

The contribution of mitochondrial metagenomics to large-scale data mining and phylogenetic analysis of Coleoptera

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***Neuropterida* outgroups**

A set of 8 complete *Neuropterida* mitochondrial genomes, from 8 different families were used as outgroups.

Loci and Taxonomic code	Species	GenBank identifier
XXXXXXXXXXXXXXXXXXXX---_NO4Th7lan	<i>Thyridosmylus langii</i>	NC_021415
XXXXXXXXXXXXXXXXXXXX---_NMa4Di7bis	<i>Ditaxis biseriata</i>	NC_013257
XXXXXXXXXXXXXXXXXXXX---_NCh4Chr7nip	<i>Chrysoperla nipponensis</i>	NC_015093
XXXXXXXXXXXXXXXXXXXX---_NPo4Po7pun	<i>Polystoechotes punctatus</i>	NC_011278
XXXXXXXXXXXXXXXXXXXX---_NR4Ra7xiz	<i>Rapisma xizangense</i>	NC_023362
XXXXXXXXXXXXXXXXXXXX---_NNy4Ny7myr	<i>Nymphes myrmeleonoides</i>	NC_024825
XXXXXXXXXXXXXXXXXXXX---_NMy4My7imm	<i>Myrmeleon immanis</i>	NC_024826
XXXXXXXXXXXXXXXXXXXX---_NA4As7app	<i>Ascaloptynx appendiculatus</i>	NC_011277

GenBank accessions related to MMG contigs

Dataset Identifier	GenBank codes (# per subset)	Publication
B480	Submitted to NCBI	Crampton-Platt et al., 2015
BIUK	Submitted to NCBI	Crampton-Platt, PhD UCL 2015
MT1	HM486073 HQ232800-HQ232827 (27)	Timmermans et al., 2010
MT2	JX220988-JX221000 (13) JX313663-JX313692 (29) JX412724-JX412859 (127) JN039360 JN163945-JN163970 (25) JQ034414 JQ034416 JQ034419	Timmermans et al., 2016
Curc	Submitted to NCBI	Gillett et al., 2014
Germany Barcode-of-Life	KX087231 - KX087368 (139)	Present study
Chryso	KX943331-KX943509 (179)	Gómez-Rodríguez, et al., 2015
Staphylinidae	KT780620-KT780701 (82)	Present study
Soil	Submitted to NCBI	Andújar et al., 2015
Ethanol	KT876876-KT876915 (42)	Linard et al., 2016
M2015	KX035130-KX035162 (33)	Present study
Scarabaeidae	KU39447-KU739446 (80)	Breeschoten et al., 2016
ChrysoT	KX943331-KX943509 (179)	Rui et al., submitted
French Guyana	KT696173-KT696273 (101)	Present study
Panama	MG193322-MG193541 (220)	Present study
Scolytinae	KX035130-KX035226 (64)	Miller et al., unpublished
Cocci	KJ778881-KJ77883 (3) KJ778886 KJ778888-KJ778889 (2)	Paula et al., 2014

Illumina reads QC and mitochondrial loci selection:

1. Trimmomatic was used to discard eventual Illumina adapter left in the metagenomes:

```
java -jar trimmomatic-0.33.jar PE -threads 4 -phred33 -trimlog MyLibraryTrimlog  
MyLibrary_R1.fq MyLibrary_R2.fq MyLibrary_R1.paired.fq MyLibrary_R1.unpaired.fq  
MyLibrary_R2.paired.fq MyLibrary_R2.unpaired.fq  
ILLUMINACLIP:MyLibrary_Truseq_trimseqs.fa:2:30:10
```
2. Prinseq was used to trim reads of low quality with:

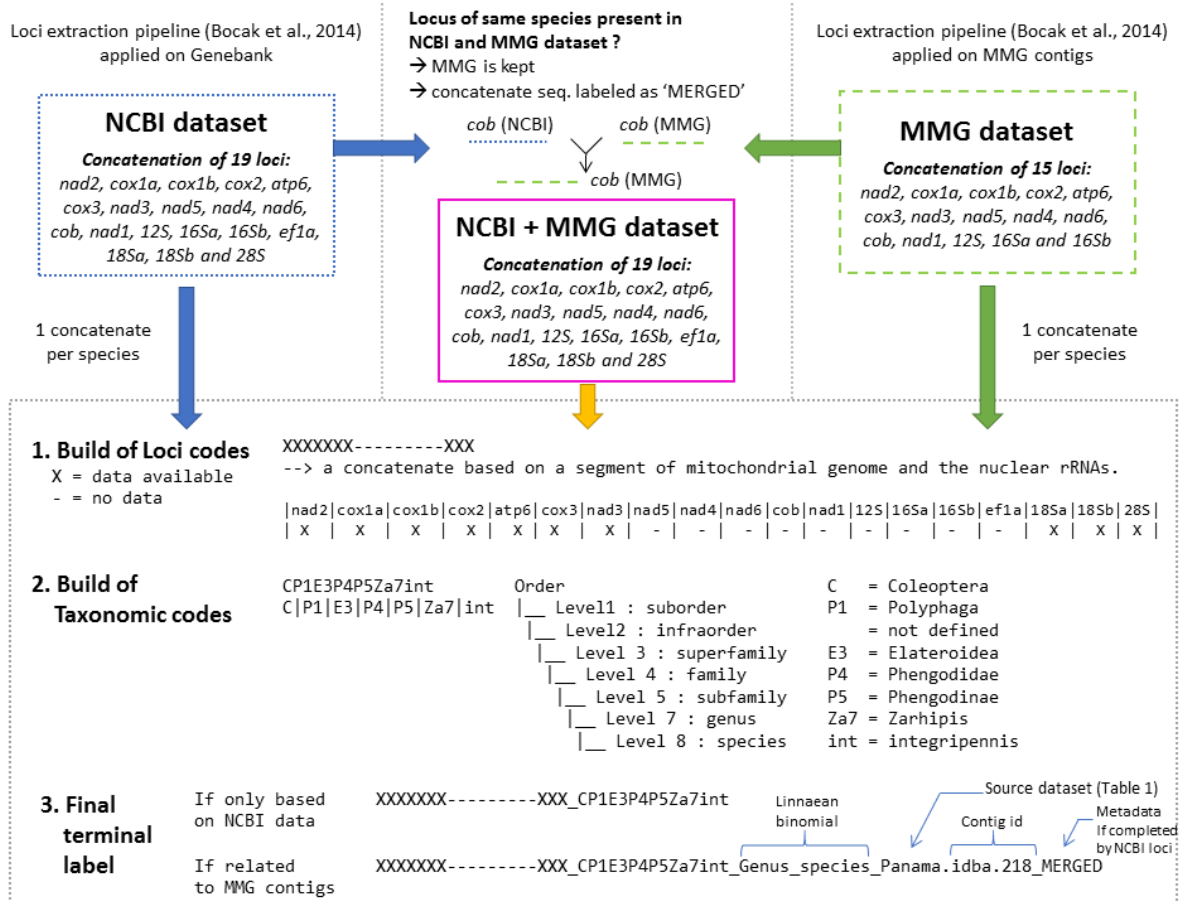
```
perl prinseq-lite.pl -verbose -fastq MyLibrary.fq -log -out_format 3 -out_good  
MyLibrary.QC -min_len 150 -min_qual_mean 25 -ns_max_n 0 -trim_qual_right 20
```
3. Mitochondrial reads were filtered with the help of blastn. First the quality controlled metagenomes were blasted to a custom database of a hundred of Coleopteran mitochondrial genomes with this command:

```
blastn -db MitogenomeReferences.fa -query MyLibrary.paired.fq -out  
MyLibrary.paired.blastn -task blastn -evalue 1e-5 -max_target_seqs 1 -outfmt 6 -dust no
```
4. All reads matching this database at an Evalue inferior to $1e-3$ and with at least 70% of identity were filtered out with a custom script to form a putative mitochondrial reads subset.
5. Following these quality control and filtering, the read subset was submitted to IDBA assembly with:

```
idba_ub --mink 80 --maxk 250or300 --min_contig 1000 --similar 0.98
```
6. All contigs <5kb were discarded (short contigs cannot be identified because they don't hold the cox1 or cyt b regions)
7. All remaining contigs were submitted to the pipeline of Bocak et al., 2014.

Labelling of the tree tips

The tips labels contain 3 groups (see figure below), the locus code, the taxonomic code, the Linnaean binomial and metadata related to the mitochondrial contig if the tip is partially or fully based on loci extracted from the MMG dataset.



- **Locus code:** The ordered X/- symbols help the reader to determine which locus supports a particular tip. Typically, an X on the first 15 positions means full mitochondria, while the 4 last positions represent the nuclear loci used in the analysis. The example in the figure below describes a species supported by a first half of mitochondrial genome (loci *nad2* to *nad3*) and 3 nuclear loci.
- **Taxonomic code:** This code is similar to the one used in Bocak et al, 2014. Eight taxonomic orders are associated to combinations of 1 to 3 letters and a number. The numbers represent 8 taxonomical levels: 1=suborder, 2=infraorder, 3=superfamily, 4=family, 5=subfamily, 7=genus, 8=species. A tip may or may not be associated to each of these levels: see the example below where the infraorder of *Zarhipis integripennis* is undefined (level 3 absent). A tip may also be associated to only high taxonomic ranks if the sequence was extracted from poorly identified specimens. Example: a taxonomic code limited to "CP1E3" corresponds to an *Elateroidea sp.* (specimen identified at superfamily level).
- **Linnaean binomial:** The genus and species in plain letter in most cases. When the sequence corresponds to a specimen identified at higher taxonomic levels, this higher level is used

instead. Example: *Elateroidea sp.*

- Finally, if the tip is related to MMG sequences, the study and the contig from which were built at least 1 locus are reported as **supplementary keywords**. These metadata are labelled using the following set of keywords :
 - o **NCBI**: indicates that the tip is fully based on NCBI loci.
 - o **MMG**: indicates that the tip is fully based on a MMG contig.
 - o **MERGED**: indicates that at least one locus supporting the tip was available both from the NCBI and MMG datasets. In such case the MMG locus was kept (ensuring coherence of the full mitochondrial contig).
 - o **ANNOT_FROM_BARCODE**: is related to MMG contigs for which study-related, NCBI or BOLD barcodes allowed DNA-based identification of the genus or species (match >99.8%, sequenced assigned to species, match >99% identity, sequenced assigned to genus level).
 - o **ANNOT_FROM_TREE**; is related to MMG contigs for which no matching barcodes or other reference sequences could be discovered. In such case, the superfamily to which was placed the sequence (through tree reconstruction) was used as a high-level taxonomic identification.

Taxonomic codes: detailed key file

All taxonomic codes and their detailed description can be found in Suppl. File S2 (excel table).

Terminals based on both NCBI and MMG loci (“MERGED” keyword)

(Ordered taxonomically via the column “NCBI original taxonomic code)

(Use Suppl. File S2 to get taxonomic code details)

NCBI original loci code	NCBI original taxonomic code	MMG original loci code	MMG original taxonomic code	MERGED loci code	MERGED label
-XX-----	CA1C3C4B6Br7cre	XXXXXXXXXXXXXX	CA1C3C4B6Br7cre_Brachinus_crepitans_JX412826	XXXXXXXXXXXXXX	CA1C3C4B6Br7cre_Brachinus_crepitans_JX412826_MERGED
--X-----X-XX--X-	CA1C3C4C5C6Hab7cap	XXXXXXXXXXXXXX	CA1C3C4C5C6Hab7cap_Habrodera_capensis_JX412824	XXXXXXXXXXXXXX-XX-	CA1C3C4C5C6Hab7cap_Habrodera_capensis_JX412824_MERGED
-XX---X--X-XXX-XXX	CA1C3C4Ca6Ca7nem	-XXXXXXXXXXXXXX	CA1C3C4Ca6Ca7nem_Carabus_nemoralis_BIUK.idba.47	-XXXXXXXXXXXXXX-XXX	CA1C3C4Ca6Ca7nem_Carabus_nemoralis_BIUK.idba.47_MERGED
-XX---X--X-XXX-X-X	CA1C3C4Ca6Ca7prob	XXXXX-----	CA1C3C4Ca6Ca7prob_Carabus_problematicus_BIUK.idba.82	XXXXX--X--X-XXX-X-X	CA1C3C4Ca6Ca7prob_Carabus_problematicus_BIUK.idba.82_MERGED
-X-----X-XXX-XXX	CA1C3C4Cy6Cy7car	XXXXXXXXXXXXXX	CA1C3C4Cy6Cy7car_Cychnus_caraboides_BIUK.idba.13	XXXXXXXXXXXXXX-XXX	CA1C3C4Cy6Cy7car_Cychnus_caraboides_BIUK.idba.13_MERGED
-X-----XX-	CA1C3C4E5E6B17mul	XXXXXXXXXX	CA1C3C4E5E6B17mul_Blethisa_multipunctata_ameie.idba.101	XXXXXXXXXX-----XX-	CA1C3C4E5E6B17mul_Blethisa_multipunctata_ameie.idba.101_MERGED
-XX-----X--XX-	CA1C3C4E5E6E17cup	XXXXXXXXXXXXXX	CA1C3C4E5E6E17cup_Elaphrus_cupreus_ameie.idba.30	XXXXXXXXXXXXXX--XX-	CA1C3C4E5E6E17cup_Elaphrus_cupreus_ameie.idba.30_MERGED
-XXX--X-----	CA1C3C4H5H6An7poe	XXXXXX-----	CA1C3C4H5H6An7poe_Anisodactylus_poeciloides_ameie.idba.172	XXXXXX-X-----	CA1C3C4H5H6An7poe_Anisodactylus_poeciloides_ameie.idba.172_MERGED
-XX-----	CA1C3C4H5H6Br7ruf	XXXXXXXXXX	CA1C3C4H5H6Br7ruf_Bradycellus_ruficollis_ameie.idba.124	XXXXXXXXXX-----	CA1C3C4H5H6Br7ruf_Bradycellus_ruficollis_ameie.idba.124_MERGED
-XX-----	CA1C3C4H5H6Cry7ten	XX-----	CA1C3C4H5H6Cry7ten_Cryptophonus_tenebrosus_ameie.idba.193	XX-----	CA1C3C4H5H6Cry7ten_Cryptophonus_tenebrosus_ameie.idba.193_MERGED
-XX-----	CA1C3C4H5H6Op7ard	-XXXXXXXXXX	CA1C3C4H5H6Op7ard_Ophonus_ardosiacus_Soil.idba.8a	-XXXXXXXXXX-----	CA1C3C4H5H6Op7ard_Ophonus_ardosiacus_Soil.idba.8a_MERGED
-X-----	CA1C3C4H5Le6Le7chl	XXXXXXXXXXXXXX	CA1C3C4H5Le6Le7chl_Lebia_chlorocephala_ameie.idba.39	XXXXXXXXXXXXXX	CA1C3C4H5Le6Le7chl_Lebia_chlorocephala_ameie.idba.39_MERGED
-XX-----X-	CA1C3C4H5Le6Mic7min	XXXXXXXXXXXXXX	CA1C3C4H5Le6Mic7min_Microlestes_minutulus_ameie.idba.19	XXXXXXXXXXXXXX-----X-	CA1C3C4H5Le6Mic7min_Microlestes_minutulus_ameie.idba.19_MERGED
-XX-----	CA1C3C4H5Le6Sy7fov	XXXXXXXXXX	CA1C3C4H5Le6Sy7fov_Syntomus_foveatus_Soil.idba.104	XXXXXXXXXX-----	CA1C3C4H5Le6Sy7fov_Syntomus_foveatus_Soil.idba.104_MERGED
-XXX--X-----XX-XX-	CA1C3C4H5P6Ab7par	XXXXXXXXXXXXXX	CA1C3C4H5P6Ab7par_Abax_parallelepipedus_2VGB.idba.3	XXXXXXXXXXXXXX-XX-	CA1C3C4H5P6Ab7par_Abax_parallelepipedus_2VGB.idba.3_MERGED
-X-----XX-	CA1C3C4H5P6Ab7para	-XXXXXX	CA1C3C4H5P6Ab7para_Abax_parallelus_ameie.idba.169	-XXXXXX-----XX-	CA1C3C4H5P6Ab7para_Abax_parallelus_ameie.idba.169_MERGED
-XX-----	CA1C3C4H5P6Pt7mad	-XXXXXXXXXX	CA1C3C4H5P6Pt7mad_Pterostichus_madidus_BIUK.idba.54	-XXXXXXXXXX-----	CA1C3C4H5P6Pt7mad_Pterostichus_madidus_BIUK.idba.54_MERGED
-XX-----XX-	CA1C3C4H5P6Pt7nig	XXXXXXXXXXXXXX	CA1C3C4H5P6Pt7nig_Pterostichus_niger_2VGB.idba.5	XXXXXXXXXXXXXX-XX-	CA1C3C4H5P6Pt7nig_Pterostichus_niger_2VGB.idba.5_MERGED
-XXX-----XX-	CA1C3C4H5P6St7pum	XXXXXXXXXXXXXX	CA1C3C4H5P6St7pum_Stomis_pumicatus_2VGB.idba.4	XXXXXXXXXXXXXX-XX-	CA1C3C4H5P6St7pum_Stomis_pumicatus_2VGB.idba.4_MERGED
-XX-----	CA1C3C4H5Z6Am7com	XXXXXXXXXXXXXX	CA1C3C4H5Z6Am7com_Amara_communis_677553_idba_contig.5	XXXXXXXXXXXXXX	CA1C3C4H5Z6Am7com_Amara_communis_677553_idba_contig.5_MERGED
-XX-----X-XXX-	CA1C3C4L5L6Lo7pil	XXXXXXXXXXXXXX	CA1C3C4L5L6Lo7pil_Loricera_pilicornis_BIUK.idba.49	XXXXXXXXXXXXX-X-XXX-	CA1C3C4L5L6Lo7pil_Loricera_pilicornis_BIUK.idba.49_MERGED
-XX-----XX-XX-	CA1C3C4Ne6Ne7bre	XXXXXXXXXXXXXX	CA1C3C4Ne6Ne7bre_Nebria_brevicollis_2VGB.idba.0	XXXXXXXXXXXXXX-XX-	CA1C3C4Ne6Ne7bre_Nebria_brevicollis_2VGB.idba.0_MERGED
-XXX-----XXX-	CA1C3C4P15P6Ag7mue	-XXXXXXXXXX	CA1C3C4P15P6Ag7mue_Agonum_muelleri_JX412835	-XXXXXXXXXX--XXX-	CA1C3C4P15P6Ag7mue_Agonum_muelleri_JX412835_MERGED
-XX-----	CA1C3C4P15P6Ox7obs	XXXXXXXXXXXXXX	CA1C3C4P15P6Ox7obs_Oxypselaphus_obscurus_BIUK.idba.26	XXXXXXXXXXXXXX	CA1C3C4P15P6Ox7obs_Oxypselaphus_obscurus_BIUK.idba.26_MERGED
-XXX-----X-	CA1C3C4P15S6Ca7me1	XXXX--XXXX	CA1C3C4P15S6Ca7me1_Calathus_melanocephalus_2VGB.idba.15	XXXX--XXXX	CA1C3C4P15S6Ca7me1_Calathus_melanocephalus_2VGB.idba.15_MERGED
-XXXX-----XX-	CA1C3C4Pr5P6Pr7cra	XXXXXXXXXXXXXX	CA1C3C4Pr5P6Pr7cra_Promecognathus_crassus_JX313665	XXXXXXXXXXXXXX--XX-	CA1C3C4Pr5P6Pr7cra_Promecognathus_crassus_JX313665_MERGED
-X-----XX-	CA1C3C4T5B6Be7lae	XXXXXXXXXXXXXX	CA1C3C4T5B6Be7lae_Bembidion_laetum_Soil.idba.40	XXXXXXXXXXXXXX-XX-	CA1C3C4T5B6Be7lae_Bembidion_laetum_Soil.idba.40_MERGED
-X-----XX-	CA1C3C4T5B6Be7var	XXXXXXXXXXXXXX	CA1C3C4T5B6Be7var_Bembidion_varium_ameie.idba.56	XXXXXXXXXXXXXX--XX-	CA1C3C4T5B6Be7var_Bembidion_varium_ameie.idba.56_MERGED
-X-----XX-	CA1C3C4T5B6Ta7nan	XXXXXXXXXXXXXX	CA1C3C4T5B6Ta7nan_Tachyta_nana_832958_idba_contig.6	XXXXXXXXXXXXXX-XX-	CA1C3C4T5B6Ta7nan_Tachyta_nana_832958_idba_contig.6_MERGED
-X-----	CA1C3C4T5Po6Po7iri	XXXXXXXXXXXXXX	CA1C3C4T5Po6Po7iri_Pogonus_iridipennis_ameie.idba.48	XXXXXXXXXXXXXX	CA1C3C4T5Po6Po7iri_Pogonus_iridipennis_ameie.idba.48_MERGED
-XXX-----XX-X-	CA1C3C4T5T6Tr7obt	XXXXXXXXXXXXXX	CA1C3C4T5T6Tr7obt_Trechus_obtusus_Soil.idba.42	XXXXXXXXXXXXXX-X-	CA1C3C4T5T6Tr7obt_Trechus_obtusus_Soil.idba.42_MERGED
XXXXXXXXXX-XXX-XX-	CA1C3T4Tr7hol	XXXXXXXXXXXXXX	CA1C3T4Tr7hol_Trachypachus_holmbergi_NC_011329	XXXXXXXXXXXXXX-XX-	CA1C3T4Tr7hol_Trachypachus_holmbergi_NC_011329_MERGED
-X-----X-XXX-XX-	CA1D3A4Am7ins	XX-----	CA1D3A4Am7ins_Amphizoia_insolens_799022_idba_contig.85	XX-----X-XXX-XX-	CA1D3A4Am7ins_Amphizoia_insolens_799022_idba_contig.85_MERGED
XXXXXXXXXXXXXX-XX-	CA1D3As4As7nio	XXXXXXXXXXXXXX	CA1D3As4As7nio_Aspidytes_niobe_NC_012139	XXXXXXXXXXXXXX-XX-	CA1D3As4As7nio_Aspidytes_niobe_NC_012139_MERGED
-XX-----XX-	CA1D3D4A5A6Ag7uli	XXXXXXXXXXXXXX	CA1D3D4A5A6Ag7uli_Agabus_uliginosus_ameie.idba.68	XXXXXXXXXXXXXX	CA1D3D4A5A6Ag7uli_Agabus_uliginosus_ameie.idba.68_MERGED
-XX-----X-XXXX-	CA1D3D4C5C6Co7fus	XXXXXXXXXXXXXX	CA1D3D4C5C6Co7fus_Colymbetes_fuscus_1VWB.idba.16	XXXXXXXXXXXXXX	CA1D3D4C5C6Co7fus_Colymbetes_fuscus_1VWB.idba.16_MERGED
-X-----X-XX-	CA1D3D4Co5C6Li7hae	XXXXXXXXXXXXXX	CA1D3D4Co5C6Li7hae_Liopterus_haemorrhoidalis_1VWB.idba.11	XXXXXXXXXXXXXX-XX-	CA1D3D4Co5C6Li7hae_Liopterus_haemorrhoidalis_1VWB.idba.11_MERGED
-XXX-----X--XX-	CA1D3D4D5Ac6Ac7sul	XXXXXXXXXXXXXX	CA1D3D4D5Ac6Ac7sul_Acilius_sulcatus_1VWB.idba.3	XXXXXXXXXXXXXX-XX-	CA1D3D4D5Ac6Ac7sul_Acilius_sulcatus_1VWB.idba.3_MERGED
-XX-----XX-XX-	CA1D3D4D5C6Cy7lat	XXXXXXXXXX	CA1D3D4D5C6Cy7lat_Cybister_lateralimarginalis_ameie.idba.131	XXXXXXXXXX--XX-XX-	CA1D3D4D5C6Cy7lat_Cybister_lateralimarginalis_ameie.idba.131_MERGED
-X-----XX----	CA1D3D4H5H6Hy7dis	XXXXXXXXXX	CA1D3D4H5H6Hy7dis_Hydropsorus_discretus_1VWB.idba.14	XXXXXXXXXX--XX----	CA1D3D4H5H6Hy7dis_Hydropsorus_discretus_1VWB.idba.14_MERGED
-XX-----X--XX-	CA1D3D4H5H6Hy7ery	-----XXXXXXXX	CA1D3D4H5H6Hy7ery_Hydropsorus_erythrocephalus_1VWB.idba.20	-XX-----XXXXXXXX-XX-	CA1D3D4H5H6Hy7ery_Hydropsorus_erythrocephalus_1VWB.idba.20_MERGED
-XX-----XX----	CA1D3D4H5H6Hy7gyl	XXXXXXXXXXXXXX	CA1D3D4H5H6Hy7gyl_Hydropsorus_gyllenhalii_1VWB.idba.4	XXXXXXXXXXXXXX	CA1D3D4H5H6Hy7gyl_Hydropsorus_gyllenhalii_1VWB.idba.4_MERGED
-XXX-----XX-X-	CA1D3D4H5H6Hy7obs	XXXXXXXXXXXXXX	CA1D3D4H5H6Hy7obs_Hydropsorus_obscurus_1VWB.idba.1	XXXXXXXXXXXXXX-X-	CA1D3D4H5H6Hy7obs_Hydropsorus_obscurus_1VWB.idba.1_MERGED

