMNS)]; NRM - Swedish Museum of Natural History, Stockholm, Sweden; UNC - Parasite Collection of the Universidad Nacional del Comahue, Bariloche, Argentina; USNM - United States National Parasite Collection, Washington, U.S.A [recently transferred to the National Museum of Natural History (NMNH)]. Deposition numbers at MACN are indicated only for new voucher material. The following abbreviations and symbols are used: *new host registered by the present authors; **new locality registered by the present authors; ● indicated doubtful fish host; IH1, first intermediate host; IH2, second intermediate host; and FH, final host.

RESULTS

Class Trematoda Rudolphi, 1808
Subclass Aspidogastrea Faust & Tang, 1936
Family Aspidogastridae Poche, 1907
***Lobatostoma* Eckmann, 1932**
***Lobatostoma jungwirthi* Kritscher, 1974**

Material deposited: MACN-Pa 582/1–5 (new voucher material), MLP, NHM (type material).

Hosts: *Gymnogeophagus rhabdotus* (Hensel) (= *Geophagus brachyurus* Cope) (type host, Brazil), *Australoheros facetus* (Jenyns) [= *Cichlasoma facetum* (Jenyns)] (Perciformes: Cichlidae).

Life cycle: IH1 *Heleobia castellanosa* Gaillard, *Heleobia parchappii* (d'Orbigny) (Gastropoda: Rissooidea) (natural hosts); FH *A. facetus* (natural host), *Gymnogeophagus meridionalis* Reis & Malabarba (experimental host).

Localities: Rio dos Sinos (San Leopoldo), Rio Grande do Sul State, Brazil (type locality); Cantera (quarry) (Berisso), Chascomús Lagoon (Chascomús) and Saladita Pond (Avellaneda), Buenos Aires Province; Tres de Febrero Park (artificial pond), Buenos Aires City.

Site of infection: Gonads and digestive gland in the molluscan host, posterior intestine and rectum in the cichlid fishes.

References: Kritscher (1974) Lunaschi (1984a), Zylber & Ostrowski de Núñez (1999), Paola & Damborenea (2001).

Remarks: Some specimens began egg production in the molluscan host. Paola & Damborenea (2001) studied the tegument surface of the species.

Subclass Digenea Carus, 1863
Family Allocreadiidae Looss, 1902
***Allocreadium* Looss, 1900**
***Allocreadium patagonicum* Shimazu, Urawa & Coria, 2000**

Polylekithum percai Ostrowski de Núñez, Brugni & Viozzi, 2000

Material deposited: BNMH, IPCAS (type material), MACN-Pa, NSMT-PI (type material); UNC.

Hosts: *Percichthys colhuapiensis* (MacDonagh) (type host), *Percichthys trucha* (Valenciennes) (Perciformes: Percichthyidae).

Locality: Aluminé Lake (type locality), Neuquén Province; Falkner, Moreno and Escondido Lakes, Rio Negro Province; Rivadavia Lake, Chubut Province.

Site of infection: Intestine.

References: Ostrowski de Núñez *et al.* (2000), Shimazu *et al.* (2000), Flores *et al.* (2004).

Remarks: Ostrowski de Núñez *et al.* (2000) described *P. percai* from *P. trucha* in Patagonia; posteriorly Flores *et al.* (2004) considered this species as synonym of *A. patagonicum*.

***Allocreadium pichi* Flores, Brugni & Ostrowski de Núñez, 2004**

Material deposited: BMNH (type material), MACN-Pa (type material), MLP (type material), UNC (type material).

Hosts: *Galaxias maculatus* (Jenyns) (type host) (Osmeriformes: Galaxiidae).

Locality: Moreno Lake, Río Negro Province (type locality).

Site of infection: Intestine.

Reference: Flores *et al.* (2004).

***Auriculostoma* Scholz, Aguirre-Macedo & Choudhury, 2004**
***Auriculostoma macrorchis* (Szidat, 1954)**

Crepidostomum macrorchis Szidat, 1954

Material deposited: MACN-Pa 583, 584/1–2, 585/1–3, 586/1–2 (type and new voucher material).

Hosts: *Pachyurus bonariensis* Steindachner (type host) (Perciformes: Scienidae); *Ageneiosus inermis* (Linnaeus), *Ageneiosus militaris** Valenciennes, *Auchenipterus nigripinnis* (Boulenger), *Auchenipterus osteomystax* (Miranda Ribeiro) [= *Auchenipterus nuchalis* (Spix and Agassiz)] (Siluriformes: Auchenipteridae), *Luciopermelodus pati** (Valenciennes) (Siluriformes:

Pimelodidae), *Rhinodoras dorbignyi** (Kner) (Siluriformes: Doradidae).

Localities: La Plata River, Buenos Aires City (type locality); Middle Paraná River, Corrientes Province; Colastiné River** (tributary of the Paraná River) (31°40'S, 60°46'W), Santa Fe Province; Paraná-Guazú River** (33°54'S; 58°52'W), Entre Ríos Province.

Site of infection: Anterior, middle and posterior part of intestine.

References: Szidat (1954), Hamann (1988), Scholz *et al.* (2004), Arredondo (2013).

Remarks: New hosts and localities records. Hamann (1988) indicated the presence of *A. macrorchis* in *A. nuchalis*, but according to Liotta (2005) and to Froese & Pauly (2016), the records of this species probably correspond to *A. osteomystax*.

Auriculostoma platense (Szidat, 1954)

Crepidostomum platense Szidat, 1954

Material deposited: MACN-Pa 587, 588/1–2, 589 (type and new voucher material).

Hosts: *Iheringichthys labrosus* (Lütken), *Pimelodus maculatus* Lacépède (= *Pimelodus clarias* Lacépède) (Siluriformes: Pimelodidae) and *Rhinodoras dorbignyi* (Siluriformes: Doradidae) (type host not assigned); *Pimelodus albicans** (Valenciennes), *Pimelodus argenteus** Perugia (Siluriformes: Pimelodidae), *Rhamphichthys rostratus** (Linnaeus) (Gymnotiformes: Rhamphichthyidae).

Localities: La Plata River, Buenos Aires City (type locality); Colastiné River** (tributary of the Paraná River), Santa Fe Province.

Site of infection: Intestine.

References: Szidat (1954), Scholz *et al.* (2004), Arredondo (2013).

Remarks: New hosts and locality records.

Creptotrema Travassos, Artigas & Pereira, 1928

Creptotrema creptotrema Travassos, Artigas & Pereira, 1928

Material deposited: CHIOC (type material), MACN-Pa 590/1–2 (new voucher material), MLP.

Hosts: *Leporinus elongatus* Valenciennes (type host, Brazil), *Leporinus obtusidens* (Valenciennes) (Characiformes: Anostomidae); *Trachelyopterus striatulus** (Steindachner), *Trachelyopterus galeatus* (Linnaeus) (= *Parauchenypterus galeatus* Linnaeus) (Siluriformes: Auchenipteridae).

Localities: Mogi-Guaçu River (Emas, Pirassununga), São Paulo State, Brazil (type locality); Middle Paraná River, Corrientes Province; Colastiné River**, Santa Fe Province; Irigoyen Canal, Talavera Island, Buenos Aires Province.

Site of infection: Anterior part of intestine.

References: Kohn (1984), Lunaschi (1985a), Hamann (1988), Lunaschi & Sutton (1995), Arredondo (2013).

Remarks: New host and locality records.

Creptotrema lynchi Brooks, 1976

Material deposited: MLP, USNM (type material).

Hosts: *Rhinella marina* (Linnaeus) (Anura: Bufonidae) (type host, Colombia), *Leporinus obtusidens*.

Localities: 1 km north of San Cristobal, Atlántico, Colombia (type locality); Irigoyen Canal, Talavera Island, Buenos Aires Province.

Site of infection: Pyloric caeca (in fish).

Reference: Lunaschi & Sutton (1995).

Remarks: The absence of subsequent reports of *C. lynchi* from anurans suggests that *R. marina* may have been an accidental host (Curran, 2008).

Creptotrema pati Lunaschi, 1985

Material deposited: MLP (type material).

Hosts: *Luciopimelodus pati* (type host).

Locality: Atalaya (Magdalena), Buenos Aires Province (type locality).

Site of infection: Intestine.

Reference: Lunaschi (1985a).

Creptotrematina Yamaguti, 1974

Creptotrematina dispar (Freitas, 1941)

Creptotrematina dispar Freitas, 1941

Material deposited: CHIOC (type material); not available for Argentinean material.

Host: *Triporthus paranensis* (Günther) (= *Chalcinus paranensis* Günther) (type host, Brazil) (Characiformes: Triporthidae).

Locality: Rio Miranda (Salobra), Mato Grosso State, Brazil (type locality); Middle Paraná River, Corrientes Province.

Site of infection: Anterior part of intestine.

References: Freitas (1941b), Hamann (1988).

***Creptotrematina dissimilis* (Freitas, 1941)**

Creptotrema dissimilis Freitas, 1941

Material deposited: CHIOC (type material), MLP.

Host: *Tetragonopterus argenteus* Cuvier (type host, Brazil); *Astyanax bimaculatus* (Linnaeus), *Astyanax eigenmanniorum* (Cope) (Characiformes: Characidae).

Locality: Rio Miranda (Salobra), Mato Grosso State, Brazil (type locality); Trin Lagoon (Iberá Inlet), Corrientes Province; Boca Cerrada and Miguelín Stream (Ensenada), Buenos Aires Province.

Site of infection: Intestine.

References: Freitas (1941c), Hamann (1983), Lunaschi (1985a).

Alloglossidiidae Hernandez-Mena, Mendoza-Garfias, Ornelas-Garcia & Perez-Ponce de Leon, 2016***Magnivitellinum* Kloss, 1966*****Magnivitellinum corvitellinum* Lacerda, Takemoto & Pavanelli, 2009**

Material deposited: CHIOC (type material), MACN-Pa 611/1–2 (new voucher material), USNPC (type material).

Host: *Hoplosternum littorale* (Hancock) (Siluriformes: Callichthyidae) (type host, Brazil).

Localities: Upper Paraná River floodplain, Brazil (type locality); Paraná-Guazú River**, Entre Ríos Province.

Site of infection: Middle and posterior part of intestine.

References: Lacerda *et al.* (2009), Arredondo (2013).

Remarks: First mention of this species in Argentina.

***Magnivitellinum simplex* Kloss, 1966**

Material deposited: MLP, MACN-Pa 612 (new voucher material).

Hosts: *Astyanax bimaculatus* (type host, Brazil), *Astyanax* sp., *A. eigenmanniorum*, *A. fasciatus*, *Oligosarcus jenynsi*, *Sorubim lima**

Life cycle: IH1 *Biomphalaria tenagophila* (d'Orbigny), IH2 *Aedes aegypti* (Linnaeus) (experimental host).

Localities: Mogi-Guaçu River (Emas, Pirassununga) Estado São Paulo State, Brazil (type locality); Tres Palmeras, Salta Province; Colastiné River** (tributary of the Paraná River), Santa Fe Province; Doña Flora Stream (tributary of La Plata River), Miguelín Stream (Ensenada), Cantera (quarry) Aprilito, Chascomús Lagoon (Chascomús) and La Plata River, Buenos Aires Province.

Site of infection: Intestine.

References: Lunaschi (1989b), Arredondo (2013), Davies (2014).

Remarks: New host and locality record.

Family Apocreadiidae Skrzabin, 1942***Crassicutis* Manter, 1936*****Crassicutis cichlasomae* Manter, 1936**

Material deposited: MACN-Pa 591/1–2, 592 (new voucher material).

Host: *Cichlasoma mayorum* Hubbs (type host, México), *Cichlasoma dimerus** (Heckel), *Crenicichla lepidota** Heckel (Perciformes: Cichlidae).

Locality: Cenote, Yucatán, México (type locality); Colastiné River** (tributary of Paraná River), Santa Fe Province.

Site of infection: Intestine.

References: Fernandes & Kohn (2001), Arredondo (2013).

Remarks: First record of this species in Argentina.

***Crassicutis intermedius* (Szidat, 1954)**

Eocreadium intermedium Szidat, 1954

Material deposited: MACN-Pa 593/1–2 (type and new voucher material).

Host: *Hypostomus commersoni* (Valenciennes) [= *Plecostomus commersoni* (Valenciennes)] (type host) (Siluriformes: Loricariidae).

Localities: La Plata River, Buenos Aires City (type locality); Paraná-Guazú River**, Entre Ríos Province.

Site of infection: Stomach.

References: Szidat (1954), Arredondo (2013).

Remarks: New locality record. Bray *et al.* (1996) redescribed this species from *Hypostomus cochliodon* (Kner) and *Hypostomus commersoni*, Paraná River (Itapúa Province) and *Hypostomus piratatu* Weber, Santa Sofía Ranch, Concepción Province, Paraguay.

Homalometron* Stafford, 1904**Homalometron papilliferum* (Szidat, 1956)**

Austrocreadium papilliferum Szidat, 1956

Material deposited: MACN-Pa (type material), NSMT-PI, UNC.

Host: *Percichthys trucha* (type host).

Localities: Limay River, Río Negro Province (type locality); Araucarian Region of Andean Patagonia (see

table 2 in Ostrowski de Núñez *et al.*, 2000), Aluminé Lake, Neuquén Province.

Site of infection: Intestine.

References: Szidat (1956b), Ostrowski de Núñez *et al.* (2000), Shimazu *et al.* (2000).

***Homalometron pseudopallidum* Martorelli, 1986**

Material deposited: MLP (type material).

Host: *Gymnogeophagus australis* (Eigenmann) (Perciformes: Cichlidae) (type host).

Life cycle: IH1 *Heleobia parchappii*; IH2 Tubificidae.

Locality: small lagoon at Los Talas (Berisso), Buenos Aires Province (type locality).

Site of infection: Intestine.

Reference: Martorelli (1986).

***Posterotestes* Ostrowski de Núñez, Brugni & Flores, 2003**

***Posterotestes unelen* Ostrowski de Núñez, Brugni & Flores, 2003**

Material deposited: IPCAS (type material), MACN-Pa (type material), MLP (type material), UNC (type material).

Host: *Percichthys trucha* (type host).

Localities: Epuyén Lake (type locality), Chubut Province; other localities see table 1 in Ostrowski de Núñez *et al.* (2003).

Site of infection: Posterior part of intestine.

