

Table S1. Metadata and genes sequenced of the samples used in this study.

Species	Sample Name	Source ^a	Sample Number ^b	Country of Origin	Sample Type	Regions Sequenced
<i>A. f. farinosa</i>	farin1	KU	1471	Guyana	Tissue	12S, 16S, COI, CytB, TROP, ND2
<i>A. f. farinosa</i>	farin2	KU	1474	Guyana	Tissue	12S, 16S, COI, CytB, TGFB2, TROP, ND2
<i>A. f. farinosa</i>	farin3	KU	1475	Guyana	Tissue	12S, 16S, COI, CytB, TGFB2, TROP, ND2
<i>A. f. farinosa</i>	farin4	USNM	B04253	Guyana	Tissue	12S, 16S, COI, CytB, TGFB2, TROP, ND2
<i>A. f. farinosa</i>	farin5	USNM	B09182	Guyana	Tissue	12S, 16S, COI, CytB, TGFB2, TROP, ND2
<i>A. f. farinosa</i>	farin6	ANSP	19984	Ecuador	Tissue	12S, 16S, COI, CytB, TROP, ND2
<i>A. f. farinosa</i>	farin7	LSUMNS	B-10625	Peru	Tissue	12S, 16S, COI, CytB, TGFB2, TROP, ND2
<i>A. f. farinosa</i>	farin8	USNM	B9176	Guyana	Tissue	12S, 16S, COI, CytB, TGFB2, TROP, ND2
<i>A. f. farinosa</i>	farin9 ^c	MR	HV16	Captive	Tissue	12S, 16S, COI
<i>A. f. farinosa</i>	farin10	USNM	345855	Brazil	Bone	COI, CytB
<i>A. f. farinosa</i>	amfar17	ASMC	4223-17	Brazil	Blood	12S, 16S, TROP, CytB, ND2
<i>A. f. farinosa</i>	amfar18	ASMC	4223-18	Brazil	Blood	12S, 16S, TROP, CytB, ND2
<i>A. f. farinosa</i>	amfar19	ASMC	4223-19	Brazil	Blood	12S, 16S, TROP, TGFB2, CytB, ND2
<i>A. f. farinosa</i>	amfar20	ASMC	4223-20	Brazil	Blood	12S, 16S, TROP, CytB, ND2
<i>A. f. farinosa</i>	amfar21	ASMC	4223-21	Brazil	Blood	12S, 16S, TROP, TGFB2, CytB, ND2
<i>A. f. farinosa</i>	amfar22	ASMC	4223-22	Brazil	Blood	12S, 16S, TROP, CytB, ND2
<i>A. f. farinosa</i>	amfar23	ASMC	4223-23	Brazil	Blood	12S, 16S, TROP, TGRB2, CytB, ND2
<i>A. f. chapmani</i>	chapm1	LSUMNS	B-39761	Peru	Tissue	12S, COI, CytB, TGFB2, ND2
<i>A. f. chapmani</i>	chapm2 ^c	MR	HV17	Captive	Tissue	12S, 16S, COI
<i>A. f. inornata</i>	inorn1	LSUMNS	B-2202	Panama	Tissue	12S, 16S, COI, CytB, TGFB2, TROP, ND2
<i>A. f. inornata</i>	inorn2 ^c	MR	893	Captive	Tissue	12S, 16S, COI
<i>A. f. inornata</i>	inorn3	ROM	40930	Ecuador	Toe Pad	COI, CytB
<i>A. f. inornata</i>	inorn4	ROM	73265	Colombia	Toe Pad	COI, CytB
<i>A. f. guatemalae</i>	guate1	KU	1472	Honduras	Tissue	12S, 16S, COI, CytB, TGFB2, TROP, ND2
<i>A. f. guatemalae</i>	guate2	KU	1473	Honduras	Tissue	12S, 16S, COI, CytB, TGFB2, TROP, ND2
<i>A. f. guatemalae</i>	guate3 ^c	MR	HV19	Captive	Tissue	12S, 16S, COI
<i>A. f. virenticeps</i>	viren1 ^c	MR	HV20	Captive	Tissue	12S, 16S, COI
<i>A. f. virenticeps</i>	viren2	USNM	209795	Costa Rica	Toe Pad	COI, CytB
<i>A. f. virenticeps</i>	viren3	USNM	209796	Costa Rica	Toe Pad	COI, CytB
<i>A. f. virenticeps</i>	viren4	USNM	410166	Costa Rica	Toe Pad	COI, CytB
<i>A. kawalli</i>	kawal1	FMNH	45642	Brazil	Tissue	12S, 16S, COI, CytB, TGFB2, TROP, ND2
<i>A. kawalli</i>	kawal2	FMNH	45643	Brazil	Tissue	12S, 16S, COI, CytB, TGFB2, TROP, ND2
<i>A. kawalli</i>	kawal3 ^c	MR	849	Brazil	Tissue	12S, COI
<i>A. kawalli</i>	kawal4 ^c	MR	868	Brazil	Tissue	12S, 16S, COI
<i>A. auropalliata</i>	auropalliata	TW field	93-39	Costa Rica	Tissue	12S, 16S, COI, CytB, TGFB2, TROP, ND2
<i>A. amazonica</i>	amazonica	USNM	B12700	Guyana	Tissue	12S, 16S, COI, CytB, TGFB2, TROP, ND2

^a Source abbreviations are as follows: ANSP (Academy of Natural Sciences of Philadelphia), ASMC (ASM Cambaquara Rescue Center), FMNH (Field Museum of Natural History), KU (University of Kansas Natural History Museum), LSUMNS (Louisiana State University Museum of Natural Science), USNM (Smithsonian National Museum of Natural History), ROM (Royal Ontario Museum), TW field (Wright lab), and MR (Russello & Amato 2004)

^b Specimen numbers correspond to accession numbers assigned to each sample or specimen by the respective museum or collection

^c These samples were previously sequenced by Russello & Amato (2004)

Table S2. Metadata for the sound files used in this study.

Recording ID	Database	Scientific Name	Clade	Year	Country	State/District/Province	Latitude	Longitude
32258	Macaulay Library	<i>A. farinosa</i>	atlantic forest	1982	Brazil	Espirito Santo	-19.009351	-40.114021
52065	Macaulay Library	<i>A. farinosa</i>	atlantic forest	1989	Brazil	Espirito Santo	-19.009351	-40.114021
113339	Macaulay Library	<i>A. farinosa</i>	atlantic forest	1999	Brazil	Espirito Santo	-19.0556	-40.1467
113353	Macaulay Library	<i>A. farinosa</i>	atlantic forest	1999	Brazil	Espirito Santo	-19.0556	-40.1467
189434	Macaulay Library	<i>A. farinosa</i>	atlantic forest	2012	Brazil	Rio de Janeiro	-23.1788	-44.2045
171588	Xeno-canto	<i>A. farinosa</i>	atlantic forest	2013	Brazil	Minas Gerais	-19.792	-42.607
292878	Xeno-canto	<i>A. farinosa</i>	atlantic forest	1998	Brazil	Espirito Santo	-19.027	-40.156
84847	Xeno-canto	<i>A. farinosa</i>	atlantic forest	2004	Brazil	Espirito Santo	-19.1456	-40.0645
84846	Xeno-canto	<i>A. farinosa</i>	atlantic forest	2004	Brazil	Espirito Santo	-19.1456	-40.0645
2856	Xeno-canto	<i>A. farinosa</i>	chapmani	1995	Bolivia	La Paz	-15.1	-67.533
63112	Xeno-canto	<i>A. farinosa</i>	chapmani	2001	Bolivia	La Paz	-14.189521	-68.331932
38870	Macaulay Library	<i>A. farinosa</i>	chapmani	1986	Bolivia	Pando	-11.08	-68.89
52351	Macaulay Library	<i>A. farinosa</i>	chapmani	1990	Bolivia	La Paz	-13.6667	-69
87835	Macaulay Library	<i>A. farinosa</i>	chapmani	1995	Bolivia	La Paz	-15.0333	-67.2333
101880	Macaulay Library	<i>A. farinosa</i>	chapmani	1999	Bolivia	La Paz	-15.2586	-67.1378
90896	Macaulay Library	<i>A. farinosa</i>	chapmani	1993	Bolivia	El Beni	-14.82	-66.85
123339	Xeno-canto	<i>A. farinosa</i>	chapmani	2011	Peru	Madre de Dios	-12.4775	-69.0881
123325	Xeno-canto	<i>A. farinosa</i>	chapmani	2011	Peru	Madre de Dios	-12.4775	-69.0881
11477	Macaulay Library	<i>A. farinosa</i>	chapmani	1977	Peru	Madre de Dios	-12.5	-69
12843	Macaulay Library	<i>A. farinosa</i>	chapmani	1977	Peru	Madre de Dios	-12.5	-69
12864	Macaulay Library	<i>A. farinosa</i>	chapmani	1977	Peru	Madre de Dios	-12.5	-69
17602	Macaulay Library	<i>A. farinosa</i>	chapmani	1974	Peru	Cusco	-12.98	-72.65
17609	Macaulay Library	<i>A. farinosa</i>	chapmani	1974	Peru	Madre de Dios	-12.88	-69.28
18184	Macaulay Library	<i>A. farinosa</i>	chapmani	1979	Peru	Madre de Dios	-12.8333	-69.25
24231	Macaulay Library	<i>A. farinosa</i>	chapmani	1981	Peru	Madre de Dios	-12.88	-69.28
39015	Macaulay Library	<i>A. farinosa</i>	chapmani	1986	Peru	Madre de Dios	-12.88	-69.28
147326	Macaulay Library	<i>A. farinosa</i>	chapmani	2009	Peru	Cusco	-12.5758	-73.0878
227732	Macaulay Library	<i>A. farinosa</i>	chapmani	2000	Peru	Madre de Dios	-12.439742	-70.601234
85167141	Macaulay Library	<i>A. farinosa</i>	chapmani	2011	Peru	Madre de Dios	-12.4771	-69.089
85168301	Macaulay Library	<i>A. farinosa</i>	chapmani	2011	Peru	Madre de Dios	-12.4771	-69.089
126249041	Macaulay Library	<i>A. farinosa</i>	chapmani	2018	Peru	Madre de Dios	-11.8884	-71.408
373507	Xeno-canto	<i>A. farinosa</i>	farinosa	2015	Brazil	Acre	-10.1325	-67.7507
479427	Xeno-canto	<i>A. farinosa</i>	farinosa	2008	Brazil	Acre	-9.642	-70.037
583036	Xeno-canto	<i>A. farinosa</i>	farinosa	2020	Brazil	Amazonas	-4.067	-60.6598
31510	Macaulay Library	<i>A. farinosa</i>	farinosa	1984	Brazil	Amazonas	-2.45	-59.7333
88961	Macaulay Library	<i>A. farinosa</i>	farinosa	1997	Brazil	Mato Grosso	-9.878013	-56.097235
115064	Macaulay Library	<i>A. farinosa</i>	farinosa	1999	Brazil	Para	-3.0436	-54.9281
190882841	Macaulay Library	<i>A. farinosa</i>	farinosa	2019	Brazil	Amazonas	-2.0129	-59.9132
525109	Xeno-canto	<i>A. farinosa</i>	farinosa	2001	Colombia	Caqueta	0.2175	-72.423056