-XX-----XX-XX-	CA1D3D4H5H6Hy7pal	-----XXXXXX-----	CA1D3D4H5H6Hy7pal_Hydroporus_palustris_JX313670	-XX-XXXXXXXXXX---	CA1D3D4H5H6Hy7pal_Hydroporus_palustris_JX313670_MERGED
-XX-----XX-XX-	CA1D3D4H5H6Hy7pla	XXXXXXXXXXXXXXXXXXXX	CA1D3D4H5H6Hy7pla_Hydroporus_planus_1VWB.idba.2	XXXXXXXXXXXXXXXXXXXX	CA1D3D4H5H6Hy7pla_Hydroporus_planus_1VWB.idba.2_MERGED
-XX-----X--XX-	CA1D3D4H5Hyg6Hy7con	XXXXXXXXXXXXXXXXXXXX	CA1D3D4H5Hyg6Hy7con_Hygrotytus_confluens_1VWB.idba.7	XXXXXXXXXXXXXXXXXXXX-XX-	CA1D3D4H5Hyg6Hy7con_Hygrotytus_confluens_1VWB.idba.7_MERGED
-XX-----XX-XX-	CA1D3D4H5Hyg6Hy7ina	XXXXXXXXXXXXXXXXXXXX	CA1D3D4H5Hyg6Hy7ina_Hygrotytus_inaequalis_1VWB.idba.10	XXXXXXXXXXXXXXXXXXXX-XX-	CA1D3D4H5Hyg6Hy7ina_Hygrotytus_inaequalis_1VWB.idba.10_MERGED
--X-----XX-----	CA1D3D4H5Hyg6Hy7nig	XXXXXXXXXXXXXXXXXXXX	CA1D3D4H5Hyg6Hy7nig_Hygrotytus_nigrolineatus_ameie.idba.11	XXXXXXXXXXXXXXXXXXXX-----	CA1D3D4H5Hyg6Hy7nig_Hygrotytus_nigrolineatus_ameie.idba.11_MERGED
-XX-----X-XX-XX-	CA1D3D4L5L6La7poe	XXXXXXXXXXXXXXXXXXXX	CA1D3D4L5L6La7poe_Laccophilus_poecilus_ameie.idba.8	XXXXXXXXXXXXXXXXXXXX-XX-	CA1D3D4L5L6La7poe_Laccophilus_poecilus_ameie.idba.8_MERGED
-XX-----X-X-XX-	CA1D3H4Hy7her	XXXXXXXXXXXXXXXXXXXX	CA1D3H4Hy7her_Hygrobia_hermanni_1VWB.idba.13	XXXXXXXXXXXXXXXXXXXX-XX-	CA1D3H4Hy7her_Hygrobia_hermanni_1VWB.idba.13_MERGED
--X-----X-XX-XX-	CA1D3M4Me7phy	--XXXXXXXXXXXX-----	CA1D3M4Me7phy_Meru_phyllisae_JX313691	--XXXXXXXXXXXX-XX-	CA1D3M4Me7phy_Meru_phyllisae_JX313691_MERGED
-XX-----X-XX-XX-	CA1D3N4Not7cla	XXXXXXXXXXXXXXXXXXXX	CA1D3N4Not7cla_Noterus_clavicornis_1VWB.idba.5	XXXXXXXXXXXXXXXXXXXX-XX-	CA1D3N4Not7cla_Noterus_clavicornis_1VWB.idba.5_MERGED
XXXXXXXXXXXXX-X-X-	CA1G3G4Ma7obl	XXXXXXXXXXXXXXXXXXXX	CA1G3G4Ma7obl_Macrogyrus_oblongus_NC_013249	XXXXXXXXXXXXXXXXXXXX---	CA1G3G4Ma7obl_Macrogyrus_oblongus_NC_013249_MERGED
-X-----X-----	CA1H3H4Ha7f1a	XXXXXXXXXXXXXXXXXXXX	CA1H3H4Ha7f1a_Haliplus_flavicollis_JX313677	XXXXXXXXXXXXXXXXXXXX-----	CA1H3H4Ha7f1a_Haliplus_flavicollis_JX313677_MERGED
-XX-----X-X-X-XX-	CA1H3H4Ha7imm	-XXXXXXXXXXXX-----	CA1H3H4Ha7imm_Haliplus_immaculatus_1VWB.idba.22	-XXXXXXXXXXXX-----	CA1H3H4Ha7imm_Haliplus_immaculatus_1VWB.idba.22_MERGED
-XX-----X-X-X-XX-	CA1H3H4Ha7lin	XXXXXXXXXXXXXXXXXXXX	CA1H3H4Ha7lin_Haliplus_lineatocollis_1VWB.idba.6	XXXXXXXXXXXXXXXXXXXX-XX-	CA1H3H4Ha7lin_Haliplus_lineatocollis_1VWB.idba.6_MERGED
-X-----X-----	CA1H3H4Ha7sib	XXXXXXXXXXXXXXXXXXXX	CA1H3H4Ha7sib_Haliplus_sibiricus_ameie.idba.110	XXXXXXXXXXXXXXXXXXXX-----	CA1H3H4Ha7sib_Haliplus_sibiricus_ameie.idba.110_MERGED
CA1H3H4Pe7qua	CA1H3H4Pe7qua	--XXXXXXXXXXXX-----	CA1H3H4Pe7qua_Peltoodytes_quadratius_JX313685	--XXXXXXXXXXXX-----	CA1H3H4Pe7qua_Peltoodytes_quadratius_JX313685_MERGED
-X-----XX-XX-	CAr1C4Pr7ser	--XXXXXXXXXXXX-----	CAr1C4Pr7ser_Priacma_serrata_JX412806	-X-XXXXXXXXXXXX-XX-	CAr1C4Pr7ser_Priacma_serrata_JX412806_MERGED
XXXXXXXXXXXXX-X-	CAr1O4Te7bru	XXXXXXXXXXXXXXXXXXXX	CAr1O4Te7bru_Tetraphalerus_bruchi_NC_011328	XXXXXXXXXXXXXXXXXXXX---	CAr1O4Te7bru_Tetraphalerus_bruchi_NC_011328_MERGED
XXXXXXXXXXXXX-X-	CM1H4Hy7gra	XXXXXXXXXXXXXXXXXXXX	CM1H4Hy7gra_Hydroscapha_granulum_NC_012144	XXXXXXXXXXXXXXXXXXXX---	CM1H4Hy7gra_Hydroscapha_granulum_NC_012144_MERGED
-X-----X-XX-XX-	CM1T4In7mad	XXXXXXXXXXXXXXXXXXXX	CM1T4In7mad_Incoltorrida_madagassica_670733_idba_contig_2	XXXXXXXXXXXXXXXXXXXX-XX-	CM1T4In7mad_Incoltorrida_madagassica_670733_idba_contig_2_MERGED
-X-----X-----	CP1B3B4A5Ag7big	--XXXXXXXXXXXX-----	CP1B3B4A5Ag7big_Agrilus_biguttatus_JX412786	-X-XXXXXXXXXXXX-XX-	CP1B3B4A5Ag7big_Agrilus_biguttatus_JX412786_MERGED
-X-----X-XX-XX-	CP1B3B4A5Tr7tro	XXXXXXXXXXXXXXXXXXXX	CP1B3B4A5Tr7tro_Trachys_trogodytiformis_ameie.idba.40	XXXXXXXXXXXXX-X-XX-	CP1B3B4A5Tr7tro_Trachys_trogodytiformis_ameie.idba.40_MERGED
XX-XXXXXXXXXX-X-	CP1B3B4C5Ch7ful	XXXXXXXXXXXXXXXXXXXX	CP1B3B4C5Ch7ful_Chrysochroa_fulgidissima_NC_012765	XXXXXXXXXXXXXXXXXXXX---	CP1B3B4C5Ch7ful_Chrysochroa_fulgidissima_NC_012765_MERGED
-X-----X-----	CP1B3B4Ch5Pe7lug	--XXXXXXXXXXXX-----	CP1B3B4Ch5Pe7lug_Perotis_lugubris_JX412762	-X-XXXXXXXXXXXX-----	CP1B3B4Ch5Pe7lug_Perotis_lugubris_JX412762_MERGED
-X-----X-----	CP1B03A4Ga7lae	XXXXXXXXXXXXXXXXXXXX	CP1B03A4Ga7lae_Gastrallus_laevigatus_ameie.idba.78	XXXXXXXXXXXXXXXXXXXX-----	CP1B03A4Ga7lae_Gastrallus_laevigatus_ameie.idba.78_MERGED
-X-----X-----	CP1B03A4La7red	XXXXXXXXXXXXXXXXXXXX	CP1B03A4La7red_Lasioderma_redtenbacheri_ameie.idba.91	XXXXXXXXXXXXXXXXXXXX-----	CP1B03A4La7red_Lasioderma_redtenbacheri_ameie.idba.91_MERGED
XXXXXXXXXXXXX-X-X-	CP1B03B4B5Ap7for	XXXXXXXXXXXXXXXXXXXX	CP1B03B4B5Ap7for_Apatides_fortis_NC_013582	XXXXXXXXXXXXXXXXXXXX---	CP1B03B4B5Ap7for_Apatides_fortis_NC_013582_MERGED
-X-----X-----	CP1B03B4D5D17min	XXXXXXXXXXXXXXXXXXXX	CP1B03B4D5D17min_Dinoderus_minutus_ameie.idba.76	XXXXXXXXXXXXXXXXXXXX-----	CP1B03B4D5D17min_Dinoderus_minutus_ameie.idba.76_MERGED
-XX-----X-----XX-	CP1B03D4An7ver	XXXXXXXXXXXXXXXXXXXX	CP1B03D4An7ver_Anthrenus_verbasci_ameie.idba.111	XXXXXXXXXXXXX-X-XX-	CP1B03D4An7ver_Anthrenus_verbasci_ameie.idba.111_MERGED
-XX-----XX-XXX	CP1B03D4De7per	--XXXXXXXXXXXX-----	CP1B03D4De7per_Dermestes_peruvianus_JX313683	-XXXXXXXXXXXX-XXX	CP1B03D4De7per_Dermestes_peruvianus_JX313683_MERGED
-X-----X-----	CP1B03D4Tr7hir	--XXXXXXXXXXXX-----	CP1B03D4Tr7hir_Trinodes_hirtus_JX313664	-XXXXXXXXXXXX-XX-	CP1B03D4Tr7hir_Trinodes_hirtus_JX313664_MERGED
-X-----X-XX-XX-	CP1B03N4No7fas	XXXXXXXXXXXXXXXXXXXX	CP1B03N4No7fas_Nosodendron_fasciculare_ameie.idba.85	XXXXXXXXXXXXXXXXXXXX---	CP1B03N4No7fas_Nosodendron_fasciculare_ameie.idba.85_MERGED
-X-----X-----	CP1B03P4Nip7hol	XXXXXX-----	CP1B03P4Nip7hol_Niptus_hololeucus_ameie.idba.138	XXXXXX-----	CP1B03P4Nip7hol_Niptus_hololeucus_ameie.idba.138_MERGED
-X-----X-----	CP1B03P4Pt7ruf	--XXXXXXXXXXXX-----	CP1B03P4Pt7ruf_Ptinus_rufipes_HQ232819	-XXXXXXXXXXXX-----	CP1B03P4Pt7ruf_Ptinus_rufipes_HQ232819_MERGED
-X-----X-----	CP1B3D4Dr7ern	XXXXXXXXXXXXXXXXXXXX	CP1B3D4Dr7ern_Dryops_ernesti_833433_idba_contig_9	XXXXXXXXXXXXXXXXXXXX---	CP1B3D4Dr7ern_Dryops_ernesti_833433_idba_contig_9_MERGED
-XX-----X-----	CP1B3D4Dr7lur	XXXXXXXXXXXXXXXXXXXX	CP1B3D4Dr7lur_Dryops_luridus_1VWB.idba.12	XXXXXXXXXXXXXXXXXXXX---	CP1B3D4Dr7lur_Dryops_luridus_1VWB.idba.12_MERGED
-X-----XX-XXX	CP1B3E4E5Li7per	--XXXXXXXXXXXX-----	CP1B3E4E5Li7per_Limnius_perrisi_JX412747	-XXXXXXXXXXXX-XXX	CP1B3E4E5Li7per_Limnius_perrisi_JX412747_MERGED
-X-----XX-X---	CP1B3H4He7fen	--XXXXXXXXXXXX-----	CP1B3H4He7fen_Heterocerus_fenestratus_HQ232811	-XXXXXXXXXXXXX-X---	CP1B3H4He7fen_Heterocerus_fenestratus_HQ232811_MERGED
-X-----X-XX-XX-	CP1B3H4He7par	XXXXXXXXXXXXXXXXXXXX	CP1B3H4He7par_Heterocerus_parallelus_ameie.idba.47	XXXXXXXXXXXXXXXXXXXX-----	CP1B3H4He7par_Heterocerus_parallelus_ameie.idba.47_MERGED
-XX-----XX-XXX	CP1C3C4Tr7leu	XXXXXX-----	CP1C3C4Tr7leu_Trichodes_leucopsidens_ameie.idba.184	XXXXXX-----XX-XXX	CP1C3C4Tr7leu_Trichodes_leucopsidens_ameie.idba.184_MERGED
XXXXXXXXXXXXX-X-	CP1C3M4C5Ch7sca	XXXXXXXXXXXXXXXXXXXX	CP1C3M4C5Ch7sca_Chaetosoma_scaritides_NC_011324	XXXXXXXXXXXXXXXXXXXX---	CP1C3M4C5Ch7sca_Chaetosoma_scaritides_NC_011324_MERGED
-X-----X-XX-XXX	CP1C3P4Ph7edw	XXXXXXXXXXXXXXXXXXXX	CP1C3P4Ph7edw_Phloiophilus_edwardsi_JX412815	XXXXXXXXXXXXXXXXXXXX-XX-	CP1C3P4Ph7edw_Phloiophilus_edwardsi_JX412815_MERGED
-X-----X-----	CP1C3T4T5Tem7vir	XXXXXXXXXXXXXXXXXXXX	CP1C3T4T5Tem7vir_Temososcheila_virescens_JX412752	XXXXXXXXXXXXXXXXXXXX-XXX	CP1C3T4T5Tem7vir_Temososcheila_virescens_JX412752_MERGED
-X-----XXX-XX-	CP1Ch3C4C5C6Ch7ame	-----XXXXXXXXXXXX	CP1Ch3C4C5C6Ch7ame_Chrysolina_americanana_Chryso.idba.155	-X-----XXXXXXXXXX-XX-	CP1Ch3C4C5C6Ch7ame_Chrysolina_americanana_Chryso.idba.155_MERGED
-XX-----XXX-X-	CP1Ch3C4C5C6Ch7ban	XXXXXXXXXXXXXXXXXXXX	CP1Ch3C4C5C6Ch7ban_Chrysolina_bankii_Chryso.idba.17	XXXXXXXXXXXXXXXXXXXX-X-	CP1Ch3C4C5C6Ch7ban_Chrysolina_bankii_Chryso.idba.17_MERGED
-XX-----XXX-XX-	CP1Ch3C4C5C6Ch7hae	XXXXXXXXXXXXXXXXXXXX	CP1Ch3C4C5C6Ch7hae_Chrysolina_haemoptera_Chryso.idba.38	XXXXXXXXXXXXXXXXXXXX-XX-	CP1Ch3C4C5C6Ch7hae_Chrysolina_haemoptera_Chryso.idba.38_MERGED
-XX-----XXX-XX-	CP1Ch3C4C5C6Ch7her	XXXXXXXXXXXXXXXXXXXX	CP1Ch3C4C5C6Ch7her_Chrysolina_herbacea_Chryso.idba.10	XXXXXXXXXXXXXXXXXXXX---	CP1Ch3C4C5C6Ch7her_Chrysolina_herbacea_Chryso.idba.10_MERGED
-XX-----XXX-XX-	CP1Ch3C4C5C6Ch7hyp	-XXXXXXXXXXXXXXXXXXXX	CP1Ch3C4C5C6Ch7hyp_Chrysolina_hyperici_Chryso.idba.134	-XXXXXXXXXXXXXXXXXXXX-XX-	CP1Ch3C4C5C6Ch7hyp_Chrysolina_hyperici_Chryso.idba.134_MERGED
-X-----XXX-XX-	CP1Ch3C4C5C6Ch7lep	XXXXXX-----	CP1Ch3C4C5C6Ch7lep_Chrysolina_lepida_Chryso.idba.151	XXXXXX-----XXX-XX-	CP1Ch3C4C5C6Ch7lep_Chrysolina_lepida_Chryso.idba.151_MERGED
-XX-----XXX-XX-	CP1Ch3C4C5C6Ch7pol	XXXXXXXXXXXXXXXXXXXX	CP1Ch3C4C5C6Ch7pol_Chrysolina_polita_Chryso.idba.123	XXXXXXXXXXXXXXXXXXXX---	CP1Ch3C4C5C6Ch7pol_Chrysolina_polita_Chryso.idba.123_MERGED
-X-----X-XX-XX-	CP1Ch3C4C5C6Ch7ruf	XXXXXXXXXXXXXXXXXXXX	CP1Ch3C4C5C6Ch7ruf_Chrysolina_rufoaeana_Chryso.idba.131	XXXXXXXXXXXXXXXXXXXX-XX-	CP1Ch3C4C5C6Ch7ruf_Chrysolina_rufoaeana_Chryso.idba.131_MERGED
-X-----XX-XX-	CP1Ch3C4C5C6Ch7ver	XXXXXXXXXXXXXXXXXXXX	CP1Ch3C4C5C6Ch7ver_Chrysolina_vernalis_Chryso.idba.25	XXXXXXXXXXXXXXXXXXXX-XX-	CP1Ch3C4C5C6Ch7ver_Chrysolina_vernalis_Chryso.idba.25_MERGED
-XXX-----X-XXX-	CP1Ch3C4C5C6Ch7pop	XXXXXXXXXXXXXXXXXXXX	CP1Ch3C4C5C6Ch7pop_Chrysomela_populi_ameie.idba.70	XXXXXXXXXXXXXXXXXXXX---	CP1Ch3C4C5C6Ch7pop_Chrysomela_populi_ameie.idba.70_MERGED
-X-----X-XX-XX-	CP1Ch3C4C5C6Col7bar	XXXXXXXXXXXXXXXXXXXX	CP1Ch3C4C5C6Col7bar_Colaspidea_barbarum_Chryso.idba.24	XXXXXXXXXXXXXXXXXXXX-XX-	CP1Ch3C4C5C6Col7bar_Colaspidea_barbarum_Chryso.idba.24_MERGED
-X-----X-XX-XX-	CP1Ch3C4C5C6Go7aeg	XXXXXXXXXXXXXXXXXXXX	CP1Ch3C4C5C6Go7aeg_Gonioctena_aegrota_Chryso.idba.29	XXXXXXXXXXXXXXXXXXXX-XX-	CP1Ch3C4C5C6Go7aeg_Gonioctena_aegrota_Chryso.idba.29_MERGED
-X-----X-XX-XX-	CP1Ch3C4C5C6Go7lep	XXXXXXXXXXXXXXXXXXXX	CP1Ch3C4C5C6Go7lep_Gonioctena_lepraeuri_Chryso.idba.15	XXXXXXXXXXXXXXXXXXXX-XX-	CP1Ch3C4C5C6Go7lep_Gonioctena_lepraeuri_Chryso.idba.15_MERGED

