



## Supporting Online Material for

### **A Comprehensive Phylogeny of Beetles Reveals the Evolutionary Origins of a Superradiation**

Toby Hunt, Johannes Bergsten, Zuzana Levkanicova, Anna Papadopoulou, Oliver St. John, Ruth Wild, Peter M. Hammond, Dirk Ahrens, Michael Balke, Michael S. Caterino, Jesús Gómez-Zurita, Ignacio Ribera, Timothy G. Barraclough, Milada Bocakova, Ladislav Bocak, Alfried P. Vogler\*

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Data files S1 and S2

# **A comprehensive phylogeny of beetles reveals the evolutionary origins of a super-radiation**

## **Supporting Online Material**

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## A) Materials and Methods

A purpose-built database containing all publicly available (GenBank Dec. 2006) coleopteran nucleotide sequences and a custom-designed bioinformatics pipeline enabled the automatic searching, filtration, alignment and combination of user specified genes to produce a taxonomically non-redundant, length restricted data set. Sequences (Table S1) were obtained with standard DNA sequencing protocols (S1). PCR amplification of SSU was performed in four overlapping fragments with primers described by Shull et al. (S2) (primer pairs: 18S5'-18Sb5.0, 18Sai-18Sb0.5, 18Sa1.0-18Sbi and 18Sa2.0-18S3'I). Amplification of partial mitochondrial *coxI* and *rrnL* genes was performed, respectively, with primer pairs C1-J-2183 (Jerry) and TL2-N-3014 (Pat) (S3), and LR-N-13398 and LR-J-12887 (S3) or LR-J-12961 (S4). The final data compilation included full-length SSU sequences for 1880 species (no missing taxa), corresponding to position 32 to 1959 in the *Drosophila melanogaster* sequence (S5), plus partial *rrnL* for 697 species and *coxI* for 726 species. The sequenced regions correspond to position 12884 to 13385 for *rrnL* and 2233 to 2957 for *coxI* on the *D. yakuba* map (S6). The proportion of missing single-nucleotide entries in the 1880-taxon data set was 22.3% (3606 positions in the aligned matrix of which 2039 parsimony informative) and 13.7% (2999 positions) in the 340-taxon data set. For the 1880-taxon data set the incongruence length difference index is 2.5% (the 'extra homoplasy' from combining the genes).

Length variable rRNA genes were aligned with BlastAlign (S7) with the blastn program under default settings (word size = 11; gap opening penalty = -5; gap extension penalty = -2) to produce a query-anchored multiple alignment where the maximum proportion of gaps allowed in a single sequence was set to 0.95 ( $m = 0.95$ ). The SSU blast-based alignment was used in the final matrix whilst the *rrnL* alignment underwent an additional alignment step which utilized a parsimony tree from the blast-based alignment as a guide tree for a subsequent global alignment created with ClustalX (S8) under the default parameters without any manual modifications. The *coxI* sequences were also aligned by a single default run of ClustalX. Parsimony trees were obtained from the subsequent aligned matrix with an aggressive search protocol in TNT (S9) (Fig. S4). These searches utilized a combination of the parsimony ratchet, tree drifting, tree fusion and sectorial searches ( $xmult = 100$ ) on a desktop PC (2.6 MHz Pentium processor, 768 Mb RAM) for 72 hours. The Rec-I-DCM3 disk covering method (S10) found no shorter trees when 'divide and conquer' techniques were applied. For the 340-taxon set SSU and *rrnL* were aligned with the aid of secondary structure predictions and unalignable sites were excluded. A total of 21 taxa were merged into chimeric terminals composed of congeneric species with complementary sequence information for the three genes, to reduce the amount of missing data. In all cases taxa

used to build chimerae were confirmed to be monophyletic in the 1880-taxon analysis. Bayesian analyses were conducted with the parallel version of MrBayes vers. 3.1.2 (*S11*) on a 408 processor Opteron (1.8GHz, 2Gb memory) Beowulf cluster. A partition-specific GTR+I+ $\Gamma$  model (selected by Modeltest; *S12*) was used for SSU, *rrnL*, and each codon position of *cox1* with random or user-defined starting tree, on the basis of traditional classification, for the Markov Chain. Eight runs over 10 million generations were evaluated on the basis of the harmonic mean estimator of the marginal likelihood and the PSRF convergence diagnostics in MrBayes (Fig. S5). Node ages were obtained for an all-compatible consensus tree with branch lengths averaged over the stationary phase of the bayesian run, with penalized likelihood in r8s (*S13*). The optimal smoothing parameter value was determined from a fossil-based model cross validation procedure (*S14*) with fossils implemented as minimum ages for seven clades (employing a range of dates for the earliest origin of geological strata to which these fossils were assigned; Table S6) and a fixed age for the ingroup (285 Mya). We used both multiple fossil calibration points (Table S6) and smoothing without fossil constraints followed by fixing the age of the ingroup to 285 Mya. Tentative 95% confidence intervals were obtained for a number of focal nodes applying the same procedure and optimal smoothing parameter value to 450 trees drawn at regular intervals from the stationary phase of the Markov chain (Fig. S5). Analyses were also repeated with a range of smoothing parameters to check robustness of inferences.

Species numbers and predominant feeding strategies of the main feeding stage (normally larvae) for each taxon were compiled from world catalogs, revisions and by consulting group experts and colleagues (Table S8). Parsimony reconstruction was used to identify independent origins of plant-feeding (Fig. S3). Polymorphic taxa that include plant-feeders, but are not predominantly herbivorous, (e.g. some subfamilies of Elateridae) were excluded from contrasts of species richness. Shifts in diversification rate were reconstructed as described (*S15*). This method calculates the probabilities of observing greater or equal imbalance in species numbers at each node under an equal rates null model (*S16*), defined as

$$2 \times (\text{number of species in smaller clade}) / (\text{sum of number of species in both clades} - 1).$$

The method was modified as in *S15* to correct for the trickle-down effect of recent radiations with outgroup comparisons. In brief, this method proceeds from the tips to the root of the tree and for any node displaying a significant probability of departure from the null model, it compares both sister clades in turn to the number of species in the outgroup clade to determine which clade represents the significant shift in diversification rate. The chosen clade has its species richness reset to the value of its sister clade, thus removing its influence on calculations at higher nodes. Full details are provided in the supplementary information online from *S15*. Average

diversification rates across terminal taxa were calculated as  $\log(N)/\text{stem age}$  for each (sub)family from the calibrated trees. Stem age was calculated over smoothing parameters 1, 10, 100 and 1000 for both methods of calibrating dates.

## **B) Supporting Figures and Legends**

**Figure S1. Majority-rule consensus tree from Bayesian analysis.** Tree created on the basis of 22,500 topologies sampled from the last 7.5 million generations (of 10 million in total) of the three best MCMC chains according to the likelihood harmonic mean (see Fig. S5). Numbers on branches represent the posterior probability of clades.

**Figure S2. Terrestrial-to-aquatic transitions in the evolution of Coleoptera.** Parsimony optimizations on the tree in Fig. 2 demonstrate 10 independent transitions to the aquatic medium in Coleoptera. Taxa were scored as aquatic if they contained species with aquatic habits in at least one life stage. Three transitions in Cucujiformia refer to lineages adapted to submerged plants rather than free-living in the aquatic medium.

**Figure S3. The evolution of feeding strategies in Coleoptera.** Feeding types were scored as a uniform state at the level of entire subfamilies, ignoring minority subgroups with different feeding style (see Table S8). Polymorphic scorings are for terminals in which more than one feeding style prevails or the feeding style of the majority of species is uncertain. The moss-feeding Byrrhidae were included in the algivorous group.

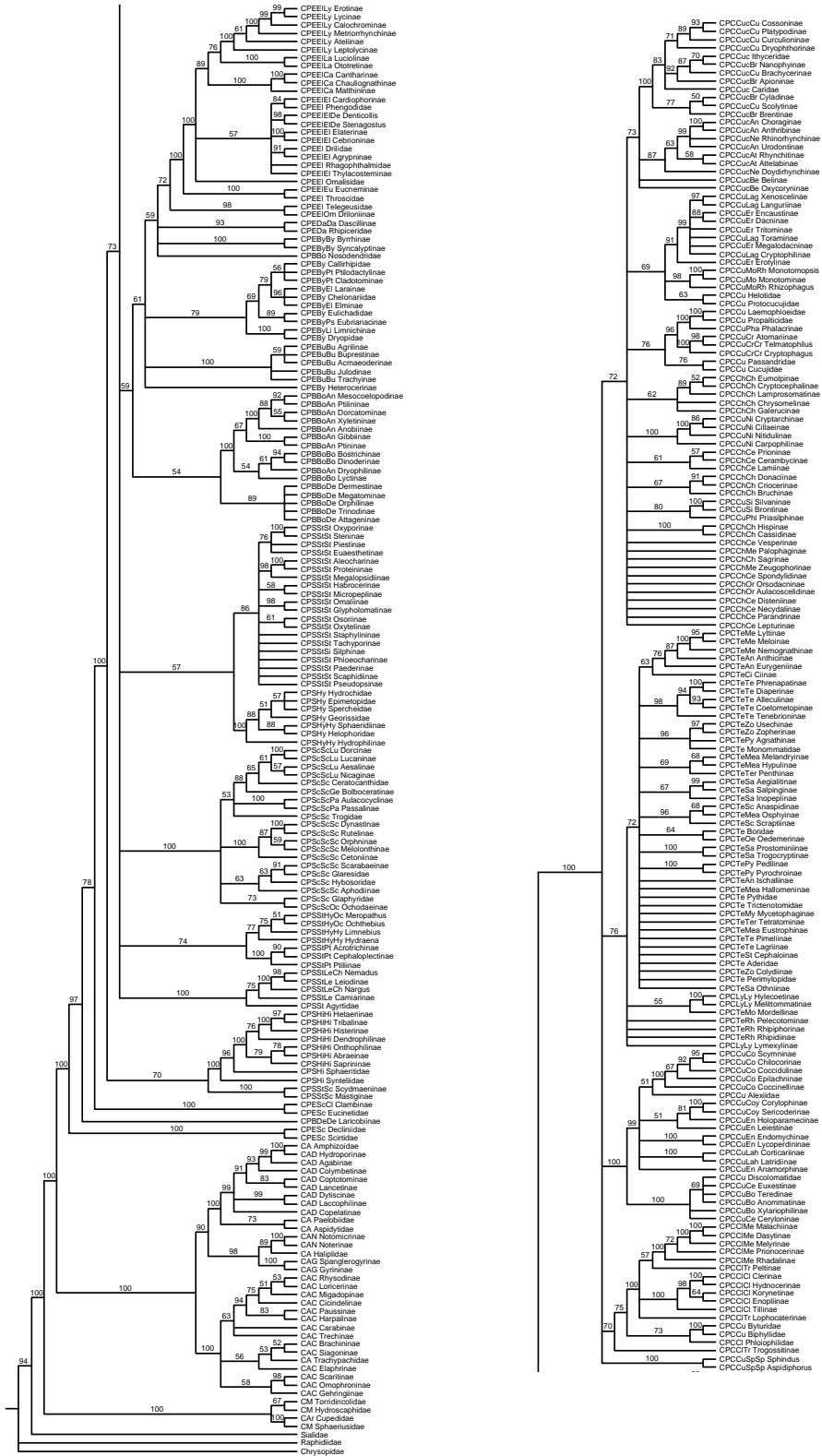
**Figure S4 (15 pages). The most parsimonious tree from the 1880 taxon matrix of 107238 steps and CI=0.048.** The two mitochondrial genes contributed 82234 steps to the combined-analysis tree (RI=0.696 for SSU and RI=0.412 for the mtDNA data sets).

**Figure S5. Stationarity of the Bayesian Markov chain Monte Carlo analyses.** The log likelihood of each tree is plotted against the number of generations. **A:** Comparison of four chains each using a random topology or a user defined topology as the starting tree for the chains. **B:** Inference chains with user defined starting topology based on traditional classification for families, superfamilies, series and suborders. The likelihood harmonic mean at stationarity was used to evaluate the different runs. Note that even though generation versus likelihood plots suggest apparent stationarity in runs with random starting tree towards the end, they were approximately 500 log likelihood units away from the space sampled by runs 1, 2 and 4 with a user defined starting tree. This shows that for large matrices, 10 million generations is inadequate, and that carefully selected starting trees can substantially reduce the run time (but see contrary findings, *S17*). Only runs 1, 2 and 4 with a user defined starting tree were used to establish

posterior probabilities in the final trees with the initial 2.5 million generations discarded as burn-in.

