

TABLE S1 | Species, sampling locations, genes, and Genbank sequence IDs. Taxon samples with an asterisk were used in the multilocus phylogeny. Sequence IDs with an asterisk represent new sequences produced for the present paper; those without represent sequences from previously published studies that we downloaded to broaden the scope of our analyses. Note that sequences from Zúñiga-Vega *et al.* (2014; marked with ^) were all classified as *Poecilia* (Mollienesia) *butleri* by the original authors but represent samples from both *Poecilia* (Mollienesia) *butleri* and *P. (M.) nelsoni*.

Taxa	Locality	Voucher numbers	Latitude	Longitude	Rag1	NADH2	Cyt b
<i>P. (M.) butleri</i> *	Las Palmas, Nayarit, Mexico				*KY769373	AY743247	KT626888
<i>P. (M.) butleri</i> *	San Blas, Nayarit, Mexico				*KY769374	AY743245	KT626889
<i>P. (M.) butleri</i> *	San Pedro, Nayarit, Mexico				KF276701	KF276672	KF276614
<i>P. (M.) butleri</i> ^	Arroyo de Las Higueras, Sinaloa, Mexico		24.122	-106.895			JN368089
<i>P. (M.) butleri</i> ^	Arroyo de Las Higueras, Sinaloa, Mexico		24.122	-106.895			JN368091
<i>P. (M.) butleri</i> ^	Bahia Matachen, Nayarit, Mexico		21.459	-105.187			JN368107
<i>P. (M.) butleri</i> ^	Rio Acaponeta, Nayarit, Mexico		22.538	-105.294			JN368097
<i>P. (M.) butleri</i> ^	Rio Acaponeta, Nayarit, Mexico		22.538	-105.294			JN368098
<i>P. (M.) butleri</i> ^	Rio Baluarte, Sinaloa, Mexico		23.031	-105.692			JN368095
<i>P. (M.) butleri</i> ^	Rio Baluarte, Sinaloa, Mexico		23.031	-105.692			JN368096
<i>P. (M.) butleri</i> ^	Rio Choix, Sinaloa, Mexico		26.734	-108.312			JN368082
<i>P. (M.) butleri</i> ^	Rio Culiacan, Sinaloa, Mexico		25.094	-107.694			JN368088
<i>P. (M.) butleri</i> ^	Rio El Palillo, Nayarit, Mexico		21.641	-105.141			JN368104
<i>P. (M.) butleri</i> ^	Rio El Palillo, Nayarit, Mexico		21.641	-105.141			JN368105
<i>P. (M.) butleri</i> ^	Rio El Quelite, Sinaloa, Mexico		23.522	-106.499			JN368090
<i>P. (M.) butleri</i> ^	Rio El Quelite, Sinaloa, Mexico		23.522	-106.499			JN368092
<i>P. (M.) butleri</i> ^	Rio Elota, Sinaloa, Mexico		23.959	-106.714			JN368087
<i>P. (M.) butleri</i> ^	Rio Evora, Sinaloa, Mexico		25.507	-107.765			JN368085
<i>P. (M.) butleri</i> ^	Rio Evora, Sinaloa, Mexico		25.507	-107.765			JN368086
<i>P. (M.) butleri</i> ^	Rio Piedras, Nayarit, Mexico		21.201	-105.094			JN368106
<i>P. (M.) butleri</i> ^	Rio Piedras, Nayarit, Mexico		21.201	-105.094			JN368108
<i>P. (M.) butleri</i> ^	Rio Piedras, Nayarit, Mexico		21.201	-105.094			JN368109
<i>P. (M.) butleri</i> ^	Rio Piedras, Nayarit, Mexico		21.201	-105.094			JN368110
<i>P. (M.) butleri</i> ^	Rio Presidio, Sinaloa, Mexico		23.282	-106.055			JN368093
<i>P. (M.) butleri</i> ^	Rio San Pedro Mezquital, Nayarit, Mexico		22.125	-105.202			JN368094
<i>P. (M.) butleri</i> ^	Rio San Pedro Mezquital, Nayarit, Mexico		22.125	-105.202			JN368100
<i>P. (M.) butleri</i> ^	Rio San Pedro Mezquital, Nayarit, Mexico		22.125	-105.202			JN368101
<i>P. (M.) butleri</i> ^	Rio San Pedro Mezquital, Nayarit, Mexico		22.125	-105.202			JN368102
<i>P. (M.) butleri</i> ^	Rio San Pedro Mezquital, Nayarit, Mexico		22.125	-105.202			JN368103
<i>P. (M.) butleri</i> ^	Rio San Pedro, Mezquital, Nayarit, Mexico		22.125	-105.202			JN368099
<i>P. (M.) butleri</i> ^	Rio Sinaloa, Sinaloa, Mexico		25.724	-108.391			JN368083
<i>P. (M.) butleri</i> ^	Rio Sinaloa, Sinaloa, Mexico		25.724	-108.391			JN368084
<i>P. (M.) catemaconis</i> *	Lake Catemaco, Veracruz, Mexico		18.417	-95.018	KF276697	KF276668	KF276610
<i>P. (M.) chica</i> *	Jalisco, Mexico				KJ697311	KJ697230	KJ696830
<i>P. (M.) hondurensis</i> *	Rio Lancentilla, Honduras		14.059	-86.853	KP943203	KP943315	KP943168
<i>P. (M.) limantouri</i>	Coacuilco, Hidalgo, Mexico		21.099	-98.587		*KY656787	*KY656746
<i>P. (M.) limantouri</i> *	Atlatipa, Hidalgo, Mexico		21.038	-98.372	*KY656818	*KY656789	*KY656747
<i>P. (M.) limantouri</i> *	Jamalapa, Veracruz, Mexico		19.043	-96.664	*KY656814	*KY656783	*KY656742
<i>P. (M.) limantouri</i> *	Pepeyocatitla, Hidalgo, Mexico		20.913	-98.392	*KY656815	*KY656784	*KY656743
<i>P. (M.) limantouri</i> *	Rio Garces, Hidalgo, Mexico		20.951	-98.525	*KY656817	*KY656786	*KY656745
<i>P. (M.) limantouri</i> *	Rio Palmas, Soto La Marina, Mexico		23.622	-98.095	*KY769377	*HQ677844	*HQ677872
<i>P. (M.) limantouri</i> *	Rio Purificacion, Baretal, Mexico		24.079	-99.123	KP943206	HQ677845	HQ677873
<i>P. (M.) limantouri</i> *	San Pedro, Hidalgo, Mexico		20.951	-98.525	*KY656816	*KY656785	*KY656744
<i>P. (M.) marcellinot</i> *	La Libertad, El Salvador	TCWC 16336.01			KP943201	KP943314	KP943167
<i>P. (M.) mexicana</i>	Porvenir, Veracruz, Mexico		18.665	-95.351		KY656793	KY656751
<i>P. (M.) mexicana</i>	Texistepec, Veracruz, Mexico		17.861	-94.808		KY656790	KY656748
<i>P. (M.) mexicana</i> *	Banos de San Ignacio, Nuevo Leon, Mexico				*KY775388 *KY775389	*KY769378 *KY769379	*KY769384 *KY769385