-XX-----XX-XX	CP1Ch3C4C5C6Go7oli	XXXXXXXXXXXXX----	CP1Ch3C4C5C6Go7oli_Gonioctena_olivacea_Chryso.idba.3	XXXXXXXXXXXXX-XX	CP1Ch3C4C5C6Go7oli_Gonioctena_olivacea_Chryso.idba.3_MERGED
--X-----XX-XX	CP1Ch3C4C5C6Hy7fai	XXXXXXXXXXXXX----	CP1Ch3C4C5C6Hy7fai_Hydrothassa_fairmairei_Chryso.idba.12	XXXXXXXXXXXXX-XX	CP1Ch3C4C5C6Hy7fai_Hydrothassa_fairmairei_Chryso.idba.12_MERGED
--X-----X--XX	CP1Ch3C4C5C6Hy7gla	XXXXXXXXXXXXX----	CP1Ch3C4C5C6Hy7gla_Hydrothassa_glabra_Chryso.idba.9	XXXXXXXXXXXXX-XX	CP1Ch3C4C5C6Hy7gla_Hydrothassa_glabra_Chryso.idba.9_MERGED
-XX-----XXXXXX	CP1Ch3C4C5C6Li7aen	XXXXXXXXXXXXX----	CP1Ch3C4C5C6Li7aen_Plagiosterna_aenea_Chryso.idba.2	XXXXXXXXXXXXX-XX	CP1Ch3C4C5C6Li7aen_Plagiosterna_aenea_Chryso.idba.2_MERGED
-XX-----XX-XX	CP1Ch3C4C5C6Ph7arm	--XXXXXXXXXXXXX----	CP1Ch3C4C5C6Ph7arm_Phaedon_armoraciae_JX220992	-XXXXXXXXXXXXX-XX	CP1Ch3C4C5C6Ph7arm_Phaedon_armoraciae_JX220992_MERGED
--X-----X--XX	CP1Ch3C4C5C6Ph7tum	XXXXXXXXXXXXX----	CP1Ch3C4C5C6Ph7tum_Phaedon_tumidulus_Chryso.idba.4	XXXXXXXXXXXXX-XX	CP1Ch3C4C5C6Ph7tum_Phaedon_tumidulus_Chryso.idba.4_MERGED
-XX-----XXXX	CP1Ch3C4C5C6Phr7vit	XXXXXXXXXXXXX----	CP1Ch3C4C5C6Phr7vit_Phratora_vitellinae_Chryso.idba.79	XXXXXXXXXXXXX-XX	CP1Ch3C4C5C6Phr7vit_Phratora_vitellinae_Chryso.idba.79_MERGED
-XX-----X--XX	CP1Ch3C4C5C6Phr7vul	XXXXXXXXXXXXX----	CP1Ch3C4C5C6Phr7vul_Phratora_vulgatissima_amie.idba.119	XXXXXXXXXXXXX-XX	CP1Ch3C4C5C6Phr7vul_Phratora_vulgatissima_amie.idba.119_MERGED
-----XX-----	CP1Ch3C4C5E6En7ado	XXXXXXXXXXXXX----	CP1Ch3C4C5E6En7ado_Entomoscelis_adonidis_Chryso.idba.57	XXXXXXXXXXXXX-XX	CP1Ch3C4C5E6En7ado_Entomoscelis_adonidis_Chryso.idba.57_MERGED
-XX-----XX----	CP1Ch3C4C5T6Ti7goe	-XXXXXXXXXXXXX----	CP1Ch3C4C5T6Ti7goe_Timarcha_goettingensis_JX412789	-XXXXXXXXXXXXX-XX	CP1Ch3C4C5T6Ti7goe_Timarcha_goettingensis_JX412789_MERGED
--X-----XX-XXX	CP1Ch3C4Ca5Ar7lab	--XXXXXXXXXXXXX----	CP1Ch3C4Ca5Ar7lab_Arescus_labiatuus_JX220988	--XXXXXXXXXXXXX-XXX	CP1Ch3C4Ca5Ar7lab_Arescus_labiatuus_JX220988_MERGED
-XX-----X--XX	CP1Ch3C4Ca5Ca7den	XXXXXXXXXXXXX----	CP1Ch3C4Ca5Ca7den_Cassida_denticollis_Chryso.idba.59	XXXXXXXXXXXXX-XX	CP1Ch3C4Ca5Ca7den_Cassida_denticollis_Chryso.idba.59_MERGED
-XX-----XX-XXX	CP1Ch3C4Ca5Ca7rub	XXXXXXXXXXXXX----	CP1Ch3C4Ca5Ca7rub_Cassida_rubiginosa_Chryso.idba.121	XXXXXXXXXXXXX-XX	CP1Ch3C4Ca5Ca7rub_Cassida_rubiginosa_Chryso.idba.121_MERGED
-XX-----X--XX	CP1Ch3C4Ca5Ca7vib	--XXXXXXXXXXXXX----	CP1Ch3C4Ca5Ca7vib_Cassida_vibex_Chryso.idba.154	-XXXXXXXXXXXXX-XX	CP1Ch3C4Ca5Ca7vib_Cassida_vibex_Chryso.idba.154_MERGED
-XX-----X--XX	CP1Ch3C4Ca5Ca7vir	XXXXXXXXXXXXX----	CP1Ch3C4Ca5Ca7vir_Cassida_viridis_Chryso.idba.6	XXXXXXXXXXXXX-XX	CP1Ch3C4Ca5Ca7vir_Cassida_viridis_Chryso.idba.6_MERGED
--X-----XX-XXX	CP1Ch3C4Ca5Im7cap	--XXXXXXXXXXXXX----	CP1Ch3C4Ca5Im7cap_Imatidium_capense_JX220993	--XXXXXXXXXXXXX-XXX	CP1Ch3C4Ca5Im7cap_Imatidium_capense_JX220993_MERGED
--X-----X--XX	CP1Ch3C4C15Ch7obe	XXXXXXXXXXXXX----	CP1Ch3C4C15Ch7obe_Chilotomina_obethuri_Chryso.idba.32	XXXXXXXXXXXXX-XX	CP1Ch3C4C15Ch7obe_Chilotomina_obethuri_Chryso.idba.32_MERGED
--X-----X--XX	CP1Ch3C4C15La7gal	XXXXXXXXXXXXX----	CP1Ch3C4C15La7gal_Lachnaia_gallaeca_Chryso.idba.66	XXXXXXXXXXXXX-XX	CP1Ch3C4C15La7gal_Lachnaia_gallaeca_Chryso.idba.66_MERGED
-X-----X--XX	CP1Ch3C4C15La7hir	XXXXXXXXXXXXX----	CP1Ch3C4C15La7hir_Lachnaia_hirta_Chryso.idba.55	XXXXXXXXXXXXX-XX	CP1Ch3C4C15La7hir_Lachnaia_hirta_Chryso.idba.55_MERGED
-X-----X--XX	CP1Ch3C4C15La7pub	XXXXXXXXXXXXX----	CP1Ch3C4C15La7pub_Lachnaia_pubescens_Chryso.idba.36	XXXXXXXXXXXXX-XX	CP1Ch3C4C15La7pub_Lachnaia_pubescens_Chryso.idba.36_MERGED
--X-----XX-XXX	CP1Ch3C4C15La7tri	XXXXXXXXXXXXX----	CP1Ch3C4C15La7tri_Lachnaia_tristigma_Chryso.idba.68	XXXXXXXXXXXXX-XXX	CP1Ch3C4C15La7tri_Lachnaia_tristigma_Chryso.idba.68_MERGED
-----X--XX	CP1Ch3C4C15Lab7ghi	XXXXXXXXXXXXX----	CP1Ch3C4C15Lab7ghi_Labidostomis_ghiliani_Chryso.idba.91	XXXXXXXXXXXXX-XX	CP1Ch3C4C15Lab7ghi_Labidostomis_ghiliani_Chryso.idba.91_MERGED
-X-----X--XX	CP1Ch3C4C15Lab7luc	XXXXXXXXXXXXX----	CP1Ch3C4C15Lab7luc_Labidostomis_lucida_Chryso.idba.90	XXXXXXXXXXXXX-XX	CP1Ch3C4C15Lab7luc_Labidostomis_lucida_Chryso.idba.90_MERGED
-----XX-XXX	CP1Ch3C4C15Lab7lus	XXXXXXXXXXXXX----	CP1Ch3C4C15Lab7lus_Labidostomis_lusitanica_Chryso.idba.65	XXXXXXXXXXXXX-XX	CP1Ch3C4C15Lab7lus_Labidostomis_lusitanica_Chryso.idba.65_MERGED
-----X--XX	CP1Ch3C4C15Lab7tax	XXXXXXXXXXXXX----	CP1Ch3C4C15Lab7tax_Labidostomis_taxicornis_Chryso.idba.92	XXXXXXXXXXXXX-XX	CP1Ch3C4C15Lab7tax_Labidostomis_taxicornis_Chryso.idba.92_MERGED
-X-----XX-XXX	CP1Ch3C4C15Sm7con	XXXXXXXXXXXXX----	CP1Ch3C4C15Sm7con_Smaragdina_concolor_Chryso.idba.37	XXXXXXXXXXXXX-XXX	CP1Ch3C4C15Sm7con_Smaragdina_concolor_Chryso.idba.37_MERGED
-X-----XX-XXX	CP1Ch3C4C15Sm7rey	XXXXXXXXXXXXX----	CP1Ch3C4C15Sm7rey_Smaragdina_reyi_Chryso.idba.52	XXXXXXXXXXXXX-XXX	CP1Ch3C4C15Sm7rey_Smaragdina_reyi_Chryso.idba.52_MERGED
-X-----X--XX	CP1Ch3C4C15Sm7ruf	XXXXXXXXXXXXX----	CP1Ch3C4C15Sm7ruf_Smaragdina_rufimana_Chryso.idba.20	XXXXXXXXXXXXX-XX	CP1Ch3C4C15Sm7ruf_Smaragdina_rufimana_Chryso.idba.20_MERGED
XXXXXXXXXXXXX-X-	CP1Ch3C4Cr5Cr7duo	XXXXXXXXXXXXX----	CP1Ch3C4Cr5Cr7duo_Crioceris_duodecimpunctata_NC_003372	XXXXXXXXXXXXX-X-	CP1Ch3C4Cr5Cr7duo_Crioceris_duodecimpunctata_NC_003372_MERGED
-X-----X--XX	CP1Ch3C4Cr5Ou7gal	XXXXXXXXXXXXX----	CP1Ch3C4Cr5Ou7gal_Oulema_gallaeciana_Chryso.idba.130	XXXXXXXXXXXXX-XX	CP1Ch3C4Cr5Ou7gal_Oulema_gallaeciana_Chryso.idba.130_MERGED
-XX-----X--XXX	CP1Ch3C4Cr5Ou7mel	XXXXXXXXXXXXX----	CP1Ch3C4Cr5Ou7mel_Oulema_melanopus_Chryso.idba.13	XXXXXXXXXXXXX-XXX	CP1Ch3C4Cr5Ou7mel_Oulema_melanopus_Chryso.idba.13_MERGED
-XX-----X----	CP1Ch3C4Cry5Cr7and	XXXXXXXXXXXXX----	CP1Ch3C4Cry5Cr7and_Cryptocephalus_androgyne_Chryso.idba.100	XXXXXXXXXXXXX-XX	CP1Ch3C4Cry5Cr7and_Cryptocephalus_androgyne_Chryso.idba.100_MERGED
-XX-----X----	CP1Ch3C4Cry5Cr7aur	XXXXXXXXXXXXX----	CP1Ch3C4Cry5Cr7aur_Cryptocephalus_aureolus_Chryso.idba.54	XXXXXXXXXXXXX-XX	CP1Ch3C4Cry5Cr7aur_Cryptocephalus_aureolus_Chryso.idba.54_MERGED
-XX-----X-XXXX	CP1Ch3C4Cry5Cr7bip	XXXXXXXXXXXXX----	CP1Ch3C4Cry5Cr7bip_Cryptocephalus_bipunctatus_Chryso.idba.99	XXXXXXXXXXXXX-XX	CP1Ch3C4Cry5Cr7bip_Cryptocephalus_bipunctatus_Chryso.idba.99_MERGED
-X-----X-X-XX	CP1Ch3C4Cry5Cr7can	XXXXXXXXXXXXX----	CP1Ch3C4Cry5Cr7can_Cryptocephalus_cantabricus_Chryso.idba.87	XXXXXXXXXXXXX-XX	CP1Ch3C4Cry5Cr7can_Cryptocephalus_cantabricus_Chryso.idba.87_MERGED
-X-----X--XX	CP1Ch3C4Cry5Cr7cel	XXXXXXXXXXXXX----	CP1Ch3C4Cry5Cr7cel_Cryptocephalus_celtibericus_Chryso.idba.56	XXXXXXXXXXXXX-XX	CP1Ch3C4Cry5Cr7cel_Cryptocephalus_celtibericus_Chryso.idba.56_MERGED
-X-----X-X-XX	CP1Ch3C4Cry5Cr7cyn	XXXXXXXXXXXXX----	CP1Ch3C4Cry5Cr7cyn_Cryptocephalus_cynarae_Chryso.idba.63	XXXXXXXXXXXXX-XX	CP1Ch3C4Cry5Cr7cyn_Cryptocephalus_cynarae_Chryso.idba.63_MERGED
-X-----X--XX	CP1Ch3C4Cry5Cr7liv	XXXXXXXXXXXXX----	CP1Ch3C4Cry5Cr7liv_Cryptocephalus_lividimanus_Chryso.idba.85	XXXXXXXXXXXXX-XX	CP1Ch3C4Cry5Cr7liv_Cryptocephalus_lividimanus_Chryso.idba.85_MERGED
-XX-----XXXX	CP1Ch3C4Cry5Cr7mor	XXXXXXXXXXXXX----	CP1Ch3C4Cry5Cr7mor_Cryptocephalus_moraei_Chryso.idba.107	XXXXXXXXXXXXX-XX	CP1Ch3C4Cry5Cr7mor_Cryptocephalus_moraei_Chryso.idba.107_MERGED
-X-----X--XX	CP1Ch3C4Cry5Cr7mys	XXXXXXXXXXXXX----	CP1Ch3C4Cry5Cr7mys_Cryptocephalus_mystacatus_Chryso.idba.41	XXXXXXXXXXXXX-XX	CP1Ch3C4Cry5Cr7mys_Cryptocephalus_mystacatus_Chryso.idba.41_MERGED
-X-----X--XX	CP1Ch3C4Cry5Cr7obl	XXXXXXXXXXXXX----	CP1Ch3C4Cry5Cr7obl_Cryptocephalus_obliteratifer_Chryso.idba.104	XXXXXXXXXXXXX-XX	CP1Ch3C4Cry5Cr7obl_Cryptocephalus_obliteratifer_Chryso.idba.104_MERGED
-XX-----X-X-XX	CP1Ch3C4Cry5Cr7oct	XXXXXXXXXXXXX----	CP1Ch3C4Cry5Cr7oct_Cryptocephalus_octoguttatus_Chryso.idba.124	XXXXXXXXXXXXX-XX	CP1Ch3C4Cry5Cr7oct_Cryptocephalus_octoguttatus_Chryso.idba.124_MERGED
-X-----X-X-XX	CP1Ch3C4Cry5Cr7pom	XXXXXXXXXXXXX----	CP1Ch3C4Cry5Cr7pom_Cryptocephalus_pominorum_Chryso.idba.94	XXXXXXXXXXXXX-XX	CP1Ch3C4Cry5Cr7pom_Cryptocephalus_pominorum_Chryso.idba.94_MERGED
-XX-----X--XX	CP1Ch3C4Cry5Cr7pus	XXXXXXXXXXXXX----	CP1Ch3C4Cry5Cr7pus_Cryptocephalus_pusillus_Chryso.idba.53	XXXXXXXXXXXXX-XX	CP1Ch3C4Cry5Cr7pus_Cryptocephalus_pusillus_Chryso.idba.53_MERGED
-X-----X----	CP1Ch3C4Cry5Cr7qua	XXXXXXXXXXXXX----	CP1Ch3C4Cry5Cr7qua_Cryptocephalus_quadripunctatus_Chryso.idba.83	XXXXXXXXXXXXX-XX	CP1Ch3C4Cry5Cr7qua_Cryptocephalus_quadripunctatus_Chryso.idba.83_MERGED
-X-----X-X-XX	CP1Ch3C4Cry5Cr7ram	XXXXXXXXXXXXX----	CP1Ch3C4Cry5Cr7ram_Cryptocephalus_ramburii_Chryso.idba.88	XXXXXXXXXXXXX-XX	CP1Ch3C4Cry5Cr7ram_Cryptocephalus_ramburii_Chryso.idba.88_MERGED
-X-----X--XX	CP1Ch3C4Cry5Cr7ruf	XXXXXXXXXXXXX----	CP1Ch3C4Cry5Cr7ruf_Cryptocephalus_rufipes_Chryso.idba.77	XXXXXXXXXXXXX-XX	CP1Ch3C4Cry5Cr7ruf_Cryptocephalus_rufipes_Chryso.idba.77_MERGED
-X-----X-XX	CP1Ch3C4Cry5Cr7rug	XXXXXXXXXXXXX----	CP1Ch3C4Cry5Cr7rug_Cryptocephalus_rugicollis_Chryso.idba.95	XXXXXXXXXXXXX-XX	CP1Ch3C4Cry5Cr7rug_Cryptocephalus_rugicollis_Chryso.idba.95_MERGED
-X-----X--XX	CP1Ch3C4Cry5Cr7sau	XXXXXXXXXXXXX----	CP1Ch3C4Cry5Cr7sau_Cryptocephalus_saucius_Chryso.idba.143	XXXXXXXXXXXXX-XX	CP1Ch3C4Cry5Cr7sau_Cryptocephalus_saucius_Chryso.idba.143_MERGED
-X-----X--XX	CP1Ch3C4Cry5Cr7sch	XXXXXXXXXXXXX----	CP1Ch3C4Cry5Cr7sch_Cryptocephalus_schaefferi_Chryso.idba.49	XXXXXXXXXXXXX-XX	CP1Ch3C4Cry5Cr7sch_Cryptocephalus_schaefferi_Chryso.idba.49_MERGED
-X-----X-X-XX	CP1Ch3C4Cry5Cr7tib	XXXXXXXXXXXXX----	CP1Ch3C4Cry5Cr7tib_Cryptocephalus_tibialis_Chryso.idba.101	XXXXXXXXXXXXX-XX	CP1Ch3C4Cry5Cr7tib_Cryptocephalus_tibialis_Chryso.idba.101_MERGED
-XX-----X--XX	CP1Ch3C4Cry5Cr7vit	XXXXXXXXXXXXX----	CP1Ch3C4Cry5Cr7vit_Cryptocephalus_vittatus_Chryso.idba.81	XXXXXXXXXXXXX-XX	CP1Ch3C4Cry5Cr7vit_Cryptocephalus_vittatus_Chryso.idba.81_MERGED
-XX-----X--XX	CP1Ch3C4Cry5Pa7reg	XXXXXXXXXXXXX----	CP1Ch3C4Cry5Pa7reg_Pachybrachis_regius_Chryso.idba.138	XXXXXXXXXXXXX-XX	CP1Ch3C4Cry5Pa7reg_Pachybrachis_regius_Chryso.idba.138_MERGED
-X-----X--XX	CP1Ch3C4Cry5Pa7suf	XXXXXXXXXXXXX----	CP1Ch3C4Cry5Pa7suf_Pachybrachis_suffriani_Chryso.idba.98	XXXXXXXXXXXXX-XX	CP1Ch3C4Cry5Pa7suf_Pachybrachis_suffriani_Chryso.idba.98_MERGED
-X-----X--XX	CP1Ch3C4Cry5Pa7ter	XXXXXXXXXXXXX----	CP1Ch3C4Cry5Pa7ter_Pachybrachis_terminalis_Chryso.idba.96	XXXXXXXXXXXXX-XX	CP1Ch3C4Cry5Pa7ter_Pachybrachis_terminalis_Chryso.idba.96_MERGED

--X-----X--XX-	CP1Ch3C4Cry5St7ili	XXXXXXXXXXXXX----	CP1Ch3C4Cry5St7ili_Stylosomus_illicicola_Soil.idba.48	XXXXXXXXXXXXX-XX-	CP1Ch3C4Cry5St7ili_Stylosomus_illicicola_Soil.idba.48_MERGED
--X-----X--XX-	CP1Ch3C4Cry5St7rug	XXXXXXXXXXXXX----	CP1Ch3C4Cry5St7rug_Stylosomus_rugithorax_Chryso.idba.39	XXXXXXXXXXXXX-XX-	CP1Ch3C4Cry5St7rug_Stylosomus_rugithorax_Chryso.idba.39_MERGED
--X-----XX-XXX-	CP1Ch3C4Do7dis	---XXXXXXXXXX----	CP1Ch3C4Do7dis_Donacia_distincta_JX220999	---XXXXXXXXXXXX-XXX-	CP1Ch3C4Do7dis_Donacia_distincta_JX220999_MERGED
--X-----X---	CP1Ch3C4Do7ful	XXXXXXXXXXXXX----	CP1Ch3C4Do7ful_Doryidomorpha_fulva_CS.idba.19	XXXXXXXXXXXXX-XX-	CP1Ch3C4Do7ful_Doryidomorpha_fulva_CS.idba.19_MERGED
-X-----X--XXX	CP1Ch3C4E5Br7obs	XXXXXXXXXXXXX----	CP1Ch3C4E5Br7obs_Bromius_obscurus_ameie.idba.82	XXXXXXXXXXXXX--XXX	CP1Ch3C4E5Br7obs_Bromius_obscurus_ameie.idba.82_MERGED
--X-----X--XXX	CP1Ch3C4E5Colas7glo	XXXXXXXXXXXXX----	CP1Ch3C4E5Colas7glo_Colaspdea_globosa_Chryso.idba.110	XXXXXXXXXXXXX-XX-	CP1Ch3C4E5Colas7glo_Colaspdea_globosa_Chryso.idba.110_MERGED
--X-----XX-XXX	CP1Ch3C4E5Phy7dil	-----XXXXXXXXXX----	CP1Ch3C4E5Phy7dil_Phytorus_dilatatus_B480tru.idba.116	--X-----XXXX-XXX	CP1Ch3C4E5Phy7dil_Phytorus_dilatatus_B480tru.idba.116_MERGED
--X-----X--XXX	CP1Ch3C4Ex7can	---XXXXXXXXXX----	CP1Ch3C4Ex7can_Exema_canadensis_JX220990	---XXXXXXXXXXXX-XXX	CP1Ch3C4Ex7can_Exema_canadensis_JX220990_MERGED
-----XXX	CP1Ch3C4G5A6Ac7ass	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Ac7ass_Acrocrypta_assamensis_CS.idba.43	XXXXXXXXXXXXX-XXX	CP1Ch3C4G5A6Ac7ass_Acrocrypta_assamensis_CS.idba.43_MERGED
---XX-----X--XX-	CP1Ch3C4G5A6Alt7amp	XXXXXXX-----	CP1Ch3C4G5A6Alt7amp_Altica_ampelophaga_Chryso.idba.149	XXXXXXX---X--XX-	CP1Ch3C4G5A6Alt7amp_Altica_ampelophaga_Chryso.idba.149_MERGED
---XX-----X--XX-	CP1Ch3C4G5A6Alt7eri	XXXXXXXX-----	CP1Ch3C4G5A6Alt7eri_Altica_ericeti_Chryso.idba.163	XXXXXXXX---X--XX-	CP1Ch3C4G5A6Alt7eri_Altica_ericeti_Chryso.idba.163_MERGED
---XX-----X--XX-	CP1Ch3C4G5A6Alt7ole	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Alt7ole_Altica_oleracea_Chryso.idba.51	XXXXXXXXXXXXX-XXX	CP1Ch3C4G5A6Alt7ole_Altica_oleracea_Chryso.idba.51_MERGED
---XX-----X--XX-	CP1Ch3C4G5A6Ap7orb	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Ap7orb_Apteropeda_orbiculata_Chryso.idba.18	XXXXXXXXXXXXX-XXX	CP1Ch3C4G5A6Ap7orb_Apteropeda_orbiculata_Chryso.idba.18_MERGED
---XX-----X--XX-	CP1Ch3C4G5A6Ap7ovu	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Ap7ovu_Apteropeda_ovulum_Chryso.idba.23	XXXXXXXXXXXXX-XXX	CP1Ch3C4G5A6Ap7ovu_Apteropeda_ovulum_Chryso.idba.23_MERGED
---XX-----X--XXX	CP1Ch3C4G5A6Aph77col	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Aph77col_Aphthonomorpha_collaris_ChrysoT.idba.34	XXXXXXXXXXXXX-XXX	CP1Ch3C4G5A6Aph77col_Aphthonomorpha_collaris_ChrysoT.idba.34_MERGED
-----X--XX-	CP1Ch3C4G5A6Aph77alb	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Aph77alb_Aphthona_albertinae_Chryso.idba.48	XXXXXXXXXXXXX-XX-	CP1Ch3C4G5A6Aph77alb_Aphthona_albertinae_Chryso.idba.48_MERGED
---XX-----X--XX-	CP1Ch3C4G5A6Aph77eup	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Aph77eup_Aphthona_euphorbiae_Chryso.idba.42	XXXXXXXXXXXXX-XX-	CP1Ch3C4G5A6Aph77eup_Aphthona_euphorbiae_Chryso.idba.42_MERGED
---XX-----X--XX-	CP1Ch3C4G5A6Aph77lut	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Aph77lut_Aphthona_lutescens_Chryso.idba.103	XXXXXXXXXXXXX-XX-	CP1Ch3C4G5A6Aph77lut_Aphthona_lutescens_Chryso.idba.103_MERGED
---XX-----X--XX-	CP1Ch3C4G5A6Aph77mel	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Aph77mel_Aphthona_melancholica_Chryso.idba.71	XXXXXXXXXXXXX-XX-	CP1Ch3C4G5A6Aph77mel_Aphthona_melancholica_Chryso.idba.71_MERGED
---X-----XX-XXX	CP1Ch3C4G5A6As17tra	XXXXXXXXXXXXX----	CP1Ch3C4G5A6As17tra_Asiorestia_transversa_ChrysoT.idba.7	XXXXXXXXXXXXX-XXX	CP1Ch3C4G5A6As17tra_Asiorestia_transversa_ChrysoT.idba.7_MERGED
---X-----X--XX-	CP1Ch3C4G5A6Ba7aer	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Ba7aer_Batophila_aerata_Chryso.idba.47	XXXXXXXXXXXXX-XX-	CP1Ch3C4G5A6Ba7aer_Batophila_aerata_Chryso.idba.47_MERGED
---X-----XX-XXX	CP1Ch3C4G5A6Ch7ang	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Ch7ang_Chabria_nr_angulicollis_ChrysoT.idba.36	XXXXXXXXXXXXX-XXX	CP1Ch3C4G5A6Ch7ang_Chabria_nr_angulicollis_ChrysoT.idba.36_MERGED
-----X--XX-	CP1Ch3C4G5A6Chae7ari	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Chae7ari_Chaetocnema_arida_Chryso.idba.82	XXXXXXXXXXXXX-XX-	CP1Ch3C4G5A6Chae7ari_Chaetocnema_arida_Chryso.idba.82_MERGED
---X-----X--XX-	CP1Ch3C4G5A6Chae7dep	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Chae7dep_Chaetocnema_depressa_Chryso.idba.43	XXXXXXXXXXXXX-XX-	CP1Ch3C4G5A6Chae7dep_Chaetocnema_depressa_Chryso.idba.43_MERGED
---XX-----XX-	CP1Ch3C4G5A6Chae7hor	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Chae7hor_Chaetocnema_hortensis_Chryso.idba.125	XXXXXXXXXXXXX-XXX	CP1Ch3C4G5A6Chae7hor_Chaetocnema_hortensis_Chryso.idba.125_MERGED
---X-----XX-	CP1Ch3C4G5A6Chae7obe	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Chae7obe_Chaetocnema_obesa_Chryso.idba.93	XXXXXXXXXXXXX-XX-	CP1Ch3C4G5A6Chae7obe_Chaetocnema_obesa_Chryso.idba.93_MERGED
---X-----X--XX-	CP1Ch3C4G5A6Chae7pag	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Chae7pag_Chaetocnema_paganettii_Chryso.idba.78	XXXXXXXXXXXXX-XX-	CP1Ch3C4G5A6Chae7pag_Chaetocnema_paganettii_Chryso.idba.78_MERGED
---X-----XX-	CP1Ch3C4G5A6Chae7pel	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Chae7pel_Chaetocnema_pelagica_Chryso.idba.21	XXXXXXXXXXXXX-XX-	CP1Ch3C4G5A6Chae7pel_Chaetocnema_pelagica_Chryso.idba.21_MERGED
-----X--XX-	CP1Ch3C4G5A6Chae7sch	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Chae7sch_Chaetocnema_scheffleri_Chryso.idba.69	XXXXXXXXXXXXX-XX-	CP1Ch3C4G5A6Chae7sch_Chaetocnema_scheffleri_Chryso.idba.69_MERGED
---XX-----X--XX-	CP1Ch3C4G5A6Chae7tib	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Chae7tib_Chaetocnema_tibialis_Chryso.idba.75	XXXXXXXXXXXXX-XX-	CP1Ch3C4G5A6Chae7tib_Chaetocnema_tibialis_Chryso.idba.75_MERGED
---X-----XX-XXX	CP1Ch3C4G5A6Chal77ful	-----XXXXXXXXXX----	CP1Ch3C4G5A6Chal77ful_Chalcooides_fulvicornis_Chryso.idba.153	--X---XXXXXXXXXX-XXX	CP1Ch3C4G5A6Chal77ful_Chalcooides_fulvicornis_Chryso.idba.153_MERGED
---X-----X--XXX	CP1Ch3C4G5A6Cre7p1u	-----XXXXXXXXXX----	CP1Ch3C4G5A6Cre7p1u_Crepidodera_pluta_ameie.idba.98	-----XXXXXXXXXX-XXX	CP1Ch3C4G5A6Cre7p1u_Crepidodera_pluta_ameie.idba.98_MERGED
---X-----X--XX-	CP1Ch3C4G5A6Dib7occ	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Dib7occ_Dibolia_occultans_Chryso.idba.132	XXXXXXXXXXXXX-XX-	CP1Ch3C4G5A6Dib7occ_Dibolia_occultans_Chryso.idba.132_MERGED
---X-----X--XX-	CP1Ch3C4G5A6Dib7rug	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Dib7rug_Dibolia_rugulosa_ameie.idba.94	XXXXXXXXXXXXX-XXX	CP1Ch3C4G5A6Dib7rug_Dibolia_rugulosa_ameie.idba.94_MERGED
---X-----XX-	CP1Ch3C4G5A6Ep7abe	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Ep7abe_Epitrix_abeillei_CS.idba.39	XXXXXXXXXXXXX-XXX	CP1Ch3C4G5A6Ep7abe_Epitrix_abeillei_CS.idba.39_MERGED
---XX-----XX-XXX	CP1Ch3C4G5A6He7p1a	XXXXXXXXXXXXX----	CP1Ch3C4G5A6He7p1a_Hemipyxis_plagioderoides_ChrysoT.idba.5	XXXXXXXXXXXXX-XXX	CP1Ch3C4G5A6He7p1a_Hemipyxis_plagioderoides_ChrysoT.idba.5_MERGED
---X-----X--XX-	CP1Ch3C4G5A6Her7cic	XXXXXXXXXX-----	CP1Ch3C4G5A6Her7cic_Hermaeophaga_cicatrix_CS.idba.66	XXXXXXXXXX---X--XX-	CP1Ch3C4G5A6Her7cic_Hermaeophaga_cicatrix_CS.idba.66_MERGED
-----XX-XXX	CP1Ch3C4G5A6Lan7ram	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Lan7ram_Lanka_ramakrishnai_ChrysoT.idba.39	XXXXXXXXXXXXX-XXX	CP1Ch3C4G5A6Lan7ram_Lanka_ramakrishnai_ChrysoT.idba.39_MERGED
---X-----X--XX-	CP1Ch3C4G5A6Lo7aen	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Lo7aen_Longitarsus_aeneus_Chryso.idba.115	XXXXXXXXXXXXX-XX-	CP1Ch3C4G5A6Lo7aen_Longitarsus_aeneus_Chryso.idba.115_MERGED
---XX-----X--XX-	CP1Ch3C4G5A6Lo7atr	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Lo7atr_Longitarsus_atricillus_Chryso.idba.40	XXXXXXXXXXXXX-XX-	CP1Ch3C4G5A6Lo7atr_Longitarsus_atricillus_Chryso.idba.40_MERGED
---X-----X--XX-	CP1Ch3C4G5A6Lo7cer	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Lo7cer_Longitarsus_cerinthos_Chryso.idba.50	XXXXXXXXXXXXX-XX-	CP1Ch3C4G5A6Lo7cer_Longitarsus_cerinthos_Chryso.idba.50_MERGED
---XX-----X--XX-	CP1Ch3C4G5A6Lo7dor	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Lo7dor_Longitarsus_dorsalis_Chryso.idba.108	XXXXXXXXXXXXX-XX-	CP1Ch3C4G5A6Lo7dor_Longitarsus_dorsalis_Chryso.idba.108_MERGED
---XX-----XX-XXX	CP1Ch3C4G5A6Lo7exs	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Lo7exs_Longitarsus_exsoletus_Chryso.idba.102	XXXXXXXXXXXXX-XXX	CP1Ch3C4G5A6Lo7exs_Longitarsus_exsoletus_Chryso.idba.102_MERGED
---X-----XX-XXX	CP1Ch3C4G5A6Lo7ibe	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Lo7ibe_Longitarsus_ibericus_Chryso.idba.67	XXXXXXXXXXXXX-XXX	CP1Ch3C4G5A6Lo7ibe_Longitarsus_ibericus_Chryso.idba.67_MERGED
---XX-----X--XX-	CP1Ch3C4G5A6Lo7lur	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Lo7lur_Longitarsus_luridus_Chryso.idba.72	XXXXXXXXXXXXX-XX-	CP1Ch3C4G5A6Lo7lur_Longitarsus_luridus_Chryso.idba.72_MERGED
---X-----X--XX-	CP1Ch3C4G5A6Lo7me1	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Lo7me1_Longitarsus_melanocephalus_Chryso.idba.26	XXXXXXXXXXXXX-XX-	CP1Ch3C4G5A6Lo7me1_Longitarsus_melanocephalus_Chryso.idba.26_MERGED
---X-----XX-XXX	CP1Ch3C4G5A6Lo7mem	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Lo7mem_Longitarsus_membranaceus_Chryso.idba.45	XXXXXXXXXXXXX-XXX	CP1Ch3C4G5A6Lo7mem_Longitarsus_membranaceus_Chryso.idba.45_MERGED
---X-----XX-XXX	CP1Ch3C4G5A6Lo7nig	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Lo7nig_Longitarsus_nigrofasciatus_Chryso.idba.89	XXXXXXXXXXXXX-XXX	CP1Ch3C4G5A6Lo7nig_Longitarsus_nigrofasciatus_Chryso.idba.89_MERGED
---XX-----X--XX-	CP1Ch3C4G5A6Lo7ord	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Lo7ord_Longitarsus_ordinatus_Chryso.idba.106	XXXXXXXXXXXXX-XXX	CP1Ch3C4G5A6Lo7ord_Longitarsus_ordinatus_Chryso.idba.106_MERGED
---XX-----X--XX-	CP1Ch3C4G5A6Lo7par	XXXXXXXXXX-----	CP1Ch3C4G5A6Lo7par_Longitarsus_parvulus_Chryso.idba.145	XXXXXXXXXX---X--XX-	CP1Ch3C4G5A6Lo7par_Longitarsus_parvulus_Chryso.idba.145_MERGED
---X-----X--XX-	CP1Ch3C4G5A6Lo7pra	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Lo7pra_Longitarsus_pratensis_Chryso.idba.127	XXXXXXXXXXXXX-XX-	CP1Ch3C4G5A6Lo7pra_Longitarsus_pratensis_Chryso.idba.127_MERGED
---X-----X--XX-	CP1Ch3C4G5A6Lo7rut	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Lo7rut_Longitarsus_rutilus_Chryso.idba.61	XXXXXXXXXXXXX-XX-	CP1Ch3C4G5A6Lo7rut_Longitarsus_rutilus_Chryso.idba.61_MERGED
---XX-----X--XX-	CP1Ch3C4G5A6Lo7tab	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Lo7tab_Longitarsus_tabidus_Chryso.idba.86	XXXXXXXXXXXXX-XX-	CP1Ch3C4G5A6Lo7tab_Longitarsus_tabidus_Chryso.idba.86_MERGED
---XX-----XX-XXX	CP1Ch3C4G5A6Lup7xan	XXXXXXXX-----	CP1Ch3C4G5A6Lup7xan_Luperomorpha_xanthodera_ameie.idba.160	XXXXXXXX---XX-XXX	CP1Ch3C4G5A6Lup7xan_Luperomorpha_xanthodera_ameie.idba.160_MERGED
---X-----XX-XXX	CP1Ch3C4G5A6Lyp7pub	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Lyp7pub_Lypnea_pubipennis_CS.idba.34	XXXXXXXXXXXXX-XXX	CP1Ch3C4G5A6Lyp7pub_Lypnea_pubipennis_CS.idba.34_MERGED

