

**Table S1.** Samples and GenBank accession numbers of sequences used in this study. Accession numbers in bold font refer to sequences that were newly generated for this study, whereas voucher IDs in bold font represent individuals that were sequenced by us for this or previous studies. Voucher numbers and voucher institutions of sequences obtained by other authors were provided when available in the GenBank record.

Species	Voucher ID	Voucher Institution <sup>a</sup>	RAG1	RAG2	vWF	BRCA1	cytb	12SrRNA	16SrRNA
<i>Acerodon celebensis</i>	<b>272877</b>	AMNH	EU617946	EU617896	EU617928	JN398239	GQ410231	JN398167	JN398167
<i>Acerodon jubatus</i>	CMC3116	?					EU330962	EU339322	
<i>Aethalops aequalis</i>	MRD16	?		HM138651					
<i>Aethalops aequalis</i>	BBBR1	?						DQ845096	
<i>Aethalops aequalis</i>	TK152203	?					EU521595		
<i>Aethalops alecto</i>	<b>102164</b>	ROM	GQ410263	GQ410240	GQ410286	JN398260	GQ410218	GQ410312	GQ410335
<i>Alionycteris paucidentata</i>	<b>148099</b>	FMNH	GQ410267	GQ410244	GQ410290	JN398248	GQ410222	GQ410316	GQ410339
<i>Aproteles bulmerae</i>	26660	AM					Unsubmitted <sup>b</sup>	U93066	AF293645
<i>Balionycteris maculata</i>	<b>102014</b>	ROM	GQ410272	GQ410249	GQ410295	JN398257	GQ410227	GQ410321	GQ410344
<i>Boneia bidens</i>	<b>23100</b>	ZMA	FJ218468	FJ218464	FJ218471		FJ218481	FJ218475	
<i>Casinycteris argynnis</i>	<b>269915</b>	AMNH	JN398284	JN398301	JN398268	JN398264	JN398197	JN398168	JN398168
<i>Casinycteris campomaanensis</i>	2011-637	MNHN					KJ145797		
<i>Casinycteris ophiodon</i>	50001	ZMB					KJ145798		
<i>Chironax melanocephalus</i>	<b>101945</b>	ROM	GQ410265	GQ410242	GQ410288	JN398256	GQ410220	GQ410314	GQ410337
<i>Cynopterus brachyotis</i>	<b>102015</b>	ROM	GQ410256	GQ410233	GQ410279	JN398258	GQ410210	GQ410303	GQ410327
<i>Cynopterus horsfieldi</i>	GenBank	?					EF201643		
<i>Cynopterus horsfieldi</i>	M4/1/0404/1	UNIMAS						DQ002943	
<i>Cynopterus sphinx</i>	<b>274354</b>	AMNH	AF203758	EU617897	DQ445697	AF203750	DQ445703	GQ410302	GQ410326
<i>Desmalopex leucopterus</i>	<b>EAR1697</b>	FMNH	UE617966	UE617915	UE617929	JN398252	JN398198	JN398169	JN398169
<i>Desmalopex microleucopterus</i>	164496	KU					EU330976	EU339339	
<i>Dobsonia anderseni</i>	EBU23213	AM						AY044760	
<i>Dobsonia inermis</i>	<b>275730</b>	AMNH	EU617948	EU617898	DQ445686	JN398234	DQ445704	FJ218476	FJ218476
<i>Dobsonia minor</i>	<b>140208</b>	MVZ	FJ218467	FJ218463	DQ445701		DQ445705	FJ218477	FJ218477
<i>Dobsonia moluccensis</i>	<b>M20735</b>	AM	EU617949	EU617899	EU617930	JN398220	FJ218484	FJ218472	JN398196
<i>Dobsonia pannietensis</i>	EBU9303	AM						AY044769	
<i>Dobsonia peronii</i>	<b>M30341</b>	WAM					Unsubmitted <sup>b</sup>		

