Table S4. Collection data, museum numbers, and altitude of localities of the specimens used in the DNA amplification and physiological measurements. Latitude and longitude coordinates are provided in references (1-4).

Genus	Species	Museum	Country	Locality (sequences and physiology)	Altitude (m)	Other Localities (physiology)	Altitude (m)
Ademomera	*andreae*	QCAZ15998 (Outgroup)	Ecuador	Zamora Chinchipe: near Zamora	980	NA	
Bufo	*nebulifer*	DCC3170 (Outgroup)	USA	Texas: Gulf Coast	--	NA	
Centrolene	*grandisonae*	QCAZ16512 (Outgroup)	Ecuador	Pichincha: Manuel Cornejo A (Tandapi), via Atenas	950	NA	
Ceratophrys	*cornuta*	KU202561 (Outgroup)	Perú	Madre de Dios: Cusco Amazónico	200	NA	
Crossodactylus	*schmidti*	MLPA 1414 (Outgroup)	Argentina	Misiones: Aristobulo del Valle, Balneario Cunapirú	450	NA	
Lithodytes	*lineatus*	QCAZ16621 (Outgroup)	Ecuador	Morona Santiago: Méndez	550	NA	
Allobates	*femoralis*	QCAZ16484	Ecuador	Francisco de Orellana: Parque Nacional Yasuní-Estación PUCE	230	Colombia: Amazonas: Leticia Ecuador: Sucumbíos: Lumbaqui	83 260
Allobates	*insperatus*	QCAZ16533	Ecuador	Francisco de Orellana: Parque Nacional Yasuní-Estación PUCE	230	--	
Allobates	*juanii*	TNHCFS4978	Colombia	Meta: Villavicencio, Villavicencio-Restrepo road	411	--	
Allobates	*kingsburyi*	QCAZ16523	Ecuador	Zamora Chinchipe: Río Chicaña	1085	Ecuador: Zamora Chinchipe: Panguitza	870
Allobates	*algorei*	TNHCFS5551	Venezuela	Táchira: road from San Cristobal to Río Negro via el Piñal	529	--	
Allobates	*talamancae*	QCAZ16551	Ecuador	Pichincha: Río Sábalo, ca. Pedro Vicente Maldonado	191	Panamá: Panamá: Lago Bayano Colombia: Chocó: Quibdó	60 50
Allobates	*zaparo*	QCAZ16603	Ecuador	Napo: Jatun Sacha, via Ahuano	390	--	
Ameerega	*bilinguis*	QCAZ28835	Ecuador	Sucumbíos: Laguna Grande-Neotropic, Reserva de Producción Faunística Cuyabeno	260	Ecuador: Fco. Orellana: Parque Nacional Yasuní-Estación PUCE	230
Ameerega	*hahneli*	QCAZ19240	Ecuador	Francisco de Orellana: Parque Nacional Yasuní-Estación PUCE	230	Ecuador: Pastaza: Canelos	631
Ameerega	*parvula*	QCAZ16584	Ecuador	Morona Santiago: near Méndez	550	Ecuador: Napo: Jatun Sacha, Ahuano	390
Ameerega	*trivittata*	TNHCFS4966	Colombia	Amazonas: Leticia, Cerca Viva	83	--	

Table S4 (Cont.) Collection data, museum numbers, and altitude of localities of the specimens used in the DNA amplification and physiological measurements. Latitude and longitude coordinates are provided in references (1-4).

Genus	Species	Museum	Country	Locality (sequences and physiology)	Altitude (m)	Other Localities (physiology)	Altitude (m)
Anomaloglossus	*verbeeksnyderorum*	TNHCFS5631	Venezuela	Amazonas: Puerto Ayacucho, Tobogán	81	--	
Aromobates	aff. *alboguttatus*	TNHCFS5541	Venezuela	Mérida: Santa Cruz de Mora via Los Ranchos	1193	--	
Aromobates	*saltuensis*	TNHCFS5541	Venezuela	Táchira: San Félix, San Juan de Colón	751	--	
Colostethus	*fugax*	QCAZ16513	Ecuador	Morona Santiago: 2 km E Santiago	495	--	
Colostethus	*panamansis*	TNHCFS4810	Panamá	Colón: Fort Sherman	189	--	
Colostethus	*pratti*	TNHCFS4807	Panamá	Colón: Parque Nacional Portobello	50	--	
Dendrobates	*auratus*	TNHCFS4811	Panamá	Coclé: El Cope, Parque Nacional General de División Omar Torrijos Herrera	782	Panamá: Colón: Fort Sherman	189
Dendrobates	*bombetes*	TNHCFS4946	Colombia	Quindío: Barbas, Finlandia, Hacienda Lusitania	1958	Colombia: Valle: Buga-Buenaventura road	1610
Dendrobates	*captivus*	QCAZ27442	Ecuador	Zamora Chinchipe: near Panguitza	870	--	
Dendrobates	*claudiae*	KS9	Panamá	Bocas del Toro: Isla Colón, Bocas del Drago	11	--	
Dendrobates	*duellmani*	QCAZ16559	Ecuador	Francisco de Orellana: Parque Nacional Yasuní-Estación PUCE	230	--	
Dendrobates	*galactonotus*	TNHCFS4889	Brazil	Pet Trade	n.d.	--	
Dendrobates	*histrionicus*	TNHCFS4985	Colombia	Chocó: Quibdó, La Troje	50	--	
Dendrobates	*lamasi*	JCS	Perú	Pet Trade	n.d.	--	
Dendrobates	*leucomelas*	TNHCFS5639	Venezuela	Amazonas: Puerto Ayacucho, Tobogán	81	--	
Dendrobates	*pumilio*	TNHCFS4814	Panamá	Bocas del Toro: Isla Colón, Bocas del Drago (Dragomar)	11	--	
Dendrobates	sp. Quibdo	TNHCFS4943	Colombia	Chocó: Quibdó, La Troje	50	--	
Dendrobates	*sylvaticus*	QCAZ16563	Ecuador	Esmeraldas: near Quingue	306	Ecuador: Sto. Domingo: near Santo Domingo de los Colorados	604
Dendrobates	*tinctorius*	TNHC64416	Surinam	Pet Trade	n.d.	--	
Dendrobates	*truncatus*	TNHCFS4979	Colombia	Tolima: Mariquita, vereda Malabares	587	--	

Table S4 (Cont.) Collection data, museum numbers, and altitude of localities of the specimens used in the DNA amplification and physiological measurements. Latitude and longitude coordinates are provided in references (1-4).

