

**Metazoan endoparasites of *Erythrolamprus poecilogyrus caesius* (Cope, 1862)
(Serpentes: Dipsadidae) in South American Chaco: Structural attributes at
different organization levels.**

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SUPPLEMENTARY MATERIAL

- 1 **Table S1.** Taxonomic identification of ME, stage (adult or larva), and life cycle of taxa collected in *Erythrolamprus poecilogyrus caesius* from a
- 2 locality of Dry Chaco, Argentina. 1st **IH:** First intermediate host (obligatory). 2nd **IH/PH:** Second intermediate host/suitable paratenic hosts. **DH:**
- 3 Definitive host.

ME taxa	Phylum: Family	Accession number (N° of specimens)	1 st IH	2 nd IH/PH	DH	Reference*
Adult stage						
<i>Kalicephalus appendiculatus</i> Molin, 1861	Nematoda: Diaphanocephalidae	CECOAL 22030219 (2 males, 1 female)	—	—	Snakes	Schad (1956), Anderson (2000)
<i>Ophiotaenia joanae</i> (De Chambrier et Paulino, 1997)	Platyhelminthes: Proteocephalidae.	CECOAL 18071604 (1 specimen)	Arthropoda: Copepoda	Anurans	Anurans, snakes	Scholz and De Chambrier (2003)
<i>Catadiscus uruguayensis</i> Freitas et Lent, 1939	Platyhelminthes: Diplodiscidae	CECOAL 22030244 (2 specimens)	Gastropoda: Planorbidae.	—	Anurans, snakes	Yamaguti (1975),

						Hamann and Kehr (2003)
<i>Opisthogonimus lecithonotus</i> Lühe, 1900	Platyhelminthes: Opisthogonimidae	CECOAL 21120228 (1 specimen)	Gastropoda: Planorbidae.	Tadpoles, adults anurans	Snakes	Grabda-Kazubska (1963)
<i>Raillietiella furcocerca</i> Sambon, 1922	Pentastomida: Raillietiellidae	CECOAL 22121313 (2 specimens)	Arthropoda	—	Lizards, snakes	Melhorn (2004) <i>apud</i> Fredes and Raffo (2006)
Larval stage						
<i>Oligacanthorhynchus</i> sp.	Acanthocephala: Oligacanthorhynchidae	CECOAL 22030239 (3 specimens)	Arthropoda: Myriapoda Insecta (Coleptera, Dermaptera, Orthoptera)	Anurans	Birds, mammals	Richardson (2006), Kennedy (2006)

<i>Physaloptera</i> sp.	Nematoda: Physalopteridae	CECOAL 22030241 (1 specimen)	Arthropoda: Insecta (Coleoptera, Blattodea, Dermaptera, Orthoptera)	Anurans, snakes, lizards	Anurans, snakes, lizards, birds, mammals.	Cawthorn and Anderson (1976), Anderson (2000)
<i>Alaria</i> sp.	Platyhelminthes: Diplostomidae	CECOAL 21120230 (4 specimens)		Anurans, rodents	Mammals	Yamaguti (1975)
<i>Strigea</i> sp. 1		CECOAL22030214 (3 specimens)	Gastropoda: Planorbidae.			
<i>Strigea</i> sp. 2	Platyhelminthes: Strigeidae	CECOAL 22030243 (2 specimens)		Anurans	Birds, mammals	Yamaguti (1975)
<i>Strigea</i> sp. 3		CECOAL 22030242 (1 specimen)				

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*References mention possibly intermediate, paratenic, and definitive hosts of parasite species closely related (family or generic level).

7 **Table S2.** Host – parasite list for *Erythrolamprus* genus in Neotropical realm, presenting species, family and phylum, stage, site of infection, country
8 and references.