<i>Dobsonia praedatrix</i>	<b>580023</b>	USNM	JN398285	JN398302	JN398269	JN398222	JN398199	JN398170	JN398170
<i>Dobsonia viridis</i>	<b>M30873</b>	AM	<b>MN883331</b>		<b>MN883320</b>	<b>MN883305</b>	<b>MN883346</b>	<b>MN883300</b>	<b>MN883300</b>
<i>Dyacopterus spadiceus</i>	<b>102017</b>	ROM	GQ410275	GQ410252	GQ410298	JN398259	GQ410230	GQ410324	GQ410347
<i>Eidolon dupreanum</i>	2116	UWZM						U93058	AF293648
<i>Eidolon helvum</i>	<b>CM102021</b>	CM	UE617950	UE617900	UE617931	JN398240	JN398200	JN398171	JN398171
<i>Eonycteris major</i>	TK152179	?					EU521600		
<i>Eonycteris robusta</i>	<b>178362</b>	FMNH	JN398286	JN398303	JN398270	JN398251	JN398201	JN398172	JN398172
<i>Eonycteris spelaea</i>	<b>176487</b>	MVZ	EU617951	EU617901	DQ445684	JN398254	FJ218482	JN398173	JN398173
<i>Epomophorus gambianus</i>	<b>113550</b>	CM				KT875816			
<i>Epomophorus gambianus</i>	<b>113553</b>	CM	KT875848	KT875830	KT875865		KT875803	KT875878	KT875878
<i>Epomophorus minor</i>	<b>102026</b>	CM	KT875849	KT875832	KT875866	KT875817	KT875804	KT875879	KT875879
<i>Epomophorus wahlbergi</i>	23999	UWZM					AF044642	AF203744	
<i>Epomops dobsonii</i>	<b>177209</b>	FMNH	UE617953	EU617903	DQ445691		KT875797	KT875875	KT875875
<i>Epomops dobsonii</i>	<b>177089</b>	FMNH				JN398266			
<i>Epomops franqueti</i>	<b>269902</b>	AMNH	JN398287	JN398304	JN398271	JN398233	JN398202	JN398175	JN398175
<i>Haplonycteris fischeri</i>	<b>146627</b>	FMNH	GQ410270	GQ410247	GQ410293	JN398245	GQ410225	GQ410319	GQ410342
<i>Harpyionycteris celebensis</i>	<b>Uncatalogued</b>	---	JN398288			JN398225	JN398203	FJ218473	FJ218473
<i>Harpyionycteris whiteheadi</i>	<b>146646</b>	FMNH	EU617954	EU617904	DQ445690	JN398246	DQ445708	FJ218474	FJ218474
<i>Hypsignathus monstrosus</i>	<b>116499</b>	AMCC	JN398289	JN398305	JN398272	JN398235	JN398204	JN398176	JN398176
<i>Latidens salimalii</i>	<b>Uncatalogued</b>	---					GQ410217	GQ410311	
<i>Latidens salimalii</i>	GenBank	?							FJ009216
<i>Macroglossus minimus</i>	<b>275761</b>	AMNH	EU617955	EU617905	DQ445693	JN398229	JN398206	JN398178	JN398178
<i>Macroglossus sobrinus</i>	<b>272191</b>	AMNH	JN398291	JN398307	JN398274	JN398236	EU521603	JN398179	JN398179
<i>Megaerops ecaudatus</i>	<b>113028</b>	ROM	GQ410260	GQ410237	GQ410283	JN398262	GQ410214	GQ410308	GQ410332
<i>Megaerops kusnotoi</i>	<b>101944</b>	ROM	GQ410261	GQ410238	GQ410284	JN398255	GQ410215	GQ410309	GQ410333
<i>Megaerops niphanae</i>	GenBank	?					AF044647		AF044616
<i>Megaloglossus azagnyi</i>	G09175	?					JX283279		
<i>Megaloglossus woermanni</i>	<b>268358</b>	AMNH	EU617956	EU617906	DQ445702	JN398231	DQ445710	JN398180	JN398180
<i>Nesonycteris fardoulisi</i>	<b>275744</b>	AMNH	EU617957	EU617907	DQ445699	JN398237	FJ218478	JN398181	JN398181
<i>Melonycteris melanops</i>	<b>580029</b>	USNM	FJ218465	FJ218461	FJ218469	JN398223	JN398207	JN398182	JN398182
<i>Nesonycteris woodfordi</i>	EBU23837	AM					AY847264		
<i>Micropteropus pusillus</i>	<b>113563</b>	CM	JN398292	JN398308	JN398275	JN398241	JN398208	JN398183	JN398183
<i>Mirimiri acrodonta</i>	<b>M24030</b>	AM	<b>MN883332</b>	<b>MN883339</b>	<b>MN883321</b>	<b>MN883306</b>	KJ532447	KJ532384	<b>MN883291</b>