Genus	Species	Museum	Country	Locality (sequences and physiology)	Altitude (m)	Other Localities (physiology)	Altitude (m)
Dendrobates	*ventrimaculatus*	JCS	Surinam	Pet Trade	n.d.	Colombia: Amazonas: Leticia Ecuador: Francisco de Orellana: Parque Nacional Yasuní-Estación PUCE	83 230
Dendrobates	*virolinensis*	TNHCFS4950	Colombia	Santander: Virolín, Costilla de Fara	1767	--	
Epipedobates	*anthonyi*	QCAZ16597	Ecuador	Loja: Macará-Catacocha	1135	Ecuador: El Oro: Pasaje-Girón	1512
Epipedobates	*boulengeri*	QCAZ16574	Ecuador	Esmeraldas: A 3 Km de Durango, road to San Lorenzo	253	--	
Epipedobates	*machalilla*	QCAZ16527	Ecuador	Manabí: Río Ayampe	70	--	
Epipedobates	sp. F	QCAZ16590	Ecuador	Pichincha: Unión del Toachi	694	Ecuador: Pichincha: Mindo	1525
Epipedobates	*tricolor*	QCAZ21977	Ecuador	Cotopaxi: Corazón-Moraspungo	1250	--	
Hyloxalus	*awa*	QCAZ16502	Ecuador	Esmeraldas: Laguna de Cubes, Montes del Mache	350	Ecuador: Pichincha: Unión del Toachi	694
Hyloxalus	*azueriventris*	KS32	Perú	San Martín: Cainarachi Valley	350	Pet Trade	n.d.
Hyloxalus	*bocagei*	QCAZ37259	Ecuador	Sucumbíos: La Libertad road to La Virgen	1330	--	
Hyloxalus	*elachyhistus*	QCAZ16517	Ecuador	El Oro: Torata-Balsas road	640	--	
Hyloxalus	*maculosus*	QCAZ37262	Ecuador	Sucumbíos: Lumbaqui	260	Ecuador: Pastaza: Hola Vida Reserve	631
Hyloxalus	*nexipus*	QCAZ16537	Ecuador	Morona Santiago: Indanza-San Miguel del Conchay	855	Ecuador: Morona Santiago: near Méndez	550
Hyloxalus	*sauli*	QCAZ16543	Ecuador	Francisco de Orellana: Parque Nacional Yasuní-Estación PUCE	230	--	
Hyloxalus	*subpunctatus*	TNHCFS4957	Colombia	Boyacá: Chiquinquira	2575	--	
Hyloxalus	*toachi*	QCAZ16549	Ecuador	Carchi: Río Baboso near Lita	534	Ecuador: Pichincha: Unión del Toachi	694
Hyloxalus	*vertebralis*	QCAZ16553	Ecuador	Azuay: El Jordán (cerca a Paguancay)	2424	--	
Mannophryne	*collaris*	TNHCFS5507	Venezuela	Mérida: El Estanquillo	1120	Venezuela: Mérida: road from Pregonero to La Trampa	1192
Phyllobates	*aurotaenia*	TNHCFS4990	Colombia	Chocó: Quibdó road to Pacuritas	50	--	
Phyllobates	*terribilis*	TNHC64420	Colombia	Pet Trade	n.d.	--	

Table S4 (Cont.) Collection data, museum numbers, and altitude of localities of the specimens used in the DNA amplification and physiological measurements. Latitude and longitude coordinates are provided in references (1-4).

Genus	Species	Museum	Country	Locality (sequences and physiology)	Altitude (m)	Other Localities (physiology)	Altitude (m)
Rheobates	*palmatus*	TNHCFS4955	Colombia	Boyacá: Villa de Leiva	2118	Colombia: Cundinamarca: Las Brisas	2005
Silverstoneia	*flotator*	TNHCFS4804	Panamá	Coclé: El Cope, Parque Nacional General de División Omar Torrijos Herrera	782	--	
Silverstoneia	*nubicola*	TNHCFS4942	Colombia	Chocó: Quibdó, La Troje	50	--	

Table S4 (Cont.) Metabolic measurements and mass of poison frogs. Species in **Bold** with a * were used in the multivariate analyses.

Genus	Species		Body Mass (g)				RMR (VO_2 ml*h^{-1})				AMR (VO_2 ml*h^{-1})				Scope		Factorial
		N	Mean	s.e.m.	Min	Max	Mean	s.e.m.	Min	Max	Mean	s.e.m.	Min	Max	Raw	Mass-specific	Scope
Allobates	***femoralis****	6	1.246	0.103	0.940	1.570	0.223	0.031	0.135	0.355	1.104	0.228	0.613	2.159	0.881	0.707	4.942
Allobates	***insperatus****	4	0.551	0.041	0.430	0.605	0.082	0.018	0.056	0.133	0.609	0.030	0.535	0.678	0.527	0.956	7.459
Allobates	*juanii*	2	0.685	0.085	0.600	0.770	0.147	0.064	0.083	0.211	0.766	0.008	0.758	0.774	0.619	0.904	5.219
Allobates	*kingsburyi*	8	0.875	0.102	0.595	1.300	0.126	0.016	0.054	0.219	0.644	0.032	0.546	0.786	0.518	0.592	5.103
Allobates	*algorei*	6	0.585	0.013	0.540	0.620	0.168	0.019	0.100	0.217	0.593	0.071	0.366	0.805	0.425	0.726	3.520
Allobates	***talamancae****	5	0.880	0.087	0.605	1.150	0.080	0.014	0.049	0.126	0.714	0.050	0.578	0.797	0.634	0.720	8.890
Allobates	***zaparo****	10	1.615	0.133	1.010	2.510	0.299	0.029	0.163	0.458	1.919	0.108	1.381	2.535	1.620	1.003	6.422
Ameerega	***bilinguis****	11	0.949	0.077	0.570	1.515	0.180	0.011	0.128	0.260	0.974	0.051	0.691	1.213	0.794	0.837	5.408
Ameerega	***hahneli****	6	0.343	0.020	0.295	0.405	0.100	0.011	0.075	0.138	0.516	0.013	0.466	0.550	0.416	1.213	5.146
Ameerega	***parvula****	8	1.569	0.049	1.365	1.790	0.293	0.033	0.137	0.412	1.497	0.170	0.719	2.350	1.204	0.767	5.111
Ameerega	***trivittata****	3	5.512	0.994	4.515	7.500	0.964	0.178	0.785	1.320	6.632	0.924	5.523	8.468	5.668	1.028	6.879
Anomaloglossus	*verbeeksnyderorum*	11	0.808	0.051	0.610	1.140	0.202	0.022	0.094	0.372	0.730	0.068	0.456	1.119	0.528	0.653	3.607
Aromobates	*aff. alboguttatus*	17	1.312	0.114	0.560	2.330	0.248	0.022	0.129	0.466	0.916	0.093	0.327	1.823	0.668	0.509	3.701
Aromobates	*saltuensis*	6	1.498	0.138	1.190	1.970	0.212	0.046	0.099	0.415	1.249	0.202	0.597	2.015	1.037	0.692	5.903
Colostethus	*fugax*	4	0.959	0.089	0.720	1.100	0.124	0.013	0.093	0.147	0.667	0.054	0.525	0.783	0.543	0.566	5.374
Colostethus	***panamansis****	5	0.973	0.093	0.693	1.167	0.096	0.004	0.088	0.109	1.159	0.085	0.971	1.412	1.063	1.092	12.122
Colostethus	***pratti****	12	0.806	0.031	0.657	0.950	0.111	0.008	0.072	0.179	1.133	0.051	0.669	1.324	1.022	1.268	10.203
Dendrobates	***auratus****	15	1.996	0.071	1.640	2.520	0.306	0.039	0.169	0.734	2.810	0.124	2.156	3.942	2.504	1.255	9.190
Dendrobates	*bombetes*	8	0.528	0.036	0.400	0.680	0.085	0.007	0.062	0.118	0.885	0.056	0.612	1.084	0.800	1.515	10.469
Dendrobates	*captivus*	6	0.484	0.025	0.405	0.565	0.087	0.014	0.061	0.154	0.602	0.039	0.487	0.719	0.515	1.064	6.952
Dendrobates	***claudiae****	1	0.217	--	--	--	0.060	--	--	--	0.652	--	--	--	0.592	2.728	10.822
Dendrobates	*duellmani*	7	0.414	0.030	0.340	0.520	0.095	0.012	0.060	0.138	0.686	0.060	0.487	0.916	0.591	1.428	7.252
Dendrobates	*galactonotus*	4	3.589	0.293	3.035	4.095	0.323	0.009	0.307	0.348	4.970	0.225	4.534	5.581	4.647	1.295	15.379
Dendrobates	***histrionicus****	4	3.320	0.119	3.140	3.670	0.205	0.021	0.167	0.257	2.496	0.301	1.788	3.105	2.291	0.690	12.156
Dendrobates	*lamasi*	2	0.390	0.070	0.320	0.460	0.068	0.015	0.054	0.083	1.074	0.062	1.011	1.136	1.006	2.579	15.683
Dendrobates	*leucomelas*	12	2.243	0.138	1.323	2.990	0.414	0.055	0.134	0.819	3.167	0.273	2.000	4.672	2.753	1.227	7.648
Dendrobates	***pumilio****	17	0.538	0.017	0.407	0.670	0.067	0.003	0.049	0.093	0.698	0.026	0.508	0.924	0.631	1.173	10.452

