

Supplemental files

Data S1. GenBank accession numbers of genes included for each phylogeny.

Table S1. Digital Object Identifier (DOI) from GBIF occurrences.

Table S2. List of fossils used in the present study.

Table S3. Bayesian Factors for each gene of all ingroups.

Table S4. Rivers as biogeographical barriers for each phylogeny.

Table S5. Stratified models for each phylogeny.

Figure S1. Areas used in the analyses: G= Guaina, I= Imeri, P=Napo, N=Marañon, J=Ucayali, U=Jurua, A=Purus, R=Rondonia, T=Tapajos, X=Xingu, C=Araguaia, B=Belem.

Figure S2. Lineage through-time for all taxa.

Figura S3. Methodology workflow.

Data S1.

Rhinella

Specie	Cytb	Rhod	16s	12s-trna-val-16s	Rag1	Pomc
<i>Anaxyrus_americanus</i>	AB159264	NA	KF665122	DQ158426	KJ609650	DQ158268
<i>Anaxyrus_woodhousii</i>	AY288067	NA	NA	DQ158498	KJ609653	DQ158339
<i>Anaxyrus_cognatus</i>	NA	NA	NA	DQ158444	KJ609656	DQ158285
<i>Anaxyrus_exsul</i>	NA	NA	NA	AY325990	DQ158372	DQ158291
<i>Cranopsis_coccifer</i>	HM563944	NA	AY927856	DQ158443	KJ609669	DQ158284
<i>Cranopsis_coniferus</i>	HM563945	NA	FJ784601	DQ158445	HM563988	DQ158286
<i>Cranopsis_valliceps</i>	AY008230	NA	AY008229	DQ158493	KJ609665	DQ158334
<i>Cranopsis_alvarius</i>	HM563933	NA	HM563860	DQ158425	KJ609663	DQ158267
<i>Bufo_bufo</i>	AB159262	NA	AY555021	DQ158438	AY583336	KT239445
<i>Bufo_andrewsi</i>	AF174502	NA	AF160782	DQ158428	DQ158353	DQ158270
<i>Anietophrynus_gracilipes</i>	NA	NA	NA	DQ158456	DQ158378	DQ158297
<i>Anietophrynus_regularis</i>	NA	NA	KX671722	DQ158485	KJ609677	DQ158326
<i>Anietophrynus_maculatus</i>	NA	NA	NA	DQ158469	KJ609678	DQ158311
<i>Duttaphrynus_melanostictus</i>	AY247259	NA	NA	DQ158475	KJ609681	KU183158
<i>Schismaderma_carens</i>	NA	NA	KF665363	DQ158424	KF666220	DQ158266
<i>Ingerophrynus_macrotis</i>	NA	NA	NA	DQ158468	KF666244	KU183150
<i>Peltophryne_lemur</i>	NA	NA	U52787	DQ158465	DQ158386	DQ158306
<i>Rhaebo_haematiticus</i>	HM563930	NA	KR863345	DQ158461	KJ609683	DQ158302
<i>Rhaebo_nasicus</i>	NA	NA	NA	DQ158477	DQ158396	DQ158319
<i>Nannophryne_cophotis</i>	NA	NA	NA	DQ158446	DQ158369	DQ158287
<i>Dendrophryniscus</i>	KX025647	NA	KU495200	AY326000	DQ503337	AY819081
<i>Melanophryniscus_klappenbachii</i>	DQ502444	DQ283765	NA	AY843699	AY844478	KP295580
<i>Melanophryniscus_stelzneri</i>	NA	NA	U52782	DQ158421	KF666223	DQ158263
<i>Rhinella_achavali</i>	KC567990	HM159237	GU178798	GU178787	NA	NA
<i>Rhinella_amboroensis</i>	NA	DQ284003	NA	DQ283386	NA	NA
<i>Rhinella_arenarum</i>	HM159228	AY844547	GU178796	DQ158429	AY844370	DQ158271
<i>Rhinella_arequipensis</i>	NA	NA	NA	DQ158430	DQ158355	DQ158272
<i>Rhinella_arunco</i>	KC817199	NA	NA	DQ158442	DQ158365	DQ158283
<i>Rhinella_atacamensis</i>	KC778243	NA	NA	DQ158433	JX442329	DQ158275
<i>Rhinella_azarai</i>	KP684987	KP685164	NA	KP685186	KP685115	KP685079
<i>Rhinella_bergi</i>	KP684990	KP685165	NA	KP685189	KP685118	KP685084
<i>Rhinella_bernardoi</i>	KP684991	KP685166	NA	KP685194	KP685120	KP685086
<i>Rhinella_castaneotica</i>	NA	NA	KU495498	DQ158440	DQ158364	DQ158282
<i>Rhinella_centralis</i>	KP684992	KP685167	JN021325	KP685195	KP685122	KP685087
<i>Rhinella_cerradensis</i>	HM159232	HM159238	NA	NA	NA	NA
<i>Rhinella_crucifer</i>	HM159226	KC199966	KU495502	DQ158447	KJ609675	KJ532293
<i>Rhinella_dapsilis</i>	NA	NA	KR012641	DQ158448	DQ158370	NA
<i>Rhinella_dorbignyi</i>	KP684994	KP685168	NA	KP685199	KP685123	KP685090
<i>Rhinella_fernandezae</i>	KP684997	KP685169	NA	KP685202	KP685124	KP685092
<i>Rhinella_festae</i>	NA	NA	KR012624	DQ158423	DQ158349	DQ158265
<i>Rhinella_granulosa</i>	KP685002	KP685172	GU178800	KP685209	KP685129	KP685098
<i>Rhinella_henseli</i>	NA	KC199854	NA	KP685183	KP685113	KP685077
<i>Rhinella_humboldti</i>	NA	KP685173	KP149488	KP685211	KP685131	KP685099
<i>Rhinella_icterica</i>	HM159230	HM159240	KU495510	DQ158462	NA	DQ158303
<i>Rhinella_jimi</i>	HM159234	HM159241	GU178795	GU178784	NA	NA
<i>Rhinella_limensis</i>	NA	NA	NA	DQ158466	NA	DQ158307
<i>Rhinella_major</i>	KP685008	KP685175	JF790180	KP685219	KP685135	KP685105

<i>Rhinella_manu</i>	NA	NA	NA	NA	DQ404395	DQ404396
<i>Rhinella_margaritifera</i>	JX298409	HM159242	KR012628	NA	HM563975	AY819080
<i>Rhinella_marina</i>	KR011949	DQ283789	KR012644	DQ158474	DQ158392	DQ158316
<i>Rhinella_merianae</i>	KP685010	KP685176	NA	KP685222	KP685137	KP685107
<i>Rhinella_mirandaribeiroi</i>	KP685012	KP685177	KF723018	KP685228	KP685140	KP685109
<i>Rhinella_nesiotes</i>	NA	NA	NA	DQ158478	DQ158397	DQ158320
<i>Rhinella_ocellata</i>	NA	NA	JN867572	DQ158479	DQ158398	DQ158321
<i>Rhinella_ornata</i>	NA	KC199963	KU495531	NA	NA	NA
<i>Rhinella_poeppigii</i>	HM159233	HM159243	GU178790	DQ158481	KJ609674	KJ532292
<i>Rhinella_pygmaea</i>	KP685013	KP685181	NA	KP685229	KP685141	KP685110
<i>Rhinella_rubescens</i>	HM159229	HM159244	NA	DQ158486	NA	DQ158327
<i>Rhinella_schneideri</i>	HM159235	NA	JQ627202	DQ158480	KJ609673	DQ158322
<i>Rhinella_spinulosa</i>	NA	DQ283775	NA	DQ158487	KJ609676	DQ158328
<i>Rhinella_sternosignata</i>	NA	KP685163	NA	KP685184	KP685144	KP685078
<i>Rhinella_vellardi</i>	NA	NA	NA	DQ158495	DQ158411	DQ158336
<i>Rhinella_veraguensis</i>	NA	NA	NA	DQ158496	DQ158412	DQ158338
<i>Rhinella_yeredas</i>	HM159231	HM159245	NA	NA	NA	NA

