

Table S1: Taxon sampling of the mitogenome data set including NCBI Genbank accession.

Subfamily	Tribe	Tribe sensu Colonnelli, 2004	Species	Voucher ID	Accession
Rhynchitinae	Deporaini	-	<i>Deporaus marginatus</i>	-	MT740322
Apoderinae	Apoderini	-	<i>Apoderus jekelii</i>	-	MK292540
Brentinae	Cyladini	-	<i>Cylas formicarius</i>	-	MK421358
Molytinae	Pissodini	-	<i>Pissodes yunnanensis</i>	-	OK135167
	Hylobiini	-	<i>Aclees cribratus</i>	-	MT501538
Cryptorhynchinae	Aminyopini	-	<i>Niphades castanea</i>	-	MT232762
	Cryptorhynchini	-	<i>Sternochetus mangiferae</i>	-	MW836141
	Cryptorhynchini	-	<i>Trigonopterus triradiatus</i>	-	MT653605
	Cryptorhynchini	-	<i>Eucryptorrhynchus scrobiculatus</i>	-	MZ417388
Curculioninae	Anthonomini	-	<i>Anthonomus pomorum</i>	-	MK654677
	Curculionini	-	<i>Curculio elephas</i>	-	KX087269
	Derelomini	-	<i>Elaeidobius kamerunicus</i>	-	MT560591
	Coryssomerini	-	<i>Coryssomerus capucinus</i>	Ccapu_A566	OR952932
Ceutorhynchinae	Egriini	Ceutorhynchini	<i>Micrelus ericae</i>	Meric_Z33370	OR952933
	Wagnerini	Ceutorhynchini	<i>Wagnerinus harmardi</i>	Wharm_J1	PP209352
	Mononychini	Mononychini	<i>Mononychus punctumalbum</i>	Mpunc_A422	PP234968
	Scleropterini	Scleropterini	<i>Scleropterus offensus</i>	Soffe_A407	PP203211
	Scleropterini	Scleropterini	<i>Scleropterus serratus</i>	Ssera_Z38925	PP203212
	Coelidini	Ceutorhynchini	<i>Coeliodes ruber</i>	Crube_Z26878	OR715019
	Coelidini	Ceutorhynchini	<i>Coeliodes transversealbofasciatus</i>	Ctran_Z28554	OR832777
	Coelidini	Ceutorhynchini	<i>Eucoeliodes mirabilis</i>	Emira_Z70603	OR901693
	Hypurini	Hypurini	<i>Aphytobius sphaerion</i>	Aspha_Z49591	OR699286
	Hypurini	Hypurini	<i>Oreorrhynchaes alpicola</i>	Oalpi_Z70960	OR879237
	Cnemogonini	Cnemogonini	<i>Auleutes epilobii</i>	Aepil_Z70937	OR699284
	Cnemogonini	Cnemogonini	<i>Sinauleutes bigibbosus</i>	Sbigg_J9	PP203208
	Mecysmoderini	Mecysmoderini	<i>Coelioderes nigrinus</i>	Cnigr_J3	OR715017
	Mecysmoderini	Mecysmoderini	<i>Mecysmoderes ater</i>	Mater_J8	PP203213
	Mecysmoderini	Mecysmoderini	<i>Xenysmoderes consularis</i>	Xcons_J11	PP209353
	Phytobiini	Amalini	<i>Amalus scortillum</i>	Ascor_Z38735	OR699285
	Phytobiini	Ceutorhynchini	<i>Zacladus geranii</i>	Zgera_A409	PP209354
	Phytobiini	Phytobiini	<i>Eubrychius velutus</i>	Evelu_Z38715	OR879233
	Phytobiini	Phytobiini	<i>Neophytobius granatus</i>	Ngran_Z28498	OR879235
	Phytobiini	Phytobiini	<i>Pelenomus commari</i>	Pcomm_Z39798	OR952937
	Phytobiini	Phytobiini	<i>Phytobius leucogaster</i>	Pleuc_Z38937	PP203204
	Phytobiini	Phytobiini	<i>Rhinoncus pericarpus</i>	-	MH404119
	Phytobiini	Phytobiini	<i>Tapeinotus sellatus</i>	Tsell_Z38909	PP209351
	Phytobiini	Scleropterini	<i>Brachiodontus alpinus</i>	Balpi_Z71003	PP209349
	Phytobiini	Scleropterini	<i>Homorosoma validirostre</i>	Hvali_Z49584	OR879234
	Phytobiini	Scleropterini	<i>Scleropteridius fallax</i>	Sfall_Z26223	PP203210
	Ceutorhynchini	Ceutorhynchini	<i>Barioxyonyx tournieri</i>	Btour_Z35653	OR699287
	Ceutorhynchini	Ceutorhynchini	<i>Cardipennis shaowuensis</i>	Cshaw_J6	OR715012
	Ceutorhynchini	Ceutorhynchini	<i>Ceutorhynchus albosuturalis</i>	-	OR255928
	Ceutorhynchini	Ceutorhynchini	<i>Ceutorhynchus alliariae</i>	Calli_A428	OR715013
	Ceutorhynchini	Ceutorhynchini	<i>Ceutorhynchus asper</i>	-	OR255927
	Ceutorhynchini	Ceutorhynchini	<i>Ceutorhynchus assimilis</i>	-	OU815607
	Ceutorhynchini	Ceutorhynchini	<i>Ceutorhynchus hampei</i>	Champ_Z38734	OR715014
	Ceutorhynchini	Ceutorhynchini	<i>Ceutorhynchus napi</i>	Cnapi_A568	OR715016
	Ceutorhynchini	Ceutorhynchini	<i>Ceutorhynchus pallidactylus</i>	Cpall_A510	PP215400
	Ceutorhynchini	Ceutorhynchini	<i>Ceutorhynchus pulvinatus</i>	Cpulv_A560	OR715018
	Ceutorhynchini	Ceutorhynchini	<i>Ceutorhynchus sisymbrii</i>	Csisy_A104	PP234969
	Ceutorhynchini	Ceutorhynchini	<i>Ceutorhynchus</i> sp.	Cspec_A418	OR726414
	Ceutorhynchini	Ceutorhynchini	<i>Ceutorhynchus typhae</i>	Ctyph_A420	OR832778
	Ceutorhynchini	Ceutorhynchini	<i>Coeliastes lamii</i>	Clami_Z38919	OR715015
	Ceutorhynchini	Ceutorhynchini	<i>Hesperorrhynchus phytobioides</i>	Hphyt_Z26043	OR952935
	Ceutorhynchini	Ceutorhynchini	<i>Microplontus rugulosus</i>	Mrugu_A338	OR901691
	Ceutorhynchini	Ceutorhynchini	<i>Mogulones austriacus</i>	Maust_Z49563	OR901694
	Ceutorhynchini	Ceutorhynchini	<i>Mogulones unciipes</i>	Munci_Z26102	OR952934

