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Appendix A. Geographic distributions of anuran hosts and their platyhelminth parasites in six areas in North and Central America.

TABLE A1. Geographic distribution of anuran species. The total number of anuran species examined for parasites is on the diagonal; the number of species in common between any two sites is below the diagonal . NC = North Carolina; NE = Nebraska; MD = Mexico dry forest (Nuevo Leon); MW = Mexico wet forest (Los Tuxtlas); CD = Costa Rica dry forest (Guanacaste); CW = Costa Rica wet forest (Guanacaste).

	NC	**NE**	**MD**	**MW**	**CD**	**CW**
NC	6	-	-	-	-	-
NE	1	9	-	-	-	-
MD	0	0	4	-	-	-
MW	0	0	0	8	-	-
CD	0	0	1	2	18	-
CW	0	0	1	4	9	42

TABLE A2. Geographic distribution of platyhelminth parasite species inhabiting anurans. The total number of parasite species is on the diagonal; the number of species in common between any two sites is below the diagonal. NC = North Carolina; NE = Nebraska; MD = Mexico dry forest (Nuevo Leon); MW = Mexico wet forest (Los Tuxtlas); CD = Costa Rica dry forest (Guanacaste); CW = Costa Rica wet forest (Guanacaste).

	NC	**NE**	**MD**	**MW**	**CD**	**CW**
NC	16	-	-	-	-	-
NE	7	21	-	-	-	-
MD	3	1	9	-	-	-

MW	2	3	1	17	-	-
CD	0	0	1	5	10	-
CW	0	0	1	7	5	15

TABLE A3. Transmission patterns and site of infection in final host for adult platyhelminth parasites inhabiting anurans in six sites in North and Central America. NC = North Carolina; NE = Nebraska; MD = Mexico dry tropical forest; MW = Mexico wet tropical forest; CRD = Costa Rica dry forest; CRW = Costa Rica wet tropical forest.

Parasite species	**Parasite family**	**Hosts**	**Transmission mode to frog**	**Site of infection**
Halipegus eschi	Hemiuridae	*Rana vaillanti* (MW) (CRW)	Ingest crustacean	Esophagus
Halipegus eccentricus	Hemiuridae	*Rana catesbeiana* (NE)*; R. pipiens* (NE)	Ingest crustacean	Eustachian tubes
Halipegus occidualis	Hemiuridae	*Rana berlandieri* (MD)	Ingest crustacean	Under tongue
Catadiscus propinquus	Paramphistomidae	*Rana vaillanti* (MW) (CRW); *Leptodactylus melanonotus* (MW) (CRD) (CRW); *Rana* cf. *forreri* (CRD)	Ingest crustacean	Rectum
Megalodiscus temperatus	Paramphistomidae	*Rana catesbeiana* (NC) (NE); *Rana sphenocephala* (NC); *Pseudacris brimleyi* (NC); *Pseudacris crucifer* (NC); *Rana pipiens* (NE); *R.*	Ingest crustacean	Rectum

		blairi (NE); *Hyla chrysocelis* (NE)		
Megalodiscus intermedius	Paramphistomidae	*Rana catesbeiana* (NC)	Ingest crustacean	Rectum
Megalodiscus americanus	Paramphistomidae	*Rana berlandieri* (MD); *Bufo nebulifer* (MD)	Ingest crustacean	Rectum
Alassostomoides parva	Paramphistomidae	*R. catesbeiana* (NE)	Ingest crustacean	Rectum
Alassostomoides chelydrae	Paramphistomidae	*R. catesbeiana* (NE)	Ingest crustacean	Rectum
Gorgodera amplicava	Gorgoderidae	*Rana catesbeiana* (NC) (NE); *Bufo fowleri* (NC)	Ingest crustacean	Urinary bladder
Gorgoderina attenutata	Gorgoderidae	*Rana catesbeiana* (NC) (NE); *Rana sphenocephala* (NC); *Bufo fowleri* (NC); *Rana pipiens* (NE); *R. blairi* (NE)*; Rana vaillanti* (MW); *Gastrophryne* (MW)	Ingest crustacean	Urinary bladder
Gorgoderina simplex	Gorgoderidae	*Bufo fowleri* (NC); *Rana pipiens* (NE); *R. blairi* (NE); *R. catesbeiana* (NE); *Bufo woodhousii* (NE)	Ingest crustacean	Urinary bladder
Gorgoderina translucida	Gorgoderidae	*Bufo fowleri* (NC); *Rana pipiens* (NE)	Ingest crustacean	Urinary bladder
Gorgoderina megacetabularis	Gorgoderidae	*Rana vaillanti* (CRW)	Ingest crustacean	Urinary bladder

