

Supplementary Table S2. Larval helminths of Mexican amphibians registered from 1858 to 2021

Helminth species	Host species	Host type	Mexican State	Reference
PLATYHELMINTHES				
TREMATODA				
Clinostomidae				
<i>Clinostomum attenuatum</i> ^{1,2,3}	ND	ND	ND	Pérez-Ponce de León <i>et al.</i> (2007)
	BUFONIDAE <i>Rhinella marina</i>	Int	Sonora	Etges (1991)
	RANIDAE <i>Lithobates forreri</i>	Int	Sinaloa	Goldberg & Bursey (2002)
<i>Clinostomum complanatum</i> ^{1,2,4}	HYLIDAE <i>Dendropsophus microcephalus</i>	Int	Veracruz	Goldberg <i>et al.</i> (2002)
<i>Clinostomum sp.</i> ²	HYLIDAE <i>Pseudacris hypochondriaca</i>	Int	BCS	Goldberg <i>et al.</i> (2001)
	LEPTODACTYLIDAE <i>Leptodactylus melanonotus</i>	Int	Colima	Mata-López <i>et al.</i> (2013)
	RANIDAE <i>Lithobates berlandieri</i>	Int	Nuevo León	León-Règagnon <i>et al.</i> (2005b)
	RANIDAE <i>Lithobates sp.</i> “Colima form”	Int	Colima	Cabrera-Guzmán <i>et al.</i> (2010)
<i>Clinostomum tataxumui</i> ⁵	BUFONIDAE <i>Incilius marmoreus</i>	Int	Oaxaca	Trejo-Meléndez <i>et al.</i> (2019)
Cyathocotylidae				
<i>Mesostephanus sp.</i> ^{6*}	RANIDAE <i>Lithobates cf. forreri</i>	?	Guerrero	Cabrera-Guzmán <i>et al.</i> (2007)
Diplostomidae				
<i>Alaria sp.</i> ²	HYLIDAE <i>Pseudacris hypochondriaca</i>	Int	BCS	Goldberg <i>et al.</i> (2001)
Diplostomidae gen. sp. ^{6*}				

<i>Fibricola</i> sp. ^{7,8,9,10}	RANIDAE	<i>Lithobates cf. forreri</i>	?	Guerrero	Cabrera-Guzmán <i>et al.</i> (2007)
	HYLIDAE	<i>Pseudacris hypochondriaca</i>	Int	BC BCS	Goldberg <i>et al.</i> (2001) Goldberg <i>et al.</i> (2001)
	RANIDAE	<i>Lithobates montezmae</i>	Int	México	Pérez-Ponce de León <i>et al.</i> (2000)
Gorgoderidae <i>Gorgoderina</i> sp. ⁸	HYLIDAE	<i>Pseudacris hypochondriaca</i>	Int	BCS	Goldberg <i>et al.</i> (2001)
Glythelminthidae <i>Glythelmins</i> sp. ¹¹	HYLIDAE	<i>Pseudacris hypochondriaca</i>	Int	BCS	Goldberg <i>et al.</i> (2001)
Heterophyidae <i>Centrocestus formosanus</i> ¹	SCAPHIOPODIDAE	<i>Spea multiplicata</i>	Exp	Morelos	Amaya-Huerta (1995)
Macroderoididae <i>Rauschiella tineri</i> ⁴	LEPTODACTYLIDAE	<i>Leptodactylus melanonotus</i>	Int	Jalisco	Velarde-Aguilar (2011)
Reniferidae <i>Renifer</i> sp. ^{2,5,7}	AMBYSTOMATIDAE	<i>Ambystoma dumerilii</i>	Int	Michoacán	García-Altamirano <i>et al.</i> (1993)
		<i>Ambystoma lermaense</i>	Int	México	Mata-López <i>et al.</i> (2002)
		<i>Ambystoma ordinarium</i>	Int	Michoacán	Ramírez-Hernández <i>et al.</i> (2019)
	RANIDAE	<i>Lithobates durni</i>	Int	Michoacán	García-Altamirano <i>et al.</i> (1993)
		<i>Lithobates megapoda</i>	Int	Michoacán	Pérez-Ponce de León <i>et al.</i> (2000)
		<i>Lithobates montezumae</i>	Int	México	Pérez-Ponce de León <i>et al.</i> (2000)
		<i>Lithobates neovolcanica</i>	Int	Michoacán	Pérez-Ponce de León <i>et al.</i> (2000)
<i>Apharyngostrigea</i> sp. ⁶	RANIDAE	<i>Lithobates cf. forreri</i>	Int	Guerrero	Cabrera-Guzmán <i>et al.</i> (2007)
Strigeidae gen. sp. ^{4*}	LEPTODACTYLIDAE	<i>Leptodactylus melanonotus</i>	?	Colima Oaxaca	Mata-López <i>et al.</i> (2013)