Cracidae

Specie	Nd2	Cytb	Coi	Nd5	Cttd1	Eef2	Tfb5	Rho	Serpinb14	Cltc
<i>Numida_meleagris</i>	NA	KF833637	NA	NA	EU302774	EU738650	NA	EU737246	KC749887	KC749599
<i>Megapodius_layardi</i>	NA	KF833615	NA	NA	KF833495	FJ881844	NA	NA	KC749932	KC749598
<i>Prilopachus_petrosus</i>	DQ768289	AM236886	NA	KR732873	NA	KR732890	NA	NA	KR732792	KR732672
<i>Rollulus_rouloul</i>	KR732854	EF571185	NA	NA	JF497007	EU738688	NA	EU737280	KC749947	NA
<i>Tympanuchus_phasianellus</i>	AF230127	AF230181	DQ434206	NA	KC749662	KC749714	NA	NA	KC749906	KC749617
<i>Coturnix_japonica</i>	NA	DQ515818	GQ481652	NA	KC749626	KC749691	NA	DQ402463	KC749869	KC749581
<i>Callipepla_californica</i>	KR732836	AB120131	JN850719	KR732862	NA	KR732885	NA	KR732764	KR732783	KR732687
<i>Colinus_virginianus</i>	KR732833	EU372675	NA	KR732859	KC749627	KR732887	NA	KR732765	KR732785	KR732685
<i>Gallus_gallus</i>	KF792740	EU839454	JF498860	NA	EU302770	EU738569	NA	AB496228	NM_205152	KC749587
<i>Meleagris_gallopavo</i>	AF222556	HQ122602	DQ433017	NA	KC749642	FJ881856	NA	NA	0	KC749597
<i>Oreophasis_derbianus</i>	NA	AY659805	AF165495	AY140759	KX345905	KX356290	KX356206	KX356149	KX356174	KX345877
<i>Ortalis_yetula</i>	KX356238	L08384	KX356279	KX356262	KX345911	NA	KX356214	KX356156	KX356180	KC749601
<i>Ortalis_leucogastra</i>	NA	NA	NA	NA	KX345908	KX356306	KX356211	KX356153	KX356177	KX345880
<i>Ortalis_polioccephala</i>	KX356257	AY659784	KX356278	KX356261	KX345910	KX356293	KX356213	KX356155	KX356179	NA
<i>Ortalis_wagleri</i>	KX356239	NA	KX356280	NA	KF833519	KX356296	KX356215	NA	KX356181	KX345883
<i>Chamaepetes_unicolor</i>	KX356231	AY659796	JQ174405	NA	KX345897	NA	KX356198	NA	KX356168	NA
<i>Penelopina_nigra</i>	NA	AY354492	AF165499	AY140757	KX345923	KX356302	KX356227	KX356164	KX356192	NA
<i>Chamaepetes_goudotii</i>	AY140741	AY659795	JN801554	AY140755	NA	NA	KX356197	NA	NA	NA
<i>Penelope_argyrotis</i>	NA	AY659803	NA	NA	NA	NA	NA	NA	NA	NA
<i>Penelope_barbata</i>	KX356252	NA	JN801892	NA	NA	NA	NA	NA	NA	NA
<i>Penelope_montagnii</i>	KX356245	AY659802	KX356283	KX356267	KX345918	KX356305	KX356222	KX356161	KX356188	KX345890
<i>Penelope_marail</i>	KX356244	KX356277	JQ175713	KX356266	KX345917	NA	KX356221	KX356160	KX356187	KX345889
<i>Penelope_superciliaris</i>	AY367090	AY659804	KX356284	NA	KX345922	NA	KX356226	KX356163	KX356191	KX345892
<i>Penelope_jacquacu</i>	NA	AY659801	JQ175710	NA	NA	NA	NA	NA	NA	NA
<i>Penelope_purpurascens</i>	AY367097	AY659800	JQ175718	KX356269	KF833521	KF833695	KX356225	NA	KX356190	NA
<i>Penelope_albipennis</i>	KX356240	NA	JN801891	NA	KX345914	KX356297	KX356217	NA	KX356183	KX345885
<i>Penelope_obscura</i>	AY140742	AF165474	JQ175715	AY140756	KX345919	KX356301	KX356223	NA	NA	NA
<i>Penelope_pileata</i>	KX356247	NA	JQ175717	KX356268	KX345920	KX356300	KX356224	KX356162	KX356189	KX345891
<i>Penelope_ochrogaster</i>	AY367089	AY367101	NA	NA	NA	NA	NA	NA	NA	NA
<i>Penelope_dabbenei</i>	KX356241	KX356275	KX356281	KX356263	KX345915	KX356303	KX356218	KX356158	KX356184	KX345886

<i>Penelope_jacucaca</i>	KX356243	KX356276	KX356282	KX356265	KX345916	KX356298	KX356219	KX356159	KX356185	KX345887
<i>Pipile_pipile</i>	AY367094	AY367106	JQ175861	NA	KX345925	KX356299	KX356229	KX356166	KX356195	KX345895
<i>Pipile_cumanensis</i>	AY367099	AY659798	NA	KX356271	KX345924	NA	NA	NA	KX356194	KX345894
<i>Pipile_cujubi</i>	AY367092	AY659799	NA	KX356270	NA	NA	KX356228	KX356165	KX356193	KX345893
<i>Pipile_jacutinga</i>	AY140744	AF165476	AF165500	AY140758	NA	NA	NA	NA	NA	NA
<i>Aburria_aburri</i>	AY140740	AY354489	JN801479	AY140754	KX345896	NA	KX356196	KX356143	KX356167	NA
<i>Ortalis_cinereiceps</i>	KX356253	KX356273	KF799991	KX356258	KX345907	KX356295	KX356209	KX356151	KX356176	KX345879
<i>Ortalis_garrula</i>	NA	AY659780	NA	NA	NA	NA	NA	NA	NA	NA
<i>Ortalis_ruficauda</i>	NA	AY659781	NA	NA	NA	NA	NA	NA	NA	NA
<i>Ortalis_canicollis</i>	AY140746	AF165472	AF165496	AY140760	KX345906	KX356291	KX356208	KX356150	KX356175	KX345878
<i>Ortalis_guttata</i>	KX356237	AY659782	NA	KX356259	NA	KX356292	KX356210	KX356152	NA	NA
<i>Ortalis_motmot</i>	NA	AY659778	KF446138	KX356260	KX345909	KX356307	KX356212	KX356154	KX356178	KX345881
<i>Ortalis_erythroptera</i>	KX356256	NA	NA	NA	NA	NA	NA	NA	NA	NA
<i>Nothocrax_urumutum</i>	AY140749	AY354488	KM896479	AY140763	KX345904	KX356289	KX356205	NA	NA	KX345876
<i>Crax_rubra</i>	AY952746	AY659793	AY141915	AY141965	KX345902	KX356308	KX356203	KX356147	KX356172	KC749583
<i>Crax_alberti</i>	AY141930	AY141920	AY141910	AY141960	KX345898	NA	KX356199	KX356144	KX356169	KX345872
<i>Crax_daubentoni</i>	AY141932	AY141922	AY141912	AY141962	KX345899	KX356285	KX356200	KX356145	KX356170	NA
<i>Crax_alector</i>	AY141931	EF571188	JQ174569	AY141961	EU302762	EU738611	NA	EU737204	NA	EU302719
<i>Crax_globulosa</i>	AY141934	AY141924	AY141914	NA	KX345901	NA	KX356202	KX356146	KX356171	KX345873
<i>Crax_fasciolata</i>	AY141933	AY659790	JQ174570	NA	KX345900	KX356286	KX356201	NA	NA	NA
<i>Crax_blumenbachii</i>	AY140747	AY659791	AF165492	AY140761	NA	NA	NA	NA	NA	NA
<i>Mitu_tomentosum</i>	AY141938	AY659787	JQ175400	AY141968	NA	NA	NA	NA	NA	NA
<i>Mitu_salvini</i>	AY141937	AY659785	EU525438	AY141967	NA	NA	NA	NA	NA	NA
<i>Mitu_tuberosum</i>	AY140748	AY354484	EU525441	AY140762	KX345903	KX356287	KX356204	KX356148	KX356173	KX345875
<i>Mitu_mitu</i>	AY141936	AY098552	AY141916	AY141966	NA	NA	NA	NA	NA	NA
<i>Pauxi_pauxi</i>	AY140750	AY354486	AF165497	AY140764	NA	KX356288	KX356216	KX356157	KX356182	KX345884
<i>Pauxi_unicornis</i>	AY141939	AY659786	AY141919	AY141969	NA	NA	NA	NA	NA	NA