Reference: Ostrowski de Núñez *et al.* (2003).

***Procaudotestis* Szidat, 1954**

***Procaudotestis uruguayensis* Szidat, 1954**

Material deposited: BMNH; MACN-PA (type material); MHNG.

Host: *Paraloricaria vetula* (Valenciennes) [= *Loricaria vetula* (Valenciennes)] (type host) (Siluriformes: Loricariidae).

Locality: Uruguay River, Santo Tomé, Corrientes Province (type locality).

Site of infection: Stomach.

Reference: Szidat (1954).

Remarks: Bray *et al.* (1996) redescribed this species from *Loricaria* sp., Paraná River (Itapúa Province), Paraguay.

Family Aporocotylidae Odhner, 1912

***Plehniella* Szidat, 1951**

***Plehniella coelomicola* Szidat, 1951**

Material deposited: MACN-Pa 614/1–2 (type and new voucher material), MLP.

Hosts: *Iheringichthys labrosus* (type host), *Pimelodus albicans*, *P. maculatus*, *Pseudoplatystoma corruscans**, *Hoplosternum littorale**.

Localities: La Plata River in front of Buenos Aires City (type locality), Paraná River**, Italia Port, Corrientes City, Corrientes Province, Paraná-Guazú River**, Entre Ríos Province, Argentina.

Site of infection: Coelomic cavity.

References: Szidat (1951), Lunaschi (1985b), Avendaño de MacIntosh & Ostrowski de Núñez (1998), Arredondo (2013), Orélis-Ribeiro & Bullard (2015).

Remarks: New hosts and localities records. Erroneously referred to as *P. coelomica* by Lunaschi (1985b) and Avendaño de MacIntosh & Ostrowski de Núñez (1998).

***Sanguinicola* Plehn, 1905**

Janickia Rašín, 1928

***Sanguinicola argentinensis* Szidat, 1951**

Material deposited: MACN-Pa (type material).

Hosts: *Prochilodus lineatus* Valenciennes (= *Prochilodus platensis* Holmberg) (type host) (Characiformes: Prochilodontidae).

Localities: La Plata River, Buenos Aires (type locality).

Site of infection: Heart, arteries.

Reference: Szidat (1951).

Family Bucephalidae Poche, 1907

***Prosorhynchoides* Dollfus, 1929**

***Prosorhynchoides cambapuntaensis* Lunaschi, 2004**

Material deposited: MLP (type material).

Host: *Salminus brasiliensis* (Cuvier) (= *Salminus maxillosus* Valenciennes) (type host) (Characiformes: Bryconidae).

Locality: Paraná River near Experimental Field Cambá-Punta, Corrientes Province (type locality).

Site of infection: Intestine.

Reference: Lunaschi (2004).

Prosorhynchoides rioplatensis* (Szidat, 1970)Bucephalopsis rioplatensis* Szidat, 1970**Material deposited:** MACN-Pa (type material).**Host:** *Catathyridium jenynsii* (Günther) (= *Achirus trichospilus* Berg) (type host) (Pleuronectiformes: Achiridae).**Locality:** La Plata River, Buenos Aires City (type locality).**Site of infection:** Intestine.**References:** Szidat (1970b), Lunaschi (2003).***Rhipidocotyle* Diesing, 1858*****Rhipidocotyle santanaensis* Lunaschi, 2004****Material deposited:** MLP (type material).**Host:** *Acestrorhynchus pantaneiro* Menezes (type host) (Characiformes: Acestrorhynchidae).**Locality:** Small natural pond at Santa Ana (type locality), Corrientes Province.**Site of infection:** Pyloric caeca.**Reference:** Lunaschi (2004).**Family Callodistomidae Odhner, 1910*****Prosthenhystera* Travassos, 1922*****Prosthenhystera obesa* (Diesing, 1850)***Distomum obesum* Diesing, 1850*Pseudoprosthenhystera microtesticulata* Kloss, 1966**Material deposited:** MLP, NHM (type material).**Hosts:** *Salminus brasiliensis* (= *S. brevidens* Cuvier), *Leporinus friderici* (Bloch) (type host not assigned, Brazil) (Characiformes: Anostomidae), *Luciopimelodus pati**, *Pimelodus albicans**.**Localities:** Mato Grosso State, Brazil (type locality); Colastiné River** (tributary of Paraná River), Santa Fe Province; Delta of Paraná River, Buenos Aires Province; Irigoyen Canal, Talavera Island, Buenos Aires Province; La Plata River** in front of Buenos Aires City.**Site of infection:** Gall bladder.**References:** Diesing (1950), Lunaschi & Sutton (1995), Arredondo (2013).**Remarks:** New hosts and locality records. Kohn *et al.* (1997) redescribed this species from Brazil parasitizing a wide range of hosts.**Family Cladorchiidae Southwell & Kirshner, 1937*****Dadaytrema* Travassos, 1931*****Dadaytrema gracilis* Lunaschi, 1989****Material deposited:** MACN-Pa 594/1–2 (new voucher material), MLP (type material).**Hosts:** *Pimelodella gracilis* (Valenciennes) (type host) (Siluriformes: Heptapteridae), *Pterodoras granulatus** (Valenciennes) (Siluriformes: Doradidae).**Localities:** Brazo Chico Stream (tributary of Uruguay River), Entre Ríos Province (type locality), Paraná-Guazú River**, Entre Ríos Province.**Site of infection:** Middle and posterior part of intestine.**References:** Lunaschi (1989a), Arredondo (2013).**Remarks:** New host and locality records. The present authors also recovered *D. gracilis* in the type host.***Dadaytrema oxycephala* (Diesing, 1836)***Amphistoma oxycephalum* Diesing, 1836*Dadayia oxycephala* Travassos, Artigas & Pereira, 1928**Material deposited:** MACN-Pa 595 (new voucher material), NHM (type material).**Hosts:** *Salminus brasiliensis* (*Salmo aurata* Larrañaga), *Salmo pacu* (non valid name), *Silurus megacephalus* (non valid name) and *Myleus rhomboidalis* (Cuvier) (*Salmo pacupeba* Kner) (type host not assigned, Brazil), *Piaractus mesopotamicus* (Holmberg) (Characiformes: Serrasalminae), *Pterodoras granulatus*.**Localities:** Paraná River, Cuyaba, Araguay River, Brazil (type locality); Paraná and Paraguay rivers confluence and Middle Paraná River near Corrientes City, Corrientes Province; Colastiné River** (tributary of Paraná River), Santa Fe Province; Paraná-Guazú River**, Entre Ríos Province.**Site of infection:** Middle and posterior part of intestine.**References:** Hamann (1982a, b), Arredondo (2013).**Remarks:** New locality records.***Dadaytremoides* Thatcher, 1979*****Dadaytremoides parauchenipteri* Lunaschi, 1989****Material deposited:** MLP (type material).**Host:** *Trachelyopterus galeatus* (Linnaeus) [= *Parauchenipterus galeatus* (Linnaeus)] (type host) (Siluriformes: Auchenipteridae).**Locality:** Brazo Chico Stream (tributary of Uruguay River), Entre Ríos Province (type locality); Yrigoyen Canal, Talavera Island, Buenos Aires Province.**Site of infection:** Intestine.

References: Lunaschi (1989a), Lunaschi & Sutton (1995).

***Microrchis* Daday, 1907**

***Microrchis oligovitellinum* Lunaschi, 1987**

Material deposited: MACN-Pa 596, 597 (new voucher material), MLP (type material).

Hosts: *Luciopimelodus pati* and *Trachelyopterus striatulus* [= *Trachycoristes striatulus* (Steindachner)] (type host not assigned), *Ageneiosus inermis**, *A. militaris**, *Pterodoras granulosus**.

Localities: Atalaya (Magdalena) and Punta Lara (Ensenada), Buenos Aires Province (type locality not assigned); Colastiné River** (tributary of Paraná River), Santa Fe Province.

Site of infection: Anterior, middle and posterior part of intestine.

References: Lunaschi (1987), Arredondo (2013).

Remarks: New hosts and locality records.

***Travassosinia* Vaz, 1932**

***Travassosinia dilatata* (Daday, 1907)**

Chiorchis dilatatus Daday, 1907

Material deposited: MACN-Pa 598 (new voucher material), information about type material not provided by Daday (1907).

Hosts: *Piaractus brachypomus* (Cuvier) [= *Colossoma brachypomus* (Cuvier)] (type host, Paraguay), *P. mesopotamicus* [= *Colossoma mitrei* (Berg)] (Characiformes: Serrasalminidae), *P. granulosus*, *Salminus brasiliensis**.

Localities: Paraguay (type locality); Paraná and Paraguay rivers confluence and Middle Paraná River near Corrientes City, Corrientes Province; Paraná-Guazú River**, Entre Ríos Province.

Site of infection: Intestine.

References: Daday (1907), Hamann (1982a, b), Arredondo (2013).

Remarks: New host and locality records. The description of this species was based on one specimen from Paraguay; it was not possible to trace where this specimen was deposited.

Family Cryptogonimidae Ward, 1917

***Acanthostomoides* Szidat, 1956**

***Acanthostomoides apophalliformis* Szidat, 1956**

Material deposited: IPCAS, MACN-Pa (type material), NSMT-PI, UNC.

Hosts: *Percichthys trucha* (type host), *P. colhuapiensis*, *Galaxias maculatus*, *Oncorhynchus mikiss* (Walbaum), *Salmo trutta* (Linnaeus) (Salmoniformes: Salmonidae), *Oliveichthys viedmensis* (MacDonagh) (= *Diplomystes viedmensis* MacDonagh) (Siluriformes: Diplomystidae).

Life cycle: IH1 *Heleobia hatcheri* (Pilsbry, 1911); IH2 *Galaxias maculatus*.

Localities: Limay River, Río Negro Province (type locality); Araucarian Region of the Andean Patagonia (see list of lakes and rivers in Ostrowski de Núñez *et al.*, 1999).

Site of infection: Intestine.

References: Szidat (1956b), Ostrowski de Núñez *et al.* (1999), Shimazu *et al.* (2000), Revenga *et al.* (2006a, b).

***Acanthostomum* Looss, 1899**

***Acanthostomum gnerii* Szidat, 1954**

Material deposited: MACN-Pa 599 (type and new voucher material).

Hosts: *Rhamdia quelen* (Quoy & Gaimard) [= *Rhamdia sapo* (Valenciennes)] (type host), *Pimelodella laticeps* Eigenmann (Siluriformes: Heptapteridae), *Cyphocharax gilbert* (Quoy & Gaimard) [= *Pseudocurimata gilberti* (Quoy & Gaimard)] (Characiformes: Curimatidae).

Life cycle: IH1 *Heleobia parchappii* (Pilsbry) (Prosobranchia: Hydrobiidae); IH2 *Cnesterodon decemmaculatus* (Jenyns) (Cyprinodontiformes: Poeciliidae), *Odontesthes bonariensis* (Valenciennes) [= *Basilichthys bonariensis* (Valenciennes)] (Atheriniformes: Atherinopsidae), *Astyanax* sp., *Jenynsia multidentata* (Jenyns) [= *Jenynsia lineata* (Jenyns)], *Oligosarcus* sp. (= *Acestrorhamphus* sp.); FH *Rhamdia quelen*, *Pimelodella laticeps*.

Localities: Paraná River near Rosario City (type locality), Santa Fe Province; Chis-Chis and Chascomús Lagoon (Chascomús) and Cantera (quarry) Los Talas (Berisso), Buenos Aires Province.

Site of infection: Stomach (Lunaschi, 1986), anterior part of intestine.

References: Szidat (1954), Lunaschi (1986), Ostrowski de Núñez & Gil de Pertierra (1991), Gil de Pertierra & Ostrowski de Núñez (1995).

***Neocladocystis* Manter & Pritchard, 1969**

***Neocladocystis intestinalis* (Vaz, 1932)**

Material deposited: CHIOC, MACN-Pa.

Host: *Salminus brasiliensis* (type host, Brazil).

Life cycle: IH1 *Aylacostoma chloroticum* Hylton Scott; IH2 *Moenkhausia dichroua* (Kner), *Hyphessobrycon eques* (Steindachner) (natural hosts), *Poecilia reticulata*

Peters, *Cnesterodon decemmaculatus*, *Gymnocorymbus ternetzi* (Boulenger), *Prochilodus* sp. (experimental hosts); FH *Salminus brasiliensis*.

Localities: Tietê and Mogy-Guaçú rivers, São Paulo State, Brazil (type locality); Yacyretá Dam, Corrientes Province.

Site of infection: Pyloric caeca, intestine.

Reference: Quintana & Ostrowski de Núñez (2016).

Remarks: First record of the species and its life cycle in Argentina.

***Palaeocryptogonimus* Szidat, 1954**

***Palaeocryptogonimus claviformis* Szidat, 1954**

Material deposited: MACN-Pa (type material).

Hosts: *Rhinodoras dorbignyi* (type host).

Locality: La Plata River in front of Buenos Aires City (type locality).

Site of infection: Stomach, anterior part of intestine.

Reference: Szidat (1954).

***Parspina* Pearse, 1920**

***Parspina argentinensis* (Szidat, 1954)**

Proneochoasmus argentinensis Szidat, 1954

Material deposited: MACN-Pa (type and voucher material).

Hosts: *Pimelodus maculatus* [= *Pimelodus clarias* (Linnaeus)] (type host), *P. albicans*, *P. argenteus*, *Iheringichthys labrosus*, *Pimelodella gracilis*, *Parapimelodus valenciennis* (Lütken) (Siluriformes; Pimelodidae).

Localities: La Plata River in front of Buenos Aires City (type locality); Colastiné River (tributary of Paraná River), Santa Fe Province; Paraná-Guazú River, Entre Ríos Province.

Site of infection: Stomach, anterior, middle and posterior part of intestine.

References: Szidat (1954), Ostrowski de Núñez *et al.* (2011a).

Remarks: Ostrowski de Núñez *et al.* (2011a) redescribed and studied the tegument surface of the species.

***Parspina carapo* Ostrowski de Núñez, Arredondo & Gil de Pertierra, 2011**

Material deposited: MACN-Pa (type material).

Host: *Gymnotus* sp. (type host) (Gymnotiformes: Gymnotidae) (see remarks).

Localities: Paraná-Guazú River, Entre Ríos Province (type locality); Colastiné River (tributary of Paraná River), Santa Fe Province.