	RANIDAE	<i>Lithobates cf. forreri</i>	?	Chiapas	Velázquez-Urrieta & León-Règagnon (2018)
CESTODA					
Cyclophyllidea					
Cyclophyllidea gen. sp. ⁸					
	BUFONIDAE	<i>Incilius valliceps</i>	Parat	Quintana Roo	Terán-Juárez (2011)
	HYLIDAE	<i>Trachycephalus “vermiculatus”</i>	Parat	Quintana Roo	Terán-Juárez (2011)
	LEPTODACTYLIDAE	<i>Leptodactylus melanonotus</i>	Parat	Quintana Roo	Terán-Juárez (2011)
	RANIDAE	<i>Lithobates brownorum</i>	Parat	Quintana Roo	Terán-Juárez (2011)
Diphyllobothriidea					
Diphyllobothriidae gen. sp. ^{2,4,8}					
	BUFONIDAE	<i>Rhinella marina</i>	Parat	Oaxaca	Espinoza-Jiménez et al. (2007)
	RANIDAE	<i>Lithobates cf. forreri</i>	Parat	Guerrero	Cabrera-Guzmán et al. (2007)
Onchoproteocephalidea					
Proteocephalidae gen. sp. ^{5,7}					
	AMBYSMATIDAE	<i>Ambystoma dumerili</i>	Parat	Michoacán	García-Altamirano et al. (1993)
	HYLIDAE	<i>Tripriion spatulatus</i>	Parat	Jalisco	Velarde-Aguilar (2011)
	RANIDAE	<i>Lithobates cf. forreri</i>	Parat	Chiapas	Velázquez-Urrieta & León-Règagnon (2018)
		<i>Lithobates berlandieri</i>	Parat	Nuevo León	León-Règagnon et al. (2005b)
		<i>Lithobates dunni</i>	Parat	Michoacán	García-Altamirano et al. (1993)
ACANTHOCEPHALA					
ARCHIACANTHOCEPHALA					
Oligacanthorhynchidae					
Oligacanthorhynchidae gen. sp. ^{4,8}					
	HYLIDAE	<i>Agalychnis dacnicolor</i>	Parat	Sonora	Goldberg & Bursey (2002)
	RANIDAE	<i>Lithobates tarahumarae</i>	Parat	Sonora	Bursey & Goldberg, 2001
<i>Oncicola luehei</i> ⁴					
	HYLIDAE	<i>Smilisca cyanosticta</i>	Parat	Veracruz	Goldberg et al. (2002)
<i>Oncicola sp.</i> ^{4,5,7,8,11}					
	BUFONIDAE	<i>Incilius valliceps</i>	Parat	Quintana Roo	Terán-Juárez (2011)
		<i>Rhinella marina</i>	Parat	Yucatán	Espínola-Novelo & Guillén-Hernández (2008)
	HYLIDAE	<i>Trachycephalus “vermiculatus”</i>	Parat	Quintana Roo	Terán-Juárez (2011)