Host	Parasite family	Parasite	Stage	Country	Original
species	(Phylum).	species.	(Site of infection)		reference
<i>E. aesculapii</i>	Ascarididae	<i>Hexametra boddaerti</i>	Adult.		
(Linnaeus, 1758).	(Nematoda).	(Baird, 1860).	(Small and large intestines).	Argentina.	Bustos et al. (2023). ¹
	Diplodiscidae	<i>Catadiscus freitaslenti</i>	Adult.		
	(Platyhelminthes: Digenea).	Ruiz, 1943.	(Large intestine).	Argentina.	Caubisens Poumarau (1968). ¹
<i>E. almadensis</i>	Diplodiscidae	<i>Catadiscus freitaslenti</i>	Adult.		
(Wagler, 1824).	(Platyhelminthes: Digenea).	Ruiz, 1943.	(Large intestine).	Argentina.	Caubisens Poumarau (1968). ¹

<i>E. jaegeri</i> (Günther 1858).	Opisthogonimidae (Platyhelminthes: Digenea).	<i>Opisthogonimus megabothrium</i> Pereira, 1928.	Adult. (Mouth, esophagus and airways).	Argentina.	Lunaschi and Sutton (1985). ¹
	Plagiorchiidae (Platyhelminthes: Digenea).	<i>Travtrema stenocotyle</i> (Cohn, 1902) Goodman, 1951.	Adult. (Small and large intestines).	Argentina.	Lunaschi and Sutton (1985). ¹
<i>E. (= Liophis)</i> <i>miliaris</i> (Linnaeus, 1758).	Oligacanthorhynchidae (Acanthocephala).	<i>Oligacanthorhynchus spira</i> (Diesing, 1861).	Cystacanths. (Peritoneum).	Brazil.	Travassos (1917). ²
	Ascarididae (Nematoda).	<i>Ophidascaris trichuriformis</i> Vaz, 1935.	Adult. (Small intestine).	Brazil.	Vaz (1935). ²

Trichuridae (Nematoda).	<i>Paracapillaria cesarpintoi</i> (Freitas et Lent, 1934).	Adult. (Small intestine).	Brazil.	Freitas and Lent (1934). ²
Cosmocercidae (Nematoda) .	<i>Aplectana travassosi</i> (Gomes et Mota, 1967).	Adult. (Small intestine).	Brazil.	Gomes and Mota (1967). ²
Diaphanocephalidae (Nematoda).	<i>Kalicephalus appendiculatus</i> Molin, 1861.	Adult. (Small intestine).	Brazil.	Schad (1962). ²
Diaphanocephalidae (Nematoda).	<i>Kalicephalus costatus costatus</i> (Rudolphi 1819).	Adult. (Small intestine).	Argentina.	Ramallo (2005). ¹
Diaphanocephalidae (Nematoda).	<i>Kalicephalus inermis inermis</i> Molin, 1861.	Adult. (Small intestine)	Brazil.	Schad (1962). ²
Physalopteridae	<i>Physaloptera liophis</i>	Adult.	Brazil.	Vicente and Santos (1974). ²

(Nematoda).	Vicente and Santos, 1974.	(Stomach).		
Rhabdiasidae	<i>Acanthorhabdias</i> <i>acanthorhabdias</i>	Adult (Lungs).	Brazil.	Pereira (1927); Artigas et al. (1973); Fernandes and Souza (1974); Siqueira et al. (2009). ²
(Nematoda).	Pereira, 1927.			
Rhabdiasidae	<i>Serpentirhabdias labiata</i> (= <i>Rhabdias labiata</i>)	Adult. (Lungs).	Brazil.	Pereira (1927). ²
(Nematoda).	Pereira, 1927.			
Strongyloididae	<i>Strongyloides ophidiaie</i>	Adult.		
(Nematoda).	Pereira, 1929	(Small intestine).	Brazil	Mati and Melo (2014). ²
Proteocephalidae	<i>Ophiotaenia arandasi</i> (Santos et Rolas, 1973).	Adult. (Small intestine).	Brazil.	Santos and Tayt-Son Rolas (1973). ²