Gorgoderina parvicava	Gorgoderidae	*Rana vaillanti* (MW) (CRW)	Ingest crustacean	Urinary bladder
Gorgoderina diaster	Gorgoderidae	*Rana vaillanti*; *R.* cf. *forreri* (CRD) (CRW)	Ingest crustacean	Urinary bladder
Gorgoderina sp. n.	Gorgoderidae	*Leptodactylus melanonotus* (MW)	Ingest crustacean	Urinary bladder
Haematoloechus complexus	Haematoloechidae	*Rana sphenocephala* (NC); *Rana pipiens* (NE); *R. blairi* (NE); *Bufo woodhousii* (NE); *Hyla chrysocelis* (NE); *Rana vaillanti* (MW); *Rana brownorum* (MW); *Rana berlandieri* (MD)	Ingest odonate	Lungs
Haematoloechus longiplexus	Haematoloechidae	*Rana catesbeiana* (NC) (NE); *R. blairi* (NE); *Bufo woodhousii* (NE)	Ingest odonate	Lungs
Haematoloechus breviplexus	Haematoloechidae	*Rana catesbeiana* (NC)	Ingest odonate	Lungs
Haematoloechus parviplexus	Haematoloechidae	*Rana catesbeiana* (NE); *Bufo woodhousii* (NE)	Ingest odonate	Lungs
Haematoloechus medioplexus	Haematoloechidae	*Rana pipiens* (NE); *R. blairi* (NE); *Rana vaillanti*	Ingest odonate	Lungs
Haematoloechus varioplexus	Haematoloechidae	*Rana pipiens* (NE); *R. blairi* (NE); *Bufo woodhousii* (NE)	Ingest odonate	Lungs

Haematoloechus floedae	Haematoloechidae	*Rana* cf. *forreri* (CRD); *R. taylori* (CRW)	Ingest odonate	Lungs
Haematoloechus meridionalis	Haematoloechidae	*Rana vaillanti* (CRW)	Ingest odonate	Lungs
Haematoloechus danbrooksi	Haematoloechidae	*Rana vaillanti* (MW)	Ingest odonate	Lungs
Haematoloechus illimis	Haematoloechidae	*Rana vaillanti* (MW)	Ingest odonate	Lungs
Haematoloechus coloradensis	Haematoloechidae	*Rana pipiens* (NE); *R. blairi* (NE)	Ingest odonate	Lungs
Glypthelmins pennsylvaniensis	Macroderoididae	*Pseudacris crucifer* (NC)	Larvae penetrate into intestine from body cavity at metamorphosis	Anterior 10% of small intestine
Glypthelmins hyloreus	Macroderoididae	*Pseudacris triseriata* (NE)	Larvae penetrate into intestine from body cavity at metamorphosis	Anterior 10% of small intestine
Glypthelmins quieta	Macroderoididae	*Rana catesbeiana* (NC) (NE); *R. pipiens* (NE); *R. blairi* (NE); *Bufo woodhousii* (NE)	Ingest own shed epidermis	Anterior 10% of small intestine
Glypthelmins tuxtlasensis	Macroderoididae	*Rana vaillanti* (MW); *Rana brownorum* (MW)	Ingest own shed epidermis	Anterior 10% of small intestine
Glypthelmins poncedeleoni	Macroderoididae	*Leptodactylus melanonotus* (MW) (CRD) (CRW)	Ingest own shed epidermis	Anterior 10% of small intestine
Glypthelmins facioi	Macroderoididae	*Rana vaillanti*; *Rana* cf. *forreri* (CRD)	Ingest own shed epidermis	Anterior 10% of small intestine