525108	Xeno-canto	<i>A. farinosa</i>	farinosa	2001	Colombia	Caqueta	0.2175	-72.423056
525055	Xeno-canto	<i>A. farinosa</i>	farinosa	2001	Colombia	Caqueta	0.2175	-72.423056
81822	Xeno-canto	<i>A. farinosa</i>	farinosa	2011	Colombia	Vaupes	1.2598	-70.2367
520744	Xeno-canto	<i>A. farinosa</i>	farinosa	2000	Colombia	Caqueta	0.5291667	-72.630556
520743	Xeno-canto	<i>A. farinosa</i>	farinosa	2000	Colombia	Caqueta	0.5291667	-72.630556
520740	Xeno-canto	<i>A. farinosa</i>	farinosa	2000	Colombia	Caqueta	0.5344444	-72.6325
520735	Xeno-canto	<i>A. farinosa</i>	farinosa	2000	Colombia	Caqueta	0.4986111	-72.619444
520734	Xeno-canto	<i>A. farinosa</i>	farinosa	2000	Colombia	Caqueta	0.2605556	-72.923333
519176	Xeno-canto	<i>A. farinosa</i>	farinosa	2000	Colombia	Caqueta	0.1797222	-72.623333
517840	Xeno-canto	<i>A. farinosa</i>	farinosa	2000	Colombia	Caqueta	0.24	-72.933889
163579	Xeno-canto	<i>A. farinosa</i>	farinosa	1987	Colombia	Amazonas	-3.8717	-70.15
251991	Macaulay Library	<i>A. farinosa</i>	farinosa	2000	Colombia	Caqueta	0.1572	-72.6292
252219	Macaulay Library	<i>A. farinosa</i>	farinosa	2000	Colombia	Caqueta	0.1797	-72.6233
252671	Macaulay Library	<i>A. farinosa</i>	farinosa	2000	Colombia	Caqueta	0.4986	-72.6194
252986	Macaulay Library	<i>A. farinosa</i>	farinosa	2000	Colombia	Caqueta	0.5344	-72.6325
252987	Macaulay Library	<i>A. farinosa</i>	farinosa	2000	Colombia	Caqueta	0.5344	-72.6325
253063	Macaulay Library	<i>A. farinosa</i>	farinosa	2000	Colombia	Caqueta	0.5344	-72.6325
253107	Macaulay Library	<i>A. farinosa</i>	farinosa	2000	Colombia	Caqueta	0.5292	-72.6306
253591	Macaulay Library	<i>A. farinosa</i>	farinosa	2000	Colombia	Caqueta	0.2606	-72.9233
255378	Macaulay Library	<i>A. farinosa</i>	farinosa	2001	Colombia	Caqueta	0.2175	-72.4231
255843	Macaulay Library	<i>A. farinosa</i>	farinosa	2001	Colombia	Caqueta	0.2094	-72.4153
269007	Macaulay Library	<i>A. farinosa</i>	farinosa	2007	Colombia	Vichada	4.5322	-68.0911
270699	Macaulay Library	<i>A. farinosa</i>	farinosa	2007	Colombia	Vichada	4.5364	-67.9089
270851	Macaulay Library	<i>A. farinosa</i>	farinosa	2007	Colombia	Vichada	4.5364	-67.9089
270868	Macaulay Library	<i>A. farinosa</i>	farinosa	2007	Colombia	Vichada	4.5078	-68.0589
65238	Xeno-canto	<i>A. farinosa</i>	farinosa	2010	French Guiana	Regina	4.31667	-52.1333
527653	Xeno-canto	<i>A. farinosa</i>	farinosa	2020	Guyana	Potaro-Siparuni	4.5032	-58.775
25584	Macaulay Library	<i>A. farinosa</i>	farinosa	1981	Suriname	Sipaliwini	4.683865	-56.180368
31046	Macaulay Library	<i>A. farinosa</i>	farinosa	1982	Suriname	Sipaliwini	4.683865	-56.180368
134601	Macaulay Library	<i>A. farinosa</i>	farinosa	2006	Suriname	Sipaliwini	4.276095	-56.747297
166780	Xeno-canto	<i>A. farinosa</i>	farinosa	2006	Venezuela	Bolivar	6.9001	-61.2501
7078	Xeno-canto	<i>A. farinosa</i>	farinosa	1984	Venezuela	Bolivar	8.1101	-61.6714
34475	Macaulay Library	<i>A. farinosa</i>	farinosa	1985	Venezuela	Bolivar	7.97	-61.88
45539	Macaulay Library	<i>A. farinosa</i>	farinosa	1987	Venezuela	Bolivar	7.97	-61.88
49309	Macaulay Library	<i>A. farinosa</i>	farinosa	1989	Venezuela	Bolivar	8.1667	-61.75
68660	Macaulay Library	<i>A. farinosa</i>	farinosa	1965	Venezuela	Bolivar	7.9667	-61.8833
68661	Macaulay Library	<i>A. farinosa</i>	farinosa	1966	Venezuela	Bolivar	7.9667	-61.8833
68662	Macaulay Library	<i>A. farinosa</i>	farinosa	1966	Venezuela	Bolivar	7.9667	-61.8833
68670	Macaulay Library	<i>A. farinosa</i>	farinosa	1967	Venezuela	Bolivar	7.9667	-61.8833
68672	Macaulay Library	<i>A. farinosa</i>	farinosa	1968	Venezuela	Bolivar	7.6333	-64.8833
68673	Macaulay Library	<i>A. farinosa</i>	farinosa	1968	Venezuela	Bolivar	7.9667	-61.8833
169462401	Macaulay Library	<i>A. farinosa</i>	farinosa	2006	Venezuela	Bolivar	6.9244	-61.2838
169465401	Macaulay Library	<i>A. farinosa</i>	farinosa	2006	Venezuela	Bolivar	6.9244	-61.2838