(Platyhelminthes: Cestoda).				
Dicrocoeliidae	<i>Infidum similis</i>	Adult.	Brazil.	Travassos, (1944). ³
(Platyhelminthes: Digenea).	Travassos, 1916.	(Gallbladder).		
Diplodiscidae	<i>Catadiscus dolichocotyle</i>	Adult.	Uruguay.	Mañé-Garzón and Gortari (1965). ³
(Platyhelminthes: Digenea).	(Cohn, 1903).	(Large intestine).		
Diplodiscidae	<i>Catadiscus freitaslenti</i>	Adult.	Brazil.	Ruiz (1943). ³
(Platyhelminthes: Digenea).		(Large intestine).		
Mesocoeliidae	<i>Mesocoelium monas</i>	Adult.	Brazil.	Correa (1980). ³
(Platyhelminthes: Digenea).	(Rudolphi, 1819).	(Small intestine).		
Opisthogonimidae	<i>Liophistrema pulmonale</i>	Adult.	Brazil.	Artigas et al. (1942).
(Platyhelminthes: Digenea).	Artigas, Ruiz et Leão, 1942.	(Lungs).		

Opisthogonimidae (Platyhelminthes: Digenea).	<i>Opisthogonimus fariai</i> Ruiz et Leão, 1943.	Adult. (Mouth, esophagus, and airways).	Brazil.	Leão and Ruiz (1943); Pinto et al. (2012). ³
Opisthogonimidae (Platyhelminthes: Digenea).	<i>Opisthogonimus fonsecai</i> Ruiz and Leão, 1942.	Adult. (Mouth, esophagus, and airways).	Argentina.	Boero et al. (1972). ¹
Opisthogonimidae (Platyhelminthes: Digenea).	<i>Opisthogonimus fonsecai</i> Ruiz and Leão, 1942.	Adult. (Mouth, esophagus, and airways).	Brazil.	Correa (1980). ³
Opisthogonimidae (Platyhelminthes: Digenea).	<i>Opisthogonimus lecithonotus</i> Lühe, 1900.	Adult. (Mouth, esophagus, and airways).	Brazil.	Correa (1980); Noronha et al. (2009). ³

Opisthogonimidae (Platyhelminthes: Digenea).	<i>Opisthogonimus megabothrium</i> Pereira, 1928.	Adult. (Mouth, esophagus, and airways).	Brazil.	Pereira (1928). ³
Opisthogonimidae (Platyhelminthes: Digenea).	<i>Opisthogonimus serpentis</i> Artigas, Ruiz et Leão 1943.	Adult. (Mouth, esophagus, and airways).	Brazil.	Artigas et al. (1943); Correa (1980). ³
Opisthogonimidae (Platyhelminthes: Digenea).	<i>Opisthogonimus sulina</i> (Artigas, Ruiz et Leão, 1942).	Adult. (Mouth, esophagus, and airways).	Brazil.	Correa (1980). ³
Plagiorchiidae (Platyhelminthes: Digenea).	<i>Bieria artigasi</i> Leão, 1946.	Adult. (Lungs).	Brazil.	Leão (1946). ³

Plagiorchiidae (Platyhelminthes: Digenea).	<i>Travtrema stenocotyle</i> (Cohn, 1902) Goodman 1951.	Adult. (Small and large intestines).	Brazil.	Freitas and Dobbin Jr. (1957). ³
Pleurogenidae (Platyhelminthes: Digenea).	<i>Aliptrema ribeiroi</i> Ruiz et Leão, 1955.	Adult. (Mouth and esophagus).	Brazil.	Ruiz and Leão (1955). ³
Proterodiplostomidae (Platyhelminthes: Digenea).	<i>Ophiodiplostomum aristoterisi</i> (Ruiz et Rangel, 1954).	Adult (Small intestine).	Brazil.	Ruiz and Rangel (1954). ³
Proterodiplostomidae (Platyhelminthes: Digenea).	<i>Ophiodiplostomum spectabile</i> Dubois, 1936.	Adult (Small intestine).	Brazil.	Ruiz and Rangel (1954), Correa (1980), Pinto et al. (2012). ³
Reniferidae	<i>Renifer heterocoelium</i>	Adult.	Brazil.	Correa (1980). ³