--X-----XX--XXX	CP1Ch3C4G5A6Mac7sub	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Mac7sub_Macrohaltica_subplicata_ChrysoT.idba.16	XXXXXXXXXXXXX-XX	CP1Ch3C4G5A6Mac7sub_Macrohaltica_subplicata_ChrysoT.idba.16_MERGED
-XX-----X--XX-	CP1Ch3C4G5A6Mant7chr	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Mant7chr_Mantura_chrysanthem1_Chryso.idba.58	XXXXXXXXXXXXX-XX	CP1Ch3C4G5A6Mant7chr_Mantura_chrysanthem1_Chryso.idba.58_MERGED
-X-----X--XX-	CP1Ch3C4G5A6Ne7bre	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Ne7bre_Neocrepidodera_brevicollis_Chryso.idba.35	XXXXXXXXXXXXX-XX	CP1Ch3C4G5A6Ne7bre_Neocrepidodera_brevicollis_Chryso.idba.35_MERGED
-XX-----X--XX-	CP1Ch3C4G5A6Ne7fer	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Ne7fer_Neocrepidodera_ferruginea_Chryso.idba.112	XXXXXXXXXXXXX-XX	CP1Ch3C4G5A6Ne7fer_Neocrepidodera_ferruginea_Chryso.idba.112_MERGED
-XX-----X--XX-	CP1Ch3C4G5A6Ne7tra	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Ne7tra_Neocrepidodera_transversa_Chryso.idba.16	XXXXXXXXXXXXX-XX	CP1Ch3C4G5A6Ne7tra_Neocrepidodera_transversa_Chryso.idba.16_MERGED
-XX-----X--XXX	CP1Ch3C4G5A6Oe7cin	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Oe7cin_Oedionychus_cinctus_ChrysoT.idba.19	XXXXXXXXXXXXX-XXX	CP1Ch3C4G5A6Oe7cin_Oedionychus_cinctus_ChrysoT.idba.19_MERGED
--X-----XX-	CP1Ch3C4G5A6Ore7pun	--XXXXXXXXXX-----	CP1Ch3C4G5A6Ore7pun_Orestia_punctipennis_CS.idba.63	--XXXXXXXXXX-----XX-	CP1Ch3C4G5A6Ore7pun_Orestia_punctipennis_CS.idba.63_MERGED
-X-----XX-	CP1Ch3C4G5A6Phi7vib	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Phi7vib_Philopona_vibex_ChrysoT.idba.38	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Phi7vib_Philopona_vibex_ChrysoT.idba.38_MERGED
-XXX-----XX-	CP1Ch3C4G5A6Phy7cru	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Phy7cru_Phyllostreta_cruciferae_Chryso.idba.105	XXXXXXXXXXXXX-XX-	CP1Ch3C4G5A6Phy7cru_Phyllostreta_cruciferae_Chryso.idba.105_MERGED
-----XX-	CP1Ch3C4G5A6Phy7fou	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Phy7fou_Phyllostreta_foudrasi_Chryso.idba.113	XXXXXXXXXXXXX-XX-	CP1Ch3C4G5A6Phy7fou_Phyllostreta_foudrasi_Chryso.idba.113_MERGED
-X-----XX-	CP1Ch3C4G5A6Phy7hem	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Phy7hem_Phyllostreta_hemipoda_Chryso.idba.109	XXXXXXXXXXXXX-XX-	CP1Ch3C4G5A6Phy7hem_Phyllostreta_hemipoda_Chryso.idba.109_MERGED
-XX-----XX-	CP1Ch3C4G5A6Phy7nig	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Phy7nig_Phyllostreta_nigripes_ChrysoT.idba.54	XXXXXXXXXX-----	CP1Ch3C4G5A6Phy7nig_Phyllostreta_nigripes_ChrysoT.idba.54_MERGED
-XX-----XX-	CP1Ch3C4G5A6Phy7tet	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Phy7tet_Phyllostreta_tetrastigma_Chryso.idba.80	XXXXXXXXXXXXX-XX-	CP1Ch3C4G5A6Phy7tet_Phyllostreta_tetrastigma_Chryso.idba.80_MERGED
-XX-----XX-	CP1Ch3C4G5A6Phy7und	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Phy7und_Phyllostreta_undulata_Chryso.idba.114	XXXXXXXXXXXXX-XX-	CP1Ch3C4G5A6Phy7und_Phyllostreta_undulata_Chryso.idba.114_MERGED
--X-----XX-	CP1Ch3C4G5A6Phy7var	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Phy7var_Phyllostreta_variipennis_Chryso.idba.119	XXXXXXXXXXXXX-XX-	CP1Ch3C4G5A6Phy7var_Phyllostreta_variipennis_Chryso.idba.119_MERGED
--X-----XXX	CP1Ch3C4G5A6Po7lut	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Po7lut_Podontia_lutea_ChrysoT.idba.3	XXXXXXXXXXXXX-XXX	CP1Ch3C4G5A6Po7lut_Podontia_lutea_ChrysoT.idba.3_MERGED
-XX-----X--XX-	CP1Ch3C4G5A6Pod7fus	--XXXXXXXXXXXXX----	CP1Ch3C4G5A6Pod7fus_Podagrica_fuscipes_Chryso.idba.135	--XXXXXXXXXXXXX-XX-	CP1Ch3C4G5A6Pod7fus_Podagrica_fuscipes_Chryso.idba.135_MERGED
-XX-----X--XXX-	CP1Ch3C4G5A6Psy7chr	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Psy7chr_Psylliodes_chrysocephalus_Chryso.idba.76	XXXXXXXXXXXXX-XXX	CP1Ch3C4G5A6Psy7chr_Psylliodes_chrysocephalus_Chryso.idba.76_MERGED
--X-----X--XXX-	CP1Ch3C4G5A6Psy7cup	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Psy7cup_Psylliodes_cupreatus_Chryso.idba.117	XXXXXXXXXXXXX-XXX	CP1Ch3C4G5A6Psy7cup_Psylliodes_cupreatus_Chryso.idba.117_MERGED
--X-----X--XXX-	CP1Ch3C4G5A6Psy7fus	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Psy7fus_Psylliodes_fusiformis_Chryso.idba.0	XXXXXXXXXXXXX-XXX	CP1Ch3C4G5A6Psy7fus_Psylliodes_fusiformis_Chryso.idba.0_MERGED
--X-----X--XXX-	CP1Ch3C4G5A6Psy7gou	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Psy7gou_Psylliodes_gougeleti_Chryso.idba.128	XXXXXXXXXXXXX-XXX	CP1Ch3C4G5A6Psy7gou_Psylliodes_gougeleti_Chryso.idba.128_MERGED
--X-----X--XXX-	CP1Ch3C4G5A6Psy7his	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Psy7his_Psylliodes_hispnus_Chryso.idba.1	XXXXXXXXXXXXX-XXX	CP1Ch3C4G5A6Psy7his_Psylliodes_hispnus_Chryso.idba.1_MERGED
--X-----X--XX-	CP1Ch3C4G5A6Psy7lae	--XXXXXXXXXXXXX----	CP1Ch3C4G5A6Psy7lae_Psylliodes_laevicollis_Chryso.idba.129	--XXXXXXXXXXXXX-XX-	CP1Ch3C4G5A6Psy7lae_Psylliodes_laevicollis_Chryso.idba.129_MERGED
-XX-----X--XX-	CP1Ch3C4G5A6Psy7thl	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Psy7thl_Psylliodes_thlasps_Chryso.idba.120	XXXXXXXXXXXXX-XX-	CP1Ch3C4G5A6Psy7thl_Psylliodes_thlasps_Chryso.idba.120_MERGED
--X-----XXX	CP1Ch3C4G5A6Si7ful	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Si7ful_Sinocrepis_fulva_ChrysoT.idba.14	XXXXXXXXXXXXX-XXX	CP1Ch3C4G5A6Si7ful_Sinocrepis_fulva_ChrysoT.idba.14_MERGED
-----X--XXX	CP1Ch3C4G5A6Te7ker	XXXXXXXXXXXXX----	CP1Ch3C4G5A6Te7ker_Tegyrus_keralaensis_ChrysoT.idba.32	XXXXXXXXXXXXX-XXX	CP1Ch3C4G5A6Te7ker_Tegyrus_keralaensis_ChrysoT.idba.32_MERGED
-XX-----X--XX-	CP1Ch3C4G5G6Gal7int	XXXXXXXXXXXXX----	CP1Ch3C4G5G6Gal7int_Galeruca_interrupta_Chryso.idba.33	XXXXXXXXXXXXX-XX-	CP1Ch3C4G5G6Gal7int_Galeruca_interrupta_Chryso.idba.33_MERGED
--X-----XX-	CP1Ch3C4G5G6Gal7mac	XXXXXXXXXXXXX----	CP1Ch3C4G5G6Gal7mac_Galeruca_macchoi_Chryso.idba.28	XXXXXXXXXXXXX-XX-	CP1Ch3C4G5G6Gal7mac_Galeruca_macchoi_Chryso.idba.28_MERGED
-XX-----X--X----	CP1Ch3C4G5G6Gal7nig	XXXXXXXXXXXXX----	CP1Ch3C4G5G6Gal7nig_Galeruca_nigrolineata_ChrysoT.idba.33	XXXXXXXXXXXXX----	CP1Ch3C4G5G6Gal7nig_Galeruca_nigrolineata_ChrysoT.idba.33_MERGED
-X-----XXX	CP1Ch3C4G5G6Is7dim	XXXXXXXXXXXXX----	CP1Ch3C4G5G6Is7dim_Isshikia_dimidiaticornis_ChrysoT.idba.28	XXXXXXXXXXXXX-XXX	CP1Ch3C4G5G6Is7dim_Isshikia_dimidiaticornis_ChrysoT.idba.28_MERGED
--X-----X--XXX	CP1Ch3C4G5G6Pe7vig	XXXXXXXX-----	CP1Ch3C4G5G6Pe7vig_Periclitena_vigorsi_ChrysoT.idba.66	XXXXXX-----X--XXX	CP1Ch3C4G5G6Pe7vig_Periclitena_vigorsi_ChrysoT.idba.66_MERGED
-XX-----XX-	CP1Ch3C4G5G6Py7aen	XXXXXXXXXXXXX----	CP1Ch3C4G5G6Py7aen_Pyrrhalta_aenescens_ChrysoT.idba.17	XXXXXXXXXXXXX----	CP1Ch3C4G5G6Py7aen_Pyrrhalta_aenescens_ChrysoT.idba.17_MERGED
-X-----XXX-XXX	CP1Ch3C4G5G6Tr7vir	XXXXXXXX-----	CP1Ch3C4G5G6Tr7vir_Trirhabda_virgata_ChrysoT.idba.57	XXXXXXXX-----XXX-XXX	CP1Ch3C4G5G6Tr7vir_Trirhabda_virgata_ChrysoT.idba.57_MERGED
--X-----X--XXX	CP1Ch3C4G5L6Ag7mir	XXXXXXXXXXXXX----	CP1Ch3C4G5L6Ag7mir_Agetocera_mirabilis_CS.idba.48	XXXXXXXXXXXXX-XXX	CP1Ch3C4G5L6Ag7mir_Agetocera_mirabilis_CS.idba.48_MERGED
-XX-----XX-XXX	CP1Ch3C4G5L6Ca7cir	XXXXXXXX-----	CP1Ch3C4G5L6Ca7cir_Calomacrus_circumfusus_Chryso.idba.139	XXXXXXXXXX--XX-XXX	CP1Ch3C4G5L6Ca7cir_Calomacrus_circumfusus_Chryso.idba.139_MERGED
-X-----XX-XXX	CP1Ch3C4G5L6Ca7pin	XXXXXXXX-----	CP1Ch3C4G5L6Ca7pin_Calomacrus_pinicola_amie.idba.64	XXXXXXXX-----	CP1Ch3C4G5L6Ca7pin_Calomacrus_pinicola_amie.idba.64_MERGED
-----XX-	CP1Ch3C4G5L6Ca7sut	XXXXXXXXXXXXX----	CP1Ch3C4G5L6Ca7sut_Calomacrus_suturalis_Chryso.idba.22	XXXXXXXXXXXXX-XX-	CP1Ch3C4G5L6Ca7sut_Calomacrus_suturalis_Chryso.idba.22_MERGED
XXXXXXXXXXXXXXXX	CP1Ch3C4G5L6Dia7bar	XXXXXXXXXXXXX----	CP1Ch3C4G5L6Dia7bar_Diabrotica_barberi_NC_022935	XXXXXXXXXXXXX-XXX	CP1Ch3C4G5L6Dia7bar_Diabrotica_barberi_NC_022935_MERGED
XXXXXXXXXXXXXXXX	CP1Ch3C4G5L6Dia7vir	XXXXXXXXXXXXX----	CP1Ch3C4G5L6Dia7vir_Diabrotica_virgifera_KF658070	XXXXXXXXXXXXX----	CP1Ch3C4G5L6Dia7vir_Diabrotica_virgifera_KF658070_MERGED
-X-----XX-XXX	CP1Ch3C4G5L6Ex7lus	XXXXXXXXXXXXX----	CP1Ch3C4G5L6Ex7lus_Exosoma_lusitanicum_Chryso.idba.116	XXXXXXXXXXXXX-XXX	CP1Ch3C4G5L6Ex7lus_Exosoma_lusitanicum_Chryso.idba.116_MERGED
-----XX-XXX	CP1Ch3C4G5L6Ho7uni	XXXXXXXX-----	CP1Ch3C4G5L6Ho7uni_Hoplasoma_unicolor_ChrysoT.idba.50	XXXXXXXXXXXXX-XXX	CP1Ch3C4G5L6Ho7uni_Hoplasoma_unicolor_ChrysoT.idba.50_MERGED
--X-----X--XXX	CP1Ch3C4G5L6Hop7sub	XXXXXXXXXXXXX----	CP1Ch3C4G5L6Hop7sub_Hoplosaenidea_subcostata_ChrysoT.idba.41	XXXXXXXXXXXXX-XXX	CP1Ch3C4G5L6Hop7sub_Hoplosaenidea_subcostata_ChrysoT.idba.41_MERGED
-X-----XX-	CP1Ch3C4G5L6Lep7ery	XXXXXXXXXXXXX----	CP1Ch3C4G5L6Lep7ery_Leptomoma_erythrocephala_Chryso.idba.46	XXXXXXXXXXXXX-XX-	CP1Ch3C4G5L6Lep7ery_Leptomoma_erythrocephala_Chryso.idba.46_MERGED
-XX-----X--XX-	CP1Ch3C4G5L6Ph7qua	XXXXXXXXXXXXX----	CP1Ch3C4G5L6Ph7qua_Phyllobrotica_quadrimaculata_amie.idba.53	XXXXXXXXXXXXX-XXX	CP1Ch3C4G5L6Ph7qua_Phyllobrotica_quadrimaculata_amie.idba.53_MERGED
-X-----XX-	CP1Ch3C4G5L6St7nip	XXXXXXXXXXXXX----	CP1Ch3C4G5L6St7nip_Stenoluperus_nipponensis_ChrysoT.idba.29	XXXXXXXXXXXXX----	CP1Ch3C4G5L6St7nip_Stenoluperus_nipponensis_ChrysoT.idba.29_MERGED
-X--X-----X-----	CP1Ch3C4G5O6o17mac	XXXXXXXXXXXXX----	CP1Ch3C4G5O6o17mac_Oides_maculatus_ChrysoT.idba.45	XXXXXXXXXXXXX----	CP1Ch3C4G5O6o17mac_Oides_maculatus_ChrysoT.idba.45_MERGED
--X-----X--XXX	CP1Ch3C4G5Op7sca	XXXXXXXX-----	CP1Ch3C4G5Op7sca_Ophrida_scapoides_CS.idba.69	XXXXXXXX-----X--XXX	CP1Ch3C4G5Op7sca_Ophrida_scapoides_CS.idba.69_MERGED
-X-----X--XXX	CP1Ch3C4G5Par7fla	XXXXXXXXXXXXX----	CP1Ch3C4G5Par7fla_Paragetocera_favipes_ChrysoT.idba.24	XXXXXXXXXXXXX-XXX	CP1Ch3C4G5Par7fla_Paragetocera_favipes_ChrysoT.idba.24_MERGED
-XX-----X--XXXX-	CP1Ch3C4G5S6Age7aln	XXXXXXXX-----	CP1Ch3C4G5S6Age7aln_Agelastica_alni_CS.idba.57	XXXXXXXXXX--X-XXXX-	CP1Ch3C4G5S6Age7aln_Agelastica_alni_CS.idba.57_MERGED
-----XXX	CP1Ch3C4G5S6Ar7chi	XXXXXXXXXXXXX----	CP1Ch3C4G5S6Ar7chi_Arthrotus_chinensis_CS.idba.16	XXXXXXXXXXXXX-XXX	CP1Ch3C4G5S6Ar7chi_Arthrotus_chinensis_CS.idba.16_MERGED
-XX-----XXXXXX	CP1Ch3C4G5S6Se7hal	XXXXXXXXXXXXX----	CP1Ch3C4G5S6Se7hal_Sermylassa_halensis_ChrysoT.idba.11	XXXXXXXXXXXXXXXXXXXX	CP1Ch3C4G5S6Se7hal_Sermylassa_halensis_ChrysoT.idba.11_MERGED
-X-----X--XXX	CP1Ch3C4G5S17sub	XXXXXXXXXXXXX----	CP1Ch3C4G5S17sub_Sinoluperus_subcostatus_ChrysoT.idba.44	XXXXXXXXXXXXX-XXX	CP1Ch3C4G5S17sub_Sinoluperus_subcostatus_ChrysoT.idba.44_MERGED
-XX-----X--XX-	CP1Ch3C4G5S7rub	XXXXXXXXXXXXX----	CP1Ch3C4G5S7rub_Sphaeroderma_rubidum_Chryso.idba.27	XXXXXXXXXXXXX-XX-	CP1Ch3C4G5S7rub_Sphaeroderma_rubidum_Chryso.idba.27_MERGED
-XX-----XXXXXX	CP1Ch3C4P17ser	XXXXXXXXXXXXX----	CP1Ch3C4P17ser_Plateumaris_sericea_Chryso.idba.118	XXXXXXXXXXXXXXXXXXXX	CP1Ch3C4P17ser_Plateumaris_sericea_Chryso.idba.118_MERGED
-X-----XX-XXX	CP1Ch3C4S5Sp7sum	--XXXXXXXX-----	CP1Ch3C4S5Sp7sum_Spilopyra_sumptuosa_JX220997	--XXXXXXXX-----XXX	CP1Ch3C4S5Sp7sum_Spilopyra_sumptuosa_JX220997_MERGED