Site of infection: Middle and posterior part of intestine.

Reference: Ostrowski de Núñez *et al.* (2011b).

Remarks: Ostrowski de Núñez *et al.* (2011b) studied the tegument surface of the species, which was compared with that of *Parspina argentinensis*. Ostrowski de Núñez *et al.* (2011b) indicated the presence of *P. carapo* in *Gymnotus carapo*, but according to Froese & Pauly (2016) and Casciotta *et al.* (2013) this species is not present in continental waters of Argentina.

***Parspina pimelodellae* Arredondo & Ostrowski de Núñez, 2013**

Material deposited: MACN-Pa (type material).

Host: *Pimelodella gracilis* (type host).

Locality: Paraná-Guazú River, Entre Ríos Province (type locality).

Site of infection: Anterior part of intestine.

Reference: Arredondo & Ostrowski de Núñez (2013).

***Parspina virescens* Ostrowski de Núñez, Arredondo & Gil de Pertierra, 2011**

Material deposited: MACN-Pa (type material).

Host: *Eigenmannia virescens* (Valenciennes) (type host) (Gymnotiformes: Sternopygidae).

Locality: Colastiné River (tributary of Paraná River) (type locality), Santa Fe Province.

Site of infection: Pyloric caeca, anterior and middle part of intestine.

Reference: Ostrowski de Núñez *et al.* (2011b).

Remarks: Ostrowski de Núñez *et al.* (2011b) studied the tegument surface of the species, which was compared with that of *Parspina argentinensis* and *P. carapo*.

***Pseudosellacotyla* Yamaguti, 1954
Pseudosellacotyla lutzi (Freitas, 1941)**

Sellacotyle lutzi Freitas, 1941

Material deposited: CHIOC (type material), MACN-Pa.

Hosts: *Hoplias malabaricus* (Bloch) (type host, Brazil) (Characiformes: Erythrinidae).

Life cycle: IH1 *Aylacostoma chloroticum* Hylton Scott (Prosobranchia: Thiariidae); IH2 *Moenckhausia dichrourea*, *Hyphessobrycon eques* (Characiformes: Characidae) (natural host); *Poecilia reticulata*, *Cnesterodon decemmaculatus* (Cyprinodontiformes: Poeciliidae), *Gymnocorymbus ternetzi* (experimental hosts) (Characiformes: Characidae).

Localities: Brazil (type locality); Middle Paraná River: Yacyretá Dam, Corrientes Province, and Heller Peninsula and Candelaria, Misiones Province.

Site of infection: Pyloric caeca and intestine.

References: Freitas (1941a), Quintana & Ostrowski de Núñez (2014).

Family Derogenidae Nicoll, 1910
***Deropegus* McCauley & Pratt, 1961**
***Deropegus patagonicus* (Szidat, 1956)**

Derogenes patagonicus Torres, 1995

Thometrema patagonica Lunaschi & Drago, 2000 (published in 2001)

Material deposited: IPCAS, MACN-Pa (type material), NSMT-PI.

Hosts: *Percichthys trucha* (type host), *P. colhuapiensis*, *Salmo trutta*, *Salvelinus fontinalis*.

Localities: Pellegrini Lake and Limay River, Río Negro Province [type locality not assigned by Szidat (1956)]; Aluminé and Huechulafquén Lakes, Neuquén Province.

Site of infection: Stomach.

References: Szidat (1956b), Shimazu *et al.* (2000), Lunaschi & Drago, 2000 (published in 2001).

***Genarchella* Travassos, Artigas & Pereira, 1928**

Paravitellotrema Watson, 1976

Caballeroiella Lamothe-Argumedo, 1977

Graziatrema Nazir & Velásquez, 1977

Quadripaludus Jiménez, Guajardo & Briseno, 1981

***Genarchella fragilis* Lunaschi, 1990**

Material deposited: MLP (type material).

Hosts: *Astyanax fasciatus* (Cuvier), *A. abramis* (Jenyns) (type host not assigned) (Characiformes: Characidae).

Locality: Doña Flora Stream (Ensenada), Buenos Aires Province (type locality).

Site of infection: Stomach.

Reference: Lunaschi (1990).

***Genarchella genarchella* (Travassos, Artigas & Pereira, 1928)**

Halipegus genarchella Travassos, Artigas & Pereira, 1928

Genarchella dubia Travassos, Artigas & Pereira, 1928

Material deposited: CHIOC (type material), MACN-Pa 600, 601, 602, 603 (new voucher material).

Hosts: *Oligosarcus* sp. (= *Acestrorhamphus* sp.) (type host, Brazil); *O. jenynsii* (Günther), *Charax stenopterus* (Cope) (= *Asiphonichthys stenopterus* Cope) (Characidae: Characidae), *Salminus brasiliensis*, *Leporinus friderici* (Bloch) (Characidae: Anostomidae); *Iheringichthys labrosus**, *Luciopimelodus pati**, *Pimelodus albicans*, *P. maculatus* (= *Pimelodus clarias* Linnaeus).

Localities: Emas Pirassununga, São Paulo State, Brazil (type locality); Middle Paraná River, El Dorado, Misiones Province; Colastiné River** (tributary of Paraná River), Santa Fe Province; Paraná-Guazú River**, Entre Ríos Province; Lujan River (Luján), Los Talas (Berisso), and Chascomús Lagoon (Chascomús), Buenos Aires Province.

Site of infection: Esophagus, stomach, intestine.

Life cycle: IH1 and IH2 *Heleobia australis* (d'Orbigny) (see Szidat, 1956); *H. parchappii* (see Martorelli, 1989).

References: Szidat (1956a), Martorelli (1989), Kohn *et al.* (1990), Arredondo (2013).

Remarks: New hosts and locality records. Szidat (1956a) mentioned *H. australis* as intermediate host, but this is a misidentification (see Martorelli, 1989). The progenetic metacercaria produces viable eggs, which are infective for the snail. The life cycle could be maintained without a vertebrate host for several years (Martorelli, 1989).

***Genarchella parva* Travassos, Artigas & Pereira, 1928**

Genarchella tropica (Manter, 1936) Szidat 1954 *nec Derogenes tropicus* Manter, 1936

Genarchella szidati (Yamaguti, 1971).

For more synonyms see Lunaschi (1990) and Kohn *et al.* (2007).

Material deposited: CHIOC (type material), MACN-Pa 604, 605 (new voucher material).

Hosts: *Oligosarcus* sp. (= *Acestrorhamphus* sp.) (type host, Brazil), *Oligosarcus jenynsii*, *O. hepsetus* (Cuvier), *Charax gibbosus* (Linnaeus) (= *Cynopotamus gibbosus* Valenciennes) (Characidae: Characidae), *Salminus brasiliensis*, *Triportheus paranensis*, *Astyanax* sp., *A. bimaculatus* [= *Poeciloristhys bimaculatus* (Linnaeus)], *A. eigenmaniorum* (Cope), *A. fasciatus*, *Cheirodon interruptus* Jenyns, *Hy-*

phessobrycon meridionalis Ringuelet, Miquelarena & Menni, *Jenynsia multidentata* [= *J. lineata* (Jenyns)] (Cyprinodontiformes: Anablepidae), *Ageneiosus militaris**, *Auchenipterus nigripinnis*, *A. osteomystax* (= *A. nuchalis*), *Leporinus obtusidens*, *Loricariichthys anus* (Valenciennes) (= *Loricaria anus* Valenciennes) (Siluriformes: Loricariidae), *Luciopimelodus pati*, *Pimelodus albicans*, *P. argenteus*, *P. maculatus*, *P. ornatus* Kner, *Pseudoplatystoma corruscans* (Spix & Agassiz)*, *Pimelodella gracilis*, *Pimelodella mucosa* Eigenmann & Ward (= *Pimelodella howesi* Fowler), *Rhamdia quelen* (= *R. sapo*).

Localities: Emas Pirassununga, São Paulo State, Brazil (type locality); Paraná River (Puerto Italia), Corrientes City, Corrientes Province; Colastiné River** (tributary of Paraná River), Santa Fe Province; Saladita Lagoon (Avellaneda), Cantera (quarry) Aprilito (Ensenada), Doña Flora Stream (Ensenada), Miguelín Stream (Ensenada), Cantera (quarry) Los Talas (Berisso), Chascomús and Chis-Chis Lagoons (Chascomús) and Luján River (Luján), Buenos Aires Province; La Plata River in front of Buenos Aires City.

Site of infection: Stomach.

References: Szidat (1954), Hamann (1989), Lunaschi (1990), Gil de Pertierra & Ostrowski de Núñez (1995), Drago (1997), Arredondo (2013).

Remarks: New hosts and locality records. Referred to as *Genarchella szidati* Yamaguti, 1971 by Hamann (1989). Hamann (1989) indicated that the records of *Genarchella parva* in *Auchenipterus nuchalis*, *Jenynsia lineata* and *Pimelodella howesi*, in Argentina probably correspond to *A. osteomystax*, *J. multidentata* and *P. mucosa*, respectively (see Liotta, 2005; Aguilera & Azpelicueta, 2015; Froese & Pauly, 2016).

***Thometrema* Amato, 1968**

***Thometrema bonariensis* Lunaschi, 1988**

Material deposited: MLP (type and voucher material).

Host: *Australoheros facetus* (= *Cichlasoma facetum*) (type host); *Odontesthes bonariensis* (Atheriniformes: Atherinopsidae).

Locality: Chascomús Lagoon (Chascomus) (type locality), and Salada Grande Lagoon (General Lavalle), Buenos Aires Province.

Site of infection: Stomach, intestine.

References: Lunaschi (1988a), Drago (2004, 2012).

***Thometrema magnifica* (Szidat, 1954)**

Gonocercella magnifica Szidat, 1954

Thometrema portoalegrensis Amato, 1968

Material deposited: MACN-Pa 606 (type material and new voucher material), MLP.

Hosts: *Hypostomus plecostomus* (Linnaeus) [= *Plecostomus plecostomus* (Linnaeus)], *Hypostomus commersoni* Valenciennes [= *Plecostomus commersoni* (Valenciennes)] (type host not assigned), (Siluriformes: Loricariidae).

Localities: Uruguay River in front of Santo Tomé, Corrientes Province and La Plata River in front of Buenos Aires City (type locality not assigned); Paraná-Guazú River**, Entre Ríos Province; Canal Yrigoyen, Isla Talavera, Buenos Aires Province.

Site of infection: Stomach, swim bladder.

References: Szidat (1954), Gibson & Bray (1979), Kohn *et al.* (1983), Lunaschi & Sutton (1995), Arredondo (2013).

Remarks: New host and locality records. Szidat (1954) indicated the presence of *Thometrema magnifica* in *Plecostomus plecostomus*, but according to Froese & Pauly (2016) and Almirón *et al.* (2015) this species is not present in continental waters of Argentina. Probably, due to similarity among them, the record of *Hypostomus plecostomus* by Szidat (1954) corresponds to *Pterygoplichthys anisitsi* which inhabits the Paraná River basin.

***Thometrema overstreeti* (Brooks, Mayes & Thorson, 1979)**

Paravitellotrema overstreeti Brooks, Mayes & Thorson, 1979

Thometrema rioplatense Lunaschi, 1988

For more synonyms see Kohn *et al.* (2007)

Material deposited: MACN-Pa 607, 608 (new voucher material), MLP, USNM (type material).

Host: *Potamotrygon magdalenae* (Dumeril) (Myliobatiformes: Potamotrygonidae) (type host); *Astyanax fasciatus*, *A. paraguayensis* (Fowler), *Leporinus obsutidens*, *Oligosarcus jenynsii*, *Salminus brasiliensis*, *Ageneiosus inermis*, *Auchenipterus nigripinnis*, *Luciopimelodus pati*, *Pimelodus albicans*, *P. maculatus*, *Pseudoplatystoma corruscans*, *P. reticulatum* Eigenmann & Eigenmann, *Sorubim lima* Bloch & Schneider, *Rhamdia quelen*, *Zungaro jahu* (Ihering) [= *Paulicea luetkeni* (Steindachner)].

Localities: Magdalena River in northern Colombia (type locality); Middle Paraná River, Puerto Italia, Corrientes Province; Colastiné River** (tributary of Paraná River), Santa Fe Province; Paraná-Guazú River**, Entre Ríos Province; Chis-Chis Lagoon (Chascomús), Doña Flora Stream (Ensenada), Miguelín Stream (Ensenada) and La Plata River, Buenos Aires Province.

Site of infection: Stomach.

References: Brooks *et al.* (1979), Hamann (1986, 1989), Lunaschi (1988a), Gil de Pertierra & Ostrowski de Núñez (1995), Arredondo (2013).

Remarks: New localities records. Referred to as *Genarchella genarchella* by Hamann (1986, 1989).

Family Faustulidae Poche, 1926

***Bacciger* Nicoll, 1914**

***Bacciger astyanactis* Lunaschi, 1998**

Material deposited: MLP (type material).

Host: *Astyanax fasciatus* (type host).

Locality: La Plata River (type locality) and Bagliardi Beach (Ensenada), Buenos Aires Province.

Site of infection: Rectum.

Reference: Lunaschi (1988c).

***Bacciger delvalleensis* Lunaschi, 2001**

Material deposited: MLP (type material).

Host: *Astyanax eigenmanniorum* (type host).

Locality: Cuña-pirú Stream, Aristóbulo del Valle, Misiones Province (type locality).

Site of infection: Rectum.

Reference: Lunaschi (2001).

Family Glythelminthidae Cheng, 1959

***Glythelmins* Stafford, 1905**

***Glythelmins pseudium* (Mañé-Garzón & Holcman-Spector, 1967)**

Margeana pseudium Mañé-Garzón & Holcman-Spector, 1967

Material deposited: MLP.

Host: *Pseudis minuta* (Günther) (= *Pseudis mantidactylus* Boulenger) (type host) (Anura: Hylidae); *Corydoras paleatus* (Jenyns) (Siluriformes: Callichthyidae).

Locality: Bañados de la Coronilla, Departamento de Rocha and Bañado Tropa Vieja, Canelones, Uruguay (type locality); Villoldo Stream, Buenos Aires Province.

Site of infection: Intestine.

Reference: Lunaschi (1991).

Remarks: This species parasitizes amphibians and is considered an accidental infection in the fish by Lunaschi (1991).