169671031	Macaulay Library	<i>A. farinosa</i>	farinosa	2006	Venezuela	Bolivar	6.9244	-61.2838
170154121	Macaulay Library	<i>A. farinosa</i>	farinosa	2007	Venezuela	Bolivar	7.2514	-64.8611
170161761	Macaulay Library	<i>A. farinosa</i>	farinosa	2007	Venezuela	Bolivar	7.2514	-64.8611
522866	Xeno-canto	<i>A. guatemalae</i>	guatemalae	2019	Belize	Orange Walk	17.539	-89.1111
45803	Macaulay Library	<i>A. guatemalae</i>	guatemalae	1983	Belize	Belize	17.491254	-88.537433
70800	Macaulay Library	<i>A. guatemalae</i>	guatemalae	1992	Belize	Toledo	16.359269	-89.059283
70801	Macaulay Library	<i>A. guatemalae</i>	guatemalae	1992	Belize	Toledo	16.359269	-89.059283
70818	Macaulay Library	<i>A. guatemalae</i>	guatemalae	1992	Belize	Toledo	16.359269	-89.059283
70873	Macaulay Library	<i>A. guatemalae</i>	guatemalae	1992	Belize	Toledo	16.359269	-89.059283
71093	Macaulay Library	<i>A. guatemalae</i>	guatemalae	1992	Belize	Toledo	16.359269	-89.059283
71094	Macaulay Library	<i>A. guatemalae</i>	guatemalae	1992	Belize	Toledo	16.359269	-89.059283
146310731	Macaulay Library	<i>A. guatemalae</i>	guatemalae	2019	Belize	Cayo	16.7513	-89.009
212534271	Macaulay Library	<i>A. guatemalae</i>	guatemalae	2020	Belize	Cayo	17.0988	-88.9656
125985	Xeno-canto	<i>A. guatemalae</i>	guatemalae	2013	Guatemala	Peten	17.2226	-89.6237
125983	Xeno-canto	<i>A. guatemalae</i>	guatemalae	2013	Guatemala	Peten	17.2226	-89.6237
137679	Macaulay Library	<i>A. guatemalae</i>	guatemalae	2009	Guatemala	Peten	17.2239	-89.6299
139413	Macaulay Library	<i>A. guatemalae</i>	guatemalae	2009	Guatemala	Peten	17.2237	-89.6298
218370	Xeno-canto	<i>A. guatemalae</i>	guatemalae	2003	Mexico	Chiapas	16.7	-91.083333
8421	Macaulay Library	<i>A. guatemalae</i>	guatemalae	1954	Mexico	Veracruz	17.866667	-94.083333
83881001	Macaulay Library	<i>A. guatemalae</i>	guatemalae	2017	Mexico	Chiapas	16.7613	-91.1028
449261	Xeno-canto	<i>A. farinosa</i>	inornata	2018	Colombia	Putumayo	0.6513	-77.0739
260390	Macaulay Library	<i>A. farinosa</i>	inornata	1990	Colombia	Choco	7.8	-77.15
101175591	Macaulay Library	<i>A. farinosa</i>	inornata	2013	Colombia	Antioquia	7.7747	-76.6685
257702	Xeno-canto	<i>A. farinosa</i>	inornata	2001	Ecuador	Sucumbios	-0.498	-76.373
71113	Xeno-canto	<i>A. farinosa</i>	inornata	1997	Ecuador	Pichincha	0.258	-79.192
48956	Macaulay Library	<i>A. farinosa</i>	inornata	1987	Ecuador	Esmeraldas	0.8667	-78.55
51329	Macaulay Library	<i>A. farinosa</i>	inornata	1991	Ecuador	Napo	-0.45	-76.28
51354	Macaulay Library	<i>A. farinosa</i>	inornata	1991	Ecuador	Napo	-0.45	-76.28
53405	Macaulay Library	<i>A. farinosa</i>	inornata	1991	Ecuador	Napo	-5.0833	-76.4
63143	Macaulay Library	<i>A. farinosa</i>	inornata	1990	Ecuador	Esmeraldas	0.95	-78.55
80212	Macaulay Library	<i>A. farinosa</i>	inornata	1991	Ecuador	Esmeraldas	0.6167	-79.85
80224	Macaulay Library	<i>A. farinosa</i>	inornata	1991	Ecuador	Esmeraldas	0.6167	-79.85
82439	Macaulay Library	<i>A. farinosa</i>	inornata	1991	Ecuador	Esmeraldas	0.6167	-79.85
246368	Macaulay Library	<i>A. farinosa</i>	inornata	2004	Ecuador	Esmeraldas	0.617	-79.233
454408	Xeno-canto	<i>A. farinosa</i>	inornata	2019	Panama	Colon	9.0334	-80.1334
361416	Xeno-canto	<i>A. farinosa</i>	inornata	2017	Panama	Colon	9.1186	-79.6954
271059	Xeno-canto	<i>A. farinosa</i>	inornata	2015	Panama	Colon	9.198742	-79.979874
271058	Xeno-canto	<i>A. farinosa</i>	inornata	2015	Panama	Colon	9.198742	-79.979874
271056	Xeno-canto	<i>A. farinosa</i>	inornata	2015	Panama	Colon	9.136797	-79.72363
31929	Xeno-canto	<i>A. farinosa</i>	inornata	2009	Panama	Colon	9.0334	-80.1334
25701	Macaulay Library	<i>A. farinosa</i>	inornata	1982	Panama	Darien	7.757099	-77.683758
25707	Macaulay Library	<i>A. farinosa</i>	inornata	1982	Panama	Darien	7.757099	-77.683758
25712	Macaulay Library	<i>A. farinosa</i>	inornata	1982	Panama	Darien	7.757099	-77.683758

515000	Macaulay Library	<i>A. farinosa</i>	inornata	2014	Panama	Darien	8.015	-77.7188
515001	Macaulay Library	<i>A. farinosa</i>	inornata	2014	Panama	Darien	8.0177	-77.7232
133639181	Macaulay Library	<i>A. farinosa</i>	inornata	2019	Panama	Panama	8.9996	-79.5835
68664	Macaulay Library	<i>A. farinosa</i>	inornata	1966	Venezuela	Zulia	9.58	-72.78
68665	Macaulay Library	<i>A. farinosa</i>	inornata	1966	Venezuela	Zulia	9.58	-72.78
68666	Macaulay Library	<i>A. farinosa</i>	inornata	1966	Venezuela	Zulia	9.58	-72.78
68667	Macaulay Library	<i>A. farinosa</i>	inornata	1966	Venezuela	Zulia	9.58	-72.78
68675	Macaulay Library	<i>A. farinosa</i>	inornata	1970	Venezuela	Zulia	9.35	-71.75
68676	Macaulay Library	<i>A. farinosa</i>	inornata	1974	Venezuela	Zulia	10.1	-72
27261	Macaulay Library	<i>A. guatemalae</i>	virenticeps	1982	Costa Rica	Puntarenas	8.5167	-83.6
55192	Macaulay Library	<i>A. guatemalae</i>	virenticeps	1991	Costa Rica	Puntarenas	8.4803	-83.5893
73441	Macaulay Library	<i>A. guatemalae</i>	virenticeps	1988	Costa Rica	Puntarenas	8.4803	-83.5893
184276	Macaulay Library	<i>A. guatemalae</i>	virenticeps	1995	Costa Rica	Heredia	10.4288	-84.0128
184780	Macaulay Library	<i>A. guatemalae</i>	virenticeps	1996	Costa Rica	Heredia	10.4288	-84.0128
209825	Macaulay Library	<i>A. guatemalae</i>	virenticeps	1992	Costa Rica	Puntarenas	8.4803	-83.5893
209897	Macaulay Library	<i>A. guatemalae</i>	virenticeps	1992	Costa Rica	Puntarenas	8.4803	-83.5893
214535	Macaulay Library	<i>A. guatemalae</i>	virenticeps	1988	Costa Rica	Puntarenas	8.4803	-83.5893
214652	Macaulay Library	<i>A. guatemalae</i>	virenticeps	1989	Costa Rica	Puntarenas	8.4803	-83.5893
215143	Macaulay Library	<i>A. guatemalae</i>	virenticeps	1989	Costa Rica	Puntarenas	8.4803	-83.5893
215148	Macaulay Library	<i>A. guatemalae</i>	virenticeps	1989	Costa Rica	Puntarenas	8.4803	-83.5893
215236	Macaulay Library	<i>A. guatemalae</i>	virenticeps	1989	Costa Rica	Puntarenas	8.4803	-83.5893
215267	Macaulay Library	<i>A. guatemalae</i>	virenticeps	1989	Costa Rica	Puntarenas	8.4803	-83.5893

Table S3. Primer sequences used to amplify and sequence the gene regions used in this study.

Primer	Gene	Sequence	Reference
12SrDNAL	12S	GGATTAGATACCCCACTATGC	Miyaki et al. (1998)
12SrDNAH	12S	AGGGTGACGGGCGGTATGTACG	Miyaki et al. (1998)
16SrDNAL	16S	TGCGCTACCTTCGCACGGT	Miyaki et al. (1998)
16SrDNAH	16S	CCTACCGAGCTGGGTGATAGCTGGTT	Miyaki et al. (1998)
COIF	COI	CCTGCTGGGGGAGGAGACCC	Eberhard & Bermingham (2004)
HCOIP	COI	GTRTAGGCRTCTGGRTAGTC	Wright et al. (2008)
TROPF	TROP	AATGGCTGCAGAGGATTA	Lemmonier et al. (1991)
TROPB	TROP	TCCTCTCAAGCTCAGCACA	Lemmonier et al. (1991)
TGFB2-F	TGFB2	GAAGCGTGCTCTAGATGCTG	Burt & Patton (1991)
TGFB2-R	TGFB2	AGGCAGCAATTATCCTGCAC	Burt & Patton (1991)
L5216	ND2	GGCCCATACCCCGRAAATG	Sorenson (2003)
H5766	ND2	RGAKGAGAARGCYAGGATYTTKCG	Sorenson (2003)
L14841	CytB	GCTTCCATCCAACATCTCAGCATGATGAAA	Murphy et al. (2004)
H15149	CytB	CTGCAGCCCCTCAGAATGATATTTGTCCTC	Murphy et al. (2004)
CBL15062p	CytB	CCGCAGACACCTCTCTAGCC	Wenner et al. (2012) modified from Ribas et al. (2005)
CBH15902	CytB	ACTGGTTGACTTCCTACTCATG	Wenner et al. (2012) modified from Ribas et al. (2005)

Table S4. Genbank accession numbers for new gene sequences used in this study.