-X-----	CP1Ch3Ce4C5Ca6Py7san	XXXXXXXXXX	CP1Ch3Ce4C5Ca6Py7san_Pyrrhidium_sanguineum_amei.idba.43	XXXXXXXXXX	CP1Ch3Ce4C5Ca6Py7san_Pyrrhidium_sanguineum_amei.idba.43_MERGED
XXXXXXXXXX	CP1Ch3Ce4C5Ce6Ma7rad	XXXXXXXXXX	CP1Ch3Ce4C5Ce6Ma7rad_Massicus_raddei_NC_023937	XXXXXXXXXX	CP1Ch3Ce4C5Ce6Ma7rad_Massicus_raddei_NC_023937_MERGED
-X-----	CP1Ch3Ce4L5L6Cort7hum	XXXXXXXXXX	CP1Ch3Ce4L5L6Cort7hum_Cortodera_humeralis_amei.idba.52	XXXXXXXXXX	CP1Ch3Ce4L5L6Cort7hum_Cortodera_humeralis_amei.idba.52_MERGED
-XX-----	CP1Ch3Ce4L5L6St7nig	XXXXXXXXXX	CP1Ch3Ce4L5L6St7nig_Stenurella_nigra_amei.idba.31	XXXXXXXXXX	CP1Ch3Ce4L5L6St7nig_Stenurella_nigra_amei.idba.31_MERGED
-X-----	CP1Ch3Ce4L5L6St7sep	XXXXXXXXXX	CP1Ch3Ce4L5L6St7sep_Stenurella_septempunctata_amei.idba.16	XXXXXXXXXX	CP1Ch3Ce4L5L6St7sep_Stenurella_septempunctata_amei.idba.16_MERGED
-X-----	CP1Ch3Ce4L5R6Br7int	XXXXXXXXXX	CP1Ch3Ce4L5R6Br7int_Brachyta_interrogationis_amei.idba.3	XXXXXXXXXX	CP1Ch3Ce4L5R6Br7int_Brachyta_interrogationis_amei.idba.3_MERGED
-XX-----	CP1Ch3Ce4L5R6Rh7mor	XXXXXXXXXX	CP1Ch3Ce4L5R6Rh7mor_Rhagium_mordax_JX412743	XXXXXXXXXX	CP1Ch3Ce4L5R6Rh7mor_Rhagium_mordax_JX412743_MERGED
XXXXXXXXXX	CP1Ch3Ce4La5Agn6Ps7hil	XXXXXXXXXX	CP1Ch3Ce4La5Agn6Ps7hil_Psacotheta_hilaris_NC_013070	XXXXXXXXXX	CP1Ch3Ce4La5Agn6Ps7hil_Psacotheta_hilaris_NC_013070_MERGED
XXXXXXXXXX	CP1Ch3Ce4La5B6Ba7lin	XXXXXXXXXX	CP1Ch3Ce4La5B6Ba7lin_Batocera_lineolata_NC_022671	XXXXXXXXXX	CP1Ch3Ce4La5B6Ba7lin_Batocera_lineolata_NC_022671_MERGED
XXXXXXXXXX	CP1Ch3Ce4La5L6An7gla	XXXXXXXXXX	CP1Ch3Ce4La5L6An7gla_Anoplophora_glabripennis_NC_008221	XXXXXXXXXX	CP1Ch3Ce4La5L6An7gla_Anoplophora_glabripennis_NC_008221_MERGED
XXXXXXXXXX	CP1Ch3Ce4La5Mo6Mo7alt	XXXXXXXXXX	CP1Ch3Ce4La5Mo6Mo7alt_Monochamus_alternatus_NC_024652	XXXXXXXXXX	CP1Ch3Ce4La5Mo6Mo7alt_Monochamus_alternatus_NC_024652_MERGED
-XX-----	CP1Ch3Ce4N5N6Ne7u1m	XXXXXXXXXX	CP1Ch3Ce4N5N6Ne7u1m_Necydalis_ulmi_JX220989	XXXXXXXXXX	CP1Ch3Ce4N5N6Ne7u1m_Necydalis_ulmi_JX220989_MERGED
-X-----	CP1Ch3040r7cer	XXXXXXXXXX	CP1Ch3040r7cer_Orsodacne_cerasi_amei.idba.18	XXXXXXXXXX	CP1Ch3040r7cer_Orsodacne_cerasi_amei.idba.18_MERGED
-X-----	CP1Ch3040r7lin	XXXXXXXXXX	CP1Ch3040r7lin_Orsodacne_lineola_JX220994	XXXXXXXXXX	CP1Ch3040r7lin_Orsodacne_lineola_JX220994_MERGED
-XX-----	CP1Cu3B4By7och	XXXXXXXXXX	CP1Cu3B4By7och_Byturus_ochraceus_677381_idba_contig_12	XXXXXXXXXX	CP1Cu3B4By7och_Byturus_ochraceus_677381_idba_contig_12_MERGED
-X-----	CP1Cu3Bot4An7duo	XXXXXXXXXX	CP1Cu3Bot4An7duo_Anommatus_duodecimstriatus_Soil.idba.105	XXXXXXXXXX	CP1Cu3Bot4An7duo_Anommatus_duodecimstriatus_Soil.idba.105_MERGED
XXXXXXXXXX	CP1Cu3Bot4Da7hel	XXXXXXXXXX	CP1Cu3Bot4Da7hel_Dastarcus_helophoroides_NC_024271	XXXXXXXXXX	CP1Cu3Bot4Da7hel_Dastarcus_helophoroides_NC_024271_MERGED
-XX-----	CP1Cu3Bot4Te7cyl	XXXXXXXXXX	CP1Cu3Bot4Te7cyl_Teredus_cylindricus_amei.idba.176	XXXXXXXXXX	CP1Cu3Bot4Te7cyl_Teredus_cylindricus_amei.idba.176_MERGED
-XX-----	CP1Cu3C4C5Ad7dec	XXXXXXXXXX	CP1Cu3C4C5Ad7dec_Adalia_decempunctata_BIUK.idba.56	XXXXXXXXXX	CP1Cu3C4C5Ad7dec_Adalia_decempunctata_BIUK.idba.56_MERGED
-XX-----	CP1Cu3C4C5An7nov	XXXXXXXXXX	CP1Cu3C4C5An7nov_Anisosticta_novemdecimpunctata_2VGB.idba.9	XXXXXXXXXX	CP1Cu3C4C5An7nov_Anisosticta_novemdecimpunctata_2VGB.idba.9_MERGED
-X-----	CP1Cu3C4C5Ana7oce	XXXXXXXXXX	CP1Cu3C4C5Ana7oce_Anatis_ocellata_833044_idba_contig_22	XXXXXXXXXX	CP1Cu3C4C5Ana7oce_Anatis_ocellata_833044_idba_contig_22_MERGED
-X-----	CP1Cu3C4C5Ca7dec	XXXXXXXXXX	CP1Cu3C4C5Ca7dec_Calvia_decempunctata_amei.idba.50	XXXXXXXXXX	CP1Cu3C4C5Ca7dec_Calvia_decempunctata_amei.idba.50_MERGED
-XXXXXXXX	CP1Cu3C4C5Ch7sex	XXXXXXXXXX	CP1Cu3C4C5Ch7sex_Cheilomenes_sexmaculata_KM244706	XXXXXXXXXX	CP1Cu3C4C5Ch7sex_Cheilomenes_sexmaculata_KM244706_MERGED
-X-----	CP1Cu3C4C5Co7mag	XXXXXXXXXX	CP1Cu3C4C5Co7mag_Coccinella_magnifica_amei.idba.0	XXXXXXXXXX	CP1Cu3C4C5Co7mag_Coccinella_magnifica_amei.idba.0_MERGED
-XX-----	CP1Cu3C4C5Ha7qua	XXXXXXXXXX	CP1Cu3C4C5Ha7qua_Harmonia_quadripunctata_amei.idba.4	XXXXXXXXXX	CP1Cu3C4C5Ha7qua_Harmonia_quadripunctata_amei.idba.4_MERGED
-XX-----	CP1Cu3C4C5Hal7sed	XXXXXXXXXX	CP1Cu3C4C5Hal7sed_Halyzia_sedecimguttata_Staph.idba.68	XXXXXXXXXX	CP1Cu3C4C5Hal7sed_Halyzia_sedecimguttata_Staph.idba.68_MERGED
-X-----	CP1Cu3C4C5Hi7und	XXXXXXXXXX	CP1Cu3C4C5Hi7und_Hippodamia_undecimnotata_amei.idba.26	XXXXXXXXXX	CP1Cu3C4C5Hi7und_Hippodamia_undecimnotata_amei.idba.26_MERGED
-XXXXXXXX	CP1Cu3C4C5Pr7jap	XXXXXXXXXX	CP1Cu3C4C5Pr7jap_Propylea_japonica_KM244660	XXXXXXXXXX	CP1Cu3C4C5Pr7jap_Propylea_japonica_KM244660_MERGED
-XX-----	CP1Cu3C4Co5Co7ruf	XXXXXXXXXX	CP1Cu3C4Co5Co7ruf_Coccidula_rufa_JX412767	XXXXXXXXXX	CP1Cu3C4Co5Co7ruf_Coccidula_rufa_JX412767_MERGED
XXXXXXXXXX	CP1Cu3C4E5E6He7pusi	XXXXXXXXXX	CP1Cu3C4E5E6He7pusi_Henosepilachna_pusillanima_NC_023469	XXXXXXXXXX	CP1Cu3C4E5E6He7pusi_Henosepilachna_pusillanima_NC_023469_MERGED
-XX-----	CP1Cu3C4E5E6Su7vig	XXXXXXXXXX	CP1Cu3C4E5E6Su7vig_Suboccinella_vigintiquatuorpunctata_Staph.idba.64	XXXXXXXXXX	CP1Cu3C4E5E6Su7vig_Suboccinella_vigintiquatuorpunctata_Staph.idba.64_MERGED
-XX-----	CP1Cu3Ce4Ce7his	XXXXX-X-XXX	CP1Cu3Ce4Ce7his_Cerylon_histeroides_HQ232821	XXXXX-X-XXX	CP1Cu3Ce4Ce7his_Cerylon_histeroides_HQ232821_MERGED
-XX-----	CP1Cu3Cr4Cr7pil	XXXXXXXXXX	CP1Cu3Cr4Cr7pil_Cryptophagus_pilosus_Soil.idba.15	XXXXXXXXXX	CP1Cu3Cr4Cr7pil_Cryptophagus_pilosus_Soil.idba.15_MERGED
-X-----	CP1Cu3Cr4Mi7vil	XXXXXXXXXX	CP1Cu3Cr4Mi7vil_Micrambe_villosus_amei.idba.34	XXXXXXXXXX	CP1Cu3Cr4Mi7vil_Micrambe_villosus_amei.idba.34_MERGED
XXXXXXXXXX	CP1Cu3Cu4Cu7cla	XXXXXXXXXX	CP1Cu3Cu4Cu7cla_Cucujus_clavipes_NC_018350	XXXXXXXXXX	CP1Cu3Cu4Cu7cla_Cucujus_clavipes_NC_018350_MERGED
-X-----	CP1Cu3Cu4Cu7hae	XXXXXXXXXX	CP1Cu3Cu4Cu7hae_Cucujus_haematodes_amei.idba.42	XXXXXXXXXX	CP1Cu3Cu4Cu7hae_Cucujus_haematodes_amei.idba.42_MERGED
-XX-----	CP1Cu3E4Tr7bip	XXXX-XXXX	CP1Cu3E4Tr7bip_Tritoma_bipustulata_HQ232822	XXXX-XXXX	CP1Cu3E4Tr7bip_Tritoma_bipustulata_HQ232822_MERGED
-XX-----	CP1Cu3En4End7coc	--XXXXXXXX	CP1Cu3En4End7coc_Endomychus_coccineus_JX313667	XXXXXXXXXX	CP1Cu3En4End7coc_Endomychus_coccineus_JX313667_MERGED
-X-----	CP1Cu3K4Bra7ves	XXXXXXXXXX	CP1Cu3K4Bra7ves_Brachypterolus_vestitus_amei.idba.107	XXXXXXXXXX	CP1Cu3K4Bra7ves_Brachypterolus_vestitus_amei.idba.107_MERGED
-XX-----	CP1Cu3K4Ka7ped	-----XXXX	CP1Cu3K4Ka7ped_Kateretes_pedicularius_amei.idba.175	-X-----	CP1Cu3K4Ka7ped_Kateretes_pedicularius_amei.idba.175_MERGED
-XXX-----	CP1Cu3Lat4Ca7nod	XXXXXXXXXX	CP1Cu3Lat4Ca7nod_Cartodere_nodifer_BIUK.idba.51	XXXXXXXXXX	CP1Cu3Lat4Ca7nod_Cartodere_nodifer_BIUK.idba.51_MERGED
-XX-----	CP1Cu3Lat4Co7gib	XXXXXXXXXX	CP1Cu3Lat4Co7gib_Corticinara_gibbosa_BIUK.idba.27	XXXXXXXXXX	CP1Cu3Lat4Co7gib_Corticinara_gibbosa_BIUK.idba.27_MERGED
-XX-----	CP1Cu3Lat4Cor7sim	XXXXXXXXXX	CP1Cu3Lat4Cor7sim_Corticarina_similata_BIUK.idba.1a	XXXXXXXXXX	CP1Cu3Lat4Cor7sim_Corticarina_similata_BIUK.idba.1a_MERGED
-X-----	CP1Cu3Lat4En7bre	--XXXXXXXX	CP1Cu3Lat4En7bre_Enicmus_brevicornis_JX313681	XXXXXXXXXX	CP1Cu3Lat4En7bre_Enicmus_brevicornis_JX313681_MERGED
-X-----	CP1Cu3M4M5Mo7qua	XXXXXXXXXX	CP1Cu3M4M5Mo7qua_Monotoma_quadricollis_676892_idba_contig_27-86	XXXXXXXXXX	CP1Cu3M4M5Mo7qua_Monotoma_quadricollis_676892_idba_contig_27-86_MERGED
-X-----	CP1Cu3M4R5Rh7aen	XXXXXXXXXX	CP1Cu3M4R5Rh7aen_Rhizophagus_aeneus_amei.idba.45	XXXXXXXXXX	CP1Cu3M4R5Rh7aen_Rhizophagus_aeneus_amei.idba.45_MERGED
-XX-----	CP1Cu3M4R5Rh7dis	XXXX-XXXX	CP1Cu3M4R5Rh7dis_Rhizophagus_dispr_676912_idba_contig_113	XXXX-XXXX	CP1Cu3M4R5Rh7dis_Rhizophagus_dispr_676912_idba_contig_113_MERGED
-XX-----	CP1Cu3N4C5Ep7me1	XXXXXXXXXX	CP1Cu3N4C5Ep7me1_Epuraea_melanocephala_BIUK.idba.43	XXXXXXXXXX	CP1Cu3N4C5Ep7me1_Epuraea_melanocephala_BIUK.idba.43_MERGED
-XX-----	CP1Cu3N4Cr5G17hor	--XXXXXXXX	CP1Cu3N4Cr5G17hor_Glischrochilus_hortensis_JX412778	XXXXXXXXXX	CP1Cu3N4Cr5G17hor_Glischrochilus_hortensis_JX412778_MERGED
-XX-----	CP1Cu3N4N5Po7adu	XXXXXXXXXX	CP1Cu3N4N5Po7adu_Pocadius_ajustus_BIUK.idba.12	XXXXXXXXXX	CP1Cu3N4N5Po7adu_Pocadius_ajustus_BIUK.idba.12_MERGED
-XX-----	CP1Cu3P4Er7syl	XXX	CP1Cu3P4Er7syl_Ericmodes_sylvaticus_697044_idba_contig_61	XXX	CP1Cu3P4Er7syl_Ericmodes_sylvaticus_697044_idba_contig_61_MERGED
XXXXXXXXXX	CP1Cu3Ph4Pr7obs	XXXXXXXXXX	CP1Cu3Ph4Pr7obs_Priasilpha_obscura_NC_011326	XXXXXXXXXX	CP1Cu3Ph4Pr7obs_Priasilpha_obscura_NC_011326_MERGED
-XX-----	CP1Cu3S4As7orb	XXXXXXXXXX	CP1Cu3S4As7orb_Aspidiphorus_orbiculatus_Staph.idba.13	XXXXXXXXXX	CP1Cu3S4As7orb_Aspidiphorus_orbiculatus_Staph.idba.13_MERGED
-XX-----	CP1Cu3S4Sp7dub	--XXXXXXXX	CP1Cu3S4Sp7dub_Sphindus_dubius_JX412803	XXXXXXXXXX	CP1Cu3S4Sp7dub_Sphindus_dubius_JX412803_MERGED
-X-----	CP1Cu3S14S50r7sur	XXXXXXXXXX	CP1Cu3S14S50r7sur_Oryzaephilus_surinamensis_Soil.idba.57	XXXXXXXXXX	CP1Cu3S14S50r7sur_Oryzaephilus_surinamensis_Soil.idba.57_MERGED