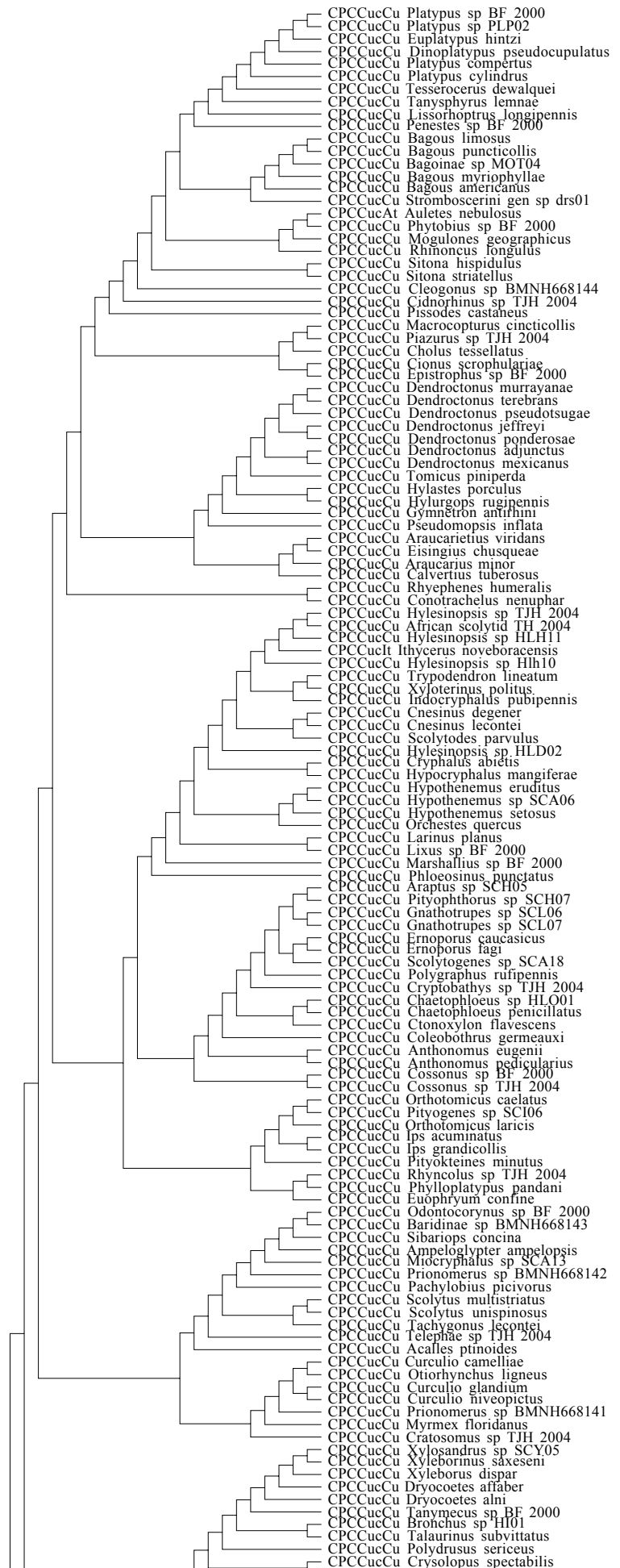


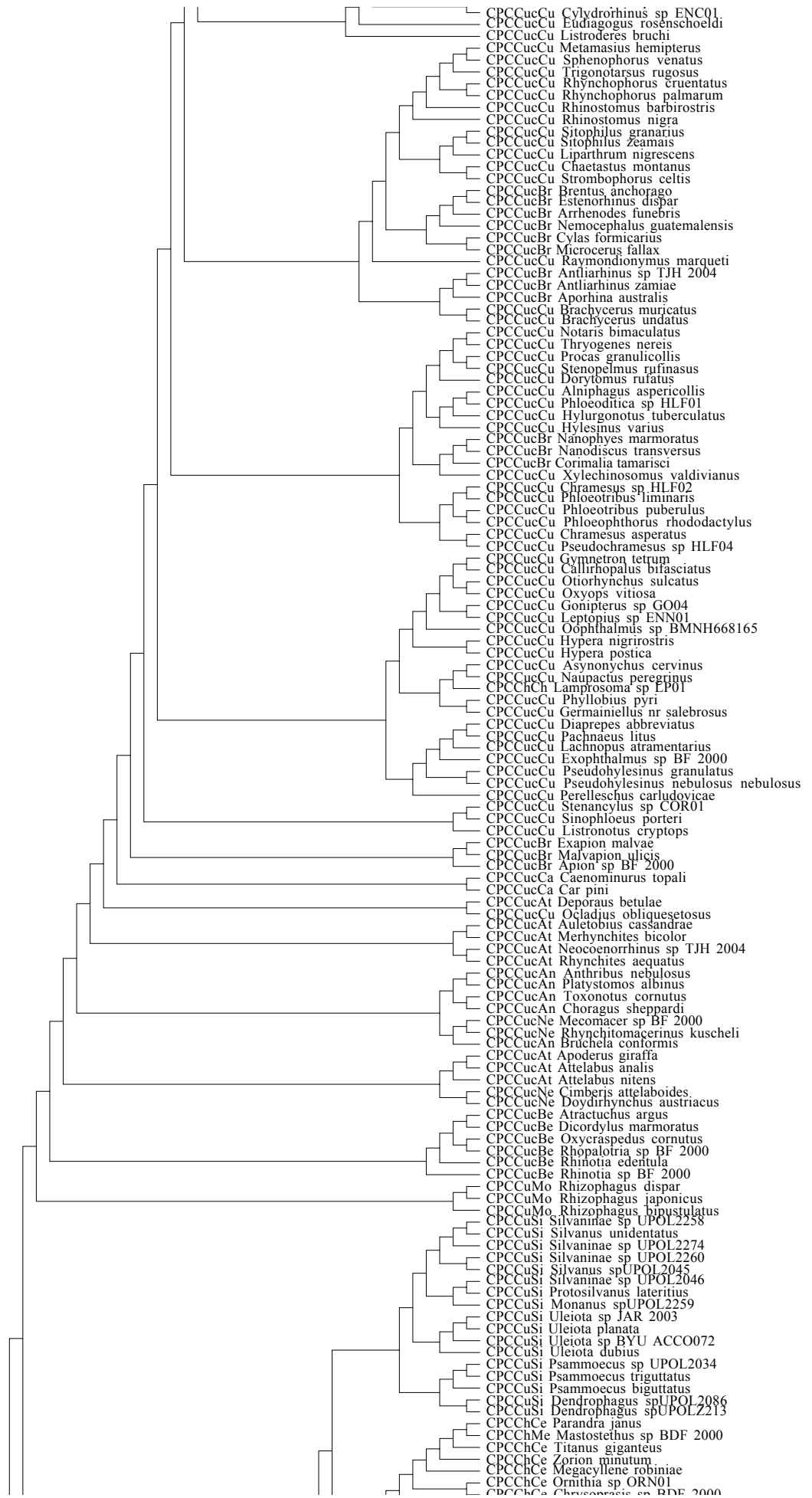
# Supporting Figure S1

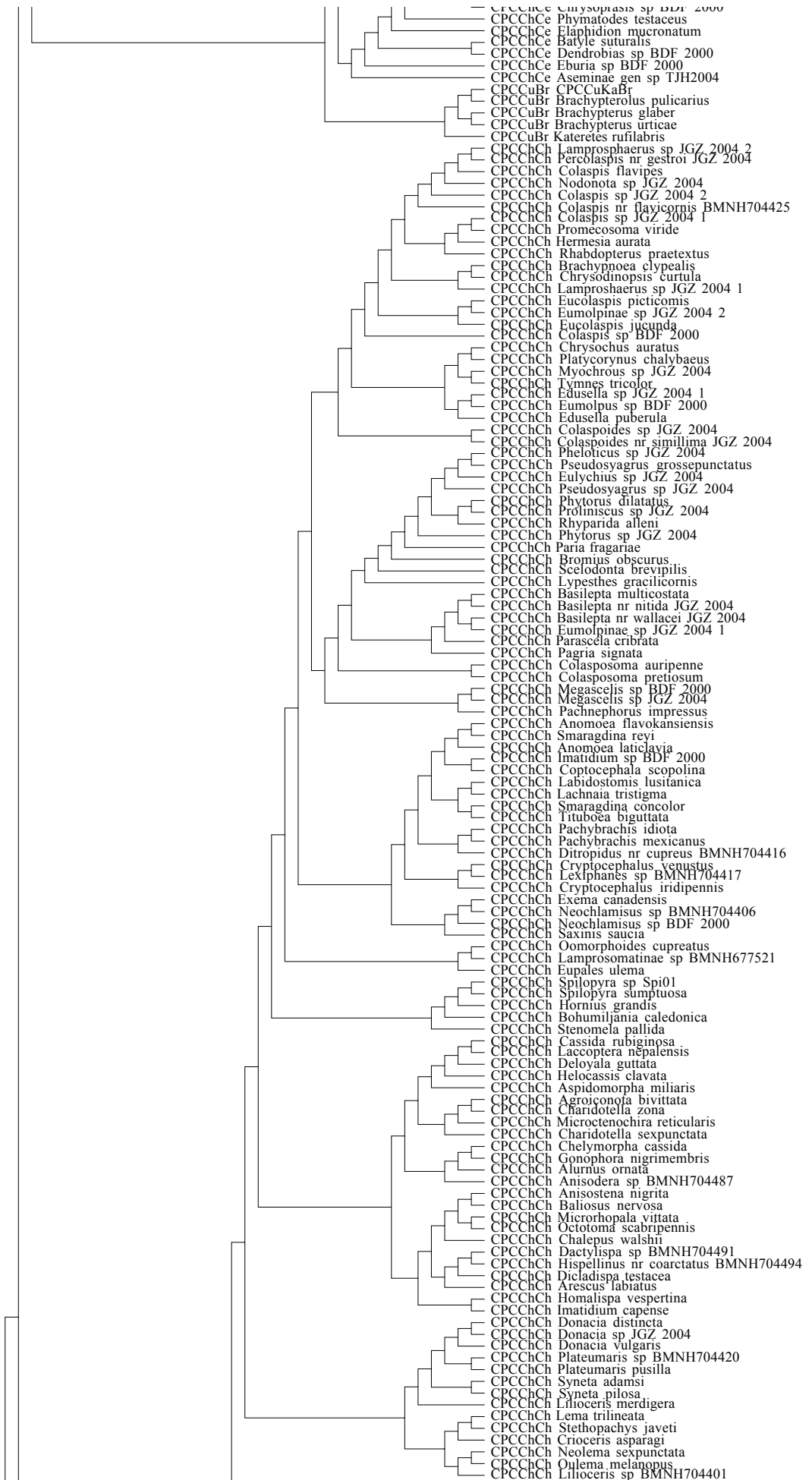


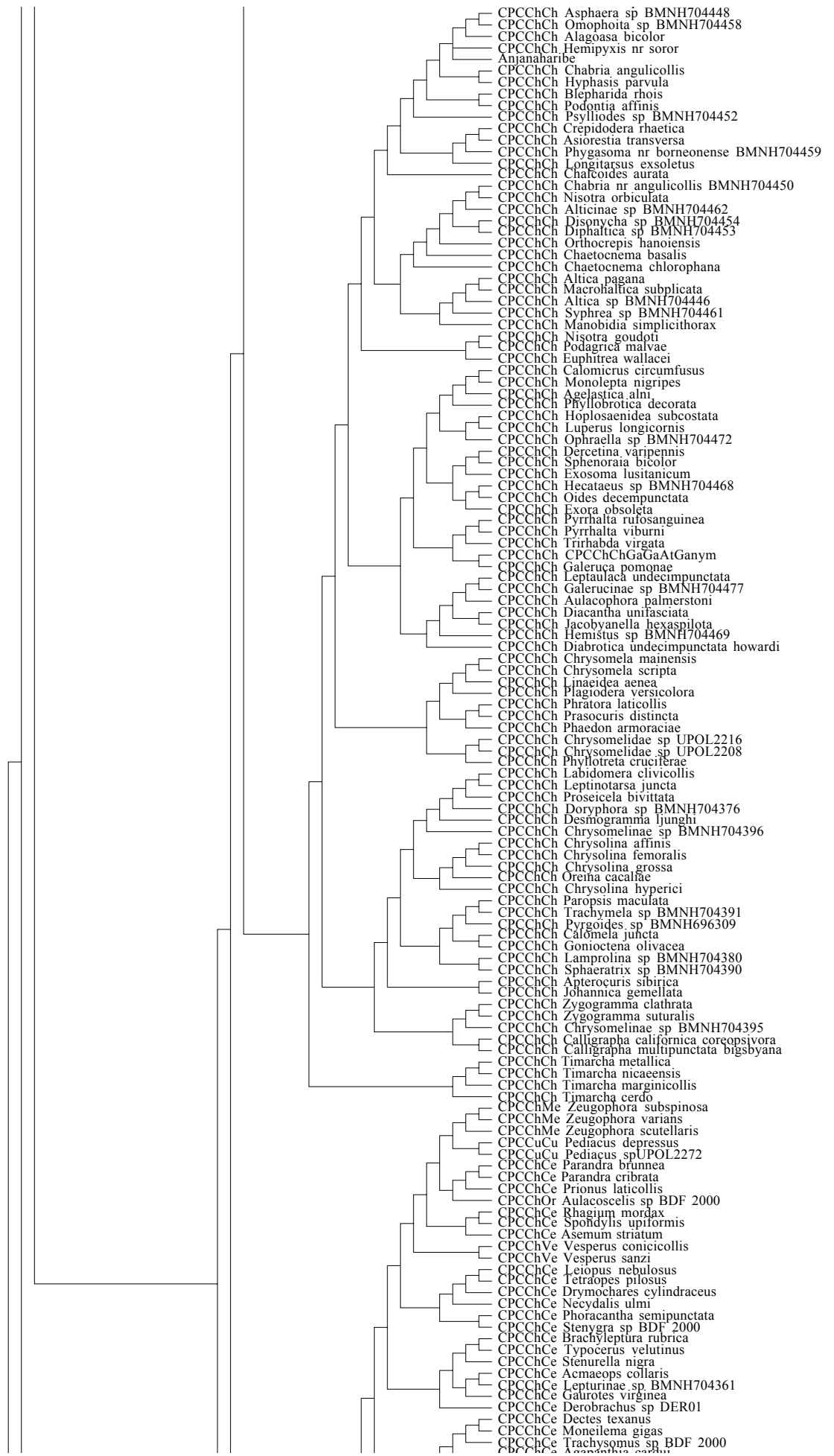






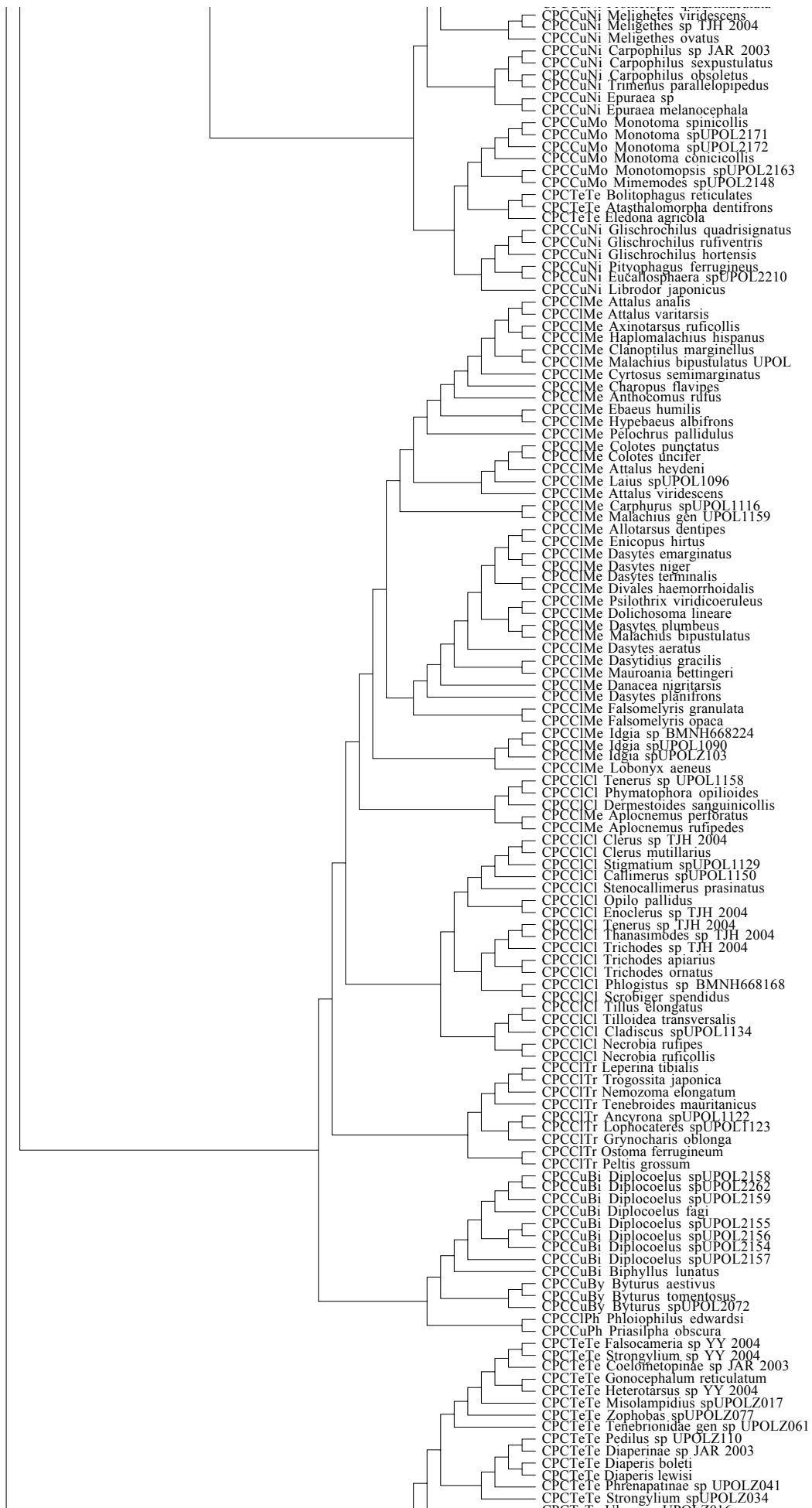


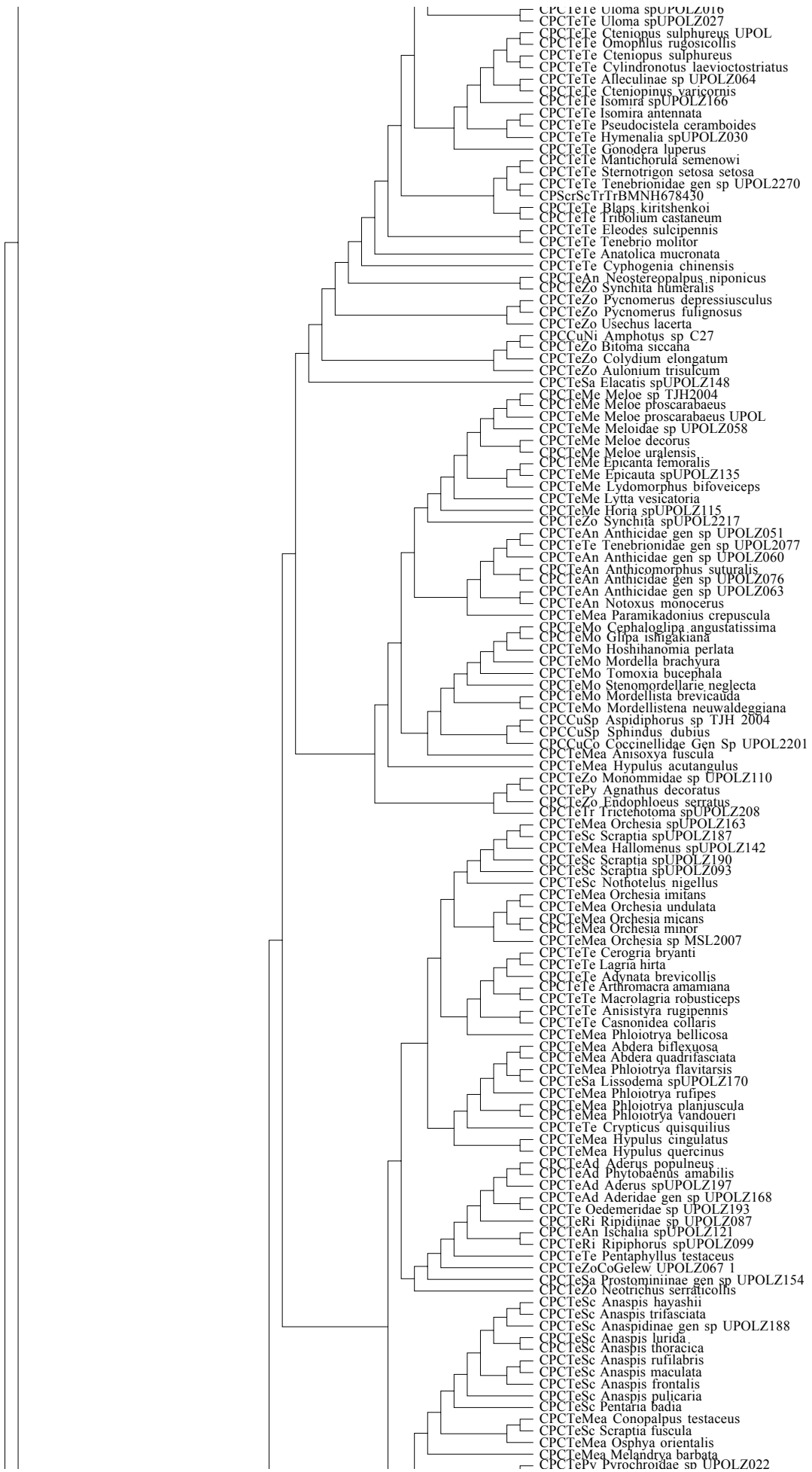




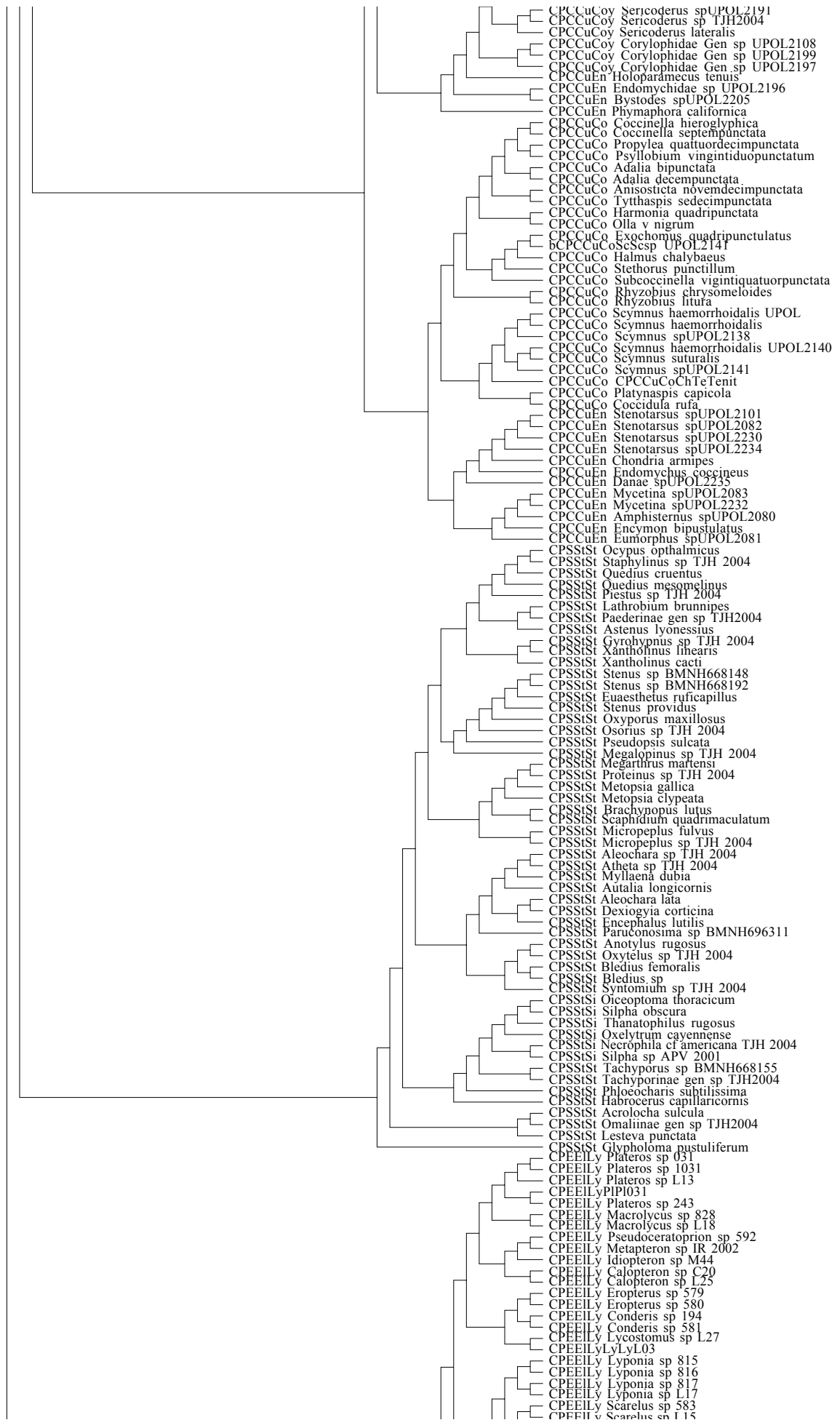


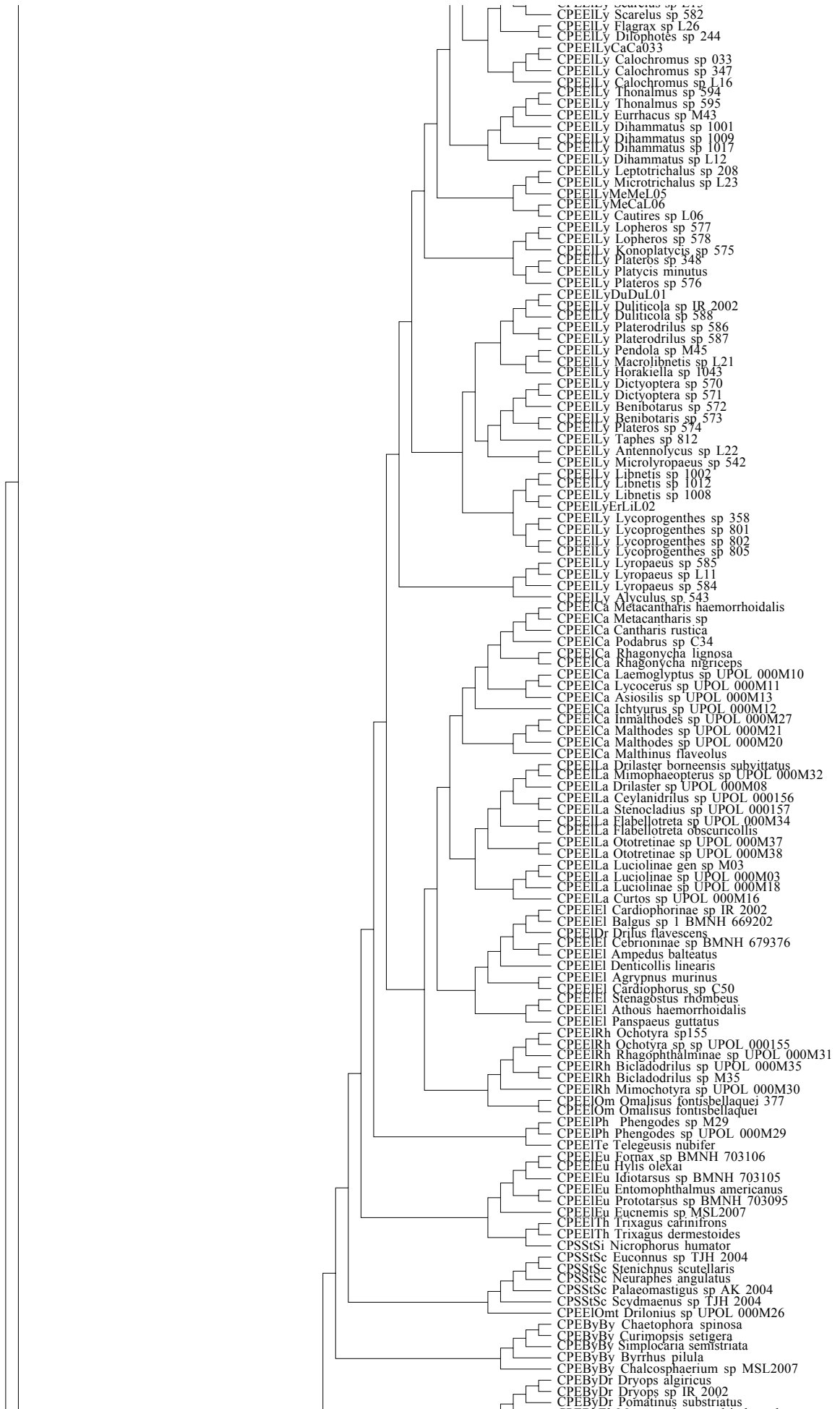


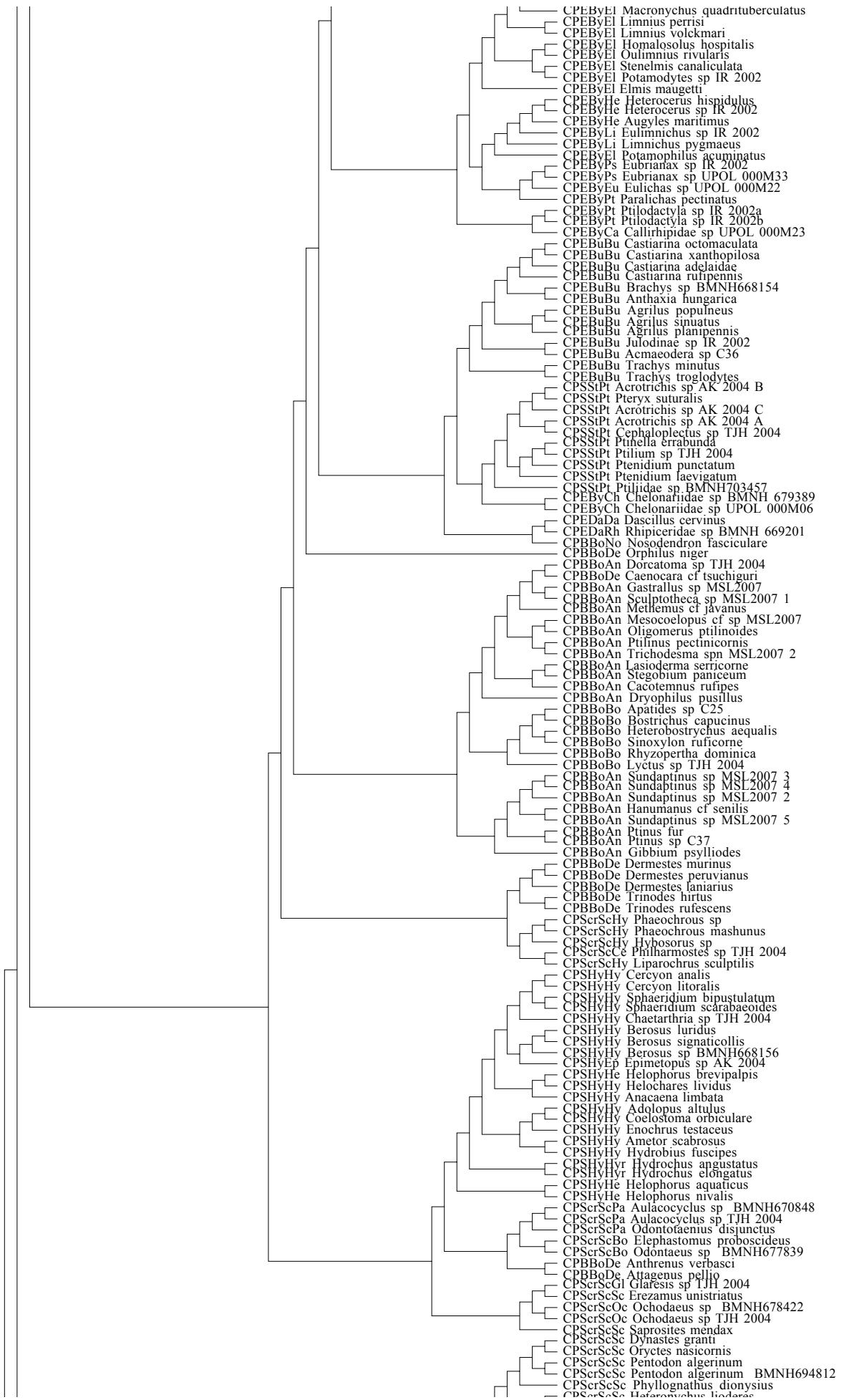


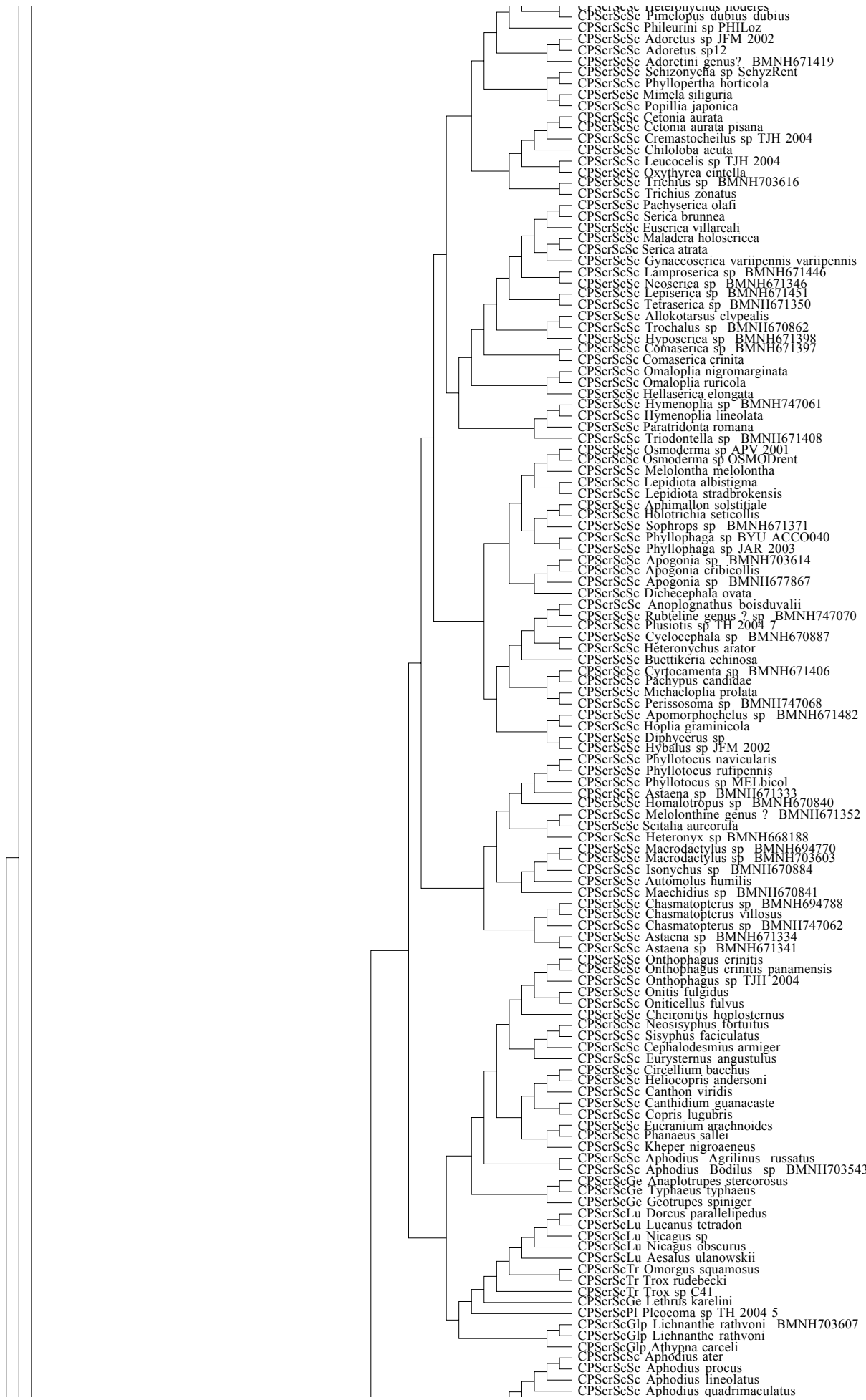


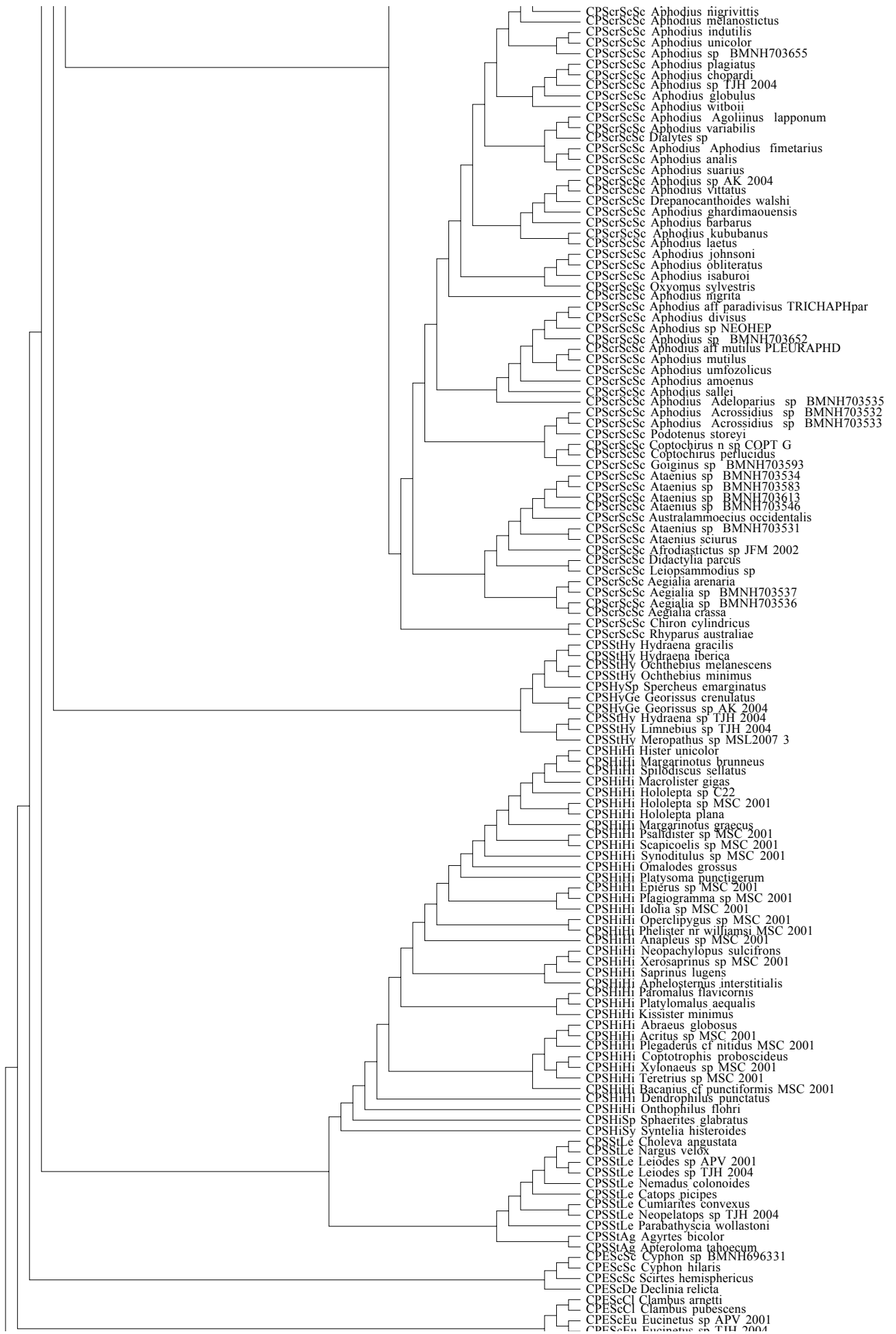




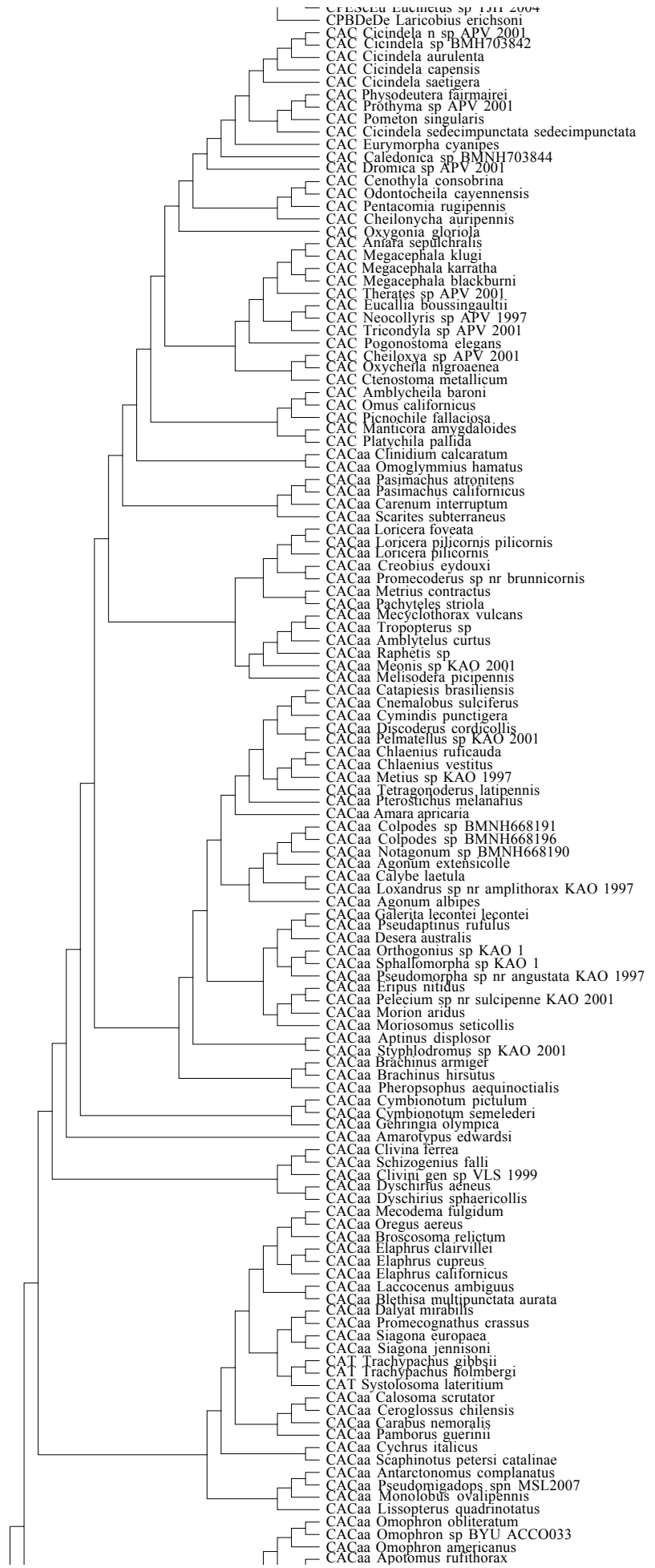


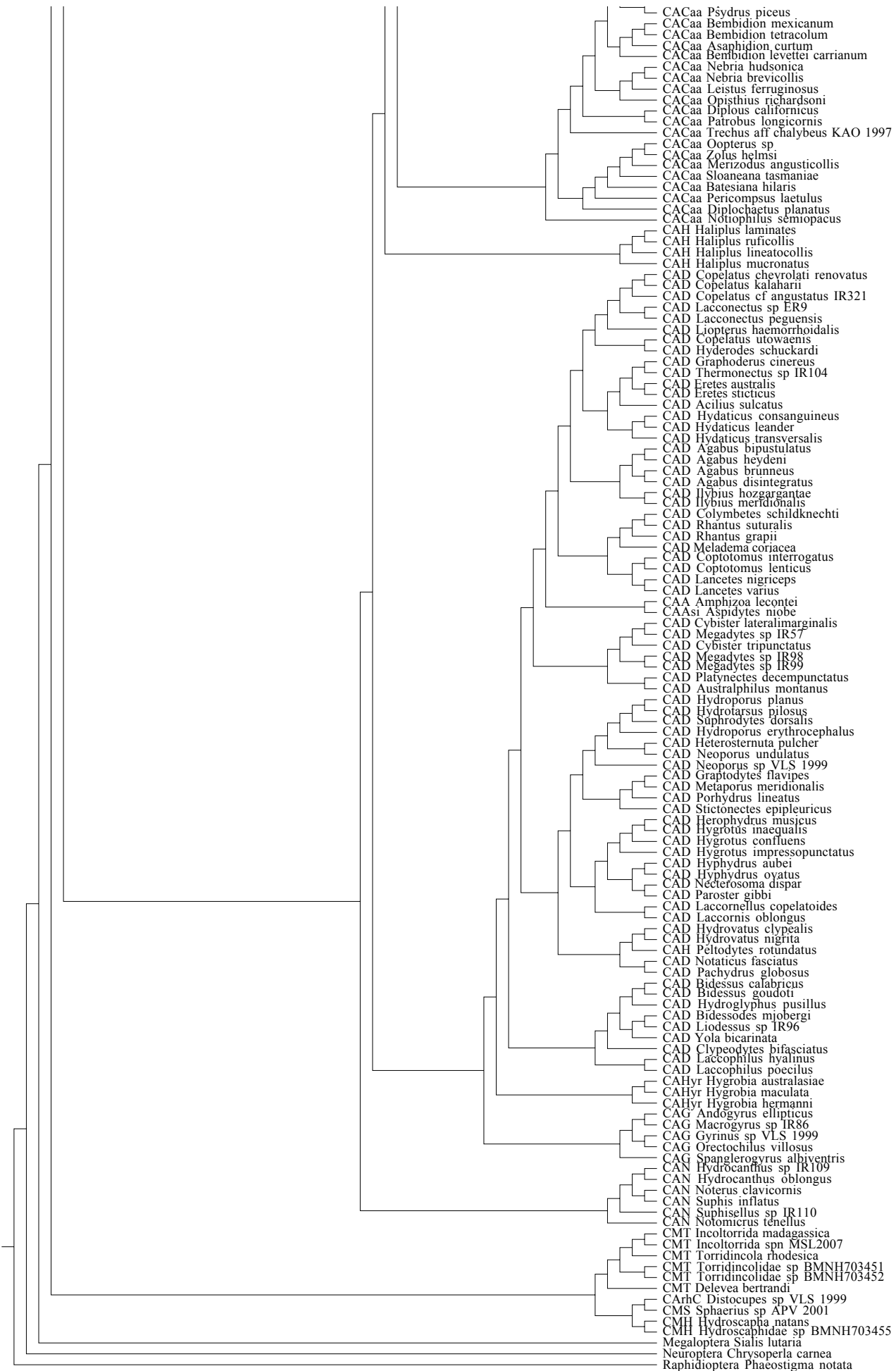






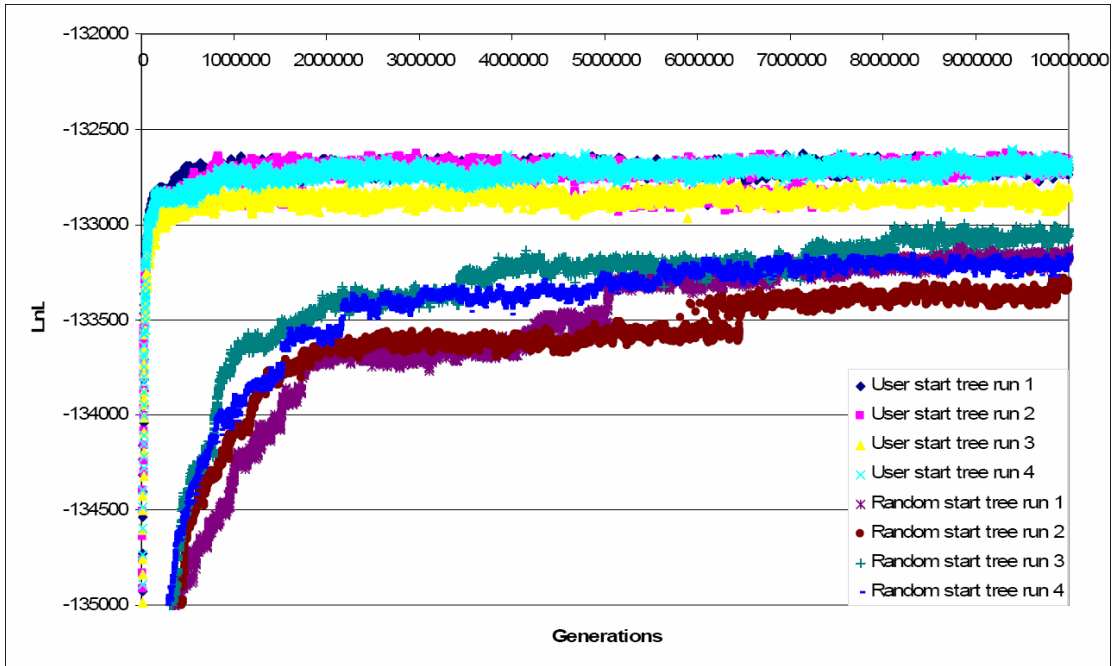




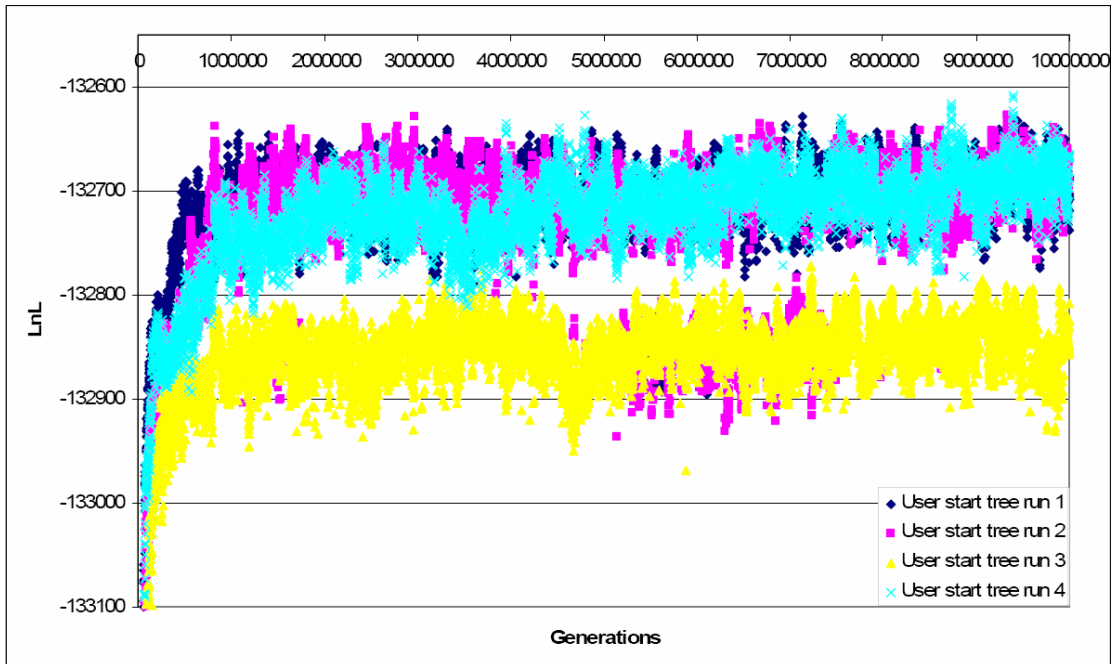


# Supporting Figure S5

## A



## B



## C) Supporting Tables

**Table S1 (31 page). GenBank accession numbers for taxa included in the analysis.** Taxa marked with asterisks were used in the 340-taxon matrix. Congeneric taxa marked with 'chim' were merged into chimeric terminals in the 3-gene, 340-taxon matrix.