Family Gorgoderidae Loos, 1901

***Phyllodistomum* Braun, 1899**

***Phyllodistomum mugilis* Knoff & Amato, 1992**

Material deposited: CHIOC (type material), MLP.

Hosts: *Mugil liza* Valenciennes (= *Mugil platanus* Günther) (type host, Brazil).

Locality: Guanabara Bay, Rio de Janeiro State, Brazil (type locality); Ajo River, Samborombón Bay, Buenos Aires Province.

Site of infection: Urinary bladder.

References: Montes *et al.* (2012), Montes (2013), Montes & Martorelli (2015).

***Phyllodistomum spatula* Odhner, 1902**

Material deposited: Information about type material not provided by Odhner (1902), MLP.

Host: *Bagrus bayad* (Forsskål) [= *B. bayad* (Forsskål)] and *B. docmak* (Forsskål) [= *B. docmac* (Forsskål)] (Siluriformes: Bragridae) (type host not assigned, Sudan); *Pimelodella laticeps*, *Rhamdia quelen*.

Life cycle: IH1: *Palaemonetes argentinus* Nobili; FH: *P. laticeps*, *R. quelen* (natural hosts).

Localities: Nile River, Omdurman, Sudan (type locality); Chascomús Lagoon (Chascomús), Buenos Aires Province.

Site of infection: Urinary bladder.

Reference: Lunaschi & Martorelli (1990).

Remarks: The existence of this African species in South America has to be carefully reviewed. The specimens studied by Lunaschi & Martorelli (1990) probably could belong to *Phyllodistomum rhamdiae* Amato & Amato, 1993 described from the urinary bladder of *Rhamdia quelen* in Brazil (see Amato & Amato, 1993).

Family Haploporidae Nicoll, 1914

***Chalcinotrema* Freitas, 1947**

***Chalcinotrema platense* (Lunaschi, 1984)**

Saccocoelioides platensis Lunaschi, 1984

Material deposited: MLP (type material).

Host: *Cyphocharax platanus* (Günther) [= *Curimatorbis platanus* (Günther)] (type host) (Characiformes: Curimatidae).

Locality: Boca Cerrada (Ensenada), Buenos Aires Province (type locality).

Site of infection: Intestine.

References: Lunaschi (1984b), Overstreet & Curran (2005).

***Chalcinotrema salobrensis* Freitas, 1947**

Material deposited: CHIOC (type material), MACN-Pa.

Hosts: *Triportheus paranensis* (= *Chalcinus paranensis*) (type host, Brazil); *Piaractus mesopotamicus*.

Localities: Miranda River (tributary of Paraguay River), Salobra, Mato Grosso State, Brazil (type locality); Middle Paraná River, Corrientes Province.

Site of infection: Anterior and middle part of intestine.

References: Freitas (1947), Hamann (1983).

***Forticulcita* Overstreet, 1982**

***Forticulcita platana* Andres, Curran, Fayton, Pulis & Overstreet, 2015**

Material deposited: MACN-Pa (type material), USNM (type material).

Host: *Mugil liza* (type host) (Mugiliformes: Mugilidae).

Localities: La Plata River, Punta Lara, (type locality); Salado River, Cerro de la Gloria, Buenos Aires Province.

Site of infection: Intestine.

Reference: Andres *et al.* (2015).

***Megacoelium* Szidat, 1954**

***Megacoelium plecostomi* Szidat, 1954**

Material deposited: MACN-Pa 609 (type material and voucher material).

Host: *Hypostomus plecostomus* (= *Plecostomus plecostomus*) (type host); *Hypostomus commersoni**.

Localities: La Plata River in front to Buenos Aires City, Uruguay River in front of Santo Tomé City, Corrientes Province [type locality not assigned by Szidat (1954)]; Paraná-Guazú River**, Entre Ríos Province.

Site of infection: Stomach, anterior part of intestine.

References: Szidat (1954), Arredondo (2013).

Remarks: New host and locality record. Szidat (1954) indicated the presence of *Megacoelium plecostomi* in *Plecostomus plecostomus*, but according to Froese & Pauly (2016) and Almirón *et al.* (2015) this species is not present in continental waters of Argentina. Probably, due to similarity among them, the record of *Hypostomus plecostomus* by Szidat (1954) corresponds to *Pterygoplichthys anisitsi* which inhabits the Paraná River basin.

***Saccocoelioides* Szidat, 1954**

Lecithobothrioides Thatcher & Dossman, 1974

***Saccocoelioides antonioni* Lunaschi, 1984**

Material deposited: MLP (type material).

Host: *Cyphocharax platanus* (type host).

Locality: Boca Cerrada (Ensenada), Buenos Aires Province (type locality).

Site of infection: Pyloric caeca.

Reference: Lunaschi (1984b).

***Saccocoelioides bacilliformis* Szidat, 1973**

Material deposited: MACN-Pa (type material).

Host: *Astyanax bipunctatus* (non valid species) probably *A. cf. bimaculatus* (Linnaeus) (see Lunaschi, 2002).

Localities: Reconquista River, Buenos Aires Province (type locality).

Site of infection: Pyloric ceca.

Reference: Szidat, 1973.

Remarks: Lunaschi (2002) considered *Saccocoelioides bacilliformis* junior synonym of *Saccocoelioides octavus* Szidat, 1970. However, Kohn *et al.* (2007) considered this species valid (see Discussion).

***Saccocoelioides carolae* Lunaschi, 1984**

Material deposited: MLP (type material).

Host: *Australoheros facetus* (= *Cichlasoma facetum* Jenyns) (type host).

Life cycle: IH1 *Heleobia parchappii*, unencysted metacercaria, without tail, free in water; FH *A. facetus*.

Localities: Los Talas (Berisso), Buenos Aires Province.

Site of infection: Intestine.

References: Lunaschi (1984b), Martorelli (1986).

***Saccocoelioides elongatus* Szidat, 1954**

Material deposited: MACN-Pa (type material).

Host: *Prochilodus lineatus* (Valenciennes) (= *Prochilodus platensis* Holmberg) (type host).

Localities: La Plata River, in front of Buenos Aires City (type locality), Middle Paraná River, Corrientes Province.

Site of infection: Intestine.

References: Szidat (1954), Hamann (1982c).

Remarks: Lunaschi (1996) considered *Saccocoelioides elongatus* junior synonym of *Saccocoelioides nanii* Szidat, 1954. However, Kohn *et al.* (2007) considered this species valid (see Discussion).

Saccocoelioides magniovatus Szidat, 1954

Material deposited: MACN-Pa (type material).

Host: *Leporinus obtusidens* (type host).

Localities: Luján River, Buenos Aires Province (type locality).

Site of infection: Intestine.

Reference: Szidat (1954).

Remarks: Lunaschi (1996) considered *Saccocoelioides magniovatus* junior synonym of *S. nanii* Szidat, 1954. However, Kohn *et al.* (2007) considered this species valid (see Discussion).

Saccocoelioides magnus Szidat, 1954

Material deposited: MACN-Pa (type material).

Host: *Cyphocharax platanus* [= *Curimata platana* (Günther)] (type host).

Localities: Middle Paraná River, in front of Rosario City, Santa Fe Province (type locality).

Site of infection: Intestine.

Reference: Szidat (1954).

Saccocoelioides nanii Szidat, 1954

Material deposited: MACN-Pa (type material), MLP.

Host: *Prochilodus lineatus*, *Hypostomus commersoni*, *Hyphessobrycon meridionalis*.

Localities: Middle Paraná River, in front of Rosario City, Santa Fe Province (type locality); Irigoyen Canal (Talavera Island) and Saladita Lagoon (Avellaneda), Buenos Aires Province.

Site of infection: Intestine.

References: Szidat (1954), Lunaschi (1996), Drago (1997).

Remarks: Lunaschi (1996) considered *S. elongatus* and *S. magniovatus* junior synonyms of *S. nanii* Szidat, 1954. However, Kohn *et al.* (2007) considered these species valid (see Discussion).

Saccocoelioides octavus Szidat, 1970

Material deposited: MACN-Pa (type material).

Hosts: *Astyanax fasciatus* (type host).

Life cycle: III1 *Heleobia parchappii*, encysted metacercaria with attached tail free swimming in water.

Localities: Artificial small stream connected with Chascomús Lagoon (Chascomús), Buenos Aires Province.

Site of infection: Pyloric caeca, intestine.

References: Szidat (1970a), Lunaschi (2002).

Saccocoelioides quintus Thatcher, 1978

Material deposited: MACN-Pa (type material).

Host: *Loricariichthys anus* (Valenciennes) (= *Loricaria anus* Valenciennes) (type host) (Siluriformes: Loricariidae).

Localities: Middle Paraná River, in front of Rosario City, Santa Fe Province (type locality); Paraná River, Corrientes Province.

Site of infection: Intestine.

References: Szidat (1954), Thatcher (1978).

Remarks: Referred to as *Saccocoelioides* sp. 5 by Szidat (1954).

Saccocoelioides szidati Travassos, Freitas & Kohn, 1969

Material deposited: MACN-Pa (type material).

Host: *Schizodon fasciatus* Spix & Agassiz (Characiformes: Anostomidae) (type host); *L. obtusidens*.

Localities: Middle Paraná River, in front of Rosario City, Santa Fe Province (type locality); Middle Paraná River, Corrientes Province.

Site of infection: Intestine.

References: Szidat (1954), Travassos *et al.* (1969), Hamann (1983).

Remarks: Referred to as *Saccocoelioides* sp. 6 by Szidat (1954).

Xiha Andres, Curran, Fayton, Pulis & Overstreet, 2005

Xiha fastigata (Thatcher & Sparks, 1958)

Dicrogaster fastigatus Thatcher & Sparks, 1958

Material deposited: MLP, USNM (type material).

Host: *Mugil cephalus* Linnaeus (type host, USA), *Mugil liza* (Mugiliformes: Mugilidae).

Life cycle: IH1 *Heleobia conexa* (Gaillard), cysts of metacercaria free in water.

Localities: Grand Isle (Louisiana), Gulf of México, USA (type locality); Salado River relief canal and Ajo River, Samborombón Bay, Mar Chiquita Lagoon (Mar Chiquita), Buenos Aires Province.

Site of infection: Intestine.

References: Alarcos & Etchegoin (2010), Montes *et al.* (2012), Montes (2013), Lado *et al.* (2013), Montes & Martorelli (2015), Andres *et al.* (2015).

Remarks: Alarcos & Etchegoin (2010), Montes (2012), Montes *et al.* (2012), and Montes & Martorelli (2015) reported *Dicrogaster fastigatus* in Argentina. Recently, Andres *et al.* (2015) transferred the specimens described as *Dicrogaster fastigatus* by Thatcher & Sparks (1958) to a new genus, as *Xiha fastigata*. Even though Andres *et al.* (2015) did not comment on the Argentinian records for *Dicrogaster fastigatus*, these specimens have a spined hermaphroditic duct as it is present in *Xiha* (Montes, 2013).

Family Haplospilichnidae Poche, 1926

Hymenocotta Manter, 1961

Hymenocotta manteri Overstreet, 1969

Material deposited: MLP, USNM (type material).

Hosts: *Mugil cephalus* Linnaeus (type host, USA), *M. liza*.

Locality: Biscayne Bay, Florida, USA (type locality); Salado River relief canal and Ajo River, Samborombón Bay, Buenos Aires Province.

Site of infection: Intestine.

References: Montes *et al.* (2012), Montes (2013), Montes & Martorelli (2015).

Family Hemiuridae Loos, 1899

Dinurus Looss, 1907

Dinurus breviductus Looss, 1907

Dinurus barbatus (Cohn, 1902)

Material deposited: MACN-Pa.

Hosts: *Ramnogaster melanostoma* (Eigenmann) [= *Clupea melanostoma* (Eigenmann)] (Clupeiformes: Clupeidae) (type host); *Rhaphiodon vulpinus* Spix & Agassiz (Characiformes: Cynodontidae).

Locality: La Plata River, Buenos Aires Province.

Site of infection: Free in coelomic cavity.

Reference: Szidat *et al.* (1950).

Remarks: Szidat *et al.* (1950) found numerous eggs in the worms inhabiting the coelomic cavity.

Stomachicola Yamaguti, 1934

Stomachicola lycengraulidis Tanzola & Seguel, 2012

Material deposited: MLP (type material), MACN-Pa 610/1–2.

Hosts: *Lycengraulis grossidens* (Agassiz) (Clupeiformes: Engraulidae) (type host).

Locality: Bahía Blanca estuary (type locality) and Paraná River, Buenos Aires Province; Paraná-Guazú River**, Entre Ríos Province.

Site of infection: Stomach.

Reference: Tanzola & Seguel (2012), Arredondo (2013).

Remarks: New locality record. Tanzola & Seguel (2012) also recorded this species in the marine fish *Conger orbignianus* Valenciennes.

Lecithasteridae Odhner, 1905

Lecithaster Lühe, 1901

Lecithaster confusus Odhner, 1905

Material deposited: NRM (type material), MLP.

Host: *Alosa agone* (Scopoli) [= *A. finta* (Cuvier)] and *Clupea harengus* Linnaeus (Clupeiformes: Clupeidae) (type host not assigned); *Jenynsia multidentata*.

Locality: Mediterranean and North Sea (type locality not assigned, Europe); Salado River relief canal, Samborombón Bay, Buenos Aires Province.

Site of infection: Intestine.

Reference: Montes (2013).

Remarks: Montes (2013) recorded the presence of this Mediterranean and North Sea species in South America. These specimens have to be carefully reviewed, they probably could belong to *Lecithaster intermedius* Szidat, 1954 (see below).

Lecithaster intermedius Szidat, 1954

Material deposited: MACN-Pa (type material).

Host: *Ramnogaster melanostoma* (type host).

Locality: La Plata River in front of Buenos Aires City (type locality).

Site of infection: Intestine.

Reference: Szidat (1954).

Family Microscaphidiidae Loos, 1900

Curumai Travassos, 1961

Curumai curumai Travassos, 1961

Material deposited: CHIOC (type material), MACN-Pa 613 (new voucher material).

Hosts: *Myleus* sp. (Characiformes: Serrasalminae) (type host, Brazil); *Piaractus mesopotamicus*; *Pterodoras granulosus**.

Localities: Amazon River (Pará State), Brazil (type locality); Middle Paraná River, Corrientes Province; Colastiné River ** (tributary of the Paraná River), Santa Fe Province.

Site of infection: Intestine.