Melipona

Specie	Coi	16s	Rna-pol2	Efl-alpha	Argk
<i>Melipona_costaricaensis</i>	EU163129	EU162954	EU162885	EU163207	EU163048
<i>Melipona_solari</i>	EU163160	EU162994	EU162915	EU163247	EU163079
<i>Melipona_ogilviei</i>	EU163140	EU162974	EU162896	EU163227	EU163059
<i>Melipona_micheneri</i>	EU163139	EU162973	EU162895	EU163226	EU163058
<i>Melipona_quadrifasciata</i>	EU163150	AF343100	EU162887	EU163218	EU163069
<i>Melipona_mandacaia</i>	EU163156	EU162990	EU162911	EU163243	EU163075
<i>Melipona_asilvai</i>	EU163157	EU162991	EU162912	EU163244	EU163076
<i>Melipona_melanopleura</i>	EU163113	EU162946	EU162866	EU163197	EU163029
<i>Melipona_panamica</i>	EU163096	EU162928	EU162848	EU163179	EU163012
<i>Melipona_rufiventris</i>	EU163132	EU162966	EU162888	EU163219	EU163051
<i>Melipona_scutellaris</i>	EU163152	EU162986	EU162907	EU163239	EU163071
<i>Melipona_seminigra</i>	EU163138	EU162972	EU162894	EU163225	EU163057
<i>Melipona_fuscopilosa</i>	EU163136	EU162970	EU162892	EU163223	EU163055
<i>Melipona_fulva</i>	EU163125	EU162959	EU162881	EU163212	EU163044
<i>Melipona_lateralis</i>	EU163144	EU162978	EU162900	EU163231	EU163063
<i>Melipona_nebulosa</i>	EU163146	EU162980	NA	EU163233	EU163065
<i>Melipona_illota</i>	EU163167	EU163001	EU162921	EU163254	FJ042220
<i>Melipona_crinita</i>	EU163164	EU162998	EU162919	EU163251	EU163052
<i>Melipona_melanoventer</i>	EU163135	EU162969	EU162891	EU163222	EU163054
<i>Melipona_captiosa</i>	EU163142	EU162976	EU162898	EU163229	EU163061
<i>Melipona_fuliginosa</i>	EU163141	EU162975	EU162897	EU163228	EU163037

<i>Melipona_marginata</i>	EU163153	EU162987	EU162908	EU163240	EU163072
<i>Melipona_bicolor</i>	EU163158	EU162992	FJ041919	EU163245	FJ042195
<i>Melipona_amazonica</i>	EU163166	EU163000	NA	EU163253	EU163085
<i>Melipona_favosa</i>	EU163127	EU162961	EU162883	EU163214	EU163046
<i>Melipona_compressipes</i>	EU163137	AF181589	EU162893	EU163224	EU163056
<i>Melipona_grandis</i>	EU163169	EU163003	EU162886	EU163256	EU163088
<i>Melipona_tripilaridis</i>	EU163154	EU162988	EU162909	EU163241	EU163073
<i>Melipona_quinquefasciata</i>	EU163155	EU162989	EU162910	EU163242	EU163074
<i>Melipona_beecheii</i>	EU163126	EU162960	EU162882	EU163213	EU163045
<i>Melipona_illustris</i>	EU163145	EU162979	EU162901	EU163232	EU163064
<i>Melipona_bradleyi</i>	NA	FJ041921	NA	FJ042298	FJ042197
<i>Melipona_capixaba</i>	JN315064	NA	NA	NA	NA
<i>Melipona_colimana</i>	JX869619	JX869598	NA	NA	NA
<i>Melipona_eburnea</i>	NA	FJ041935	NA	FJ042312	FJ042211
<i>Melipona_fasciata</i>	JX869623	JX869600	NA	FJ042323	FJ042222
<i>Melipona_fusciculata</i>	NA	FJ041946	NA	FJ042324	FJ042223
<i>Melipona_flavolineata</i>	KP708582	NA	NA	NA	NA
<i>Melipona_orbigny</i>	FJ975767	NA	NA	NA	NA
<i>Scaptotrigona</i>	JQ783156	L22900	EU162854	GU244963	EU163018
<i>Trigona</i>	AF214669	L22901	EU162858	EU049789	EU184829
<i>Cephalotrigona</i>	EU163161	EU162995	EU162916	EU184771	EU184830
<i>Geotrigona</i>	EU163112	EU162945	EU162865	DQ813116	EU163028
<i>Plebeia franki</i>	EU163098	EU162930	EU162850	EU163181	EU163014
<i>Friesella_schrotkyi</i>	EU163103	EU162936	EU162856	EU163187	EU163020
<i>Friesemellita</i>	EU163104	FJ041924	EU162857	EU163188	EU163021
<i>Lestrimelitta</i>	EU163111	EU162944	EU162864	AY208287	EU163027
<i>Tetragonisca</i>	KF224897	FJ042001	EU162849	EU163180	EU163013
<i>Nannotrigona</i>	EU163100	FJ041953	EU162853	EU163184	EU163017
<i>Nogueirapis_mirandula</i>	NA	EU162947	EU162867	EU163198	EU163030
<i>Meliwillea_bivea</i>	EU163114	AF343108	EU162868	EU163199	EU163031
<i>Meliponula</i>	EU163118	EU162951	EU162873	EU163204	EU163036
<i>Bombus</i>	JQ769073	AF364824	NA	NA	AY739533
<i>Apis_cerana</i>	KJ755628	HQ318940	NA	EU184774	EU163040
<i>Apis_koschevnikovi</i>	AY754732	EU162942	EU162863	EU163193	EU163025
<i>Apis_mellifera</i>	KR793809	JF825886	NA	NA	NA
<i>Apis_dorsata</i>	KT960840	KU752359	NA	NA	AY267178
<i>Apis_andreniformis</i>	AB284158	KU212301	EU162879	AY721702	EU163042
<i>Apis_florea</i>	AB284150	KU752357	NA	NA	EU184831
<i>Euglossa_asarophora</i>	EU421496	NA	EU421248	EU163171	EU421628
<i>Euglossa_mixta</i>	EU163094	NA	EU421309	EU421436	NA
<i>Euglossa_villosa</i>	EU421556	NA	EU421301	EU421428	EU163009
<i>Euglossa_decorata</i>	EU421505	NA	EU162841	EU163172	EU421636
<i>Aglae_caerulea</i>	EU421542	EU162926	EU421289	EU421413	EU163007
<i>Eufriesea_caerulescens</i>	EU421584	NA	EU162847	AY208283	EU421711
<i>Eulaema_peruviana</i>	AJ581111	AJ581092	EU421290	EU421414	EU163008
<i>Exaerete_azteca</i>	EU421557	EU162927	EU421302	EU421429	EU163010
<i>Centris</i>	DQ225328	EU162948	EU162869	EU163200	EU163032
<i>Epicharis</i>	EU163115	NA	GU245359	EU163201	EU163033