Table S4 (Cont.) Metabolic measurements and mass of poison frogs. Species in **Bold** with a * were used in the multivariate analyses.

Genus	Species		Body Mass (g)				RMR (VO_2 ml*h^{-1})				AMR (VO_2 ml*h^{-1})				Scope		Factorial
		N	Mean	s.e.m.	Min	Max	Mean	s.e.m.	Min	Max	Mean	s.e.m.	Min	Max	Raw	Mass-specific	Scope
Dendrobates	**sp. Quibdo***	3	0.160	0.010	0.140	0.170	0.051	0.019	0.018	0.084	0.577	0.263	0.288	1.102	0.526	3.288	11.330
Dendrobates	*sylvaticus*	11	2.889	0.133	2.100	3.420	0.400	0.054	0.169	0.696	3.328	0.188	2.382	4.725	2.928	1.013	8.323
Dendrobates	*tinctorius*	8	5.037	0.358	4.110	6.310	0.549	0.051	0.402	0.832	5.983	0.767	2.788	9.798	5.434	1.079	10.889
Dendrobates	*truncatus*	12	1.573	0.115	1.080	2.170	0.188	0.016	0.119	0.283	1.926	0.111	1.353	2.581	1.738	1.105	10.263
Dendrobates	***ventrimaculatus****	7	0.345	0.056	0.140	0.550	0.134	0.044	0.027	0.306	0.661	0.098	0.389	1.033	0.527	1.528	4.950
Dendrobates	*virolinensis*	8	0.475	0.051	0.330	0.730	0.094	0.006	0.067	0.120	0.639	0.030	0.556	0.818	0.545	1.147	6.800
Epipedobates	***anthonyi****	10	1.062	0.052	0.750	1.410	0.197	0.009	0.159	0.255	1.207	0.036	1.025	1.409	1.010	0.951	6.130
Epipedobates	***boulengeri****	16	0.427	0.018	0.310	0.540	0.097	0.012	0.046	0.193	0.329	0.023	0.163	0.512	0.232	0.543	3.381
Epipedobates	*machalilla*	11	0.323	0.022	0.230	0.475	0.083	0.009	0.047	0.144	0.385	0.049	0.159	0.704	0.302	0.935	4.657
Epipedobates	sp. F	10	0.457	0.026	0.320	0.550	0.065	0.005	0.043	0.094	0.596	0.036	0.436	0.765	0.531	1.162	9.135
Epipedobates	*tricolor*	4	0.801	0.051	0.690	0.895	0.164	0.022	0.114	0.211	0.836	0.089	0.621	1.055	0.672	0.839	5.097
Hyloxalus	*awa*	10	0.915	0.050	0.730	1.280	0.121	0.005	0.093	0.152	0.653	0.038	0.532	0.853	0.532	0.581	5.398
Hyloxalus	*azueriventris*	4	1.018	0.063	0.905	1.165	0.208	0.026	0.133	0.250	1.309	0.017	1.273	1.354	1.101	1.082	6.296
Hyloxalus	*bocagei*	11	1.514	0.141	0.830	2.280	0.288	0.029	0.182	0.497	2.307	0.220	1.154	3.524	2.019	1.334	8.016
Hyloxalus	*elachyhistus*	28	0.958	0.054	0.550	1.640	0.248	0.019	0.114	0.450	0.840	0.060	0.352	1.432	0.592	0.618	3.387
Hyloxalus	***maculosus****	20	2.300	0.144	1.000	3.520	0.340	0.030	0.129	0.585	2.003	0.152	0.782	3.500	1.663	0.723	5.892
Hyloxalus	*nexipus*	3	1.066	0.181	0.705	1.263	0.264	0.092	0.124	0.438	1.236	0.084	1.147	1.403	0.972	0.912	4.684
Hyloxalus	***sauli****	3	1.703	0.313	1.080	2.055	0.331	0.093	0.165	0.488	2.365	0.206	1.999	2.713	2.034	1.194	7.152
Hyloxalus	*subpunctatus*	7	0.799	0.070	0.637	1.180	0.151	0.013	0.109	0.203	0.901	0.059	0.774	1.241	0.750	0.939	5.975
Hyloxalus	*toachi*	5	0.680	0.082	0.520	0.970	0.117	0.017	0.070	0.168	0.872	0.074	0.611	1.028	0.755	1.110	7.481
Hyloxalus	*vertebralis*	8	0.698	0.051	0.515	0.960	0.127	0.021	0.063	0.236	0.567	0.052	0.340	0.719	0.440	0.630	4.452
Mannophryne	*collaris*	35	1.833	0.144	0.620	4.420	0.362	0.042	0.086	1.007	1.502	0.159	0.444	4.399	1.140	0.622	4.151
Phyllobates	*aurotaenia*	3	2.017	0.447	1.290	2.830	0.184	0.074	0.096	0.332	1.347	0.252	0.940	1.809	1.163	0.577	7.329
Phyllobates	*terribilis*	5	6.013	0.125	5.715	6.365	0.787	0.113	0.588	1.202	5.092	0.101	4.783	5.381	4.305	0.716	6.467
Rheobates	*palmatus*	15	1.780	0.181	0.850	2.905	0.368	0.037	0.220	0.767	1.563	0.154	0.900	2.734	1.195	0.671	4.252
Silverstoneia	*flotator*	10	0.327	0.013	0.273	0.393	0.054	0.005	0.036	0.079	0.491	0.027	0.378	0.687	0.437	1.336	9.026
Silverstoneia	***nubicola****	7	0.371	0.032	0.270	0.470	0.043	0.003	0.031	0.055	0.636	0.048	0.422	0.770	0.593	1.598	14.885