Glypthelmins cf. *facioi*	Macroderoididae	*Rana vaillanti* (CRW)	Ingest own shed epidermis	Anterior 10% of small intestine
Glypthelmins parva	Macroderoididae	*Rana vaillanti* (MW)	Ingest own shed epidermis	Anterior 10% of small intestine
Loxogenes bicolor	Lecithodendriidae	*Rana catesbeiana* (NC); *Rana sphenocephala* (NC)	Ingest dipterans	Gall bladder
Langeronia macrocirra	Lecithodendriidae	*Rana vaillanti* (MW) (CRW); *Rana brownorum* (MW); *Rana berlandieri* (MD); *Rana* cf. *forreri* (CRD)	Ingest dipterans	Mid-small intestine
Langeronia jimenezi	Lecithodendriidae	*Bufo marinus* (MD)	Ingest dipterans	Mid-small intestine
Brenesia chabaudi	Lecithodendriidae	*Rana vaillanti* (CRW)	Ingest dipterans	Anterior 10% of small intestine
Cephalogonimus americanus	Cephalogonimidae	*Rana sphenocephala* (NC); *Rana berlandieri* (MD); *Bufo marinus* (MD)	Ingest tadpoles	Mid-small intestine
Cephalogonimus brevicirrus	Cephalogonimidae	*Rana pipiens* (NE); *R. blairi* (NE)	Ingest tadpoles	Mid-small intestine
Cephalogonimus sp. n.	Cephalogonimidae	*Rana* cf. *forreri* (CRD)	Ingest tadpoles	Mid-small intestine
Choledocystus intermedius	Ochetosomatidae	*Bufo marinus* (CRD)	Ingest tadpoles	Hepatic ducts
Mesocoelium sp.	Brachycoelidae	*Rana brownorum* (MW); *Smilisca baudinni* (MW) (CRW); *Rana* cf. *forreri* (CRD); *Bufo*	Ingest snails or snail slime balls	Mid-small intestine to anterior large intestine

		marinus (CRD) (CRW); *Eleutherodactylus fitzingeri* (CRD); *Bufo leutkenii* (CRD); *Leptodactylus poecilochilus* (CRD); *Smilisca puma* (CRW); *Eleutherodactylus diastema*(CRW)		
Brachycoelium hospitale	Brachycoelidae	*Rana sphenocephala*; *Bufo fowleri*; *Pseudacris brimleyi*; *Pseudacris crucifer* (NC)	Ingest snails or snail slime balls	Mid-small intestine to anterior large intestine
Polystoma naevius	Polystomidae	*Smilisca baudenii* (CRD) (CRW); *Scinax boulengeri* (CRD); *Smilisca phaeota* (CRD) (CRW); *Phrynohyas venulosa* (CRD); *Hyla lancasteri* (CRW)	Larvae attach to tadpoles	Urinary bladder
Neodiplorchis scaphiopi	Polystomidae	*Scaphiopus bombifrons* (NE)	Larvae attach to tadpoles	Urinary bladder
Pseudiplorchis americanus	Polystomidae	*Scaphiopus couchii* (MD)	Larvae attach to tadpoles	Urinary bladder
Proteocephalus saphenus	Proteocephalidae	*Rana catesbeiana* (NC)	Ingest crustacean, tadpole, or small frog	Intestine (scolex attached in small intestine)

Proteocephalus magnus	Proteocephalidae	*Rana catesbeiana* (NE); *R. blairi* (NE)	Ingest crustacean, tadpole, or small frog	Intestine (scolex attached in small intestine)
Proteocephalus filaroides	Proteocephalidae	*Rana berlandieri* (MD)	Ingest crustacean, tadpole, or small frog	Intestine (scolex attached in small intestine)
Proteocephalus sp. n.	Proteocephalidae	*Rana vaillanti* (CRW)	Ingest crustacean, tadpole, or small frog	Intestine (scolex attached in small intestine)
Proteocephalus sp.	Proteocephalidae	*Bufo marinus; Rana* cf. *forreri*	Ingest crustacean, tadpole, or small frog	Intestine (scolex attached in small intestine)
Distoichometra bufonis	Nematotaeniidae	*Bufo fowleri* (NC); *Scaphiopus holbrooki* (NC); *Bufo marinus* (MD)	Tadpoles ingest proglottids	Intestine (scolex attached in small intestine)
Distoichometra kozloffi	Nematotaeniidae	*Bufo woodhousei* (NE)	Tadpoles ingest proglottids	Intestine (scolex attached in small intestine)
Cylindrotaenia americana	Nematotaeniidae	*Acris crepitans* (NE)	Tadpoles ingest proglottids	Intestine (scolex attached in small intestine)
Cylindrodrotaenia sp.	Nematotaeniidae	*Crepidophryne ipiotica* (CRW)	Tadpoles ingest proglottids	Intestine (scolex attached in small intestine)

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