Cebidae

Specie	Beta2-microgl													
	Sry	Bdnf	Rag1	Rag2	16s	Mc1r	Cytb	obulin	Coii	Dmrt1	Fbn1	Abca1	Adora3	Aff2
Aotus	AF33837	HM76384		HM7589	AB10721	AY2051	HQ0054	AF0421	AF35226	HM762	HM7619	HM7654	HM76517	HM76506
	5	4	HM759104	32	1	29	96	45	0	509	28	14	8	8
Lagothrix	HM75799	HM76383		HM7589			KR9024	AH0067	HM0575	HM762	HM7619	HM7653	HM76515	HM76498
	6	3	HM759086	14	U39005	NA	23	21	99	589	1	36	9	4
Brachyteles	NA	NA	HM759084	12	5	NA	06	20	3	519	NA	72	7	2
	DQ97660	HM76385		HM7589	AB11602	AB2962	KR9023	AH0067	AF21624	HM762	HM7619	HM7652	HM76518	HM76489
Ateles	5	0	AY065918	38	6	41	84	27	9	505	33	62	4	7
	HM75800	HM76385		HM7589			EU5604	AH0067		HM762	HM7619	HM7652	HM76518	HM76492
Cacajao	4	2	HM759113	43	NA	NA	18	24	NA	530	35	83	7	6
		HM76385		HM7589			FJ53166	AH0067		HM762		HM7652	HM76519	HM76507
Chiropotes	NA	6	HM759121	50	NA	NA	7	23	NA	677	NA	95	5	1
				HM7589			KR9024	AH0067	JN16105	HM762	HM7619	HM7653	HM76521	HM76502
Pithecia	NA	FJ648367	HM759140	71	U39007	NA	26	29	9	634	60	80	5	9
	HM75800	HM76386		HM7589	AB10721		AF2899	AH0067	JN16105	HM762	HM7619	HM7652	HM76521	HM76494
Callicebus	5	6	HM759137	70	2	NA	88	28	7	527	59	84	0	1
	DQ87568	HM76384		HM7589		AY2051	AY3743	AH0067	AF05429	HM762	HM7619	HM7652	HM76517	HM76490
Alouatta	3	1	AY065919	27	U38997		76	17	6	515	22	67	1	6
	AF33838			HM7589		AY2051	FJ52910	AH0065		HM762	HM7619	HM7654	KU69433	HM76506
Cebus albifrons	5	JN633376	HM759115	44	NA	28	9	09	NA	675	36	15	9	9
	AF33838			HM7589			FJ52910	AH0065	AF18108	HM762	HM7619	HM7652	HM76519	HM76492
Cebus apella	7	NA	HM759116	45	U39003	NA	4	08	8	524	37	78	0	0
	AF33838	HM76385		HM7589			FJ52911			HM762	HM7619	HM7652	HM76519	HM76492
Cebus capucinus	8	3	NA	46	NA	NA	0	NA	JF735240	532	38	85	1	8
				HM7589			KR5284		AF18108		HM7619	HM7653		HM76495
Cebus nigritus	NA	NA	HM759118	48	NA	NA	06	NA	8	NA	40	08	NA	3
	AF33838	HM76385		HM7589			FJ52910	AH0067		HM762	HM7619	HM7653	HM76519	HM76494
Cebus olivaceus	9	4	HM759117	47	NA	NA	7	33	NA	551	39	03	2	8
							JN8352							
Cebus xanthosternus	NA	NA	HM759119	NA	NA	NA	88	NA	NA	NA	NA	NA	NA	NA
	AF33838			HM7589	DQ33482		AF39646		HM762	HM7619			HM76520	HM76504
Saimiri boliviensis	6	NA	HM759129	61	6	NA	NA	NA	0	645	53	NA	4	0
	HM75801	HM76386		HM7589		AY2051	KM234			HM762	HM7619	HM7654	HM76520	HM76505
Saimiri oerstedii	7	4	HM759130	62	NA	27	547	NA	NA	657	54	00	5	2
	HM75801	HM76386		HM7589	AB10721	AB2962	HQ0055	AH0074		HM762	HM7619	HM7654	HM76520	HM76505
Saimiri sciureus	8	5	HM759131	63	4	39	11	58	U36848	658	55	01	6	3
							EU2327							
Saimiri ustus	NA	NA	NA	NA	NA	NA	07	NA	NA	NA	NA	NA	NA	NA
	Saimiri yanzolin						KM234							
Saimiri yanzolin ii	NA	NA	NA	NA	NA	NA	514	NA	NA	NA	NA	NA	NA	NA
	Leontopithecus cAF33837	HM76383		HM7589		AY2051	KR5283			HM762	HM7619	HM7653	HM76516	HM76498
Leontopithecus chrysomelas	0	9	HM759094	23	NA	16	98	NA	NA	585	18	32	8	0
	Leontopithecus cAF33837					AY2051	AH0067							
Leontopithecus hrysopygus	1	NA	NA	NA	NA	15	NA	36	NA	NA	NA	NA	NA	NA
	Leontopithecus rAF33837	HM76384		HM7589		AY2051	KR5284			HM762	HM7619	HM7653	HM76516	HM76498
Leontopithecus rosalia	3	0	HM759095	24	U39006	14	04	NA	NA	590	19	37	9	5
	Callimico goeldiAF33838			HM7589		AY2051	AH0067	AY11817		HM762	HM7619	HM7652	HM76516	HM76493
Callimico goeldii	3	AY011480	HM759087	15	U39000	21	NA	34	5	538	12	91	0	4
	AF33839			HM7589			KR5284	AH0089	AY11818				HM76516	HM76491
Callithrix aurita	2	NA	NA	17	NA	NA	00	73	8	NA	NA	NA	2	7
	Callithrix geoffroyi	AF33837	HM76383		HM7589	AY2051	KU2535		AY11819	HM762	HM7619	HM7652	HM76516	HM76493
Callithrix geoffroyi	8	5	HM759089	18	NA	19	09	NA	2	537	14	90	3	3
	AF33838			HM7589			KU2535	AH0067	AY11819			HM7652	HM76516	HM76494
Callithrix kuhlii	0	NA	HM759091	20	NA	NA	11	15	3	NA	NA	97	5	0
	Callithrix penicillata	AF33838	HM76383		HM7589		AH0074	AY11819		HM762	HM7619	HM7653	HM76516	HM76494
Callithrix jacchus	1	7	HM759092	21	NA	NA	NA	59	6	552	16	04	6	9
	Callithrix jacchuAF33837	HM76383		HM7589		AY2051	AY4340	AH0089	AY32145	HM762	HM7619	HM7652	NM_0013XM_0179	
Cebuella pygmaea	9	6	HM759090	19	U39001	20	79	74	7	543	15	96	02791	68309
	AF33838	HM76383		HM7589			AH0067							
Mico argentatus	2	8	HM759093	22	U29002	NA	NA	26	NA	NA	NA	NA	NA	NA
		HM76383		HM7589		AY2051	AF2450		AY11818	HM762	HM7619	HM7652	HM76516	HM76492

							AH0067	AY11817						
<i>Mico_emiliae</i>	NA	NA	NA	NA	FJ769146	NA	L44587	35	8	NA	NA	NA	NA	NA
<i>Mico_humeralife</i>				HM7589			AF2450	AH0074	AY11818			HM7653	HM76517	HM76499
<i>r</i>	NA	NA	HM759096	25	NA	NA	52	60	4	NA	NA	45	0	4
							AF2450		AY11818					
<i>Mico_mauesi</i>	NA	NA	NA	NA	FJ769147	NA	51	NA	7	NA	NA	NA	NA	NA
									AY11818					
<i>Mico_saterei</i>	NA	NA	NA	NA	NA	NA	NA	NA	0	NA	NA	NA	NA	NA
<i>Mico_chryssoleuca</i>	NA	NA	NA	NA	NA	NA	KR5284			NA	NA	NA	NA	NA
<i>Saguinus_nigricolli</i>	NA	NA	NA	NA	NA	NA	HM368			NA	NA	NA	NA	NA
<i>Saguinus_fuscicolli</i>	NA	NA	NA	NA	NA	NA	075	NA	NA	NA	NA	NA	NA	NA
<i>Saguinus_fuscicolli</i>	HM75801	HM76385		HM7589	AY2051	NA	AH0089			HM762		HM7653	HM76519	HM76504
	2	8	HM759123	53	NA	23	NA	77	NA	648	NA	91	7	3
<i>Saguinus_tripartitus</i>	NA	NA	NA	NA	NA	NA	HM368			NA	NA	NA	NA	NA
<i>Saguinus_imperator</i>	NA	NA	NA	HM7589	EU49728	AY2051	HM368	AH0067		HM762	HM7619	HM7653		HM76504
<i>Saguinus_labialis</i>	NA	NA	HM76386	HM7589	EU49728		HM367			HM762	HM7619	HM7653		HM76504
	NA	0	HM759125	56	9	NA	998	NA	NA	652	47	95	NA	7
							KM370							
<i>Saguinus_inustus</i>	NA	NA	NA	NA	NA	NA	859	NA	NA	NA	NA	NA	NA	NA
	HM75801	HM76386		HM7589	EU49729		HM367	AH0089		HM762	HM7619	HM7653	HM76520	HM76505
<i>Saguinus_mystax</i>	4	2	HM759127	59	4	NA	983	78	NA	655	51	98	2	0
<i>Saguinus_leucopus</i>	NA	NA	NA	NA	EU49728		6	NA	NA	NA	NA	NA	NA	NA
<i>Saguinus_oedipus</i>	HM75801	HM76386		HM7589	EU49729	AY2051	HM368	AH0065		HM762	HM7619	HM7653	HM76520	HM76505
	5	3	HM759128	60	6	25	007	10	NA	656	52	99	3	1
					EU49724		AH0061							
<i>Saguinus_niger</i>	NA	NA	NA	NA	6	NA	NA	93	NA	NA	NA	NA	NA	NA
	AF33839	HM76386		HM7589	EU49727	AY2051	AJ4897	AH0067		HM762	HM7619	HM7653	HM76520	HM76504
<i>Saguinus_midasi</i>	1	1	HM759126	58	3	26	60	16	NA	653	50	96	0	8
	HM75801	HM76385		HM7589	EU49728		AH0089			HM762	HM7619	HM7653	HM76519	HM76503
<i>Saguinus_bicolor</i>	1	7	HM759122	52	0	NA	NA	75	NA	644	44	88	6	9
<i>Saguinus_martinsi</i>	NA	NA	NA	NA	EU49727		AH0089			HM762	HM7619	HM7654		HM76505
<i>Saguinus_geoffroyi</i>	NA	NA	HM76385		6	NA	NA	76	NA	659	48	02	NA	4
<i>Saguinus_graellsii</i>	NA	NA	NA	NA	U39008	24	NA	NA	NA	NA	NA	NA	NA	NA
<i>Saguinus_melanoleucus</i>	NA	NA	NA	NA	NA	NA	HM368			NA	NA	NA	NA	NA
<i>Callibella_humilis</i>	NA	NA	NA	NA	FJ769145	NA	NA	NA	NA	NA	NA	NA	NA	NA