Subfamily	Tribe	Tribe sensu Colonnelli, 2004	Species	Voucher ID	Accession
	Ceutorhynchini	Ceutorhynchini	<i>Mogulones cynoglossi</i>	Mcyno_Z49572	OR901695
	Ceutorhynchini	Ceutorhynchini	<i>Mogulonoides radula</i>	Mradu_Z28490	OR901692
	Ceutorhynchini	Ceutorhynchini	<i>Neoglocianus albovittatus</i>	Nalbo_A570	OR952938
	Ceutorhynchini	Ceutorhynchini	<i>Neoglocianus maculaalba</i>	Nmacu_Z26435	OR879236
	Ceutorhynchini	Ceutorhynchini	<i>Oprohinus consputus</i>	Ocons_Z49580	OR879238
	Ceutorhynchini	Ceutorhynchini	<i>Parethelcus nescicola</i>	Pnesi_Z48180	OR952936
	Ceutorhynchini	Ceutorhynchini	<i>Paroxyonyx audisioi</i>	Paudi_Z26102	OR879239
	Ceutorhynchini	Ceutorhynchini	<i>Phrydiuchus topiarius</i>	Ptopi_Z38728	PP203207
	Ceutorhynchini	Ceutorhynchini	<i>Poophagus sisymbrii</i>	Psisy_Z49716	PP203205
	Ceutorhynchini	Ceutorhynchini	<i>Prisistus suturalba</i>	Psutu_Z69589	PP203206
	Ceutorhynchini	Ceutorhynchini	<i>Sirocalodes depressicollis</i>	Sdepr_Z38958	PP203209
	Ceutorhynchini	Ceutorhynchini	<i>Thamiocolus niveus</i>	Tnive_Z26150	PP209350
	Ceutorhynchini	Ceutorhynchini	<i>Thamiocolus viduatus</i>	Tvidu_A111	PP234970
	Ceutorhynchini	Ceutorhynchini	<i>Trichosirocalus troglodytes</i>	Ttrog_A406	PP215401