TABLE S1 | (Continued)

<i>P. (M.) mexicana</i> *	Creek after Monte Pio, Veracruz, Mexico		18.563	-95.057	*KY656820	*KY656792	*KY656750
<i>P. (M.) mexicana</i> *	Creek between Lake Catemaco, Veracruz, Mexico		18.192	-95.058	*KY656819	*KY656791	*KY656749
<i>P. (M.) mexicana</i> *	El Limon, Veracruz, Mexico		19.689	-96.512	*KY656823 *KY656824	*KY656796 *KY656797	*KY656754 *KY656755
<i>P. (M.) mexicana</i> *	La Libertad, Chiapas, Mexico		17.672	-91.845	*KY656821	*KY656794	*KY656752
<i>P. (M.) mexicana</i> *	Palenque, Chiapas, Mexico		17.483	-91.975	*KY656822	*KY656795	*KY656753
<i>P. (M.) mexicana</i> *	Rio Puyacatengo, Tabasco, Mexico				KP943211	HQ677854	HQ677894
<i>P. (M.) mexicana</i> *	Rio Tacotalpa, Cueva del Azufre, Tabasco, Mexico		17.442	-92.775	KP943210	HQ677857	HQ677897
<i>P. (M.) nelsoni</i>	Canal en Santa Cruz, Guerrero, Mexico						KT626869
<i>P. (M.) nelsoni</i>	Coyuca de Catalan, Guerrero, Mexico		18.300	-100.680		*KY656782	KT626868
<i>P. (M.) nelsoni</i>	Estero Cabildo, Chiapas, Mexico	ECOSC 7120	14.729	-92.428	*KY769376	*KY656776	KT626860
<i>P. (M.) nelsoni</i>	Rio Marquelia, Guerrero, Mexico		16.594	-98.818		*KY656780	KT626867
<i>P. (M.) nelsoni</i> *	Barra de Navidad, Jalisco, Mexico				KP943204	AY743250	KT626891
<i>P. (M.) nelsoni</i> *	Coquimatlan, Rio Armeria, Colima, Mexico				*KY769375	*AY743252	KT626890
<i>P. (M.) nelsoni</i> *	Estero Antes de Puerto Arista, Chiapas, Mexico	ECOSC 7356	15.945	-93.795	*KY656806	*KY656777	KT626861
<i>P. (M.) nelsoni</i> *	Puente Bajos de Chila, Oaxaca, Mexico	ECOSC 7129	15.912	-97.121	*KY656810	*KY769383	KT626865
<i>P. (M.) nelsoni</i> *	Puente Coyula, Oaxaca, Mexico	ECOSC 7128	15.751	-96.298	*KY656808	*KY769382	KT626864
<i>P. (M.) nelsoni</i> *	Rio Ayutla, Oaxaca, Mexico		15.903	-95.854	*KY656809	*KY769381	KT626863
<i>P. (M.) nelsoni</i> *	Rio Carrizal, Mazatan, Oaxaca, Mexico	ECOSC 7126	16.092	-95.406	*KY656807	*KY769380	KT626862
<i>P. (M.) nelsoni</i> *	Rio Copala, Guerrero, Mexico		16.612	-98.997	*KY656813	*KY656781	
<i>P. (M.) nelsoni</i> *	Rio Santa Catarina, Guerrero, Mexico	ECOSC 7130	16.577	-98.460	*KY656812	*KY656779	KT626866
<i>P. (M.) nelsoni</i> ^	Arroyo El Papayo, Guerrero, Mexico		17.035	-100.249			JN368124
<i>P. (M.) nelsoni</i> ^	Arroyo El Papayo, Guerrero, Mexico		17.035	-100.249			JN368125
<i>P. (M.) nelsoni</i> ^	Arroyo El Papayo, Guerrero, Mexico		17.035	-100.249			JN368126