		<i>Smilisca baudinii</i>	Parat	Quintana Roo	Terán-Juárez (2011)
	RANIDAE	<i>Lithobates brownorum</i>	Parat	Chiapas Yucatán	Velázquez-Urrieta & León-Règagnon (2018) Yáñez-Arenas & Guillén-Hernández (2010)
		<i>Lithobates psilonota</i>	Parat	Jalisco	Romero-Mayén <i>et al.</i> (2016)
		<i>Lithobates cf. forreri</i>	Parat	Guerrero	Cabrera-Guzmán <i>et al.</i> (2007)
<i>Prosthenorchis</i> sp. ⁴	BUFONIDAE	<i>Rhinella marina</i>	Parat	Veracruz	Galicia-Guerrero <i>et al.</i> (2000)
PALAEACANTHOCEPHALA					
Centrorhynchidae					
<i>Centrorhynchus</i> sp. ^{4,7}	BUFONIDAE	<i>Incilius valliceps</i>	Parat	Veracruz Quintana Roo	Guillén-Hernández (1992) Terán-Juárez (2011)
		<i>Incilius marmoreus</i>	Parat	Veracruz	Galicia-Guerrero <i>et al.</i> (2000)
		<i>Rhinella marina</i>	Parat	Jalisco Veracruz	Galicia-Guerrero <i>et al.</i> (2000) Goldberg <i>et al.</i> (2002)
	CRAUGASTORIDAE	<i>Craugastor rhodopis</i>	Parat	Veracruz	Goldberg <i>et al.</i> (2002)
	HYLIDAE	<i>Smilisca baudinii</i>	Parat	Quintana Roo	Terán-Juárez (2011)
		<i>Trachycephalus “vermiculatus”</i>	Parat	Quintana Roo	Terán-Juárez (2011)
	LEPTODACTYLIDAE	<i>Leptodactylus melanonotus</i>	Parat	Veracruz Quintana Roo	Goldberg <i>et al.</i> (2002) Terán-Juárez (2011)
	RANIDAE	<i>Lithobates brownorum</i>	Parat	Quintana Roo	Terán-Juárez (2011)
		<i>Lithobates berlandieri</i>	Parat	Veracruz	Guillén-Hernández (1992)
		<i>Lithobates vaillanti</i>	Parat	Veracruz	Paredes-Calderón <i>et al.</i> (2004)
Plagiorhynchidae					
<i>Plagiorhynchus</i> sp. ⁴		<i>Lithobates vaillanti</i>	Parat	Veracruz	Paredes-Calderón <i>et al.</i> (2004)
Polymorphidae					
<i>Lueheia inscripta</i> ⁴	BUFONIDAE	<i>Rhinella marina</i>	Parat	Morelos	Salgado-Maldonado & Caspeta-Mandujano (2020)
	LEPTODACTYLIDAE	<i>Leptodactylus fragilis</i>	Parat		
Polymorphidae gen. sp. ⁸					

	RANIDAE	<i>Lithobates megapoda</i>	Parat	Jalisco	Velarde-Aguilar (2014)
<i>Polymorphus brevis</i> ^{4,5}					
	AMBYSTOMATIDAE	<i>Ambystoma dumerili</i>	Parat	Michoacán	García-Altamirano <i>et al.</i> (1993)
	RANIDAE	<i>Lithobates dunni</i>	Parat	Michoacán	García-Altamirano <i>et al.</i> (1993)
<i>Polymorphus sp.</i> ⁴					
	BUFONIDAE	<i>Rhinella marina</i>	Parat	Veracruz	Galicia-Guerrero <i>et al.</i> (2000)
NEMATODA					
CRHOMADOREA					
Ancylostomatidae					
<i>Globocephalus sp.</i> ^{7,11*}					
	RANIDAE	<i>Lithobates cf. forreri</i>	?	Guerrero	Cabrera-Guzmán <i>et al.</i> (2007)
Anisakidae					
<i>Contracaecum sp.</i> ^{4,7,8,10,11}					
	BUFONIDAE	<i>Rhinella marina</i>	Int	Oaxaca	Espinoza-Jiménez <i>et al.</i> (2007)
	LEPTODACTYLIDAE	<i>Leptodactylus melanonotus</i>	Int	Jalisco	Jacinto-Maldonado (2013)
				Quintana Roo	Terán-Juárez (2011)
	RANIDAE	<i>Lithobates brownorum</i>	Int	Yucatán	Yáñez-Arenas & Guillén-Hernández (2010)
		<i>Lithobates megapoda</i>	Int	Jalisco	Velarde-Aguilar (2014)
		<i>Lithobates cf. forreri</i>	Int	Guerrero	Cabrera-Guzmán <i>et al.</i> (2007)
		<i>Lithobates megapoda</i>	Int	Michoacán	CNHE (3985)
		<i>Lithobates vaillanti</i>	Int	Tabasco	Hernández-Guzmán & Islas-Jesús (2014)
				Veracruz	Paredes-Calderón <i>et al.</i> (2004)
<i>Hysterothylacium sp.</i> ^{7*}					
	BUFONIDAE	<i>Rhinella marina</i>	?	Guerrero	Ruiz-Torres <i>et al.</i> (2017)
Ascaridae					
Ascaridae gen. sp. ^{2,4,7*}					
	HYLIDAE	<i>Pseudacris hypochondriaca</i>	?	Baja California	Martínez-Salazar <i>et al.</i> (2013)
	LEPTODACTYLIDAE	<i>Leptodactylus melanonotus</i>		Colima	Mata-López <i>et al.</i> (2013)
				Guerrero	
				Oaxaca	
				Tamaulipas	