Species name	Family	Used in 341 dataset	18S accession number	16S accession number	COI accession number
<i>Amphizoa lecontei</i>	Amphizoidae	yes	ALE318678	AY071771	AY071797
<i>Aspidytes niobe</i>	Aspidytidae	yes	AY071794	AY071782	AY071809
<i>Carabus nemoralis</i>	Carabidae		AF012507	missing	missing
<i>Calosoma scrutator</i>	Carabidae		AF002800	missing	missing
<i>Ceroglossus chilensis</i>	Carabidae		AF012509	missing	missing
<i>Cychrus italicus</i>	Carabidae		AF012510	missing	missing
<i>Scaphinotus petersi catalinae</i>	Carabidae		AF002801	missing	missing
<i>Meonis</i> sp. KAO-2001	Carabidae		AF398722	missing	missing
<i>Pamborus guerinii</i>	Carabidae		AF012508	AY722956	missing
<i>Apotomus rufithorax</i>	Carabidae		AF012497	missing	missing
<i>Brososoma relictum</i>	Carabidae		AF012502	missing	missing
<i>Aptinus displosor</i>	Carabidae		AF012480	missing	missing
<i>Brachinus armiger</i>	Carabidae		AF012479	missing	missing
<i>Brachinus hirsutus</i>	Carabidae		AF012478	missing	missing
<i>Pheropsophus aequinoctialis</i>	Carabidae		AF012477	missing	missing
<i>Styphlodromus</i> sp. KAO-2001	Carabidae		AF398718	missing	missing
<i>Creobius eydouxi</i>	Carabidae		AF012498	missing	missing
<i>Mecodema fulgidum</i>	Carabidae	yes	AF012501	missing	AF320673
<i>Oregus aereus</i>	Carabidae		AF012500	missing	AF466841
<i>Promecoderus</i> sp. nr. <i>brunnicornis</i>	Carabidae		AF012499	missing	missing
<i>Cymbionotum pictulum</i>	Carabidae		AF012496	missing	missing
<i>Cymbionotum semelederi</i>	Carabidae		AF012495	missing	missing
<i>Catapiesis brasiliensis</i>	Carabidae		AF012476	missing	missing
<i>Chlaenius ruficauda</i>	Carabidae		AF002777	missing	missing
<i>Chlaenius vestitus</i>	Carabidae		AF201404	missing	missing
<i>Cnemalobus sulciferus</i>	Carabidae		AF012474	missing	missing
<i>Desera australis</i>	Carabidae		DQ157759	missing	missing
<i>Galerita lecontei lecontei</i>	Carabidae		AF002780	missing	missing
<i>Discoderus cordicollis</i>	Carabidae	yes	AF002776	missing	AJ583332
<i>Pelmatellus</i> sp. KAO-2001	Carabidae		AF398720	missing	missing
<i>Tetragonoderus latipennis</i>	Carabidae		AF012471	missing	missing
<i>Calybe laetula</i>	Carabidae		AF002772	missing	missing
<i>Cymindis punctigera</i>	Carabidae		AF002773	missing	missing
<i>Loxandrus</i> sp. nr. <i>amplithorax</i> KAO-1997	Carabidae		AF002778	missing	missing
<i>Metius</i> sp. KAO-1997	Carabidae		AF012475	missing	missing
<i>Morion aridus</i>	Carabidae		AF002783	missing	missing
<i>Moriosomus seticollis</i>	Carabidae		AF398721	missing	missing
<i>Orthogonius</i> sp. KAO-1	Carabidae		AF398719	missing	missing
<i>Eripus nitidus</i>	Carabidae		AF398716	missing	missing
<i>Pelecium</i> sp. nr. <i>sulcipenne</i> KAO-2001	Carabidae		AF398715	missing	missing
<i>Agonum albipes</i>	Carabidae		AF201403	missing	DQ155786
<i>Agonum extensicolle</i>	Carabidae		AF002775	missing	missing
<i>Notagonum</i> sp. BMNH668190	Carabidae		DQ337161	missing	missing
<i>Pseudomorpha</i> sp. nr. <i>angustata</i> KAO-1997	Carabidae		AF002782	missing	missing
<i>Sphallomorpha</i> sp. KAO-1	Carabidae		AF398717	missing	missing
<i>Colpodes</i> sp. BMNH668191	Carabidae		DQ337162	missing	missing
<i>Colpodes</i> sp. BMNH668196	Carabidae		DQ337164	missing	missing
<i>Pterostichus melanarius</i>	Carabidae		AF002779	missing	missing
<i>Amara apricaria</i>	Carabidae		AF002774	missing	missing
<i>Pseudaptinus rufulus</i>	Carabidae		AF002781	missing	missing
<i>Diplous californicus</i>	Carabidae		AF002785	missing	missing
<i>Patrobus longicornis</i>	Carabidae		AF002786	missing	missing
<i>Amblytelus curtus</i>	Carabidae		AF012484	missing	missing
<i>Laccocenus ambiguus</i>	Carabidae		AF012486	missing	missing
<i>Melisodera picipennis</i>	Carabidae		AF012481	missing	missing
<i>Mecyclothorax vulcans</i>	Carabidae		AF012482	missing	missing
<i>Psydrus piceus</i>	Carabidae		AF002784	missing	missing
<i>Raphetis</i> sp.	Carabidae		AF012485	missing	missing
<i>Tropopterus</i> sp.	Carabidae		AF012483	missing	missing

Asaphidion curtum	Carabidae		AF002792	missing	missing
Batesiana hilaris	Carabidae		AF012489	missing	missing
Bembidion levettei carrianum	Carabidae		AF002791	missing	missing
Bembidion mexicanum	Carabidae		AF012490	missing	missing
Bembidion tetracolum	Carabidae	yes	AF201402	missing	DQ155825
Pericompsum laetulus	Carabidae		AF002790	missing	missing
Diplochaetus planatus	Carabidae		AF002789	missing	missing
Trechus aff. chalybeus KAO-1997	Carabidae		AF002793	missing	missing
Merizodus angusticollis	Carabidae		AF012487	missing	missing
Oopterus sp.	Carabidae		AF012488	missing	missing
Sloaneana tasmaniae	Carabidae		AF002788	missing	missing
Zolus helmsi	Carabidae		AF002787	missing	missing
Clivina ferrea	Carabidae	yes - chim	AF002796	missing	missing
Dyschirius aeneus	Carabidae		AF201401	missing	missing
Dyschirius sphaericollis	Carabidae		AF002798	missing	missing
Schizogenius falli	Carabidae		AF002797	missing	missing
Clivini gen. sp. VLS-1999	Carabidae		AF201400	missing	missing
Carenum interruptum	Carabidae		AF012491	missing	missing
Pasimachus atronitens	Carabidae		AF002794	missing	missing
Pasimachus californicus	Carabidae		AF201399	MIPCRGD1	missing
Scarites subterraneus	Carabidae		AF002795	missing	missing
Blethisa multipunctata aurata	Carabidae		AF002803	missing	missing
Elaphrus californicus	Carabidae		AF012514	missing	missing
Elaphrus clairvillei	Carabidae		AF002802	missing	missing
Elaphrus cupreus	Carabidae	yes	AF201397	MIECRGD1	missing
Gehringia olympica	Carabidae	yes	AF012512	missing	missing
Loricera foveata	Carabidae	yes	AF012503	missing	missing
Loricera pilicornis	Carabidae		AF201396	EF517579	missing
Loricera pilicornis pilicornis	Carabidae		AF002799	missing	missing
Amarotypus edwardsi	Carabidae	yes	AF012506	missing	missing
Antarctonomus complanatus	Carabidae		AF012504	missing	missing
Lissopterus quadrinotatus	Carabidae		EF214160	EF214006	EF214238
Monolobus ovalipennis	Carabidae		AF012505	missing	missing
Pseudomigadops sp.n. MSL2007	Carabidae		EF214159	EF214062	EF214265
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Nebria hudsonica	Carabidae		AF002805	missing	missing
Nebria brevicollis	Carabidae	yes	AF201395	EF517580	DQ155828
Notiophilus semiopacus	Carabidae		AF002804	missing	missing
Opisthius richardsoni	Carabidae		AF012511	missing	missing
Omophron americanus	Carabidae	yes - chim	AF201398	DQ202572	missing
Omophron oblitteratum	Carabidae		AF012513	missing	missing
Omophron sp. BYU_ACCO033	Carabidae		AY521831	missing	missing
Metrius contractus	Carabidae	yes	AF012515	DQ202615	DQ222019
Pachyteles striola	Carabidae		AF012517	missing	missing
Dalyat mirabilis	Carabidae		AY926478	missing	missing
Promecognathus crassus	Carabidae		AF012492	missing	missing
Clinidium calcaratum	Carabidae	yes	AF012521	missing	missing
Omoglymmius hamatus	Carabidae		AF012520	missing	missing
Siagona europaea	Carabidae	yes	AF012493	missing	missing
Siagona jennisoni	Carabidae		AF012494	missing	missing
Amblycheila baroni	Cicindelidae		AF423057	MIABRGD1	missing
Aniara sepulchralis	Cicindelidae		AF423052	missing	missing
Caledonica sp. BMNH703844	Cicindelidae		DQ337116	missing	missing
Cenothyla consobrina	Cicindelidae		AF423040	MICCRGD1	missing
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<i>Pentacomia rugipennis</i>	Cicindelidae		AF423039	MIPRRGDA1	missing
<i>Physodeutera fairmairei</i>	Cicindelidae		AF423042	MIPFRGDA1	missing
<i>Picnochile fallaciosa</i>	Cicindelidae		AF423058	MIPFRGD1	missing
<i>Platychila pallida</i>	Cicindelidae		AF423059	missing	missing
<i>Pogonostoma elegans</i>	Cicindelidae		AF423048	MIPERGD1	missing
<i>Pometon singularis</i>	Cicindelidae		AF423043	MIPSRGD1	missing
<i>Prothyma</i> sp. APV-2001	Cicindelidae	yes	AF423036	PSP515121	PSP514997
<i>Therates</i> sp. APV-2001	Cicindelidae		AF423047	missing	missing
<i>Tricondyla</i> sp. APV-2001	Cicindelidae		AF423051	missing	missing
<i>Notaticus fasciatus</i>	Dytiscidae		NFA318698	AJ850370	AJ850620
<i>Agabus bipustulatus</i>	Dytiscidae		ABI318687	AF428198	AF309332
<i>Agabus brunneus</i>	Dytiscidae		ABR318688	AJ850304	AY138698
<i>Agabus disintegratus</i>	Dytiscidae		AY071793	AY071769	AY071795
<i>Agabus heydeni</i>	Dytiscidae		AHE318689	AY039263	AY039275
<i>Ilybius hozgargantae</i>	Dytiscidae	yes	IHO318690	AY138664	AY138751
<i>Ilybius meridionalis</i>	Dytiscidae		IME318692	AJ850305	AJ850557
<i>Platynectes decempunctatus</i>	Dytiscidae		PDE318694	AY138680	AY138767
<i>Colymbetes schildknechti</i>	Dytiscidae		CSC318691	AF428197	AF428236
<i>Meladema coriacea</i>	Dytiscidae		MCO318693	AF428187	AF428222
<i>Rhantus grapii</i>	Dytiscidae	yes	RGR318695	AF428195	AF428234
<i>Rhantus suturalis</i>	Dytiscidae		RSU318696	AF428196	AF428235
<i>Coptotomus interrogatus</i>	Dytiscidae		CIN318685	AJ850345	AJ850597
<i>Coptotomus lenticus</i>	Dytiscidae	yes	CLE318686	AY071776	AY071802
<i>Copelatus</i> cf. <i>angustatus</i> IR321	Dytiscidae		CCF318746	missing	missing
<i>Copelatus chevrolati renovatus</i>	Dytiscidae		AF012524	missing	missing
<i>Liopterus haemorrhoidalis</i>	Dytiscidae	yes	CHA318679	AY071774	AY334241
<i>Copelatus kalaharii</i>	Dytiscidae		AF201407	missing	missing
<i>Copelatus utowaensis</i>	Dytiscidae		CUT318682	AY071775	AY071801
<i>Lacconectus</i> sp. ER9	Dytiscidae		LSP318681	missing	missing
<i>Lacconectus peguensis</i>	Dytiscidae		LPE318680	AY071785	AY071811
<i>Acilius sulcatus</i>	Dytiscidae	yes	ASU318699	AJ850358	DQ275308
<i>Graphoderus cinereus</i>	Dytiscidae		GCI318705	AY138647	AY138735
<i>Thermonectus</i> sp. IR104	Dytiscidae		TSP318712	AY334156	AY334272
<i>Cybister lateralmarginalis</i>	Dytiscidae		AF201408	AJ850360	AJ850611
<i>Cybister tripunctatus</i>	Dytiscidae		CTR318702	AJ850362	AJ850613
<i>Megadytes</i> sp. IR57	Dytiscidae		MSP318701	missing	missing
<i>Megadytes</i> sp. IR98	Dytiscidae		MSP318709	AJ850368	AJ850619
<i>Megadytes</i> sp. IR99	Dytiscidae		MSP318710	missing	missing
<i>Eretes australis</i>	Dytiscidae		EAU318703	AJ850363	AJ850614
<i>Eretes sticticus</i>	Dytiscidae		EST318704	AY138646	AY138734
<i>Hydaticus consanguineus</i>	Dytiscidae		HCO318711	missing	missing
<i>Hydaticus leander</i>	Dytiscidae		HLE318706	AJ850364	AJ850615
<i>Hydaticus transversalis</i>	Dytiscidae		HTR318707	AJ850365	AY334242
<i>Hyderodes schuckardi</i>	Dytiscidae		HSC318708	AJ850366	AJ850617
<i>Bidessus calabricus</i>	Dytiscidae		BCA318723	AJ850320	AJ850572
<i>Bidessus goudoti</i>	Dytiscidae		BGO318724	AJ850321	AJ850573
<i>Bidessodes mjobergi</i>	Dytiscidae		BMJ318725	AF485933	AF484128

<i>Clypeodytes bifasciatus</i>	Dytiscidae		CBI318726	missing	missing
<i>Hydroglyphus pusillus</i>	Dytiscidae		HPU318727	AJ850325	AJ850577
<i>Liodessus</i> sp. IR96	Dytiscidae		LSP318728	missing	missing
<i>Yola bicarinata</i>	Dytiscidae		YBI318729	AJ850331	AJ850583
<i>Graptodytes flavipes</i>	Dytiscidae		GFL318730	AY250914	AY250955
<i>Heterosternuta pulcher</i>	Dytiscidae		HPU318732	AF518252	AF518282
<i>Herophydrus musicus</i>	Dytiscidae		HMU318731	AJ850384	AJ850634
<i>Hyphydrus aubei</i>	Dytiscidae		HAU318721	AJ850395	AJ850644
<i>Hyphydrus ovatus</i>	Dytiscidae		HOV318722	AJ850397	AJ850645
<i>Pachydrus globosus</i>	Dytiscidae		PGL318720	AJ850424	AJ850671
<i>Hydroporus erythrocephalus</i>	Dytiscidae	yes	AF201409	AF518261	AF518291
<i>Hygrotus confluens</i>	Dytiscidae		HCO318735	AJ850386	AJ850636
<i>Hygrotus impressopunctatus</i>	Dytiscidae		HIM318736	AJ850405	AJ850653
<i>Hygrotus inaequalis</i>	Dytiscidae		HIN318737	AJ850388	AJ850638
<i>Hydroporus planus</i>	Dytiscidae		HPL318734	AF518275	AF309300
<i>Hydrotarsus pilosus</i>	Dytiscidae		HPI318733	missing	missing
<i>Laccornellus copelatoides</i>	Dytiscidae		LCO318738	AJ850420	AJ850667
<i>Metaporus meridionalis</i>	Dytiscidae		MME318739	AY250919	AY250959
<i>Necterosoma dispar</i>	Dytiscidae		NDI318740	AF485949	AF484144
<i>Neoporus</i> sp. VLS-1999	Dytiscidae		AF201411	missing	missing
<i>Neoporus undulatus</i>	Dytiscidae		NUN318741	AJ850381	AJ850631
<i>Paroster gibbi</i>	Dytiscidae		PGI318742	AY353842	AY350895
<i>Porhydrus lineatus</i>	Dytiscidae		PLI318743	AY250933	AY250973
<i>Hydrovatus clypealis</i>	Dytiscidae		HCL318716	AJ850402	AJ850650
<i>Hydrovatus nigrita</i>	Dytiscidae		HNI318717	AJ850404	AJ850652
<i>Stictonectes epipleuricus</i>	Dytiscidae		SEP318744	AF518255	AF518285
<i>Suphrodytes dorsalis</i>	Dytiscidae		SDO318745	missing	AF309299
<i>Laccornis oblongus</i>	Dytiscidae		LOB318715	missing	AF309298
<i>Lancetes nigriceps</i>	Dytiscidae	yes	LNI318683	AJ850418	AY334248
<i>Lancetes varius</i>	Dytiscidae		LVA318684	AY071784	AY071810
<i>Australphilus montanus</i>	Dytiscidae		AMO318713	AJ850408	AJ850656
<i>Laccophilus hyalinus</i>	Dytiscidae		AF201410	missing	missing
<i>Laccophilus poecilus</i>	Dytiscidae	yes	LPO318714	AY334130	AY334246
<i>Andogyrus ellipticus</i>	Gyrinidae	yes	AEL318659	AY071772	AY071798
<i>Gyrinus</i> sp. VLS-1999	Gyrinidae		AF201412	EF517575	missing
<i>Macrogyrus</i> sp. IR86	Gyrinidae		MSP318664	missing	missing
<i>Orectochilus villosus</i>	Gyrinidae		OVI318665	AY071789	AY071815
<i>Spanglerogyrus albiventris</i>	Gyrinidae	yes	AF201413	EF517581	missing
<i>Halipilus laminates</i>	Haliplidae		AF201405	missing	missing
<i>Halipilus lineatocollis</i>	Haliplidae	yes	HLI318666	AY071777	AY071803
<i>Halipilus mucronatus</i>	Haliplidae		HMU318667	AY071778	AY071804
<i>Halipilus ruficollis</i>	Haliplidae		AF201406	missing	missing
<i>Peltodytes rotundatus</i>	Haliplidae		PRO318668	AY071790	AY071816
<i>Hygrobia australasiae</i>	Hygrobiiidae		HAU318672	AY071779	AY071805
<i>Hygrobia hermanni</i>	Hygrobiiidae	yes	AF201414	AY071780	AY071806
<i>Hygrobia maculata</i>	Hygrobiiidae		HMA318674	AY071781	AY071807
<i>Hydrocanthus</i> sp. IR109	Noteridae		HSP318670	missing	missing
<i>Hydrocanthus oblongus</i>	Noteridae		AF201415	missing	missing
<i>Noterus clavicornis</i>	Noteridae	yes	AF201416	AY071788	DQ155741
<i>Notomicrus tenellus</i>	Noteridae	yes	NTE318671	AY071787	AY071813
<i>Suphisellus</i> sp. IR110	Noteridae		SSP318669	missing	missing
<i>Suphis inflatus</i>	Noteridae		AF012523	missing	missing
<i>Distocupes</i> sp. VLS-1999	Cupedidae	yes	AF201421	missing	missing
<i>Systolosoma lateritium</i>	Trachypachidae		AF012522	missing	missing
<i>Trachypachus gibbsii</i>	Trachypachidae	yes	AF002808	missing	missing
<i>Trachypachus holmbergi</i>	Trachypachidae		AF002807	EF517582	missing
<i>Hydroscapha natans</i>	Hydroscaphidae		AF012525	missing	missing
<i>Hydroscaphidae</i> sp. BMNH703455	Hydroscaphidae	yes	DQ337169	EF517583	EF517595
<i>Sphaerius</i> sp. APV-2001	Sphaeriusidae	yes	AF427599	missing	missing
<i>Delevea bertrandi</i>	Torridincolidae	yes	AY745554	EF517584	missing
<i>Incoltorrida madagassica</i>	Torridincolidae		EF363014	missing	missing
<i>Incoltorrida</i> sp.n. MSL2007	Torridincolidae		EF363016	missing	missing



<i>Torridincola rhodesica</i>	Torridincolidae		AF201420	missing	missing
Torridincolidae sp. BMNH703451	Torridincolidae		DQ337167	missing	missing
Torridincolidae sp. BMNH703452	Torridincolidae		DQ337168	missing	missing
<i>Cacotemnus rufipes</i>	Anobiidae		EF213879	EF213841	missing
<i>Dorcatoma</i> sp. TJH-2004	Anobiidae		AY748104	missing	missing
<i>Dryophilus pusillus</i>	Anobiidae	yes	EF362989	missing	missing
<i>Gastrallus</i> sp. MSL2007	Anobiidae		EF213883	EF213850	missing
<i>Gibbium psylliodes</i>	Anobiidae	yes	EF363013	DQ202568	DQ221970
<i>Hanumanus</i> cf. <i>senilis</i>	Anobiidae		EF213902	EF213844	missing
<i>Lasioderma serricorne</i>	Anobiidae	yes - chim	AY748105	missing	DQ222030
<i>Mesocoelopus</i> cf. sp. MSL2007	Anobiidae	yes	EF213903	EF213873	EF213955
<i>Methemus</i> cf. <i>javanus</i>	Anobiidae	yes	EF213878	EF213840	EF213937
<i>Oligomerus ptilinoides</i>	Anobiidae		EF213876	EF213837	missing
<i>Ptinus fur</i>	Anobiidae		EF362997	missing	missing
<i>Ptilinus pectinicornis</i>	Anobiidae	yes	EF213900	EF213870	EF213953
<i>Ptinus</i> sp. C37	Anobiidae		AF423772	missing	missing
<i>Stegobium paniceum</i>	Anobiidae	yes	EF363012	DQ202557	DQ221964
<i>Sculptotheca</i> sp. MSL2007-1	Anobiidae		EF213885	EF213853	EF213941
<i>Sundaptinus</i> sp. MSL2007-2	Anobiidae		EF213877	EF213839	missing
<i>Sundaptinus</i> sp. MSL2007-3	Anobiidae	yes	EF213881	EF213846	EF213939
<i>Sundaptinus</i> sp. MSL2007-4	Anobiidae		EF213889	EF213857	EF213944
<i>Sundaptinus</i> sp. MSL2007-5	Anobiidae		EF213895	EF213864	EF213949
<i>Trichodesma</i> sp.n. MSL2007-2	Anobiidae		EF213880	EF213845	missing
<i>Apatides</i> sp. C25	Bostrichidae		AF423766	missing	missing
<i>Bostrichus capucinus</i>	Bostrichidae	yes	EF213884	EF213851	missing
<i>Heterobostrychus aequalis</i>	Bostrichidae		AY748106	missing	missing
<i>Sinoxylon ruficorne</i>	Bostrichidae		AY748107	missing	missing
<i>Rhyzopertha dominica</i>	Bostrichidae	yes	AY748108	missing	missing
<i>Lyctus</i> sp. TJH-2004	Bostrichidae	yes - chim	AY748109	DQ202598	missing
<i>Anthrenus verbasci</i>	Dermestidae	yes	AY748112	missing	missing
<i>Attagenus pellio</i>	Dermestidae	yes	AY748110	DQ202544	DQ221954
<i>Caenocara</i> cf. <i>tsuchiguri</i>	Dermestidae		EF213886	EF213854	EF213942
<i>Dermestes lanarius</i>	Dermestidae		EF213892	EF213860	EF213947
<i>Dermestes murinus</i>	Dermestidae	yes	EF213875	EF213831	EF213932
<i>Dermestes peruvianus</i>	Dermestidae		AY748111	DQ202548	DQ221956
<i>Orphilus niger</i>	Dermestidae	yes	EF213882	EF213848	missing
<i>Trinodes hirtus</i>	Dermestidae		EF362968	missing	missing
<i>Trinodes rufescens</i>	Dermestidae	yes	EF213891	EF213859	EF213946
<i>Nosodendron marginatum</i>	Nosodendridae	yes	EF535039	Submitted to GenBank	Submitted to GenBank
<i>Laricobius erichsoni</i>	Derodontidae	yes	AF427606	DQ202530	DQ155816
<i>Asemum striatum</i>	Cerambycidae	yes	AF267398	missing	AY389496
<i>Aseminae</i> gen. sp. TJH2004	Cerambycidae		AY748115	missing	missing
<i>Zorion minutum</i>	Cerambycidae		DQ337119	missing	missing
<i>Phymatodes testaceus</i>	Cerambycidae		AY748116	DQ202535	missing
<i>Megacyllene robiniae</i>	Cerambycidae		AF267404	missing	missing
<i>Ornithia</i> sp. ORN01	Cerambycidae		AY676685	missing	missing
<i>Elaphidion mucronatum</i>	Cerambycidae	yes	AJ841525	AJ841404	AM283242
<i>Chrysoprasia</i> sp. BDF-2000	Cerambycidae		AF267405	missing	missing
<i>Eburia</i> sp. BDF-2000	Cerambycidae		AF267402	missing	missing
<i>Phoracantha semipunctata</i>	Cerambycidae		AF267409	missing	missing
<i>Stenygra</i> sp. BDF-2000	Cerambycidae		AF267406	missing	missing
<i>Batyle suturalis</i>	Cerambycidae		AF267407	missing	missing
<i>Dendrobias</i> sp. BDF-2000	Cerambycidae		AF267403	missing	missing
<i>Dectes texanus</i>	Cerambycidae	yes	AJ841528	AJ841406	AM283244
<i>Leiopus nebulosus</i>	Cerambycidae		AY748117	missing	missing
<i>Agapanthia cardui</i>	Cerambycidae		AJ841527	AJ841405	AM283243
<i>Dorcadion</i> sp. BDF-2000	Cerambycidae		AF267412	missing	missing
<i>Moneilema gigas</i>	Cerambycidae		AF267408	missing	AY708298
<i>Oberea</i> sp. C38	Cerambycidae		AF423773	missing	missing
<i>Trachysomus</i> sp. BDF-2000	Cerambycidae		AF267410	missing	missing

Phytoecia algerica	Cerambycidae		AJ841529	AJ841407	AM283245
Saperda tridentata	Cerambycidae		AJ841530	AJ841408	AM283246
Tetraopes pilosus	Cerambycidae		AF267411	missing	AF267477
Brachyleptura rubrica	Cerambycidae	yes	AJ841531	AJ841409	AM283247
Stenurella nigra	Cerambycidae		AJ841533	missing	AM283249
Typocerus velutinus	Cerambycidae		AJ841534	AJ841410	AM283250
Acmaeops collaris	Cerambycidae		AF267400	missing	missing
Gaurotes virginea	Cerambycidae		AF267401	missing	AM283248
Rhagium mordax	Cerambycidae		AY748118	missing	missing
Lepturinae sp. BMNH#704361	Cerambycidae		AJ841535	AJ841411	AM283251
Necydalis ulmi	Cerambycidae	yes	AJ841536	AJ841412	AM283252
Parandra brunnea	Cerambycidae	yes	AF267414	missing	missing
Parandra cribrata	Cerambycidae		AF267415	missing	missing
Parandra janus	Cerambycidae		AJ841538	missing	missing
Derobrachus sp. DER01	Cerambycidae		AY676684	missing	missing
Prionus laticollis	Cerambycidae		AF267413	missing	missing
Titanus giganteus	Cerambycidae	yes	AJ841539	AJ841414	missing
Drymochares cylindraceus	Cerambycidae		AJ841540	missing	missing
Spondylis upiformis	Cerambycidae		AF267399	missing	missing
Vesperus conicicollis	Vesperidae	yes	AY748119	missing	missing
Vesperus sanzi	Vesperidae		AJ841541	missing	missing
Aulacoscelis appendiculata	Orsodacnidae	yes	AJ841524	AJ841403	AM283240
Aulacoscelis sp. BDF-2000	Orsodacnidae		AF267419	missing	missing
Amblycerus robiniae	Chrysomelidae		AF267422	missing	missing
Bruchidius sp. BMNH#704365	Chrysomelidae		AJ841415	missing	AM283114
Bruchidius sp. JGZ-2004	Chrysomelidae	yes - chim	AJ781620	AJ781557	missing
Bruchus rufipes	Chrysomelidae		AY748120	missing	DQ156034
Merobruchus julianus	Chrysomelidae		AF267424	missing	missing
Stator limbatus	Chrysomelidae		AF267423	missing	AY997332
Caryoborus gleditsiae	Chrysomelidae		AF267421	missing	missing
Agroiconota bivittata	Chrysomelidae		AJ841501	AJ841382	AM283216
Alurnus ornata	Chrysomelidae		AF267430	missing	missing
Anisostena nigrita	Chrysomelidae		AF267429	missing	missing
Anisodera sp. BMNH#704487	Chrysomelidae		AJ841511	AJ841390	AM283225
Arescus labiatus	Chrysomelidae		AJ841512	AJ841391	AM283226
Aspidomorpha miliaris	Chrysomelidae		AJ841502	AJ841383	AM283217
Baliosus nervosa	Chrysomelidae		AJ841513	AJ841392	AM283227
Cassida rubiginosa	Chrysomelidae	yes	AJ841503	AJ841384	AM283218
Chalepus walshii	Chrysomelidae		AJ841514	AJ841393	AM283228
Chelymorpha cassida	Chrysomelidae		AF267433	missing	missing
Charidotella sexpunctata	Chrysomelidae		AJ841504	missing	AM283219
Charidotella zona	Chrysomelidae		AJ841505	AJ841385	AM283220
Dactylispa sp. BMNH#704491	Chrysomelidae		AJ841515	AJ841394	missing
Deloyala guttata	Chrysomelidae		AJ841506	AJ841386	AM283221
Dicladispa testacea	Chrysomelidae	yes	AJ841516	AJ841395	AM283229
Gonophora nigrimembris	Chrysomelidae		AJ841517	AJ841396	AM283230
Helocassis clavata	Chrysomelidae		AJ841507	AJ841387	AM283222
HisPELLINUS nr. coarctatus BMNH#704494	Chrysomelidae		AJ841518	AJ841397	AM283231
Homalispia vespertina	Chrysomelidae		AJ841519	AJ841398	AM283232
Imatidium capense	Chrysomelidae		AJ841520	AJ841399	AM283233
Imatidium sp. BDF-2000	Chrysomelidae		AF267432	missing	missing
Lacoptera nepalensis	Chrysomelidae		AJ841508	AJ841388	AM283223
Microctenochira reticularis	Chrysomelidae		AJ841510	AJ841389	AM283224
Microrhopala vittata	Chrysomelidae		AJ841521	missing	AM283234
Octotoma scabripennis	Chrysomelidae		AJ841522	AJ841401	AM283235
Exema canadensis	Chrysomelidae		AJ841450	AJ841333	AM283153
Neochlamisus sp. BDF-2000	Chrysomelidae		AF267455	missing	missing
Neochlamisus sp. BMNH#704406	Chrysomelidae	yes	AJ841451	AJ841334	AM283154
Apterocuris sibirica	Chrysomelidae		AJ841416	AJ841300	AM283116
Calomela juncta	Chrysomelidae		AJ841420	AJ841304	AM283120
Chrysolina affinis	Chrysomelidae		AJ622062	missing	missing

<i>Chrysolina femoralis</i>	Chrysomelidae		AJ841421	AJ841305	AM283121
<i>Chrysolina grossa</i>	Chrysomelidae	yes	AJ841422	AJ841306	AM283122
<i>Chrysolina hyperici</i>	Chrysomelidae		AY748121	AF097090	DQ222025
<i>Chrysomela mainensis</i>	Chrysomelidae		AJ841423	AY027735	AM283124
<i>Chrysomela scripta</i>	Chrysomelidae		AF267436	AY027745	missing
<i>Gonioctena olivacea</i>	Chrysomelidae		AJ622061	AJ841310	AY904888
<i>Johannica gemellata</i>	Chrysomelidae		AJ841427	AJ841311	AM283128
<i>Lamprolina</i> sp. BMNH#704380	Chrysomelidae		AJ841429	AJ841313	AM283130
<i>Oreina cacaliae</i>	Chrysomelidae		AJ841431	AJ841315	AM283133
<i>Paropsis maculata</i>	Chrysomelidae		AJ841432	AJ841316	AM283134
<i>Phratora laticollis</i>	Chrysomelidae		AF267435	AY027753	AM283136
<i>Phaedon armoraciae</i>	Chrysomelidae		AJ841433	AJ841317	AM283135
<i>Plagiodera versicolora</i>	Chrysomelidae		AJ841435	AY027747	AM283137
<i>Prasocuris distincta</i>	Chrysomelidae		AJ622059	AJ841320	AM283138
<i>Pyrgoides</i> sp. BMNH696309	Chrysomelidae		DQ337130	missing	missing
<i>Sphaeratrix</i> sp. BMNH#704390	Chrysomelidae		AJ841438	AJ841321	missing
<i>Trachymela</i> sp. BMNH#704391	Chrysomelidae		AJ841439	AJ841322	AM283141
<i>Calligrapha californica coreopsivora</i>	Chrysomelidae		AJ841418	AJ841302	AM283118
<i>Calligrapha multipunctata bigsbyana</i>	Chrysomelidae		AJ841419	AJ841303	AM283119
<i>Doryphora</i> sp. BMNH#704376	Chrysomelidae		AJ841425	AJ841309	AM283126
<i>Labidomera clivicollis</i>	Chrysomelidae		AF267437	AJ841312	AM283129
<i>Leptinotarsa juncta</i>	Chrysomelidae		AJ841430	AJ841314	AM283131
<i>Proseicela bivittata</i>	Chrysomelidae		AJ841437	missing	AM283139
<i>Zygogramma clathrata</i>	Chrysomelidae		AJ841440	AJ841323	AM283142
<i>Zygogramma suturalis</i>	Chrysomelidae		AJ841441	AJ841324	AM283143
<i>Timarcha cerdo</i>	Chrysomelidae		AJ622054	missing	AM283146
<i>Timarcha marginicollis</i>	Chrysomelidae		AJ622057	missing	missing
<i>Timarcha metallica</i>	Chrysomelidae		AJ622055	AJ622027	missing
<i>Timarcha nicaeensis</i>	Chrysomelidae		AJ622056	AJ622036	AM283147
<i>Chrysomelinae</i> sp. BMNH#704395	Chrysomelidae		AJ841443	AJ841326	missing
<i>Chrysomelinae</i> sp. BMNH#704396	Chrysomelidae		AJ841444	AJ841327	missing
<i>Desmogramma ljunghi</i>	Chrysomelidae		AJ841424	AJ841308	AM283125
<i>Linaeidea aenea</i>	Chrysomelidae		AJ622058	AY027734	AM283132
<i>Anomoea flavokansiensis</i>	Chrysomelidae		AF267457	missing	missing
<i>Anomoea laticlavata</i>	Chrysomelidae		AJ841452	AJ841335	AM283155
<i>Coptocephala scopolina</i>	Chrysomelidae		AJ841453	AJ841336	AM283156
<i>Labidostomis lusitanica</i>	Chrysomelidae		AJ841454	AJ841337	missing
<i>Lachnaia tristigma</i>	Chrysomelidae		AJ841455	AJ841338	AM283157
<i>Saxinis saucia</i>	Chrysomelidae		AF267456	missing	missing
<i>Smaragdina concolor</i>	Chrysomelidae		AJ841456	AJ841339	AM283158
<i>Smaragdina reyi</i>	Chrysomelidae		AJ841457	AJ841340	AM283159
<i>Tituboea biguttata</i>	Chrysomelidae		AJ841458	AJ841341	AM283160
<i>Crioceris asparagi</i>	Chrysomelidae	yes	AJ781621	AJ781558	AM283148
<i>Lema trilineata</i>	Chrysomelidae		AY676686	missing	missing
<i>Lilioceris</i> sp. BMNH#704401	Chrysomelidae		AJ841446	AJ841329	AM283150
<i>Lilioceris merdigera</i>	Chrysomelidae		AF267425	AJ841328	AM283149
<i>Neolema sexpunctata</i>	Chrysomelidae		AJ841447	AJ841330	AM283151
<i>Oulema melanopus</i>	Chrysomelidae		AJ841448	AJ841331	missing
<i>Cryptocephalus iridipennis</i>	Chrysomelidae	yes	AJ841459	AJ841342	AM283161
<i>Cryptocephalus venustus</i>	Chrysomelidae		AJ841460	AJ841343	missing
<i>Ditropidus</i> nr. <i>cupreus</i> BMNH#704416	Chrysomelidae		AJ841461	AJ841344	AM283162
<i>Lexiphanes</i> sp. BMNH#704417	Chrysomelidae		AJ841462	AJ841345	AM283163
<i>Pachybrachis idiota</i>	Chrysomelidae		AJ841463	AJ841346	AM283164
<i>Pachybrachis mexicanus</i>	Chrysomelidae		AF267458	missing	missing
<i>Stethopachys javeti</i>	Chrysomelidae		AJ841449	AJ841332	AM283152
<i>Donacia distincta</i>	Chrysomelidae		AF267428	missing	AM283165
<i>Donacia</i> sp. JGZ-2004	Chrysomelidae		AJ781622	AJ781559	missing
<i>Donacia vulgaris</i>	Chrysomelidae	yes	AY748122	AY232579	AY232522
<i>Plateumaris</i> sp. BMNH704420	Chrysomelidae		AJ841464	AJ841347	AM283166
<i>Plateumaris pusilla</i>	Chrysomelidae		AF267427	missing	missing
<i>Basilepta multicostata</i>	Chrysomelidae	yes	AJ781568	AJ781514	AM283167
<i>Basilepta</i> nr. <i>nitida</i> JGZ-2004	Chrysomelidae		AJ781569	AJ781515	missing