Sample Name	Sample Number	Gene	Accession Number
amfar17	4223-17	12S	MZ367178
		16S	MZ367185
		TROP	MZ367192
		CytB	MZ367199
		ND2	MZ391835
amfar18	4223-18	12S	MZ367179
		16S	MZ367186
		TROP	MZ367193
		CytB	MZ367200
		ND2	MZ391836
amfar19	4223-19	12S	MZ367180
		16S	MZ367187
		TROP	MZ367194
		TGFB2	MZ391857
		CytB	MZ367201
amfar20	4223-20	ND2	MZ391837
		12S	MZ367181
		16S	MZ367188
		TROP	MZ367195
		CytB	MZ367202
amfar21	4223-21	ND2	MZ391838
		12S	MZ367182
		16S	MZ367189
		TROP	MZ367196
		TGFB2	MZ391858
amfar22	4223-22	CytB	MZ367203
		ND2	MZ391839
		12S	MZ367183
		16S	MZ367190
		TROP	MZ367197
amfar23	4223-23	CytB	MZ367204
		ND2	MZ391840
		12S	MZ367184
		16S	MZ367191
		TROP	MZ367198
farin2	1474	TGFB2	MZ391859
		CytB	MZ367205
		ND2	MZ391841
		ND2	MZ391842
		ND2	MZ391843
farin3	1475	ND2	MZ391843

farin4	B04253	ND2	MZ391844
farin5	B09182	ND2	MZ391845
farin6	19984	ND2	MZ391846
farin7	B-10625	ND2	MZ391847
farin8	B9176	ND2	MZ391848
chapm1	B-39761	ND2	MZ391849
guate1	1472	ND2	MZ391850
guate2	1473	ND2	MZ391851
inorn1	B-2202	ND2	MZ391852
kawal1	45642	ND2	MZ391853
kawal2	45643	ND2	MZ391854
auropalliata	93-39	ND2	MZ391855
amazonica	B12700	ND2	MZ391856

Table S5. Acoustic parameters generated by the ‘specan’ function and used in our principal component analysis.

Record ID	Dur	Avg Freq	SD	Freq Med	Freq Q25	Freq Q75	Freq IQR	Tim Med	Tim Q25	Tim Q75	Tim IQR	Skew	Kurt	Sp Entr	Tim Entr	Entr	Sfm	Avg Dom	Min Dom	Max Dom	Df rang	Mod Indx	Start Dom	End Dom	Df Slope	Mean Peak Freq
2856	0.229	2.391	1.215	2.043	1.523	2.948	1.425	0.119	0.08	0.167	0.087	3.098	14.479	0.898	0.885	0.795	0.407	2.073	0.882	3.053	2.171	13.062	2.782	1.832	-4.15	1.701
7078	0.167	3.593	1.396	3.693	2.417	4.364	1.947	0.088	0.056	0.125	0.07	3.231	19.645	0.937	0.906	0.849	0.611	3.509	1.56	4.953	3.392	9.4	3.46	2.782	-4.062	4.151
8421	0.208	2.606	1.264	2.207	1.837	2.856	1.019	0.12	0.088	0.16	0.072	3.011	13.237	0.889	0.889	0.79	0.414	2.161	1.56	3.053	1.493	9.455	3.053	2.51	-2.609	1.974
11477	0.226	2.511	1.388	1.94	1.453	3.664	2.211	0.111	0.078	0.154	0.076	3.065	15.38	0.914	0.886	0.81	0.477	2.112	0.611	3.867	3.257	15.042	3.732	1.696	-9.014	1.974
12843	0.245	3.615	1.437	3.626	2.732	4.662	1.93	0.131	0.082	0.179	0.096	1.961	7.867	0.944	0.883	0.833	0.603	3.812	1.289	5.903	4.614	14.353	4.003	1.832	-8.856	3.607
12864	0.251	3.695	1.606	3.75	2.37	4.847	2.476	0.119	0.084	0.16	0.075	1.561	5.503	0.957	0.881	0.843	0.692	3.365	0.611	6.038	5.428	10.95	2.782	5.767	11.9	3.062
17602	0.249	2.896	1.239	2.879	1.852	3.517	1.665	0.14	0.089	0.185	0.096	5.259	45.827	0.914	0.882	0.806	0.483	2.23	0.882	3.596	2.714	9.85	1.832	0.882	-3.81	2.926
17609	0.244	2.88	1.315	2.852	1.668	3.803	2.135	0.098	0.046	0.16	0.114	2.394	10.654	0.926	0.883	0.818	0.507	2.39	1.153	4.003	2.85	11.762	1.696	1.289	-1.668	2.926
18184	0.271	2.541	1.342	2.014	1.534	3.595	2.061	0.148	0.098	0.2	0.102	2.666	12.013	0.921	0.879	0.809	0.5	2.163	1.153	3.732	2.578	13.105	2.51	1.56	-3.506	1.974
24231	0.227	3.379	1.611	3.184	1.862	4.347	2.485	0.128	0.078	0.17	0.092	2.236	10.019	0.951	0.887	0.843	0.658	2.556	1.153	6.988	5.835	7.93	6.988	1.696	-23.319	3.062
25584	0.221	3.191	1.297	3.132	2.108	4.074	1.966	0.126	0.085	0.166	0.08	1.524	5.172	0.939	0.886	0.832	0.558	2.736	1.425	4.274	2.85	12.952	3.732	2.375	-6.146	1.974
25701	0.222	3.499	1.563	3.25	2.091	4.53	2.439	0.101	0.055	0.151	0.096	2.144	8.998	0.951	0.888	0.845	0.668	3.078	1.696	6.174	4.478	11.515	3.053	3.324	1.223	1.974
25707	0.224	3.401	1.364	3.246	2.68	4.12	1.44	0.124	0.069	0.163	0.094	3.744	22.741	0.938	0.888	0.833	0.642	3.117	1.153	5.088	3.935	4.655	2.917	2.239	-3.023	2.926
25712	0.219	3.054	1.429	3.054	1.901	3.933	2.032	0.131	0.083	0.17	0.087	2.004	8.152	0.942	0.889	0.837	0.597	2.874	0.882	4.817	3.935	10.034	2.917	1.696	-5.587	3.335
27261	0.19	2.317	1.03	1.871	1.665	3.162	1.497	0.104	0.074	0.137	0.062	3.468	17.398	0.859	0.896	0.769	0.292	2.206	1.018	3.324	2.307	6.882	3.324	2.103	-6.434	1.837
31046	0.234	3.107	1.41	2.908	1.935	3.924	1.988	0.135	0.089	0.176	0.087	2.582	12.814	0.941	0.884	0.832	0.604	2.47	0.611	5.088	4.478	11.576	0.611	0.611	0	2.926
31510	0.3	2.842	1.328	2.581	1.972	3.081	1.109	0.146	0.082	0.2	0.118	2.977	14.761	0.914	0.876	0.8	0.505	2.175	1.153	6.174	5.021	4.162	1.425	3.053	5.42	2.11
31929	0.198	3.278	1.148	3.276	2.66	3.795	1.135	0.086	0.059	0.122	0.063	2.767	12.379	0.909	0.89	0.809	0.46	3.123	0.517	4.062	3.545	6.375	0.517	3.028	12.67	3.778
32258	0.309	3.184	1.284	3.063	2.292	4.029	1.737	0.168	0.104	0.238	0.134	2.427	10.584	0.925	0.875	0.809	0.488	3.057	1.289	4.681	3.392	15.68	3.46	1.289	-7.033	2.926
34475	0.232	3.072	1.181	3.053	2.156	3.834	1.678	0.122	0.078	0.165	0.087	3.753	27.26	0.923	0.885	0.816	0.496	2.804	0.611	4.003	3.392	8.08	0.611	0.611	0	3.062
38870	0.282	2.945	1.521	2.41	1.712	4.044	2.332	0.162	0.105	0.209	0.105	3.146	15.791	0.928	0.877	0.814	0.553	2.087	1.153	4.274	3.121	17.565	1.968	2.782	2.885	1.837
39015	0.249	3.265	1.339	3.267	2.401	3.896	1.496	0.137	0.101	0.169	0.069	2.656	12.213	0.94	0.88	0.827	0.605	3.07	1.832	4.41	2.578	9.895	3.324	2.782	-2.176	3.607
45539	0.262	3.288	1.366	3.053	2.048	4.058	2.01	0.118	0.073	0.171	0.098	3.083	15.404	0.929	0.88	0.818	0.564	2.919	1.289	4.139	2.85	13.238	3.46	1.289	-8.295	3.199
45803	0.239	3.002	1.48	3.021	1.796	3.777	1.981	0.161	0.078	0.193	0.115	1.853	6.981	0.948	0.883	0.838	0.64	2.332	0.611	3.867	3.257	16.875	0.611	1.832	5.104	1.837
48956	0.266	3.436	1.507	3.379	2.201	4.463	2.262	0.131	0.082	0.181	0.099	2.214	10.387	0.954	0.88	0.839	0.672	3.037	0.611	4.139	3.528	19.038	0.611	2.103	5.617	3.879
49309	0.223	2.782	1.371	2.575	1.794	3.573	1.779	0.11	0.067	0.156	0.09	3.766	26.439	0.926	0.888	0.823	0.551	2.03	0.882	3.596	2.714	12	1.832	1.56	-1.218	1.974