Table S4 (Cont.) Continuous and binary measurements of conspicuousness and alkaloid profiles in the sampled poison frogs.

Genus	Species	Conspicuous Coloration		Lipophilic Skin Alkaloids			Lipophilic Skin Alkaloid Diversity											
		Cont.	Bin.	Seq.	[ ]	Div.	MON	PTX	HTX	DHQ	3,5-P	3,5-I	5,8-I	5,6,8-I	QUI	TRI	BTX	Ref./ sample
Allobates	*femoralis*	53.074	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	(5)
Allobates	*insperatus*	53.721	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	(6)
Allobates	*juanii*	52.638	0	?	?	?	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	--
Allobates	*kingsburyi*	53.328	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	3 skins
Allobates	*algorei*	24.179	0	?	?	?	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	--
Allobates	*talamancae*	51.872	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	(7)
Allobates	*zaparo*	57.867	1	0	0	0	-	-	-	-	-	-	-	-	-	-	-	(5)
Ameerega	*bilinguis*	62.113	1	1	2	2	-	-	+	+	-	-	-	-	-	-	-	(8)
Ameerega	*hahneli*	38.212	0	1	2	2	-	-	+	+	-	-	-	-	-	-	-	(9)
Ameerega	*parvula*	60.255	1	1	2	4	-	+	+	+	-	-	+	-	-	-	-	(9)
Ameerega	*trivittata*	89.778	1	1	3	5	+	-	+	+	-	-	+	+	-	-	-	(8)
Anomaloglossus	*verbeeksnyderorum*	33.281	0	?	?	?	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	--
Aromobates	aff. *alboguttatus*	43.589	0	?	?	?	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	--
Aromobates	*saltuensis*	23.456	0	?	?	?	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	--
Colostethus	*fugax*	40.821	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	5 skins
Colostethus	*panamansis*[a]	43.044	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	(7)
Colostethus	*pratti*	45.992	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	(7)
Dendrobates	*auratus*	89.171	1	1	3	10	+	+	+	+	+	+	+	+	+	+	-	(9)
Dendrobates	*bombetes*	67.145	1	1	2	5	-	+	-	+	-	-	+	+	+	-	-	(9)
Dendrobates	*captivus*	64.630	1	1	3	?	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	2 skins

Abbreviations: Conspicuous coloration: Cons. = continuous, Bin. = binary (1, brightly; 0, cryptically colored); Lipophilic Skin Alkaloids: Seq. = ability to sequester (0, no; 1, yes), [ ] = quantity per 100 mg of skin (0, no alkaloids detected; 1, < 50 μg, 2, > 50 and < 150 μg; and 3, > 150 μg), Div. = number of structural classes. Diversity of lipophilic skin alkaloids of poison frogs (some grouped under a single structural classes for consistency): MON (Monocyclics), PXT (all pumiliotoxins classes: PTX, aPTX, hPTX, and Deoxy-hPTX), HTX (histrionicotoxins), DHQ (decahydroquinolines), 3,5-P (3,5-disubstituted pyrrolizidines), 3,5-I (3,5-disubstituted indolizidines), 5,8-I (5,8-disubstituted and dehydro-5,8 indolizidines), 5,6,8-I (5,6,8-trisubstituted indolizidines), QUI (4,6-disubstituted and 1,4-disubstituted quinolizidines), TRI (Tricyclics), and BTX (Batrachotoxins). ?, unknown; -, absent; +, present; and nd, no data.

[a] *Colostethus panamansis* is the only know species of poison frogs with the TTX hydrophilic neurotoxin which derive from completely unknown sources (e.g., endosymbiotic bacteria). The mechanism of TTX acquisition in this species is unknown, but it is presumed to be independent form that of lipophilic alkaloids (10).

Table S4 (Cont.) Continuous and binary measurements of conspicuousness and alkaloid profiles in the sampled poison frogs.

Genus	Species	Conspicuous Coloration		Lipophilic Skin Alkaloids			Lipophilic Skin Alkaloid Diversity											
		Cont.	Bin.	Seq.	[ ]	Div.	MON	PTX	HTX	DHQ	3,5-P	3,5-I	5,8-I	5,6,8-I	QUI	TRI	BTX	Ref./ sample
Dendrobates	*claudiae*	77.153	1	1	2	6	+	+	-	+	+	-	+	-	+	-	-	(9)
Dendrobates	*duellmani*	74.567	1	?	?	?	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	--
Dendrobates	*galactonotus*	82.880	1	1	3	7	-	+	+	+	+	-	+	+	-	+	-	(8)
Dendrobates	*histrionicus*	64.644	1	1	3	9	+	+	+	+	+	+	+	+	+	-	-	(9)
Dendrobates	*lamasi*	89.438	1	?	?	?	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	--
Dendrobates	*leucomelas*	72.065	1	1	2	4	-	+	+	-	+	-	-	-	+	-	-	(9)
Dendrobates	*pumilio*	63.236	1	1	3	10	+	+	+	+	+	+	+	+	+	+	-	(11)
Dendrobates	sp. Quibdo	65.783	1	1	1	3	-	+	-	-	+	-	+	-	-	-	-	(9)
Dendrobates	*sylvaticus*	63.055	1	1	3	6	-	+	+	+	-	-	+	+	+	-	-	(9)
Dendrobates	*tinctorius*	75.005	1	1	2	4	-	+	+	+	-	-	-	+	-	-	-	(9)
Dendrobates	*truncatus*	102.808	1	1	3	5	-	-	+	+	+	-	+	+	-	-	-	(9)
Dendrobates	*ventrimaculatus*	67.774	1	1	2	7	-	+	+	+	+	+	-	+	+	-	-	(9)
Dendrobates	*virolinensis*	57.892	1	?	?	?	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	--
Epipedobates	*anthonyi*	74.186	1	1	3	4	-	+	-	-	-	-	+	+	+	-	-	(9)
Epipedobates	*boulengeri*	55.322	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	(6)
Epipedobates	*machalilla*	59.140	1	0	0	0	-	-	-	-	-	-	-	-	-	-	-	2 skins
Epipedobates	sp. F	65.122	1	1	1	5	-	+	+	-	-	-	+	+	+	-	-	(9)
Epipedobates	*tricolor*	69.720	1	?	?	?	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	--
Hyloxalus	*awa*	52.780	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	(12)
Hyloxalus	*azueriventris*[b]	68.512	1	1	1	?	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	(10)