Echimyidae

Specie	Cytb	Rag1	16s	12s	Ghr	Coi	Vwf
<i>Capromys_pilorides</i>	AF422915	KM013988	KM013971	KM013959	AF433950	NA	AJ251142
<i>Myocastor_coypus</i>	EU544663	JN414955	AY011155	AY012123	NA	NA	AJ251140
<i>Chinchilla_lanigera</i>	AF244382	KF590658	AY062170	AF520696	AY701337	GU130595	NA
<i>Ctenomys_boliviensis</i>	AF007040	NA	NA	U12446	JN414757	JQ341048	NA
<i>Octodontomys_gliroides</i>	AF370706	KF590663	NA	AF520684	AF520664	GQ121084	KF590672
<i>Octodon_bridgesi</i>	KJ742651	KJ742676	NA	AF520677	AF520646	NA	KJ742611
<i>Abrocoma_cinerea</i>	AF244388	NA	NA	AF520666	AF520643	NA	NA
<i>Abrocoma_bennettii</i>	AF244387	NA	NA	NA	FJ855213	NA	JN415073
<i>Dactylomys_boliviensis</i>	L23339	EU313299	AF422909	AF422875	KF590679	NA	AJ849307
<i>Dactylomys_dactylinus</i>	L23335	EU313301	AF422908	AF422874	KF590681	NA	KF590667
<i>Dactylomys_peruanus</i>	EU313207	NA	NA	NA	NA	NA	NA
<i>Kannabateomys_amblyonyx</i>	AF422917	NA	AF422884	AF422850	NA	NA	AJ849310
<i>Olallamys_albicauda</i>	KF590697	NA	NA	NA	KF590691	NA	KF590673
<i>Callistomys_pictus</i>	KJ742659	KJ742677	NA	KJ742594	KJ742627	NA	KJ742614

<i>Diplomys labilis</i>	KJ742660	KJ742685	NA	NA	KJ742636	NA	KJ742613
<i>Diplomys rufodorsalis</i>	KJ742664	NA	NA	NA	NA	NA	NA
<i>Echimys chrysurus</i>	L23341	EU313303	AF422911	AY093663	FJ855215	JF458603	AJ251141
<i>Echimys semivillosus</i>	KJ742662	KJ742687	NA	NA	NA	JF458604	KJ742616
<i>Isothrix bistriata</i>	L23355	EU313311	AF422907	AF422873	FJ855216	NA	AJ849308
<i>Isothrix negrensis</i>	EU313221	NA	NA	NA	NA	NA	NA
<i>Isothrix pagurus</i>	EU313226	KF590661	NA	KF590703	KF590684	NA	KF590670
<i>Isothrix sinnamariensis</i>	AY745734	EU313313	NA	KF590704	KF590686	JF458606	AJ849309
<i>isothrix barbarabrownae</i>	EU313214	EU313304	NA	KF590701	KF590682	NA	KF590668
<i>Isothrix orinoci</i>	EU313225	KF590660	NA	KF590702	KF590683	NA	KF590669
<i>Makalata didelphoides</i>	L23363	EU313320	AF422912	KJ742600	KJ742639	JF458629	JF297707
<i>Makalata grandis</i>	KF590699	EU313336	NA	NA	KF590694	NA	KF590676
<i>Makalata macrura</i>	EU302703	EU313330	AF422913	AF422879	KF590687	NA	AJ849312
<i>Makalata occasius</i>	KJ742661	NA	NA	NA	KJ742637	NA	NA
<i>Makalata rhipidura</i>	KJ742663	KJ742686	NA	NA	KJ742638	NA	KJ742617
<i>Phyllomys blainvillii</i>	JF297836	KF590664	NA	KF590706	KF590692	JF297686	JF297735
<i>Phyllomys brasiliensis</i>	EF608182	NA	NA	AY093666	NA	JF297680	JF297729
<i>Phyllomys dasythrix</i>	EF608185	KJ742689	NA	KJ742605	KJ742641	JF297660	JF297709
<i>Phyllomys lamarum</i>	EF608181	NA	NA	NA	NA	JF297682	JF297731
<i>Phyllomys lundi</i>	EF608183	NA	NA	NA	NA	JF297672	JF297721
<i>Phyllomys mantiqueirensis</i>	EF608179	NA	NA	NA	NA	JF297671	JF297720
<i>Phyllomys nigrispinus</i>	EF608184	NA	NA	NA	NA	JF297666	JF297719
<i>Phyllomys pattoni</i>	EF608187	KJ742690	NA	KJ742606	KJ742642	JF297704	JF297754
<i>Phyllomys unicolor</i>	EF608188	NA	NA	NA	NA	NA	NA
<i>Carterodon sulcidens</i>	KJ742666	KJ742678	NA	KJ742596	KJ742640	NA	KJ742615
<i>Clyomys laticeps</i>	AF422918	KJ742679	AF422885	KJ742597	KJ742628	NA	AJ849306
<i>Euryzomatomys spinosus</i>	EU544667	KJ742680	NA	NA	KJ742629	GU938885	AJ849319
<i>Hoplomys gymnurus</i>	AF422922	JN414965	AF422896	AF520668	JN414758	NA	JN415080
<i>Lonchothrix emiliae</i>	EU313229	NA	AF422891	AF422857	NA	NA	NA
<i>Mesomys hispidus</i>	KF590696	EU313322	AF422895	KF590705	KF590688	HQ919652	KF590671
<i>Mesomys occultus</i>	NA	EU313331	AF422893	AF422859	KF590689	NA	NA
<i>Mesomys stimula</i>	KJ742667	KJ742674	NA	KJ742603	KJ742630	NA	KJ742618
<i>Proechimys cuvieri</i>	AY206633	KF590665	NA	KF590707	KF590693	JF458720	KF590675
<i>Proechimys guyannensis</i>	NA	NA	NA	KX381547	NA	EU096897	NA
<i>Proechimys hoplomyoides</i>	NA	NA	NA	NA	NA	EU095484	NA
<i>Proechimys longicaudatus</i>	NA	KJ742681	NA	U12447	KJ742643	NA	KJ742619
<i>Proechimys quadruplicatus</i>	AF308435	NA	NA	NA	NA	EU095487	AJ849313
<i>Proechimys roberti</i>	EU544666	NA	NA	NA	NA	NA	NA
<i>Proechimys simonsi</i>	U35414	EU313333	AF422898	AF422864	KJ742631	EU095486	AJ849320
<i>Proechimys steerei</i>	NA	NA	NA	NA	NA	JF459060	NA
<i>Thrichomys apereoides</i>	EU544668	EU313335	AF422890	AF422856	JX515325	NA	AJ849315
<i>Thrichomys inermis</i>	JX459887	NA	NA	NA	NA	NA	NA
<i>Thrichomys pachyurus</i>	AY083340	NA	NA	NA	NA	NA	NA
<i>Trinomys albispinus</i>	KM014008	KM013992	KM013976	KM013964	KM013987	NA	KM014003
<i>Trinomys dimidiatus</i>	AF194296	KJ742682	AF422901	AF422867	NA	NA	KJ742620
<i>Trinomys eliasi</i>	KJ707247	NA	AF422903	AF422869	NA	NA	NA
<i>Trinomys graciosus</i>	KJ707248	NA	NA	NA	NA	NA	NA
<i>Trinomys iheringi</i>	EU544664	EU313338	AF422902	AF422868	KF590695	NA	KF590677
<i>Trinomys moojeni</i>	KF562097	NA	NA	NA	NA	NA	NA
<i>Trinomys paratus</i>	U35165	NA	AF422900	AF422866	JX515330	NA	AJ849316
<i>Trinomys setosus</i>	AF422924	NA	AF422906	AF422872	JX515329	NA	AJ849317
<i>Trinomys yonenagae</i>	AF194295	NA	AF422899	AF422865	JX515328	NA	AJ849318