Basilepta nr. wallacei JGZ-2004	Chrysomelidae	AJ781570	AJ781516	missing
Brachypnoea clypealis	Chrysomelidae	AJ781588	missing	missing
Bromius obscurus	Chrysomelidae	AJ781614	AJ781551	missing
Chrysochus auratus	Chrysomelidae	AJ781608	AJ781546	AM283168
Chrysodiniopsis curtula	Chrysomelidae	AJ781590	AJ781530	AM283169
Colasposoma auripenne	Chrysomelidae	AJ781585	AJ781527	missing
Colasposoma pretiosum	Chrysomelidae	AJ781586	AJ781528	missing
Colaspis sp. BDF-2000	Chrysomelidae	AF267461	missing	missing
Colaspis sp. JGZ-2004-1	Chrysomelidae	AJ781593	missing	missing
Colaspis sp. JGZ-2004-2	Chrysomelidae	AJ781594	missing	missing
Colaspis flavipes	Chrysomelidae	AJ781592	AJ781532	AM283171
Colaspis nr. flavicornis BMNH#704425	Chrysomelidae	AJ781591	AJ781531	AM283170
Colaspoides sp. JGZ-2004	Chrysomelidae	AJ781611	AJ781549	missing
Colaspoides nr. simillima JGZ-2004	Chrysomelidae	AJ781610	AJ781548	missing
Edusella sp. JGZ-2004-1	Chrysomelidae	AJ781605	AJ781543	missing
Edusella puberula	Chrysomelidae	AJ781604	missing	missing
Eupales ulema	Chrysomelidae	AJ781565	AJ781511	missing
Eumolpus sp. BDF-2000	Chrysomelidae	AF267460	missing	missing
Eucolaspis jucunda	Chrysomelidae	DQ337120	missing	missing
Eucolaspis picticomis	Chrysomelidae	DQ337133	missing	missing
Eulychius sp. JGZ-2004	Chrysomelidae	AJ781575	missing	missing
Hermesia aurata	Chrysomelidae	AJ781595	AJ781534	AM283175
Lamproshaerus sp. JGZ-2004-1	Chrysomelidae	AJ781596	AJ781535	missing
Lamproshaerus sp. JGZ-2004-2	Chrysomelidae	AJ781597	AJ781536	missing
Lypesthes gracilicornis	Chrysomelidae	AJ781613	missing	missing
Megascalis sp. BDF-2000	Chrysomelidae	AF267463	missing	missing
Megascalis sp. JGZ-2004	Chrysomelidae	AJ781567	AJ781513	missing
Myochrous sp. JGZ-2004	Chrysomelidae	AJ781615	AJ781552	missing
Nodonota sp. JGZ-2004	Chrysomelidae	AJ781598	AJ781537	missing
Parascela cribrata	Chrysomelidae	AJ781617	AJ781554	missing
Pachnephorus impressus	Chrysomelidae	AJ781616	AJ781553	missing
Paria fragariae	Chrysomelidae	AJ781577	AJ781521	missing
Pagria signata	Chrysomelidae	AJ781572	AJ781518	AM283179
Percolaspis nr. gestroi JGZ-2004	Chrysomelidae	AJ781599	AJ781538	missing
Pheloticus sp. JGZ-2004	Chrysomelidae	AJ781579	AJ781523	missing
Phytorus dilatatus	Chrysomelidae	AJ781580	AJ781524	AM283180
Phytorus sp. JGZ-2004	Chrysomelidae	AJ781581	AJ781525	missing
Platycorynus chalybaeus	Chrysomelidae	AJ781609	AJ781547	AM283182
Proliniscus sp. JGZ-2004	Chrysomelidae	AJ781584	missing	missing
Promecosoma viride	Chrysomelidae	AJ781601	AJ781540	missing
Pseudosyagrus grossepunctatus	Chrysomelidae	AJ781582	AJ781526	missing
Pseudosyagrus sp. JGZ-2004	Chrysomelidae	AJ781583	missing	missing
Rhyparida alleni	Chrysomelidae	AJ781573	AJ781519	AM283183
Rhabdopterus praetextus	Chrysomelidae	AJ781602	AJ781541	missing
Scelodonta brevipilis	Chrysomelidae	AJ781612	AJ781550	missing
Syneta adamsi	Chrysomelidae	AJ781566	AJ781512	missing
Syneta pilosa	Chrysomelidae	AF267464	missing	missing
Tymnes tricolor	Chrysomelidae	AJ781607	AJ781545	AM283184
Eumolpinae sp. JGZ-2004-1	Chrysomelidae	AJ781571	AJ781517	missing
Eumolpinae sp. JGZ-2004-2	Chrysomelidae	AJ781603	AJ781542	missing
Altica sp. BMNH#704446	Chrysomelidae	AJ841465	missing	AM283185
Altica pagana	Chrysomelidae	AF267453	missing	missing
Chabria angulicollis	Chrysomelidae	AF267449	missing	missing
Chabria nr. angulicollis BMNH#704450	Chrysomelidae	AJ841469	AJ841351	AM283189
Manobidia simplicithorax	Chrysomelidae	AF267454	missing	missing
Blepharida rhois	Chrysomelidae	AJ841468	AJ841350	AM283188
Podontia affinis	Chrysomelidae	AF267444	missing	missing
Chaetocnema basalis	Chrysomelidae	AF267450	missing	missing
Chaetocnema chlorophana	Chrysomelidae	AJ841470	missing	AM283190
Chalcoides aurata	Chrysomelidae	AF267452	missing	missing
Crepidodera rhaetica	Chrysomelidae	AF267451	missing	missing
Disonycha sp. BMNH#704454	Chrysomelidae	AJ841472	AJ841353	AM283192

<i>Orthocrepis hanoiensis</i>	Chrysomelidae		AF267445	missing	missing
<i>Alagoasa bicolor</i>	Chrysomelidae		AF267447	missing	missing
<i>Asphaera</i> sp. BMNH#704448	Chrysomelidae		AJ841467	AJ841349	AM283187
<i>Hemipyxis</i> nr. <i>soror</i> 'Anjanaharibe'	Chrysomelidae		AJ841474	AJ841355	missing
<i>Hyphasis parvula</i>	Chrysomelidae		AF267448	missing	missing
<i>Omophoita</i> sp. BMNH#704458	Chrysomelidae		AJ841478	AJ841359	AM283196
<i>Nisotra goudoti</i>	Chrysomelidae		AJ841477	AJ841358	missing
<i>Nisotra orbiculata</i>	Chrysomelidae		AF267446	missing	missing
<i>Podagrica malvae</i>	Chrysomelidae		AJ841480	AJ841361	missing
<i>Alticinae</i> sp. BMNH#704462	Chrysomelidae		AJ841483	AJ841364	AM283200
<i>Asiorestia transversa</i>	Chrysomelidae		AJ841466	AJ841348	AM283186
<i>Diphaltica</i> sp. BMNH#704453	Chrysomelidae		AJ841471	AJ841352	AM283191
<i>Euphitrea wallacei</i>	Chrysomelidae		AJ841473	AJ841354	AM283193
<i>Longitarsus exsoletus</i>	Chrysomelidae		AJ841475	AJ841356	AM283194
<i>Macrohaltica subplicata</i>	Chrysomelidae		AJ841476	AJ841357	AM283195
<i>Phyllotreta cruciferae</i>	Chrysomelidae		AY216712	missing	missing
<i>Phygasoma</i> nr. <i>borneonense</i> BMNH#704459	Chrysomelidae		AJ841479	AJ841360	AM283197
<i>Psylliodes</i> sp. BMNH#704452	Chrysomelidae		AJ841481	AJ841362	AM283198
<i>Syphrea</i> sp. BMNH#704461	Chrysomelidae		AJ841482	AJ841363	AM283199
<i>Galerucella nymphaeae</i>	Chrysomelidae		AF267443	missing	AY247721
<i>Pyrrhalta rufosanguinea</i>	Chrysomelidae		AJ841496	AJ841377	AM283211
<i>Pyrrhalta viburni</i>	Chrysomelidae	yes	AJ841497	AJ841378	AM283212
<i>Trirhabda virgata</i>	Chrysomelidae		AJ841499	AJ841380	AM283214
<i>Galeruca pomonae</i>	Chrysomelidae		AJ841488	AJ841369	AM283205
<i>Ophraella</i> sp. BMNH#704472	Chrysomelidae		AJ841495	AJ841376	AM283210
<i>Agelastica alni</i>	Chrysomelidae		AF267440	missing	missing
<i>Dercetina varipennis</i>	Chrysomelidae		AF267439	missing	missing
<i>Sphenoraia bicolor</i>	Chrysomelidae		AJ841498	AJ841379	AM283213
<i>Aulacophora palmerstoni</i>	Chrysomelidae		AF267442	missing	missing
<i>Diacantha unifasciata</i>	Chrysomelidae		AJ841485	AJ841366	missing
<i>Jacobyana hexaspilota</i>	Chrysomelidae		AJ841492	AJ841373	missing
<i>Leptaulaca undecimpunctata</i>	Chrysomelidae		AJ841493	AJ841374	missing
<i>Diabrotica undecimpunctata howardi</i>	Chrysomelidae		AJ781618	AJ781555	AM283202
<i>Exosoma lusitanicum</i>	Chrysomelidae		AJ841487	AJ841368	AM283204
<i>Hemistus</i> sp. BMNH#704469	Chrysomelidae		AJ841490	AJ841371	AM283207
<i>Hoplosaenidea subcostata</i>	Chrysomelidae		AJ841491	AJ841372	AM283208
<i>Luperus longicornis</i>	Chrysomelidae		AY748123	missing	missing
<i>Calomicrus circumfusus</i>	Chrysomelidae		AJ841484	AJ841365	AM283201
<i>Monolepta nigripes</i>	Chrysomelidae		AJ841494	AJ841375	AM283209
<i>Phyllobrotica decorata</i>	Chrysomelidae		AF267441	missing	missing
<i>Exora obsoleta</i>	Chrysomelidae		AJ841486	AJ841367	AM283203
<i>Hecataeus</i> sp. BMNH#704468	Chrysomelidae		AJ841489	AJ841370	AM283206
<i>Oides decempunctata</i>	Chrysomelidae		AF267438	missing	missing
<i>Galerucinae</i> sp. BMNH#704477	Chrysomelidae		AJ841500	AJ841381	AM283215
<i>Lamprosoma</i> sp. LP01	Chrysomelidae		AY676688	missing	missing
<i>Oomorhoides cupreatus</i>	Chrysomelidae		AF267459	missing	missing
<i>Lamprosomatinae</i> sp. BMNH677521	Chrysomelidae	yes	EF213890	EF213858	EF213945
<i>Mastostethus</i> sp. BDF-2000	Megalopodidae		AF267416	missing	missing
<i>Palophagoides vargasorum</i>	Megalopodidae	yes	AF267418	missing	missing
<i>Polyoptilis</i> sp. Sa02	Chrysomelidae		AY676693	missing	missing
<i>Sagra</i> sp. Sa03	Chrysomelidae	yes	AY676691	missing	missing
<i>Bohumiljanica caledonica</i>	Chrysomelidae		AJ781562	AJ781508	AM283236
<i>Hornius grandis</i>	Chrysomelidae		AJ781561	AJ781507	missing
<i>Spilopyra</i> sp. Spi01	Chrysomelidae		AY676689	missing	missing
<i>Spilopyra sumptuosa</i>	Chrysomelidae		AJ781564	AJ781510	AM283238
<i>Stenomela pallida</i>	Chrysomelidae		AJ781563	missing	AM283237
<i>Nethinius acuticollis</i>	Cerambycidae	yes	AJ841526	missing	missing
<i>Orsodacne atra</i>	Orsodacnidae	yes	AJ781623	AJ781560	AM283241
<i>Orsodacne lineola</i>	Orsodacnidae		AY748126	missing	missing
<i>Zeugophora scutellaris</i>	Megalopodidae		AF267417	missing	missing
<i>Zeugophora subspinosa</i>	Megalopodidae		AY748125	missing	missing
<i>Zeugophora varians</i>	Megalopodidae	yes	AJ841523	AJ841402	AM283239

Clerus sp. TJH-2004	Cleridae		AY748127	missing	missing
Clerus mutillarius	Cleridae	yes	EF209691	EF508043	EF508056
Opilo pallidus	Cleridae		EF209692	missing	missing
Trichodes apiarius	Cleridae		EF209693	missing	missing
Dermestoides sanguinicollis	Cleridae	yes	EF209696	EF508046	EF508059
Enoclerus sp. TJH-2004	Cleridae		AY748128	EF517585	missing
Tenerus sp. UPOL1158	Cleridae		EF209697	missing	missing
Callimerus sp. UPOL1150	Cleridae	yes	EF209689	EF508047	EF508060
Necrobia rufipes	Cleridae	yes	EF209698	EF508044	EF508057
Necrobia ruficollis	Cleridae		EF209699	missing	missing
Phlogistus sp. BMNH668168	Cleridae		DQ337156	missing	missing
Phymatophora opilioides	Cleridae		DQ337123	missing	missing
Scrobiger spendidus	Cleridae		DQ337155	missing	missing
Stenocallimerus prasinatus	Cleridae		EF209695	missing	missing
Tenerus sp. TJH-2004	Cleridae		AY748132	missing	missing
Thanasimodes sp. TJH-2004	Cleridae		AY748131	missing	missing
Cladiscus sp. UPOL1134	Cleridae		EF209690	missing	missing
Tillus elongatus	Cleridae		AY748133	missing	missing
Stigmatium sp. UPOL1129	Cleridae		EF209694	missing	missing
Tilloidea transversalis	Cleridae	yes	EF209688	EF508045	EF508058
Trichodes ornatus	Cleridae		AF423775	missing	missing
Trichodes sp. TJH-2004	Cleridae		AY748130	missing	missing
Dasytidius gracilis	Melyridae		EF209712	EF508036	EF508049
Danacea nigritarsis	Melyridae		EF362988	EF508035	EF508048
Mauroania bettingeri	Melyridae		EF209708	missing	missing
Psilothrix viridicoeruleus	Melyridae	yes	AY748134	DQ202538	missing
Allotarsus dentipes	Melyridae		EF209704	missing	missing
Dasytes aeratus	Melyridae		EF209709	missing	missing
Dasytes emarginatus	Melyridae		EF209711	missing	missing
Dasytes niger	Melyridae		EF362988	missing	missing
Dasytes planifrons	Melyridae		DQ337126	missing	missing
Dasytes plumbeus	Melyridae		EF209710	missing	missing
Dasytes terminalis	Melyridae		EF209713	missing	missing
Divales haemorrhoidalis	Melyridae		EF209714	missing	missing
Dolichosoma lineare	Melyridae		EF209706	missing	missing
Enicopus hirtus	Melyridae		EF209705	missing	missing
Anthocomus rufus	Melyridae	yes	AY748136	DQ202552	DQ221960
Attalus analis	Melyridae		EF209726	missing	missing
Attalus heydeni	Melyridae		EF209724	missing	missing
Attalus varitarsis	Melyridae		EF209723	missing	missing
Attalus viridescens	Melyridae		EF209725	missing	missing
Axinotarsus ruficollis	Melyridae		EF209717	missing	missing
Carphurus sp. UPOL1116	Melyridae		EF209731	EF508040	EF508053
Charopus flavipes	Melyridae		EF209718	missing	missing
Clanoptilus marginellus	Melyridae		EF209720	missing	missing
Colotes punctatus	Melyridae		EF209728	missing	missing
Colotes uncifer	Melyridae		EF209727	missing	missing
Cyrtosus semimarginatus	Melyridae		EF209729	missing	missing
Ebaeus humilis	Melyridae		EF209722	missing	missing
Haplomalachius hispanus	Melyridae		EF209715	missing	missing
Hypebaeus albifrons	Melyridae		EF209721	missing	missing
Laius sp. UPOL1096	Melyridae		EF209719	missing	missing
Malachius bipustulatus	Melyridae		AY748135	missing	missing
Malachius bipustulatus	Melyridae		EF209716	missing	missing
Malachius gen_ UPOL1159	Melyridae		EF209732	missing	missing
Pelochrus pallidulus	Melyridae		EF209730	missing	missing
Falsomelyris granulata	Melyridae	yes	EF209700	EF508038	EF508051
Falsomelyris opaca	Melyridae		EF209701	missing	missing
Idgia sp. BMNH668224	Melyridae		DQ337165	missing	missing
Idgia sp. UPOL1090	Melyridae		EF209686	missing	missing
Idgia sp. UPOLZ103	Melyridae	yes	EF209685	EF490157	EF490187
Lobonyx aeneus	Melyridae		EF209687	EF508039	EF508052

<i>Aplocnemus perforatus</i>	Melyridae	yes	EF209702	EF508037	EF508050
<i>Aplocnemus rufipedes</i>	Melyridae		EF209703	missing	missing
<i>Phloiophilus edwardsi</i>	Phloiophilidae	yes	AY748137	AM884187	AM884189
<i>Ancyrona</i> sp.UPOL1122	Trogossitidae	yes	EF209682	EF508042	EF508055
<i>Grynocharis oblonga</i>	Trogossitidae		EF209684	missing	missing
<i>Lophocateres</i> sp.UPOL1123	Trogossitidae		EF209683	missing	missing
<i>Ostoma ferrugineum</i>	Trogossitidae	yes	AY748138	DQ202553	DQ222026
<i>Leperina tibialis</i>	Trogossitidae		EF209678	missing	missing
<i>Nemozoma elongatum</i>	Trogossitidae		EF209681	missing	missing
<i>Peltis grossum</i>	Trogossitidae		EF209677	missing	missing
<i>Tenebroides mauritanicus</i>	Trogossitidae		EF209680	missing	missing
<i>Trogossita japonica</i>	Trogossitidae	yes	EF209679	EF508041	EF508054
<i>Biphyllus lunatus</i>	Biphyllidae	yes	AY748139	DQ202525	missing
<i>Diplocoelus fagi</i>	Biphyllidae		EF512318	missing	stop codon in transl.
<i>Diplocoelus</i> sp.UPOL2154	Biphyllidae		EF209819	missing	missing
<i>Diplocoelus</i> sp.UPOL2155	Biphyllidae		EF209820	missing	missing
<i>Diplocoelus</i> sp.UPOL2156	Biphyllidae		EF209821	missing	missing
<i>Diplocoelus</i> sp.UPOL2157	Biphyllidae		EF209822	missing	missing
<i>Diplocoelus</i> sp.UPOL2158	Biphyllidae		EF209823	missing	missing
<i>Diplocoelus</i> sp.UPOL2159	Biphyllidae		EF209824	missing	missing
<i>Diplocoelus</i> sp.UPOL2262	Biphyllidae		EF209825	missing	missing
<i>Anommatus duodecimstriatus</i>	Bothrideridae	yes	AY748140	DQ202527	EF517588
<i>Monotomopsis</i> sp.UPOL2163	Monotomidae	yes	EF209826	missing	missing
<i>Teredus cylindricus</i>	Bothrideridae	yes	AY748141	DQ202533	EF517589
<i>Xylariophilus</i> sp.UPOLZ152	Bothrideridae	yes	EF209827	EF490158	EF490188
<i>Byturus aestivus</i>	Byturidae		EF209816	missing	missing
<i>Byturus</i> sp.UPOL2072	Byturidae		EF209817	missing	missing
<i>Byturus tomentosus</i>	Byturidae	yes	AY748143	missing	BTO307567
<i>Anthribus nebulosus</i>	Anthribidae	yes	AJ849975	missing	missing
<i>Platystomos albinus</i>	Anthribidae		AJ849976	missing	missing
<i>Toxonotus cornutus</i>	Anthribidae		AF389028	missing	missing
<i>Choragus sheppardi</i>	Anthribidae	yes	AJ849977	missing	missing
<i>Bruchela conformis</i>	Anthribidae	yes	AF201417	missing	missing
<i>Apoderus giraffa</i>	Attelabidae		AF250065	missing	missing
<i>Attelabus analis</i>	Attelabidae	yes	AF250064	missing	missing
<i>Attelabus nitens</i>	Attelabidae		AJ849980	missing	missing
<i>Auletobius cassandrae</i>	Attelabidae		AF250063	missing	missing
<i>Auletes nebulosus</i>	Attelabidae		AF389060	missing	missing
<i>Deporaus betulae</i>	Attelabidae	yes	AJ849981	missing	missing
<i>Merhynchites bicolor</i>	Attelabidae		AF250062	missing	missing
<i>Neocoenorrhinus</i> sp. TJH-2004	Attelabidae		AJ850052	missing	missing
<i>Rhynchites aequatus</i>	Attelabidae		AJ849982	missing	missing
<i>Atractuchus argus</i>	Belidae		AJ849983	missing	missing
<i>Dicordylus marmoratus</i>	Belidae	yes	AJ849984	missing	missing
<i>Rhinotia edentula</i>	Belidae		AJ849985	missing	missing
<i>Rhinotia</i> sp. BF-2000	Belidae		AF250066	missing	missing
<i>Caenominurus topali</i>	Caridae		AF389029	missing	missing
<i>Oxycraspedus cornutus</i>	Belidae	yes	AF250068	missing	missing
<i>Rhopalotria</i> sp. BF-2000	Belidae		AF250067	missing	missing
<i>Apion</i> sp. BF-2000	Brentidae	yes - chim	AF250060	missing	missing
<i>Exapion malvae</i>	Brentidae		AJ849978	missing	missing
<i>Malvapion ulicis</i>	Brentidae		AJ849979	missing	missing
<i>Antliarhinus</i> sp. TJH-2004	Brentidae		AJ849986	missing	missing
<i>Antliarhinus zamiae</i>	Brentidae		AF250061	missing	missing
<i>Aporhina australis</i>	Brentidae		AJ850027	missing	missing
<i>Arrhenodes funebris</i>	Brentidae		AF389031	missing	missing
<i>Brentus anchorago</i>	Brentidae	yes	AJ849987	missing	missing
<i>Estenorhinus dispar</i>	Brentidae		AJ849990	missing	missing
<i>Cylas formicarius</i>	Brentidae	yes	AJ849989	missing	missing
<i>Microcerus fallax</i>	Brentidae		AJ850028	missing	missing

<i>Corimalia tamarisci</i>	Brentidae	yes	AJ850029	missing	missing
<i>Nanophyes marmoratus</i>	Brentidae		AJ850031	missing	DQ155774
<i>Nanodiscus transversus</i>	Brentidae		AJ850030	missing	EF517596
<i>Nemocephalus guatemalensis</i>	Brentidae		AJ849988	missing	missing
<i>Ampelogypter ampelopsis</i>	Curculionidae		AF389048	missing	missing
<i>Bagous americanus</i>	Curculionidae		AF389067	missing	missing
<i>Bagous limosus</i>	Curculionidae		AJ849993	missing	missing
<i>Bagous myriophyllae</i>	Curculionidae		AF389066	missing	missing
<i>Bagous puncticollis</i>	Curculionidae		AJ849994	missing	missing
<i>Odontocorynus</i> sp. BF-2000	Curculionidae		AF250078	missing	missing
<i>Bagoinae</i> sp. MOT04	Curculionidae		AF389068	missing	missing
<i>Sibariops concina</i>	Curculionidae		AF389049	missing	missing
<i>Baridinae</i> sp. BMNH668143	Curculionidae		DQ337144	missing	missing
<i>Brachycerus muricatus</i>	Curculionidae	yes	BMU318658	missing	missing
<i>Brachycerus undatus</i>	Curculionidae		AJ849996	missing	missing
<i>Mogulones geographicus</i>	Curculionidae		AJ849998	missing	missing
<i>Phytobius</i> sp. BF-2000	Curculionidae		AF250094	missing	missing
<i>Rhinoncus longulus</i>	Curculionidae		AF389061	missing	missing
<i>Cionus scrophulariae</i>	Curculionidae		AJ849999	missing	EF517597
<i>Larinus planus</i>	Curculionidae		AJ850013	missing	missing
<i>Araucarius minor</i>	Curculionidae	yes	AF308304	missing	AF375307
<i>Cossonus</i> sp. BF-2000	Curculionidae		AF250073	missing	missing
<i>Cossonus</i> sp. TJH-2004	Curculionidae		AJ850000	missing	missing
<i>Euophryum confine</i>	Curculionidae		AJ850012	missing	DQ155754
<i>Cratosomus</i> sp. TJH-2004	Curculionidae		AJ850009	missing	missing
<i>Macrocopturus cincticollis</i>	Curculionidae		AF250104	missing	missing
<i>Piazurus</i> sp. TJH-2004	Curculionidae		AJ850015	missing	missing
<i>Telephae</i> sp. TJH-2004	Curculionidae		AJ850016	missing	missing
<i>Rhyncolus</i> sp. TJH-2004	Curculionidae		AJ850001	missing	missing
<i>Stenancylus</i> sp. COR01	Curculionidae		AF375246	missing	missing
<i>Acalles ptinoides</i>	Curculionidae		AJ850002	missing	DQ155807
<i>Cryptobathys</i> sp. TJH-2004	Curculionidae		AJ850010	missing	missing
<i>Pseudomopsis inflata</i>	Curculionidae		AF389065	missing	missing
<i>Rhyephenes humeralis</i>	Curculionidae		AF389064	missing	missing
<i>Anthonomus eugenii</i>	Curculionidae		AF250091	missing	missing
<i>Anthonomus pedicularius</i>	Curculionidae		AJ849992	missing	DQ155711
<i>Curculio camelliae</i>	Curculionidae		AF250092	missing	AY327685
<i>Curculio glandium</i>	Curculionidae	yes	AJ850003	missing	AY327711
<i>Curculio niveopictus</i>	Curculionidae		AF389059	missing	missing
<i>Araucarietius viridans</i>	Curculionidae		AF389062	missing	missing
<i>Eisingius chusqueae</i>	Curculionidae		AF389063	missing	missing
<i>Perellesschus carludovicae</i>	Curculionidae		AF250095	missing	missing
<i>Gymnetron antirrhini</i>	Curculionidae		AJ850004	missing	missing
<i>Gymnetron tetrum</i>	Curculionidae		AF250096	missing	missing
<i>Myrmex floridanus</i>	Curculionidae		AF250097	missing	missing
<i>Prionomerus</i> sp. BMNH668141	Curculionidae		DQ337142	missing	missing
<i>Prionomerus</i> sp. BMNH668142	Curculionidae		DQ337143	missing	missing
<i>Orchestes quercus</i>	Curculionidae		AJ850050	missing	EF517598
<i>Tachygonus lecontei</i>	Curculionidae		AF250093	missing	missing
<i>Bronchus</i> sp. HI01	Curculionidae		AF389056	missing	missing
<i>Crysolopus spectabilis</i>	Curculionidae		AF389053	missing	missing
<i>Gonipterus</i> sp. GO04	Curculionidae		AF389055	missing	missing
<i>Talaurinus subvittatus</i>	Curculionidae		AF389054	missing	missing
<i>Metamasius hemipterus</i>	Curculionidae	yes	AJ850017	missing	AY131108
<i>Rhynchophorus cruentatus</i>	Curculionidae		AF389037	missing	AY131113
<i>Rhinostomus barbirostris</i>	Curculionidae		AJ850019	missing	AY131123
<i>Rhinostomus nigra</i>	Curculionidae		AF389036	missing	missing
<i>Rhynchophorus palmarum</i>	Curculionidae		AJ850018	missing	AY131121
<i>Sitophilus granarius</i>	Curculionidae		AJ850020	missing	missing
<i>Sitophilus zeamais</i>	Curculionidae		AJ850021	missing	AY014881
<i>Sphenophorus venatus</i>	Curculionidae		AF250071	missing	AY131117
<i>Trigonotarsus rugosus</i>	Curculionidae		AF389035	missing	missing