<i>Ophidascaaris</i> sp. ¹⁴	HYLIDAE	<i>Pseudacris hypochondriaca</i>	Int	BCS	Goldberg <i>et al.</i> (2001)
<i>Porrocaecum</i> sp. ^{4*}	CRAUGASTORIDAE	<i>Craugastor rhodopis</i>	?	Veracruz	Goldberg <i>et al.</i> (2002)
	LEPTODACTYLIDAE	<i>Leptodactylus melanonotus</i>		Veracruz	Goldberg <i>et al.</i> (2002)
Atractidae					
Atractidae gen. sp. ⁷	LEPTODACTYLIDAE	<i>Leptodactylus melanonotus</i>	Def	Oaxaca	Mata-López <i>et al.</i> (2013)
Camallanidae					
<i>Serpinema</i> sp. ⁷	BUFONIDAE	<i>Incilius marmoreus</i>	Parat	Jalisco	Nájar-Pacheco (2014)
<i>Serpinema trispinosum</i> ⁷	RANIDAE	<i>Lithobates cf. forreri</i>	Parat	Guerrero	Cabrera-Guzmán <i>et al.</i> (2007)
Gnathostomatidae					
<i>Gnathostoma binucleatum</i> ²	BUFONIDAE	<i>Rhinella marina</i>	Parat	Guerrero	Mosqueda-Cabrera <i>et al.</i> (2009)
<i>Gnathostoma turgidum</i> ²	RANIDAE	<i>Lithobates zweifeli</i>	Int	Guerrero	Mosqueda-Cabrera <i>et al.</i> (2009)
<i>Gnathostoma</i> sp. ²	BUFONIDAE	<i>Rhinella marina</i>	Parat	Oaxaca	Pérez-Álvarez <i>et al.</i> (2008)
	HYLIDAE	<i>Smilisca baudinii</i>	Parat	Oaxaca	Lamothe-Argumedo (1997)
	RANIDAE	<i>Lithobates berlandieri</i>	Parat	Veracruz	Lamothe-Argumedo (1997)
		<i>Lithobates forreri</i>	Parat	Chiapas	García-Márquez <i>et al.</i> (2014)
		<i>Lithobates cf. forreri</i>	Parat	Guerrero	Cabrera-Guzmán <i>et al.</i> (2007)
		<i>Lithobates montezumae</i>	Parat	Oaxaca	Lamothe-Argumedo (1997)
		<i>Lithobates</i> sp.	Parat	Oaxaca	Lamothe-Argumedo (1997)
<i>Spiroxys</i> sp. ^{4,7,11}	AMBYSTOMATIDAE	<i>Ambystoma andersoni</i>	Parat	Michoacán	CNHE (4601)
		<i>Ambystoma lermaense</i>	Parat	México	Mata-López <i>et al.</i> (2002)
	LEPTODACTYLIDAE	<i>Leptodactylus melanonotus</i>	Parat	Quintana Roo Tabasco	Terán-Juárez (2011) Mata-López <i>et al.</i> (2013)