51329	0.214	2.215	1.234	1.816	1.415	2.791	1.377	0.115	0.069	0.154	0.085	3.544	20.266	0.886	0.889	0.788	0.396	1.89	0.611	6.852	6.242	4.978	1.018	5.496	20.882	1.837
51354	0.267	2.753	1.43	2.613	1.577	3.682	2.105	0.141	0.098	0.185	0.087	2.973	17.255	0.931	0.879	0.818	0.537	2.215	0.611	5.903	5.292	10.231	0.611	2.375	6.619	1.837
52065	0.232	3.176	1.395	3.08	2.09	4.26	2.17	0.124	0.064	0.174	0.11	2.357	11.526	0.93	0.886	0.824	0.513	2.826	1.425	4.681	3.257	13.083	1.832	3.46	7.034	1.565
52351	0.284	2.599	1.107	2.714	1.707	3.206	1.499	0.155	0.118	0.202	0.084	2.977	13.815	0.9	0.876	0.788	0.373	2.501	1.153	3.46	2.307	11.706	3.46	2.782	-2.387	2.926
53405	0.316	2.854	1.331	3.08	1.584	3.444	1.86	0.17	0.107	0.22	0.114	3.52	19.312	0.906	0.873	0.791	0.464	2.399	0.611	3.732	3.121	19.652	0.611	1.153	1.719	3.471
55192	0.212	4.011	1.457	4.048	2.867	4.95	2.083	0.108	0.076	0.152	0.076	3.329	21.632	0.938	0.888	0.833	0.549	3.54	0.746	5.36	4.614	9.853	5.088	4.681	-1.922	4.151
63112	0.325	2.462	1.292	2.146	1.432	3.121	1.689	0.141	0.089	0.207	0.118	3.101	15.652	0.916	0.874	0.8	0.478	1.851	0.611	5.224	4.614	11.147	2.917	0.611	-7.095	2.926
63143	0.231	3.074	1.419	3.006	1.885	3.901	2.017	0.112	0.064	0.156	0.092	2.677	15.247	0.942	0.886	0.835	0.607	2.661	1.289	4.003	2.714	15.45	1.968	3.189	5.284	3.199
65238	0.24	3.243	1.299	3.088	2.235	3.887	1.652	0.135	0.092	0.179	0.087	2.736	12.934	0.929	0.883	0.821	0.545	2.74	1.018	6.581	5.563	5.415	6.581	1.153	-22.585	3.062
68660	0.252	3.043	1.124	3.151	2.004	3.774	1.77	0.126	0.08	0.17	0.089	3.374	21.551	0.908	0.881	0.799	0.364	3.025	0.611	6.174	5.563	8.951	4.274	1.153	-12.383	3.199
68662	0.22	3.599	1.211	3.322	2.758	4.346	1.589	0.117	0.071	0.16	0.089	2.539	12.13	0.915	0.888	0.812	0.448	3.427	2.103	4.546	2.442	18.556	4.003	2.646	-6.173	3.199
68664	0.158	3.419	1.197	3.177	2.911	4.228	1.316	0.086	0.056	0.116	0.06	4.661	32.289	0.893	0.91	0.813	0.432	3.635	1.289	4.817	3.528	6.731	1.289	4.139	18.029	3.199
68665	0.189	3.229	0.986	3.228	2.624	3.896	1.271	0.101	0.069	0.131	0.062	2.825	15.489	0.894	0.895	0.8	0.337	3.324	0.611	4.546	3.935	5.966	3.867	3.732	-0.719	3.062
68666	0.153	3.238	1.107	3.02	2.601	4.002	1.401	0.089	0.056	0.115	0.059	3.467	17.903	0.889	0.912	0.81	0.395	3.111	0.611	6.31	5.699	3.595	1.289	0.611	-4.438	2.926
68666	0.181	3.467	1.11	3.587	2.807	4.229	1.422	0.104	0.07	0.132	0.063	2.587	11.019	0.901	0.897	0.809	0.396	3.691	1.832	4.681	2.85	6.286	3.596	2.239	-7.501	3.879
68667	0.159	3.469	1.336	3.527	2.872	4.389	1.516	0.096	0.068	0.124	0.056	5.255	40.43	0.882	0.907	0.8	0.434	3.445	0.611	4.817	4.206	5.742	3.867	0.611	-20.488	3.062
68667	0.18	3.358	1.299	3.545	2.192	4.172	1.98	0.109	0.069	0.139	0.069	1.519	4.651	0.921	0.898	0.827	0.486	3.697	0.746	6.445	5.699	5.619	0.746	1.832	6.019	3.743
68670	0.191	3.22	1.065	3.088	2.309	3.967	1.658	0.108	0.065	0.143	0.078	3.637	21.575	0.878	0.896	0.787	0.327	2.917	1.153	4.546	3.392	4.32	3.053	1.153	-9.927	3.199
68670	0.208	3.167	1.125	2.914	2.341	3.796	1.455	0.097	0.058	0.136	0.078	3.732	20.432	0.88	0.891	0.784	0.379	2.778	0.611	3.867	3.257	7	0.882	0.611	-1.307	2.382
68672	0.223	2.829	1.301	2.65	1.732	3.954	2.222	0.129	0.088	0.168	0.081	1.885	7.409	0.924	0.886	0.819	0.432	2.683	1.153	4.274	3.121	18	3.189	4.003	3.645	4.151
68673	0.183	2.716	1.237	2.505	1.773	3.663	1.89	0.102	0.07	0.127	0.058	3.12	17.509	0.906	0.896	0.812	0.416	2.342	0.611	3.867	3.257	10.25	3.867	0.611	-17.788	1.974
68675	0.164	3.344	1.533	3.442	2.017	4.179	2.163	0.091	0.049	0.124	0.075	1.778	6.094	0.943	0.908	0.856	0.627	3.131	0.882	4.681	3.799	8.857	3.189	4.003	4.958	3.879
68676	0.176	2.959	1.327	2.633	1.952	3.829	1.877	0.086	0.06	0.116	0.056	2.406	9.865	0.924	0.898	0.829	0.529	2.687	0.882	4.139	3.257	4.5	4.139	0.882	-18.457	1.974
70800	0.182	2.792	1.333	2.309	1.897	3.503	1.606	0.093	0.058	0.131	0.072	4.447	31.23	0.914	0.9	0.823	0.517	2.049	1.56	3.46	1.9	4.571	3.46	1.832	-8.948	1.974
70801	0.199	2.663	1.29	2.227	1.769	3.571	1.802	0.097	0.06	0.136	0.076	3.813	24.734	0.914	0.893	0.816	0.489	2.161	1.425	3.732	2.307	5.353	3.732	1.425	-11.607	1.974
70818	0.258	2.431	1.238	2.022	1.548	3.086	1.538	0.116	0.071	0.166	0.096	2.794	12.717	0.91	0.881	0.801	0.441	1.913	0.611	4.546	3.935	7.69	0.611	1.018	1.58	1.974
70873	0.228	2.634	1.292	2.143	1.88	3.106	1.226	0.115	0.078	0.162	0.083	4.804	35.949	0.907	0.886	0.803	0.496	2.274	1.56	4.274	2.714	9.85	1.832	3.053	5.346	1.974
71093	0.188	3.099	1.481	2.546	1.933	4.144	2.211	0.074	0.044	0.121	0.077	3.245	16.838	0.937	0.897	0.841	0.626	2.289	0.611	5.903	5.292	3.821	3.732	1.696	-10.839	2.11
71094	0.221	2.655	1.236	2.32	1.804	3.207	1.403	0.106	0.067	0.15	0.083	2.19	8.454	0.919	0.887	0.816	0.483	2.157	0.611	3.732	3.121	6.652	3.732	0.611	-14.119	2.11