<i>Stromboscerini</i> gen. sp. drs01	Curculionidae	AF389034	missing	missing
<i>Oophthalmus</i> sp. BMNH668165	Curculionidae	DQ337154	missing	missing
<i>Asynonychus cervinus</i>	Curculionidae	AF250085	missing	AY790876
<i>Callirhopalus bifasciatus</i>	Curculionidae	AF250079	missing	missing
<i>Cyldrothinus</i> sp. ENC01	Curculionidae	AF389050	missing	missing
<i>Diaprepes abbreviatus</i>	Curculionidae	AY157729	CN475651	DN200219
<i>Eudiagogus rosenscholdi</i>	Curculionidae	AF250081	missing	missing
<i>Exophthalmus</i> sp. BF-2000	Curculionidae	AF250082	missing	missing
<i>Lachnopus atramentarius</i>	Curculionidae	AF389052	missing	missing
<i>Naupactus peregrinus</i>	Curculionidae	AF250083	missing	missing
<i>Otiorhynchus ligneus</i>	Curculionidae	AJ850006	missing	missing
<i>Otiorhynchus sulcatus</i>	Curculionidae	AF250084	missing	DQ156031
<i>Pachnaeus litus</i>	Curculionidae	AY157730	missing	missing
<i>Phyllobius pyri</i>	Curculionidae	AJ850014	missing	DQ156035
<i>Polydrusus sericeus</i>	Curculionidae	AF250086	missing	missing
<i>Tanymecus</i> sp. BF-2000	Curculionidae	AF250088	missing	missing
<i>Germainiellus</i> nr. <i>salebrosus</i>	Curculionidae	EF214156	EF213958	EF214166
<i>Sitona hispidulus</i>	Curculionidae	AF250087	missing	missing
<i>Sitona striatellus</i>	Curculionidae	AJ849997	missing	missing
<i>Dorytomus rufatus</i>	Curculionidae	AJ850011	missing	missing
<i>Lissorhoptrus longipennis</i>	Curculionidae	AF389040	missing	missing
<i>Notaris bimaculatus</i>	Curculionidae	AJ850024	missing	EF517599
<i>Penestes</i> sp. BF-2000	Curculionidae	AF250072	missing	missing
<i>Procas granulicollis</i>	Curculionidae	AJ850025	missing	missing
<i>Stenopelmus rufinasus</i>	Curculionidae	AF389039	missing	missing
<i>Tanysphyrus lemnae</i>	Curculionidae	AJ850023	missing	DQ155948
<i>Thryogenes nereis</i>	Curculionidae	AJ850026	missing	missing
<i>Oxyops vitiosa</i>	Curculionidae	AF250090	missing	missing
<i>Hypera nigrirostris</i>	Curculionidae	AJ850005	missing	missing
<i>Hypera postica</i>	Curculionidae	AF389058	MIHP16967	missing
<i>Leptopius</i> sp. ENN01	Curculionidae	AF389051	missing	missing
<i>Lixus</i> sp. BF-2000	Curculionidae	AF250098	missing	missing
<i>Cholus tessellatus</i>	Curculionidae	AF250099	missing	missing
<i>Cleogonus</i> sp. BMNH668144	Curculionidae	DQ337145	missing	missing
<i>Epistrophus</i> sp. BF-2000	Curculionidae	AF250101	missing	missing
<i>Marshallius</i> sp. BF-2000	Curculionidae	AF250102	missing	missing
<i>Pachylobius picivorus</i>	Curculionidae	AF250103	missing	missing
<i>Conotrachelus nenuphar</i>	Curculionidae	AF250100	missing	missing
<i>Calvertius tuberosus</i>	Curculionidae	AF389070	missing	missing
<i>Pissodes castaneus</i>	Curculionidae	AJ850007	missing	missing
<i>Ocladius obliquesetosus</i>	Curculionidae	AF389033	missing	missing
<i>Raymondionymus marqueti</i>	Curculionidae	AJ850022	missing	missing
<i>Listronotus cryptops</i>	Curculionidae	AF250089	missing	missing
<i>Listroderes bruchi</i>	Curculionidae	AF389057	missing	missing
<i>Alniphagus aspericollis</i>	Curculionidae	AF308320	missing	missing
<i>Araptus</i> sp. SCH05	Curculionidae	AF375242	missing	AF187123
<i>Chramesus asperatus</i>	Curculionidae	AF308315	missing	missing
<i>Chramesus</i> sp. HLF02	Curculionidae	AF308312	missing	missing
<i>Chaetophloeus</i> sp. HLO01	Curculionidae	AF308322	missing	missing
<i>Chaetophloeus penicillatus</i>	Curculionidae	AF308324	missing	missing
<i>Cnesinus degener</i>	Curculionidae	AF308306	missing	missing
<i>Cnesinus lecontei</i>	Curculionidae	AF308305	missing	missing
<i>Coleobothrus germeauxi</i>	Curculionidae	AF375245	missing	AF375311
<i>Cryphalus abietis</i>	Curculionidae	AF375247	missing	AF187109
<i>Ctonoxylon flavescens</i>	Curculionidae	AF308345	missing	AF187129
<i>Dendroctonus adjunctus</i>	Curculionidae	AF308332	missing	AF067992
<i>Dendroctonus jeffreyi</i>	Curculionidae	AF308334	missing	AF067994
<i>Dendroctonus mexicanus</i>	Curculionidae	AF308335	missing	AF067988
<i>Dendroctonus murrayanae</i>	Curculionidae	AF308336	missing	AF067989
<i>Dendroctonus ponderosae</i>	Curculionidae	AF308337	missing	AF067987
<i>Dendroctonus pseudotsugae</i>	Curculionidae	AF308327	missing	AF375318
<i>Dendroctonus terebrans</i>	Curculionidae	AF308338	missing	AF375315

Dryocoetes affaber	Curculionidae		AJ850046	missing	AF187113
Dryocoetes alni	Curculionidae		AF389046	missing	AF438508
Ernopus caucasicus	Curculionidae		AF375249	missing	missing
Ernopus fagi	Curculionidae		AF375250	missing	missing
Gnathotrupes sp. SCL06	Curculionidae		AF375252	missing	missing
Gnathotrupes sp. SCL07	Curculionidae		AF375251	missing	missing
Hylastes porculus	Curculionidae		AF308339	missing	AF375321
Hypocryphalus mangiferae	Curculionidae		AF375254	missing	missing
Hypothenemus eruditus	Curculionidae		AF308340	missing	missing
Hylesinus varius	Curculionidae		AF308318	missing	missing
Hypothenemus sp. SCA06	Curculionidae		AF375255	missing	AF375324
Hylurgops rugipennis	Curculionidae		AF308317	missing	missing
Hypothenemus setosus	Curculionidae		AF308341	missing	missing
Hylesinopsis sp. HLD02	Curculionidae		AF308309	missing	missing
Hylesinopsis sp. Hlh10	Curculionidae		AF375253	missing	missing
Hylesinopsis sp. HLH11	Curculionidae		AF308321	missing	missing
Hylesinopsis sp. TJH-2004	Curculionidae		AJ850047	missing	missing
Hylurgonotus tuberculatus	Curculionidae		AF308328	missing	AF375313
Indocryphalus pubipennis	Curculionidae		AF375256	missing	missing
Ips acuminatus	Curculionidae	yes	AJ850040	missing	AF113325
Ips grandicollis	Curculionidae		AF250074	missing	AF113349
Liparthrum nigrescens	Curculionidae		AF308323	missing	missing
Miocryphalus sp. SCA13	Curculionidae		AF375258	missing	missing
Orthotomicus caelatus	Curculionidae		AF308343	missing	AF113391
Orthotomicus laricis	Curculionidae		AJ850041	missing	AF113392
Phloeotribus liminaris	Curculionidae		AF308326	missing	AF375325
Phloeotribus puberulus	Curculionidae		AF308325	missing	missing
Phloeosinus punctatus	Curculionidae		AF308314	missing	missing
Phloeoditica sp. HLF01	Curculionidae		AF308311	missing	missing
Phloeophthorus rhodactylus	Curculionidae		AJ850042	missing	missing
Pityophthorus sp. SCH07	Curculionidae		AF250075	missing	AF375326
Pityogenes sp. SCI06	Curculionidae		AF389045	missing	missing
Pityokteines minutus	Curculionidae		AF308342	missing	AF187125
Chaetastus montanus	Curculionidae	yes	AF375244	missing	missing
Dinoplatypus pseudocupulatus	Curculionidae		AF375248	missing	missing
Euplatypus hintzi	Curculionidae		AJ850035	missing	missing
Phylloplatypus pandani	Curculionidae		AF389042	missing	missing
Platypus compertus	Curculionidae		AF375243	missing	missing
Platypus cylindrus	Curculionidae		AJ850036	missing	missing
Platypus sp. BF-2000	Curculionidae		AF250077	missing	missing
Platypus sp. PLP02	Curculionidae		AF375259	missing	missing
Polygraphus rufipennis	Curculionidae		AF308316	missing	missing
Pseudohylesinus granulatus	Curculionidae		AF308330	missing	missing
Pseudohylesinus nebulosus nebulosus	Curculionidae		AF308331	missing	missing
Pseudochramesus sp. HLF04	Curculionidae		AF308313	missing	AF375328
Scolytogenes sp. SCA18	Curculionidae		AF375260	missing	missing
Scolytodes parvulus	Curculionidae		AF308346	missing	missing
Scolytus multistriatus	Curculionidae		AJ850043	missing	AF375329
Scolytus unispinosus	Curculionidae		AF375262	missing	missing
Sinophloeus porteri	Curculionidae		AF308329	missing	AF375314
Strombophorus celtis	Curculionidae		AF308308	missing	missing
Tesserocerus dewalquei	Curculionidae		AJ850037	missing	missing
Tomicus piniperda	Curculionidae		AJ850044	missing	AF367041
Trypodendron lineatum	Curculionidae		AF250076	missing	AF187132
African scolytid TH-2004	Curculionidae		AJ850039	missing	missing
Xylechinosomus valdivianus	Curculionidae		AF308319	missing	AF375312
Xyleborus dispar	Curculionidae		AJ850045	missing	missing
Xylosandrus sp. SCY05	Curculionidae		AF375263	missing	missing
Xyleborinus saxeseni	Curculionidae		AJ850038	missing	missing
Xyloterinus politus	Curculionidae		AF308347	missing	AF187133
Cidnorhinus sp. TJH-2004	Curculionidae		AJ850008	missing	missing
Cerylon ferrugineum	Cerylonidae	yes	EF363009	EF512340	DQ155901

Cerylon histeroideus	Cerylonidae		EF363010	EF512341	DQ156021
Cerylon sp.UPOL2160	Cerylonidae		EF209831	missing	missing
Paracerylon sp.UPOL2169	Cerylonidae		EF209830	missing	missing
Philotermopsis crassicornis	Cerylonidae		EF209833	missing	missing
Philotermus sp.UPOL2267	Cerylonidae		EF209834	missing	missing
Spinocerylon sp.UPOL2167	Cerylonidae		EF209829	missing	missing
Euxestus sp.UPOL2241	Cerylonidae	yes	EF209828	missing	missing
Ithycerus noveboracensis	Ithyceridae	yes	AF389032	missing	missing
Cimberis attelaboides	Nemonychidae	yes	AJ850032	missing	missing
Doydirhynchus austriacus	Nemonychidae		AJ850033	missing	missing
Mecomacer sp. BF-2000	Nemonychidae	yes	AF250069	missing	missing
Rhynchitomacerinus kuscheli	Nemonychidae		AJ850034	missing	missing
Halmus chalybaeus	Coccinellidae		DQ337137	missing	missing
Exochomus quadripunctulatus	Coccinellidae	yes	EF209855	missing	missing
Platynaspis capicola	Coccinellidae		AY748144	missing	missing
Telsimia nitida	Coccinellidae		EF512319	missing	missing
Coccidula rufa	Coccinellidae		AY748145	missing	EF517590
Rhyzobius chrysomeloides	Coccinellidae	yes	EF512320	EF512342	DQ155761
Rhyzobius litura	Coccinellidae		EF512321	EF512343	DQ155937
Adalia bipunctata	Coccinellidae		EF512322	EF512344	ABI313070
Adalia decempunctata	Coccinellidae		EF512323	EF512345	DQ155924
Anisosticta novemdecimpunctata	Coccinellidae		AY748146	missing	DQ155763
Coccinella hieroglyphica	Coccinellidae		AY748148	DQ202554	DQ222027
Coccinella septempunctata	Coccinellidae	yes	AY748147	DQ202558	DQ155757
Harmonia quadripunctata	Coccinellidae		EF512324	missing	DQ155827
Olla v-nigrum	Coccinellidae		AY310602	missing	missing
Propylea quattuordecimpunctata	Coccinellidae		EF512325	EF512346	DQ155923
Psyllobium vingintiduopunctatum	Coccinellidae		EF209854	missing	missing
Tytthaspis sedecimpunctata	Coccinellidae		EF512326	EF512347	DQ155902
Subcoccinella vigintiquatuor punctata	Coccinellidae	yes	AY748149	DQ202528	DQ155798
Scymnus haemorrhoidalis	Coccinellidae		EF209857	missing	missing
Scymnus haemorrhoidalis	Coccinellidae		EF209858	missing	missing
Scymnus sp.UPOL2141	Coccinellidae		EF209859	missing	missing
Scymnus haemorrhoidalis	Coccinellidae		EF362992	EF512338	DQ155811
Scymnus suturalis	Coccinellidae	yes	EF512327	EF512348	DQ155762
Scymnus sp.UPOL2138	Coccinellidae		EF209856	missing	missing
Scymnus sp. TJH2007	Coccinellidae		AM600904	missing	missing
Stethorus punctillum	Coccinellidae		EF512328	EF512349	stop codon in transl.
Corylophidae Gen. sp. UPOL2108	Corylophidae		EF209872	missing	missing
Corylophidae Gen. sp. UPOL2193	Corylophidae		EF209862	missing	missing
Endomychidae sp. UPOL2196	Endomychidae		EF209863	missing	missing
Corylophidae Gen. sp. UPOL2196	Corylophidae	yes	EF209864	missing	missing
Corylophidae Gen. sp. UPOL2197	Corylophidae		EF209865	missing	missing
Corylophidae Gen. sp. UPOL2199	Corylophidae		EF209866	missing	missing
Coccinellidae Gen. Sp. UPOL2201	Coccinellidae		EF209867	missing	missing
Corylophidae Gen. sp. UPOL2201	Corylophidae		EF209868	missing	missing
Bystodes sp.UPOL2205	Endomychidae	yes	EF209869	missing	missing
Corylophidae Gen. sp. UPOL2207	Corylophidae		EF209870	missing	missing
Sericoderus lateralis	Corylophidae		EF363000	missing	missing
Sericoderus sp.UPOL2191	Corylophidae		EF209871	missing	missing
Sericoderus sp. TJH2004	Corylophidae	yes	AY748153	DQ202561	DQ221965
Anterophagus nigricornis	Cryptophagidae		EF362973	missing	missing
Atomaria atricapilla	Cryptophagidae		EF209797	missing	missing
Atomaria nigrirostris	Cryptophagidae	yes	EF512329	EF512350	DQ155983
Atomaria testacea	Cryptophagidae		AY748154	DQ202536	DQ155706
Cryptophagidae sp. UPOL2209	Cryptophagidae		EF209799	missing	missing
Cryptophagus acuminatus	Cryptophagidae		EF363001	missing	missing
Cryptophagus pilosus	Cryptophagidae		EF209800	missing	missing
Cryptophagus scanicus	Cryptophagidae	yes	AY748155	EF512335	DQ221955
Chrysomelidae sp. UPOL2216	Chrysomelidae		EF209798	missing	missing
Holoparamesus tenuis BMNH696329	Cryptophagidae		DQ337127	missing	missing

Micrambina nr. insignis BMNH696310	Cryptophagidae		DQ337128	missing	missing
Micrambe vini	Cryptophagidae		AY748158	missing	missing
Paratomaria nr. crowsoni BMNH696334	Cryptophagidae		DQ337141	missing	missing
Paramecosoma melanocephalum	Cryptophagidae		AY748157	missing	missing
Telmatophilus schoenherri	Cryptophagidae		EF209801	missing	missing
Telmatophilus typhae	Cryptophagidae	yes	EF362993	EF512339	DQ155772
Uleiota dubius	Silvanidae	yes	AY748180	DQ202564	DQ221967
Cucujus cinnaberinus	Cucujidae		EF209776	missing	missing
Cucujus clavipes	Cucujidae		AF423767	DQ202569	DQ222036
Cucujus mniszehci	Cucujidae		EF209775	missing	missing
Car pini	Caridae	yes	AJ849991	missing	missing
Pediacus depressus	Cucujidae	yes	EF209778	missing	missing
Pediacus sp.UPOL2032	Cucujidae		EF209774	missing	missing
Pediacus sp.UPOL2272	Cucujidae		EF209777	missing	missing
Uleiota sp. BYU_ACCO072	Silvanidae		AY521833	missing	missing
Uleiota sp. JAR-2003	Silvanidae		AY310604	missing	missing
Discolomatidae Gen. sp. UPOL2070	Discolomidae	yes	EF209835	missing	missing
Discolomatidae Gen. sp. UPOL2127	Discolomidae		EF209836	missing	missing
Discolomatidae Gen. sp. UPOL2128	Discolomidae		EF209837	missing	missing
Discolomatidae Gen. sp. UPOL2129	Discolomidae		EF209838	missing	missing
Discolomatidae Gen. sp. UPOL2130	Discolomidae		EF209839	missing	missing
Discolomatidae Gen. sp. UPOL2132	Discolomidae		EF209840	missing	missing
Discolomatidae Gen. sp. UPOL2133	Discolomidae		EF209841	missing	missing
Discolomatidae Gen. sp. UPOL2146	Discolomidae		EF209847	missing	missing
Discolomatidae Gen. sp. UPOL2231	Discolomidae		EF209849	missing	missing
Alexia pilifera	Alexiidae	yes	EF362957	EF512337	DQ155803
Amphisternus sp.UPOL2080	Endomychidae		EF209842	missing	missing
Chondria armipes	Endomychidae		AY310609	missing	missing
Danae sp.UPOL2235	Endomychidae		EF209852	missing	missing
Encymon bipustulatus	Endomychidae	yes	AY310608	missing	missing
Endomychus coccineus	Endomychidae	yes	AY748159	DQ202547	stop codon in transl.
Eumorphus sp.UPOL2081	Endomychidae		EF209843	missing	missing
Holoparamesus tenuis	Endomychidae	yes - chim	DQ337125	missing	missing
Mycetina sp.UPOL2083	Endomychidae		EF209845	missing	missing
Mycetina sp.UPOL2232	Endomychidae		EF209850	missing	missing
Phymaphora californica	Endomychidae	yes	AY748160	DQ202565	DQ222033
Stenotarsus sp.UPOL2101	Endomychidae		EF209846	missing	missing
Stenotarsus sp.UPOL2230	Endomychidae		EF209848	missing	missing
Stenotarsus sp.UPOL2234	Endomychidae		EF209851	missing	missing
Stenotarsus sp.UPOL2082	Endomychidae		EF209844	missing	missing
Aegithus cardinalis	Erotylidae		AY310648	missing	missing
Aegithus meridionalis	Erotylidae		AY310631	missing	missing
Aulacochilus flavocinctus	Erotylidae	yes	AY310644	missing	missing
Aulacochilus papuanus	Erotylidae		AY310647	missing	missing
Aulacochilus sp.UPOLZ134	Erotylidae		EF209815	missing	missing
Coptengis sp. JAR-2003	Erotylidae		AY310643	missing	missing
Dacne bipustulata	Erotylidae	yes	AY748161	DQ202532	stop codon in transl.
Dacne californica	Erotylidae		AY310634	missing	missing
Microsternus sp.UPOL2242	Erotylidae		EF209812	missing	missing
Ellipticus sp. nr. testaceus	Erotylidae		AY310654	missing	missing
Encaustes cruenta	Erotylidae		AY310642	missing	missing
Encaustes verticalis	Erotylidae		AY310641	missing	missing
Episcaphula sp. 2-JAR-2003	Erotylidae		AY310646	missing	missing
Erotylina jaspidea	Erotylidae	yes	AY310649	missing	missing
Iphiclus conspicillatus	Erotylidae		AY310655	missing	missing
Iphiclus delineatus	Erotylidae		AY310626	missing	missing
Iphiclus sp. 10b-JAR-2003	Erotylidae		AY310640	missing	missing
Iphiclus sp. 2-JAR-2003	Erotylidae		AY310627	missing	missing
Iphiclus sp. 4-JAR-2003	Erotylidae		AY310620	missing	missing
Iphiclus sp. 5-JAR-2003	Erotylidae		AY310616	missing	missing

<i>Iphiclus</i> sp. nr. <i>pulcher</i>	Erotylidae		AY310612	missing	missing
<i>Iphiclus</i> <i>sedecimmaculatus</i>	Erotylidae		AY310613	missing	missing
<i>Lybas</i> sp. 1-JAR-2003	Erotylidae		AY310622	missing	missing
<i>Lybas</i> sp. 2-JAR-2003	Erotylidae		AY310632	missing	missing
<i>Megalodacne fasciata</i>	Erotylidae	yes	AY310635	missing	missing
<i>Mycotretus</i> sp. 1-JAR-2003	Erotylidae		AY310617	missing	missing
<i>Mycotretus</i> sp. 2-JAR-2003	Erotylidae		AY310630	missing	missing
<i>Mycotretus scitulus</i>	Erotylidae		AY310618	missing	missing
<i>Prepopharus xanthomelas</i>	Erotylidae		AY310628	missing	missing
<i>Pselaphacus puncticollis</i>	Erotylidae		AY310651	missing	missing
<i>Pselaphacus signatus</i>	Erotylidae		AY310623	missing	missing
<i>Saccomorplus</i> sp. JAR-2003	Erotylidae		AY310650	missing	missing
<i>Spondotriplax antennalis</i>	Erotylidae		AY310645	missing	missing
<i>Tritoma bipustulata</i>	Erotylidae	yes	AY748163	DQ202551	DQ221958
<i>Tritoma erythrocephala</i>	Erotylidae		AY310633	missing	missing
<i>Tritoma nipponensis</i>	Erotylidae		EF209811	missing	missing
<i>Triplax aenea</i>	Erotylidae		AY748162	DQ202522	missing
<i>Triplax thoracica</i>	Erotylidae		AY310637	missing	missing
<i>Tritoma pulchra</i>	Erotylidae		AY310638	missing	missing
<i>Tritoma</i> sp. UPOL2236	Erotylidae		EF209810	missing	missing
<i>Tritoma</i> sp. UPOL2243	Erotylidae		EF209813	missing	missing
<i>Tritoma</i> sp. UPOL2244	Erotylidae		EF209814	missing	missing
<i>Tritoma unicolor</i>	Erotylidae		AY310639	missing	missing
<i>Helota cereopunctata</i>	Helotidae		EF209759	missing	missing
<i>Helota gemmata</i>	Helotidae	yes	EF209758	missing	missing
<i>Brachypterolus</i> sp.	Brachypteridae		EF512330	EF512351	missing
<i>Brachypterolus pulicarius</i>	Brachypteridae		EF362991	missing	stop codon in transl.
<i>Brachypterus glaber</i>	Brachypteridae		EF362977	missing	missing
<i>Brachypterus urticae</i>	Brachypteridae		EF209733	missing	missing
<i>Kateretes rufilabris</i>	Brachypteridae		AY748142	DQ202563	DQ221966
<i>Cryptolestes duplicatus</i>	Laemophloeidae		EF362981	missing	missing
Laemophloeidae Gen. sp. UPOL2044	Laemophloeidae		EF209779	missing	missing
Laemophloeidae Gen. sp. UPOL2110	Laemophloeidae		EF209780	missing	missing
<i>Inopeplus</i> sp. UPOL2111	Salpingidae		EF209781	missing	missing
Laemophloeidae Gen. sp. UPOL2113	Laemophloeidae	yes	EF209782	missing	missing
Laemophloeidae Gen. sp. UPOL2118	Laemophloeidae		EF209783	missing	missing
Laemophloeidae Gen. sp. UPOL2122	Laemophloeidae		EF209784	missing	missing
Laemophloeidae Gen. sp. UPOL2123	Laemophloeidae		EF209785	missing	missing
<i>Lathropus sepicola</i>	Laemophloeidae		EF209786	missing	missing
<i>Anadastus</i> sp. UPOL2095	Erotylidae		EF209806	missing	missing
<i>Anadastus</i> sp. UPOL2097	Erotylidae		EF209807	missing	missing
<i>Caenolanguria</i> sp. JAR-2003	Erotylidae		AY310611	missing	missing
<i>Cryptophilus</i> sp. TJH-2004	Erotylidae	yes	AY748164	DQ202560	DQ222032
<i>Crotchia</i> sp. TJH-2004	Erotylidae	yes	AY748165	DQ202546	missing
<i>Haplips prolixus</i>	Erotylidae		DQ337135	missing	missing
<i>Languria mozardi</i>	Erotylidae		AY310599	missing	missing
<i>Languriophasma</i> sp. UPOL2094	Erotylidae		EF209805	missing	missing
<i>Pharaxonotha</i> sp. UPOL2173	Erotylidae	yes	EF209808	missing	missing
<i>Tetraphala aenea</i>	Erotylidae		EF209803	missing	missing
<i>Toramus pulchellus</i>	Erotylidae	yes	AY310598	missing	missing
<i>Toramus</i> sp. 2-JAR-2003	Erotylidae		AY310615	missing	missing
<i>Trapezidistes</i> sp. UPOL2093	Erotylidae		EF209804	missing	missing
Languriidae gen. sp. TJH2004	Erotylidae		AY748166	DQ202523	missing
<i>Aridius bifasciatus</i>	Lathridiidae		EF362967	missing	DQ155751
<i>Aridius nodifer</i>	Lathridiidae	yes	AY748168	DQ202542	DQ221953
<i>Corticaria crenulata</i>	Lathridiidae		EF362996	missing	stop codon in transl.
<i>Corticaria elongata</i>	Lathridiidae		EF209873	missing	missing
<i>Corticaria gibbosa</i>	Lathridiidae	yes	AY748167	DQ202543	DQ155871
<i>Corticaria gibbosa</i>	Lathridiidae		EF209877	missing	missing
<i>Corticarina fuscula</i>	Lathridiidae		EF362961	missing	missing

Corticarina similata	Lathridiidae		EF512331	missing	missing
Enicmus fungicola	Lathridiidae		EF209874	missing	missing
Enicmus histrio	Lathridiidae		EF209876	missing	missing
Enicmus transversus	Lathridiidae		AY748169	missing	DQ155869
Latridius consimilis	Lathridiidae		EF209879	missing	missing
Melanophthalma curticolis	Lathridiidae		EF209875	missing	missing
Stephostethus angusticollis	Lathridiidae		EF209878	missing	missing
Stephostethus lardarius	Lathridiidae		EF362985	missing	missing
Melighetes viridescens	Nitidulidae		EF209745	missing	missing
Mimemodes sp.UPOL2148	Monotomidae		EF209754	missing	missing
Monotoma conicicollis	Monotomidae		AY748170	missing	missing
Monotoma sp.UPOL2171	Monotomidae		EF209756	missing	missing
Monotoma sp.UPOL2172	Monotomidae		EF209757	missing	missing
Monotoma spinicollis	Monotomidae	yes	EF362952	EF512336	DQ155705
Rhizophagus bipustulatus	Monotomidae		AY748171	missing	missing
Rhizophagus dispar	Monotomidae	yes	EF362964	missing	DQ156030
Rhizophagus japonicus	Monotomidae		EF209755	missing	missing
Amphotus sp. C27	Nitidulidae		AF423768	missing	missing
Carpophilus sp. JAR-2003	Nitidulidae		AY310603	missing	missing
Carpophilus obsoletus	Nitidulidae		EF209748	missing	missing
Carpophilus sexpustulatus	Nitidulidae	yes	AY748172	DQ202545	stop codon in transl.
Cillaeus sp.UPOL2246	Nitidulidae	yes	EF209744	missing	missing
Colopterus sp.UPOL2062	Nitidulidae		EF209742	missing	missing
Pityophagus ferrugineus	Nitidulidae		EF512332	missing	stop codon in transl.
Cychramus luteus	Nitidulidae	yes	AY748176	DQ202556	DQ155899
Cyllodes sp.UPOL2059	Nitidulidae		EF209741	missing	missing
Cychramus sp.UPOL2060	Nitidulidae		EF209734	missing	missing
Cybocephalus sp.UPOL2256	Nitidulidae		EF209751	missing	missing
Cychramus variegatus	Nitidulidae	yes	EF209739	missing	missing
Eपुरaea sp.	Nitidulidae		EF512333	missing	stop codon in transl.
Eपुरaea melanocephala	Nitidulidae		AY748173	DQ202529	stop codon in transl.
Eucallosphaera sp.UPOL2210	Nitidulidae		EF209737	missing	missing
Glischrochilus hortensis	Nitidulidae		AY748174	DQ202539	stop codon in transl.
Glischrochilus quadrisignatus	Nitidulidae		EF209735	missing	missing
Glischrochilus rufiventris	Nitidulidae		EF209736	missing	missing
Ipidia variolosa	Nitidulidae		EF209738	missing	missing
Librodor japonicus	Nitidulidae		EF209740	missing	missing
Meligethes sp. TJH-2004	Nitidulidae		AY748175	DQ202531	missing
Meligethes ovatus	Nitidulidae		EF362962	missing	DQ156002
Neopallodes hilleri	Nitidulidae		EF209752	missing	missing
Prometopia quadrimaculata	Nitidulidae		EF209743	missing	missing
Trimenus parallelopedus	Nitidulidae		EF209746	missing	missing
Nitidulinae sp. JAR-2003	Nitidulidae		AY310652	missing	missing
Hectathrum sp.UPOL2089	Passandridae	yes	EF209773	missing	missing
Discolomatidae Gen. sp. UPOL2174	Discolomatidae		EF209792	missing	missing
Chrysomelidae sp. UPOL2208	Chrysomelidae		EF209794	missing	missing
Augasmus sp.UPOL2221	Phalacridae		EF209793	missing	missing
Phalacrus coruscus	Phalacridae		EF209795	missing	missing
Olibrus affinis	Phalacridae		EF209796	missing	missing
Olibrus flavicornis	Phalacridae		EF362982	missing	stop codon in transl.
Olibrus liquidus	Phalacridae		EF512334	EF512352	missing
Phalacrus fimetarius	Phalacridae		EF209789	missing	missing
Stilbus testaceus	Phalacridae	yes	AY748178	DQ202524	DQ155868
Tolyphus sp.UPOL2052	Phalacridae		EF209790	missing	missing
Priasilpha obscura	Phloeostichidae	yes	AY748179	missing	missing
Ericmodes sylvaticus	Protocucujidae	yes	AJ850051	DQ202617	DQ222021
Propalticus sp.UPOL2211	Propalticidae	yes	EF209788	missing	missing
Propalticus sp.UPOL2245	Propalticidae		EF209787	missing	missing

Dendrophagus sp.UPOL2086	Silvanidae		EF209768	missing	missing
Dendrophagus sp.UPOLZ213	Silvanidae		EF209761	missing	missing
Psammoecus sp._UPOL2034	Silvanidae		EF209763	missing	missing
Psammoecus triguttatus	Silvanidae		EF209763	missing	missing
Psammoecus biguttatus	Silvanidae		EF362974	missing	missing
Monanus sp.UPOL2259	Silvanidae		EF209772	missing	missing
Silvaninae sp. UPOL2046	Silvanidae		EF209767	missing	missing
Silvaninae sp. UPOL2258	Silvanidae		EF209769	missing	missing
Silvaninae sp. UPOL2260	Silvanidae		EF209770	missing	missing
Silvaninae sp. UPOL2274	Silvanidae		EF209771	missing	missing
Protosilvanus lateritius	Silvanidae		EF209764	missing	missing
Silvanus sp.UPOL2045	Silvanidae		EF209766	missing	missing
Silvanus unidentatus	Silvanidae	yes	AY748181	DQ202526	DQ155740
Aspidiphorus sp. TJH-2004	Sphindidae	yes	AY748182	missing	missing
Sphindus dubius	Sphindidae	yes	AY748183	DQ202550	DQ222024
Uleiota planata	Silvanidae		EF209760	missing	missing
Hylecoetus dermestoides	Lymexylidae	yes	DQ337166	missing	DQ221963
Lymexylon navale	Lymexylidae	yes	AY748185	DQ202588	DQ221992
Melittomma brasiliense	Lymexylidae	yes	AY748186	missing	missing
Aderus populneus	Aderidae		EF362965	missing	missing
Aderus sp.UPOLZ197	Aderidae		EF210021	missing	missing
Aderidae gen. sp. UPOLZ168	Aderidae		EF210020	missing	missing
Phytobaenus amabilis	Aderidae	yes	AY748187	DQ202594	DQ221961
Anthicomorphus suturalis	Anthicidae		EF210019	missing	missing
Anthicidae gen. sp. UPOLZ051	Anthicidae		EF210016	missing	missing
Anthicidae gen. sp. UPOLZ060	Anthicidae		EF210013	missing	missing
Anthicidae gen. sp. UPOLZ063	Anthicidae		EF210015	missing	missing
Anthicidae gen. sp. UPOLZ076	Anthicidae		EF210014	missing	missing
Ischalia sp.UPOLZ121	Anthicidae	yes	EF210017	EF490132	EF490161
Neostereopalpus niponicus	Anthicidae	yes	EF210018	EF490133	EF490162
Notoxus monocerus	Anthicidae	yes	AY748188	DQ202590	DQ221995
Boros schneideri	Boridae	yes	EF209989	EF490134	EF490163
Cephaloon pallens	Stenotrachelidae	yes	EF209980	EF490135	missing
Cis boleti	Ciidae		EF209886	missing	missing
Cis sp. BMNH696333	Ciidae		DQ337134	missing	missing
Cis sp. JAR-2003	Ciidae		AY310605	missing	missing
Ciidae sp. UPOL2215	Ciidae		EF209889	missing	missing
Cis nitidus	Ciidae	yes	AY748191	DQ202540	DQ156020
Octotemnus glabriculus	Ciidae		EF209887	missing	missing
Orthocis festivus	Ciidae		EF209888	missing	missing
Orthocis pygmaeus	Ciidae		EF209885	EF490136	EF490164
Rhopalodontus perforatus	Ciidae		AY748190	missing	missing
Sulcasis sp. BMNH696319	Ciidae		DQ337129	missing	missing
Abdera biflexuosa	Melandryidae		EF362990	missing	missing
Abdera quadrifasciata	Melandryidae		EF209919	missing	missing
Anisoxya fuscula	Melandryidae		EF209915	missing	missing
Conopalpus testaceus	Melandryidae		AY748195	missing	missing
Orchesia sp.UPOLZ163	Melandryidae		EF209916	missing	missing
Hallomenus binotatus	Melandryidae	yes	AY748193	DQ202555	DQ222028
Microtonus dimidiatus	Melandryidae	yes	EF209896	EF490137	EF490165
Hypulus acutangulus	Melandryidae		EF209914	missing	missing
Hypulus cingulatus	Melandryidae	yes	EF209906	EF490138	EF490166
Hypulus quercinus	Melandryidae		EF209913	missing	missing
Melandrya barbata	Melandryidae		EF209897	missing	missing
Melandrya dubia	Melandryidae		EF209899	missing	missing
Microscapha sp.UPOLZ149	Melandryidae		EF209911	missing	missing
Microtonus sp.UPOLZ140	Melandryidae		EF209910	missing	missing
Mycetoma sp.UPOLZ139	Melandryidae		EF209909	missing	missing
Mycetoma suturale	Melandryidae		EF209903	missing	missing
Orchesia imitans	Melandryidae		EF209904	missing	missing
Orchesia micans	Melandryidae		EF209912	missing	missing
Orchesia minor	Melandryidae		EF209920	missing	missing