				Tamaulipas	Mata-López <i>et al.</i> (2013)
				Sonora	Goldberg & Bursey (2002)
				Veracruz	Goldberg <i>et al.</i> (2002)
	RANIDAE	<i>Lithobates montezumae</i>	Parat	México	Adán-Torres <i>et al.</i> (2018)
		<i>Lithobates cf. forreri</i>	Parat	Chiapas	Velázquez-Urrieta & León-Régagnon (2018)
		<i>Lithobates vaillanti</i>	Parat	Veracruz	Paredes-Calderón <i>et al.</i> (2004)
Heterocheilidae					
<i>Brevimulticaecum</i> sp. ^{7,11}	RANIDAE	<i>Lithobates brownorum</i>	Int	Quintana Roo	Terán-Juárez (2011)
Kathlaniidae					
<i>Cruzia morleyi</i> ⁷	BUFONIDAE	<i>Rhinella marina</i>	Def	Jalisco Oaxaca	Velarde-Aguilar (2011) Espinoza-Jiménez <i>et al.</i> (2007)
Molineidae					
<i>Oswaldocruzia subauricularis</i> ⁷	RANIDAE	<i>Lithobates cf. forreri</i>	Def	Guerrero	Cabrera-Guzmán <i>et al.</i> (2007)
		<i>Lithobates</i> sp. “Colima form”	Def	Colima	Cabrera-Guzmán <i>et al.</i> (2010)
<i>Oswaldocruzia</i> sp. ^{7,12}	BUFONIDAE	<i>Rhinella marina</i>	Def	Yucatán	Espínola-Novelo & Guillén-Hernández (2008)
	RANIDAE	<i>Lithobates brownorum</i>	Def	Chiapas	Velázquez-Urrieta & León-Régagnon (2018)
Onchocercidae					
<i>Ochoterenella digiticauda</i> ¹³	BUFONIDAE	<i>Rhinella marina</i>	Int	Chiapas	Caballero (1944)
Physalopteridae					
<i>Abbreviata</i> sp. ¹²	HYLIDAE	<i>Smilisca baudinii</i>	Parat	Quintana Roo	Terán-Juárez (2011)
Physalopteridae gen. sp. ¹¹	BUFONIDAE	<i>Incilius valliceps</i>	Parat	Quintana Roo	Terán-Juárez (2011)
	HYLIDAE	<i>Trachycephalus</i> “vermiculatus”	Parat	Quintana Roo	Terán-Juárez (2011)
<i>Physaloptera</i> sp. ^{5,7,11}	BUFONIDAE	<i>Anaxyrus punctatus</i>	Parat	Zacatecas	Ramírez-Cruz <i>et al.</i> (2016)
		<i>Anaxyrus kelloggi</i>	Parat	Sonora	Goldberg & Bursey (2002)