	(Platyhelminthes: Digenea).	(Travassos, 1921).	(Mouth and esophagus)		
<i>E. poecilogyrus</i> (=					
<i>Liophis</i>	Porocephalidae		Adult.		
<i>poecilogyrus</i>)	(Pentastomida).	<i>Kiricephalus</i> cf. <i>coactatus</i>	(Lungs).	Argentina.	Montes et al. (2025)
(Wied-Neuwied, 1824).					
	Diphyllbothriidae	<i>Spirometra mansonoides</i>	Adult.		
	(Platyhelminthes: Cestoda).	(Muller, 1935) Wardle, McLeod et Stewart, 1947.	(Body cavity)	Brazil.	Gutierrez et al. (1977). ⁴
	Diphyllbothriidae	<i>Spirometra mansonoides</i>	Adult		
	(Platyhelminthes: Cestoda).	(Muller, 1935) Wardle, McLeod et Stewart, 1947.	(Body cavity).	Uruguay.	Dei-Cas et al. (1976).

Diplodiscidae (Platyhelminthes: Digenea).	<i>Catadiscus</i> sp.	Adult. (Large intestine).	Brazil.	Pereira et al. (2022).
Diplodiscidae (Platyhelminthes: Digenea).	<i>Catadiscus uruguayensis</i> Freitas et Lent 1939.	Adult. (Large intestine).	Argentina.	Lunaschi and Drago (2002). ¹
Opisthogonimidae (Platyhelminthes: Digenea).	<i>Opisthogonimus megabothrium</i> Pereira, 1928.	Adult. (Mouth, esophagus, and airways).	Brazil.	Pereira et al. (2022).
Opisthogonimidae (Platyhelminthes: Digenea).	<i>Opisthogonimus</i> sp.	Adult. (Mouth, esophagus, and airways).	Brazil.	Pereira et al. (2022).
Plagiorchiidae	<i>Styphlodora</i> sp. 1	Adult.	Brazil.	Pereira et al. (2022).

(Platyhelminthes: Digenea).		(Kidneys).		
Plagiorchiidae (Platyhelminthes: Digenea).	<i>Travtrema stenocotyle</i>	Adult.	Argentina.	Ostrowski de Núñez (1979). ¹
	(Cohn, 1902) Goodman 1951.	(Small and large intestine).		
Plagiorchiidae (Platyhelminthes: Digenea).	<i>Travtrema stenocotyle</i>	Adult.	Brazil.	Pereira et al. (2022).
	(Cohn, 1902) Goodman 1951.	(Small and large intestine).		
<i>E. poecilogyrus</i> <i>caesius</i> . (Cope, 1860).	Oligacanthorhynchidae (Acanthocephala).	<i>Oligacanthorhynchus</i> sp.	Cystacanths. (Peritoneum).	Argentina. Present study.
Diaphanocephalidae (Nematoda).		<i>Kalicephalus appendiculatus</i>	Adult. (Small intestine).	
			Argentina.	Present study.

Physalopteridae (Nematoda).	<i>Physaloptera</i> sp.	Adult. (Stomach).	Argentina.	Present study.
Proteocephalidae (Platyhelminthes: Cestoda).	<i>Ophiotaenia joannae</i> (De Chambrier et Paulino, 1997).	Adult. (Small intestine).	Argentina.	Present study.
Diplodiscidae (Platyhelminthes: Digenea).	<i>Catadiscus uruguayensis</i> . Freitas et Lent, 1939	Adult. (Large intestine).	Argentina.	Present study.
Diplostomidae (Platyhelminthes: Digenea).	<i>Alaria</i> sp.	Mesocercaria. (Trachea).	Argentina.	Present study.
Opisthogonimidae (Platyhelminthes: Digenea).	<i>Opisthogonimus lecithonotus</i>	Adult. (Mouth, esophagus and airways).	Argentina.	Present study.