Orchesia sp. MSL2007	Melandyridae		EF214163	EF214127	EF214359
Orchesia undulata	Melandyridae		EF209918	missing	missing
Osphya orientalis	Melandyridae	yes	EF209898	EF490139	EF490167
Paramikadonius crepuscula	Melandyridae		EF209895	missing	missing
Phloiотrya bellicosa	Melandyridae		EF209900	missing	missing
Phloiотrya flavitarsis	Melandyridae		EF209908	missing	missing
Phloiотrya planiuscula	Melandyridae		EF209907	missing	missing
Phryganophilus ruficollis	Melandyridae		EF209902	missing	missing
Phloiотrya rufipes	Melandyridae		EF209894	missing	missing
Phloiотrya vandoueri	Melandyridae	yes	AY748194	DQ202549	DQ221957
Epicanta femoralis	Meloidae	yes	AY748197	DQ202559	DQ222031
Epicauta sp.UPOLZ135	Meloidae		EF209988	missing	missing
Meloidae sp. UPOLZ058	Meloidae		EF209986	missing	missing
Lydomorphus bifoveiceps	Meloidae		EF209987	missing	missing
Lytta vesicatoria	Meloidae	yes	EF209985	EF490140	EF490168
Meloe decorus	Meloidae		EF209982	missing	missing
Meloe sp. TJH2004	Meloidae		AY748196	DQ202612	missing
Meloe proscarabaeus	Meloidae		EF209983	missing	missing
Meloe uralensis	Meloidae		EF209981	missing	missing
Meloe proscarabaeus	Meloidae		MP18SRRNA	missing	missing
Horia sp.UPOLZ115	Meloidae	yes	EF209984	EF490141	EF490169
Cephaloglipa angustatissima	Mordellidae		EF209927	missing	missing
Monommidae sp. UPOLZ110	Zopheridae	yes	EF209937	EF490142	EF490170
Mordellista brevicauda	Mordellidae		EF209926	missing	missing
Glipa ishigakiana	Mordellidae		EF209921	EF490143	EF490171
Hoshihanomia perlata	Mordellidae		EF209925	missing	missing
Mordella brachyura	Mordellidae	yes	EF209922	EF490144	EF490172
Mordellistena neuwaldeggiana	Mordellidae		EF209923	missing	missing
Stenomordellarie neglecta	Mordellidae		DQ337138	missing	missing
Tomoxia bucephala	Mordellidae		AY748198	missing	missing
Litargus connexus	Mycetophagidae		EF209883	missing	missing
Litargus sp.UPOLZ145	Mycetophagidae		EF209880	EF490145	EF490173
Litargus sp.UPOLZ146	Mycetophagidae		EF209881	missing	missing
Mycetophagus atomarius	Mycetophagidae		EF209882	missing	missing
Mycetophagus quadripustulatus	Mycetophagidae	yes	AY748199	EF490159	DQ155907
Triphyllus bicolor	Mycetophagidae		AY748200	missing	EF517591
Triphyllus hiidiellis	Mycetophagidae		DQ337124	missing	missing
Ischnomera caerulea	Oedemeridae		AY748201	missing	missing
Chrysanthia viridissima	Oedemeridae		EF209973	missing	missing
Oedemeridae sp. UPOL1089	Oedemeridae		EF209979	missing	missing
Oedemeridae sp. UPOLZ193	Oedemeridae		EF209978	missing	missing
Nacerdes hilleri	Oedemeridae	yes	EF209974	EF490146	EF490174
Oedemera nobilis	Oedemeridae		AY748202	missing	DQ221991
Oedemera femorata	Oedemeridae		EF209977	missing	missing
Oedemera podagrariae	Oedemeridae		EF209976	missing	missing
Oedemera virescens	Oedemeridae		EF209972	missing	missing
Oncomerella venosa	Oedemeridae		EF209975	missing	missing
Darwinella amaroides	Perimylopidae	yes	EF214161	EF214088	EF214299
Parahelops quadricollis	Perimylopidae		EF214157	EF214025	EF214228
Agnathus decoratus	Pyrochroidae	yes	EF209998	missing	missing
Pyrochroidae sp. UPOLZ022	Pyrochroidae		EF209993	missing	missing
Pytho depressus	Pythidae	yes	AY748204	missing	missing
Pedilus sp. UPOLZ110	Pyrochroidae		EF209995	missing	missing
Tosadendroides okamotoi	Pyrochroidae	yes	EF209996	missing	EF490175
Pyrochroa coccinea	Pyrochroidae	yes	AY748203	DQ202537	DQ156042
Pyrochroa sp.UPOLZ009	Pyrochroidae		EF209992	missing	missing
Pyrochroa sp. UPOLZ035	Pyrochroidae		EF209994	missing	missing
Pyrochroa sp. UPOLZ165	Pyrochroidae		EF209997	missing	missing
Metoeucus sp. TJH-2004	Ripiphoridae	yes	AY748205	DQ20567	DQ221969
Pelecotoma fennica	Ripiphoridae	yes	EF209931	EF490147	EF490176
Trigonodera sp.UPOLZ084	Ripiphoridae		EF209932	missing	missing
Macrosiagon sp.UPOLZ086	Ripiphoridae		EF209933	missing	missing



<i>Metoecus paradoxus</i>	Ripiphoridae		EF209928	missing	missing
<i>Ripiphorus</i> sp. UPOLZ099	Ripiphoridae		EF209929	missing	missing
Ripidiinae sp. UPOLZ087	Ripiphoridae	yes	EF209934	EF490148	EF490177
Ripiphoridae gen. sp. UPOLZ100	Ripiphoridae		EF209930	missing	missing
Ripiphoridae gen. sp. UPOLZ132	Ripiphoridae		EF209935	missing	missing
Ripiphoridae gen. sp. UPOLZ214	Ripiphoridae		EF209936	missing	missing
<i>Aegialites raikokensis</i>	Salpingidae	yes	EF210001	missing	EF490178
<i>Elacatis</i> sp. UPOLZ148	Salpingidae	yes	EF210002	EF490149	EF490179
Salphingidae gen. sp. UPOLZ053	Salpingidae		EF210008	missing	missing
Salphingidae gen. sp. UPOLZ054	Salpingidae		EF210009	missing	missing
Salphingidae gen. sp. UPOLZ207	Salpingidae		EF210004	missing	missing
<i>Henoticonus</i> sp. UPOLZ2271	Salpingidae		EF210005	missing	missing
<i>Henoticonus</i> sp. UPOLZ164	Salpingidae		EF210006	missing	missing
<i>Inoepelus</i> sp. UPOLZ202	Salpingidae	yes	EF209999	EF490150	EF490180
<i>Inoepelus</i> sp. UPOLZ203	Salpingidae		EF210000	missing	missing
<i>Poophylax falklandicus</i>	Salpingidae		EF214164	missing	EF214373
Prostominiinae gen. sp. UPOLZ166	Salpingidae	yes	EF210010	missing	missing
Prostominiinae gen. sp. UPOLZ154	Salpingidae		EF210011	missing	missing
Nitidulidae sp. UPOLZ167	Nitidulidae		EF210012	missing	missing
<i>Rhinosimus ruficollis</i>	Salpingidae	yes	AY748207	EF517577	DQ222034
<i>Salpingus castaneus</i>	Salpingidae		EF362959	missing	DQ155823
<i>Lissodema</i> sp. UPOLZ170	Salpingidae		EF210003	missing	missing
Salpingidae sp. UPOLZ165	Salpingidae	yes	EF210007	missing	missing
<i>Vincenzellus ruficollis</i>	Salpingidae		AY748206	missing	DQ221959
<i>Anaspis frontalis</i>	Scraptiidae		EF210031	missing	missing
<i>Anaspis hayashii</i>	Scraptiidae		EF210028	missing	missing
<i>Anaspis lurida</i>	Scraptiidae		EF210032	missing	missing
<i>Anaspis pulicaria</i>	Scraptiidae		EF210034	missing	missing
<i>Anaspis rufilabris</i>	Scraptiidae		EF210025	missing	missing
<i>Anaspis thoracica</i>	Scraptiidae		EF210030	missing	missing
<i>Anaspis trifasciata</i>	Scraptiidae		EF210033	missing	missing
Anaspidinae gen. sp. UPOLZ188	Scraptiidae		EF210027	missing	missing
<i>Anaspis maculata</i>	Scraptiidae	yes	AY748208	DQ202534	DQ156028
<i>Hallomenus</i> sp. UPOLZ142	Melandryidae		EF210024	missing	missing
<i>Nothotelus nigellus</i>	Scraptiidae		DQ337122	missing	missing
<i>Pentaria badia</i>	Scraptiidae		EF209924	missing	missing
<i>Scraptia fuscula</i>	Scraptiidae		EF362969	missing	missing
<i>Scraptia</i> sp. UPOLZ093	Scraptiidae	yes	EF210026	EF490151	EF490181
<i>Scraptia</i> sp. UPOLZ187	Scraptiidae		EF210023	missing	missing
<i>Scraptia</i> sp. UPOLZ190	Scraptiidae		EF210029	missing	missing
<i>Hymenalia</i> sp. UPOLZ030	Tenebrionidae		EF209961	missing	missing
Alleculinae sp. UPOLZ064	Tenebrionidae		EF209964	missing	missing
<i>Isomira antennata</i>	Tenebrionidae		EF209965	missing	missing
<i>Cteniopus sulphureus</i>	Tenebrionidae		EF209948	missing	missing
<i>Cteniopus sulphureus</i>	Tenebrionidae		EF363008	missing	missing
<i>Isomira</i> sp. UPOLZ166	Tenebrionidae		EF209969	missing	missing
<i>Gonodera luperus</i>	Tenebrionidae		EF209958	missing	missing
<i>Omophlus rugosicollis</i>	Tenebrionidae		EF209957	missing	missing
<i>Anatolica mucronata</i>	Tenebrionidae	yes	AY663858	AY663877	missing
<i>Blaps kiritshenkoi</i>	Tenebrionidae		AY663861	AY663882	missing
<i>Bolitophagus reticulatus</i>	Tenebrionidae		EF362998	missing	missing
<i>Strongylium</i> sp. UPOLZ034	Tenebrionidae	yes	EF209962	EF490152	EF490182
<i>Cteniopinus varicornis</i>	Tenebrionidae		AY663865	AY663876	missing
<i>Cyphogenia chinensis</i>	Tenebrionidae		AY663859	AY663866	missing
<i>Cylindronotus laevioctostriatus</i>	Tenebrionidae		AY748211	missing	missing
<i>Crypticus quisquilius</i>	Tenebrionidae		EF209966	missing	missing
<i>Diaperis boleti</i>	Tenebrionidae		EF209945	missing	missing
<i>Diaperis lewisi</i>	Tenebrionidae	yes	EF209946	EF490153	EF490183
<i>Eledona agricola</i>	Tenebrionidae		EF362958	missing	missing
<i>Eleodes sulcipennis</i>	Tenebrionidae		AF423769	missing	missing
<i>Falsocamera</i> sp. YY-2004	Tenebrionidae		AY663863	AY663874	missing
<i>Gonocephalum reticulatum</i>	Tenebrionidae		AY663856	AY663879	missing

Heterotarsus sp. YY-2004	Tenebrionidae		AY663862	AY663873	missing
Adynata brevicollis	Tenebrionidae		EF209952	missing	missing
Anisistyra rugipennis	Tenebrionidae		EF209954	missing	missing
Arthromacra amamiana	Tenebrionidae		EF209971	missing	missing
Cerogria bryanti	Tenebrionidae		EF209951	missing	missing
Lagria hirta	Tenebrionidae	yes	AY748213	missing	DQ155720
Casonidea collaris	Tenebrionidae		EF209953	missing	missing
Macrolagria robusticeps	Tenebrionidae		EF209959	missing	missing
Mantichorula semenowi	Tenebrionidae		AY663857	AY663885	missing
Nilio sp. TJH-2004	Tenebrionidae		AY748210	missing	missing
Pentaphyllus testaceus	Tenebrionidae		EF362976	missing	missing
Phrenapatinae sp. UPOLZ041	Tenebrionidae	yes	EF209947	EF490154	EF490184
Pseudocistela ceramboides	Tenebrionidae	yes	AY748209	EF517578	EF517592
Holostrophus sp. TJH-2004	Melandryidae		AY748192	missing	DQ221968
Holostrophus orientalis	Melandryidae		EF209905	missing	missing
Penthe japana	Tetratomidae		EF209892	missing	missing
Penthe sp. TJH2004	Tetratomidae	yes	AY748214	EF517586	DQ222035
Penthe sp. UPOLZ133	Tetratomidae		EF209891	missing	missing
Synstrophus macrophthalmus	Tetratomidae		EF209901	missing	missing
Tetratoma ancora	Tetratomidae		EF209890	missing	missing
Tetratoma fungorum	Tetratomidae	yes	AY748215	DQ202541	DQ155909
Tetratomidae gen. sp. UPOLZ161	Tetratomidae		EF209893	missing	missing
Strongylium sp. YY-2004	Tenebrionidae		AY663864	AY663875	missing
Sternotricon setosa setosa	Tenebrionidae		AY663860	AY663884	missing
Tenebrionidae gen. sp. UPOLZ270	Tenebrionidae		EF209970	missing	missing
Tenebrio molitor	Tenebrionidae		TMRN18S	AJ633673	TMO438074
Uloma sp. UPOLZ016	Tenebrionidae		EF209955	missing	missing
Uloma sp. UPOLZ027	Tenebrionidae		EF209960	missing	missing
Zophobas sp. UPOLZ077	Tenebrionidae		EF209967	missing	missing
			NW_001093552; NW_001094342; NW_001093372 and		
Tribolium castaneum	Tenebrionidae	yes	AAJJ01008039	AJ438143	AJ438075
Atasthalomorpha dentifrons	Tenebrionidae		EF209950	missing	missing
Coelometopinae sp. JAR-2003	Tenebrionidae		AY310607	missing	missing
Diaperinae sp. JAR-2003	Tenebrionidae		AY310610	missing	missing
Tenebrionidae gen. sp. UPOLZ077	Tenebrionidae		EF209968	missing	missing
Tenebrionidae gen. sp. UPOLZ061	Tenebrionidae		EF209963	missing	missing
Misolampidius sp. UPOLZ017	Tenebrionidae		EF209956	missing	missing
Trictenotoma sp. UPOLZ208	Trachelostenidae	yes	EF209990	EF490155	EF490185
Aulonium trisulcum	Zopheridae		EF209944	missing	missing
Colydium elongatum	Zopheridae	yes	AY748150	EF490160	EF490189
Endophloeus serratus	Zopheridae		EF209939	missing	missing
Gempylodes lewisi	Zopheridae		AM600905	missing	missing
Synchita sp. UPOLZ2217	Zopheridae		EF209941	missing	missing
Neotrichus serraticollis	Zopheridae		EF209942	missing	missing
Bitoma siccana	Zopheridae		EF209943	missing	missing
Synchita humeralis	Zopheridae		EF209940	missing	missing
Gempylodes lewisi_ UPOLZ067	Zopheridae		EF209938	missing	missing
Pycnomerus depressiusculus	Zopheridae	yes	DQ337140	missing	missing
Pycnomerus fuliginosus	Zopheridae		AY748152	missing	missing
Usechus lacerta	Zopheridae	yes	AY748216	DQ202562	EF517593
Agrilus planipennis	Buprestidae		AY216711	missing	missing
Agrilus populneus	Buprestidae		AJ810746	missing	missing

<i>Agrilus sinuatus</i>	Buprestidae	yes	AF451934	AJ862731	AJ862795
<i>Brachys</i> sp. BMNH668154	Buprestidae		DQ337147	missing	missing
<i>Trachys minutus</i>	Buprestidae	yes	AF451936	missing	AJ862797
<i>Trachys troglodytes</i>	Buprestidae		AJ810747	missing	missing
<i>Anthaxia hungarica</i>	Buprestidae	yes	DQ100484	DQ198623	DQ198545
<i>Castiarina adelaidae</i>	Buprestidae		DQ337150	missing	missing
<i>Castiarina octomaculata</i>	Buprestidae		DQ337157	missing	missing
<i>Castiarina rufipennis</i>	Buprestidae		DQ337152	missing	missing
<i>Castiarina xanthopilosa</i>	Buprestidae		DQ337151	missing	missing
<i>Julodinae</i> sp. IR-2002	Buprestidae	yes	AF451935	AJ862732	AJ862796
<i>Acmaeodera</i> sp. C36	Buprestidae	yes	AF423771	missing	missing
<i>Byrrhus pilula</i>	Byrrhidae	yes	AF427604	AJ862733	AJ862798
<i>Chalcosphaerium</i> sp. MSL2007	Byrrhidae		EF214158	EF214030	EF214233
<i>Chaetophora spinosa</i>	Byrrhidae		AF451929	missing	missing
<i>Curimopsis setigera</i>	Byrrhidae	yes	AF451930	missing	missing
<i>Simplocaria semistriata</i>	Byrrhidae		EF362987	missing	missing
<i>Callirhipidae</i> sp. UPOL 000M23	Callirhipidae	yes	DQ100490	DQ198637	DQ198560
<i>Chelonariidae</i> sp. BMNH 679389	Chelonariidae	yes	DQ100487	missing	missing
<i>Chelonariidae</i> sp. UPOL 000M06	Chelonariidae		DQ100488	missing	DQ198558
<i>Dryops algericus</i>	Dryopidae		AF451926	AJ862734	missing
<i>Dryops</i> sp. IR-2002	Dryopidae		AF451925	missing	missing
<i>Pomatinus substriatus</i>	Dryopidae	yes	AF451924	AJ862735	DQ266502
<i>Elmis maugetti</i>	Elmidae		AF451916	missing	missing
<i>Homalosolus hospitalis</i>	Elmidae		AF451921	missing	missing
<i>Limnius perrisi</i>	Elmidae	yes	AF451915	AJ862736	AJ862800
<i>Limnius volckmari</i>	Elmidae		AF451914	missing	missing
<i>Macronychus quadrituberculatus</i>	Elmidae		AF451920	missing	missing
<i>Oulimnius rivularis</i>	Elmidae		AF451913	AJ862737	AJ862801
<i>Stenelmis canaliculata</i>	Elmidae		AF451919	missing	missing
<i>Potamophilus acuminatus</i>	Elmidae		AF451911	missing	missing
<i>Potamodytes</i> sp. IR-2002	Elmidae	yes	AF451912	AJ862738	AJ862802
<i>Eulichas</i> sp. UPOL 000M22	Eulichadidae	yes	DQ100489	DQ198636	DQ198559
<i>Augyles maritimus</i>	Heteroceridae		AF451927	missing	missing
<i>Heterocerus hispidulus</i>	Heteroceridae		EF362999	missing	missing
<i>Heterocerus</i> sp. IR-2002	Heteroceridae	yes	AF451928	AJ862739	AJ862803
<i>Eulimnichus</i> sp. IR-2002	Limnichidae		AF451922	missing	missing
<i>Limnichus pygmaeus</i>	Limnichidae	yes	AF451923	DQ202578	DQ221981
<i>Eubrianax</i> sp. IR-2002	Psephenidae		AF451933	missing	missing
<i>Eubrianax</i> sp. UPOL 000M33	Psephenidae	yes	DQ100485	DQ198632	DQ198555
<i>Paralichas pectinatus</i>	Ptilodactylidae	yes	DQ100486	DQ198633	DQ198556
<i>Ptilodactyla</i> sp. IR-2002a	Ptilodactylidae		AF451931	missing	missing
<i>Ptilodactyla</i> sp. IR-2002b	Ptilodactylidae	yes	AF451932	AJ862741	AJ862805
<i>Dascillus cervinus</i>	Dascillidae	yes	AY745558	AJ862742	DQ221982
<i>Rhipiceridae</i> sp. BMNH 669201	Rhipiceridae	yes	DQ100483	missing	missing
<i>Asiosilis</i> sp. UPOL 000M13	Cantharidae		DQ100530	DQ198690	DQ198613
<i>Cantharis rustica</i>	Cantharidae		AF451940	missing	DQ156062
<i>Ichtyurus</i> sp. UPOL 000M12	Cantharidae	yes	DQ100531	DQ198691	DQ198614
<i>Inmalthodes</i> sp. UPOL 000M27	Cantharidae		DQ100534	DQ198695	DQ198618
<i>Laemoglyptus</i> sp. UPOL 000M10	Cantharidae		DQ100528	DQ198688	DQ198611
<i>Lycocerus</i> sp. UPOL 000M11	Cantharidae		DQ100529	DQ198689	DQ198612
<i>Malthinus flaveolus</i>	Cantharidae	yes	AF451938	AJ862743	AJ862807
<i>Malthodes</i> sp. UPOL 000M20	Cantharidae		DQ100532	DQ198693	DQ198616
<i>Malthodes</i> sp. UPOL 000M21	Cantharidae		DQ100533	DQ198694	DQ198617
<i>Metacantharis haemorrhoidalis</i>	Cantharidae	yes	DQ100526	DQ198685	DQ198608
<i>Metacantharis</i> sp.	Cantharidae		DQ100526	DQ198685	DQ198608
<i>Podabrus</i> sp. C34	Cantharidae		AF423770	missing	missing
<i>Rhagonycha lignosa</i>	Cantharidae		AF451939	AJ862744	AJ862808
<i>Rhagonycha nigriceps</i>	Cantharidae		DQ100527	DQ198686	DQ198609
<i>Drilus flavescens</i>	Drilidae	yes	DQ100501	DQ202597	DQ222003
<i>Agrypnus murinus</i>	Elateridae	yes	AF451943	AJ862746	AJ862810
<i>Cardiophorus</i> sp. C50	Elateridae		AF423776	missing	missing
<i>Cardiophorinae</i> sp. IR-2002	Elateridae	yes	AF451942	DQ202604	DQ222010

Cebrioninae sp. BMNH 679376	Elateridae	yes	DQ100497	DQ198650	DQ198572
Stenagostus rhombeus	Elateridae	yes	AF451945	AJ862750	AJ862814
Athous haemorrhoidalis	Elateridae		AF451944	AJ862748	AJ862812
Denticollis linearis	Elateridae	yes	DQ100498	DQ198651	DQ198573
Ampedus balteatus	Elateridae	yes	AF427605	AJ862747	DQ156000
Balgus sp. 1 BMNH 669202	Elateridae	yes -	DQ100500	missing	missing
Panspaeus guttatus	Elateridae	chim	DQ100499	DQ198652	DQ198574
Entomophthalmus americanus	Eucnemidae	yes	DQ100491	DQ198638	missing
Eucnemis sp MSL2007	Eucnemidae		EF363006	missing	missing
Fornax sp. BMNH 703106	Eucnemidae		DQ100492	missing	missing
Hylis olexai	Eucnemidae		EF363007	missing	missing
Idiotarsus sp. BMNH 703105	Eucnemidae		DQ100494	missing	missing
Prototarsus sp. BMNH 703095	Eucnemidae		DQ100496	missing	DQ198565
Ceylanidrilus sp. UPOL 000156	Lampyridae		DQ100524	DQ198682	DQ198605
Curtos sp. UPOL 000M16	Lampyridae	yes	DQ100513	DQ198671	DQ198594
Drilaster borneensis subvittatus	Lampyridae	yes	DQ100522	DQ198680	DQ198603
Drilaster sp. UPOL 000M08	Lampyridae		DQ100517	DQ198675	DQ198598
Flabellotreta sp. UPOL 000M34	Lampyridae		DQ100520	DQ198678	missing
Flabellotreta obscuricollis	Lampyridae		DQ100519	DQ198677	DQ198600
Luciolinae gen., sp_M03	Lampyridae		DQ100514	DQ198672	DQ198595
Mimophaeopterus sp. UPOL 000M32	Lampyridae		DQ100523	missing	missing
Stenocladus sp. UPOL 000157	Lampyridae		DQ100525	DQ198683	DQ198606
Luciolinae sp. UPOL 000M03	Lampyridae		DQ100514	DQ198672	DQ198595
Luciolinae sp. UPOL 000M18	Lampyridae		DQ100516	DQ198674	DQ198597
Ototretinae sp. UPOL 000M37	Lampyridae		DQ100521	DQ198679	DQ198602
Ototretinae sp. UPOL 000M38	Lampyridae		DQ100518	DQ198676	DQ198599
Scarelus sp. 582	Lycidae	yes	DQ181085	DQ181011	DQ181233
Scarelus sp. 583	Lycidae		DQ181086	DQ181012	DQ181234
Scarelus sp. L15	Lycidae		DQ181046	DQ180972	DQ181194
Calochromus sp. 033	Lycidae	yes	DQ181060	DQ180986	DQ181208
Calochromus sp. 124	Lycidae		DQ181061	DQ180987	DQ181209
Calochromus sp. 347	Lycidae		DQ181068	DQ180994	DQ181216
Calochromus sp. L16	Lycidae		DQ181047	DQ180973	DQ181195
Calopteron sp. C20	Lycidae		AF423764	missing	missing
Duliticola sp. 588	Lycidae		DQ181091	DQ181016	DQ181239
Duliticola sp. L01	Lycidae		DQ181037	DQ180963	DQ181185
Duliticola sp. IR-2002	Lycidae		AF451941	AJ862751	AJ862816
Benibotarus sp. 572	Lycidae		DQ181075	DQ181001	DQ181223
Benibotaris sp. 573	Lycidae		DQ181076	DQ181002	DQ181224
Dictyoptera sp. 570	Lycidae		DQ181073	DQ180999	DQ181221
Dictyoptera sp. 571	Lycidae		DQ181074	DQ181000	DQ181222
Dihammatus sp. 1001	Lycidae		DQ181103	DQ181029	DQ181251
Dihammatus sp. 1009	Lycidae		DQ181106	DQ181032	DQ181254
Dihammatus sp. 1017	Lycidae		DQ181108	Dq181034	DQ181256
Dihammatus sp. L12	Lycidae		DQ181043	DQ180969	DQ181191
Eropterus sp. 579	Lycidae	yes	DQ181082	DQ181008	DQ181230
Eropterus sp. 580	Lycidae		DQ181083	DQ181009	DQ181231
Flagrax sp. L26	Lycidae		DQ181054	DQ180980	DQ181202
Konoplatycis sp. 575	Lycidae		DQ181078	DQ181004	DQ181226
Libnetis sp. 1002	Lycidae		DQ181104	DQ181030	DQ181252
Libnetis sp. 1008	Lycidae		DQ181105	DQ181031	DQ181253
Libnetis sp. 1012	Lycidae		DQ181107	DQ181033	DQ181255
Libnetis sp. L02	Lycidae		DQ181038	DQ180964	DQ181186
Lopheros sp. 577	Lycidae		DQ181080	DQ181006	DQ181228
Lopheros sp. 578	Lycidae		DQ181081	DQ181007	DQ181229
Lycoprogenthes sp. 358	Lycidae		DQ181070	DQ180996	DQ181218
Lycoprogenthes sp. 801	Lycidae		DQ181095	DQ181021	DQ181243
Lycoprogenthes sp. 802	Lycidae		DQ181096	DQ181022	DQ181244
Lycoprogenthes sp. 805	Lycidae		DQ181097	DQ181023	DQ181245
Lyponia sp. 815	Lycidae		DQ181099	DQ181025	DQ181247
Lyponia sp. 816	Lycidae		DQ181100	DQ181026	DQ181248

Lyponia sp. 817	Lycidae		DQ181101	DQ181027	DQ181249
Lyponia sp. L17	Lycidae		DQ181048	DQ180974	DQ181196
Plateros sp. 348	Lycidae		DQ181069	DQ180995	DQ181217
Plateros sp. 576	Lycidae		DQ181079	DQ181005	DQ181227
Plateros sp. 574	Lycidae		DQ181077	DQ181003	DQ181225
Taphes sp. 812	Lycidae		DQ181098	DQ181024	DQ181246
Alyculus sp. 543	Lycidae		DQ181072	DQ180998	DQ181220
Antennolycus sp. L22	Lycidae		DQ181051	DQ180977	DQ181199
Microlyropaeus sp. 542	Lycidae		DQ181071	DQ180997	DQ181219
Horakiella sp. 1043	Lycidae		DQ181110	DQ181036	DQ181258
Lyropaeus sp. 584	Lycidae	yes	DQ181087	DQ181013	DQ181235
Lyropaeus sp. 585	Lycidae		DQ181088	DQ181014	DQ181236
Lyropaeus sp. L11	Lycidae		DQ181042	DQ180968	DQ181190
Pendola sp. M45	Lycidae		DQ181058	DQ180984	DQ181206
Pseudoceratoprion sp. 592	Lycidae		DQ181092	DQ181018	DQ181240
Calopteron sp. L25	Lycidae		DQ181053	DQ180979	DQ181201
Dilophotes sp. 244	Lycidae		DQ181066	DQ180992	DQ181214
Eurrhacus sp. M43	Lycidae		Dq181056	DQ180982	DQ181204
Idiopteron sp. M44	Lycidae		DQ181057	DQ180983	DQ181205
Lycostomus sp. L27	Lycidae		DQ181055	DQ180981	DQ181203
Lycus sp. L03	Lycidae	yes	DQ181039	DQ180965	DQ181187
Macrolycus sp. 828	Lycidae		DQ181102	DQ181028	DQ181250
Macrolycus sp. L18	Lycidae		DQ181049	DQ180975	DQ181197
Thonalmus sp. 594	Lycidae		DQ181093	DQ181019	DQ181241
Thonalmus sp. 595	Lycidae		DQ181094	DQ181020	DQ181242
Cautires sp. L14	Lycidae		DQ181041	DQ180967	DQ181189
Cautires sp. L06	Lycidae		DQ181045	DQ180971	DQ181193
Conderis sp. 194	Lycidae		DQ181062	DQ180988	DQ181210
Leptotrichalus sp. 208	Lycidae		DQ181064	DQ180990	DQ181212
Metriorrhyncus sp. L05	Lycidae	yes	DQ181040	DQ180966	DQ181188
Metapteron sp. IR-2002	Lycidae		AF451946	missing	AJ862817
Microtrichalus sp. L23	Lycidae		DQ181052	DQ180978	DQ181200
Conderis sp. 581	Lycidae		DQ181084	DQ181010	DQ181232
Platycis minutus	Lycidae		AF451947	AJ862752	AJ862818
Plateros sp. 031	Lycidae		DQ181059	DQ180985	DQ181207
Plateros sp. 1031	Lycidae		DQ181109	DQ181035	DQ181257
Plateros sp. 243	Lycidae		DQ181065	DQ180991	DQ181213
Plateros sp. 303	Lycidae		DQ181067	DQ180993	DQ181215
Platerodrilus sp. 586	Lycidae		DQ181089	DQ181015	DQ181237
Platerodrilus sp. 587	Lycidae		DQ181090	DQ181016	DQ181238
Macrolibnetis sp. L21	Lycidae		DQ181050	DQ180976	DQ181198
Plateros sp. L13	Lycidae		DQ181044	DQ180970	DQ181192
Omalisus fontisbellaquei 377	Omalisidae		AF451948	DQ198658	DQ195580
Omalisus fontisbellaquei	Omalisidae	yes	AF451948	DQ202607	DQ222014
Drilonius sp. UPOL 000M26	Omethidae	yes	DQ100502	DQ198659	DQ198581
Phengodes sp. M29	Phengodidae	yes	DQ100504	DQ198661	DQ198587
Phengodes sp. UPOL 000M29	Phengodidae		DQ100504	missing	DQ198583
Bicladodrilus sp. UPOL 000M35	Rhinorhipidae		DQ100507	DQ198664	DQ198586
Bicladodrilus sp. M35	Rhinorhipidae		DQ100507	DQ198664	DQ181586
Mimochotyra sp. UPOL 000M30	Rhinorhipidae		DQ100505	DQ198662	DQ198584
Ochotyra sp.155	Rhinorhipidae	yes	DQ100508	DQ198665	DQ198587
Ochotyra sp. sp. UPOL 000155	Rhinorhipidae		DQ100508	missing	missing
Rhagophthalminae sp. UPOL 000M31	Rhinorhipidae		DQ100506	DQ198663	DQ198585
Telegeusis nubifer	Telegeusidae	yes	DQ100503	DQ198660	DQ198582
Trixagus carinifrons	Throscidae	yes	EF362980	missing	missing
Trixagus dermestoides	Throscidae		AF451950	AJ862754	AJ862820
Clambus arnetti	Clambidae	yes	AY745557	missing	missing
Clambus pubescens	Clambidae		EF362951	AM884186	AM884187
Declinia relicta	Decliniidae	yes	AY745556	missing	missing
Eucinetus sp. APV-2001	Eucinetidae	yes	AF427609	AJ862756	AJ862822
Eucinetus sp. TJH-2004	Eucinetidae		AY745555	missing	missing
Cyphon sp. BMNH696331	Scirtidae		DQ337136	missing	missing