Abbreviations: Conspicuousness: Cons. = continuous, Bin. = binary (1, brightly; 0, cryptically colored); Lipophilic Skin Alkaloids: Seq. = ability to sequester (0, no; 1, yes), [ ] = quantity per 100 mg of skin (0, no alkaloids detected; 1, < 50 μg, 2, > 50 and < 150 μg; and 3, > 150 μg), Div. = number of structural classes. Diversity of lipophilic skin alkaloids of poison frogs (some grouped under a single structural classes for consistency): MON (Monocyclics), PXT (all pumiliotoxins classes: PTX, aPTX, hPTX, and Deoxy-hPTX), HTX (histrionicotoxins), DHQ (decahydroquinolines), 3,5-P (3,5-disubstituted pyrrolizidines), 3,5-I (3,5-disubstituted indolizidines), 5,8-I (5,8-disubstituted and dehydro-5,8 indolizidines), 5,6,8-I (5,6,8-trisubstituted indolizidines), QUI (4,6-disubstituted and 1,4-disubstituted quinolizidines), TRI (Tricyclics), and BTX (Batrachotoxins). ?, unknown; -, absent; +, present; and nd, no data.

[b] See note at the end of conspicuousness and alkaloid profiles table (next page).

Table S4 (Cont.) Continuous and binary measurements of conspicuousness and alkaloid profiles in the sampled poison frogs.

Genus	Species	Conspicuousness		Lipophilic Skin Alkaloids			Lipophilic Skin Alkaloid Diversity											
		Cont.	Bin.	Seq.	[ ]	Div.	MON	PTX	HTX	DHQ	3,5-P	3,5-I	5,8-I	5,6,8-I	QUI	TRI	BTX	Ref./ sample
Hyloxalus	*bocagei*	42.288	0	?	?	?	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	--
Hyloxalus	*elachyhistus*	49.151	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	(7)
Hyloxalus	*maculosus*	31.288	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	(6)
Hyloxalus	*nexipus*	66.929	1	0	0	0	-	-	-	-	-	-	-	-	-	-	-	3 skins
Hyloxalus	*sauli*	38.131	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	(6)
Hyloxalus	*subpunctatus*	54.270	0	?	?	?	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	--
Hyloxalus	*toachi*	36.654	0	?	?	?	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	--
Hyloxalus	*vertebralis*	32.728	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	5 skins
Mannophryne	*collaris*	39.034	0	?	?	?	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	--
Phyllobates	*aurotaenia*	77.901	1	1	2	5	-	+	+	+	-	+	-	-	-	-	+	(9)
Phyllobates	*terribilis*	77.260	1	1	3	2	-	-	-	-	-	+	-	-	-	-	+	(9)
Rheobates	*palmatus*	25.686	0	?	?	?	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	--
Silverstoneia	*flotator*	52.693	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	(13)
Silverstoneia	*nubicola*	41.807	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	(14)

Abbreviations: Conspicuous coloration: Cons. = continuous, Bin. = binary (1, brightly; 0, cryptically colored); Lipophilic Skin Alkaloids: Seq. = ability to sequester (0, no; 1, yes), [ ] = quantity per 100 mg of skin (0, no alkaloids detected; 1, < 50 μg, 2, > 50 and < 150 μg; and 3, > 150 μg), Div. = number of structural classes. Diversity of lipophilic skin alkaloids of poison frogs (some grouped under a single structural classes for consistency): MON (Monocyclics), PXT (all pumiliotoxins classes: PTX, aPTX, hPTX, and Deoxy-hPTX), HTX (histrionicotoxins), DHQ (decahydroquinolines), 3,5-P (3,5-disubstituted pyrrolizidines), 3,5-I (3,5-disubstituted indolizidines), 5,8-I (5,8-disubstituted and dehydro-5,8 indolizidines), 5,6,8-I (5,6,8-trisubstituted indolizidines), QUI (4,6-disubstituted and 1,4-disubstituted quinolizidines), TRI (Tricyclics), and BTX (Batrachotoxins). ?, unknown; -, absent; +, present; and nd, no data.

[b] The ability to sequester alkaloids among brightly colored members of Hyloxalus is controversial. *Hyloxalus azureiventris* demonstrated to be able to sequester lipophilic alkaloids from oral methanol-saline solution as well-know as other alkaloid sequestering poison frogs: *Dendrobates*, *Phyllobates*, and *Epipedobates* (Saporito *et al*., 2009: note 33). Later experiments using alkaloid dusted fruit flies showed that *H. azureiventis* was unable to sequester alkaloids from this artificial dietary source (Daly, 1998), but details on the sample number and methodology were not provided. However, no natural populations of *H. azureiventis* were surveyed and the presence of lipophilic alkaloids in wild-caught individuals is unknown. Unpublished data from Daly's group was presented by Grant et al. (2006: page 138) suggesting that wild-caught individuals from the sister species of *H. azureiventris* (i.e., *H. chlorocraspedus*) lacked detectable levels of alkaloids, but details on the sample number and methodology were not provided. More explicit analyzes are required, but the current evidence does not invalidate that *H. azureiventis* is able to sequester alkaloids in the wild or contradicts its ability to sequester lipophilic alkaloids (10, 15, 16).

Table S4(Cont.). Dietary profiles of the sampled poison frogs including the number of individual reported, number prey per stomach (prey/individuals), percentage of individuals per prey category, and niche breadth.