-XX-----XX-XXX	CP1Cu3S14S5S17uni	-----XXXXX-----	CP1Cu3S14S5S17uni_Silvanus_unidentatus_JX313687	-X-XXX-XXXXX-XXX	CP1Cu3S14S5S17uni_Silvanus_unidentatus_JX313687_MERGED
-XX-----X--XX-	CP1Cur3A4A5P6P17alb	--XXXXXXXXX-----	CP1Cur3A4A5P6P17alb_Platystomos_albinus_JN163968	-XXXXXXXXXXXX--XX-	CP1Cur3A4A5P6P17alb_Platystomos_albinus_JN163968_MERGED
-XX-----XX-	CP1Cur3AT4A5AT7nit	XXXXXXXXXXXXX-----	CP1Cur3AT4A5AT7nit_AtteLabus_nitens_ameie.idba.73	XXXXXXXXXXXXX-----XX-	CP1Cur3AT4A5AT7nit_AtteLabus_nitens_ameie.idba.73_MERGED
-X-----X-----	CP1Cur3AT4A5P7cor	-XXXXXXXXXXXXX-----	CP1Cur3AT4A5P7cor_Apoderus_coryli_JN163966	-XXXXXXXXXXXXX-----	CP1Cur3AT4A5P7cor_Apoderus_coryli_JN163966_MERGED
-X-----X-----	CP1Cur3AT4R5B7pop	--XXXXXXXXX-----	CP1Cur3AT4R5B7pop_Byctiscus_populi_NC_018760	-X-XXXXXXXX-----	CP1Cur3AT4R5B7pop_Byctiscus_populi_NC_018760_MERGED
-X-----XX-	CP1Cur3AT4R5De7bet	--XXXXXXXXXXXXX-----	CP1Cur3AT4R5De7bet_Deporaus_betulae_JN163945	-XXXXXXXXXXXXX-----XX-	CP1Cur3AT4R5De7bet_Deporaus_betulae_JN163945_MERGED
-X-----X-----	CP1Cur3AT4R5De7tri	XXXXXXXXXXXXX-----	CP1Cur3AT4R5De7tri_Deporaus_tristis_ameie.idba.109	XXXXXXXXXXXXX-----	CP1Cur3AT4R5De7tri_Deporaus_tristis_ameie.idba.109_MERGED
-XX-----X--XX-	CP1Cur3Br4A5Be7sim	XXXXXXXXXXXXXXXXX-----	CP1Cur3Br4A5Be7sim_Betulapion_simile_BIUK.idba.36	XXXXXXXXXXXXXXXXX-XX-	CP1Cur3Br4A5Be7sim_Betulapion_simile_BIUK.idba.36_MERGED
-X-----X-----	CP1Cur3Br4A5Pr7int	XXXXXXXXXXXXX-----	CP1Cur3Br4A5Pr7int_Protapion_interjectum_Soil.idba.118	XXXXXXXXXXXXX-----	CP1Cur3Br4A5Pr7int_Protapion_interjectum_Soil.idba.118_MERGED
-XX-----X-----	CP1Cur3Br4A5Pr7tri	XXXXXXXXXXXXXXXXX-----	CP1Cur3Br4A5Pr7tri_Protapion_trifolii_Soil.idba.58	XXXXXXXXXXXXXXXXX----	CP1Cur3Br4A5Pr7tri_Protapion_trifolii_Soil.idba.58_MERGED
-X-----XX-	CP1Cur3Br4A5Rh7lon	--XXXXXXXXXXXXX-----	CP1Cur3Br4A5Rh7lon_Rhopalapion_longirostre_JN163967	-XXXXXXXXXXXXX-----	CP1Cur3Br4A5Rh7lon_Rhopalapion_longirostre_JN163967_MERGED
-XX-----X--XX-	CP1Cur3Br4N5Na7mar	-----XXXXXXXXX-----	CP1Cur3Br4N5Na7mar_Nanophyes_marmoratus_Curc.idba.93	-X-XXXXXXXXXXXX-XX-	CP1Cur3Br4N5Na7mar_Nanophyes_marmoratus_Curc.idba.93_MERGED
-----XX-	CP1Cur3Bra4B5Br7mur	--XXXXXXXXXXXXX-----	CP1Cur3Bra4B5Br7mur_Brachycerus_muricatus_JN163970	--XXXXXXXXXXXX-XX-	CP1Cur3Bra4B5Br7mur_Brachycerus_muricatus_JN163970_MERGED
-X-----XXX	CP1Cur3Bra4B5Ha7DDM2009	-----XXXXXXXXX-----	CP1Cur3Bra4B5Ha7DDM2009_Haplonyx_spDDM-2009_Curc.idba.98	-X-----XXXXXXXX-XXX	CP1Cur3Bra4B5Ha7DDM2009_Haplonyx_spDDM-2009_Curc.idba.98_MERGED
-X-----X-----	CP1Cur3Bra4E5Do7tor	XXXXXXXXXXXXX-----	CP1Cur3Bra4E5Do7tor_Dorytomus_tortrix_ameie.idba.139	XXXXXXXXXXXXX-----	CP1Cur3Bra4E5Do7tor_Dorytomus_tortrix_ameie.idba.139_MERGED
-XX-----X--X-	CP1Cur3C4C5A6An7pom	--XXXXXXXXXXXXX-----	CP1Cur3C4C5A6An7pom_Anthonomus_pomorum_JN163951	-XXXXXXXXXXXX-XX-	CP1Cur3C4C5A6An7pom_Anthonomus_pomorum_JN163951_MERGED
-X-----X-----	CP1Cur3C4C5A6Bra7kel	XXXXXXXXXXXXX-----	CP1Cur3C4C5A6Bra7kel_Bradybatus_kellneri_ameie.idba.54	XXXXXXXXXXXXX-----	CP1Cur3C4C5A6Bra7kel_Bradybatus_kellneri_ameie.idba.54_MERGED
-XX-----X--X-	CP1Cur3C4C5C6Cu7ele	XXXXXXXXXXXXX-----	CP1Cur3C4C5C6Cu7ele_Curculio_elephas_ameie.idba.5	XXXXXXXXXXXXX-XX-	CP1Cur3C4C5C6Cu7ele_Curculio_elephas_ameie.idba.5_MERGED
-X-----X-X-XXX-	CP1Cur3C4C5C6Cu7gla	-----XXXXXXXXX-----	CP1Cur3C4C5C6Cu7gla_Curculio_glandium_BIUK.idba.52	-X-XXXXXXXXXXXXX-XX-	CP1Cur3C4C5C6Cu7gla_Curculio_glandium_BIUK.idba.52_MERGED
-----X-X--X-	CP1Cur3C4C5Eu6An7tar	XXXXXXXXXXXXXXXXX-----	CP1Cur3C4C5Eu6An7tar_Ancyrtalia_tarsalis_Curc.idba.45	XXXXXXXXXXXXXXXXX-XX-	CP1Cur3C4C5Eu6An7tar_Ancyrtalia_tarsalis_Curc.idba.45_MERGED
-X-X-----X-----	CP1Cur3C4C5M6Me7jan	--XXXXXXXXX-----	CP1Cur3C4C5M6Me7jan_Mecinus_janthinus_ameie.idba.143	-XXXXXXXX-----	CP1Cur3C4C5M6Me7jan_Mecinus_janthinus_ameie.idba.143_MERGED
-XX-----X-----	CP1Cur3C4Ce5Ce7obs	--XXXXXXXXXXXXX-----	CP1Cur3C4Ce5Ce7obs_Ceutorhynchus_obstrictus_JN163956	-XXXXXXXXXXXX-XX-	CP1Cur3C4Ce5Ce7obs_Ceutorhynchus_obstrictus_JN163956_MERGED
-X-----X-----	CP1Cur3C4Ce5Mon7pun	XXXXXXXXXXXXXXXXX-----	CP1Cur3C4Ce5Mon7pun_Mononychus_punctumalbum_Curc.idba.3	XXXXXXXXXXXXXXXXX----	CP1Cur3C4Ce5Mon7pun_Mononychus_punctumalbum_Curc.idba.3_MERGED
-XX-----X-----	CP1Cur3C4Ce5Rh7per	XXXXXXXXXXXXXXXXX-----	CP1Cur3C4Ce5Rh7per_Rhinoncus_pericarpus_Curc.idba.24	XXXXXXXXXXXXXXXXX----	CP1Cur3C4Ce5Rh7per_Rhinoncus_pericarpus_Curc.idba.24_MERGED
-X-----X--X-	CP1Cur3C4C15C17ole	--XXXXXXXXXXXXX-----	CP1Cur3C4C15C17ole_Cionus_olens_JN163958	-XXXXXXXXXXXX-XX-	CP1Cur3C4C15C17ole_Cionus_olens_JN163958_MERGED
-XX-----X--X-	CP1Cur3C4C15La7tur	--XXXXXXXXXXXXX-----	CP1Cur3C4C15La7tur_Larinus_turbinatus_JN163952	-XXXXXXXXXXXX-XX-	CP1Cur3C4C15La7tur_Larinus_turbinatus_JN163952_MERGED
-X-----X-----	CP1Cur3C4C5Co7cyc	XXXXXXXXXXXXXXXXX-----	CP1Cur3C4C5Co7cyc_Coptonotus_cyclopus_Curc.idba.67	XXXXXXXXXXXXXXXXX----	CP1Cur3C4C5Co7cyc_Coptonotus_cyclopus_Curc.idba.67_MERGED
-XX-----XX-	CP1Cur3C4Cr5Ac7mis	--XXXXXXXXXXXXX-----	CP1Cur3C4Cr5Ac7mis_Acalles_misellus_BIUK.idba.57	-X-XXXXXXXXXXXX-XX-	CP1Cur3C4Cr5Ac7mis_Acalles_misellus_BIUK.idba.57_MERGED
-XX-----XX-XX-	CP1Cur3C4Cr5Ac7pti	XXXXXXXXXXXXXXXXX-----	CP1Cur3C4Cr5Ac7pti_Acalles_ptinoides_BIUK.idba.42	XXXXXXXXXXXXXXXXX-XX-	CP1Cur3C4Cr5Ac7pti_Acalles_ptinoides_BIUK.idba.42_MERGED
-X-----XX-	CP1Cur3C4Cr5Ec7and	XXXXX-----	CP1Cur3C4Cr5Ec7and_Echinodera_andalusiensis_Soil.idba.193	XXXXX-----XX-	CP1Cur3C4Cr5Ec7and_Echinodera_andalusiensis_Soil.idba.193_MERGED
-X-----XX-	CP1Cur3C4Cr5Ky7aub	-XXXXXXXXXXXXX-----	CP1Cur3C4Cr5Ky7aub_Kyklioacalles_aubei_JN163957	XXXXXXXXXXXXX-----	CP1Cur3C4Cr5Ky7aub_Kyklioacalles_aubei_JN163957_MERGED
-X-----XX-	CP1Cur3C4Cr5Ky7rob	-----XXXXX-----	CP1Cur3C4Cr5Ky7rob_Kyklioacalles_roboris_BIUK.idba.79	-X-----XXXXX-----	CP1Cur3C4Cr5Ky7rob_Kyklioacalles_roboris_BIUK.idba.79_MERGED
-XX-----XXX-X-	CP1Cur3C4Cr5Ou7squ	XXXXXXXXXXXXXXXXX-----	CP1Cur3C4Cr5Ou7squ_Ouroproterus_squamiventris_Curc.idba.5	XXXXXXXXXXXXXXXXX-X-	CP1Cur3C4Cr5Ou7squ_Ouroproterus_squamiventris_Curc.idba.5_MERGED
-X-----X-----	CP1Cur3C4Cy5Di7man	XXXXXXXXXXXXX-----	CP1Cur3C4Cy5Di7man_Dichotrachelus_manueli_Curc.idba.88	XXXXXXXXXXXXX-----	CP1Cur3C4Cy5Di7man_Dichotrachelus_manueli_Curc.idba.88_MERGED
-XX-----XX-	CP1Cur3C4D5Co7sor	XXXXXXXXXXXXXXXXX-----	CP1Cur3C4D5Co7sor_Cosmopolites_sordidus_Curc.idba.8	XXXXXXXXXXXXXXXXX----	CP1Cur3C4D5Co7sor_Cosmopolites_sordidus_Curc.idba.8_MERGED
-XX-----XXX-	CP1Cur3C4D5Rhi7bar	XXXXXXXXXXXXXXXXX-----	CP1Cur3C4D5Rhi7bar_Rhinostomus_barbirostris_Panama.idba.10	XXXXXXXXXXXXXXXXX----	CP1Cur3C4D5Rhi7bar_Rhinostomus_barbirostris_Panama.idba.10_MERGED
-X-X-----XXX-	CP1Cur3C4D5Si7gra	--XXXXX-XX-----	CP1Cur3C4D5Si7gra_Sitophilus_granarius_JN163959	-XXXXX-XX-----XXXX	CP1Cur3C4D5Si7gra_Sitophilus_granarius_JN163959_MERGED
-XXX-----X-X--X-	CP1Cur3C4E5B6St7mel	--XXXXXXXXXXXXX-----	CP1Cur3C4E5B6St7mel_Strophosoma_melanogrammum_JN163949	-XXXXXXXXXXXX-XX-	CP1Cur3C4E5B6St7mel_Strophosoma_melanogrammum_JN163949_MERGED
-----XX-	CP1Cur3C4E5G6Ba7obs	-XXXXXXXXXXXXX-----	CP1Cur3C4E5G6Ba7obs_Barynotus_obscurus_JN163950	-XXXXXXXXXXXX-XX-	CP1Cur3C4E5G6Ba7obs_Barynotus_obscurus_JN163950_MERGED
XXXXXXXXXXXX-XXXX	CP1Cur3C4E5N6Na7xan	XXXXXXXXXXXXXXXXX-----	CP1Cur3C4E5N6Na7xan_Naupactus_xanthographus_NC_018354	XXXXXXXXXXXXXXXXX----	CP1Cur3C4E5N6Na7xan_Naupactus_xanthographus_NC_018354_MERGED
-X-X-----X-----	CP1Cur3C4E5Ot60T7mor	XXXXXXXXXXXXX-----	CP1Cur3C4E5Ot60T7mor_Otiorhynchus_morio_ameie.idba.90	XXXXXXXXXXXXX-----X-	CP1Cur3C4E5Ot60T7mor_Otiorhynchus_morio_ameie.idba.90_MERGED
-XXX-----X-----	CP1Cur3C4E5Ot60T7rug	--XXXXXXXXXXXXX-----	CP1Cur3C4E5Ot60T7rug_Otiorhynchus_rugosostriatus_JN163969	-XXXXXXXXXXXX-----	CP1Cur3C4E5Ot60T7rug_Otiorhynchus_rugosostriatus_JN163969_MERGED
-XXX-----X-XXXX-	CP1Cur3C4E5Ot60T7sul	XXXXXXXXXXXXXXXXX-----	CP1Cur3C4E5Ot60T7sul_Otiorhynchus_sulcatus_Curc.idba.36	XXXXXXXXXXXXXXXXX----	CP1Cur3C4E5Ot60T7sul_Otiorhynchus_sulcatus_Curc.idba.36_MERGED
-X-----X-----	CP1Cur3C4E5Po6P7mar	--XXXXXXXXXXXXX-----	CP1Cur3C4E5Po6P7mar_Polydrusus_marginatus_JN039360	-XXXXXXXXXXXX-----	CP1Cur3C4E5Po6P7mar_Polydrusus_marginatus_JN039360_MERGED
-XX-----X-----	CP1Cur3C4E5S6Si7dis	XXXXXXXXXXXXXXXXX-----	CP1Cur3C4E5S6Si7dis_Sitona_discoideus_Soil.idba.86	XXXXXXXXXXXXXXXXX-XX-	CP1Cur3C4E5S6Si7dis_Sitona_discoideus_Soil.idba.86_MERGED
-XX-----X--X-	CP1Cur3C4E5S6Si7lin	--XXXXXXXXXXXXX-----	CP1Cur3C4E5S6Si7lin_Sitona_lineatus_JN163948	-XXXXXXXXXXXX-XX-	CP1Cur3C4E5S6Si7lin_Sitona_lineatus_JN163948_MERGED
-X-----X-----	CP1Cur3C4E5T6T77ele	XXXXXXXXXXXXX-----	CP1Cur3C4E5T6T77ele_Tropiphorus_elevatus_ameie.idba.114	XXXXXXXXXXXXX-----	CP1Cur3C4E5T6T77ele_Tropiphorus_elevatus_ameie.idba.114_MERGED
-----XXX-	CP1Cur3C4H5Hy7bru	XXXXXXXXXXXXXXXXX-----	CP1Cur3C4H5Hy7bru_Hypera_brunneipennis_Soil.idba.79	XXXXXXXXXXXXXXXXX----	CP1Cur3C4H5Hy7bru_Hypera_brunneipennis_Soil.idba.79_MERGED
-XX-----XXXXX-	CP1Cur3C4H5Hy7pos	--XXXXXXXXXXXXX-----	CP1Cur3C4H5Hy7pos_Hypera_postica_JN163953	-XXXXXXXXXXXXXXXXX----	CP1Cur3C4H5Hy7pos_Hypera_postica_JN163953_MERGED
-XX-----X-----	CP1Cur3C4M5H6Hy7abi	--XXXXXXXXXXXXX-----	CP1Cur3C4M5H6Hy7abi_Hylobius_abietis_JN163954	-XXXXXXXXXXXX-----	CP1Cur3C4M5H6Hy7abi_Hylobius_abietis_JN163954_MERGED
XXXXXXXX-XXXX-	CP1Cur3C4M5H6Hy17xia	XXXXXXXXXXXXXXXXX-----	CP1Cur3C4M5H6Hy17xia_Hylobitelus_xiaoi_NC_022680	XXXXXXXXXXXXXXXXX----	CP1Cur3C4M5H6Hy17xia_Hylobitelus_xiaoi_NC_022680_MERGED
-X-----X-----	CP1Cur3C4M5P6P17pin	XXXXXXXXXXXXXXXXX-----	CP1Cur3C4M5P6P17pin_Pissodes_pini_Curc.idba.48	XXXXXXXXXXXXXXXXX----	CP1Cur3C4M5P6P17pin_Pissodes_pini_Curc.idba.48_MERGED
-X-----X-----	CP1Cur3C4P6Dia7uni	XXXXXXXXXXXXXXXXX-----	CP1Cur3C4P6Dia7uni_Diapus_unispneus_Curc.idba.33	XXXXXXXXXXXXXXXXX----	CP1Cur3C4P6Dia7uni_Diapus_unispneus_Curc.idba.33_MERGED
-XX-----XXX-	CP1Cur3C4P6Eu7par	XXXXXXXXXXXXXXXXX-----	CP1Cur3C4P6Eu7par_Euplatypus_parallelus_Scoly.idba.25	XXXXXXXXXXXXXXXXX----	CP1Cur3C4P6Eu7par_Euplatypus_parallelus_Scoly.idba.25_MERGED
-XX-----XX-	CP1Cur3C4P6P17cyl	XXXXXXXXXXXXXXXXX-----	CP1Cur3C4P6P17cyl_Platypus_cylindrus_Curc.idba.22	XXXXXXXXXXXXXXXXX-XX-	CP1Cur3C4P6P17cyl_Platypus_cylindrus_Curc.idba.22_MERGED

-XX-----X--XX-	CP1Cur3C4Po5Li7tes	--XXXXXXXXX-----	CP1Cur3C4Po5Li7tes_Liophloeus_tessulatus_JN163947	-XXXXXXXXXXXX--XX-	CP1Cur3C4Po5Li7tes_Liophloeus_tessulatus_JN163947_MERGED
-XX-----X-----	CP1Cur3C4Rh5Rh7que	XXXXXXXXXXXXXXXXX----	CP1Cur3C4Rh5Rh7que_Rhynchaenus_quercus_BIUK.idba.11	XXXXXXXXXXXXXXXXX----	CP1Cur3C4Rh5Rh7que_Rhynchaenus_quercus_BIUK.idba.11_MERGED
-X-----X-----	CP1Cur3C4S5An7dis	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5An7dis_Anisandrus_dispr_Scoly.idba.47	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5An7dis_Anisandrus_dispr_Scoly.idba.47_MERGED
-XX-----XX---	CP1Cur3C4S5Co7cyp	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Co7cyp_Coccotrypes_cyper_i FG.idba.60	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Co7cyp_Coccotrypes_cyper_i FG.idba.60_MERGED
-X-----X-----	CP1Cur3C4S5Co7rub	XXXXXXXXX-----	CP1Cur3C4S5Co7rub_Corthylus_rubricollis_Curc.idba.99	XXXXXXXXX-----X---	CP1Cur3C4S5Co7rub_Corthylus_rubricollis_Curc.idba.99_MERGED
-X-----X-----	CP1Cur3C4S5Cr7sal	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Cr7sal_Cryphalus_saltuarius_Curc.idba.19	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Cr7sal_Cryphalus_saltuarius_Curc.idba.19_MERGED
-X-----X-----	CP1Cur3C4S5Cry7pus	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Cry7pus_Crypturgus_pusillus_Curc.idba.42	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Cry7pus_Crypturgus_pusillus_Curc.idba.42_MERGED
-X-----X-----	CP1Cur3C4S5Cyc7bod	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Cyc7bod_Cyclorhipidion_bodoanus_Scoly.idba.52	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Cyc7bod_Cyclorhipidion_bodoanus_Scoly.idba.52_MERGED
-X-----X-----	CP1Cur3C4S5Di7ine	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Di7ine_Diamerus_inermis_Curc.idba.58	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Di7ine_Diamerus_inermis_Curc.idba.58_MERGED
-XX-----XXXX-	CP1Cur3C4S5Dry7aut	-----XXXX---	CP1Cur3C4S5Dry7aut_Dryocoetes_autographus_Curc.idba.118	-XX-----XXXXXXX-	CP1Cur3C4S5Dry7aut_Dryocoetes_autographus_Curc.idba.118_MERGED
-X-----X-----	CP1Cur3C4S5Dry7vil	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Dry7vil_Dryocoetes_villosus_Scoly.idba.38	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Dry7vil_Dryocoetes_villosus_Scoly.idba.38_MERGED
-X-----X-----	CP1Cur3C4S5Ern7fag	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Ern7fag_Ernoporicus_fagi_ameie.idba.75	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Ern7fag_Ernoporicus_fagi_ameie.idba.75_MERGED
-XX-----X---	CP1Cur3C4S5Gna7mat	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Gna7mat_Gnathotrichus_materiarius_Scoly.idba.22	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Gna7mat_Gnathotrichus_materiarius_Scoly.idba.22_MERGED
-X-----XXX-	CP1Cur3C4S5Hyla7ate	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Hyla7ate_Hylastes_ater_Scoly.idba.54	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Hyla7ate_Hylastes_ater_Scoly.idba.54_MERGED
-X-----XXX-	CP1Cur3C4S5Hyla7att	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Hyla7att_Hylastes_attenuatus_Scoly.idba.12	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Hyla7att_Hylastes_attenuatus_Scoly.idba.12_MERGED
-X-----XXX-	CP1Cur3C4S5Hyla7bru	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Hyla7bru_Hylastes_brunneus_Scoly.idba.41	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Hyla7bru_Hylastes_brunneus_Scoly.idba.41_MERGED
-X-----XXX-	CP1Cur3C4S5Hyla7opa	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Hyla7opa_Hylastes_opacus_Curc.idba.62	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Hyla7opa_Hylastes_opacus_Curc.idba.62_MERGED
-X-----XXX-	CP1Cur3C4S5Hyle7var	--XXXXX-----	CP1Cur3C4S5Hyle7var_Hylesinus_varius_ameie.idba.170	-XXXXXX-----XXX-	CP1Cur3C4S5Hyle7var_Hylesinus_varius_ameie.idba.170_MERGED
-X-----X-XXX-	CP1Cur3C4S5Hylur7pal	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Hylur7pal_Hylurgops_palliatus_Scoly.idba.48	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Hylur7pal_Hylurgops_palliatus_Scoly.idba.48_MERGED
-X-----X---	CP1Cur3C4S5Hyp7fic	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Hyp7fic_Hypoborus_ficus_Curc.idba.77	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Hyp7fic_Hypoborus_ficus_Curc.idba.77_MERGED
-XX-----X-XXX-	CP1Cur3C4S5Ip7acu	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Ip7acu_Ips_acuminatus_Curc.idba.2	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Ip7acu_Ips_acuminatus_Curc.idba.2_MERGED
-XX-----X-XXX-	CP1Cur3C4S5Ip7cem	--XXX---XXX-----	CP1Cur3C4S5Ip7cem_Ips_cembrae_JN163961	-XXX---XXX-----XXX-	CP1Cur3C4S5Ip7cem_Ips_cembrae_JN163961_MERGED
-XX-----X-XXX-	CP1Cur3C4S5Ip7sex	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Ip7sex_Ips_sexdentatus_Scoly.idba.4	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Ip7sex_Ips_sexdentatus_Scoly.idba.4_MERGED
-XX-----X-XX-	CP1Cur3C4S5Or7lar	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Or7lar_Orthotomicus_laricis_Scoly.idba.3	XXXXXXXXXXXXXXXXX-XX-	CP1Cur3C4S5Or7lar_Orthotomicus_laricis_Scoly.idba.3_MERGED
-X-----X-X---	CP1Cur3C4S5P17qua	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5P17qua_Pityogenes_quadridens_Scoly.idba.23	XXXXXXXXXXXXXXXXX-X	CP1Cur3C4S5P17qua_Pityogenes_quadridens_Scoly.idba.23_MERGED
-XX-----XXXX-	CP1Cur3C4S5P17tre	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5P17tre_Pityogenes_trepanatus_Scoly.idba.5	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5P17tre_Pityogenes_trepanatus_Scoly.idba.5_MERGED
-X-----X---	CP1Cur3C4S5P17mic	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5P17mic_Pityophthorus_micrographus_Curc.idba.39	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5P17mic_Pityophthorus_micrographus_Curc.idba.39_MERGED
-X-----X---	CP1Cur3C4S5P17pub	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5P17pub_Pityophthorus_pubescens_Scoly.idba.14	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5P17pub_Pityophthorus_pubescens_Scoly.idba.14_MERGED
-XX-----X---	CP1Cur3C4S5Po7pol	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Po7pol_Polygraphus_poligraphus_Curc.idba.16	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Po7pol_Polygraphus_poligraphus_Curc.idba.16_MERGED
-XX-----X-XX-X	CP1Cur3C4S5Pr7cav	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Pr7cav_Premnobius_cavipennis_Curc.idba.4	XXXXXXXXXXXXXXXXX-X	CP1Cur3C4S5Pr7cav_Premnobius_cavipennis_Curc.idba.4_MERGED
-XX-----XX---	CP1Cur3C4S5Sa7dam	XXXXXXXXX-----	CP1Cur3C4S5Sa7dam_Sampsonius_dampfi_Scoly.idba.59	XXXXXXXXX-----XX---	CP1Cur3C4S5Sa7dam_Sampsonius_dampfi_Scoly.idba.59_MERGED
-X-----X---	CP1Cur3C4S5Scol7sco	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Scol7sco_Scolytus_scolytus_Curc.idba.23	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Scol7sco_Scolytus_scolytus_Curc.idba.23_MERGED
-X-----XXX-	CP1Cur3C4S5Te7dew	-XXXXXXXX-----	CP1Cur3C4S5Te7dew_Tesserocerus_dewalquei_Curc.idba.95	-XXXXXXXX-----XXX-	CP1Cur3C4S5Te7dew_Tesserocerus_dewalquei_Curc.idba.95_MERGED
-XX-----XXXX-	CP1Cur3C4S5To7pin	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5To7pin_Tomicus_piniperda_Scoly.idba.17	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5To7pin_Tomicus_piniperda_Scoly.idba.17_MERGED
-X-----X---	CP1Cur3C4S5Tr7dom	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Tr7dom_Trypodendron_domesticum_Scoly.idba.7	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Tr7dom_Trypodendron_domesticum_Scoly.idba.7_MERGED
-XX-----X---	CP1Cur3C4S5Tr7sig	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Tr7sig_Trypodendron_signatum_Scoly.idba.49	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Tr7sig_Trypodendron_signatum_Scoly.idba.49_MERGED
-XX-----XXX-	CP1Cur3C4S5Xy7saxe	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Xy7saxe_Xyleborinus_saxesenii_Scoly.idba.28	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Xy7saxe_Xyleborinus_saxesenii_Scoly.idba.28_MERGED
-XX-----XX---	CP1Cur3C4S5Xyl7aff	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Xyl7aff_Xyleborus_affinis_Scoly.idba.33	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Xyl7aff_Xyleborus_affinis_Scoly.idba.33_MERGED
-XX-----XX---	CP1Cur3C4S5Xyl7per	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Xyl7per_Xyleborus_perforans_Scoly.idba.27	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Xyl7per_Xyleborus_perforans_Scoly.idba.27_MERGED
-X-----X---	CP1Cur3C4S5Xyl7vol	XXXXXXXXX-----	CP1Cur3C4S5Xyl7vol_Xyleborus_volvulus_Scoly.idba.63	XXXXXXXXX-----X---	CP1Cur3C4S5Xyl7vol_Xyleborus_volvulus_Scoly.idba.63_MERGED
-X-----X---	CP1Cur3C4S5Xyl7com	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Xyl7com_Xylosandrus_compactus_FG.idba.55	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Xyl7com_Xylosandrus_compactus_FG.idba.55_MERGED
-XX-----XX---	CP1Cur3C4S5Xyl7cra	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Xyl7cra_Xylosandrus_crassiusculus_Scoly.idba.34	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Xyl7cra_Xylosandrus_crassiusculus_Scoly.idba.34_MERGED
-XX-----X---	CP1Cur3C4S5Xyl7ger	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Xyl7ger_Xylosandrus_germanus_Scoly.idba.35	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Xyl7ger_Xylosandrus_germanus_Scoly.idba.35_MERGED
-X-----X---	CP1Cur3C4S5Xyl7mor	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Xyl7mor_Xylosandrus_morigerus_Scoly.idba.37	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Xyl7mor_Xylosandrus_morigerus_Scoly.idba.37_MERGED
-X-----X---	CP1Cur3C4S5Xyl7mac	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Xyl7mac_Xyloctonus_maculatus_Curc.idba.71	XXXXXXXXXXXXXXXXX----	CP1Cur3C4S5Xyl7mac_Xyloctonus_maculatus_Curc.idba.71_MERGED
-XX-----XX---	CP1Cur3C4T5Ty7pus	XXXXXXXXXXXXXXXXX----	CP1Cur3C4T5Ty7pus_Tychius_pusillus_Soil.idba.71	XXXXXXXXXXXXXXXXX----	CP1Cur3C4T5Ty7pus_Tychius_pusillus_Soil.idba.71_MERGED
-X-----X-XXX-	CP1Cur3M4Do7aus	-XXXXXXXXXXXX-----	CP1Cur3M4Do7aus_Doydirhynchus_austriacus_JN163964	-XXXXXXXXXXXX-----XXX-	CP1Cur3M4Do7aus_Doydirhynchus_austriacus_JN163964_MERGED
-XX-----XX-XX-XXX	CP1D3D4Da7cer	--XXXXXXXXX-----	CP1D3D4Da7cer_Dascillus_cervinus_JQ034414	-XXXXXXXXXXXX-----XXX	CP1D3D4Da7cer_Dascillus_cervinus_JQ034414_MERGED
-XX-----XXXX-	CP1E3C4C5Ca7pel	-XXXXXXXXXXXX-----	CP1E3C4C5Ca7pel_Cantharis_pellucida_HQ232817	-XXXXXXXXXXXX-----XXXX-	CP1E3C4C5Ca7pel_Cantharis_pellucida_HQ232817_MERGED
-X-----X---	CP1E3C4C5Ca7tri	-XXXXXXXXXXXX-----	CP1E3C4C5Ca7tri_Cantharis_tristis_ameie.idba.95	-XXXXXXXXXXXX-----X---	CP1E3C4C5Ca7tri_Cantharis_tristis_ameie.idba.95_MERGED
XXXXXXXXXX-XXXXXX	CP1E3C4Ch5Ch7opa	XXXXXXXXXXXXXXXXX----	CP1E3C4Ch5Ch7opa_Chauliognathus_opacus_NC_013576	XXXXXXXXXXXXXXXXX----	CP1E3C4Ch5Ch7opa_Chauliognathus_opacus_NC_013576_MERGED
-X-----X---	CP1E3C4M5Ma7bal	XXXXXXXXXXXXXXXXX----	CP1E3C4M5Ma7bal_Malthinus_balteatus_Soil.idba.38	XXXXXXXXXXXXXXXXX----	CP1E3C4M5Ma7bal_Malthinus_balteatus_Soil.idba.38_MERGED
-XX-----XX---	CP1E3C4M5Ma7mar	XXXXXXX-----	CP1E3C4M5Ma7mar_Malthodes_marginatus_BIUK.idba.61	XXXXXXX-----XXXX-	CP1E3C4M5Ma7mar_Malthodes_marginatus_BIUK.idba.61_MERGED
-XX-----XX-XXX	CP1E3D4Dr7fla	XXXXXXXXXXXXXXXXX----	CP1E3D4Dr7fla_Drilus_flavescens_HQ232815	XXXXXXXXXXXXXXXXX-XXX	CP1E3D4Dr7fla_Drilus_flavescens_HQ232815_MERGED
XXXX-XXXXX-X-X---	CP1E3E4A5Py7div	XXXXXXXXXXXXXXXXX----	CP1E3E4A5Py7div_Pyrophorus_divergens_NC_009964	XXXXXXXXXXXXXXXXX----	CP1E3E4A5Py7div_Pyrophorus_divergens_NC_009964_MERGED