<i>Cyphon hilaris</i>	Scirtidae		AF201419	AJ862755	AJ862821
<i>Scirtes hemisphericus</i>	Scirtidae	yes	AF451937	DQ202592	DQ221997
<i>Philharmostes</i> sp. TJH-2004	Ceratocanthidae	yes	AY745562	missing	missing
<i>Elephastomus proboscideus</i>	Bolboceratidae	yes	AY745563	missing	missing
<i>Anaplotrupes stercorosus</i>	Geotrupidae		EF487579	EF487857	missing
<i>Geotrupes spiniger</i>	Geotrupidae		AY745561	missing	missing
<i>Lethrus karelini</i>	Geotrupidae		AY745564	missing	missing
<i>Odontaeus</i> sp. (BMNH677839)	Bolboceratidae		EF487580	missing	missing
<i>Typhaeus typhaeus</i>	Geotrupidae		EF487581	missing	missing
<i>Glareis</i> sp. TJH-2004	Glareidae	yes	AY745566	missing	missing
<i>Athypra carceli</i>	Glaphyridae	yes	EF487582	EF487848	EF487726
<i>Lichnanthe rathvoni</i> (BMNH703607)	Glaphyridae		EF487583	EF487785	missing
<i>Lichnanthe rathvoni</i>	Glaphyridae		AY745565	missing	missing
<i>Hybosorus</i> sp.	Hybosoridae	yes	EF487584	DQ680923	DQ524560
<i>Liparochrus sculptilis</i>	Hybosoridae		AY745567	missing	missing
<i>Phaeochrous</i> sp.	Hybosoridae		EF487585	DQ681047	DQ524578
<i>Phaeochrous mashunus</i>	Hybosoridae		AY745568	missing	missing
<i>Aesalus ulanowskii</i>	Lucanidae	yes - chim	AY745583	missing	missing
<i>Dorcus parallelepipedus</i>	Lucanidae	yes - chim	AY745569	missing	DQ156023
<i>Lucanus tetradon</i>	Lucanidae	yes - chim	EF487586	missing	EF487727
<i>Nicagus obscurus</i>	Lucanidae	yes - chim	AY745570	missing	missing
<i>Nicagus</i> sp.	Lucanidae		AY745570	missing	missing
<i>Ochodaeus</i> sp. (BMNH678422)	Ochodaeidae	yes	EF487587	missing	missing
<i>Ochodaeus</i> sp. TJH-2004	Ochodaeidae		AY745571	missing	missing
<i>Aulacocyclus</i> sp. (BMNH670848)	Passalidae	yes	EF487588	EF487938	missing
<i>Aulacocyclus</i> sp. TJH-2004	Passalidae		AY745572	missing	missing
<i>Odontotaenius disjunctus</i>	Passalidae	yes	AY745573	missing	DQ028966
<i>Pleocomma</i> sp. TH-2004-5	Pleocomidae		AY745574	missing	missing
<i>Aegialia arenaria</i>	Scarabaeidae		AY745575	EF487994	DQ221976
<i>Aegialia</i> sp. (BMNH703536)	Scarabaeidae		EF487589	missing	missing
<i>Aegialia</i> sp. (BMNH703537)	Scarabaeidae		EF487590	missing	missing
<i>Aegialia crassa</i>	Scarabaeidae		EF487591	EF487798	AY132413
<i>Afrodiastictus</i> sp. JFM-2002	Scarabaeidae		EF487592	missing	AY132373
<i>Aphodius</i> (Acrossidius) sp. (BMNH703532)	Scarabaeidae		EF487593	EF487787	missing
<i>Aphodius</i> (Acrossidius) sp. (BMNH703533)	Scarabaeidae		EF487594	EF487786	EF487728
<i>Aphodius</i> (Adeloparius) sp. (BMNH703535)	Scarabaeidae		EF521875	missing	EF487729
<i>Aphodius amoenus</i>	Scarabaeidae		EF487595	missing	AY132414
<i>Aphodius</i> (Agoliinus) lapponum	Scarabaeidae		EF487596	missing	missing
<i>Aphodius ater</i>	Scarabaeidae		EF487597	EF487992	AY132415
<i>Aphodius indutilis</i>	Scarabaeidae		EF487598	EF487827	AY132515
<i>Aphodius</i> (Agrilinus) russatus	Scarabaeidae		EF487599	EF487784	missing
<i>Aphodius</i> (Aphodius) fimetarius	Scarabaeidae	yes	EF487600	EF487991	EF487730
<i>Aphodius variabilis</i>	Scarabaeidae		EF487601	EF487815	AY132418
<i>Aphodius</i> sp. (BMNH703652)	Scarabaeidae		EF487602	EF487796	missing
<i>Aphodius</i> sp. (BMNH703655)	Scarabaeidae		EF487603	missing	missing
<i>Aphodius</i> (Bodilus) sp. (BMNH703543)	Scarabaeidae		EF487604	missing	missing
<i>Aphodius ghardimaouensis</i>	Scarabaeidae		EF487605	EF487821	AY132542
<i>Aphodius kububanus</i>	Scarabaeidae		EF487606	EF487805	AY132544
<i>Aphodius laetus</i>	Scarabaeidae		EF487607	missing	AY132545
<i>Aphodius sallei</i>	Scarabaeidae		EF487608	missing	missing
<i>Aphodius unicolor</i>	Scarabaeidae		EF487609	missing	AY132551
<i>Aphodius lineolatus</i>	Scarabaeidae		EF487610	missing	AY223689
<i>Aphodius melanostictus</i>	Scarabaeidae		EF487611	missing	AY132421
<i>Aphodius nigrivittis</i>	Scarabaeidae		EF487612	EF487824	missing
<i>Aphodius witboii</i>	Scarabaeidae		EF487613	EF487810	AY132572
<i>Aphodius plagiatus</i>	Scarabaeidae		EF487614	missing	missing
<i>Aphodius globulus</i>	Scarabaeidae		EF487615	missing	AY132576
<i>Aphodius suarius</i>	Scarabaeidae		EF487616	EF487812	AY132577
<i>Aphodius barbarus</i>	Scarabaeidae		EF487617	EF487811	AY132580

Aphodius johnsoni	Scarabaeidae		EF487618	EF487828	AY132592
Aphodius obliterated	Scarabaeidae		EF487619	missing	AY132593
Aphodius nigrita	Scarabaeidae		EF487620	EF487829	missing
Aphodius umfozolicus	Scarabaeidae		EF487621	missing	AY132427
Aphodius isaburoi	Scarabaeidae		EF487622	EF487814	AY132599
Aphodius quadrimaculatus	Scarabaeidae		EF487623	EF487826	AY132602
Aphodius aff. mutilus PLEURAPHD	Scarabaeidae		EF487624	EF487809	AY132431
Aphodius mutilus	Scarabaeidae		EF487625	EF487816	AY132610
Aphodius procus	Scarabaeidae		EF487626	EF487808	missing
Aphodius aff. paravisus TRICHAPHpar	Scarabaeidae		EF487627	EF487835	AY132436
Aphodius divisus	Scarabaeidae		EF487628	EF487834	missing
Aphodius analis	Scarabaeidae		EF487629	missing	AY132614
Aphodius sp. AK-2004	Scarabaeidae		AJ810745	missing	missing
Aphodius sp. NEOHEP	Scarabaeidae		EF487630	EF487832	AY132425
Aphodius sp. TJH-2004	Scarabaeidae		AY821537	missing	missing
Aphodius chopardi	Scarabaeidae		EF487631	EF487807	AY132423
Aphodius vittatus	Scarabaeidae		EF487632	EF487813	AY132609
Ataenius sp. (BMNH703531)	Scarabaeidae		EF487633	missing	missing
Ataenius sp. (BMNH703534)	Scarabaeidae		EF487634	missing	missing
Ataenius sp. (BMNH703546)	Scarabaeidae		EF487635	missing	missing
Ataenius sp. (BMNH703583)	Scarabaeidae		EF487636	missing	missing
Ataenius sp. (BMNH703613)	Scarabaeidae		EF487637	EF487831	missing
Ataenius sciurus	Scarabaeidae		EF487638	missing	AY132379
Australmoecius occidentalis	Scarabaeidae		EF487639	EF487822	AY132380
Chiron cylindricus	Scarabaeidae		AY745576	EF487792	AY132381
Coptochirus n. sp. COPT_G	Scarabaeidae		EF487640	missing	AY132382
Coptochirus perlucidus	Scarabaeidae		EF487641	EF487802	missing
Dialytia sp.	Scarabaeidae		EF487642	EF487794	AY132422
Didactylia parcus	Scarabaeidae		EF521877	missing	AY132383
Drepanocanthoides walshi	Scarabaeidae		EF487643	missing	missing
Erezamus unistriatus	Scarabaeidae		EF487644	EF487793	missing
Goiginus sp. (BMNH703593)	Scarabaeidae		EF487645	EF487833	missing
Leiopsammodius sp.	Scarabaeidae		EF487646	missing	AY132388
Oxyomus sylvestris	Scarabaeidae		EF487647	EF487820	DQ156015
Podotenus storeyi	Scarabaeidae		EF487648	EF487788	AY132432
Rhyparus australiae	Scarabaeidae		EF487649	missing	AY132403
Saprosites mendax	Scarabaeidae		EF487650	missing	missing
Cetonia aurata	Scarabaeidae		AJ810744	missing	missing
Cetonia aurata pisana	Scarabaeidae	yes	EF487651	EF487937	EF487732
Chiloloba acuta	Scarabaeidae		EF487652	DQ680868	DQ524509
Cremastocheilus sp. TJH-2004	Scarabaeidae		AY821538	missing	missing
Leucocelis sp. TJH-2004	Scarabaeidae		AY821539	missing	missing
Osmoderma sp. APV-2001	Scarabaeidae		AF427602	missing	missing
Osmoderma sp. OSMODrent	Scarabaeidae		AY821541	missing	AY132395
Oxythyrea cintella	Scarabaeidae		EF487653	EF487962	EF487733
Trichius sp. (BMNH703616)	Scarabaeidae		EF487654	missing	missing
Trichius zonatus	Scarabaeidae		EF487655	EF487912	EF487734
Cyclocephala sp. (BMNH670887)	Scarabaeidae		EF487656	EF487979	missing
Dynastes granti	Scarabaeidae		AF002809	missing	missing
Heteronychus lioderes	Scarabaeidae	yes	EF487657	DQ680889	DQ524365
Oryctes nasicornis	Scarabaeidae		EF487658	EF487922	EF487735
Pentodon algerinum	Scarabaeidae		EF487659	EF487818	AY132396
Pentodon algerinum (BMNH694812)	Scarabaeidae		EF487660	EF487858	EF487736
Phyllognathus dionysius	Scarabaeidae		EF487661	EF487944	EF487737
Pimelopus dubius dubius	Scarabaeidae		EF487662	EF487960	EF487738
Phileurini sp. PHILoz	Scarabaeidae		EF487663	EF487817	AY132397
Allokotarsus clypealis	Scarabaeidae		EF487664	EF487945	EF487739
Apomorphochelus sp. (BMNH671482)	Scarabaeidae		EF487665	EF487882	EF487740
Apogonia sp. (BMNH677867)	Scarabaeidae		EF487666	DQ680941	missing
Apogonia sp. (BMNH703614)	Scarabaeidae		EF487667	EF487799	missing
Apogonia cribicollis	Scarabaeidae		EF521876	EF487800	AY132406
Aphimallon solstitialis	Scarabaeidae		EF487668	EF487948	EF487741

Astaena sp. (BMNH671333)	Scarabaeidae		EF487669	EF487966	EF487742
Astaena sp. (BMNH671334)	Scarabaeidae		EF487670	EF487950	EF487743
Astaena sp. (BMNH671341)	Scarabaeidae		EF487671	EF487967	EF487744
Automolus humilis	Scarabaeidae		EF487672	EF487883	EF487745
Buettikeria echinosa	Scarabaeidae		EF487673	EF487789	EF487746
Chasmatopterus sp. (BMNH694788)	Scarabaeidae		EF487674	EF487988	EF487747
Chasmatopterus sp. (BMNH747062)	Scarabaeidae		EF487675	EF487801	missing
Chasmatopterus villosus	Scarabaeidae		EF487676	missing	missing
Comaserica sp. (BMNH671397)	Scarabaeidae		EF487677	EF487852	EF487748
Cyrtocamenta sp. (BMNH671406)	Scarabaeidae		EF487678	EF487860	EF487749
Diphycerus sp.	Scarabaeidae		EF487679	DQ680982	DQ524514
Dichecephala ovata	Scarabaeidae		EF487680	EF487843	EF487750
Euserica villareali	Scarabaeidae		EF487681	EF487823	missing
Melolonthine genus ? (BMNH671352)	Scarabaeidae		EF487682	EF487961	EF487751
Gynaecoserica variipennis variipennis	Scarabaeidae		EF487683	EF487968	EF487752
Heteronyx sp. BMNH668188	Scarabaeidae		DQ337159	missing	missing
Hellaserica elongata	Scarabaeidae		EF487684	EF487885	EF487753
Homalotropus sp. (BMNH670840)	Scarabaeidae		EF487685	EF487976	EF487754
Hoplia graminicola	Scarabaeidae		EF487686	missing	EF487755
Holotrichia seticollis	Scarabaeidae		EF487687	DQ680876	DQ524528
Hyposerica sp. (BMNH671398)	Scarabaeidae		EF487688	EF487845	EF487756
Hymenoplia sp. (BMNH747061)	Scarabaeidae		EF487689	EF487806	EF487757
Comaserica crinita	Scarabaeidae		EF487690	EF487946	EF487758
Hymenoplia lineolata	Scarabaeidae		EF487691	EF487803	EF487759
Isonychus sp. (BMNH670884)	Scarabaeidae		EF487692	EF487926	EF487760
Lamproserica sp. (BMNH671446)	Scarabaeidae		EF487693	EF487888	EF487761
Lepidiota albistigma	Scarabaeidae		EF487694	DQ680880	DQ524368
Lepiserica sp. (BMNH671451)	Scarabaeidae		EF487695	EF487924	EF487762
Lepidiota stradbokensis	Scarabaeidae		EF487696	EF487881	EF487763
Pachypus candidae	Scarabaeidae		EF487697	EF487819	EF487764
Maechidius sp. (BMNH670841)	Scarabaeidae		EF487698	EF487974	EF487765
Macroductylus sp. (BMNH694770)	Scarabaeidae		EF487699	EF487878	missing
Macroductylus sp. (BMNH703603)	Scarabaeidae		EF487700	EF487795	missing
Maladera holosericea	Scarabaeidae		EF487701	EF487975	EF487766
Melolontha melolontha	Scarabaeidae		EF487702	EF487850	DQ295263
Michaeloplia prolata	Scarabaeidae		EF487703	missing	EF487768
Neoserica sp. (BMNH671346)	Scarabaeidae		EF487704	EF487954	EF487769
Omaloplia nigromarginata	Scarabaeidae		EF487705	EF487791	EF487770
Omaloplia ruricola	Scarabaeidae		EF487706	EF487790	EF487771
Pachyserica olafi	Scarabaeidae		EF487707	EF487870	EF487772
Paratridonta romana	Scarabaeidae		EF487708	EF487910	EF487773
Perissosoma sp. (BMNH747068)	Scarabaeidae		EF487709	EF487830	EF487774
Phyllophaga sp. BYU_ACCO040	Scarabaeidae		AY521832	missing	missing
Phyllophaga sp. JAR-2003	Scarabaeidae		AY310601	missing	missing
Phyllotocus navicularis	Scarabaeidae		DQ337158	missing	missing
Phyllotocus sp. MELbicol	Scarabaeidae		EF487710	EF487804	AY132391
Phyllotocus rufipennis	Scarabaeidae		DQ337153	missing	missing
Schizonycha sp. SchyzRent	Scarabaeidae		AY821540	missing	AY132405
Scitalia aureorufa	Scarabaeidae		DQ337160	EF487986	EF521878
Serica atrata	Scarabaeidae		EF487711	missing	EF487775
Serica brunnea	Scarabaeidae	yes	EF487712	EF487872	EF487776
Sophrops sp. (BMNH671371)	Scarabaeidae		EF487713	DQ680890	DQ524386
Tetraserica sp. (BMNH671350)	Scarabaeidae		EF487714	EF487874	EF487777
Trochalus sp. (BMNH670862)	Scarabaeidae		EF487715	EF487990	EF487778
Triodontella sp. (BMNH671408)	Scarabaeidae		EF487716	EF487977	EF487779
Hybalus sp. JFM-2002	Scarabaeidae	yes	EF487717	missing	AY132387
Adoretus sp. JFM-2002	Scarabaeidae	yes	EF487718	EF487825	AY132372
Adoretini genus? (BMNH671419)	Scarabaeidae		EF487719	EF487933	EF487780
Adoretus sp12	Scarabaeidae		EF487720	missing	DQ524535
Anoplognathus boisduvalii	Scarabaeidae		AY821536	missing	missing
Heteronychus arator	Scarabaeidae		AY745579	missing	missing
Mimela siliguria	Scarabaeidae		EF487721	DQ680959	DQ524498



Phyllopertha horticola	Scarabaeidae		EF487722	EF487973	AY132398
Plusiotis sp. TH-2004-7	Scarabaeidae		AY745580	missing	missing
Popillia japonica	Scarabaeidae		EF487723	EF487886	EF487781
Rubteline genus ? sp. (BMNH747070)	Scarabaeidae		EF487724	EF487797	EF487782
Canthon viridis	Scarabaeidae		AY821531	AY131446	AY131817
Canthidium guanacaste	Scarabaeidae		AY821530	AY131505	AY131867
Cephalodesmus armiger	Scarabaeidae		AY745577	AY847534	missing
Cheironitis hoplosternus	Scarabaeidae		DQ012283	AY131597	AY131940
Circellium bacchus	Scarabaeidae		AY821532	AY131450	AF499750
Copris lugubris	Scarabaeidae		DQ012275	AY131493	AY131860
Eucranium arachnoides	Scarabaeidae		AY821527	AY131533	AF499752
Eurysternus angustulus	Scarabaeidae		DQ012279	AY131535	AY131892
Heliocopris andersoni	Scarabaeidae		DQ012277	AY131518	missing
Kheper nigroaeneus	Scarabaeidae		DQ012285	AY131613	AF499755
Neosisyphus fortuitus	Scarabaeidae		AY821534	AY131621	missing
Onitis fulgidus	Scarabaeidae		DQ012281	AY131602	missing
Onthophagus crinitis	Scarabaeidae		DQ012282	missing	missing
Onthophagus crinitis panamensis	Scarabaeidae	yes	AY821535	AY131574	AY131924
Onthophagus sp. TJH-2004	Scarabaeidae		AY745578	missing	missing
Oniticellus fulvus	Scarabaeidae		AY821522	AY131554	missing
Phanaeus sallei	Scarabaeidae		AY821524	AY131611	AY131951
Sisyphus faciculatus	Scarabaeidae		DQ012286	AY131625	AY131964
Omorgus squamosus	Trogidae	yes	AY745582	missing	missing
Trox rudebecki	Trogidae		AY745581	missing	missing
Trox sp. C41	Trogidae		AF423774	missing	missing
Trogidae sp. BMNH678430	Trogidae		EF487725	EF487978	EF487783
Abraeus globosus	Histeridae	yes	AY028338	missing	DQ155738
Acritus sp. MSC-2001	Histeridae		AY028337	missing	missing
Plegaderus cf. nitidus MSC-2001	Histeridae		AY028336	missing	missing
Teretrius sp. MSC-2001	Histeridae		AY028335	missing	missing
Anapleus sp. MSC-2001	Histeridae		AY028353	missing	missing
Bacanius cf. punctiformis MSC-2001	Histeridae		AY028350	missing	missing
Dendrophilus punctatus	Histeridae		AJ810727	missing	missing
Kissister minimus	Histeridae		AY028352	missing	missing
Paromalus flavicornis	Histeridae	yes	AY028349	missing	DQ155739
Platylomalus aequalis	Histeridae		AY028348	missing	missing
Psalidister sp. MSC-2001	Histeridae		AY028364	missing	missing
Scapicoelis sp. MSC-2001	Histeridae	yes	AY028366	missing	DQ124326
Synoditulus sp. MSC-2001	Histeridae		AY028365	missing	missing
Operclipygus sp. MSC-2001	Histeridae		AY028356	missing	DQ124307
Phelister nr. williamsi MSC-2001	Histeridae	yes	AY028354	missing	DQ124305
Hister unicolor	Histeridae		AY028360	missing	missing
Margarinotus brunneus	Histeridae		AJ810726	missing	missing
Margarinotus graecus	Histeridae		AY028362	missing	missing
Macrolister gigas	Histeridae		AY028361	missing	missing
Spilodiscus sellatus	Histeridae		AY028363	missing	missing
Hololepta sp. C22	Histeridae		AF423765	missing	missing
Hololepta sp. MSC-2001	Histeridae		AY028359	missing	missing
Hololepta plana	Histeridae		AJ810725	missing	missing
Omalodes grossus	Histeridae		AY028357	missing	missing
Platysoma punctigerum	Histeridae		AY028358	missing	missing
Onthophilus flohri	Histeridae	yes	AY028346	missing	missing
Aphelosternus interstitialis	Histeridae		AY028340	missing	missing
Neopachylopus sulcifrons	Histeridae		AY028342	missing	missing
Saprinus lugens	Histeridae	yes	AY028341	missing	missing
Xerosaprinus sp. MSC-2001	Histeridae		AY028339	missing	missing
Epiurus sp. MSC-2001	Histeridae		AY028343	missing	missing
Idolia sp. MSC-2001	Histeridae	yes	AY028345	missing	missing
Plagiogramma sp. MSC-2001	Histeridae		AY028344	missing	missing
Coptotrophis proboscideus	Histeridae		AY028334	missing	missing
Xylonaeus sp. MSC-2001	Histeridae		AY028333	missing	missing
Sphaerites glabratus	Sphaeritidae	yes	AJ810728	DQ202586	DQ221989

Syntelia histerooides	Synteliidae	yes	AY028332	missing	missing
Epimetopus sp. AK-2004	Epimetopidae	yes	AJ810724	missing	missing
Georissus crenulatus	Georissidae	yes	AY745584	DQ202580	DQ221983
Georissus sp. AK-2004	Georissidae		AJ810716	missing	missing
Helophorus aquaticus	Helophoridae		AJ810714	missing	missing
Helophorus brevipalpis	Helophoridae	yes	AY028329	missing	DQ155735
Helophorus nivalis	Helophoridae		AJ810715	missing	missing
Adolopus altulus	Hydrophilidae		DQ337131	missing	missing
Ametor scabrosus	Hydrophilidae		AY745585	missing	missing
Anacaena limbata	Hydrophilidae		AY745586	missing	DQ155734
Berosus sp. BMNH668156	Hydrophilidae		DQ337149	missing	missing
Berosus luridus	Hydrophilidae		AJ810721	missing	missing
Berosus signaticollis	Hydrophilidae		AY745588	missing	DQ155730
Cercyon analis	Hydrophilidae		EF213786	missing	missing
Cercyon litoralis	Hydrophilidae		AY745591	missing	missing
Chaetarthria sp. TJH-2004	Hydrophilidae		AY745587	missing	missing
Enochrus testaceus	Hydrophilidae	yes	AJ810719	DQ202576	DQ221978
Helochares lividus	Hydrophilidae		AF201418	missing	missing
Hydrobius fuscipes	Hydrophilidae		AJ810720	missing	missing
Hydrochus angustatus	Hydrochidae	yes	AF427601	missing	missing
Hydrochus elongatus	Hydrochidae		AJ810717	missing	missing
Sphaeridium bipustulatum	Hydrophilidae		AJ810722	missing	DQ156065
Sphaeridium scarabaeoides	Hydrophilidae		AY745590	missing	missing
Coelostoma orbiculare	Hydrophilidae	yes	AJ810723	missing	DQ155971
Spercheus emarginatus	Spercheidae	yes	AJ810718	missing	missing
Agyrtes bicolor	Agyrtidae	yes	AY745595	missing	missing
Apteroloma tahoecum	Agyrtidae		AY745596	missing	missing
Hydraena gracilis	Hydraenidae		AJ810729	missing	missing
Hydraena sp. TJH-2004	Hydraenidae		AY745592	missing	missing
Hydraena iberica	Hydraenidae	yes - chim	AJ810730	missing	missing
Limnebius sp. TJH-2004	Hydraenidae	yes	AY745593	missing	missing
Meropathus sp. MSL2007-3	Hydraenidae	yes	EF214162	EF214136	EF214372
Ochthebius melanescens	Hydraenidae		AJ810732	missing	missing
Ochthebius minimus	Hydraenidae	yes	AJ810731	DQ202575	DQ221977
Cumiarites convexus	Leiodidae		DQ337132	missing	missing
Neopelatlaps sp. TJH-2004	Leiodidae	yes	AY745599	missing	missing
Catops picipes	Leiodidae		AJ810734	missing	missing
Choleva angustata	Leiodidae		EF362994	missing	missing
Nargus velox	Leiodidae	yes	AJ810735	missing	DQ155835
Nemadus colonoides	Leiodidae	yes	EF362955	missing	DQ155722
Parabathyscia wollastoni	Leiodidae		AY745598	missing	EF517594
Leiodes sp. APV-2001	Leiodidae	yes	AF427607	missing	missing
Leiodes sp. TJH-2004	Leiodidae		AY745597	missing	missing
Acrotrichis sp. AK-2004-A	Ptiliidae		AJ810743	missing	missing
Acrotrichis sp. AK-2004-B	Ptiliidae		AJ810742	missing	missing
Acrotrichis sp. AK-2004-C	Ptiliidae	yes - chim	AJ810741	missing	missing
Pteryx suturalis	Ptiliidae		EF362983	missing	missing
Ptinella errabunda	Ptiliidae		AY745602	missing	missing
Ptenidium punctatum	Ptiliidae		EF362995	missing	missing
Cephaloplectus sp. TJH-2004	Ptiliidae	yes	AY745600	missing	missing
Ptenidium laevigatum	Ptiliidae	yes - chim	EF213788	missing	DQ155928
Ptilium sp. TJH-2004	Ptiliidae		AY745601	missing	missing
Ptiliidae sp. BMNH703457	Ptiliidae		DQ337170	missing	missing
Euconnus sp. TJH-2004	Scydmaenidae		AY745604	missing	missing
Neuraphes angulatus	Scydmaenidae		EF362984	missing	missing
Palaeomastigus sp. AK-2004	Scydmaenidae	yes	AJ810733	missing	missing
Scydmaenus sp. TJH-2004	Scydmaenidae	yes	AY745603	DQ202571	missing
Stenichnus scutellaris	Scydmaenidae		EF362963	missing	missing
Necrophila cf. americana TJH-2004	Silphidae		AY745606	missing	missing
Nicrophorus humator	Silphidae		EF213789	missing	missing

<i>Oiceoptoma thoracicum</i>	Silphidae		AJ810736	missing	missing
<i>Oxelytrum cayennense</i>	Silphidae	yes	AY745605	DQ202619	DQ222022
<i>Silpha obscura</i>	Silphidae		AJ810737	missing	missing
<i>Silpha</i> sp. APV-2001	Silphidae		AF427600	missing	missing
<i>Thanatophilus rugosus</i>	Silphidae		EF213790	missing	DQ155789
<i>Glypholoma pustuliferum</i>	Staphylinidae	yes - chim	AY745610	missing	missing
<i>Micropeplus fulvus</i>	Staphylinidae		EF213794	missing	DQ155712
<i>Micropeplus</i> sp. TJH-2004	Staphylinidae	yes - chim	AY745611	missing	missing
<i>Acrolocha sulcula</i>	Staphylinidae		AY745607	missing	missing
<i>Lesteva punctata</i>	Staphylinidae	yes - chim	AJ810740	missing	missing
<i>Omaliinae</i> gen. sp. TJH2004	Staphylinidae		AY745608	missing	missing
<i>Megarthrus martensi</i>	Staphylinidae		AY745617	missing	missing
<i>Metopsia clypeata</i>	Staphylinidae		EF213797	missing	DQ155840
<i>Metopsia gallica</i>	Staphylinidae		AY745618	missing	missing
<i>Proteinus</i> sp. TJH-2004	Staphylinidae	yes	AY745609	missing	missing
<i>Osorius</i> sp. TJH-2004	Staphylinidae	yes	AY745623	missing	missing
<i>Anotylus rugosus</i>	Staphylinidae		AY745624	missing	DQ155729
<i>Bledius femoralis</i>	Staphylinidae	yes	AY745627	DQ202608	DQ222015
<i>Bledius</i> sp.	Staphylinidae		EF213795	missing	missing
<i>Oxytelus</i> sp. TJH-2004	Staphylinidae		AY745625	missing	missing
<i>Syntomium</i> sp. TJH-2004	Staphylinidae		AY745626	missing	missing
<i>Piestus</i> sp. TJH-2004	Staphylinidae	yes	AY745629	missing	missing
<i>Brachynopus lutus</i>	Staphylinidae		DQ337121	missing	missing
<i>Scaphidium quadrimaculatum</i>	Staphylinidae	yes	AY745631	DQ202582	DQ221985
<i>Euaesthetus ruficapillus</i>	Staphylinidae	yes	AY745612	missing	DQ155946
<i>Megalopinus</i> sp. TJH-2004	Staphylinidae	yes	AY745616	missing	missing
<i>Oxyporus maxillosus</i>	Staphylinidae	yes	AY745614	missing	missing
<i>Astenus lyonessius</i>	Staphylinidae		EF213796	missing	DQ156012
<i>Lathrobium brunnipes</i>	Staphylinidae	yes	AY745634	missing	DQ155850
<i>Paederinae</i> gen. sp. TJH2004	Staphylinidae		AY745635	missing	missing
<i>Pseudopsis sulcata</i>	Staphylinidae	yes	AY745630	DQ202587	DQ221990
<i>Quedius cruentus</i>	Staphylinidae		AY745636	missing	DQ155887
<i>Quedius mesomelinus</i>	Staphylinidae		AJ810738	missing	missing
<i>Ocypus ophthalmicus</i>	Staphylinidae		AJ810739	missing	missing
<i>Staphylinus</i> sp. TJH-2004	Staphylinidae		AY745632	missing	missing
<i>Gyrophypnus</i> sp. TJH-2004	Staphylinidae		AY745637	missing	missing
<i>Xantholinus cacti</i>	Staphylinidae		AF002810	missing	missing
<i>Xantholinus linearis</i>	Staphylinidae	yes	AY745633	missing	DQ155796
<i>Stenus providus</i>	Staphylinidae	yes	AY745615	missing	missing
<i>Stenus</i> sp. BMNH668148	Staphylinidae		DQ337146	missing	missing
<i>Stenus</i> sp. BMNH668192	Staphylinidae		DQ337163	missing	missing
<i>Aleochara</i> sp. TJH-2004	Staphylinidae	yes - chim	AY745621	missing	missing
<i>Aleochara lata</i>	Staphylinidae		EF213791	missing	ALA293046
<i>Atheta</i> sp. TJH-2004	Staphylinidae		AY745622	missing	missing
<i>Autalia longicornis</i>	Staphylinidae		EF213792	missing	DQ155894
<i>Dexiogyia corticina</i>	Staphylinidae		EF213793	missing	DQ155898
<i>Encephalus lutilis</i>	Staphylinidae		DQ337139	missing	missing
<i>Myllaena dubia</i>	Staphylinidae		AY745620	missing	DQ155953
<i>Paruconosima</i> sp. BMNH696311	Staphylinidae		DQ337118	missing	missing
<i>Habrocerus capillaricornis</i>	Staphylinidae	yes	AY745613	missing	DQ155843
<i>Phloeocharis subtilissima</i>	Staphylinidae	yes	AY745628	missing	missing
<i>Tachyporus</i> sp. BMNH668155	Staphylinidae	yes - chim	DQ337148	missing	missing
<i>Tachyporinae</i> gen. sp. TJH2004	Staphylinidae		AY745619	missing	missing
<i>Sialis lutaria</i>	Sialidae	yes	X89497	AY620141	missing
<i>Chrysoperla carnea</i>	Chrysopidae	yes	X89482	AY620150	AB081321
<i>Phaeostigma notata</i>	Raphidiidae	yes	X89494	missing	missing
<i>Clivina bipustulata</i>	Carabidae	yes - chim	missing	missing	DQ059794
<i>Omophron limbatum</i>	Carabidae	yes -	missing	missing	DQ221973

		chim			
Lasioderma sp. MSL2007	Anobiidae	yes - chim	missing	EF213843	EF213956
Lyctus brunneus	Bostrichidae	yes - chim	missing	missing	DQ222004
Bruchidius sp. KE01	Chrysomelidae	yes - chim	missing	missing	AY625399
Apion sp. BF-2002	Brentidae	yes - chim	missing	missing	AY131096
Holoparamecus caularum	Endomychidae	yes - chim	missing	missing	DQ155707
Balgus sp. 2 BMNH 669202	Elateridae	yes - chim	missing	DQ198655	missing
Aesalus asiaticus asiaticus	Lucanidae	yes - chim	missing	AB178313	missing
Dorcus rectus rectus	Lucanidae	yes - chim	missing	AB178295	missing
Lucanus maculifemoratus maculifemoratus	Lucanidae	yes - chim	missing	AB178302	missing
Nicagus japonicus	Lucanidae	yes - chim	missing	AB178314	missing
Hydraena testacea	Hydraenidae	yes - chim	missing	missing	DQ155750
Acrotrichis sp. BMNH 673311	Ptiliidae	yes - chim	missing	missing	DQ155748
Ptenidium sp. TJH-2005	Ptiliidae	yes - chim	missing	DQ202584	DQ221987
Glypholoma sp. TJH-2005	Staphylinidae	yes - chim	missing	missing	DQ222008
Micropeplus staphylinoides	Staphylinidae	yes - chim	missing	missing	DQ155839
Lesteva pubescens	Staphylinidae	yes - chim	missing	missing	DQ156049
Aleochara bilineata	Staphylinidae	yes - chim	missing	missing	ABI293086
Tachyporus solutus	Staphylinidae	yes - chim	missing	missing	DQ155849

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**Table S2. Taxonomic retention index (RI) for key taxa on various trees.** The taxonomic RI is a measure of how traditionally classified groups, when optimized as a single binary character, are consistent with the phylogeny. The tree with 1880 taxa is given in Fig. 1 and S4. Trees with 1691 taxa were obtained after removing all taxa with root-to-tip branches outside of a 95% probability interval for all taxa in the tree (*S18*). Numbers of taxa were further reduced (1150 taxa) when long branches are identified as any terminal branch or internode beyond the 95% probability interval, followed by removal of all taxa that are terminal to these long branches. The tree with 340 taxa is from the Bayesian analysis (Fig. 2). Note that the removal of long branches resulted only in minor improvements of the consistency of the tree with the classification.