Genus	Species	*N*	Total Prey	Prey /indiv	Ants & Mites	Ortho.	Coleo.	Colle.	Dipte.	Isopt.	Aranae	Larvae	Other	Niche Breath	Ref.
Allobates	*femoralis*	15	60	4.000	0.367	0.000	0.117	0.033	0.083	0.017	0.050	0.033	0.300	0.750	(6)
Allobates	*insperatus*	12	74	6.167	0.514	0.000	0.068	0.068	0.014	0.000	0.095	0.081	0.162	0.352	(6)
Allobates	*juanii*	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Allobates	*kingsburyi*	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Allobates	*algorei*	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Allobates	*talamancae*	19	262	13.900	0.305	0.019	0.046	0.263	0.149	0.015	0.027	0.027	0.149	0.614	(17)
Allobates	*zaparo*	20	180	9.000	0.283	0.011	0.178	0.044	0.033	0.167	0.017	0.078	0.189	0.815	(6)
Ameerega	*bilinguis*	24	1676	69.833	**0.735**	0.013	0.000	0.013	0.001	0.036	0.004	0.180	0.018	0.106	(6)
Ameerega	*hahneli*	11	229	20.818	**0.808**	0.000	0.061	0.004	0.004	0.031	0.009	0.022	0.061	0.074	(6)
Ameerega	*parvula*	12	587	48.917	**0.841**	0.000	0.036	0.003	0.002	0.017	0.003	0.075	0.023	0.057	(6)
Ameerega	*trivittata*	--	--	77.200	0.593	0.000	0.071	0.018	0.018	0.035	0.018	0.212	0.035	0.211	(18)
Anomaloglossus	*verbeeksnyderorum*	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aromobates	aff. *alboguttatus*	104	1255	5.200	0.137	0.009	0.127	0.004	0.109	0.000	0.022	0.478	0.114	0.375	(19)[a]
Aromobates	*saltuensis*	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Colostethus	*fugax*	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Colostethus	*panamansis*	12	80	7.300	0.370	0.230	0.120	0.021	0.021	0.000	0.021	0.000	0.218	0.552	(20)
Colostethus	*pratti*	8	26	5.100	0.060	0.780	0.090	0.000	0.000	0.000	0.000	0.000	0.070	0.088	(20)
Dendrobates	*auratus*	23	4291	186.50	**0.946**	0.000	0.014	0.006	0.004	0.006	0.003	0.011	0.010	0.017	(17)
Dendrobates	*bombetes*	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dendrobates	*captivus*	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dendrobates	*claudiae*	26	458	24.100	**0.810**	0.000	0.000	0.000	0.000	0.020	0.000	0.170	0.000	0.066	(20)[b]
Dendrobates	*duellmani*	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dendrobates	*galactonotus*	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dendrobates	*histrionicus*	7	704	100.57	**0.933**	0.000	0.034	0.000	0.000	0.007	0.000	0.014	0.011	0.021	(21)
Dendrobates	*lamasi*	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Abbreviations: Ortho., orthopterans; Coleo., coleopterans; Colle., collembolans; Dipte., dipterans; Isopt., isopterans; Aranae, spiders. **Bold** indicate that ant & mite category was > 0.70. [a]. only females, [b]. as *minutus*, [c]. as *fulguritus*.

Table S4 (Cont.) Dietary profiles of the sampled poison frogs including the number of individual reported, number prey per stomach (prey/individuals), percentage of individuals per prey category, and niche breadth.

Genus	Species	*N*	Total Prey	Prey /indiv	Ants & Mites	Ortho.	Coleo.	Colle.	Dipte.	Isopt.	Aranae	Larvae	Other	Niche Breath	Ref.
Dendrobates	*leucomelas*	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dendrobates	*pumilio*	33	2783	84.400	**0.878**	0.000	0.008	0.070	0.004	0.001	0.000	0.015	0.024	0.041	(17)
Dendrobates	sp. Quibdo	4	122	25.800	**0.970**	0.000	0.000	0.010	0.010	0.000	0.010	0.000	0.000	0.009	(20)[c]
Dendrobates	*sylvaticus*	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dendrobates	*tinctorius*	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dendrobates	*truncatus*	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dendrobates	*ventrimaculatus*	5	354	70.800	**0.734**	0.000	0.008	0.006	0.011	0.000	0.006	0.215	0.020	0.101	(17)
Dendrobates	*virolinensis*	165	8993	56.000	**0.884**	0.000	0.010	0.053	0.004	0.000	0.002	0.029	0.018	0.039	(22)
Epipedobates	*anthonyi*	10	288	28.800	**0.889**	0.004	0.031	0.004	0.024	0.000	0.010	0.017	0.021	0.037	(6)
Epipedobates	*boulengeri*	32	903	28.200	0.279	0.000	0.012	0.319	0.091	0.000	0.003	0.230	0.065	0.450	(17)
Epipedobates	*machalilla*	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Epipedobates	sp. F	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Epipedobates	*tricolor*	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hyloxalus	*awa*	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hyloxalus	*azueriventris*	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hyloxalus	*bocagei*	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hyloxalus	*elachyhistus*	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hyloxalus	*maculosus*	22	241	10.955	0.216	0.000	0.079	0.000	0.017	0.008	0.017	0.556	0.108	0.251	(6)
Hyloxalus	*nexipus*	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hyloxalus	*sauli*	9	42	4.667	0.595	0.024	0.071	0.000	0.000	0.000	0.024	0.071	0.214	0.248	(6)
Hyloxalus	*subpunctatus*	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hyloxalus	*toachi*	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hyloxalus	*vertebralis*	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mannophryne	*collaris*	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Abbreviations: Ortho., orthopterans; Coleo., coleopterans; Colle., collembolans; Dipte., dipterans; Isopt., isopterans; Aranae, spiders. **Bold** indicate that ant & mite category was > 0.70. [a]. only females, [b]. as *minutus*, [c]. as *fulguritus*.

Table S4 (Cont.) Dietary profiles of the sampled poison frogs including the number of individual reported, number prey per stomach (prey/individuals), percentage of individuals per prey category, and niche breadth.

Genus	Species	*N*	Total Prey	Prey /indiv	Ants & Mites	Ortho.	Coleo.	Colle.	Dipte.	Isopt.	Aranae	Larvae	Other	Niche Breath	Ref.
Phyllobates	*aurotaenia*	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phyllobates	*terribilis*	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Rheobates	*palmatus*	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Silverstoneia	*flotator*	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Silverstoneia	*nubicola*	30	336	11.600	0.400	0.080	0.090	0.055	0.055	0.000	0.055	0.128	0.136	0.571	(20)

Abbreviations: Ortho., orthopterans; Coleo., coleopterans; Colle., collembolans; Dipte., dipterans; Isopt., isopterans; Aranae, spiders. **Bold** indicate that ant & mite category was > 0.70. [a]. only females, [b]. as *minutus*, [c]. as *fulguritus*.