	Strigeidae (Platyhelminthes: Digenea).	<i>Strigea</i> sp. 1	Metacercaria. (Mesenterium).	Argentina.	Present study.
	Strigeidae (Platyhelminthes: Digenea).	<i>Strigea</i> sp. 2	Metacercaria. (Mesenterium).	Argentina.	Present study.
	Strigeidae. (Platyhelminthes: Digenea).	<i>Strigea</i> sp. 3	Metacercaria. (Mesenterium).	Argentina.	Present study.
<i>E. poecilogyrus</i> <i>schotti</i> (Schlegel 1837).	Opisthogonimidae (Platyhelminthes: Digenea).	<i>Opisthogonimus artigasi</i> Ruiz et Leão 1942.	Adult. (Mouth, esophagus and airways).	Argentina.	Caubisens Poumarau (1968). ¹
<i>E. (= Liophis)</i> <i>semiaureus</i>	Diaphanocephalidae (Nematoda).	<i>Kalicephalus costatus costatus</i> (Rudolphi 1819).	Adult. (Small intestine).	Argentina.	Ramallo (2005). ¹

(Cope 1862).				
Rhabdiasidae	<i>Acanthorhabdias</i>	Adult.		Boero
(Nematoda).	<i>acanthorhabdias</i>	(Lungs).	Argentina.	et al.
	Pereira, 1927.			(1972). ¹
Diphyllobothriidae	<i>Spirometra mansonoides</i>	Adult.		
(Platyhelminthes: Cestoda).	(Muller, 1935) Wardle, McLeod et Stewart, 1947.	(Body cavity).	Brazil.	Gutierrez et al. (1977). ⁴
Proteocephalidae	<i>Ophiotaenia racemosa</i>	Adult.		Boero
(Platyhelminthes: Cestoda).	(Rudolphi 1819) La Rué 1911.	(Small intestine).	Argentina.	et al.
				(1972). ¹
Plagiorchiidae	<i>Travtrema stenocotyle</i>			Boero
(Platyhelminthes: Digenea).	(Cohn, 1902) Goodman 1951.	Adult.	Argentina.	et al.

			(Small and large intestines).		(1972). ¹
<i>E. viridis</i> (Günther, 1862).	Centrorhynchidae (Acanthocephala).	<i>Centrorhynchus</i> sp.	Adult. (Body cavity).	Brazil.	Quirino et al. (2018). ⁵
	Cosmocercidae (Nematoda).	<i>Aplectana</i> sp.	Adult. (Small intestine).	Brazil.	Quirino et al. (2018). ⁵
	Physalopteridae (Nematoda)	<i>Physaloptera liophis</i>	Adult (Stomach)	Brazil	Quirino et al. (2018). ⁵

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10 Cited in: ¹ Caraballo et al. (2024); ² Mati et al. (2015); ³ Fernandes and Kohn (2014); ⁴ Justo et al. (2017); ⁵ Lacerda et al. (2023)

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Table S3. Number of ME taxa in adult and larval stages in species of family Dipsadidae from South America. **A:** class Acanthocephala, **C:** Subclass Cestoda, **D:** Subclass Digenea, **N:** Phylum Nematoda, **P:** Phylum Pentastomida

Host species	Sample size	#	# Adult					# Larvae					State/province, country	References	
		ME	Taxa					Taxa							
		taxa	A	C	D	N	P	A	C	D	N	P			
<i>Erythrolamprus</i>															
<i>miliaris</i> (Linnaeus, 1758)	22	3	-	-	-	3	-	-	-	-	-	-	Minas Gerais, Brazil	Mati et al. (2015)	
<i>Helicops angulatus</i> (Linnaeus, 1758)															
	158	13	-	-	3	4	1	2	-	1	2	-	Paraíba, Brazil.	Oliveira et al. (2024)	
<i>Leptodeira</i>															
<i>annulata</i> (Linnaeus, 1758)	18	8	-	1	-	5	1	1	-	-	-	-	Ceará, Brazil	Carvalho et al. (2018)	

<i>Philodryas olfersii</i>														
(Lichtenstein, 1823)	5	9	-	1	1	5	1	1	-	-	-	-	Piauí, Brazil	De Castro-Araujo et al. (2020)
<i>Pseudoboa nigra</i>														
(Duméril, Bibron et Duméril, 1854)	32	6	-	1	-	3	-	2	-	-	-	-	Ceará, Maranhão, Piauí, Pernambuco, and Rio Grande do Norte, Brazil	Matias et al. (2018)
<i>Erythrolamprus. poecilogyrus</i>														
<i>caesius</i> (Wied-Neuwied, 1824)	21	11	-	1	2	1	1	1	-	4	1	-	Formosa, Argentina	This study

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