<i>P. (M.) nelsoni</i> ^	Arroyo El Papayo, Guerrero, Mexico		17.035	-100.249			JN368127
<i>P. (M.) nelsoni</i> ^	Arroyo El Tuzal, Guerrero, Mexico		17.478	-101.246			JN368119
<i>P. (M.) nelsoni</i> ^	Arroyo El Tuzal, Guerrero, Mexico		17.479	-101.246			JN368120
<i>P. (M.) nelsoni</i> ^	Arroyo El Tuzal, Guerrero, Mexico		17.478	-101.246			JN368121
<i>P. (M.) nelsoni</i> ^	Laguna Mezcala, Michoacán, Mexico		18.652	-103.700			JN368117
<i>P. (M.) nelsoni</i> ^	Rio Armeria, Colima, Mexico		19.319	-103.817			JN368112
<i>P. (M.) nelsoni</i> ^	Rio Armeria, Colima, Mexico		19.319	-103.817			JN368113
<i>P. (M.) nelsoni</i> ^	Rio Armeria, Colima, Mexico		19.194	-103.837			JN368115
<i>P. (M.) nelsoni</i> ^	Rio Coahuayana, Colima, Mexico		18.977	-103.699			JN368116
<i>P. (M.) nelsoni</i> ^	Rio Cortes, Guerrero, Mexico		16.776	-99.511			JN368128
<i>P. (M.) nelsoni</i> ^	Rio Grande, Oaxaca, Mexico		15.996	-97.422			JN368131
<i>P. (M.) nelsoni</i> ^	Rio Marabasco, Colima, Mexico		19.214	-104.207			JN368114
<i>P. (M.) nelsoni</i> ^	Rio Maria Garcia, Jalisco, Mexico		20.005	-105.470			JN368111
<i>P. (M.) nelsoni</i> ^	Rio Nusco, Guerrero, Mexico		17.220	-100.751			JN368122
<i>P. (M.) nelsoni</i> ^	Rio Nusco, Guerrero, Mexico		17.220	-100.751			JN368123
<i>P. (M.) nelsoni</i> ^	Rio Ticuiz, Michoacán, Mexico		18.672	-103.675			JN368118
<i>P. (M.) nelsoni</i> ^	Rio Tila, Guerrero, Mexico		16.583	-98.786			JN368129
<i>P. (M.) nelsoni</i> ^	Rio Tila, Guerrero, Mexico		16.583	-98.786			JN368130
<i>P. (M.) orri</i> *	Prinzapolka, Nicaragua				KP943205	KP943296	KP943170
<i>P. (M.) petenensis</i>					KJ697313	KJ697231	KJ696832
<i>P. (M.) salvatoris</i> *	Rio Paso Hondo, El Salvador	TCWC 16349.01			KP943209	KP943319	KP943173
<i>P. (M.) sp. "Tipitapa"</i> *	Lake Nicaragua, Nicaragua	TCWC 16369.01			KP943199	KP943312	KP943165
<i>P. (M.) sphenops</i>	Canal en Santa Cruz, Guerrero, Mexico					*KY656772	KT626887
<i>P. (M.) sphenops</i>	Canal Presa San Vicente, Guerrero, Mexico		18.280	-100.267		*KY656774	KT626886
<i>P. (M.) sphenops</i>	Ejido Las Mirellas, Chiapas, Mexico	ECOSC 7364	15.204	-92.559		*KY656759	KT626873
<i>P. (M.) sphenops</i>	Huajintlan, Morelos, Mexico					*KY656756	KY656741
<i>P. (M.) sphenops</i>	Huilotepic, Oaxaca, Mexico	ECOSC 7355	16.242	-95.157		*KY656767	KT626881
<i>P. (M.) sphenops</i>	Nueva Linda, Chiapas, Mexico	ECOSC 7361	15.800	-91.963			KT626871