Table S4 (Cont.). Accession numbers for the genes used to infer the phylogeny of the poison frogs.

Genus	Species	12S – ND2	CYTB	BDNF	BMP2	NACA
Ademomera	*andreae*	HQ290944	HQ290524	HQ290584	HQ291007	HQ290704
Bufo	*nebulifer*	HQ290945	HQ290525	HQ290585	HQ291008	HQ290705
Centrolene	*grandisonae*	HQ290946	HQ290526	HQ290586	HQ291009	HQ290706
Ceratophrys	*cornuta*	HQ290947	HQ290527	HQ290587	HQ291010	HQ290707
Crossodactylus	*schmidti*	HQ290948	HQ290528	HQ290588	HQ291011	HQ290708
Lithodytes	*lineatus*	HQ290949	HQ290529	HQ290589	HQ291012	HQ290709
Allobates	*femoralis*	HQ290951	HQ290531	HQ290591	HQ291014	HQ290711
Allobates	*insperatus*	HQ290959	HQ290539	HQ290599	HQ291022	HQ290719
Allobates	*juanii*	HQ290960-2	HQ290540	HQ290600	HQ291023	HQ290720
Allobates	*kingsburyi*	HQ290963	HQ290541	HQ290601	HQ291024	HQ290721
Allobates	*algorei*	HQ290950	HQ290530	HQ290590	HQ291013	HQ290710
Allobates	*talamancae*	HQ290974	HQ290552	HQ290612	HQ291035	HQ290732
Allobates	*zaparo*	HQ291003	HQ290580	HQ290640	HQ291063	HQ290760
Ameerega	*bilinguis*	HQ290996	HQ290573	HQ290633	HQ291056	HQ290753
Ameerega	*hahneli*	HQ290998	HQ290575	HQ290635	HQ291058	HQ290755
Ameerega	*parvula*	HQ290999	HQ290576	HQ290636	HQ291059	HQ290756
Ameerega	*trivittata*	HQ291002	HQ290579	HQ290639	HQ291062	HQ290759
Anomaloglossus	*verbeeksnyderorum*	HQ290952	HQ290532	HQ290592	HQ291015	HQ290712
Aromobates	aff. *alboguttatus*	HQ290953	HQ290533	HQ290593	HQ291016	HQ290713
Aromobates	*saltuensis*	HQ290970	HQ290548	HQ290608	HQ291031	HQ290728
Colostethus	*fugax*	HQ290958	HQ290538	HQ290598	HQ291021	HQ290718
Colostethus	*panamansis*	HQ290968	HQ290546	HQ290606	HQ291029	HQ290726
Colostethus	*pratti*	HQ290969	HQ290547	HQ290607	HQ291030	HQ290727
Dendrobates	*auratus*	HQ290980	HQ290557	HQ290617	HQ291040	HQ290737
Dendrobates	*bombetes*	HQ290981	HQ290558	HQ290618	HQ291041	HQ290738
Dendrobates	*captivus*	HQ290982	HQ290559	HQ290619	HQ291042	HQ290739
Dendrobates	*claudiae*	HQ290983	HQ290560	HQ290620	HQ291043	HQ290740

Table S4 (Cont.). Accession numbers for the genes used to infer the phylogeny of the poison frogs.

Genus	Species	12S – ND2	CYTB	BDNF	BMP2	NACA
Dendrobates	*duellmani*	HQ290979	HQ290556	HQ290616	HQ291039	HQ290736
Dendrobates	*galactonotus*	HQ290984	HQ290561	HQ290621	HQ291044	HQ290741
Dendrobates	*histrionicus*	HQ290985	HQ290562	HQ290622	HQ291045	HQ290742
Dendrobates	*lamasi*	HQ290986	HQ290563	HQ290623	HQ291046	HQ290743
Dendrobates	*leucomelas*	HQ290987	HQ290564	HQ290624	HQ291047	HQ290744
Dendrobates	*pumilio*	HQ290988	HQ290565	HQ290625	HQ291048	HQ290745
Dendrobates	sp. Quibdo	HQ290989	HQ290566	HQ290626	HQ291049	HQ290746
Dendrobates	*sylvaticus*	HQ290990	HQ290567	HQ290627	HQ291050	HQ290747
Dendrobates	*tinctorius*	HQ290991	HQ290568	HQ290628	HQ291051	HQ290748
Dendrobates	*truncatus*	HQ290992	HQ290569	HQ290629	HQ291052	HQ290749
Dendrobates	*ventrimaculatus*	HQ290993	HQ290570	HQ290630	HQ291053	HQ290750
Dendrobates	*virolinensis*	HQ290994	HQ290571	HQ290631	HQ291054	HQ290751
Epipedobates	*anthonyi*	HQ290995	HQ290572	HQ290632	HQ291055	HQ290752
Epipedobates	*boulengeri*	HQ290997	HQ290574	HQ290634	HQ291057	HQ290754
Epipedobates	*machalilla*	HQ290964	HQ290542	HQ290602	HQ291025	HQ290722
Epipedobates	sp. F	HQ291000	HQ290577	HQ290637	HQ291060	HQ290757
Epipedobates	*tricolor*	HQ291001	HQ290578	HQ290638	HQ291061	HQ290758
Hyloxalus	*awa*	HQ290954	HQ290534	HQ290594	HQ291017	HQ290714
Hyloxalus	*azueriventris*	HQ290977-8	HQ290555	HQ290615	HQ291038	HQ290735
Hyloxalus	*bocagei*	HQ290955	HQ290535	HQ290595	HQ291018	HQ290715
Hyloxalus	*elachyhistus*	HQ290956	HQ290536	HQ290596	HQ291019	HQ290716
Hyloxalus	*maculosus*	HQ290972	HQ290550	HQ290610	HQ291033	HQ290730
Hyloxalus	*nexipus*	HQ290965	HQ290543	HQ290603	HQ291026	HQ290723
Hyloxalus	*sauli*	HQ290971	HQ290549	HQ290609	HQ291032	HQ290729
Hyloxalus	*subpunctatus*	HQ290973	HQ290551	HQ290611	HQ291034	HQ290731
Hyloxalus	*toachi*	HQ290975	HQ290553	HQ290613	HQ291036	HQ290733
Hyloxalus	*vertebralis*	HQ290976	HQ290554	HQ290614	HQ291037	HQ290734

Table S4 (Cont.). Accession numbers for the genes used to infer the phylogeny of the poison frogs.