Stenodermatinae

Specie	Cytb	Rag2	Nd2	Coi	Plec4	Atp7	Bdnf	Thy
<i>Rhinophylla_alethina</i>	AF187027	NA	NA	JF449072	NA	NA	NA	NA
<i>Rhinophylla_fischerae</i>	AF187032	KF569351	NA	JF449110	KF569329	NA	NA	KF569455
<i>Carollia_subrufa</i>	AF187024	NA	NA	JF448015	KM362009	NA	NA	NA
<i>Carollia_castanea</i>	AF512006	FN641676	NA	JF448773	KF569314	NA	KF569466	KF569450
<i>Glyphonycteris_sylvestris</i>	AY380746	AF316471	NA	KX910802	KM362017	NA	NA	NA
<i>Trinycteris_nicefori</i>	AY380749	AF316469	NA	JF456028	KC783108	NA	KC783000	KC783252
<i>Lonchophylla_hesperia</i>	KF815310	KM362062	NA	NA	KM362022	NA	KM361983	NA
<i>Lonchophylla_dekeyseri</i>	NA	NA	NA	NA	KM362021	KM361948	KM361982	NA
<i>Lionycteris_spurrelli</i>	KF815304	AF316455	NA	JF454738	KC783075	NA	KC782968	KC783226
<i>Platalina_genovensium</i>	KF815311	NA	NA	NA	NA	NA	NA	NA
<i>Lonchophylla_chocoana</i>	AF423092	NA	NA	JF448854	KF569321	NA	KF569473	KF569453
<i>Lonchophylla_mordax</i>	AF423095	KC783116	NA	JF448855	KM362020	NA	NA	NA
<i>Centurio_senex</i>	AY604444	AF316438	NA	JF447241	KF569315	NA	NA	KM362119
<i>Sturnira_lilium</i>	DQ312398	KC754302	KC753968	JF459281	KC783105	KC783048	KC782996	KC783248
<i>Sturnira_tildae</i>	KC753897	DQ903847	NA	JF455952	KF569331	KF569434	KF569480	KF569452
<i>Sturnira_ludovici</i>	KC753807	KC754272	KC753925	JN659773	KF569334	KF569432	NA	NA
<i>Sturnira_luisi</i>	KC753815	KC754280	KC753933	JN659882	KM362042	NA	KM361996	KM362139
<i>Sturnira_erythromos</i>	FJ154179	FJ154377	FJ154245	JN659617	NA	NA	NA	NA
<i>Sturnira_parvidens</i>	KC753873	KC754337	KC753994	KX756039	NA	NA	NA	NA
<i>Sturnira_magna</i>	KC753820	KC754283	KC753938	JN659896	KF569332	KF569433	NA	NA
<i>Sturnira_bidens</i>	AF435200	NA	KC753900	JN659567	NA	NA	NA	NA
<i>Sturnira_oporophillum</i>	KC753855	KC754318	KC753975	NA	KM362043	KM361963	KM361997	KM362140
<i>Sturnira_hondurensis</i>	KC753827	KC754288	KC753946	NA	NA	NA	NA	NA
<i>Sturnira_bogotensis</i>	KC753787	KC754252	KC753905	NA	KF569333	KF569431	NA	KF569451
<i>Sturnira_mordax</i>	KC753824	KC754287	KC753943	NA	NA	NA	NA	NA
<i>Sturnira_burtonlimi</i>	NA	NA	NA	KX814421	NA	NA	NA	NA
<i>Sturnira_adrianae</i>	KY366229	NA	NA	NA	NA	NA	NA	NA
<i>Sturnira_perla</i>	NA	NA	NA	JN659911	NA	NA	NA	NA
<i>Sturnira_aratathomasi</i>	AF435252	NA	KC753899	NA	NA	NA	NA	NA
<i>Sturnira_nana</i>	AF435252	NA	KC753899	NA	NA	NA	NA	NA
<i>Uroderma_bilobatum</i>	L28941	AF316491	NA	JF456031	NA	KC783052	NA	NA
<i>Uroderma_magnirostris</i>	AY169957	FJ154378	FJ154246	JF456032	KF569335	KF569435	KF569481	KF569449
<i>Vampyriscus_bidens</i>	FJ154181	FJ154379	FJ154247	JF456128	KM362046	NA	KM361999	KM362142
<i>Vampyriscus_nymphaea</i>	DQ312418	KF569357	NA	JF448146	KF569336	KF569436	KF569482	NA
<i>Vampyriscus_brocki</i>	DQ312421	KM362070	NA	JF456129	KM362047	KM361967	NA	NA
<i>Vampyressa_thyone</i>	DQ312431	KF569358	NA	JN312368	KF569337	KF569437	KF569483	KF569448
<i>Vampyressa_melissa</i>	FJ154185	FJ154383	FJ154251	NA	NA	NA	NA	EU371980
<i>Vampyressa_pusilla</i>	DQ312428	DQ903844	NA	JF448148	KM362048	KM361968	KM362000	EU371990
<i>Chiroderma_villosum</i>	L28943	FJ154319	FJ154187	JF454586	NA	NA	NA	EU371975
<i>Chiroderma_trinitatum</i>	L28942	KF569345	NA	JF454562	KF569316	NA	NA	NA
<i>Chiroderma_doriae</i>	AY169958	KM362056	NA	JF448016	KM362010	KM361941	KM361977	NA
<i>Chiroderma_salvini</i>	L28939	KM362058	NA	JF446777	KM362012	KM361943	KM361979	KM362121
<i>Chiroderma_improvisum</i>	L28938	KM362057	NA	NA	KM362011	KM361942	KM361978	KM362120
<i>Mesophylla_macconnelli</i>	FJ154122	FJ154320	AY504555	JF454947	KF569324	NA	NA	EU371977
<i>Vampyrodes_caraccioli</i>	FJ154184	FJ154382	FJ154250	JF456147	KC783110	KC783053	KC783002	EU371991
<i>Vampyrodes_major</i>	HQ637422	NA	NA	NA	NA	NA	NA	NA
<i>Platyrrhinus_helleri</i>	FJ154141	FJ154339	FJ154206	JF455411	KC783100	KC783043	KC782991	KC783244
<i>Platyrrhinus_aurarius</i>	FJ154129	FJ154327	FJ154195	JF455410	KM362031	KM361955	KM361988	KM362131

<i>Platyrrhinus_lineatus</i>	FJ154173	FJ154358	FJ154226	JF446382	KM362035	KM361959	KM361991	KF569447
<i>Platyrrhinus_infuscus</i>	FJ154151	FJ154349	FJ154217	JF449066	KF569326	NA	NA	NA
<i>Platyrrhinus_dorsalis</i>	FJ154139	FJ154337	FJ154205	NA	KM362032	KM361956	KM361989	KM362132
<i>Platyrrhinus_recifinus</i>	FJ154176	FJ154374	FJ154242	JF446385	KM362036	KM361960	KM361992	KM362136
<i>Platyrrhinus_brachycephalus</i>	FJ154132	FJ154330	FJ154198	JF447853	KF569327	KF569428	KF569477	KF569446
<i>Platyrrhinus_guianensis</i>	KJ576932	KJ576959	KJ576941	NA	NA	NA	NA	NA
<i>Platyrrhinus_ismaeli</i>	FJ154155	FJ154353	FJ154221	NA	KM362034	KM361958	KM361990	KM362134
<i>Platyrrhinus_matapalensis</i>	FJ154168	FJ154366	FJ154234	NA	NA	NA	NA	KM362135
<i>Platyrrhinus_masu</i>	FJ154164	FJ154362	FJ154230	NA	NA	NA	NA	NA
<i>Platyrrhinus_albericoi</i>	FJ154124	FJ154322	FJ154190	NA	KM362030	KM361954	KM361987	KM362130
<i>Platyrrhinus_yittatus</i>	FJ154178	FJ154376	FJ154243	JF446602	KM362037	NA	NA	NA
<i>Platyrrhinus_incarum</i>	FJ154147	FJ154344	FJ154213	NA	KM362033	KM361957	KM381957	KM362133
<i>Platyrrhinus_nigellus</i>	FJ154173	FJ154371	FJ154239	NA	KM362035	KM361959	KM361991	NA
<i>Enchisthenes_hartii</i>	EU160972	AF316449	NA	JF447409	KC783070	KC783016	KC782964	KC783222
<i>Ectophylla_alba</i>	DQ312404	AF316448	NA	JF446595	NA	KF569420	KF569469	KF569445
<i>Sphaeronycteris_toxophyllum</i>	AY604452	AF316486	NA	NA	KF569330	KF569430	KF569479	NA
<i>Pygoderma_bilabiatum</i>	AY604438	DQ903839	NA	NA	KC783103	KC783046	KC782994	KC783247
<i>Ametrida_centurio</i>	AY604446	AF316430	NA	JF452119	KF569308	KF569409	NA	NA
<i>Ardops_nicholli</i>	KJ024748	AF316434	NA	NA	NA	NA	NA	KF569438
<i>Artibeus_flavescens</i>	KJ024703	AF316435	NA	NA	KM362003	KF569410	NA	KM362113
<i>Stenoderma_rufum</i>	DQ312400	AF316487	NA	NA	NA	NA	NA	EU371963
<i>Phyllops_falcatus</i>	DQ211651	AY604453	NA	NA	NA	NA	NA	NA
<i>Artibeus_lituratus</i>	EU160833	DQ985529	NA	EU161033	KC783061	NA	KC782955	EU371964
<i>Artibeus_jamaicensis</i>	DQ869504	FN641674	NA	JF459376	KC783060	AY011419	KC782954	AJ865664
<i>Artibeus_planirostris</i>	AY684720	NA	NA	EU161056	NA	NA	NA	NA
<i>Artibeus_obscurus</i>	EU160865	NA	NA	EU161044	KC783062	NA	KC782956	KC783217
<i>Artibeus_glaucus</i>	EU160970	KF569339	NA	EU160995	KF569310	KF569414	KF569463	KF569444
<i>Artibeus_cinereus</i>	EU160687	AF316443	NA	EU160983	KM362004	KF569412	KF569461	KF569440
<i>Artibeus_schwartzi</i>	DQ869521	NA	NA	NA	NA	NA	NA	NA
<i>Artibeus_intermedius</i>	FJ179231	KM362055	NA	JF447942	KM362008	KM361940	KM361976	KM362118
<i>Artibeus_phaeotis</i>	FJ179248	KF569340	NA	JF498954	KF569313	KF569415	KF569464	KF569442
<i>Artibeus_concolor</i>	EU160951	AF316432	NA	EU160986	KF569309	KF569413	KF569462	KF569443
<i>Artibeus_bogotensis</i>	EU805596	NA	NA	JN312365	NA	NA	NA	NA
<i>Artibeus_fimbriatus</i>	EU160723	DQ985533	NA	EU160992	KM362005	KM361937	KM361973	KM362114
<i>Artibeus_toltecus</i>	FJ179258	NA	NA	KX814389	KM362013	NA	NA	KM362143
<i>Artibeus_amplus</i>	EU160947	NA	NA	EU160974	NA	NA	NA	NA
<i>Artibeus_anderseni</i>	EU160967	NA	NA	EU160976	KF569311	KF569411	KF569460	KF569439
<i>Artibeus_fraterculus</i>	EU160955	KM362052	NA	EU160994	KM362006	KM361938	KM361974	KM362115
<i>Artibeus_aztecus</i>	FJ179238	NA	NA	JF447913	NA	NA	NA	NA
<i>Artibeus_hirsutus</i>	FJ179226	AF316433	NA	NA	NA	KC783007	NA	NA
<i>Artibeus_inopinatus</i>	FJ179229	NA	NA	NA	NA	NA	NA	KM362117
<i>Artibeus_incomitata</i>	NA	KM362054	NA	NA	KM362007	KM361939	KM361975	KM362116
<i>Rhinophylla_pumilio</i>	AF187031	AF316484	NA	JF455665	KC783104	KC783047	KC782995	EU371960