71113	0.21	2.59	1.422	1.91	1.633	3.629	1.995	0.097	0.055	0.143	0.088	4.388	25.985	0.895	0.891	0.798	0.487	1.938	1.289	6.581	5.292	4.436	1.832	6.581	22.614	1.701
73441	0.219	3.093	1.268	3.116	1.974	3.878	1.903	0.108	0.069	0.15	0.081	2.723	11.965	0.909	0.888	0.807	0.457	2.745	1.018	6.31	5.292	9.359	4.003	1.968	-9.287	1.974
80212	0.169	2.852	1.378	2.45	1.824	3.862	2.039	0.088	0.053	0.118	0.065	4.759	36.66	0.908	0.904	0.821	0.491	2.062	0.611	4.41	3.799	8.429	0.611	0.611	0	1.974
80224	0.203	3.122	1.325	3.263	1.877	3.888	2.011	0.102	0.069	0.132	0.062	4.104	26.816	0.913	0.891	0.814	0.509	2.693	0.611	4.817	4.206	10.258	0.611	1.968	6.671	1.837
81822	0.237	3.076	1.284	2.93	1.884	3.828	1.945	0.124	0.084	0.172	0.088	2.751	13.62	0.922	0.883	0.814	0.477	2.402	1.551	4.062	2.511	10.059	1.994	1.846	-0.623	2.889
82439	0.196	3.032	1.354	2.646	2.106	4.007	1.902	0.111	0.083	0.143	0.06	2.886	13.445	0.925	0.893	0.825	0.536	2.494	0.611	4.817	4.206	5.677	0.611	0.611	0	2.246
84846	0.228	2.913	1.149	3.029	1.99	3.507	1.517	0.097	0.062	0.152	0.09	4.306	28.726	0.895	0.886	0.793	0.401	2.779	1.289	3.596	2.307	10.588	2.103	1.832	-1.189	3.199
84847	0.268	3.353	1.361	3.284	2.254	4.306	2.052	0.115	0.069	0.179	0.11	2.442	11.36	0.936	0.879	0.823	0.562	2.835	0.611	3.867	3.257	8.75	0.611	0.611	0	3.743
87835	0.232	2.539	1.166	2.569	1.634	3.315	1.681	0.124	0.085	0.175	0.09	3.24	16.418	0.893	0.885	0.79	0.352	2.141	0.611	4.274	3.664	5.593	2.917	0.611	-9.94	2.79
88961	0.246	2.637	1.126	2.648	1.676	3.368	1.692	0.138	0.101	0.175	0.074	2.292	10.522	0.91	0.881	0.802	0.388	2.236	0.611	3.867	3.257	8.833	3.867	0.611	-13.241	1.701
90896	0.301	1.831	0.96	1.507	1.295	1.946	0.652	0.16	0.107	0.212	0.105	3.881	22.507	0.857	0.876	0.75	0.228	1.759	0.882	3.053	2.171	5.75	1.56	1.56	0	1.429
101880	0.347	2.268	1.303	1.703	1.415	3.022	1.606	0.177	0.114	0.248	0.134	3.91	22.686	0.888	0.872	0.774	0.401	1.602	0.611	3.053	2.442	6.167	2.375	0.611	-5.077	1.837
113339	0.205	3.554	1.372	3.562	2.772	4.04	1.268	0.099	0.074	0.141	0.067	3.063	14.678	0.924	0.889	0.822	0.55	3.034	0.611	6.988	6.378	4.191	6.988	0.611	-31.099	3.879
113353	0.279	3.235	1.363	3.528	1.804	4.37	2.566	0.133	0.085	0.192	0.108	3.245	14.921	0.9	0.878	0.79	0.436	2.675	0.611	4.546	3.935	6.69	0.611	0.611	0	3.743
115064	0.246	3.413	1.473	3.487	2.016	4.323	2.307	0.122	0.085	0.17	0.085	2.083	8.524	0.946	0.882	0.835	0.619	3.111	1.153	4.41	3.257	14.25	3.867	1.968	-7.737	4.287
115064	0.246	2.632	1.244	2.187	1.792	3.54	1.748	0.126	0.094	0.172	0.078	2.976	14.353	0.904	0.881	0.797	0.415	2.136	0.611	4.681	4.071	10	3.053	0.611	-9.948	1.974
123325	0.321	2.537	1.14	2.302	1.706	3.293	1.587	0.146	0.088	0.217	0.129	2.818	14.281	0.915	0.874	0.799	0.409	2.101	0.96	5.982	5.022	11.324	2.88	5.982	9.664	1.852
123339	0.279	2.839	1.281	2.713	1.804	3.662	1.859	0.125	0.075	0.188	0.113	2.461	10.855	0.928	0.878	0.814	0.522	2.36	0.517	3.914	3.397	15.652	2.88	0.517	-8.459	1.852
125983	0.234	3.164	1.188	2.977	2.308	3.636	1.328	0.149	0.105	0.183	0.078	3.327	17.221	0.904	0.883	0.799	0.44	2.847	0.611	4.274	3.664	5.593	3.867	1.289	-11.041	3.062
125985	0.319	3.279	1.426	3.099	2.168	4.31	2.142	0.159	0.105	0.221	0.116	3.656	29.094	0.935	0.874	0.817	0.568	2.562	1.832	4.546	2.714	16.05	3.46	2.239	-3.829	2.246
134601	0.236	2.672	1.399	2.371	1.633	3.627	1.994	0.114	0.064	0.172	0.108	3.313	21.059	0.927	0.885	0.821	0.531	1.871	0.882	3.867	2.985	11.455	1.832	1.289	-2.301	1.837
137679	0.206	3.123	1.317	2.993	2.11	3.828	1.717	0.109	0.07	0.146	0.076	1.398	4.863	0.94	0.892	0.838	0.562	2.853	0.611	4.274	3.664	8.333	4.274	0.611	-17.762	3.062
139413	0.201	3.625	1.436	3.529	2.504	4.603	2.099	0.099	0.062	0.139	0.076	1.292	5.149	0.957	0.893	0.855	0.626	3.359	1.56	5.088	3.528	12.692	4.139	3.324	-4.049	4.151
147326	0.203	2.813	1.379	2.76	1.672	3.548	1.876	0.106	0.069	0.145	0.076	4.678	41.136	0.93	0.892	0.83	0.57	2.074	0.611	3.732	3.121	7.696	2.917	0.611	-11.351	1.701
163579	0.293	2.507	1.409	2.1	1.449	3.445	1.996	0.118	0.066	0.175	0.109	2.576	12.308	0.933	0.877	0.817	0.549	1.811	0.746	4.139	3.392	11.68	2.782	1.696	-3.704	1.837
166780	0.325	2.916	1.308	2.766	1.893	3.559	1.667	0.141	0.089	0.209	0.121	2.879	13.862	0.928	0.873	0.81	0.54	2.389	0.611	3.867	3.257	12.958	1.968	0.746	-3.753	2.79
171588	0.223	3.112	1.437	3.056	1.897	4.004	2.107	0.112	0.064	0.154	0.09	1.622	5.87	0.944	0.888	0.838	0.608	2.442	0.746	5.088	4.342	15.312	2.782	1.425	-6.093	1.565
184276	0.156	3.086	1.434	2.952	1.929	3.917	1.989	0.088	0.058	0.114	0.056	2.098	8.326	0.931	0.909	0.847	0.568	2.448	1.289	4.139	2.85	10.048	3.867	1.832	-13.087	1.974
184780	0.138	2.346	1.077	1.961	1.671	2.872	1.2	0.075	0.047	0.103	0.056	3.11	14.472	0.878	0.92	0.808	0.354	2.026	1.425	3.46	2.035	8	2.51	3.053	3.922	1.974