<i>Myonycteris angolensis</i>	<b>CM 102135</b>	CM	JN398290	JN398306	JN398273	JN398243	JN398205	JN398177	JN398177
<i>Myonycteris brachycephala</i>	T671	?					JX283222		
<i>Myonycteris brachycephala</i>	GenBank	?							AF044613
<i>Myonycteris leptodon</i>	G09189	?					JX283215		
<i>Myonycteris relict</i>	T668	?					JX283220		
<i>Myonycteris relict</i>	GenBank	?							AF044618
<i>Myonycteris torquata</i>	<b>268362</b>	AMNH	EU617958	EU617908	DQ445700	JN398232	FJ218483	JN398184	JN398184
<i>Nanonycteris veldkampii</i>	<b>100560</b>	ROM	JN398293	JN398309	JN398276	JN398253	JN398209	JN398185	JN398185
<i>Neopteryx frosti</i>	<b>24258</b>	ZMA			<b>MN883322</b>		<b>MN883347</b>	<b>MN883301</b>	<b>MN883301</b>
<i>Notopteris macdonaldii</i>	<b>M22817</b>	AM	<b>MN883333</b>	<b>MN883340</b>	<b>MN883323</b>	<b>MN883307</b>	<b>MN883348</b>	<b>MN883302</b>	<b>MN883302</b>
<i>Nyctimene albiventer</i>	GenBank	?	AF447514	AF447531	AF447549	AF447502			
<i>Nyctimene albiventer</i>	42559	WAM					DQ314264		
<i>Nyctimene albiventer</i>	19433	AM						U61077	AF293640
<i>Nyctimene cephalotes</i>	<b>Uncatalogued</b>	---	JN398294		JN398277	JN398226	JN398210	JN398186	JN398186
<i>Nyctimene certans</i>	EBU9258	AM						AY044729	
<i>Nyctimene major</i>	<b>M19360</b>	AM	<b>MN883334</b>	<b>MN883341</b>	<b>MN883324</b>	<b>MN883308</b>	<b>MN883349</b>	<b>MN883299</b>	<b>MN883295</b>
<i>Nyctimene robinsoni</i>	<b>AM M22990</b>	AM	GQ410276	GQ410253	GQ410299	JN398221	AF144066	GQ410325	GQ410348
<i>Nyctimene vizcaccia</i>	<b>124208</b>	AMCC	EU617959	EU617904	DQ445698	JN398238	DQ445711	JN398187	JN398187
<i>Otopteropus cartilagonodus</i>	<b>175391</b>	FMNH	GQ410269	GQ410246	GQ410292	JN398249	GQ410224	GQ410318	GQ410341
<i>Paranyctimene raptor</i>	<b>M19548</b>	AM	<b>MN883335</b>	<b>MN883342</b>	<b>MN883325</b>		<b>MN883350</b>	<b>MN883303</b>	<b>MN883303</b>
<i>Paranyctimene raptor</i>	<b>M19547</b>	AM				<b>MN883309</b>			
<i>Penthetor lucasi</i>	<b>102183</b>	ROM	GQ410262	GQ410239	GQ410285	JN398261	GQ410216	GQ410310	GQ410334
<i>Plerotes anchietae</i>	<b>85745</b>	SMF	KT875856				KT875812	KT875885	
<i>Ptenochirus jagori</i>	<b>175395</b>	FMNH	EU617960	EU617910	DQ445696	JN398250	FJ218480	GQ410304	GQ410328
<i>Ptenochirus minor</i>	CMC3253	?					AY974702		
<i>Ptenochirus wetmorei</i>	<b>146669</b>	FMNH	GQ410259	GQ410236	GQ410282		GQ410213	GQ410307	GQ410331
<i>Ptenochirus wetmorei</i>	<b>146667</b>	FMNH				<b>MN883310</b>			
<i>Pteralopex atrata</i>	M19219	AM						U93069	AF293643
<i>Pteralopex taki</i>	<b>M22320</b>	AM	<b>MN883336</b>	<b>MN883343</b>	<b>MN883326</b>	<b>MN883311</b>	<b>MN883351</b>	<b>MN883304</b>	<b>MN883304</b>
<i>Pteropus admiralitatum</i>	<b>M19905</b>	AM	<b>MN883337</b>	<b>MN883344</b>	<b>MN883327</b>	<b>MN883312</b>	KJ532440	KJ532375	<b>MN883292</b>
<i>Pteropus aldabrensis</i>	GenBank	?					FJ561394	FJ588896	
<i>Pteropus alecto</i>	<b>M32564</b>	AM	EU617961	EU617911	EU617932		KJ532406	KJ532344	
<i>Pteropus anetianus</i>	<b>272874</b>	AMNH	EU617962	EU617912	EU617933	<b>MN883313</b>	KJ532391	KJ532329	