Table S2: NCBI Genbank accession numbers of taxa added by COI and rRNA sequences

Tribe	Tribe sensu Colonnelli, 2004	Species	Accession	
			12S + 16S	COI
Egriini	Egriini	<i>Cyphosenus grouvellei</i>	AB232977	-
Coeliadini	Coeliadini	<i>Coeliodes nakanoensis</i>	AB232961	-
Coeliadini	Coeliadini	<i>Coeliodinus etorofuensis</i>	AB232962	-
Coeliadini	Coeliadini	<i>Trichocoeliodes excavatus</i>	AB232970	-
Ceutorhynchini	Ceutorhynchini	<i>Ceutorhynchoides styracis</i>	AB232958	-
Ceutorhynchini	Ceutorhynchini	<i>Ceutorhynchus filiae</i>	AB232959	CJWBP105-15
Ceutorhynchini	Ceutorhynchini	<i>Ceutorhynchus ibukianus</i>	AB232960	CJWBP050-15
Ceutorhynchini	Ceutorhynchini	<i>Dieckmannius lewisi</i>	AB232963	-
Ceutorhynchini	Ceutorhynchini	<i>Hadroplontus ancora</i>	AB232964	-
Ceutorhynchini	Ceutorhynchini	<i>Hainokisaruzo japonicus</i>	AB232965	-
Ceutorhynchini	Ceutorhynchini	<i>Nedyus quadrimaculatus</i>	AB232967	KU919840
Ceutorhynchini	Ceutorhynchini	<i>Sirocalodes umbrinus</i>	AB232968	-
Ceutorhynchini	Ceutorhynchini	<i>Thamiocolus kraatzi</i>	AB232969	-
Ceutorhynchini	Ceutorhynchini	<i>Wagnerinus costatus</i>	AB232971	-
Scleropterini	Scleropterini	<i>Scleropteroides hypocrita</i>	AB232980	MH458423
Scleropterini	Scleropterini	<i>Scleropterus serratus</i>	AB232979	-

Table S3: ML tree reconstruction partitioning and model scheme

Partition	Model	Strand	Genes
1	GTR+F+R7	F	ATP6-1st, ATP6-2nd, ATP6-3rd NAD3-1st, NAD3-2nd, NAD3-3rd
2	TPM3+F+R5	F	ATP8-1st, ATP8-2nd, ATP8-3rd
3	GTR+F+R7	F	COX1-1st, COX1-2nd, COX1-3rd
4	TIM2+F+R6	F	COX2-1st, COX2-2nd, COX2-3rd
5	GTR+F+R7	F	COX3-1st, COX3-2nd, COX3-3rd CYTB-1st, CYTB-2nd, CYTB-3rd
6	GTR+F+R6	R	NAD1-1st, NAD1-2nd, NAD1-3rd NAD4-1st, NAD4-2nd, NAD4-3rd
7	GTR+F+R7	R	NAD2-1st, NAD2-2nd, NAD2-3rd NAD6-1st
8	GTR+F+R7	R	NAD5-1st, NAD5-2nd, NAD5-3rd NADL-1st, NADL-2nd, NADL-3rd
9	GTR+F+R6	F	NAD6-2nd, NAD6-3rd
10	GTR+F+R5	R	16S, rRNA
11	GTR+F+I+G4	R	12S, rRNA

Strand: F: forward, R: reverse