-XX-----XX-XXX	CP1E3E4C5D1c7cin	-XXXXXXXXXX-----	CP1E3E4C5D1c7cin_Dicronychus_cinereus_amie.idba.96	-XXXXXXXXXXXX-XXX	CP1E3E4C5D1c7cin_Dicronychus_cinereus_amie.idba.96_MERGED
-X-----	CP1E3E4D5Ca7bip	XXXXXXXXXXXXXXXX-----	CP1E3E4D5Ca7bip_Calambus_bipustulatus_BIUK.idba.31	XXXXXXXXXXXXXXXX-----	CP1E3E4D5Ca7bip_Calambus_bipustulatus_BIUK.idba.31_MERGED
-X-----	CP1E3E4D5Hyp7inu	XXXXXXXXXXXXXXXX-----	CP1E3E4D5Hyp7inu_Hypoganus_inunctus_amie.idba.58	XXXXXXXXXXXXXXXX-----	CP1E3E4D5Hyp7inu_Hypoganus_inunctus_amie.idba.58_MERGED
-XX-----XX-XXX	CP1E3E4D5PH7que	XXXXXXXXXX-----	CP1E3E4D5PH7que_Pheletes_quercus_amie.idba.137	XXXXXXXXXX-----XX-XXX	CP1E3E4D5PH7que_Pheletes_quercus_amie.idba.137_MERGED
-X-----	CP1E3E4De5An7cas	XXXXXXXXXXXXXXXX-----	CP1E3E4De5An7cas_Anostirus_castaneus_amie.idba.28	XXXXXXXXXXXXXXXX-----	CP1E3E4De5An7cas_Anostirus_castaneus_amie.idba.28_MERGED
-XX-----XX-XXX	CP1E3E4De5At7hae	XXXXXXXXXXXXXXXX-----	CP1E3E4De5At7hae_Athous_haemorrhoidalis_2VGB.idba.8	XXXXXXXXXXXXXXXX-----XXX	CP1E3E4De5At7hae_Athous_haemorrhoidalis_2VGB.idba.8_MERGED
-XX-----	CP1E3E4De5Lim7min	XXXXXXXXXXXXXXXX-----	CP1E3E4De5Lim7min_Limonius_minutus_amie.idba.27	XXXXXXXXXXXXXXXX-----	CP1E3E4De5Lim7min_Limonius_minutus_amie.idba.27_MERGED
-X-----	CP1E3E4E5Ad7rac	XXXXXXXXXXXXXXXX-----	CP1E3E4E5Ad7rac_Adrastus_rachifer_amie.idba.32	XXXXXXXXXXXXXXXX-----	CP1E3E4E5Ad7rac_Adrastus_rachifer_amie.idba.32_MERGED
-XX-----XX-XXX	CP1E3E4E5Ag7obs	XXXXXXXXXXXXXXXX-----	CP1E3E4E5Ag7obs_Agriotes_obscurus_2VGB.idba.10	XXXXXXXXXXXXXXXX-----XXX	CP1E3E4E5Ag7obs_Agriotes_obscurus_2VGB.idba.10_MERGED
-XX-----XX-XXX	CP1E3E4E5Ag7ust	-XXXXXXXXXXXX-----	CP1E3E4E5Ag7ust_Agriotes_ustulatus_JX412737	-XXXXXXXXXXXX-----XXX	CP1E3E4E5Ag7ust_Agriotes_ustulatus_JX412737_MERGED
-X-----	CP1E3E4E5Da7mar	XXXXXXXXXXXXXXXX-----	CP1E3E4E5Da7mar_Dalopius_marginatus_BIUK.idba.34	XXXXXXXXXXXXXXXX-----	CP1E3E4E5Da7mar_Dalopius_marginatus_BIUK.idba.34_MERGED
-X-----	CP1E3E4E5Id7pic	XXXXXXXXXXXXXXXX-----	CP1E3E4E5Id7pic_Idolus_picipennis_amie.idba.67	XXXXXXXXXXXXXXXX-----	CP1E3E4E5Id7pic_Idolus_picipennis_amie.idba.67_MERGED
-XX-----XX-XXX	CP1E3E4M5Me7vil	XXXXXXXXXXXXXXXX-----	CP1E3E4M5Me7vil_Melanotus_villosus_2VGB.idba.11	XXXXXXXXXXXXXXXX-----XXX	CP1E3E4M5Me7vil_Melanotus_villosus_2VGB.idba.11_MERGED
-X-----	CP1E3E4N5Ne7sab	XXXXXX-----	CP1E3E4N5Ne7sab_Negastrius_sabulicola_amie.idba.161	XXXXXX-----	CP1E3E4N5Ne7sab_Negastrius_sabulicola_amie.idba.161_MERGED
-XX-----XX-XXX	CP1E3Eu4Me7bup	XXXXXXXXXXXXXXXX-----	CP1E3Eu4Me7bup_Melasis_buprestoides_amie.idba.87	XXXXXXXXXXXXXXXX-----XXX	CP1E3Eu4Me7bup_Melasis_buprestoides_amie.idba.87_MERGED
-XX-----X--XX-	CP1E3L4L5La7noc	XXXXXXXXXXXXXXXX-----	CP1E3L4L5La7noc_Lampyrus_noctiluca_amie.idba.10	XXXXXXXXXXXXXXXX-----XX-	CP1E3L4L5La7noc_Lampyrus_noctiluca_amie.idba.10_MERGED
XXXXXXXXXXXX-XXX---	CP1E3L4L5Py7ruf	XXXXXXXXXXXXXXXX-----	CP1E3L4L5Py7ruf_Pyrocoelia_rufa_NC_003970	XXXXXXXXXXXXXXXX-----	CP1E3L4L5Py7ruf_Pyrocoelia_rufa_NC_003970_MERGED
XXXXXXXXXXXX-X----	CP1E3L4Lu5Aq7lei	XXXXXXXXXXXXXXXX-----	CP1E3L4Lu5Aq7lei_Aquatica_lei_NC_025276	XXXXXXXXXXXXXXXX-----	CP1E3L4Lu5Aq7lei_Aquatica_lei_NC_025276_MERGED
XXXXXXXXXXXX-XXX---	CP1E3L4Lu5Lu7cru	XXXXXXXXXXXXXXXX-----	CP1E3L4Lu5Lu7cru_Luciola_cruciata_NC_022472	XXXXXXXXXXXXXXXX-----	CP1E3L4Lu5Lu7cru_Luciola_cruciata_NC_022472_MERGED
-XX-----X--XXX	CP1E3Ly4Be7tay	XXXXXXXXXXXXXXXX-----	CP1E3Ly4Be7tay_Benibotarus_taygetanus_amie.idba.23	XXXXXXXXXXXXXXXX-----XXX	CP1E3Ly4Be7tay_Benibotarus_taygetanus_amie.idba.23_MERGED
-XX-----X--XXX	CP1E3Ly4Dic7aur	XXXXXXXXXXXXXXXX-----	CP1E3Ly4Dic7aur_Dictyoptera_aurora_JX412733	XXXXXXXXXXXXXXXX-----XXX	CP1E3Ly4Dic7aur_Dictyoptera_aurora_JX412733_MERGED
-X-----X-X--XX-	CP1E3Ly4Li7gra	-----XXXXXXXX-----	CP1E3Ly4Li7gra_Libnetis_granicollis_JX412813	-X-----XXXXXXXX-XX-	CP1E3Ly4Li7gra_Libnetis_granicollis_JX412813_MERGED
-XX-----X--XXX	CP1E3Ly4Pl7cos	XXXXXXXXXX-----	CP1E3Ly4Pl7cos_Platycis_cosnardi_amie.idba.135	XXXXXXXXXX-----X--XXX	CP1E3Ly4Pl7cos_Platycis_cosnardi_amie.idba.135_MERGED
-XX-----X-XX-XXX	CP1E3040m7fon	-XXXXXXXXXXXX-----	CP1E3040m7fon_Omalisus_fontisbellaquei_JX412744	-XXXXXXXXXXXX-----XXX	CP1E3040m7fon_Omalisus_fontisbellaquei_JX412744_MERGED
-X-----X--XXX	CP1E30m4Dr7str	-XXXXXXXXXXXX-----	CP1E30m4Dr7str_Drilonius_striatulus_JX412822	-XXXXXXXXXXXX-----XXX	CP1E30m4Dr7str_Drilonius_striatulus_JX412822_MERGED
XXXXXXX-XXXXX---	CP1E3P4R5Rh7luf	XXXXXXXXXXXXXXXX-----	CP1E3P4R5Rh7luf_Rhagophthalmus_lufengensis_NC_010969	XXXXXXXXXXXXXXXX-----	CP1E3P4R5Rh7luf_Rhagophthalmus_lufengensis_NC_010969_MERGED
XXXXXXXXXXXX-XXX-	CP1E3P4R5Rh7ohb	XXXXXXXXXXXXXXXX-----	CP1E3P4R5Rh7ohb_Rhagophthalmus_ohbai_NC_010964	XXXXXXXXXXXXXXXX-----X-	CP1E3P4R5Rh7ohb_Rhagophthalmus_ohbai_NC_010964_MERGED
-XX-----X--XXX	CP1E3T4Tr7der	XXXXXXXXXXXXXXXX-----	CP1E3T4Tr7der_Trixaqus_dermestoides_BIUK.idba.35	XXXXXXXXXXXXXXXX-----XXX	CP1E3T4Tr7der_Trixaqus_dermestoides_BIUK.idba.35_MERGED
-X-----	CP1H3H4H5Be7aff	XXXXXXXXXXXXXXXX-----	CP1H3H4H5Be7aff_Berosus_affinis_1VWB.idba.9	XXXXXXXXXXXXXXXX-----	CP1H3H4H5Be7aff_Berosus_affinis_1VWB.idba.9_MERGED
-XX-----X-X-XXX	CP1H3H4H5Cy7mar	XXXXXXXXXXXXXXXX-----	CP1H3H4H5Cy7mar_Cymbiodyta_marginella_amie.idba.89	XXXXXXXXXXXXXXXX-----XXX	CP1H3H4H5Cy7mar_Cymbiodyta_marginella_amie.idba.89_MERGED
-XX-----	CP1H3H4S5Ce7uni	XXXXXXXXXXXXXXXX-----	CP1H3H4S5Ce7uni_Cercyon_unipunctatus_amie.idba.9	XXXXXXXXXXXXXXXX-----	CP1H3H4S5Ce7uni_Cercyon_unipunctatus_amie.idba.9_MERGED
-XXX-----XX-	CP1H3H4S5Cr7min	XXXXXXXXXXXXXXXX-----	CP1H3H4S5Cr7min_Cryptopleurum_minutum_Staph.idba.52	XXXXXXXXXXXXXXXX-----X-	CP1H3H4S5Cr7min_Cryptopleurum_minutum_Staph.idba.52_MERGED
-X-----	CP1H3H4S5Da7abd	XXXXXXXXXXXXXXXX-----	CP1H3H4S5Da7abd_Dactylosternum_abdominale_amie.idba.74	XXXXXXXXXXXXXXXX-----	CP1H3H4S5Da7abd_Dactylosternum_abdominale_amie.idba.74_MERGED
-XX-----X-X-XXX	CP1H3H4S5Sp7bip	XXXXXXXXXXXXXXXX-----	CP1H3H4S5Sp7bip_Sphaeridium_bipustulatum_Staph.idba.49	XXXXXXXXXXXXXXXX-----XXX	CP1H3H4S5Sp7bip_Sphaeridium_bipustulatum_Staph.idba.49_MERGED
-XX-----XXX-XX-	CP1H3Hy4Hy7car	XXXXXXXXXXXXXXXX-----	CP1H3Hy4Hy7car_Hydrochus_carinatus_729517_idba_contig_25	XXXXXXXXXXXXXXXX-----X-	CP1H3Hy4Hy7car_Hydrochus_carinatus_729517_idba_contig_25_MERGED
-X-----	CP1H13H4D5P6Ki7min	XXXXXXXXXXXXXXXX-----	CP1H13H4D5P6Ki7min_Kissister_minimus_Soil.idba.27	XXXXXXXXXXXXXXXX-----X-	CP1H13H4D5P6Ki7min_Kissister_minimus_Soil.idba.27_MERGED
-XX-----XXX	CP1H13H4D5P6Pa7f1a	-XXXXXXXXXXXX-----	CP1H13H4D5P6Pa7f1a_Paromalus_flavicornis_JX412766	-XXXXXXXXXXXX-----XXX	CP1H13H4D5P6Pa7f1a_Paromalus_flavicornis_JX412766_MERGED
-X-----	CP1H13H4H5Hi6Mar7mer	XXXXXXXXXXXXXXXX-----	CP1H13H4H5Hi6Mar7mer_Margarinotus_merdarius_Staph.idba.57	XXXXXXXXXXXXXXXX-----	CP1H13H4H5Hi6Mar7mer_Margarinotus_merdarius_Staph.idba.57_MERGED
XXXXXXXXXXXX-XXX-	CP1H13H4S5Eu7sci	XXXXXXXXXXXXXXXX-----	CP1H13H4S5Eu7sci_Euspilotus_scissus_NC_018353	XXXXXXXXXXXXXXXX-----X-	CP1H13H4S5Eu7sci_Euspilotus_scissus_NC_018353_MERGED
-XX-----XXX	CP1L3L4Hy7der	-XXXXXXXXXXXX-----	CP1L3L4Hy7der_Hylecoetus_dermestoides_HQ232820	-XXXXXXXXXXXX-----XXX	CP1L3L4Hy7der_Hylecoetus_dermestoides_HQ232820_MERGED
-XX-----XX-XX-	CP1L3L4Ly7nav	XXXXXXXXXXXXXXXX-----	CP1L3L4Ly7nav_Lymexylon_navale_idba.55	XXXXXXXXXXXXXXXX-----X-	CP1L3L4Ly7nav_Lymexylon_navale_idba.55_MERGED
-X-----XX-XX-	CP1S3H4Me7MEM1	XXXXXXXXXXXXXXXX-----	CP1S3H4Me7MEM1_Meropathus_MEM1_675618_idba_contig_21	XXXXXXXXXXXXXXXX-----X-	CP1S3H4Me7MEM1_Meropathus_MEM1_675618_idba_contig_21_MERGED
-X-----XX-	CP1S3L4C5Ag7lab	-XXXXXXXXXXXX-----	CP1S3L4C5Ag7lab_Agyrtodes_labralis_JX412779	-XXXXXXXXXXXX-----X-	CP1S3L4C5Ag7lab_Agyrtodes_labralis_JX412779_MERGED
-X-----	CP1S3L4Ch5Ca7cor	XXXXXXXXXXXXXXXX-----	CP1S3L4Ch5Ca7cor_Catops_coracinus_BIUK.idba.2	XXXXXXXXXXXXXXXX-----	CP1S3L4Ch5Ca7cor_Catops_coracinus_BIUK.idba.2_MERGED
-X-----XX-XXX	CP1S3L4Ch5Es7jea	XXXXXX-----	CP1S3L4Ch5Es7jea_Espnoliella_jeanneli_Staph.idba.86	XXXXXX-----XX-XXX	CP1S3L4Ch5Es7jea_Espnoliella_jeanneli_Staph.idba.86_MERGED
-XX-----XX-XX-	CP1S3L4Ch5Na7ve1	-XXXXXXXXXXXX-----	CP1S3L4Ch5Na7ve1_Nargus_velox_JX313674	-XXXXXXXXXXXX-----X-	CP1S3L4Ch5Na7ve1_Nargus_velox_JX313674_MERGED
-X-----XX-----	CP1S3L4Ch5Pha7fra	XXXXXXXXXXXXXXXX-----	CP1S3L4Ch5Pha7fra_Phacomorphus_fratryi_Staph.idba.18	XXXXXXXXXXXXXXXX-----	CP1S3L4Ch5Pha7fra_Phacomorphus_fratryi_Staph.idba.18_MERGED
-X-----XX-X-X-	CP1S3L4Ch5Pt7ten	XXXXXXXXXXXXXXXX-----	CP1S3L4Ch5Pt7ten_Ptomaphagus_tenuicornis_Soil.idba.24	XXXXXXXXXXXXXXXX-----X-X-	CP1S3L4Ch5Pt7ten_Ptomaphagus_tenuicornis_Soil.idba.24_MERGED
-XX-----X-XX-XXX	CP1S3L4Ch5Sc7wat	XXXXXXXXXXXXXXXX-----	CP1S3L4Ch5Sc7wat_Sciodrepoides_watsoni_Staph.idba.6	XXXXXXXXXXXXXXXX-----XXX	CP1S3L4Ch5Sc7wat_Sciodrepoides_watsoni_Staph.idba.6_MERGED
-X-----X-XX-X-X	CP1S3L4Ch5Tr7oro	XXXXXXXXXXXXXXXX-----	CP1S3L4Ch5Tr7oro_Trapezodirus_oroobios_Staph.idba.25	XXXXXXXXXXXXXXXX-----X-X	CP1S3L4Ch5Tr7oro_Trapezodirus_oroobios_Staph.idba.25_MERGED
-XX-----	CP1S3L4L5Ag7atr	XXXXXXXXXXXXXXXX-----	CP1S3L4L5Ag7atr_Agathidium_atrum_BIUK.idba.3	XXXXXXXXXXXXXXXX-----	CP1S3L4L5Ag7atr_Agathidium_atrum_BIUK.idba.3_MERGED
-XX-----XX-	CP1S3L4L5An7hum	-XXXXXXXXXXXX-----	CP1S3L4L5An7hum_Anisotoma_humeralis_amie.idba.93	-XXXXXXXXXXXX-----XX-	CP1S3L4L5An7hum_Anisotoma_humeralis_amie.idba.93_MERGED
-X-----	CP1S3L4L5Le7pic	XXXXXX-----	CP1S3L4L5Le7pic_Leiodes_picea_amie.idba.151	XXXXXX-----	CP1S3L4L5Le7pic_Leiodes_picea_amie.idba.151_MERGED
-X-----	CP1S3L4L5Tr7mae	XXXXXXXXXXXXXXXX-----	CP1S3L4L5Tr7mae_Triarthron_maerkelii_amie.idba.15	XXXXXXXXXXXXXXXX-----	CP1S3L4L5Tr7mae_Triarthron_maerkelii_amie.idba.15_MERGED
-XX-----	CP1S3P4A5Ac7ins	-XXXXXXXXXXXX-----	CP1S3P4A5Ac7ins_Acrotrichis_insularis_BIUK.idba.28	-XXXXXXXXXXXX-----	CP1S3P4A5Ac7ins_Acrotrichis_insularis_BIUK.idba.28_MERGED