189434	0.243	2.332	1.32	1.872	1.431	3.029	1.598	0.137	0.089	0.181	0.092	3.719	21.739	0.885	0.883	0.782	0.403	1.69	1.153	2.103	0.95	11.714	1.696	1.968	1.118	1.429
209825	0.214	3.305	1.354	3.282	2.205	3.928	1.723	0.108	0.06	0.147	0.087	2.949	17.148	0.938	0.89	0.835	0.598	3.066	0.882	4.003	3.121	11.565	0.882	3.867	13.973	3.879
209897	0.225	2.976	1.283	2.771	1.934	3.808	1.874	0.117	0.069	0.167	0.099	2.688	12.006	0.92	0.887	0.817	0.514	2.537	0.611	5.767	5.156	9.658	5.767	1.832	-17.506	1.974
214535	0.242	2.736	1.295	2.403	1.684	3.686	2.002	0.114	0.059	0.153	0.094	3.104	17.065	0.901	0.883	0.795	0.416	2.454	0.611	6.852	6.242	11.478	0.611	0.611	0	1.974
214652	0.208	3.027	1.373	2.842	1.96	3.834	1.874	0.101	0.06	0.143	0.083	3.086	19.094	0.934	0.892	0.832	0.584	2.646	1.289	3.732	2.442	10.333	3.46	1.56	-9.151	2.11
215143	0.203	2.886	1.127	2.923	1.962	3.716	1.753	0.104	0.065	0.143	0.078	3.071	18.749	0.902	0.892	0.805	0.406	2.402	1.289	3.867	2.578	10.737	2.917	2.103	-4.008	1.974
215148	0.18	2.236	1.068	1.863	1.557	2.615	1.057	0.114	0.063	0.135	0.072	3.44	15.998	0.842	0.898	0.756	0.264	1.895	0.746	3.732	2.985	5.091	2.917	2.103	-4.529	1.974
215236	0.196	2.681	1.208	2.447	1.783	3.602	1.819	0.106	0.06	0.141	0.081	2.861	15.28	0.909	0.894	0.812	0.435	2.422	1.153	4.003	2.85	9.524	4.003	3.189	-4.158	1.837
215267	0.178	2.424	1.119	2.018	1.664	2.946	1.282	0.092	0.051	0.129	0.079	7.36	88.06	0.875	0.9	0.788	0.345	2.206	1.289	3.867	2.578	6.474	3.053	3.732	3.812	1.837
218370	0.244	2.672	1.278	2.381	1.639	3.488	1.848	0.125	0.094	0.16	0.066	3.076	17.205	0.917	0.881	0.808	0.484	2.007	0.611	5.36	4.749	8.114	2.646	5.36	11.119	1.974
227732	0.338	2.583	1.316	2.412	1.546	3.426	1.88	0.195	0.12	0.259	0.139	2.261	9.77	0.933	0.873	0.814	0.519	2.12	0.746	4.003	3.257	10.458	3.053	1.56	-4.41	3.607
246368	0.193	2.476	1.215	2.212	1.488	3.013	1.525	0.101	0.055	0.143	0.088	3.059	14.678	0.894	0.895	0.801	0.387	1.964	1.425	3.053	1.628	7.083	1.696	2.646	4.911	1.565
251991	0.229	2.906	1.328	2.901	1.735	3.647	1.912	0.115	0.073	0.163	0.089	2.281	9.729	0.928	0.886	0.822	0.538	2.678	1.289	4.139	2.85	15.238	3.596	3.324	-1.184	3.471
252219	0.208	2.72	1.198	2.763	1.812	3.44	1.629	0.099	0.056	0.143	0.088	2.084	8.309	0.921	0.892	0.821	0.472	2.568	1.289	4.274	2.985	12	3.596	1.968	-7.82	1.974
252671	0.185	3.097	1.267	2.99	2.107	3.764	1.656	0.092	0.058	0.132	0.074	1.785	6.312	0.934	0.898	0.838	0.56	2.68	0.611	3.867	3.257	7.833	3.867	0.611	-17.617	3.062
252986	0.243	2.851	1.193	2.924	1.86	3.521	1.661	0.117	0.078	0.167	0.089	1.716	6.071	0.929	0.882	0.82	0.498	2.463	0.611	4.139	3.528	8.885	2.917	4.139	5.03	1.837
252987	0.209	2.687	1.275	2.423	1.643	3.604	1.961	0.087	0.048	0.136	0.087	2.276	9.188	0.919	0.891	0.819	0.476	2.084	1.289	4.681	3.392	11.84	3.324	1.696	-7.787	1.837
253107	0.255	2.821	1.356	2.811	1.732	3.666	1.934	0.118	0.077	0.166	0.089	2.578	10.999	0.928	0.88	0.817	0.54	2.553	0.611	6.174	5.563	10.463	0.611	3.732	12.239	3.062
253591	0.21	2.447	1.167	2.071	1.618	3.303	1.686	0.113	0.074	0.157	0.083	2.201	8.62	0.908	0.89	0.808	0.416	2.264	1.153	5.767	4.614	7.735	1.56	3.324	8.419	1.837
255378	0.203	2.637	1.444	2.104	1.527	3.58	2.053	0.092	0.048	0.138	0.09	2.981	14.899	0.919	0.893	0.82	0.515	1.591	0.611	3.189	2.578	8.579	0.611	1.56	4.684	1.974
255843	0.262	2.719	1.358	2.356	1.665	3.697	2.032	0.132	0.082	0.178	0.096	2.435	10.299	0.923	0.88	0.812	0.516	2.245	1.289	3.867	2.578	15.632	3.324	3.732	1.554	1.837
257702	0.332	2.426	1.388	2.257	1.363	3.093	1.73	0.147	0.086	0.224	0.138	1.841	6.326	0.922	0.873	0.805	0.465	2.192	1.153	3.46	2.307	25.529	3.46	1.56	-5.714	1.565
260390	0.239	3.271	1.336	3.124	2.325	4.037	1.712	0.119	0.08	0.161	0.08	3.01	16.207	0.937	0.884	0.828	0.589	3.082	0.746	5.224	4.478	8.03	5.224	2.375	-11.924	3.199
269007	0.157	2.812	1.293	2.885	1.708	3.775	2.067	0.08	0.042	0.113	0.07	1.575	5.782	0.928	0.912	0.846	0.49	2.389	0.882	4.003	3.121	6.217	3.189	1.968	-7.766	1.837
270699	0.319	2.92	1.395	2.691	1.954	4.079	2.125	0.149	0.095	0.208	0.113	3.361	23.01	0.935	0.874	0.817	0.569	2.14	1.018	4.546	3.528	13.885	2.782	2.375	-1.275	2.11
270851	0.26	2.958	1.269	2.475	2.175	3.896	1.721	0.132	0.096	0.183	0.087	7.709	79.008	0.886	0.88	0.779	0.448	2.606	0.611	6.038	5.428	8.45	2.782	0.611	-8.34	2.518
270868	0.233	3.145	1.376	2.903	2	4.279	2.278	0.15	0.099	0.184	0.085	1.851	7.28	0.938	0.884	0.829	0.557	2.772	1.425	4.681	3.257	11.625	1.56	3.324	7.58	2.79
271056	0.174	2.734	1.267	2.347	1.733	3.477	1.744	0.095	0.058	0.123	0.065	3.63	22.764	0.902	0.902	0.813	0.438	2.142	0.611	4.274	3.664	7.815	2.782	1.832	-5.447	1.974
271058	0.202	3.206	1.342	3.209	2.108	4.147	2.039	0.116	0.076	0.158	0.081	2.649	12.044	0.924	0.892	0.824	0.518	3.085	1.425	4.274	2.85	11.524	3.189	3.189	0	3.335