Table S1.

Group	GBIF's DOI
<i>Melipona</i>	https://doi.org/10.15468/dl.xmxbkx
Echimyidae	https://doi.org/10.15468/dl.t6v9hn
Cebidae	https://doi.org/10.15468/dl.qdgb4q
<i>Rhinella</i>	https://doi.org/10.15468/dl.rq7h5r
Stenodermatinae	https://doi.org/10.15468/dl.qwkkmk
Cracidae	https://doi.org/10.15468/dl.pvy4y9

Table S2.

Taxon	Fossil	Age
Melipona	<i>Melittosphex</i> oldest stem bee fossil (Poinar and Danforth, 2006)	Early Cretaceous Upper Albian
	<i>Proplebeia dominicana</i> Iturralde-Vinent 1996	Miocene
	<i>Apis lithohermaea</i> Engel, 2006	Middle Miocene
	<i>Euglossa moronei</i> Engel, 1999	Miocene
Echimyidae	<i>Draconomys verai</i> <i>Reference?</i>	Early Oligocene pre Deseadan SALMA
	<i>Sallamys (species?)</i> Kay et al (1998)	Deseadan, Late oligocene,
	<i>Paradelphomys (species?)</i> Patterson & Pascual, 1968	Early Miocene Colhuehuapian SALMA
	<i>Pampamys emmonsae</i> (Olivares 2012) falta una cita	Late Miocene Chasicoan-Huayquerian SALMA
Cebidae	<i>Branisella boliviana</i> Takai et al., 2000	Deseadan SALMA
	<i>Cebupithecia sarmientoi</i> Stirton, 1951	Middle Miocene
	<i>Neosaimiri fieldsi</i> Stirton, 1951	Middle <i>Miocene</i>
	<i>Stirtonia spp.</i> (Herskovitz, 1970)	Middle Miocene
	<i>Lagonimico conclucatus</i> Kay, 1994	Middle <i>Miocene</i>
	<i>Cebuella</i> Marivaux et al. 2016	Mayoan SALMA
Rhinella	Oldest fossil of Bufonidae Baéz and Gasparini, 1979	Late Paleocene
	Oldest fossil of <i>R. marina</i> Estes and Wassersug, 1963; Sanchíz, 1998	Middle Miocene
Stenodermatinae	<i>Cubanycteris silvai</i> Czaplewski et al. (2003)	Quaternary
	<i>Phyllops vetus</i> Teeling et al. (2005); Dávalos (2007)	Quaternary
	<i>Palynephyllum antimaster</i>	Middle Miocene
Cracidae	<i>Gallinuloides wyomingensis</i> Eastman, 1900; Dyke, 2003; Mayr and Weidig, 2004	Early Eocene
	<i>Palaeortyx gallica</i>	Late Oligocene

Comentado [p1]: Where are the cited references listed?**Comentado [p2]:** The ages can be widely refined as numeric ages are available for a bunch of fossil taxa.**Formatado:** Fonte: Itálico**Formatado:** Fonte: Itálico**Formatado:** Fonte: Itálico**Comentado [p3]:** See revision of Salla Beds rodents by Pérez et al. (2019, J Syst Palaeont).**Formatado:** Fonte: Itálico**Formatado:** Fonte: Itálico**Formatado:** Fonte: Itálico**Formatado:** Fonte: Itálico**Comentado [p4]:** *Draconomys*, *Sallamys*, and *Paradelphomys* are not echimyids, but stem octodontoids instead. See phylogenetically-constrained systematics of Caviomorpha in Boivin et al. (2019, *Geodiversitas*, Fig. 10). The Echimyidae-Adelphomyidae Split is likely to have occurred by the Oligocene-Miocene transition.**Formatado:** Fonte: Itálico**Comentado [p5]:** ¿??**Comentado [p6]:** italics**Comentado [p8]:** Stem platyrrhine (Bloch et al., 2016)**Comentado [p9]:** Belongs to Pitheciidae (Bloch et al., 2016)**Excluído:** miocene**Comentado [p7]:** *Panamacebus* from lower Miocene deposits of Las Cascadas Fm. In Panama (20.93 ± 0.17 Ma) is a phylogenetically-constrained cebin cebid (Bloch et al., 2016)**Formatado:** Fonte: Não Itálico**Comentado [p10]:** Could be more precise, as these fossils do originate from very specific levels**Excluído:** miocene**Formatado:** Fonte: Itálico

	Mayr et al. 2006	
	<i>Schaubortyx keltica</i> Rodkorb,1964	Oligocene
	<i>Rhegminornis calobates</i> Olson and Farrand, 1974	Early Miocene
	<i>Callipepla shotwelli</i> Holman,1961	Middle Pliocene

Table S3.

Taxon	Gene	Strict	Relaxed	Delta
Stenodermatinae	THY	-2.99E+003	-2.98E+003	-11.933
	RAG2	-4.38E+003	-4.37E+003	-12.917
	PLCB4	-1.78E+003	-1.70E+003	-83.752
	ND2	-1.11E+004	-1.09E+004	-215.26
	CYTB	-2.05E+004	-2.04E+004	-82.47
	COI	-1.29E+004	-1.36E+004	676.21
	BDNF	-1.49E+003	-1.49E+003	-5.819
	ATP7	-2.26E+003	-2.27E+003	4.743
Echimyidae	12S	-9.91E+003	-9.82E+003	-89.5
	CYTB	-2.15E+004	-2.13E+004	-238.26
	GHR	-7.42E+003	-7.19E+003	-228.412
	RAG1	-8.27E+003	-7.02E+003	-1253.132
	VWF	-8.13E+003	-7.94E+003	-191.062
Cebidae	16S	-5.82E+003	-5.80E+003	-15.684
	ABCA1	-5.17E+003	-5.05E+003	-119.114
	ADORA3	-3.67E+003	-3.66E+003	-10
	AFF2	-1.90E+004	-1.90E+004	-9.31
	BDNF	-1.27E+003	-1.25E+003	-20
	BETA2	-6.46E+003	-6.45E+003	-10
	CYTB	-1.16E+004	-1.16E+004	-8.44
	D-LOOP	-1.14E+004	-1.14E+004	-31.63
	DMRT1	-1.31E+003	-1.31E+003	-6.887
	FBN1	-1.41E+003	-1.40E+003	-10
	RAG1	-3.15E+003	-3.15E+003	-6
	RAG2	-1.55E+003	-1.54E+003	-6.278
	SRY	-3.25E+003	-3.23E+003	-13.668
<i>Rhinella</i>	12S-TRNA-VAL-16S	-2.69E+004	-2.68E+004	-100
	16S	-4.87E+003	-4.84E+003	-30
	CYTB	-10543.52	-10502.04	-41
	POMC	-2.90E+003	-2.89E+003	-12.117
	RAG1	-1.13E+004	-1.09E+004	-400
	RHOD	-1.10E+003	-1.09E+003	-10
Cracidae	CLTC1	-4.77E+003	-4.38E+003	-386.003
	CLTC	-6.93E+003	-6.17E+003	-757.934
	COI	-9.58E+003	-8.68E+003	-905.836
	CYTB	-1.05E+004	-9.73E+003	-805.309
	EFF2	-8.41E+003	-7.82E+003	-588.553