References: Hamann (1982a), Arredondo (2013).

Remarks: New host and locality record.

Family Plagiorchiidae (Lühe, 1901)

Kalipharynx Boeger & Thatcher, 1983

Kalipharynx piramboae Boeger & Thatcher, 1983

Material deposited: IOC (type material), MLP.

Host: *Lepidosiren paradoxa* Fitzinger (Dipnoi: Lepidosirenidae) (type host, Brazil).

Localities: Amazon River, Manaus City, Brazil (type locality); Paraná River, Resistencia City, Chaco Province.

Site of infection: Anterior part of intestine.

References: Boeger & Thatcher (1983), Lunaschi (1994).

Remarks: *Kalipharynx* Boeger & Thatcher, 1983 is considered as genus *incertae sedis* by Pojmańska *et al.* (2008).

Family Zonocotylidae Yamaguti, 1963

Zonocotyle Travassos, 1948

Zonocotylodes Padilha, 1978

Zonocotyle bicaecata Travassos, 1948

Material deposited: CHIOC (type material), MLP.

Host: *Steindachnerina elegans* (Steindachner) [= *Curimata elegans* (Steindachner)] (type host, Brazil), *Cyphocharax gilbert* (Quoy & Gaimard) [= *Pseudocurimata gilberti* (Quoy & Gaimard)], *Cyphocharax platanus* (Günther) [= *Curimatorbis platanus* (Günther)], *Steindachnerina brevipinna* (Eigenmann & Eigenmann) [= *Pseudocurimata nitens* (Holmberg)] (Characiformes: Curimatidae).

Localities: Mogi-Guaçu River, (Emas, Pirassununga), São Paulo State, Brazil (type locality); Los Talas (Berisso), Buenos Aires Province.

Site of infection: Intestine.

References: Travassos (1947), Lunaschi (1988b).

Family Zoogonidae Odhner, 1911

Porangatus Fernandes, Malta & Morias, 2013

Porangatus ceteyus Fernandes, Malta & Morias, 2013

Material deposited: CHIOC (type material), MACN-Pa 615/1–2 (new voucher material).

Host: *Hoplosternum littorale* (Siluriformes: Callichthyidae) (type host).

Localities: Lake Catalão, Amazonas State, Brazil (type locality); Paraná-Guazú River**, Entre Ríos Province.

Site of infection: Middle and posterior part of intestine.

References: Arredondo (2013), Fernandes *et al.* (2013).

Remarks: First citation of this species in Argentina.

Steganoderma Stafford, 1904

Steganoderma macrophallus Szidat & Nani, 1951

Material deposited: MACN-Pa (type material).

Host: *Basilichthys microlepidotus* (Jenyns) (= *Basilichthys microlepidota* Girard) (Atheriniformes: Atherinopsidae) (type host).

Localities: Limay River (Plottier), Neuquén Province (type locality); Quequén River (Buenos Aires Province).

Site of infection: Intestine.

Reference: Szidat & Nani (1951).

Steganoderma szidati Viozzi, Flores & Ostrowski de Núñez, 2000

Material deposited: MAC-Pa (type material), UNC (type material).

Host: *Galaxias maculatus* (Jenyns) (type host), *Galaxias platei* Steindachner, *Aplochiton zebra* Jenyns (Osmeriformes: Galaxiidae).

Localities: Gutiérrez Lake, Rio Negro Province (type locality); Glacial lakes of Andean Patagonia; Moreno and Nahuel Huapi Lakes, Rio Negro Province; Epuýén and Cholila Lakes, Chubut Province.

Site of infection: Posterior part of intestine.

References: Viozzi *et al.* (2000, 2009), Revenga *et al.* (2005), Fernández *et al.* (2012, 2015a, b).

Steganoderma valchetensis Etchegoin, Cremonte & Escalante, 2002

Material deposited: BMNH (type material), MLP (type material).

Host: *Gymnocharacinus bergii* Steindachner (Characiformes: Characidae) (type host).

Localities: Valcheta Creek (on the Somuncurá Plateau), Rio Negro Province (type locality).

Site of infection: Intestine.

Reference: Etchegoin *et al.* (2002).

Table 1: List of the Argentinean fish hosts and their adult trematodes (fish are presented by order and families in alphabetical order). • indicated doubtful fish host.

Atheriniformes	
Fam. Atherinopsidae	
<i>Basilichthys microlepidotus</i>	
<i>Steganoderma macrophallus</i>	
<i>Odontesthes bonariensis</i>	
<i>Thometrema bonariensis</i>	
Characiformes	
Fam. Acestrorhynchidae	
<i>Acestrorhynchus pantaneiro</i>	
<i>Rhiphidocotyle santanaensis</i>	
Fam. Anostomidae	
<i>Leporinus friderici</i>	
<i>Genarchella genarchella</i>	
<i>L. obtusidens</i>	
<i>Creptotrema creptotrema</i>	
<i>C. lynchi</i>	
<i>Genarchella parva</i>	
<i>Thometrema overstreeti</i>	
<i>Saccocoelioides magniovatus</i>	
<i>S. szidati</i>	
<i>Schizodon fasciatus</i>	
<i>Saccocoelioides szidati</i>	
Fam. Bryconidae	
<i>Salminus brasiliensis</i>	
<i>Genarchella genarchella</i>	
<i>G. parva</i>	
<i>Neocladocystis intestinalis</i>	
<i>Prosorhynchoides cambapuntaensis</i>	
<i>Prosthenhystera obesa</i>	
<i>Thometrema overstreeti</i>	
<i>Travassosinia dilatata</i>	
Fam. Characidae	
<i>Astyanax</i> sp.	
<i>Genarchella parva</i>	
<i>Magnivitellinum simplex</i>	
<i>A. abramis</i>	
<i>Genarchella fragilis</i>	
<i>A. bimaculatus</i>	
<i>Creptotrematina dissimilis</i>	
<i>Genarchella parva</i>	
<i>Saccocoelioides bacilliformis</i>	
<i>A. eigenmanniorum</i>	
<i>Bacciger delvalleensis</i>	
<i>Creptotrematina dissimilis</i>	
<i>Genarchella parva</i>	
<i>Magnivitellinum simplex</i>	
<i>A. fasciatus</i>	
<i>Bacciger astyanctis</i>	
<i>Genarchella fragilis</i>	
<i>G. parva</i>	
<i>Magnivitellinum simplex</i>	
<i>Thometrema overstreeti</i>	
<i>Saccocoelioides octavus</i>	
<i>A. paraguayense</i>	
	<i>Thometrema overstreeti</i>
	<i>Charax gibbosus</i>
	<i>Genarchella parva</i>
	<i>C. stenopterus</i>
	<i>Genarchella genarchella</i>
	<i>Cheirodon interruptus</i>
	<i>Genarchella parva</i>
	<i>Gymnocharacinus bergii</i>
	<i>Steganoderma valchetensis</i>
	<i>Hyphessobrycon meridionalis</i>
	<i>Genarchella parva</i>
	<i>Saccocoelioides nanii</i>
	<i>Oligosarcus jenynsii</i>
	<i>Genarchella genarchella</i>
	<i>G. parva</i>
	<i>Magnivitellinum simplex</i>
	<i>Thometrema overstreeti</i>
	<i>O. hepsetus</i>
	<i>Genarchella parva</i>
	Fam. Curimatidae
	<i>Cyphocharax gilbert</i>
	<i>Acanthostomum gnerii</i>
	<i>Zonocotyle bicaecata</i>
	<i>C. platanus</i>
	<i>Chalcinotrema platense</i>
	<i>Saccocoelioides antonioni</i>
	<i>S. magnus</i>
	<i>Zonocotyle bicaecata</i>
	<i>Steindachnerina brevipinna</i>
	<i>Zonocotyle bicaecata</i>
	Fam. Cynodontidae
	<i>Rhaphiodon vulpinus</i>
	<i>Dinurus breviductus</i>
	Fam. Erythrinidae
	<i>Hoplias malabaricus</i>
	<i>Pseudoselacotyla lutzi</i>
	Fam. Prochilodontidae
	<i>Prochilodus lineatus</i>
	<i>Saccocoelioides elongatus</i>
	<i>S. nanii</i>
	<i>Sanguinicola argentinensis</i>
	Fam. Serrasalmidae
	<i>Piaractus mesopotamicus</i>
	<i>Curumai curumai</i>
	<i>Chalcinotrema salobrensis</i>
	<i>Dadaytrema oxycephala</i>
	<i>Travassosinia dilatata</i>
	Fam. Triportheidae
	<i>Triportheus paranensis</i>
	<i>Creptotrematina dispar</i>
	<i>Chalcinotrema salobrensis</i>
	<i>Genarchella parva</i>
	Clupeiformes
	Fam. Clupeidae
	<i>Ramnogaster melanostoma</i>
	<i>Dinurus breviductus</i>
	<i>Lecithaster intermedius</i>
	Fam. Engraulidae
	<i>Lycengraulis grossidens</i>
	<i>Stomachicola lycengraulidis</i>
	Cyprinodontiformes
	Fam. Anablepidae
	<i>Jenynsia multidentata</i>
	<i>Genarchella parva</i>
	<i>Lecithaster confusus</i>

- Dipnoi
Fam. Lepidosirenidae
Lepidosiren paradoxa
Kalipharynx piramboae
- Gymnotiformes
Fam. Gymnotidae
Gymnotus sp.
Parspina carapo
Fam. Rhamphichthyidae
Rhamphichthys rostratus
Auriculostoma platense
Fam. Sternopygidae
Eigenmannia virescens
Parspina virescens
- Mugiliformes
Fam. Mugilidae
Mugil liza
Forticulcita platana
Hymenocotta manteri
Phyllodistomum mugilis
Xiha fastigata
- Osmeriformes
Fam. Galaxiidae
Aplochiton zebra
Steganoderma szidati
Galaxias maculatus
Acanthostomoides apophalliformis
Allocreadium pichi
Steganoderma szidati
G. platei
Steganoderma szidati
- Perciformes
Fam. Cichlidae
Australoheros facetus
Lobatostoma jungwirthi
Thometrema bonariensis
Saccocoelioides carolae
Cichlasoma dimerus
Crassicutis cichlasomae
Crenicichla lepidota
Crassicutis cichlasomae
Gymnogeophagus australis
Homalometron pseudopallidum
Fam. Percichthyidae
Percichthys colhuapiensis
Acanthostomoides apophalliformis
Allocreadium patagonicum
Deropegus patagonicus
P. trucha
Acanthostomoides apophalliformis
Allocreadium patagonicum
Deropegus patagonicus
Homalometron papilliferum
Posterotestes unelen
Fam. Sciaenidae
Pachyurus bonariensis
Auriculostoma macrorchis
- Pleuronectiformes
Fam. Achiridae
Catathyridium jenymsii
Prosorhynchoides rioplatensis
- Salmoniformes
Fam. Salmonidae
Onchorhynchus mikiss
Acanthostomoides apophalliformis
Salmo trutta
Acanthostomoides apophalliformis
Deropegus patagonicus
Salvelinus fontinalis
Deropegus patagonicus
- Siluriformes
Fam. Auchenipteridae
Agenieosus inermis
Auriculostoma macrorchis
Microrchis oligovitellinum
Thometrema overstreeti
A. militaris
Auriculostoma macrorchis
Genarchella parva
Microrchis oligovitellinum
Auchenipterus nigripinnis
Auriculostoma macrorchis
Genarchella parva
Thometrema overstreeti
A. osteomystax
Auriculostoma macrorchis
Genarchella parva
Trachelyopterus galeatus
Creptotrema creptotrema
Dadaytremoides parauchenipteri
T. striatulus
Creptotrema creptotrema
Microrchis oligovitellinum
Fam. Callichthyidae
Corydoras paleatus
Glyptelmis pseudium
Hoplosternum littorale
Magnivitellinum corvitellinum
Plethniella coelomicola
Porangatus ceteyus
Fam. Diplomystidae
Olivaichthys viedmensis
Acanthostomoides apophalliformis
Fam. Doradidae
Pterodoras granulatus
Curumai curumai
Dadaytrema gracilis
D. oxycephala
Microrchis oligovitellinum
Travassosinia dilatata
Rhinodoras dorbignyi
Auriculostoma macrorchis
A. platense
Palaeocryptogonimus claviformis
Fam. Heptapteridae
Pimelodella gracilis
Dadaytrema gracilis
Genarchella parva
Parspina argentinensis
P. pimelodellae
P. laticeps
Acanthostomum gnerii
Phyllodistomum spatula
P. mucosa
Genarchella parva
Rhamdia quelen
Acanthostomum gnerii
Genarchella parva
Phyllodistomum spatula

Thometrema overstreeti
 Fam. Loricariidae
Hypostomus commersoni
Crassicutis intermedius
Megacoelium plecostomi
Thometrema magnifica
Saccocoelioides nanii
*Hypostomus plecostomus**
Megacoelium plecostomi
Thometrema magnifica
Loricariichthys anus
Genarchella parva
Saccocoelioides quintus
Paraloricaria vetula
Procaudotestis uruguayensis
 Fam. Pimelodidae
Iheringichthys labrosus
Auriculostoma platense
Genarchella genarchella
Parspina argentinensis
Plethniella coelomicola
Luciopimelodus pati
Auriculostoma macrorchis
Creptotrema pati
Genarchella genarchella
G. parva
Microrchis oligovitellinum
Prosthenhystera obesa
Thometrema overstreeti
Parapimelodus valenciensis
Parspina argentinensis
Pimelodus albicans
Auriculostoma platense
Genarchella genarchella
G. parva
Parspina argentinensis
Plethniella coelomicola
Prosthenhystera obesa
Thometrema overstreeti
P. argenteus
Auriculostoma platense
Genarchella parva
Parspina argentinensis
P. maculatus
Auriculostoma platense
Genarchella genarchella
G. parva
Parspina argentinensis
Plethniella coelomicola
Thometrema overstreeti
P. ornatus
Genarchella parva
Pseudoplatystoma corruscans
Genarchella parva
Plethniella coelomicola
Thometrema overstreeti
P. reticulatum
Thometrema overstreeti
Sorubim lima
Magnivitellinum simplex
Thometrema overstreeti
Zungaro jahu
Thometrema overstreeti

DISCUSSION

This checklist includes 77 species of adult trematodes (Aspidogastrea and Digenea) belonging to 45 genera and 21 families. The highest species richness was recorded for the family Haploporidae with 15 species, followed by Allocreadiidae and Cryptogonimidae, with nine species each. The number of species for the remaining 18 families ranges between one and seven species.