<i>Pteropus capistratus</i>	<b>194277</b>	AMNH						KJ532421		
<i>Pteropus cognatus</i>	<b>79749</b>	AMNH						KJ532428	KJ532364	
<i>Pteropus conspicillatus</i>	<b>M21583</b>	AM	EU617963	<b>MN883345</b>	EU617934	<b>MN883314</b>		KJ532443	KJ532378	<b>MN883293</b>
<i>Pteropus dasymallus</i>	GenBank	?						NC_002612	NC_002612	NC_002612
<i>Pteropus ennisae</i>	<b>LHE1009</b>	USNM						KJ532414	KJ532351	
<i>Pteropus ennisae</i>	<b>580018</b>	USNM	EU617975	EU617923	EU617943					
<i>Pteropus fundatus</i>	EBU9346	AM							AY044782	
<i>Pteropus gilliardorum</i>	<b>LHE1043</b>	USNM				<b>MN883328</b>			<b>MN883296</b>	
<i>Pteropus gilliardorum</i>	<b>58002</b>	USNM						KJ532409		
<i>Pteropus griseus</i>	<b>237644</b>	AMNH						KJ532423	KJ532359	
<i>Pteropus hypomelanus</i>	<b>P4447</b>	Lubee	EU617965	AY141025	DQ445687			FJ561382	FJ588883	AF069537
<i>Pteropus livingstonii</i>	GenBank	not vouchered						FJ561384	FJ588885	
<i>Pteropus lombocensis</i>	<b>254540</b>	AMNH						KJ532418	KJ532355	
<i>Pteropus lylei</i>	<b>110943</b>	ROM	EU617967	EU617916	EU617936			KJ532400	KJ532338	
<i>Pteropus macrotis</i>	<b>256551</b>	AMNH						KJ532432	KJ532369	
<i>Pteropus mahaganus</i>	<b>79822</b>	AMNH						KJ532430	KJ532366	
<i>Pteropus mariannus</i>	<b>249972</b>	AMNH						KJ532416	KJ532353	
<i>Pteropus medius</i>	<b>92208</b>	CM	EU617964	EU617913	EU617935	JN398242		KJ532397	KJ532335	
<i>Pteropus medius</i>	GenBank	?								AY011170
<i>Pteropus melanotus</i>	GenBank	?						KY197766		
<i>Pteropus molossinus</i>	<b>566567</b>	USNM	EU617969	EU617918	EU617938			KJ532410	KJ532347	
<i>Pteropus neohibernicus</i>	<b>272872</b>	AMNH	EU617970	EU617919	EU617939	<b>MN883315</b>		KJ532392	KJ532330	
<i>Pteropus niger</i>	<b>M23590</b>	AM						KJ532446	KJ532382	
<i>Pteropus nitendiensis</i>	<b>75187</b>	AMNH						KJ532429	KJ532365	
<i>Pteropus ocularis</i>	EBU9395	AM							AY044789	
<i>Pteropus ornatus</i>	<b>278698</b>	USNM						KJ532435	KJ532372	
<i>Pteropus pelagicus</i>	<b>249954</b>	AMNH						KJ532420	KJ532357	
<i>Pteropus pelewensis yapensis</i>	<b>185262</b>	MVZ				<b>MN883316</b>			KJ532326	
<i>Pteropus pelewensis yapensis</i>	<b>185263</b>	MVZ	EU617968	EU617917	EU617937			KJ532388		
<i>Pteropus personatus</i>	EBU9372	AM							AY044791	
<i>Pteropus pohlei</i>	<b>103277</b>	AMNH						KJ532427	KJ532363	
<i>Pteropus poliocephalus</i>	<b>M35496</b>	AM	EU617971	EU617920	EU617940	<b>MN883317</b>		KJ532405	KJ532343	
<i>Pteropus pselaphon</i>	<b>142061</b>	USNM						KJ532437	KJ532373	