	ND2	-1.56E+004	-1.36E+004	-2008.82
	ND5	-7.91E+003	-7.43E+003	-473.938
	RHOD	-9.91E+003	-8.39E+003	-1514.413
	SERPINB14	-1.03E+004	-9.09E+003	-1204.605
	TFB5	-1.87E+003	-1.83E+003	-40.824
<i>Melipona</i>	16S	-9.09E+003	-8.24E+003	-852.724
	ARGK	-1.08E+004	-9.46E+003	-1340
	COI	-1.48E+004	-1.35E+004	-1300
	EF1-ALPHA	-1.46E+004	-1.20E+004	-2600
	RNA-POL2	-7.73E+003	-6.13E+003	-1600

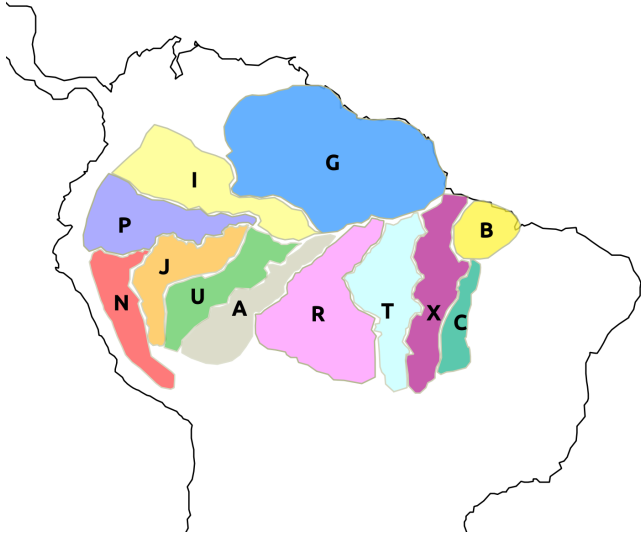
Table S4.

Taxa	Barrier	VIP
Cebidae	Tocantins	10.23 – 11.64 (mean=10.85)
	Madeira	10.09 – 10.92 (mean=10.40)
<i>Rhinella</i>	Ucayali	2.74 – 10.79 (mean=5.97)
	Marañon	8.35 – 24.39 (mean=16.26)
Echimyidae	Tocantins	6.81 – 12.89 (mean=9.75)
<i>Melipona</i>	Madeira	5.39 – 12.33 (mean=8.54)
Stenodermatinae	Madeira	0.24 – 0.85 (mean=0.52)
Cracidae	Tocantins	0.54 – 2.22 (mean=1.30)
	Amazonas-madeira	0.38 – 2.14 (mean=1.22)
Taxa	Barrier	BioGeoBEARS
Echimyidae	Negro	3.8 – 9.6 (mean=6.40)

Table S5.

Group	Model	Time-periods (Myr)	Dispersal rates	DEC
				Likelihood
Stenodermatinae	M0	NA	1	-457.84
	M1	Root-10-7 →	0.25 – 0.50 – 1	-441.55
	M2	Root-11.8-2.5 →	0.25 – 0.50 – 1	-439
	M3	Root-17-10 →	0.25 – 0.50 – 1	-448.61
	M4	Root-10-7 →	0.25 – 0.50 – 0.25	-465.11
Cracidae	M0	NA	1	-228.86
	M1	Root-10-7 →	0.25 – 0.50 – 1	-225.14
	M2	Root-11.8-2.5 →	0.25 – 0.50 – 1	-221.97
	M3	Root-17-10 →	0.25 – 0.50 – 1	-227.12
	M4	Root-10-7 →	0.25 – 0.50 – 0.25	-233.38
Echimyidae	M0	NA	1	-231.82
	M1	Root-10-7 →	0.25 – 0.50 – 1	-233.56
	M2	Root-11.8-2.5 →	0.25 – 0.50 – 1	NA
	M3	Root-17-10 →	0.25 – 0.50 – 1	-231.54
	M4	Root-10-7 →	0.25 – 0.50 – 0.25	NA
Cebidae	M0	NA	1	-151.63
	M1	Root-10-7 →	0.25 – 0.50 – 1	-154.46
	M2	Root-11.8-2.5 →	0.25 – 0.50 – 1	-154.23
	M3	Root-17-10 →	0.25 – 0.50 – 1	-153.04
	M4	Root-10-7 →	0.25 – 0.50 – 0.25	-152.85
<i>Rhinella</i>	M0	NA	1	-133.37
	M1	Root-10-7 →	0.25 – 0.50 – 1	-130.83
	M2	Root-11.8-2.5 →	0.25 – 0.50 – 1	-130.73
	M3	Root-17-10 →	0.25 – 0.50 – 1	-130.36
	M4	Root-10-7 →	0.25 – 0.50 – 0.25	-133.39
<i>Melipona</i>	M0	NA	1	-210.41
	M1	Root-10-7 →	0.25 – 0.50 – 1	-212.55
	M2	Root-11.8-2.5 →	0.25 – 0.50 – 1	-211.18
	M3	Root-17-10 →	0.25 – 0.50 – 1	-215.67
	M4	Root-10-7 →	0.25 – 0.50 – 0.25	-211.89

Figure S1.



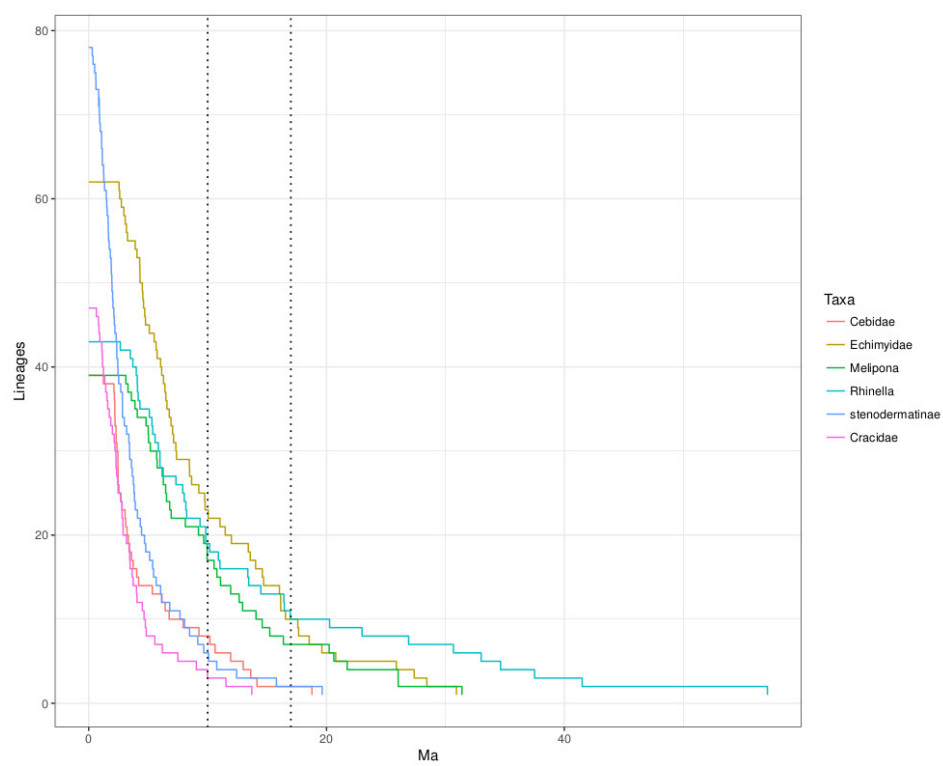


Figure S2.

Figure S3.