		<i>Rhinella marina</i>	Parat	Jalisco Oaxaca Veracruz	Galicia-Guerrero <i>et al.</i> (2000) Espinosa-Jiménez <i>et al.</i> (2007) Goldberg <i>et al.</i> (2002)
		<i>Incilius mazatlanensis</i>	Parat	Sonora	Goldberg & Bursey (2002)
	HYLIDAE	<i>Agalychnis dacnicolor</i>	Parat	Sonora	Goldberg & Bursey (2002)
		<i>Dendropsophus microcephalus</i>	Parat	Veracruz	Goldberg <i>et al.</i> (2002)
		<i>Pseudacris hypochondriaca</i>	Parat	BCS	Goldberg <i>et al.</i> (2001)
		<i>Smilisca baudinii</i>	Parat	Quintana Roo Sonora	Terán-Juárez (2011) Goldberg & Bursey (2002)
		<i>Trachycephalus “vermiculatus”</i>	Parat	Quintana Roo	Terán-Juárez (2011)
DIOCTOPHYMATIDA					
Dioctophymatidae					
<i>Eustrongylides</i> sp. ^{2,4,8}					
	AMBYSTOMATIDAE	<i>Ambystoma mexicanum</i>	Parat	CDMX	Recuero <i>et al.</i> (2010)
	LEPTODACTYLIDAE	<i>Leptodactylus melanonotus</i>	Parat	Chiapas	Mata-López <i>et al.</i> (2013)
	RANIDAE	<i>Lithobates megapoda</i>	Parat	Jalisco Michoacán	Velarde-Aguilar (2014) Ramírez-Lezama & Osorio-Sarabia (2001)
		<i>Lithobates psilonota</i>	Parat	Jalisco	Romero-Mayén <i>et al.</i> (2016)
		<i>Lithobates dunnii</i>	Parat	Michoacán	García-Altamirano <i>et al.</i> (1993)
SPIRURIDA					
Spirocercidae					
<i>Ascarops</i> sp. ¹¹					
	HYLIDAE	<i>Smilisca cyanosticta</i>	Parat	Veracruz	Goldberg <i>et al.</i> (2002)
	LEPTODACTYLIDAE	<i>Leptodactylus melanonotus</i>	Parat	Veracruz	Goldberg <i>et al.</i> (2002)
<i>Phyocephalus sexalatus</i> ^{3,7,9}					
	BUFONIDAE	<i>Rhinella marina</i>	Parat	Oaxaca	Espinosa-Jiménez <i>et al.</i> (2007)
<i>Phyocephalus</i> sp. ^{3,6,7,8,11}					
	BUFONIDAE	<i>Incilius marmoreus</i>	Parat	Jalisco	Galicia-Guerrero <i>et al.</i> (2000)
			Parat	Oaxaca	Trejo-Meléndez <i>et al.</i> (2019)
		<i>Incilius valliceps</i>	Parat	Quintana Roo	Terán-Juárez (2011)
		<i>Incilius mazatlanensis</i>	Parat	Sonora	Goldberg & Bursey (2002)
		<i>Rhinella marina</i>	Parat	Guerrero	Ruiz-Torres <i>et al.</i> (2017)

		Parat	Veracruz	Goldberg <i>et al.</i> (2002)
HYLIDAE	<i>Smilisca baudinii</i>	Parat	Quintana Roo	Terán-Juárez (2011)
	<i>Smilisca cyanosticta</i>	Parat	Veracruz	Goldberg <i>et al.</i> (2002)
	<i>Trachycephalus</i> “ <i>vermiculatus</i> ”	Parat	Quintana Roo	Terán-Juárez (2011)
RANIDAE	<i>Lithobates brownorum</i>	Parat	Quintana Roo	Terán-Juárez (2011)
	<i>Lithobates vaillanti</i>	Parat	Veracruz	Goldberg <i>et al.</i> (2002)
ARTHROPODA				
ICHTHYOSTRACA				
PENTASTOMIDA				
Porocephalidae				
	<i>Porocephalus crotali</i> ⁸	Int		
	LEPTODACTYLIDAE <i>Leptodactylus melanonotus</i>		Guerrero	Lagunas-Calvo <i>et al.</i> (2020)
Raillietiellidae				
	<i>Raillietiella hebitihamata</i> ¹⁰	Int		
	BUFONIDAE <i>Rhinella marina</i>		Guerrero	Lagunas-Calvo <i>et al.</i> (2020)
	<i>Raillietiella orientalis</i> ¹⁰			
	HYLIDAE <i>Smilisca baudinii</i>	Int	Tamaulipas	Lagunas-Calvo <i>et al.</i> (2020)

Superscript indicates site of infection: ¹Skin; ²Muscle; ³Mesentery; ⁴Eyes; ⁵Liver; ⁶Kidneys; ⁷Intestine; ⁸Body cavity; ⁹Urinary bladder; ¹⁰Lungs; ¹¹Stomach; ¹²Cloaca; ¹³Blood; ¹⁴Unreported; BCS= Baja California Sur; CDMX= Mexico City; Host type: Exp= Experimental; Def= Definitive; Inter= Intermediate (infected with larval macroparasites); Parat= Paratenic (transport host), see Koprivnikar *et al.* (2012) and note that life cycles of helminth species inhabiting Mexican amphibians have not been frequently studied. Host type is mostly based on information published by authors studying the species in another locality or other species in the same genus or taxonomic group; ?Unknown role of the host in the helminth life cycle. *Helminth species or taxa rarely reported to infect amphibian hosts.

Note: We did not cite works that present identical records (of host and locality) as other studies, including theses that led to a published article.