TABLE S1 | (Continued)

<i>P. (M.) sphenops</i>	Pomposo Castellano, Mexico		16.590	-93.868	KP943202	HQ677862	HQ677899
<i>P. (M.) sphenops</i>	Rio Arena, Oaxaca, Mexico	ECOSC 7359	16.331	-98.016			KT626883
<i>P. (M.) sphenops</i>	Rio Coatan, Chiapas, Mexico		14.876	-92.423		*KY656758	KT626872
<i>P. (M.) sphenops</i>	Rio Cuirio, Guerrero, Mexico					*KY656771	KT626885
<i>P. (M.) sphenops</i>	Rio Los Perros, Oaxaca, Mexico	ECOSC 7125	16.501	-95.055		*KY656766	KT626880
<i>P. (M.) sphenops</i>	Rio Ostuta, Oaxaca, Mexico	ECOSC 7368	16.497	-94.435		*KY656765	KT626879
<i>P. (M.) sphenops</i>	Rio Pijijiapan, Chiapas, Mexico	ECOSC 7123	15.655	-93.150		*KY656762	KT626876
<i>P. (M.) sphenops</i>	Rio Verde, Oaxaca, Mexico	ECOSC 7362	16.163	-97.737		*KY656768	KT626882
<i>P. (M.) sphenops*</i>	Pomposo Castellano, Mexico	ECOSC 7131			KF276698	*KY656770	KT626877
<i>P. (M.) sphenops*</i>	Puente Novillero, Oaxaca, Mexico		16.404	-94.216	*KY656802	*KY656764	-
<i>P. (M.) sphenops*</i>	Puente Tiltepec, Chiapas, Mexico	ECOSC 7356	16.126	-93.795	*KY656802	*KY656763	KT626878
<i>P. (M.) sphenops*</i>	Rio Coatzoacoalcos, Mexico				*KY769372	HQ677861	HQ677898
<i>P. (M.) sphenops*</i>	Rio en Acapetahua, Chiapas, Mexico	ECOSC 7121	15.285	-92.696	*KY656799	*KY656760	KT626874
<i>P. (M.) sphenops*</i>	Rio Ninguillo, Mexico				*KY769371	HQ677862	HQ677899
<i>P. (M.) sphenops*</i>	Rio Quetzal, Guerrero, Mexico	ECOSC 7360	16.654	-98.505	*KY656804	*KY656769	KT626884
<i>P. (M.) sphenops*</i>	Rio Sesecapa, Chiapas, Mexico	ECOSC 7122	15.408	-92.826	*KY656800	*KY656761	KT626875
<i>P. (M.) sphenops*</i>	Santa Ines, Chiapas, Mexico	ECOSC 7363	15.981	-92.005	*KY656801	*KY656757	KT626870
<i>P. (M.) sphenops*</i>	Suchiapa, Chiapas, Mexico		18.339	-93.413	KF276699	KF276670	KF276612
<i>P. (M.) sphenops*</i>	Tehuatlan, Hidalgo		21.052	-98.507	KF276698	KF276669	KF276611
<i>P. (M.) sulphuraria*</i>	Banos del Azufre, Mexico		17.552	-92.999	KF276710	KF276681	KF276623
<i>P. (M.) sulphuraria*</i>	La Gloria, Mexico		17.532	-93.015	KF276715	KF276685	KF276627
<i>P. (M.) sulphuraria*</i>	La Gloria, Mexico		17.532	-93.015	KF276713	KF276684	KF276626
<i>P. (M.) sulphuraria*</i>	La Gloria, Mexico		17.532	-93.015	KF276714	KF276686	KF276628
<i>P. (M.) thermalis*</i>	La Esperanza, Mexico		17.511	-92.983	KF276705	KF276676	KF276618
<i>P. (M.) thermalis*</i>	La Esperanza, Mexico		17.511	-92.980	KF276707	KF276678	KF276707
<i>P. (M.) "sp 2"</i>	Puerto Cabezas, Nicaragua	TCWC 16366.01			KP943207	KP943317	KP943171
<i>P. (M.) "sp 3"</i>	Lake Xilola, Nicaragua	TCWC 16367.01			KP943208	KP943318	KP943172
<i>P. (M.) "sphenops 1"</i>	Choluteca, Honduras				KP943200	KP943313	KP943166

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