Genus	Species	12S – ND2	CYTB	BDNF	BMP2	NACA
Mannophryne	*collaris*	HQ291004	HQ290581	HQ290641	HQ291064	HQ290761
Phyllobates	*aurotaenia*	HQ291005	HQ290582	HQ290642	HQ291065	HQ290762
Phyllobates	*terribilis*	HQ291006	HQ290583	HQ290643	HQ291066	HQ290763
Rheobates	*palmatus*	HQ290967	HQ290545	HQ290605	HQ291028	HQ290725
Silverstoneia	*flotator*	HQ290957	HQ290537	HQ290597	HQ291020	HQ290717
Silverstoneia	*nubicola*	HQ290966	HQ290544	HQ290604	HQ291027	HQ290724

Table S4 (Cont.). Accession numbers for the genes used to infer the phylogeny of the poison frogs.

Genus	Species	NF3	TYR	POMC	ZFX
Ademomera	*andreae*	HQ290764	HQ290884	HQ290824	HQ290644
Bufo	*nebulifer*	HQ290765	HQ290885	HQ290825	HQ290645
Centrolene	*grandisonae*	HQ290766	HQ290886	HQ290826	HQ290646
Ceratophrys	*cornuta*	HQ290767	HQ290887	HQ290827	HQ290647
Crossodactylus	*schmidti*	HQ290768	HQ290888	HQ290828	HQ290648
Lithodytes	*lineatus*	HQ290769	HQ290889	HQ290829	HQ290649
Allobates	*femoralis*	HQ290771	HQ290891	HQ290831	HQ290651
Allobates	*insperatus*	HQ290779	HQ290899	HQ290839	HQ290659
Allobates	*juanii*	HQ290780	HQ290900	HQ290840	HQ290660
Allobates	*kingsburyi*	HQ290781	HQ290901	HQ290841	HQ290661
Allobates	*algorei*	HQ290770	HQ290890	HQ290830	HQ290650
Allobates	*talamancae*	HQ290792	HQ290912	HQ290852	HQ290672
Allobates	*zaparo*	HQ290820	HQ290940	HQ290880	HQ290700
Ameerega	*bilinguis*	HQ290813	HQ290933	HQ290873	HQ290693
Ameerega	*hahneli*	HQ290815	HQ290935	HQ290875	HQ290695
Ameerega	*parvula*	HQ290816	HQ290936	HQ290876	HQ290696
Ameerega	*trivittata*	HQ290819	HQ290939	HQ290879	HQ290699
Anomaloglossus	*verbeeksnyderorum*	HQ290772	HQ290892	HQ290832	HQ290652
Aromobates	aff. *alboguttatus*	HQ290773	HQ290893	HQ290833	HQ290653
Aromobates	*saltuensis*	HQ290788	HQ290908	HQ290848	HQ290668
Colostethus	*fugax*	HQ290778	HQ290898	HQ290838	HQ290658
Colostethus	*panamansis*	HQ290786	HQ290906	HQ290846	HQ290666
Colostethus	*pratti*	HQ290787	HQ290907	HQ290847	HQ290667
Dendrobates	*auratus*	HQ290797	HQ290917	HQ290857	HQ290677
Dendrobates	*bombetes*	HQ290798	HQ290918	HQ290858	HQ290678
Dendrobates	*captivus*	HQ290799	HQ290919	HQ290859	HQ290679
Dendrobates	*claudiae*	HQ290800	HQ290920	HQ290860	HQ290680

Table S4 (Cont.). Accession numbers for the genes used to infer the phylogeny of the poison frogs.

Genus	Species	NF3	TYR	POMC	ZFX
Dendrobates	*duellmani*	HQ290796	HQ290916	HQ290856	HQ290676
Dendrobates	*galactonotus*	HQ290801	HQ290921	HQ290861	HQ290681
Dendrobates	*histrionicus*	HQ290802	HQ290922	HQ290862	HQ290682
Dendrobates	*lamasi*	HQ290803	HQ290923	HQ290863	HQ290683
Dendrobates	*leucomelas*	HQ290804	HQ290924	HQ290864	HQ290684
Dendrobates	*pumilio*	HQ290805	HQ290925	HQ290865	HQ290685
Dendrobates	sp. Quibdo	HQ290806	HQ290926	HQ290866	HQ290686
Dendrobates	*sylvaticus*	HQ290807	HQ290927	HQ290867	HQ290687
Dendrobates	*tinctorius*	HQ290808	HQ290928	HQ290868	HQ290688
Dendrobates	*truncatus*	HQ290809	HQ290929	HQ290869	HQ290689
Dendrobates	*ventrimaculatus*	HQ290810	HQ290930	HQ290870	HQ290690
Dendrobates	*virolinensis*	HQ290811	HQ290931	HQ290871	HQ290691
Epipedobates	*anthonyi*	HQ290812	HQ290932	HQ290872	HQ290692
Epipedobates	*boulengeri*	HQ290814	HQ290934	HQ290874	HQ290694
Epipedobates	*machalilla*	HQ290782	HQ290902	HQ290842	HQ290662
Epipedobates	sp. F	HQ290817	HQ290937	HQ290877	HQ290697
Epipedobates	*tricolor*	HQ290818	HQ290938	HQ290878	HQ290698
Hyloxalus	*awa*	HQ290774	HQ290894	HQ290834	HQ290654
Hyloxalus	*azueriventris*	HQ290795	HQ290915	HQ290855	HQ290675
Hyloxalus	*bocagei*	HQ290775	HQ290895	HQ290835	HQ290655
Hyloxalus	*elachyhistus*	HQ290776	HQ290896	HQ290836	HQ290656
Hyloxalus	*maculosus*	HQ290790	HQ290910	HQ290850	HQ290670
Hyloxalus	*nexipus*	HQ290783	HQ290903	HQ290843	HQ290663
Hyloxalus	*sauli*	HQ290789	HQ290909	HQ290849	HQ290669
Hyloxalus	*subpunctatus*	HQ290791	HQ290911	HQ290851	HQ290671
Hyloxalus	*toachi*	HQ290793	HQ290913	HQ290853	HQ290673
Hyloxalus	*vertebralis*	HQ290794	HQ290914	HQ290854	HQ290674

Table S4 (Cont.). Accession numbers for the genes used to infer the phylogeny of the poison frogs.

Genus	Species	NF3	TYR	POMC	ZFX
Mannophryne	*collaris*	HQ290821	HQ290941	HQ290881	HQ290701
Phyllobates	*aurotaenia*	HQ290822	HQ290942	HQ290882	HQ290702
Phyllobates	*terribilis*	HQ290823	HQ290943	HQ290883	HQ290703
Rheobates	*palmatus*	HQ290785	HQ290905	HQ290845	HQ290665
Silverstoneia	*flotator*	HQ290777	HQ290897	HQ290837	HQ290657
Silverstoneia	*nubicola*	HQ290784	HQ290904	HQ290844	HQ290664

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