In regard to digeneans from Argentina, five new species were reported (*Forticulcita platana*, *Parspina carapo*, *P. pimelodellae* and *P. virescens* and *Stomachicola lycengraulidis*), and 9 were cited for the first time in the country (*Crassicutis cichlasomae*, *Hymenocotta manteri*, *Lecithaster confusus*, *Magnivitellinum corvitellinum*, *Neocladocystis intestinalis*, *Porangatus ceteyus*, *Phylodistomum mugilis*, *Pseudosellacotyla lutzi* and *Xiha fastigata*) between 2007 and 2016 (Kohn *et al.*, 2007, Ostrowski de Núñez *et al.*, 2011; Montes *et al.*, 2012; Tanzola & Seguel, 2012; Arredondo, 2013; Arredondo & Ostrowski de Núñez, 2013; Montes, 2013; Quintana & Ostrowski de Núñez, 2014; Andres *et al.*, 2015; Montes & Martorelli, 2015; Quintana & Ostrowski de Núñez, 2016). Moreover, new hosts were found for 17 species (*Auriculostoma macrorchis*, *A. platense*, *Creptotrema creptotrema*, *Crassicutis cichlasomae*, *Curumai curumai*, *Dadaytrema gracilis*, *Genarchella genarchella*, *G. parva*, *Hymenocotta manteri*, *Lecithaster confusus*, *Magnivitellinum simplex*, *Megacoelium plecostomi*, *Microrchis oligovitellinum*, *Parspina argentinensis*, *Plethniella coelomicola*, *Prosthenhystera obesa*, and *Travassosinia dilatata*). On the other hand, 28 digenean species have been recorded in new localities of Argentina (including new host records plus *Crassicutis intermedius*, *Dadaytrema oxycephala*, *Magnivitellinum corvitellinum*, *Neocladocystis intestinalis*, *Phylodistomum mugilis*, *Porangatus ceteyus*, *Pseudosellacotyla lutzi*, *Stomachicola lycengraulidis*, *Thometrema magnifica*, *T. overstreeti* and *Xiha fastigata*).

A final comment should be made on some trematode species: 1) The specimen of *Steganoderma oviformis* Szidat, 1962 reported from Argentina by Kohn *et al.* (2007) had actually been collected in Valdivia, Chile (see Fernández *et al.*, 2012); 2) there is controversy about the validity of some *Saccocoelioides* species described by Szidat (see Kohn, 1985; Lunaschi, 1996, 2002; Kohn *et al.*, 2007) because the type material of these species (deposited at the MACN) is poorly fixed and improperly stained, highlighting the need to clarify their taxonomic status by the examination of new material from type hosts and localities; 3) *Crassicutis cichlasomae* has a wide geographic distribution, as it parasitizes 25 species of cichlids in Mexico and other hosts in Central America (Nicaragua, Costa Rica and Cuba) and South America (Brazil) (Razo-Mendivil *et al.*, 2013). Recent genetic studies by Razo-Mendivil *et al.* (2010, 2013) revealed that *C. cichlasomae* represents a complex of cryptic species, requiring a thorough morphological characterization for

consistent species identification. Razo-Mendivil *et al.* (2013) suggest that *C. cichlasomae* specimens from Cuba and Brazil belong to a new species, and a similar line of reasoning may apply to the Argentinean specimens. Molecular studies of South American trematodes would help resolve some of these issues.

In the present checklist 34, 31, and 11 species of digeneans have been recorded in 26, 30 and seven species of Characiformes, Siluriformes and Perciformes, respectively. These orders not only show the highest species richness of freshwater fishes, but also harbour the highest species richness of digeneans in South America, including Argentina. The high diversity of trematodes reported in Characiformes and Siluriformes is probably due to the utmost sampling effort, as they included species of great commercial value, which makes them readily available for parasitologists. Future trematode studies might also include fish hosts used as baits, such as species of the families Characidae (Characiformes) locally called “mojarras”, Cichlidae (Perciformes) and all the families of Gymnotiformes (knifefish), which have been scarcely studied. Indeed, recent parasitological surveys of Gymnotiformes revealed the presence of two new species of the genus *Parspina*. This highlights the importance of considering fishes of minor commercial value for the discovery of new trematodes.

Few years ago, Reis *et al.* (2003) listed 4475 valid fish species from South and Central America and assumed that about 1550 remain to be described. Recently, Reis (2013) added new records to the list of Neotropical fishes and estimated a total of 8000 fish species in the region. South America possesses two of the major hydrological basins of the world, namely the Amazon River and the Paraná-La Plata River basins, followed by the Uruguay River, which has been scarcely studied from a parasitological point of view. According to Choudhury *et al.* (2016), less than 5% of the highly diverse South American ichthyofauna has been examined for parasites, suggesting that the biodiversity of freshwater fish hosts and their adult trematodes in South America is underestimated.

ACKNOWLEDGEMENTS

We would like to thank to the reviewers for their comments and suggestions that improved the manuscript. Research was supported by Universidad de Buenos Aires (UBACYT – 20020130100617BA) Agencia Nacional de Promoción Científica y Tecnológica (PICT 2014-2358).

REFERENCES

Aguilera G., Azpelicueta M.M. 2015. First record of *Pimelodella mucosa* Eigenmann & Ward, 1907 (Siluriformes: Heptapteridae) in Formosa, Argentina and comments on the geographical distribution of *P. howesi* Fowler, 1940. *CheckList* 11: 1757. <http://dx.doi.org/10.15560/11.5.1757>

- Alarcos A.J., Etchegoin J.A. 2010. Parasite assemblages of estuarine-dependent marine fishes from Mar Chiquita coastal lagoon (Buenos Aires Province, Argentina). *Parasitology Research* 107: 1083-1091. <http://dx.doi.org/10.1007/s00436-010-1974-z>
- Almirón A., Casciotta J., Ciotek L., Giorgis P. 2008. Guía de los Peces del Parque Nacional Pre-Delta. *Administración de Parques Nacionales, Buenos Aires*, 216 pp.
- Almirón A., Casciotta J., Ciotek L., Giorgis P. 2015. Guía de los Peces del Parque Nacional Pre-Delta. *Administración de Parques Nacionales, Buenos Aires*, 300 pp. <https://www.sib.gov.ar/archivos/bfa004429.pdf>
- Amato S.B., Amato J.F.R. 1993. A new species of *Phyllodistomum* Braun, 1899 (Digenea: Gorgoderidae) from *Rhamdia quelen* (Quoy & Gaimard, 1824) (Siluriformes: Pimelodidae). *Memorias do Instituto Oswaldo Cruz* 88: 557-559. <http://dx.doi.org/10.1590/s0074-02761993000400010>
- Andres J.A., Curran S.S., Fayton T.J., Pulis E.E., Overstreet R.M. 2015. An additional genus and two additional species of Forticulitinae (Digenea: Haploporidae). *Folia Parasitologica* 62: 025. <http://dx.doi.org/10.14411/fp.2015.025>
- Arredondo N.J. 2013. Platyhelminthes (Digenea; Proteocephalidea) y Acanthocephala parásitos de peces teleósteos de la cuenca del Río Paraná: diversidad, especificidad y morfología. *Tesis Doctoral, Universidad de Buenos Aires, Buenos Aires*, 267 pp. http://digital.bl.fcen.uba.ar/Download/Tesis/Tesis_5780_Arredondo.pdf
- Arredondo N.J., Ostrowski de Núñez M. 2013. A new species of *Parspina* Pearse, 1920 (Digenea: Cryptogonimidae) from *Pimelodella gracilis* (Velenciennes) (Siluriformes: Heptapteridae) in the Paraná River basin, Argentina, and a key to the genus. *Systematic Parasitology* 84: 81-87. <http://dx.doi.org/10.1007/s11230-012-9394-3>
- Avendaño de MacIntosh M.F., Ostrowski de Núñez M. 1998. Seasonal dynamics of *Plehnella coelomica* (Trematoda: Sanguinicollidae) in two catfish, *Pimelodus albicans* and *P. maculatus* (Pisces: Siluriformes), from La Plata River, Argentina. *Folia Parasitologica* 45: 253-255.
- Boeger W.A., Thatcher V.E. 1983. *Kalipharynx piramboae* gen. et sp. n. (Trematoda: Fellodistomidae) parasite do peixe pulmonado amazonico *Lepidosiren paradoxa* Fitzinger. *Acta Amazonica* 13: 171-175. <http://acta.inpa.gov.br/fasciculos/13-1/PDF/v13n1a13.pdf>
- Bray R.A., de Chambrier A., Vaucher C. 1996. *Crassicutis intermedius* (Szidat, 1954) n. comb. and *Procaudotestis uruguayensis* Szidat, 1954 (Digenea: Homalometridae) from siluriform fishes in Paraguay. *Systematic Parasitology* 35: 119-126. <http://dx.doi.org/10.1007/bf00009820>
- Bray R.A., Gibson D.I., Jones A. 2008. Keys to the Trematoda. Vol. 3. *CABI, Wallingford*, 824 pp.
- Brooks D.R., Mayes M.A., Thorson T.B. 1979. *Paravitellotrema overstreeti* sp. n. (Digenea: Hemiuridae) from the Colombian freshwater stingray *Potamotrygon magdalenae* Dumeril. *Proceedings of the Helminthological Society of Washington* 46: 52-54.
- Casciotta J., Almirón A., Sánchez S., J. Iwaszkiw J., M. C. Bruno M.C 2013. The genus *Gymnotus* (Gymnotiformes: Gymnotidae) in Argentina. How bad taxonomy results in poor regulations and no conservation. *Journal of Applied Ichthyology* 29: 208-212. <http://dx.doi.org/10.1111/jai.12028>

- Curran S.S. 2008. Two new species of *Creptotrema* (Digenea: Allocreadiidae) from South America. *Revista Mexicana de Biodiversidad* 79: 15-21.
<http://www.scielo.org.mx/pdf/rmbiodiv/v79sago/v79sago4.pdf>
- Chemes S.B., Takemoto R.M. 2011. Diversity of parasites from Middle Paraná system freshwater fishes, Argentina. *International Journal of Biodiversity and Conservation* 3: 249-266.
http://www.academicjournals.org/article/article1380550233_Chemes%20and%20Takemoto.pdf
- Choudhury A., Aguirre-Macedo L., Curran S.S., Ostrowski de Núñez M., Overstreet R.M., Pérez-Ponce de León G., Portes Santos C. 2016. Trematode diversity in freshwater fishes of the Globe II: 'New World'. *Systematic Parasitology* 93: 271-282. <http://dx.doi.org/10.1007/s11230-016-9632-1>
- Cussac V.E., Fernández D.A., Gómez S.E., López H.L. 2009. Fishes of southern South America: a story driven by temperature. *Fish Physiology and Biochemistry* 35: 29-42. <http://dx.doi.org/10.1007/s10695-008-9217-2>
- Daday E. 1907. In Südamerikanischen Fischen lebende Trematoden-Arten. *Zoologische Jahrbücher. Abteilung für Systematik, Geographie und Biologie der Tiere* 24: 469-590.
- Davies D. 2014. Digenea (Trematoda) parásitos de *Biomphalaria* spp., en el Valle de Lerma, Provincia de Salta. *Tesis Doctoral, Universidad Nacional de Salta, Salta*, 234 pp.
- Diesing K.M. 1950. Systema Helminthum. Volume 1. *Braunmüller, Vindobonae*, 679 pp.
- Drago F.B. 1997. Dinámica estacional y ecología de las poblaciones de parásitos de *Hyphessobrycon meridionalis* Ringuelet, Miquelarena & Menni, 1978 (Pisces-Characidae). *Gayana* 61: 15-22.
- Drago F.B. 2004. Dinámica estacional y ecología de las poblaciones de parásitos del pejerrey, *Odontesthes bonariensis* (Cuvier & Valenciennes, 1835), en lagunas de la provincia de Buenos Aires. *Tesis Doctoral, Universidad Nacional de la Plata, Facultad de Ciencias Naturales y Museo, La Plata*, 248 pp.
<http://sedici.unlp.edu.ar/handle/10915/4289>
- Drago F.B. 2012. Community structure of metazoan parasites of silverside *Odontesthes bonariensis* (Pisces, Atherinopsidae) from Argentina. *Iheringia, Série Zoologia* 102: 26-32. <http://dx.doi.org/10.1590/s0073-47212012000100004>
- Etchegoin J.A., Cremonte F., Escalante A.H. 2002. *Steganoderma (Steganoderma) valchetensis* n. sp. (Digenea: Zoogonidae) from the relict fish *Gymnocharacinus bergi* (Osteichthyes: Characidae) in Argentina. *Systematic Parasitology* 51: 149-153. <http://dx.doi.org/10.1023/a:1014098732668>
- Fernandes B.M.N., Kohn A. 2001. On some trematodes parasites of fishes from Paraná River. *Brazilian Journal of Biology* 61: 461-466. <http://dx.doi.org/10.1590/s1519-69842001000300016>
- Fernández V., Semenas L., Viozzi G. 2012. Parasites of the "Peladilla", *Aplochiton zebra* (Osmeriformes: Galaxiidae), from Patagonia (Argentina and Chile). *Comparative Parasitology* 79: 231-237. <http://dx.doi.org/10.1654/4561.1>
- Fernandes B.M.N., Malta J.C.O., Morias A.M. 2013. *Porangatus cetyus* n. gen., n. sp. (Digenea: Zoogonidae): A parasite of *Hoplosternum littorale* (Pisces: Callichthyidae) from Amazonas State, Brazil. *Comparative Parasitology* 80: 305-314. <http://dx.doi.org/10.1654/4631.1>
- Fernández V., Semenas L., Viozzi G. 2015a. La estructura de las comunidades de helmintos de *Galaxias maculatus* (Osmeriformes: Galaxiidae) en diferentes sitios de un lago de la Patagonia argentina. *Ecología Austral* 25: 212-220. <http://www.scielo.org.ar/pdf/ecoaus/v25n3/v25n3a06.pdf>
- Fernández V., Garibotti G., Semenas L., Viozzi G. 2015b. Influence of biotic and abiotic factors on the metazoan parasite communities of a native prey fish: study in 28 Andean Patagonian lakes. *Ecología Austral* 25: 221-230. <http://www.scielo.org.ar/pdf/ecoaus/v25n3/v25n3a07.pdf>
- Flores V., Brugni N., Ostrowski de Núñez M. 2004. *Allocreadium pichi* n. sp. (Trematoda: Allocreadiidae) in *Galaxias maculatus* (Osteichthyes: Galaxiidae) from Lake Moreno in Patagonia (Argentina). *Systematic Parasitology* 58: 217-221. <http://dx.doi.org/10.1023/b:sypa.0000032932.88512.a9>
- Freitas J.F.T. 1941a. *Sellacotyle lutzii* n. sp. trematódeo parasito de *Hoplias malabaricus* Bloch. *Anales Academia Brasileira de Ciencias* 13: 17-19.
- Freitas J.F.T. 1941b. Novo trematódeo parasito de peixe do Rio Miranda I. *Revista Brasileira de Biologia* 1: 249-251.
- Freitas J.F.T. 1941c. Novo trematódeo parasito de peixe de agua doce. *Memorias do Instituto Oswaldo Cruz* 35: 569-571. <http://dx.doi.org/10.1590/s0074-02761940000300006>
- Freitas J.F.T. 1947. *Chalcinotrema salobrensis* n. g. n. sp. (Trematoda, Waretrematidae). *Revista Brasileira de Biologia* 7: 461-464.
- Froese R., Pauly D. (Eds) 2016. FishBase. World Wide Web electronic publication. www.fishbase.org, version (10/2016).
- Gibson D.I., Bray R.A. 1979. The Hemiuroidea: terminology, systematics and evolution. *Bulletin of the British Museum (Natural History)* 36: 35-146. <http://dx.doi.org/10.5962/bhl.part.3604>
- Gibson D.I., Jones A., Bray R.A. 2002. Keys to the Trematoda. Vol. 1. *CABI, Wallingford*, 521 pp.
- Gil de Pertierra A.A., Ostrowski de Núñez M. 1995. Ocurrencia estacional de *Acanthostomum gneri* (Szidat 1954) (Acanthostomidae, Acanthostominae) y de dos especies de Derogenidae, Halipeginae, parásitos del bagre sapo, *Rhamdia sapo* Valenciennes, 1840 (Pisces, Pimelodidae) en Argentina. *Revista Brasileira de Biologia* 55: 305-314.
- Hamann M.I. 1982a. Parásitos del pacú (*Colossoma mitrei*) del río Paraná medio, República Argentina (Pisces, Serrasalmidae). *Historia Natural* 2: 153-160.
- Hamann M.I. 1982b. Parásitos en peces de la familia Doradidae del río Paraná medio, República Argentina (Pisces, Siluriformes). *Historia Natural* 2: 193-199.
- Hamann M.I. 1982c. Parasitos del sábalo (*Prochilodus platensis* Holmberg, 1889) del Río Paraná Medio, República Argentina (Pisces, Tetragnopteridae). *Historia Natural* 2: 233-237.
- Hamann M.I. 1983. Digeneos parásitos de peces dulceacuícolas del nordeste argentino. *Comunicaciones Científicas CECONAL* 15: 1-8.
- Hamann M.I. 1986. *Halipegus ovocaudatus* (Vulpian, 1859) loos, 1899 (Hemiuridae, Halipeginae) parasita de *Rana esculenta* Linne, de Europa y *Genarchella genarchella* Travassos, Artigas & Pereira, 1928 (Hemiuridae, Halipeginae) parásita de *Salminus maxillosus* Valenciennes, 1840 del sudeste de América del Sur. Anatomía y posición sistemática. *Physis, Sección B* 44: 19-24.
- Hamann M.I. 1988. Trematodes de peces del río Paraná medio, Provincia de Corrientes, Argentina (Allocreadiidae, Lepocreadiidae). *Neotrópica* 34: 41-50.