	1880 taxa tree	1691 taxa tree	1150 taxa tree	340 taxa tree
parsimony tree length	107238	89653	54119	-
CI	0.048	0.054	0.078	-
taxonomic RI of tree	0.962	0.958	0.969	0.923
Families RI	0.926	0.918	0.934	0.776
Geadephaga	0.986	0.993	1	1
Hydradephaga	0.965	0.989	1	1
Bostrichiformia	0.861	0.861	0.889	0.882
Cucujiformia	0.999	0.999	0.998	1
Elateriformia	0.968	0.949	0.952	0.959
Staphyliniformia	0.959	0.983	0.989	0.939
Scarabaeiformia	0.981	0.98	0.988	1
Bostrichoidea	0.886	0.886	0.889	0.938
Derodontoidea	-	-	-	-
Chrysomeloidea	0.985	0.976	0.988	1
Cleroidea	0.986	0.986	0.968	0.923
Cucujoidea	0.947	0.969	0.979	0.925
Cerylonid Series	1	1	1	1
Curculionoidea	0.995	0.995	0.995	1
Lymexyloidea	0.5	-	-	0.5
Tenebrionoidea	0.958	0.967	0.973	0.979
Buprestoidea	1	1	1	1
Byrrhoidea	0.933	0.923	0.5	0.917
Dascilloidea	1	1	-	1
Elateroidea	0.985	0.985	1	1
Scirtoidea	0.857	0.857	-	0.667
Histeroidea	1	1	1	1

Hydrophiloidea	0.913	1	0.952	1
Staphylinoidea	0.931	0.951	0.952	0.909
Scarabaeoidea	0.981	0.98	0.988	1

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**Table S3. Stability of the ‘ancestral five’ under different outgroup sampling.** Tests were conducted by selecting a subset of the outgroup taxa to determine if the structure of this part of the tree is stable to taxon choice. Three analyses were conducted either with the representatives of the distant Neuropterida (i.e. the full dataset) or representatives of one of the two suggested closest suborders to Polyphaga, Myxophaga and Adepaga. We then assessed the resulting trees with regard to the position of the ‘ancestral five’ families (Scirtidae, Decliniidae, Derodontidae, Eucinetidae, Clambidae). Key nodes recorded were the monophyly of Polyphaga, the monophyly of Polyphaga excluding the ‘ancestral five’ families and variations of their internal positions. Polyphaga excluding Scirtoidea and Derodontidae was always monophyletic in each of six analyses. The internal relationship of the five families however changed and is an unresolved issue apart from the sistergroup relationships of Scirtidae with Decliniidae and Eucinetidae with Clambidae. Bayesian and parsimony analyses were run as described in Material and Methods for all six datasets except that only two instead of four Bayesian runs were performed for the reduced datasets. M, monophyletic; P, polyphyletic.

Outgroups	Neuropterida	Adephaga	Myxophaga	Neuropterida	Adephaga	Myxophaga
	Bayesian			Parsimony		
No. of taxa in dataset	340	333	305	1880	1867	1640
split frequencies	0.0857	0.0748	0.0822	-	-	-
Treelength	-	-	-	107238	106654	96071
No. trees	-	-	-	27	3	4
Polyphaga	1.0	1.0	1.0	M	M	M
Polyphaga minus 'ancestral five'	1.0	1.0	1.0	M	M	M
Polyphaga minus Scirtidae, Decliniidae	0.97	0.59	P	P	P	M
Polyphaga minus Scirtidae, Decliniidae, Derodontidae	0.78	0.86	P	P	M	M
Derodontidae+ Eucinetidae+ Clambinae	P	P	P	M	P	P
Eucinetidae+Clambinae	1.0	1.0	1.0	M	M	M
Scirtidae+Decliniidae	1.0	1.0	1.0	M	M	M
'Ancestral five'	P	P	0.53	P	P	P



**Table S4. Independent comparisons between clades feeding on living angiosperms and their sister clades with alternative feeding strategies.** Below the dashed line, angiosperm feeding clades include some taxa feeding on decaying vegetation (contrast 10), recently dead wood (contrast 11) or fungi (contrast 9) but the majority are herbivores. Wilcoxon test on 11 comparisons; 8 positive, 3 negative, one-tailed  $P = 0.06$ . The same but minus last three; 8 comparisons, 5 positive, 3 negative, one-tailed  $P = 0.27$ .

	Plant feeding	Diet	No. species	Non-plant feeding	Diet	No. species
1	Byturidae	fruits, flowers	16	Biphyllidae	fungivorous	195
2	Languriidae	stem borers	800	Xenoscelinae	fungivorous, decaying vegetation	100
3	Chrysomeloidea	herbivorous xylophagous	53442	Nitidulidae + Erotylid + Cucujid series	mostly fungivorous	7743
4	Curculionoidea (excl. Belinae+ Oxyecoryninae)	herbivorous, xylophagous	59163	Belinae+ Oxyecoryninae	gymnosperm feeding	177
5	Zeugophorinae	leaf miners	55	Spondylidinae	gymnosperm feeding	100
6	Epilachninae	herbivorous	1051	Coccidulinae+ Chilocorinae + Scymninae	predacious	3900
7	Dascillinae	roots	80	Rhipiceridae	ectoparasitic on cicadas	57
8	Vesperinae	xylophagous	50	Palophaginae + Auloscelidinae	gymnosperm feeding (and angiosperm)	23
9	Attelabidae + Anthribidae	leaf miners & rollers, seeds, stems, shoots, xylophagous, fungivorous	5132	Doydirhynchinae	gymnosperm feeding	15
10	Melolonthinae+ Orphninae+ Rutelinae+ Dynastinae	herbivorous, saprophagous	16329	Cetoniinae	saprophagous (detritus)	4121
11	Buprestidae	xylophagous, herbivorous, roots, leaf miners	14000	Dryopoidea	saprophagous algivorous	3242

**Table S5. Significantly imbalanced sister clades (p<0.01) and information on the clades.** To test for the contribution of herbivorous lineages, herbivores (H), herbivores and polymorphic groups that include herbivores (H+HN) and the same but also including xylophagous (H+HN+X) taxa were excluded. The asterisks indicate nodes associated with switches between gymnosperm feeding and angiosperm feeding. Bold: sister comparison 9 retrieved significant imbalance near the base of Polyphaga even when all herbivorous taxa are excluded from the analyses. (This imbalance is picked up by this modified Slowinsky-Guyer test only at slightly higher node levels due to the way the method deals with the ‘trickle-down effect’; see sister comparison 9a and 9b). This finding indicates a highly significant increase in diversification rate in Polyphaga even if all plant-associated species are disregarded. NA=clade not supported in consensus.

	Slowinsky-Guyer Imbalance (p-value)				Sister clades (a vs. b)	Support value	Described number of species	Terrestrial/aquatic	Feeding type
	All	H excl.	H+HN excl.	H+HN+X excl.					
1	0.001	0.001	0.001	0.001	a) Omophroninae+Scaritinae b) Gehringiinae	58	1910	terrestrial	predacious
2	0.003	0.003	0.005	0.005	a) Elateroidea excl. Telegeusidae, Driloniinae b) Telegeusidae+Driloniinae	72	19030	terrestrial	poly
3	0.002	0.002	0.002	0.002	a) Gyrininae b) Spanglerogyrinae	100	1100	aquatic	predacious
4	0.002	0.002	0.002	0.002	a) Histeridae b) Sphaeritidae	96	3830	terrestrial	predacious
5	0.004	0.004	0.004	0.004	a) Dytiscidae+Amphizoidae b) Paelobiidae+Aspidytidae	100	3787	aquatic	predacious
6	0.009	0.009	0.009	0.009	a) Cicindelinae+Rhyssodinae+ Migadopinae b) Loricarinae	75	2300	terrestrial	predacious (fungivorous)
7	0.005	0.005	0.005	0.005	a) Hydroporinae b) Amphizoidae	100	1956	aquatic	predacious
8	0.004	0.004	0.004	0.004	a) Scirtidae  b) Decliniidae	100	600	aquatic larvae terrestrial?	saprophagous unknown poly
<b>9</b>	<b>0.005</b>	<b>0.005</b>			<b>a) Polyphaga+Adephaga</b>  <b>b) Archostemata+Myxophaga</b>	<b>100</b>	<b>350000</b>	terrestrial/ aquatic	poly fungivorous/ algivorous
<b>9a</b>			<b>0.001</b>	<b>0.002</b>	<b>a) Polyphaga excl. Histeroidea, Scirtoidea, Derodontoidea, Nosodendridae, Scydmaenidae b) Nosodendridae</b>	<b>NA</b>	<b>300000</b>	terrestrial/ aquatic	poly
<b>9b</b>			<b>0.001</b>	<b>0.002</b>	<b>a) Polyphaga excl. Scirtoidea, Derodontoidea b) Clambinae+Eucinetidae</b>	<b>100</b>	<b>310000</b>	terrestrial/ aquatic	fungivorous/ saprophagous poly
10	0.005	0.005	0.005	0.005	a) Zopherinae+Usecinae+ Monommatidae b) Agnathinae	96	427	terrestrial	fungivorous saprophagous/ fungivorous
11	0.007	0.007	0.007	0.007	a) Scydmaenidae b) Histeroidea+Sphaeritidae	70	4600	terrestrial	predacious
12	0.001	0.001			a) Tenebrionoidea b) Lymexyllinae	76	38700	terrestrial	poly fungivorous
13	0.008				a) Nanophyinae	70	266	terrestrial/	herbivorous

									(aquatic)	
14	0.004*								terrestrial	herbivorous
						87	5152		terrestrial	herbivorous/ xylophagous/ fungivorous
									15	terrestrial
15	0.009									herbivorous gymnosperms
						73	211		terrestrial	herbivorous/ fungivorous
									1	terrestrial
16	0.003*									fungivorous
						73	60000		terrestrial/ (aquatic)	herbivorous/ xylophagous/ fungivorous
									177	terrestrial
										herbivorous, gymnosperms
17	0.007	0.007	0.007	0.007		NA	5962		terrestrial	predacious
									22	terrestrial
										fungivorous/ saprophagous
18	0.003	0.003	0.003			NA	18600		terrestrial	xylophagous
									30	terrestrial
19	0.007					NA	22680		terrestrial	xylophagous herbivorous
									74	terrestrial
20	0					NA	44200		terrestrial/ (aquatic)	herbivorous herbivorous/ xylophagous/ fungivorous
									5	terrestrial
21	0.005	0.005	0.005	0.005		NA	8600		terrestrial/ (aquatic)	herbivorous predacious/ fungivorous
									10	terrestrial
										?

**Table S6. Calibration points used for dating the phylogeny of Coleoptera.**

	<b>Fossil</b>	<b>Min. age for lineage</b>	<b>Period</b>	<b>Location</b>	<b>Period beginning<sup>1</sup>,</b>	<b>Reference</b>
a	Cupedidae	Cupedidae	Triassic, Ladinian	Madygen, Fergana, Kirgizstan	228.0±2.0 my	(S19)
b	Sogdodromeus	Geadephaga	Triassic, Ladinian	Madygen, Fergana, Kirgizstan	228.0±2.0 my	(S19)
c	Staphylinidae	Staphylinidae	Triassic, Carnian	Virginia, USA	216.5±2.0 my	(S20)
d	Holcorobeus	Scarabaeoidea	Jurassic, Kimmeridgian	Karatau, Kazachstan	150.8±4.0 my	(S21)
e	Elaterophanes	Elateridae	Hettangian	Dorset, U.K.	196.5±1.0 my	(S22)
f	Praemordella	Mordellidae	Jurassic, Kimmeridgian	Karatau, Kazachstan	150.8±4.0 my	(S23)
g	Cerambycomima	Chrysomeloidea	Jurassic, Kimmeridgian	Karatau, Kazachstan	150.8±4.0 my	(S23)

1. Estimated age of period beginnings and errors associated with the dating from Gradstein et al. (24).

**Table S7. Average diversification rates of the Coleoptera and number of lineages present at key evolutionary time points.** The table presents the net speciation per My across the Coleoptera (Div. Rate) and the number of present-day lineages existing at the Triassic-Jurassic boundary (200 Ma), at the origin of crown group angiosperms (140 Ma) and at the K-T boundary (65 Ma). The ranges for fossil constrained trees were obtained conducting the calculations on the earliest and latest estimate for the dating of geological stage boundaries (Table S6 and ref. S24). Note that at the origin of the angiosperms well over 100 of the modern lineages of beetles were already present. S.P. = Smoothing Parameter. S.E. = Standard error.

S.P.	Div. Rate	S.E.	200 Ma	140 Ma	65 Ma
<b>Fixed root</b>					
1	0.054	0.002	42	162	310
10	0.048	0.0017	68	205	316
100	0.059	0.0023	36	145	301
1000	0.068	0.0029	28	118	290
<b>Fossil constrained</b>					
1	0.051-0.052	0.0019	52	178-180	313
10	0.049-0.050	0.0018	52-56	189-193	313-314
100	0.046	0.0017	76	210-211	316
1000	0.056	0.0022	44-46	158-161	305-306

**Table S8. Number of described species, generalized feeding habits and terrestrial or aquatic habitat for terminal taxa.** Data were compiled from various literature sources and direct counts from recent catalogs. Where modern revisions were not available, numbers were estimated based on our knowledge of the groups. An asterisk indicates where species counts available at the family level were split equally between subfamilies used as terminals in the tree. Numbers of described species underestimate the actual species counts to various degrees because the intensity of taxonomic work has differed across groups. Habitat: 0=terrestrial, 1=aquatic. Feeding habit (based on the main feeding stage, normally the larval stage): 1=fungivorous, 2=herbivorous, 3=saprophagous, 4=predacious, 5=xylophagous, 6=parasitoid, 7=algivorous and bryophagous (Byrrhidae).

Terminal taxon	Habitat	Feeding habits	No. of species
CAr_Cupedidae	0	1	30
CM_Hydroscaphidae	1	7	13
CM_Sphaeriusidae	0	7	23
CM_Torridincolidae	1	7	60
CA_Trachypachidae	0	4	4
CAC_Cicindelinae	0	4	2100
CAC_Brachininae	0	6	655
CAC_Elaphrinae	0	4	49
CAC_Gehringiinae	0	4	1
CAC_Harpalinae	0	2,4	20000
CAC_Loricarinae	0	4	10
CAC_Migadopinae	0	4	30
CAC_Carabinae	0	4	665
CAC_Omophroninae	0	4	60
CAC_Paussinae	0	4	724
CAC_Rhysodinae	0	1	170
CAC_Scaritinae	0	4	1850
CAC_Siagoninae	0	4	84
CAC_Trechinae	0	4	5317
CA_Amphizoidae	1	4	5
CA_Aspidytidae	1	4	2
CAD_Agabinae	1	4	363
CAD_Colymbetinae	1	4	129
CAD_Copelatinae	1	4	540
CAD_Coptotominae	1	4	5
CAD_Dytiscinae	1	4	373
CAD_Hydroporinae	1	4	1956
CAD_Laccophilinae	1	4	394
CAD_Lancetinae	1	4	22
CAG_Gyrinae	1	4	1100
CAG_Spanglerogyrinae	1	4	1
CA_Haliplidae	1	2,4	204
CA_Paelobiidae	1	4	6
CAN_Noterinae	1	2,4	235
CAN_Notomicrinae	1	2,4	9

CPBBoAn_Anobiinae	0	5	398
CPBBoAn_Dorcatominae	0	1	665
CPBBoAn_Dryophilinae	0	1,3	84
CPBBoAn_Gibbiinae	0	3	20
CPBBoAn_Mesocoelopodinae	0	1	369
CPBBoAn_Ptilininae	0	5	62
CPBBoAn_Ptininae	0	3	631
CPBBoAn_Xyletininae	0	1,3,5	375
CPBBoBo_Bostrichinae	0	5	400
CPBBoBo_Dinoderinae	0	5	50
CPBBoBo_Lyctinae	0	5	90
CPBBoDe_Attageninae	0	3	220
CPBBoDe_Dermestinae	0	3	300
CPBBoDe_Megatominae	0	3	650
CPBBoDe_Orphilinae	0	3	10
CPBBoDe_Trinodinae	0	3	50
CPBBo_Nosodendridae	0	1,3	70
CPBDeDe_Laricobiinae	0	1,4	17
CPCChCe_Cerambycinae	0	2,5	1000
CPCChCe_Disteniinae	0	5	80
CPCChCe_Lamiinae	0	5	16000
CPCChCe_Lepturinae	0	5	2500
CPCChCe_Necydalinae	0	5	75
CPCChCe_Parandrinae	0	5	30
CPCChCe_Prioninae	0	5	1600
CPCChCe_Spondylidinae	0	5	100
CPCChCe_Vesperinae	0	5	50
CPCChOr_Aulacoscelidinae	0	2	19
CPCChCh_Bruchinae	0	2	1500
CPCChCh_Chrysomelinae	0	2	2000
CPCChCh_Criocerinae	0	2	1500
CPCChCh_Cryptocephalinae	0	2,3	2290
CPCChCh_Donaciinae	1	2	165
CPCChCh_Eumolpinae	0	2	3200
CPCChCh_Galerucinae	0	2	15000
CPCChCh_Hispinae	0	2	3000
CPCChCh_Cassidinae	0	2	3000
CPCChCh_Lamprosomatinae	0	2	190
CPCChMe_Palophaginae	0	2	4
CPCChCh_Sagrinae	0	2	74
CPCChOr_Orsodacninae	0	2	10
CPCChMe_Zeugophorinae	0	2	55
CPCCICI_Clerinae	0	4	1600
CPCCICI_Enopliinae	0	4	650
CPCCICI_Hydnocerinae	0	4	600
CPCCICI_Korynetinae	0	4	150
CPCCICI_Tillinae	0	4	600
CPCCIME_Dasytinae	0	4	750
CPCCIME_Malachiinae	0	4	4000
CPCCIME_Melyrinae	0	4	300
CPCCIME_Prionocerinae	0	4	150
CPCCIME_Rhadalinae	0	4	300
CPCCIPh_Phloiophilidae	0	1	1
CPCCITr_Lophocaterinae	0	1,3	20
CPCCITr_Peltinae	0	1	104
CPCCITr_Trogossitinae	0	4	392

CPCCu_Biphylidae	0	1	195
CPCCuBo_Anommatinae	0	3	50
CPCCuBo_Teredinae	0	6	30
CPCCuBo_Xylariophilinae	0	1	3
CPCCu_Byturidae	0	2	16
CPCCucAn_Anthribinae	0	1,5	2650
CPCCucAn_Choraginae	0	1,2,5	350
CPCCucAn_Urodontinae	0	2	80
CPCCucAt_Attelabinae	0	2	972
CPCCucAt_Rhynchitinae	0	2	1080
CPCCucBe_Belinae	0	2	150
CPCCucBe_Oxycoryninae	0	2	27
CPCCucBr_Apioninae	0	2	2100
CPCCucBr_Brentinae	0	1,5	1165
CPCCucBr_Cyladinae	0	2	38
CPCCucBr_Nanophyinae	0,1	2	266
CPCCuc_Caridae	0	2	5
CPCCucCu_Brachycerinae	0	2	385
CPCCucCu_Cossoninae	0	2,5	1666
CPCCucCu_Curculioninae	0,1	2,5	40000
CPCCucCu_Dryophthorinae	0	2,3,5	1070
CPCCucCu_Platypodinae	0	1	1500
CPCCucCu_Scolytinae	0	1,5	5800
CPCCuc_Ithyceridae	0	2	1
CPCCucNe_Doydirhynchinae	0	2	15
CPCCucNe_Rhinorhynchinae	0	2	20
CPCCuCe_Ceryloninae	0	1	740
CPCCuCe_Euxestinae	0	1	60
CPCCuCo_Chilocorinae	0	4	200
CPCCuCo_Coccidulinae	0	4	200
CPCCuCo_Coccinellinae	0	4	850
CPCCuCo_Epilachninae	0	2	1051
CPCCuCo_Scymninae	0	4	3500
CPCCuCoy_Corylophinae	0	1	250
CPCCuCoy_Sericoderinae	0	1	30
CPCCuCr_Atomariinae	0	1	250
CPCCuCrCr_Cryptophagus	0	1	175*
CPCCuCrCr_Telmatophilus	0	1	175*
CPCCu_Cucujidae	0	1	20
CPCCu_Discolomatidae	0	1	400
CPCCu_Alexiidae	0	1	32
CPCCuEn_Endomychinae	0	1	100
CPCCuEn_Holoparamecinae	0	1	50
CPCCuEn_Leiestinae	0	1	100
CPCCuEn_Lycoperdininae	0	1	650
CPCCuEn_Anamorphinae	0	1	500
CPCCuEr_Dacninae	0	1	150
CPCCuEr_Encaustinae	0	1	100
CPCCuEr_Erotylinae	0	1	650
CPCCuEr_Megalodacninae	0	1	100
CPCCuEr_Tritominae	0	1	1500
CPCCu_Helotidae	0	?	100
CPCCu_Laemophloeidae	0	1,3	400
CPCCuLag_Cryptophilinae	0	1	50
CPCCuLag_Languriinae	0	2	800
CPCCuLag_Toraminae	0	1	50



CPCCuLag_Xenoscelinae	0	1	100
CPCCuLah_Corticariinae	0	1,2	850
CPCCuLah_Latridiinae	0	1	200
CPCCuMo_Monotominae	0	1	100
CPCCuMoRh_Monotomopsis	0	1	50*
CPCCuMoRh_Rhizophagus	0	3,4	50*
CPCCuNi_Carpophilinae	0	1,3	597
CPCCuNi_Cillaeinae	0	1,3	450
CPCCuNi_Cryptarchinae	0	1,3	227
CPCCuNi_Nitidulinae	0	1,3	1000
CPCCu_Passandridae	0	6	105
CPCCuPha_Phalacrinae	0	1,2	504
CPCCuPhl_Priasilphinae	0	?	10
CPCCu_Protocucujidae	0	1	5
CPCCu_Propalticidae	0	1	35
CPCCuSi_Silvaninae	0	1,3	300
CPCCuSi_Brontinae	0	1,3	170
CPCCuSpSp_Sphindus	0	1	30*
CPCCuSpSp_Aspidiphorus	0	1	30*
CPCLyLy_Hylecoetinae	0	1	5
CPCLyLy_Lymexylinae	0	1	24
CPCLyLy_Melittommatinae	0	1	25
CPCTe_Aderidae	0	1,2,3	1000
CPCTeAn_Anthicinae	0	3,4	2900
CPCTeAn_Eurygeniinae	0	3	125
CPCTeAn_Ischaliinae	0	3	50
CPCTe_Boridae	0	3	4
CPCTeSt_Cephaloinae	0	1,5	20
CPCTeCi_Ciinae	0	1	550
CPCTeMe_Lyttinae	0	6	1100
CPCTeMe_Meloinae	0	6	190
CPCTeMe_Nemognathinae	0	6	515
CPCTeMea_Eustrophinae	0	6	100
CPCTeMea_Hallomeninae	0	1	55
CPCTeMea_Hypulinae	0	1	30
CPCTeMea_Melandryinae	0	1	350
CPCTeMea_Osphyinae	0	1	50
CPCTeMo_Mordellinae	0	1,2,5	1500
CPCTe_Monommatidae	0	1,3	300
CPCTeMy_Mycetophaginae	0	1	200
CPCTeOe_Oedemerinae	0	2,3,5	1500
CPCTe_Perimylopidae	0	3	19
CPCTePy_Agnathinae	0	1	1
CPCTePy_Pedilinae	0	1	50
CPCTePy_Pyrochroinae	0	3,4	150
CPCTe_Pythidae	0	3,5	20
CPCTeRi_Rhipiphorinae	0	6	220
CPCTeRi_Pelecotominae	0	6	75
CPCTeRi_Rhipidiinae	0	6	100
CPCTeSa_Aegialitinae	0	3	20
CPCTeSa_Inopeplinae	0	3	80
CPCTeSa_Othniinae	0	1	50
CPCTeSa_Prostominiinae	0	1	10
CPCTeSa_Salpinginae	0	1	150
CPCTeSa_Trogocryptinae	0	1	10
CPCTeSc_Anaspidinae	0	1,3	300

CPCTeSc_Scraptiinae	0	1,3,5	100
CPCTeTe_Alleculinae	0	1,3,5	1000
CPCTeTe_Coelometopinae	0	3	600
CPCTeTe_Diaperinae	0	1	1800
CPCTeTe_Lagriinae	0	2,3	1600
CPCTeTe_Phrenapatinae	0	3	600
CPCTeTe_Pimeliinae	0	3	10000
CPCTeTe_Tenebrioninae	0	3	10000
CPCTeTer_Penthinae	0	1	11
CPCTeTer_Tetratominae	0	1	22
CPCTeTrictricotomidae	0	1	15
CPCTeZo_Colydiinae	0	1,3	1000
CPCTeZo_Usechinae	0	1,5	7
CPCTeZo_Zopherinae	0	3	120
CPEBuBu_Acmaeoderinae	0	2,5	1300
CPEBuBu_Agrilinae	0	2,5	3500
CPEBuBu_Buprestinae	0	2,5	5500
CPEBuBu_Julodinae	0	2,5	200
CPEBuBu_Trachyinae	0	2	3500
CPEByBy_Byrrhinae	0	7	280
CPEByBy_Syncalyptinae	0	7	120
CPEBy_Callirhipidae	0	1,5	16
CPEBy_Chelonariidae	0	3	300
CPEBy_Dryopidae	1	3	280
CPEByEl_Elminae	1	7,3	1200
CPEByEl_Larainae	1	7,3	130
CPEBy_Eulichadidae	1	3	23
CPEBy_Heterocerinae	0	7,3	349
CPEByLi_Limnichinae	1	7	376
CPEByPs_Eubrianacinae	1	7,3	58
CPEByPt_Cladotominae	0	3	10
CPEByPt_Ptilodactylinae	0	3	500
CPEDaDa_Dascillinae	0	2	80
CPEDa_Rhipiceridae	0	6	57
CPEEiCa_Cantharinae	0	4	2000
CPEEiCa_Chauliognathinae	0	4	300
CPEEiCa_Malthininae	0	4	1000
CPEEiDrilidae	0	4	220
CPEEiEl_Agrypninae	0	4,2	2300
CPEEiEl_Cardiophorinae	0	4	800
CPEEiEl_Cebrioninae	0	?	170
CPEEiElDe_Stenagostus	0	4,2,5	750*
CPEEiElDe_Denticollis	0	4,2,5	750*
CPEEiEl_Elaterinae	0	4,2,5	3500
CPEEiEl_Thylacosterninae	0	4	50
CPEEiEu_Eucneminae	0	1	1300
CPEEiLa_Luciolinae	0,1	4	500
CPEEiLa_Ototretinae	0	4	300
CPEEiLy_AteIinae	0	1	50
CPEEiLy_Calochrominae	0	1	700
CPEEiLy_Erotinae	0	1	400
CPEEiLy_Leptolycinae	0	1	50
CPEEiLy_Lycinae	0	1	1500
CPEEiLy_Metriorrhynchinae	0	1	1800
CPEEiOm_Omalisidae	0	4	10
CPEEiOm_Driloniinae	0	?	20

CPEEI_Phengodidae	0	4	280
CPEEI_Rhagophthalmidae	0	4	150
CPEEI_Telegeusidae	0	?	8
CPEEI_Throscidae	0	1	152
CPEScCl_Clambinae	0	1	150
CPESc_Decliniidae	0	?	2
CPESc_Eucinetidae	0	1	37
CPESc_Scirtidae	1	3	1000
CPScSc_Ceratocanthidae	0	1,3	307
CPScScGe_Bolboceratinae	0	3	300
CPScSc_Glaresidae	0	1	50
CPScSc_Glaphyridae	0	3	174
CPScSc_Hybosoridae	0	3	217
CPScScLu_Aesalinae	0	3,5	70
CPScScLu_Dorcinae	0	5	770
CPScScLu_Lucaninae	0	5	281
CPScScLu_Nicaginae	0	5	50
CPScScOc_Ochodaeinae	0	1	105
CPScScPa_Aulacocyclusinae	0	5	35
CPScScPa_Passalinae	0	5	640
CPScScSc_Aphodiinae	0	3	3187
CPScScSc_Cetoniinae	0	3,5	4121
CPScScSc_Dynastinae	0	2,3,5	1619
CPScScSc_Melolonthinae	0	2	10737
CPScScSc_Orphninae	0	2,3	156
CPScScSc_Rutelinae	0	2	3817
CPScScSc_Scarabaeinae	0	3	5317
CPScSc_Trogidae	0	3	330
CPSHiHi_Abraeinae	0	4	422
CPSHiHi_Dendrophilinae	0	4	417
CPSHiHi_Hetaerinae	0	4	313
CPSHiHi_Histerinae	0	4	1800
CPSHiHi_Onthophilinae	0	4	76
CPSHiHi_Saprininae	0	4	600
CPSHiHi_Tribalinae	0	4	200
CPSHi_Sphaeritidae	0	3	4
CPSHi_Synteliidae	0	4	9
CPSHy_Epimetopidae	1	4	27
CPSHy_Georissidae	0	7	77
CPSHy_Helophoridae	1	7	183
CPSHyHy_Hydrophilinae	1	4	1575
CPSHy_Hydrochidae	1	4	164
CPSHyHy_Sphaeridiinae	0,1	4	759
CPSHy_Spercheidae	1	3	19
CPStSt_Agyrtidae	0	3	61
CPStStHyHy_Hydraena	1	7	332*
CPStStHyOc_Meropathus	1	7	215*
CPStStHyOc_Ochthebius	1	7	215*
CPStStHyHy_Limnebius	1	7	332*
CPStStLe_Camiarinae	0	1,3	77
CPStStLeCh_Nargus	0	3	895*
CPStStLeCh_Nemadus	0	3	895*
CPStStLe_Leiodinae	0	1	1423
CPStStPt_Acrotrichinae	0	1,3	190
CPStStPt_Cephaloplectinae	0	1,3	28
CPStStPt_Ptiliinae	0	1,3	410

CPSSStSc_Mastiginae	0	4	86
CPSSStSc_Scydmaeninae	0	4	4500
CPSSStSi_Silphinae	0	3	113
CPSSStSt_Aleocharinae	0	4	12182
CPSSStSt_Euaesthetinae	0	4	724
CPSSStSt_Glypholomatinae	0	1	8
CPSSStSt_Habrocerinae	0	1,3	22
CPSSStSt_Megalopsidiinae	0	4	164
CPSSStSt_Micropeplinae	0	1	80
CPSSStSt_Omaliinae	0	1,3,4	1431
CPSSStSt_Osoriinae	0	3	2058
CPSSStSt_Oxyporinae	0	1	100
CPSSStSt_Oxytelinae	0	3	2000
CPSSStSt_Paederinae	0	4	5962
CPSSStSt_Phloeocharinae	0	1,3,4	53
CPSSStSt_Piestinae	0	1,3,4	107
CPSSStSt_Proteininae	0	1,3,4	189
CPSSStSt_Pseudopsinae	0	4	49
CPSSStSt_Scaphidiinae	0	1	1276
CPSSStSt_Staphylininae	0	4	6642
CPSSStSt_Sterinae	0	4	2109
CPSSStSt_Tachyporinae	0	1,3,4	1519
Megaloptera_Sialidae	1	4	300
Neuroptera_Chrysopidae	0,1	4	6000
Raphidioptera_Raphidiidae	0	4	206

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## **D) Alignment Files**

**Alignment S1 (separate text file). 1880 taxon three gene alignment matrix.** The blast-based alignment of SSU and the ClustalX alignments of *rrnL* and *coxI* concatenated together to form the three gene matrix used in the parsimony analysis presented in Fig. 1. Alignment provided in NEXUS format.

**Alignment S2 (separate text file). 340 taxon three gene alignment matrix.** The three gene alignment matrix used in the Bayesian analysis to generate the tree in Fig. 2. SSU and *rrnL* were aligned guided by secondary structure with unalignable sites excluded, whilst *coxI* was length invariable for the selected taxa.

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