271059	0.197	2.928	1.131	2.609	2.062	3.862	1.8	0.13	0.1	0.163	0.063	2.512	10.926	0.903	0.89	0.804	0.4	2.192	1.425	3.596	2.171	6.25	1.425	2.782	6.875	2.11
292878	0.296	2.306	1.314	1.816	1.334	3.298	1.964	0.146	0.073	0.205	0.132	3.884	27.591	0.902	0.877	0.791	0.404	1.525	0.746	4.546	3.799	7.571	1.832	3.732	6.41	1.565
361416	0.165	3.202	1.317	3.164	2.218	3.953	1.736	0.079	0.044	0.111	0.067	1.519	5.622	0.946	0.907	0.859	0.621	2.825	1.425	3.732	2.307	10.118	3.732	3.46	-1.646	3.062
373507	0.259	3.254	1.512	3.017	1.92	4.132	2.212	0.124	0.08	0.177	0.096	2.59	12.548	0.948	0.88	0.834	0.658	2.615	1.153	5.36	4.206	8.355	3.189	1.696	-5.759	3.062
449261	0.235	2.762	1.155	2.66	1.791	3.46	1.67	0.136	0.092	0.177	0.085	3.417	19.641	0.909	0.884	0.803	0.424	2.342	1.289	3.46	2.171	8.25	2.646	1.56	-4.621	1.837
454408	0.303	2.98	1.568	2.766	1.649	4.06	2.411	0.141	0.096	0.187	0.091	3.705	22.672	0.932	0.875	0.816	0.587	2.219	0.611	6.988	6.378	11.83	0.746	6.174	17.92	1.837
479427	0.252	2.844	1.254	2.663	1.732	3.716	1.984	0.135	0.08	0.185	0.105	5.06	47.761	0.925	0.882	0.816	0.494	2.633	1.289	4.41	3.121	9.174	3.324	3.189	-0.539	2.654
515000	0.153	2.505	1.14	2.151	1.62	3.141	1.52	0.078	0.042	0.117	0.075	2.622	12.129	0.895	0.911	0.815	0.367	2.145	1.289	4.139	2.85	8.19	2.51	1.696	-5.331	1.974
515001	0.193	2.355	1.284	1.81	1.443	3.059	1.616	0.101	0.055	0.147	0.092	2.573	10.621	0.894	0.895	0.8	0.391	1.929	0.611	4.139	3.528	7.308	0.611	0.611	0	1.837
517840	0.254	3.218	1.45	3.048	1.986	4.302	2.316	0.133	0.085	0.179	0.094	1.658	6.436	0.948	0.881	0.835	0.615	2.912	1.153	6.038	4.885	10.722	3.189	4.274	4.266	1.837
519176	0.227	2.715	1.206	2.759	1.793	3.439	1.646	0.108	0.064	0.151	0.087	2.068	8.152	0.922	0.886	0.817	0.474	2.565	1.289	4.274	2.985	13.955	3.596	2.103	-6.585	1.974
520734	0.219	2.439	1.178	2.064	1.602	3.29	1.688	0.12	0.078	0.166	0.087	2.214	8.753	0.91	0.888	0.808	0.425	2.199	0.611	4.274	3.664	11.407	3.46	3.189	-1.241	1.974
520735	0.215	3.12	1.403	2.992	1.983	3.829	1.846	0.106	0.069	0.146	0.076	1.596	6	0.947	0.888	0.84	0.617	2.49	1.289	3.867	2.578	7.947	2.782	1.289	-6.938	3.062
520740	0.234	2.735	1.385	2.533	1.557	3.701	2.144	0.115	0.071	0.165	0.094	2.606	11.768	0.928	0.885	0.821	0.55	2.271	0.611	4.546	3.935	10.103	0.611	3.189	11.027	1.565
520743	0.19	2.882	1.366	2.909	1.765	3.705	1.94	0.095	0.056	0.139	0.083	2.739	11.659	0.919	0.897	0.824	0.524	2.357	0.611	3.867	3.257	11.875	0.611	1.832	6.433	1.837
520744	0.267	2.7	1.193	2.672	1.766	3.585	1.82	0.132	0.085	0.192	0.107	2.183	10.288	0.921	0.879	0.809	0.42	2.29	1.018	3.867	2.85	15.381	1.968	2.103	0.508	1.837
522866	0.185	2.669	1.262	2.359	1.682	3.465	1.784	0.101	0.072	0.136	0.065	2.467	11.542	0.917	0.897	0.823	0.477	2.281	1.289	3.867	2.578	15.737	1.425	1.289	-0.735	1.974
525055	0.24	2.682	1.335	2.317	1.646	3.596	1.95	0.123	0.08	0.176	0.096	3.152	16.206	0.913	0.883	0.807	0.491	2.059	1.289	4.139	2.85	14.762	3.867	3.053	-3.391	1.837
525108	0.207	2.652	1.446	2.084	1.596	3.6	2.004	0.099	0.058	0.147	0.09	3.099	15.932	0.919	0.891	0.819	0.517	1.64	0.882	3.324	2.442	7.833	3.189	1.425	-8.518	1.974
525109	0.185	2.441	1.252	1.995	1.567	3.046	1.479	0.09	0.048	0.134	0.085	3.382	18.254	0.902	0.899	0.811	0.448	1.974	0.882	3.732	2.85	8.143	2.239	1.832	-2.205	1.837
527653	0.29	2.588	1.227	2.219	1.77	3.289	1.519	0.146	0.096	0.205	0.109	3.366	18.922	0.914	0.877	0.802	0.466	2.052	1.425	3.867	2.442	13.389	2.782	2.917	0.468	1.974
583036	0.304	2.608	1.505	2.071	1.463	3.382	1.919	0.138	0.088	0.19	0.102	2.533	11.609	0.932	0.875	0.815	0.544	1.944	0.517	6.868	6.351	10.093	0.517	3.471	9.705	2
83881001	0.146	2.692	1.172	2.383	1.792	3.331	1.539	0.075	0.048	0.103	0.055	2.371	9.869	0.906	0.896	0.813	0.436	2.444	1.625	3.397	1.772	21	3.397	2.215	-8.113	1.926
85167141	0.277	2.569	1.141	2.327	1.721	3.14	1.419	0.154	0.096	0.208	0.112	3.027	16.003	0.905	0.878	0.794	0.403	2.054	1.255	3.766	2.511	14.353	3.471	1.403	-7.465	1.852
85168301	0.287	2.861	1.316	2.678	1.748	3.518	1.771	0.168	0.113	0.218	0.105	2.695	11.881	0.928	0.877	0.813	0.521	2.306	0.517	3.618	3.102	14	0.517	2.585	7.206	2.741
101175591	0.216	3.3	1.518	3.35	1.869	4.377	2.507	0.11	0.064	0.154	0.09	3.121	18.689	0.938	0.889	0.834	0.608	3.078	0.611	6.445	5.835	11.14	0.611	1.56	4.393	3.879
126249041	0.236	2.921	1.421	2.787	1.745	3.82	2.075	0.133	0.076	0.179	0.103	3.081	17.749	0.928	0.885	0.821	0.556	2.317	1.153	4.41	3.257	10.375	1.832	3.867	8.617	1.837
133639181	0.179	2.893	1.144	2.551	2.149	3.691	1.543	0.098	0.063	0.135	0.072	2.914	13.714	0.901	0.9	0.811	0.345	2.468	1.696	3.189	1.493	5.182	2.917	1.968	-5.305	2.11
146310731	0.194	3.253	1.422	3.218	2.019	4.045	2.025	0.109	0.078	0.141	0.063	2.524	12.429	0.932	0.892	0.831	0.559	2.845	1.698	4.652	2.954	14.7	4.062	1.994	-10.676	2

169462401	0.227	3.181	1.326	3.015	2.115	3.863	1.747	0.096	0.062	0.151	0.089	3.354	19.757	0.931	0.885	0.824	0.563	2.853	0.611	4.274	3.664	7.444	4.274	0.611	-16.154	3.062
169465401	0.245	3.101	1.357	2.926	1.915	3.83	1.914	0.119	0.073	0.162	0.089	3.705	24.468	0.93	0.883	0.82	0.564	2.517	0.611	4.274	3.664	11.185	4.139	0.611	-14.424	1.974
169671031	0.156	3.156	1.384	2.984	2	3.943	1.944	0.067	0.042	0.093	0.051	2.704	14.282	0.935	0.908	0.848	0.577	2.313	0.611	6.174	5.563	7.146	2.103	0.611	-9.597	3.062
169671031	0.169	3.185	1.364	3.099	2.033	4.064	2.031	0.086	0.056	0.111	0.056	2.067	8.451	0.939	0.903	0.848	0.593	2.324	0.611	4.003	3.392	7.68	2.239	0.611	-9.632	1.974
170154121	0.164	2.946	1.383	2.862	1.794	3.912	2.118	0.094	0.061	0.119	0.059	2.133	9.813	0.936	0.905	0.847	0.557	2.502	1.153	4.546	3.392	7.84	1.832	3.46	9.934	1.837
170161761	0.191	3.22	1.314	3.109	2.341	3.857	1.516	0.113	0.083	0.138	0.055	2.364	9.479	0.932	0.893	0.832	0.575	3.024	0.611	4.139	3.528	8	3.867	0.611	-17.017	3.062
190882841	0.194	2.744	1.216	2.496	1.903	3.59	1.687	0.091	0.051	0.133	0.082	2.12	9.662	0.924	0.893	0.826	0.493	2.247	0.517	4.209	3.692	12.16	0.517	1.698	6.094	2
212534271	0.156	3.465	1.49	3.359	2.192	4.295	2.103	0.084	0.054	0.114	0.061	1.751	6.34	0.951	0.911	0.866	0.665	3.232	1.425	4.546	3.121	12.261	3.867	3.053	-5.216	4.015

The column headings abbreviations are as follows (from left to right): Record ID (sound file recording ID number), Dur (duration; sound file length in seconds), Avg Freq (average frequency; average frequency in kHz), SD (standard deviation; standard deviation of frequency in kHz), Freq Med (median frequency; the frequency at which the signal is divided in two frequency intervals of equal energy in kHz), Freq Q25 (first quartile frequency; the frequency at which the signal is divided in two frequency intervals of 25% and 75% energy respectively (in kHz), Freq Q75 (third quartile frequency; the frequency at which the signal is divided in two frequency intervals of 75% and 25% energy respectively in kHz), Freq IQR (interquartile frequency range; frequency range between 'freq.Q25' and 'freq.Q75' in kHz); Tim Med (median time; the time at which the signal is divided in two time intervals of equal energy in s), Tim Q25 (first quartile time; the time at which the signal is divided in two time intervals of 25% and 75% energy respectively in s), Tim Q75 (third quartile time; the time at which the signal is divided in two time intervals of 75% and 25% energy respectively in s), Tim IQR (interquartile time range; time range between 'time.Q25' and 'time.Q75' in s), Skew (skewness; asymmetry of the spectrum); Kurt (kurtosis; peakedness of the spectrum), Sp Entr (spectral entropy; energy distribution of the frequency spectrum, pure tone ~ 0; noisy ~ 1), Tim Entr (time entropy; energy distribution on the time envelope, pure tone ~ 0; noisy ~ 1), Entr (spectrographic entropy; product of time and spectral entropy), Sfm (spectral flatness; similar to sp.ent, pure tone ~ 0; noisy ~ 1), Avg Dom (average of dominant frequency measured across the acoustic signal), Min Dom (minimum of dominant frequency measured across the acoustic signal), Max Dom (maximum of dominant frequency measured across the acoustic signal), Df rang (range of dominant frequency measured across the acoustic signal), Mod Indx (modulation index. Calculated as the cumulative absolute difference between adjacent measurements of dominant frequencies divided by the dominant frequency range, 1 means the signal is not modulated), Start Dom (dominant frequency measurement at the start of the signal), End Dom (dominant frequency measurement at the end of the signal), Df Slope (slope of the change in dominant frequency through time, (enddom-startdom)/duration in kHz per sec), Mean Peak Freq (mean peak frequency. Frequency with highest energy from the mean frequency spectrum)