<i>Pteropus pumilus</i>	<b>136990</b>	FMNH	EU617972	EU617921	EU617941		KJ532398	KJ532336	
<i>Pteropus rayneri</i>	<b>M22336</b>	AM	AF203759	AF203769	<b>MN883329</b>	AF203751	KJ532445	KJ532380	<b>MN883294</b>
<i>Pteropus rennelli</i>	<b>99949</b>	AMNH					<b>MN894838</b>	<b>MN883297</b>	
<i>Pteropus rodricensis</i>	551-LUB030	Lubee					FJ561392	FJ588893	AF044624
<i>Pteropus rufus</i>	GenBank	?					AB085732		
<i>Pteropus rufus</i>	GenBank	not vouchered						FJ588894	
<i>Pteropus samoensis</i>	<b>272876</b>	AMNH	EU617973	EU617922	EU617942	<b>MN883318</b>	KJ532393	KJ532331	
<i>Pteropus scapulatus</i>	<b>M32440</b>	AM	EU617974				KJ532403		
<i>Pteropus scapulatus</i>	GenBank	?						NC_002619	NC_002619
<i>Pteropus comorensis</i>	GenBank	not vouchered					FJ561398	FJ588900	
<i>Pteropus seychellensis</i>	GenBank	not vouchered					FJ561399	FJ588901	
<i>Pteropus speciosus</i>	GenBank	not vouchered					AB062474		
<i>Pteropus tokudae</i>	<b>87118</b>	AMNH					KJ532434	KJ532371	
<i>Pteropus tonganus</i>	<b>272873</b>	AMNH	EU617976	EU617924	DQ445695	JN398267	JN398213	JN398188	JN398188
<i>Pteropus tuberculatus</i>	<b>79959</b>	AMNH					KJ532433	KJ532370	
<i>Pteropus ualanus</i>	<b>87183</b>	AMNH					KJ532417	KJ532354	
<i>Pteropus vampyrus</i>	<b>272871</b>	AMNH	JN398295	JN398310	JN398278	JN398228	JN398212	JN398189	JN398189
<i>Pteropus vetulus</i>	<b>135816</b>	AMNH					<b>MN883352</b>		
<i>Pteropus vetulus</i>	<b>M23778</b>	AM						KJ532385	
<i>Pteropus voeltzkowi</i>	GenBank	not vouchered					FJ561405	FJ588907	
<i>Pteropus woodfordi</i>	<b>272875</b>	AMNH	EU617978	EU617926	EU617945		KJ532395	KJ532333	
<i>Rousettus aegyptiacus</i>	<b>177211</b>	FMNH	KT875845	KT875828	KT875862	KT875815	DQ445714	KT875886	KT875886
<i>Rousettus amplexicaudatus</i>	GenBank	?	AF447512	AF447529	AF447547	AY057829	AB046329		
<i>Rousettus amplexicaudatus</i>	EBU25517	AM						AY044751	
<i>Rousettus amplexicaudatus</i>	M23045	AM							AF203742
<i>Rousettus leschenaultii</i>	<b>176490</b>	MVZ	JN398300	JN398313	JN398283	JN398219	JN398218	JN398190	
<i>Rousettus madagascariensis</i>	<b>449206</b>	USNM	JN398296	JN398311	JN398279	JN398224	JN398214	JN398191	JN398191
<i>Rousettus obliviosus</i>	194544	FMNH					GU228771		
<i>Rousettus spinalatus</i>	<b>23.132</b>	ZMA					EF105524	EF139884	

<i>Scotoonycteris zenkeri</i>	<b>107997</b>	CM	JN398297	JN398312	JN398280	JN398265	JN398216	JN398192	JN398192
<i>Sphaerias blanfordi</i>	<b>274187</b>	AMNH	GQ410274	GQ410251	GQ410297	JN398230	GQ410229	GQ410323	GQ410346
<i>Stenonycteris lanosus</i>	<b>102148</b>	CM	JN398298	JN400925	JN398281	JN398244	JN398215	JN398193	JN398193
<i>Styloctenium mindorensis</i>	<b>Uncatalogued</b>	---	JN398299		JN398282	JN398227	JN398217	JN398194	JN398194
<i>Syconycteris australis</i>	<b>140249</b>	MVZ	GQ410278	GQ410255	GQ410301	JN398247	FJ218479	JN398195	
<i>Thoopterus nigrescens</i>	<b>EBU807</b>	AM	<b>MN883338</b>		<b>MN883330</b>	<b>MN883298</b>	<b>MN883353</b>	<b>MN883298</b>	AF293646

<sup>a</sup>Institution abbreviations as follows: AMCC = Ambrose Monell Cryo Collection (AMNH), AMNH = American Museum of Natural History, AM = Australian Museum, CM = Carnegie Museum, FMNH = Field Museum of Natural History, KU = University of Kansas, MNHN = Muséum National d'Histoire Naturelle, MVZ = Museum of Vertebrate Zoology, ROM = Royal Ontario Museum, SMF = Senckenberg Forschungsinstitut und Naturmuseum, UNIMAS = University of Malasia, USNM = National Museum of Natural History, UWZM = University of Wisconsin Zoological Museum, WAM = Western Australian Museum, ZMA = Zoologisch Museum Amsterdam, ZMB = Museum für Naturkunde Berlin.

<sup>b</sup>Sequence kindly provided by Deanne Byrnes.