- Hamann M.I. 1989. *Genarchella* Travassos, Artigas y Pereira, 1928 (Digenea, Hemiuridae) parásitos de peces de agua dulce del Río Paraná, Provincia de Corrientes, República Argentina. I: Anatomía y posición sistemática. II: Contribuciones ecológicas. *Physis, Sección B* 47: 15-30.
- Jones A., Bray R.A., Gibson D.I. 2005. Keys to the Trematoda. Vol. 2. *CABI, Wallingford*, 745 pp.
- Kohn A. 1984. Redescription of the type-material of *Creptotrema creptotrema* Travassos, Artigas & Pereira, 1928 (Digenea, Allocreadiidae). *Memorias do Instituto Oswaldo Cruz* 79: 377-379.
<http://dx.doi.org/10.1590/s0074-02761984000300014>
- Kohn, A. 1985. On the species described by Szidat in 1954 in the genus *Saccocoelioides* (Digenea: Haploporidae). *Memorias do Instituto Oswaldo Cruz* 80: 387-393.
- Kohn A., Fróes O.M., Fernandes B.M.M., Abramson B. 1983. Redescription of *Thometrema magnifica* (Szidat, 1954) Gibson & Bray, 1979 (Trematoda: Hemiuroidea), with comments on the validity of *T. portoalegrensis* Amato, 1968. *Journal of Helminthology* 57: 143-148.
<http://dx.doi.org/10.1017/s0022149x00009391>
- Kohn A, Fernandes B.M.M., Gibson D.I., Fróes O.M. 1990. On the Brazilian species of Halipegina genera (Trematoda: Derogenidae) from fishes, with new morphological data, host and synonyms. *Systematic Parasitology* 16: 201-211.
<http://dx.doi.org/10.1007/bf00009148>
- Kohn A., Fernandes B.M.M., Baptista-Farias F.D. 1997. Redescription of *Prosthenytera obesa* (Diesing, 1850) (Callodistomidae, Digenea) with new host records and data on morphological variability. *Memorias do Instituto Oswaldo Cruz* 92: 171-179.
<http://dx.doi.org/10.1590/s0074-02761997000200008>
- Kohn A., Fernandes B.M.N., Cohen S.C. 2007. South American Trematodes parasites of fishes. *Editora Imprinta, Rio de Janeiro*, 318 pp.
- Kritscher E. 1974. *Lobatostoma jungwirthi* nov. spec. (Aspidocotylea, Aspidogastriidae) aus *Geophagus brachyurus* Cope 1894 (Pisc., Cichlidae). *Annalen des Naturhistorischen Museums in Wien* 78: 381-384.
- Lacerda A.C.F., Takemoto R.M., Pavanelli G.C. 2009. A new trematode species parasitizing the catfish *Hoplosternum littorale* (Osteichthyes: Callichthyidae) from Paraná River, Brazil, with an emendation of the diagnosis of *Magnivitelinum* (Trematoda: Macroderoididae). *Acta Parasitologica* 54: 37-40.
<http://dx.doi.org/10.2478/s11686-009-0007-5>
- Lado P., Carnevia D., Peretta A., Castro O. 2013. *Heleobia conexa* (Mollusca, Cochliopidae) y *Mugil platanus* (Osteichthyes, Mugilidae), hospedadores intermediario y definitivo de *Dicrogaster fastigatus* (Trematoda, Haploporidae) en Uruguay. *Revista Argentina de Parasitología* 2: 16-21.
- Liotta J. 2005. Distribución geográfica de los peces de aguas continentales de la República Argentina. *ProBiota, Facultad de Ciencias Naturales y Museo, Universidad Nacional de La Plata, Serie Documentos* 3: 1-679.
- Lunaschi L.I. 1984a. Helmintos parásitos de peces de agua dulce de la Argentina II. Presencia de *Lobatostoma jungwirthi* Kritscher, 1974 (Trematoda, Aspidogastrea) en *Cichlasoma facetum* (Jenyns). *Neotrópica* 30: 187-192.
- Lunaschi L.I. 1984b. Helmintos parásitos de peces de agua dulce de la Argentina I. Tres nuevas especies del género *Saccocoelioides* Szidat, 1954 (Trematoda – Haploporidae). *Neotrópica* 30: 31-42.
- Lunaschi L.I. 1985a. Helmintos parásitos de peces de agua dulce de la Argentina III. Presencia del género *Creptotrema* Travassos et al., 1928 y *Creptotrematina* Yamaguti, 1954 (Digenea: Lepocreadiidae) en la zona fluvial intermedia del Río de la Plata. *Neotrópica* 31: 15-21.
- Lunaschi L.I. 1985b. Helmintos parásitos de peces de agua dulce de la Argentina IV. Acerca de la validez del género *Plehniiella* Szidat, 1951 (Trematoda-Sanguinicolidae). *Neotrópica* 31: 149-154.
- Lunaschi L.I. 1986. Helmintos parásitos de peces de agua dulce de la Argentina V. Redescipción de *Acanthostomum (Atrophececum) gnerii* Szidat, 1954 (Trematoda-Acanthostominae). *Neotrópica* 32: 35-42.
- Lunaschi L.I. 1987. Helmintos parásitos de peces de agua dulce de la Argentina VI. Sobre una nueva especie del género *Microrchis* Daday, 1907 (Trematoda-Paramphistomidae). *Neotrópica* 33: 37-40.
- Lunaschi L.I. 1988a. Helmintos parásitos de peces de agua dulce de la Argentina X. Tres nuevas especies del género *Thometrema* Amato, 1968 (Trematoda-Derogenidae). *Neotrópica* 34: 23-32.
- Lunaschi L.I. 1988b. Helmintos parásitos de peces de agua dulce de la Argentina VII. *Zonocotyle bicaecata* Travassos, 1948. *Neotrópica* 36: 83-88.
- Lunaschi L.I. 1988c. Primer registro del género *Bacciger* Nicoll, 1914 (Fellodistomidae, Baccigerinae) en peces de agua dulce de Argentina. *Physis, Sección B* 56: 17-19.
- Lunaschi L.I. 1989a. Helmintos parásitos de peces de agua dulce de la Argentina VII. Acerca de dos nuevas especies de paramfistómidos (Trematoda – Paramphistomidae). *Neotrópica* 35: 35-42.
- Lunaschi L.I. 1989b. Helmintos parásitos de peces de agua dulce de la Argentina XI. *Magnivitelinum simplex* Kloss, 1966 (Trematoda – Macroderoididae). *Neotrópica* 35: 113-117.
- Lunaschi L.I. 1990. Helmintos de peces de agua dulce de la Argentina IX. El género *Genarchella* Travassos, Artigas y Pereira, 1928 y descripción de *G. parva* Travassos, Artigas y Pereira, 1928, y *G. fragilis* sp. nov. (Trematoda, Derogenidae). *Studies on Neotropical Fauna and Environment* 25: 125-132.
<http://dx.doi.org/10.1080/01650529009360812>
- Lunaschi L.I. 1991. Primer registro del género *Glypthelmis* Stafford, 1905 (Trematoda, Macroderoididae) en peces de agua dulce. *Iheringia, Serie Zoologica* 71: 179-182.
- Lunaschi L.I. 1994. Primer registro de *Kalipharynx piramboae* Boeger y Thatcher, 1983 (Trematoda: Plagiorchiidae) en Argentina. *Neotrópica* 40: 9-13.
- Lunaschi L.I. 1996. Redescipción y sinonimia de *Saccocoelioides nanii* Szidat, 1954 (Digenea - Haploporidae). *Neotrópica* 42: 81-84.
- Lunaschi L.I. 2001. Una especie nueva del género *Bacciger* Nicoll, 1914 (Faustulidae) parásita de peces tetragonoptéridos de Argentina. *Neotrópica* 47: 57-59.
- Lunaschi L.I. 2002. Redescipción de *Saccocoelioides octavus* Szidat, 1970 y *S. bacilliformis* Szidat, 1973 (Digenea, Haploporidae), parásitos del género *Astyanax* Baird & Girard, 1854 (Pisces: Characidae). *Gayana* 66: 31-37.
<http://dx.doi.org/10.4067/s0717-65382002000100005>
- Lunaschi L.I. 2003. *Prosorhynchoides rioplatensis* (Szidat, 1970) comb. nov. (Digenea: Bucephalidae) from *Catathyridium jenynsii* (Günther, 1862) (Pleuronectiformes: Achiridae) in Argentina. *Acta Parasitologica* 48: 83-86.
- Lunaschi L.I. 2004. Two new species of bucephalids (Digenea:

- Bucephalidae) parasitic in freshwater fishes of Argentina. *Parasitology International* 53: 229-234.
<http://dx.doi.org/10.1016/j.parint.2004.01.014>
- Lunaschi L.I., Drago F.B. 2000 (published in 2001). *Thometrema patagonica* (Szidat, 1956) n. comb para *Derogetes patagonicus* (Szidat), Yamaguti 1951 (Trematoda, Derogetidae). *Physis, Sección B* 58: 43-46.
- Lunaschi L.I., Martorelli S.R. 1990. Presencia de *Phyllodistomum spatula* Odhner (Trematoda – Gorgoderidae) en dos especies de pimelodidos capturados en la provincia de Buenos Aires, Argentina. Aportes al conocimiento de su ciclo biológico. *Neotrópica* 36: 55-63.
- Lunaschi L.I., Sutton C.A. 1995. Sobre algunos digeneos parásitos de peces del canal Irigoyen, Isla de Talavera, Provincia de Buenos Aires. *Neotrópica* 41: 99-104.
- Martorelli S.R. 1986. Estudios parasitológicos en biotipos lenticos de la República Argentina II: el ciclo biológico de *Homalometron pseudopallidum* sp. nov. (Digenea), parásito de *Gymnogeophagus australis* (Eigenmann, 1907) (Pisces: Cichlidae). *Neotrópica* 32: 3-12.
- Martorelli S.R. 1989. Estudios parasitológicos en biotipos lénticos de la República Argentina. V. Desarrollo del ciclo biológico monoxeno de la metacercaria progenética de *Genarchella genarchella* Travassos, 1928 (Digenea, Hemiuridae) parásita de *Littoridina parchappii* (Mollusca, Hydrobiidae). *Revista del Museo de La Plata* 14: 109-117.
- Menni R.C. 2004. Peces y ambientes en la Argentina continental. *Monografías del Museo Argentino de Ciencias Naturales* 5: 1-316.
- Mirande J.M., Koerber S. 2015. Checklist of the freshwater fishes of Argentina (CLOFFAR). *Ichthyological Contributions of Peces Criollos* 36: 1-68.
- Montes M.M. 2013. Estudio comparado de las comunidades parasitarias de peces de humedales costeros: una herramienta para el monitoreo de la biodiversidad y la salud ambiental. *Tesis Doctoral, Universidad Nacional de la Plata, Facultad de Ciencias Naturales y Museo, La Plata*, 343 pp.
<http://sedici.unlp.edu.ar/handle/10915/27118>
- Montes M.M., Martorelli S.R. 2015. An ecological and comparative analysis of parasites in juvenile *Mugil liza* (Pisces, Mugilidae) from two sites in Samborombón bay, Argentina. *Iheringia, Série Zoológica* 105: 403-410.
<http://dx.doi.org/10.1590/1678-476620151054403410>
- Montes M.M., Marcotegui P.S., Martorelli S.R. 2012. Digeneos parásitos de *Mugil liza* (Pisces: Mugilidae) en la Bahía de Samborombón, Argentina, con el reporte de metacercarias zoonóticas de *Ascocoyle (Phagicola) longa*. *Revista Argentina de Parasitología* 1: 68-85.
- Odhner T. 1902. Mitteilungen zur Kenntnis der Distomen. I. *Zentralblatt für Bakteriologie und Parasitenkunde Infektionskrankheiten* 31: 58-69.
- Orélis-Ribeiro R., Bullard S.A. 2015. Blood flukes (Digenea: Aporocotylidae) infecting body cavity of South American catfishes (Siluriformes: Pimelodidae): two new species from rivers in Bolivia, Guyana and Peru with a re-assessment of *Plehnella* Szidat, 1951. *Folia Parasitologica* 62: 050.
<http://dx.doi.org/10.14411/fp.2015.050>
- Ostrowski de Núñez M., Gil de Pertierra A.A. 1991. The life history of *Acanthostomum gnerii* Szidat, 1954 (Trematoda: Acanthostomatidae), from the catfish *Rhamdia sapo* in Argentina. *Zoologischer Anzeiger* 227: 58-71.
- Ostrowski de Núñez M., Semenas L., Brugni N., Viozzi G., Flores V. 1999. Redescription of *Acanthostomoides apophalliformis* (Trematoda, Acanthostomidae) from *Percichthys trucha* (Pisces, Percichthyidae) with notes on its life cycle in Patagonia, Argentina. *Acta Parasitologica* 44: 222-228.
- Ostrowski de Núñez M., Brugni N., Viozzi G. 2000. *Polyleki- thum percai* n. sp. (Trematoda: Allocreadiidae) from *Percichthys trucha* in Patagonia, Argentina, and a redescription of *Homalometron papilliferum* Szidat, 1956 n. comb. *Systematic Parasitology* 47: 51-57.
<http://dx.doi.org/10.1023/A:1006497331377>
- Ostrowski de Núñez M., Brugni N., Flores V. 2003. *Posterostes unelen* gen. et sp. n. (Digenea: Apocreadiidae) from *Percichthys trucha* (Osteichthyes: Percichthyidae) in Patagonia, Argentina. *Folia Parasitologica* 50: 211-214.
<http://dx.doi.org/10.14411/fp.2003.037>
- Ostrowski de Núñez M., Arredondo N.J., Doma I.L., Gil de Pertierra A.A. 2011a. Redescription of *Parspina argentinensis* (Szidat, 1954) (Digenea: Cryptogonimidae) from freshwater fishes (Pimelodidae) in the basins of the Paraná and La Plata Rivers, Argentina, with comments on *P. bagre* Pearse, 1920. *Systematic Parasitology* 78: 27-40.
<http://dx.doi.org/10.1007/s11230-010-9274-7>
- Ostrowski de Núñez M., Arredondo N.J., Gil de Pertierra A.A. 2011b. Two new species of *Parspina* Pearse, 1920 (Digenea, Cryptogonimidae) from freshwater fishes (Gymnotiformes) of the Paraná River basin in Argentina. *Systematic Parasitology* 80: 67-79.
<http://dx.doi.org/10.1007/s11230-011-9313-z>
- Overstreet R.M., Curran S.S. 2005. Family Haploporidae Nicoll, 1914 (pp. 129-165). In: Jones A., Bray R., Gibson D.I. (eds). Keys to the Trematoda. Vol. 2. *CABI, Wallingford*, 745 pp.
- Paola A., Damborenea M.C. 2001. Tegumentary ultrastructure (SEM) of preadult and adult *Lobatostoma jungwirthi* Kritscher, 1974 (Trematoda: Aspidogastrea). *Comparative Parasitology* 68: 249-245.
<http://dx.doi.org/10.1590/S0074-02761999000100010>
- Pojmańska T., Tkach V.V., Gibson D.I. 2008. Genera *incertae sedis*, genera *inquirendae*, *nomina nuda*, larval or collective names and recently erected genera (pp. 736-752). In: Bray R.A., Gibson D.I., Jones A. (eds). Keys to the Trematoda. Vol. 3. *CABI, Wallingford*, 824 pp.
- Quintana M., Ostrowski de Núñez M. 2014. The life cycle of *Pseudosellacotyla lutzi* (Digenea: Cryptogonimidae) in *Aylacostoma chloroticum* (Prosobranchia: Thiaridae), and *Hoplias malabaricus* (Characiformes: Erythrinidae), in Argentina. *Journal of Parasitology* 100: 805-811.
<http://dx.doi.org/10.1645/13-379.1>
- Quintana M., Ostrowski de Núñez M. 2016. The life cycle of *Neocladocystis intestinalis* (Vaz, 1932) (Digenea: Cryptogonimidae), in *Aylacostoma chloroticum* (Prosobranchia: Thiaridae), and *Salminus brasiliensis* (Characiformes: Characidae), in Argentina. *Parasitology Research* 115: 2589-2595.
<http://dx.doi.org/10.1007/s00436-016-5004-7>
- Razo-Mendivil U., Vázquez-Domínguez E., Rosas-Valdez R., Pérez-Ponce de León G., Nadler S.A. 2010. Phylogenetic analysis of nuclear and mitochondrial DNA reveals a complex of cryptic species in *Crassicutis cichlasomae* (Digenea: Apocreadiidae), a parasite of Middle-American cichlids. *International Journal for Parasitology* 40: 471-486.
<http://dx.doi.org/10.1016/j.ijpara.2009.10.004>
- Razo-Mendivil U., Vázquez-Domínguez E., Pérez-Ponce de León G. 2013. Discordant genetic patterns between

- Crassicutis cichlasomae* (Digenea: Apocreadiidae) and its cichlid host, "*Cichlasoma*" *urophthalmus* (Osteichthyes: Cichlidae) in Middle-America. *Journal of Parasitology* 99: 978-988. <http://dx.doi.org/10.1645/13-225.1>
- Reis R., Kullander S., Ferraris C. 2003. Check List of the freshwater fishes of South and Central America. *EDIPURCRS, Porto Alegre*, 729 pp.
- Reis R.E. 2013. Conserving the freshwater fishes of South America. *International Zoo Yearbook* 47: 65-70. <http://dx.doi.org/10.1111/izy.12000>
- Revenga J.E., Torres P.F., Baiz M. 2005. Impact of a caged-trout farm on parasites of *Galaxias maculatus* in Lake Moreno, Southern Argentina. *Journal of Parasitology* 91: 707-709. <http://dx.doi.org/10.1645/ge-441r>
- Revenga J.E., Torres P.F., Siegmund I. 2006a. *Acanthostomoides apophalliformis* (Trematoda: Cryptogonimidae) does not cause detectable mortality in *Galaxias maculatus* (Teleostomi: Galaxiidae). *Brazilian Archives of Biology and Technology* 49: 713-715. <http://dx.doi.org/10.1590/s1516-89132006000600004>
- Revenga J.E., Torres P.F., Siegmund I. 2006b. *Galaxias maculatus* (Galaxiidae, Salmoniformes) infected with *Acanthostomoides apophalliformis* (Digenea, Platyhelminthes) in Southern Argentina. Pathology and absence of parasite induced mortality. *Brazilian Journal of Veterinary Research Animal Science* 43: 642-646. <http://dx.doi.org/10.1590/S1413-95962006000500009>
- Scholz T., Aguirre-Macedo M.L., Choudhury A. 2004. *Auriculostoma astyanace* n. gen; n. sp. (Digenea: Allocreadiidae), from the banded astyanax, *Astyanax fasciatus* (Characiformes: Characidae), from Nicaragua, with a reevaluation of Neotropical *Crepidostomum* spp. *Journal of Parasitology* 90: 1128-1132. <http://dx.doi.org/10.1645/ge-3275>
- Scholz T., Besprozvannykh V.V., Boutorina T.E., Choudhury A., Cribb T.H., Ermolenko A.V., Faltýnková A., Shedko M.B., Shimazu T., Smit N.J. 2016. Trematode diversity in freshwater fishes throughout the globe I: Old World. *Systematic Parasitology* 93: 257-269. <http://dx.doi.org/10.1007/s11230-016-9630-3>
- Shimazu T., Urawa S., Coria C.O. 2000. Four species of digeneans, including *Allocreadium patagonicum* sp. n. (Allocreadiidae), from freshwater fishes of Patagonia, Argentina. *Folia Parasitologica* 47: 111-117. <http://dx.doi.org/10.14411/fp.2000.023>
- Szidat L. 1951. Neue Arten der Trematodenfamilie Aporocotylidae aus dem Blut und der Leibeshöhle von Süßwasserfischen des Rio de la Plata. *Zeitschrift für Parasitenkunde* 15: 70-86.
- Szidat L. 1954. Trematodes nuevos de peces de agua dulce de la República Argentina y un intento para aclarar su carácter marino. *Revista del Museo Argentino de Ciencias Naturales "Bernardino Rivadavia"*, *Ciencias Zoológicas* 3: 1-85.
- Szidat L. 1956a. Über den Entwicklungszyklus mit progenetischen Larvenstadien (Cercariae) von *Genarchella genarchella* Travassos 1928 (Trematoda, Hemiuridae) und die Möglichkeit einer hormonalen Beeinflussung der Parasiten durch ihre Wirtstiere. *Zeitschrift für Tropenmedizin und Parasitologie* 7: 131-153.
- Szidat L. 1956b. Über die Parasitenfauna von *Percichthys trucha* (Cuv. & Val.) Girard der patagonischen Gewässer und die Beziehungen des Wirtsfisches und seiner Parasiten zur paläarktischen Region. *Archives of Hydrobiology* 51: 542-577.
- Szidat L. 1970a. *Saccocoelioides octavus* n. sp., una nueva especie del género *Saccocoelioides* Szidat, 1954. *Revista del Museo Argentino de Ciencias Naturales "Bernardino Rivadavia"*, *Zoología* 10: 87-99.
- Szidat L. 1970b. Weitere Beiträge zur Kenntnis der Marinen Reliktfauna des La Plata-Stromsystems. In: H. D. *Srivastava Commemoration Volume*: 637-653.
- Szidat L. 1973. Sobre una nueva especie del género *Saccocoelioides* Szidat 1954 de *Astyanax bipunctatus*, *Saccocoelioides bacilliformis* sp. n. del río Reconquista, provincia de Buenos Aires. *Comunicaciones del Museo Argentino de Ciencias Naturales "Bernardino Rivadavia" e Instituto Nacional de Investigación de las Ciencias Naturales, Parasitología* 1: 97-100.
- Szidat L., Nani A. 1951. Diplostomiasis cerebral del pejerrey. Una grave epizootia que afecta a la economía nacional, producida por larvas de Trematodes que destruyen el cerebro de los pejerreyes. *Revista del Instituto Nacional de Investigación de las Ciencias Naturales, Ciencias Zoológicas* 1: 323-394.
- Szidat L., Angelescu V., Siccardi E. 1950. *Dinurus breviductus* Looss, 1907 (Trematoda, Fam. Hemiuridae) agente causal de la enfermedad de las manchas negras de *Clupea melanostoma* Eig., 1907, del Río de la Plata. *Comunicaciones del Instituto Nacional de Investigación de las Ciencias Naturales "Bernardino Rivadavia"*, *Ciencias Zoológicas* 1: 3-27.
- Tanzola R.D., Seguel S. 2012. *Stomachicola lycengraulidis* n. sp. (Digenea, Hemiuridae), parasite of the Atlantic sabretooth anchovy *Lycengraulis grossidens* (Clupeiformes, Engraulidae). *Neotropical Helminthology* 6: 59-66.
- Thatcher V.E. 1978. Quatro espécies novas da família Haploporidae (Trematoda: Digenea) de peixes de agua doce da Colombia, com uma revisão do gênero *Saccocoelioides* Szidat, 1954. *Acta Amazonica* 8: 477-484. <https://acta.inpa.gov.br/fasciculos/8-3/PDF/v8n3a16.pdf>
- Thatcher V.E., Sparks A.K. 1958. A new species of *Dicrogaster* (Trematoda, Haploporidae) from *Mugil cephalus* in the Gulf of Mexico. *Journal of Parasitology* 44: 647-648. <http://dx.doi.org/10.2307/3274554>
- Travassos L. 1947. Contribuição ao conhecimento dos helmintos dos peixes d'água doce do Brasil. I. *Zoonocotyle bicaecata* n. g., n. sp. (Trematoda, Aspidogastridae). *Memorias do Instituto Oswaldo Cruz* 45: 513-516.
- Travassos L., Freitas J.F.T., Kohn A. 1969. Trematódeos do Brasil. *Memorias do Instituto Oswaldo Cruz* 67: 1-886.
- Viozzi G., Flores V., Ostrowski de Núñez M.C. 2000. *Steganoderma szidati* n. sp (Trematoda: Zoogonidae) from *Galaxias maculatus* (Jenyns) and *G. platei* Steindachner in Patagonia, Argentina. *Systematic Parasitology* 46: 203-208. <http://dx.doi.org/10.1023/a:1006390003572>
- Viozzi G., Semenas L., Brugni N., Flores V. 2009. Metazoan parasites of *Galaxias maculatus* (Osmeriformes: Galaxiidae) from Argentinean Patagonian. *Comparative Parasitology* 76: 229-239. <http://dx.doi.org/10.1654/4328.1>
- Zylber M.I., Ostrowski de Núñez M. 1999. Some aspects of the development of *Lobatostoma jungwirthi* Kritscher, 1974 (Aspidogastrea) in snails and cichlid fishes from Buenos Aires, Argentina. *Memorias do Instituto Oswaldo Cruz* 94: 31-35.