-XX- - - - -	CP1S3S4A5A6A17lan	XXXXXXXXXXXXX- - - -	CP1S3S4A5A6A17lan_Aleochara_lanuginosa_BIUk.idba.29	XXXXXXXXXXXXX- - - -	CP1S3S4A5A6A17lan_Aleochara_lanuginosa_BIUk.idba.29_MERGED
-XX- - - - -	CP1S3S4A5A6A17ver	- - XXXXX- - - - -	CP1S3S4A5A6A17ver_Aleochara_verna_Staph.idba.93	- XXXXX- - - - -	CP1S3S4A5A6A17ver_Aleochara_verna_Staph.idba.93_MERGED
-X- - - - -	CP1S3S4A5A6A7obf	XXXX- - - - -	CP1S3S4A5A6A7obf_Acrotona_obfuscata_Staph.idba.85	XXXX- - - - -	CP1S3S4A5A6A7obf_Acrotona_obfuscata_Staph.idba.85_MERGED
-XX- - - - -	CP1S3S4A5A6A7cur	XXXXXXXXXXXXX- - - -	CP1S3S4A5A6A7cur_Alloconota_currax_Staph.idba.39	XXXXXXXXXXXXX- - - -	CP1S3S4A5A6A7cur_Alloconota_currax_Staph.idba.39_MERGED
-XX- - - - -	CP1S3S4A5A6A7ana	XX- - - - -	CP1S3S4A5A6A7ana_Amischa_analis_Staph.idba.70	XXXX- - - - -	CP1S3S4A5A6A7ana_Amischa_analis_Staph.idba.70_MERGED
-X- - - - -	CP1S3S4A5A6A7ami	XXXXXXXXXXXXX- - - -	CP1S3S4A5A6A7ami_Atheta_amicula_Staph.idba.42	XXXXXXXXXXXXX- - - -	CP1S3S4A5A6A7ami_Atheta_amicula_Staph.idba.42_MERGED
-XX- - - - -	CP1S3S4A5A6A7cas	XXXXXXXXXXXXX- - - -	CP1S3S4A5A6A7cas_Atheta_castanoptera_BIUk.idba.6	XXXXXXXXXXXXX- - - -	CP1S3S4A5A6A7cas_Atheta_castanoptera_BIUk.idba.6_MERGED
-X- - - - -	CP1S3S4A5A6A7fun	XXXXXXXXXXXXX- - - -	CP1S3S4A5A6A7fun_Atheta_fungi_Soil.idba.12	XXXXXXXXXXXXX- - - -	CP1S3S4A5A6A7fun_Atheta_fungi_Soil.idba.12_MERGED
-X- - - - -	CP1S3S4A5A6A7fung	XXXXXXXXXXXXX- - - -	CP1S3S4A5A6A7fung_Atheta_fungivora_Staph.idba.37	XXXXXXXXXXXXX- - - -	CP1S3S4A5A6A7fung_Atheta_fungivora_Staph.idba.37_MERGED
-XX- - - - -	CP1S3S4A5A6A7gag	XXXXXXXXXXXXX- - - -	CP1S3S4A5A6A7gag_Atheta_gagatina_Staph.idba.20	XXXXXXXXXXXXX- - - -	CP1S3S4A5A6A7gag_Atheta_gagatina_Staph.idba.20_MERGED
-XX- - - - -	CP1S3S4A5A6A7hyp	XXXXXXXXXXXXX- - - -	CP1S3S4A5A6A7hyp_Atheta_hypnorum_BIUk.idba.4	XXXXXXXXXXXXX- - - -	CP1S3S4A5A6A7hyp_Atheta_hypnorum_BIUk.idba.4_MERGED
-XX- - - - -	CP1S3S4A5A6A7vol	-XXXXXXXXXXXXX- - - -	CP1S3S4A5A6A7vol_Atheta_volans_Staph.idba.63	-XXXXXXXXXXXXX- - - -	CP1S3S4A5A6A7vol_Atheta_volans_Staph.idba.63_MERGED
-XX- - - - -	CP1S3S4A5A6Ca7obs	XXXXXXXXXXXXX- - - -	CP1S3S4A5A6Ca7obs_Callicerus_obscurus_Staph.idba.39	XXXXXXXXXXXXX- - - -	CP1S3S4A5A6Ca7obs_Callicerus_obscurus_Staph.idba.39_MERGED
-XX- - - - -	CP1S3S4A5A6Ge7cir	XXXXXXXXXXXXX- - - -	CP1S3S4A5A6Ge7cir_Geostiba_circellaris_BIUk.idba.25	XXXXXXXXXXXXX- - - -	CP1S3S4A5A6Ge7cir_Geostiba_circellaris_BIUk.idba.25_MERGED
-XX- - - - -	CP1S3S4A5A6Li7mic	XXXXXXXXXXXXX- - - -	CP1S3S4A5A6Li7mic_Lioglutula_longiuscula_BIUk.idba.24	XXXXXXXXXXXXX- - - -	CP1S3S4A5A6Li7mic_Lioglutula_longiuscula_BIUk.idba.24_MERGED
-XX- - - - -	CP1S3S4A5A6Mo7fun	- - - - -	CP1S3S4A5A6Mo7fun_Mocyta_fungi_BIUk.idba.80	- - - - -	CP1S3S4A5A6Mo7fun_Mocyta_fungi_BIUk.idba.80_MERGED
-XX- - - - -	CP1S3S4A5B6Eu7opt	XXXXXXXXXXXXX- - - -	CP1S3S4A5B6Eu7opt_Euryusa_optabilis_Staph.idba.22	XXXXXXXXXXXXX- - - -	CP1S3S4A5B6Eu7opt_Euryusa_optabilis_Staph.idba.22_MERGED
-XX- - - - -	CP1S3S4A5Lo6Lo7pub	XXXXXXXXXXXXX- - - -	CP1S3S4A5Lo6Lo7pub_Lomechusa_publicollis_Soil.idba.4	XXXXXXXXXXXXX- - - -	CP1S3S4A5Lo6Lo7pub_Lomechusa_publicollis_Soil.idba.4_MERGED
-XX- - - - -	CP1S3S4A5O6Cr7sut	-XXXXXXXXXXXXX- - - -	CP1S3S4A5O6Cr7sut_Crataraea_suturalis_Staph.idba.50	-XXXXXXXXXXXXX- - - -	CP1S3S4A5O6Cr7sut_Crataraea_suturalis_Staph.idba.50_MERGED
-XX- - - - -	CP1S3S4A5O6De7cor	XXXXXXXXXXXXX- - - -	CP1S3S4A5O6De7cor_Dexiogyia_corticina_Staph.idba.34	XXXXXXXXXXXXX- - - -	CP1S3S4A5O6De7cor_Dexiogyia_corticina_Staph.idba.34_MERGED
-XX- - - - -	CP1S3S4A5O6Ox7acu	XXXXXXXXXXXXX- - - -	CP1S3S4A5O6Ox7acu_Oxypoda_acuminata_BIUk.idba.20	XXXXXXXXXXXXX- - - -	CP1S3S4A5O6Ox7acu_Oxypoda_acuminata_BIUk.idba.20_MERGED
-X- - - - -	CP1S3S4A5O6Ox7bre	XXXXXXXXXXXXX- - - -	CP1S3S4A5O6Ox7bre_Oxypoda_brevicornis_BIUk.idba.22	XXXXXXXXXXXXX- - - -	CP1S3S4A5O6Ox7bre_Oxypoda_brevicornis_BIUk.idba.22_MERGED
-XX- - - - -	CP1S3S4A5O6Ox7lon	XXXXXXXXXXXXX- - - -	CP1S3S4A5O6Ox7lon_Oxypoda_longipes_Staph.idba.36	XXXXXXXXXXXXX- - - -	CP1S3S4A5O6Ox7lon_Oxypoda_longipes_Staph.idba.36_MERGED
-XX- - - - -	CP1S3S4A5O6Ox7opa	X-XXXXXXX-XXXX- - -	CP1S3S4A5O6Ox7opa_Oxypoda_opaca_JX412751	XXXXXXXXXX-XXXX- - -	CP1S3S4A5O6Ox7opa_Oxypoda_opaca_JX412751_MERGED
-XX- - - - -	CP1S3S4A5O6Par7lon	- - XXXXXXXX- - - -	CP1S3S4A5O6Par7lon_Parocycusa_longitarsis_JX313678	- - XXXXXXXX- - - -	CP1S3S4A5O6Par7lon_Parocycusa_longitarsis_JX313678_MERGED
-XX- - - - -	CP1S3S4A5O6Ph7tes	-XXXXXXX- - - - -	CP1S3S4A5O6Ph7tes_Phloeopora_testacea_Staph.idba.81	-XXXXXXX- - - - -	CP1S3S4A5O6Ph7tes_Phloeopora_testacea_Staph.idba.81_MERGED
-XX- - - - -	CP1S3S4A5T6Da7fal	XXXXXXXXXXXXX- - - -	CP1S3S4A5T6Da7fal_Dacrila_fallax_Staph.idba.43	XXXXXXXXXXXXX- - - -	CP1S3S4A5T6Da7fal_Dacrila_fallax_Staph.idba.43_MERGED
-XX- - - - -	CP1S3S4A5T6Th7atr	XXXXXXXXXXXXX- - - -	CP1S3S4A5T6Th7atr_Thinonoma_atra_Staph.idba.40	XXXXXXXXXXXXX- - - -	CP1S3S4A5T6Th7atr_Thinonoma_atra_Staph.idba.40_MERGED
-XX- - - - -	CP1S3S4Eu5Eu7ruf	XXXXXXXXXXXXX- - - -	CP1S3S4Eu5Eu7ruf_Euaesthetus_ruficapillus_Staph.idba.45	XXXXXXXXXXXXX- - - -	CP1S3S4Eu5Eu7ruf_Euaesthetus_ruficapillus_Staph.idba.45_MERGED
-XX- - - - -	CP1S3S4H5Ha7cap	XXXXXXXXXXXXX- - - -	CP1S3S4H5Ha7cap_Habrocerus_capillaricornis_JX412795	XXXXXXXXXXXXX- - - -	CP1S3S4H5Ha7cap_Habrocerus_capillaricornis_JX412795_MERGED
-XX- - - - -	CP1S3S4O5An7atr	XXXXXXX- - - - -	CP1S3S4O5An7atr_Anthobium_atrocephalum_BIUk.idba.67	XXXXXXX- - - - -	CP1S3S4O5An7atr_Anthobium_atrocephalum_BIUk.idba.67_MERGED
-X- - - - -	CP1S3S4O5An7mel	XXXXXXXXXXXXX- - - -	CP1S3S4O5An7mel_Anthobium_melanocephalum_ameie.idba.2	XXXXXXXXXXXXX- - - -	CP1S3S4O5An7mel_Anthobium_melanocephalum_ameie.idba.2_MERGED
-X- - - - -	CP1S3S4O5Eu7tor	XXXXXXXXXXXXX- - - -	CP1S3S4O5Eu7tor_Euspalerum_torquatum_Staph.idba.31	XXXXXXXXXXXXX- - - -	CP1S3S4O5Eu7tor_Euspalerum_torquatum_Staph.idba.31_MERGED
- - - - -	CP1S3S4O5Ne7bru	XXXXXXXXXXXXX- - - -	CP1S3S4O5Ne7bru_Neophonus_bruchi_Staph.idba.0	XXXXXXXXXXXXX- - - -	CP1S3S4O5Ne7bru_Neophonus_bruchi_Staph.idba.0_MERGED
-X- - - - -	CP1S3S4O5O17pic	XXXXXXXXXXXXX- - - -	CP1S3S4O5O17pic_Olophrum_piceum_Staph.idba.35	XXXXXXXXXXXXX- - - -	CP1S3S4O5O17pic_Olophrum_piceum_Staph.idba.35_MERGED
-XX- - - - -	CP1S3S4O5Om7riv	-XXXXXXXXXXXXX- - - -	CP1S3S4O5Om7riv_Omalium_rivulare_JX412759	-XXXXXXXXXXXXX- - - -	CP1S3S4O5Om7riv_Omalium_rivulare_JX412759_MERGED
-XX- - - - -	CP1S3S4O5Om7rug	XXXXXXXXXXXXX- - - -	CP1S3S4O5Om7rug_Omalium_rugatum_BIUk.idba.7	XXXXXXXXXXXXX- - - -	CP1S3S4O5Om7rug_Omalium_rugatum_BIUk.idba.7_MERGED
-X- - - - -	CP1S3S4Ox5An7mut	-XXXXXXXXXXXXX- - - -	CP1S3S4Ox5An7mut_Anotylus_mutator_BIUk.idba.48	-XXXXXXXXXXXXX- - - -	CP1S3S4Ox5An7mut_Anotylus_mutator_BIUk.idba.48_MERGED
-XX- - - - -	CP1S3S4Ox5An7scu	-XXXXXXX- - - - -	CP1S3S4Ox5An7scu_Anotylus_sculpturatus_Staph.idba.76	-XXXXXXX- - - - -	CP1S3S4Ox5An7scu_Anotylus_sculpturatus_Staph.idba.76_MERGED
-X- - - - -	CP1S3S4Ox5Ca7ful	X-XXXXXXX- - - - -	CP1S3S4Ox5Ca7ful_Carpelimus_fuliginosus_ameie.idba.60	XXXXXXXXXXXXX- - - -	CP1S3S4Ox5Ca7ful_Carpelimus_fuliginosus_ameie.idba.60_MERGED
-X- - - - -	CP1S3S4Ox5Ox7pic	XXXXXXXXXXXXX- - - -	CP1S3S4Ox5Ox7pic_Oxytelus_piceus_ameie.idba.86	XXXXXXXXXXXXX- - - -	CP1S3S4Ox5Ox7pic_Oxytelus_piceus_ameie.idba.86_MERGED
-X- - - - -	CP1S3S4P5As7lyo	XXXXXXXXXXXXX- - - -	CP1S3S4P5As7lyo_Astenus_lyonessius_Staph.idba.17	XXXXXXXXXXXXX- - - -	CP1S3S4P5As7lyo_Astenus_lyonessius_Staph.idba.17_MERGED
-X- - - - -	CP1S3S4P5Hy7deb	-XXXXXXX- - - - -	CP1S3S4P5Hy7deb_Hypomedon_debiliaricornis_JX313672	-XXXXXXX- - - - -	CP1S3S4P5Hy7deb_Hypomedon_debiliaricornis_JX313672_MERGED
-XX- - - - -	CP1S3S4P5La7bru	XXXXXXXXXXXXX- - - -	CP1S3S4P5La7bru_Lathrobium_brunnipes_Staph.idba.10	XXXXXXXXXXXXX- - - -	CP1S3S4P5La7bru_Lathrobium_brunnipes_Staph.idba.10_MERGED
-XX- - - - -	CP1S3S4P5La7ful	XXXXXXX- - - - -	CP1S3S4P5La7ful_Lathrobium_fulvipenne_BIUk.idba.70	XXXXXXX- - - - -	CP1S3S4P5La7ful_Lathrobium_fulvipenne_BIUk.idba.70_MERGED
-XX- - - - -	CP1S3S4P5Me7api	XXXXXXXXXXXXX- - - -	CP1S3S4P5Me7api_Medon_apicalis_Staph.idba.9	XXXXXXXXXXXXX- - - -	CP1S3S4P5Me7api_Medon_apicalis_Staph.idba.9_MERGED
-X- - - - -	CP1S3S4P5Me7pic	XXXXXXXXXXXXX- - - -	CP1S3S4P5Me7pic_Medon_piceus_ameie.idba.112	XXXXXXXXXXXXX- - - -	CP1S3S4P5Me7pic_Medon_piceus_ameie.idba.112_MERGED
-XX- - - - -	CP1S3S4P5Ru7gen	XXXXXXXXXXXXX- - - -	CP1S3S4P5Ru7gen_Rugilus_geniculatus_Staph.idba.38	XXXXXXXXXXXXX- - - -	CP1S3S4P5Ru7gen_Rugilus_geniculatus_Staph.idba.38_MERGED
-X- - - - -	CP1S3S4P5Su7mel	XXXXXXXXXXXXX- - - -	CP1S3S4P5Su7mel_Sunius_melanocephalus_Staph.idba.61	XXXXXXXXXXXXX- - - -	CP1S3S4P5Su7mel_Sunius_melanocephalus_Staph.idba.61_MERGED
-XX- - - - -	CP1S3S4P5Te7ter	XXXXXXXXXXXXX- - - -	CP1S3S4P5Te7ter_Tetartopeus_terminatus_Staph.idba.27	XXXXXXXXXXXXX- - - -	CP1S3S4P5Te7ter_Tetartopeus_terminatus_Staph.idba.27_MERGED
-XX- - - - -	CP1S3S4Ps5Bra7fos	XXXXXXXXXXXXX- - - -	CP1S3S4Ps5Bra7fos_Brachygluta_fossulata_BIUk.idba.21	XXXXXXXXXXXXX- - - -	CP1S3S4Ps5Bra7fos_Brachygluta_fossulata_BIUk.idba.21_MERGED
-XX- - - - -	CP1S3S4Ps5Bra7hel	XXXXXXX- - - - -	CP1S3S4Ps5Bra7hel_Brachygluta_helferi_Staph.idba.82	XXXXXXX- - - - -	CP1S3S4Ps5Bra7hel_Brachygluta_helferi_Staph.idba.82_MERGED
-X- - - - -	CP1S3S4Ps5Ct7pic	XXXXX- - - - -	CP1S3S4Ps5Ct7pic_Ctenisodes_piceus_Staph.idba.88	XXXXX- - - - -	CP1S3S4Ps5Ct7pic_Ctenisodes_piceus_Staph.idba.88_MERGED
-XX- - - - -	CP1S3S4Ps5Eu7pic	-XXXXXXXXXXXXX- - - -	CP1S3S4Ps5Eu7pic_Euplectus_piceus_BIUk.idba.53	-XXXXXXXXXXXXX- - - -	CP1S3S4Ps5Eu7pic_Euplectus_piceus_BIUk.idba.53_MERGED
-XX- - - - -	CP1S3S4Ps5Ty7nig	XXXXXXXXXXXXX- - - -	CP1S3S4Ps5Ty7nig_Tychus_niger_BIUk.idba.17	XXXXXXXXXXXXX- - - -	CP1S3S4Ps5Ty7nig_Tychus_niger_BIUk.idba.17_MERGED

--X-----	CP1S3S4Q5Qu7nem	XXXXXXXXXXXX	CP1S3S4Q5Qu7nem_Quedius_nemoralis_BIUK.idba.5	XXXXXXXXXXXX	CP1S3S4Q5Qu7nem_Quedius_nemoralis_BIUK.idba.5_MERGED
--X-----XX-	CP1S3S4S5Br7lat	--XXXXXXXX	CP1S3S4S5Br7lat_Brachynopus_latus_JX412745	--XXXXXXXX	CP1S3S4S5Br7lat_Brachynopus_latus_JX412745_MERGED
-XX-----XX-XXX	CP1S3S4S5Sc7qua	XXXXXXXXXXXX	CP1S3S4S5Sc7qua_Scaphidium_quadrimaculatum_Staph.idba.5	XXXXXXXXXXXX-XXX	CP1S3S4S5Sc7qua_Scaphidium_quadrimaculatum_Staph.idba.5_MERGED
-X-----	CP1S3S4S5Sca7bol	XXXXXXXXXXXX	CP1S3S4S5Sca7bol_Scaphisoma_boleti_Staph.idba.55	XXXXXXXXXXXX	CP1S3S4S5Sca7bol_Scaphisoma_boleti_Staph.idba.55_MERGED
-XX-----X-----	CP1S3S4St5St7cla	XXXXXXXXXXXX	CP1S3S4St5St7cla_Stenus_clavicornis_2VGB.idba.1	XXXXXXXXXXXX	CP1S3S4St5St7cla_Stenus_clavicornis_2VGB.idba.1_MERGED
-X-----X-----	CP1S3S4St5St7com	XXXXXXXXXXXX	CP1S3S4St5St7com_Stenus_comma_Staph.idba.58	XXXXXXXXXXXX	CP1S3S4St5St7com_Stenus_comma_Staph.idba.58_MERGED
-XX-----XX-	CP1S3S4St506At7aff	XXXXXXXXXXXX	CP1S3S4St506At7aff_Atreucus_affinis_Staph.idba.41	XXXXXXXXXXXX-XX-	CP1S3S4St506At7aff_Atreucus_affinis_Staph.idba.41_MERGED
-XX-----	CP1S3S4St5060t7lae	XXXXXX	CP1S3S4St5060t7lae_Othius_laeviusculus_amei.idba.150	XXXXXX	CP1S3S4St5060t7lae_Othius_laeviusculus_amei.idba.150_MERGED
-XX-----	CP1S3S4St5060t7pun	XXXXXX	CP1S3S4St5060t7pun_Othius_punctulatus_Soil.idba.158	XXXXXX	CP1S3S4St5060t7pun_Othius_punctulatus_Soil.idba.158_MERGED
-XX-----	CP1S3S4St5066a7pil	XXXXXXXXXXXX	CP1S3S4St5066a7pil_Gabrius_piliger_Staph.idba.12	XXXXXXXXXXXX	CP1S3S4St5066a7pil_Gabrius_piliger_Staph.idba.12_MERGED
-XX-----	CP1S3S4St5066B7sor	XXXXXXXXXXXX	CP1S3S4St5066B7sor_Bisnius_sordidus_Staph.idba.16	XXXXXXXXXXXX	CP1S3S4St5066B7sor_Bisnius_sordidus_Staph.idba.16_MERGED
-X-----	CP1S3S4St5066ab7the	XXXXXXXXXXXX	CP1S3S4St5066ab7the_Gabronthus_thermarum_Staph.idba.53	XXXXXXXXXXXX	CP1S3S4St5066ab7the_Gabronthus_thermarum_Staph.idba.53_MERGED
-----XX-	CP1S3S4St5066Ne7vil	XXXXXXXXXXXX	CP1S3S4St5066Ne7vil_Neobisnius_villosulus_Staph.idba.1	XXXXXXXXXXXX-XX-	CP1S3S4St5066Ne7vil_Neobisnius_villosulus_Staph.idba.1_MERGED
-XX-----	CP1S3S4St5060c7aet	XXXXXXXXXXXX	CP1S3S4St5060c7aet_Ocypus_aethiops_Soil.idba.34	XXXXXXXXXXXX	CP1S3S4St5060c7aet_Ocypus_aethiops_Soil.idba.34_MERGED
-X-----	CP1S3S4St5060c7bru	XXXXXXXXXXXX	CP1S3S4St5060c7bru_Ocypus_brunnipes_Staph.idba.56	XXXXXXXXXXXX	CP1S3S4St5060c7bru_Ocypus_brunnipes_Staph.idba.56_MERGED
-XX-----	CP1S3S4St5060c7ole	XXXXXXXXXXXX	CP1S3S4St5060c7ole_Ocypus_olens_2VGB.idba.7	XXXXXXXXXXXX	CP1S3S4St5060c7ole_Ocypus_olens_2VGB.idba.7_MERGED
-XX-----XX-	CP1S3S4St5060c7oph	XXXXXXXXXXXX	CP1S3S4St5060c7oph_Ocypus_ophthalmicus_amei.idba.21	XXXXXXXXXXXX-XX-	CP1S3S4St5060c7oph_Ocypus_ophthalmicus_amei.idba.21_MERGED
-XX-----XX-	CP1S3S4St5060n7tes	XXXXXXXXXXXX	CP1S3S4St5060n7tes_Ontholestes_tessellatus_amei.idba.69	XXXXXXXXXXXX-XX-	CP1S3S4St5060n7tes_Ontholestes_tessellatus_amei.idba.69_MERGED
-XX-----XX-	CP1S3S4St506Ph7fim	XXXXXXXXXXXX	CP1S3S4St506Ph7fim_Philonthus_fimatarius_Staph.idba.11	XXXXXXXXXXXX-XX-	CP1S3S4St506Ph7fim_Philonthus_fimatarius_Staph.idba.11_MERGED
-X-----	CP1S3S4St506Ta7mor	XXXXXXXXXXXX	CP1S3S4St506Ta7mor_Tasgius_morsitans_Staph.idba.32	XXXXXXXXXXXX	CP1S3S4St506Ta7mor_Tasgius_morsitans_Staph.idba.32_MERGED
-XX-----	CP1S3S4St506Gy7fra	XXXXXXXXXXXX	CP1S3S4St506Gy7fra_Gyrohypnus_fracticornis_Staph.idba.29	XXXXXXXXXXXX	CP1S3S4St506Gy7fra_Gyrohypnus_fracticornis_Staph.idba.29_MERGED
-X-----XX-	CP1S3S4St506Nu7len	XXXXXX	CP1S3S4St506Nu7len_Nudobius_lentus_Staph.idba.72	XXXXXX-XX-	CP1S3S4St506Nu7len_Nudobius_lentus_Staph.idba.72_MERGED
-X-----	CP1S3S4T5b07cas	XXXXXXXXXXXX	CP1S3S4T5b07cas_Bolitobius_castaneus_BIUK.idba.14	XXXXXXXXXXXX	CP1S3S4T5b07cas_Bolitobius_castaneus_BIUK.idba.14_MERGED
-X-----	CP1S3S4T5L07exo	XXXXXXXXXXXX	CP1S3S4T5L07exo_Lordithon_exoletus_amei.idba.7	XXXXXXXXXXXX	CP1S3S4T5L07exo_Lordithon_exoletus_amei.idba.7_MERGED
-X-----XX-	CP1S3S4T5Se7bip	XXXXXXXXXXXX	CP1S3S4T5Se7bip_Sepedophilus_bipunctatus_Staph.idba.23	XXXXXXXXXXXX-XX-	CP1S3S4T5Se7bip_Sepedophilus_bipunctatus_Staph.idba.23_MERGED
-XX-----	CP1S3S4T5Ta7chr	XXXXXXXXXXXX	CP1S3S4T5Ta7chr_Tachyporus_chrysomelinus_Soil.idba.10	XXXXXXXXXXXX	CP1S3S4T5Ta7chr_Tachyporus_chrysomelinus_Soil.idba.10_MERGED
-X-----	CP1S3S4T5Tac7lat	XXXXXXXXXXXX	CP1S3S4T5Tac7lat_Tachinus_laticollis_BIUK.idba.8	XXXXXXXXXXXX	CP1S3S4T5Tac7lat_Tachinus_laticollis_BIUK.idba.8_MERGED
-XX-----	CP1S3S4T5Tac7sub	XXXXXXXXXXXX	CP1S3S4T5Tac7sub_Tachinus_subterraneus_amei.idba.1	XXXXXXXXXXXX	CP1S3S4T5Tac7sub_Tachinus_subterraneus_amei.idba.1_MERGED
-XX-----XX-	CP1S3Sc4Ce7gal	XXXXXX	CP1S3Sc4Ce7gal_Cephennium_gallicum_BIUK.idba.66	XXXXXX-XX-	CP1S3Sc4Ce7gal_Cephennium_gallicum_BIUK.idba.66_MERGED
XXXXXXXXXXXX-XX-	CP1S3S14S5Ne7ame	XXXXXXXXXXXX	CP1S3S14S5Ne7ame_Necrophila_americae_NC_018352	XXXXXXXXXXXX-XX-	CP1S3S14S5Ne7ame_Necrophila_americae_NC_018352_MERGED
-X-----	CP1S3S14S5S17tyr	XXXXXXXXXXXX	CP1S3S14S5S17tyr_Silpha_tyrolensis_amei.idba.102	XXXXXXXXXXXX	CP1S3S14S5S17tyr_Silpha_tyrolensis_amei.idba.102_MERGED
-XX-----XX-XX-	CP1Sc3Ge4An7ste	--XXXXXXXX	CP1Sc3Ge4An7ste_Anoplotrupes_stercorosus_JX412838	--XXXXXXXX-XX-	CP1Sc3Ge4An7ste_Anoplotrupes_stercorosus_JX412838_MERGED
-XX-----XX-	CP1Sc3L4Lu5Do7par	XXXXXX	CP1Sc3L4Lu5Do7par_Dorcus_parallepipodus_2VGB.idba.16	XXXXXX-XX-	CP1Sc3L4Lu5Do7par_Dorcus_parallepipodus_2VGB.idba.16_MERGED
-XX-----	CP1Sc3L4Lu5Lu7cer	XXXXXXXXXXXX	CP1Sc3L4Lu5Lu7cer_Lucanus_cervus_2VGB.idba.13	XXXXXXXXXXXX	CP1Sc3L4Lu5Lu7cer_Lucanus_cervus_2VGB.idba.13_MERGED
XXXXXXXXXXXX-XX-	CP1Sc3L4Lu5Lu7maz	XXXXXXXXXXXX-X	CP1Sc3L4Lu5Lu7maz_Lucanus_mazama_NC_013578	XXXXXXXXXXXX-XX-	CP1Sc3L4Lu5Lu7maz_Lucanus_mazama_NC_013578_MERGED
-X-----X-X-X	CP1Sc3L4S5Ce7chr	XXXXXXXXXXXX	CP1Sc3L4S5Ce7chr_Ceruchus_chrysomelinus_amei.idba.108	XXXXXXXXXXXX-X-X-X	CP1Sc3L4S5Ce7chr_Ceruchus_chrysomelinus_amei.idba.108_MERGED
--XX-----	CP1Sc3S4A5Ap7ele	XXXXXXXXXXXX	CP1Sc3S4A5Ap7ele_Aphodius_elevatus_Soil.idba.32	XXXXXXXXXXXX	CP1Sc3S4A5Ap7ele_Aphodius_elevatus_Soil.idba.32_MERGED
-XX-----	CP1Sc3S4A5Ap7foe	-----XXXXXX	CP1Sc3S4A5Ap7foe_Aphodius_foetens_amei.idba.115	-XX-XXXXXX	CP1Sc3S4A5Ap7foe_Aphodius_foetens_amei.idba.115_MERGED
-XX-----	CP1Sc3S4A5Ap7mer	XXXXXXXXXXXX	CP1Sc3S4A5Ap7mer_Aphodius_merdarius_Soil.idba.93	XXXXXXXXXXXX	CP1Sc3S4A5Ap7mer_Aphodius_merdarius_Soil.idba.93_MERGED
-XX-----X-X-XXX	CP1Sc3S4A5Ox7syl	XXXXXXXXXXXX	CP1Sc3S4A5Ox7syl_Oxyomus_sylvestris_amei.idba.121	XXXXXXXXXXXX-X-X-XXX	CP1Sc3S4A5Ox7syl_Oxyomus_sylvestris_amei.idba.121_MERGED
-XX-----X	CP1Sc3S4A5Ple7cae	XXXXXXXXXXXX	CP1Sc3S4A5Ple7cae_Pleurophorus_caesus_Soil.idba.33	XXXXXXXXXXXX	CP1Sc3S4A5Ple7cae_Pleurophorus_caesus_Soil.idba.33_MERGED
-X-----XX-XX	CP1Sc3S4D5Cyp7val	XXXXXXXXXXXX	CP1Sc3S4D5Cyp7val_Cyphonistes_vallatus_JX412731	XXXXXXXXXXXX-XX-XX	CP1Sc3S4D5Cyp7val_Cyphonistes_vallatus_JX412731_MERGED
XXXXXXXXXX-X-X-X	CP1Sc3S4M5Che17jan	XXXXXXXXXXXX	CP1Sc3S4M5Che17jan_Cheirotonus_jansoni_NC_023246	XXXXXXXXXXXX	CP1Sc3S4M5Che17jan_Cheirotonus_jansoni_NC_023246_MERGED
-XX-----	CP1Sc3S4M5Me7hip	XXXXXXXXXXXX	CP1Sc3S4M5Me7hip_Melolontha_hippocastani_amei.idba.79	XXXXXXXXXXXX	CP1Sc3S4M5Me7hip_Melolontha_hippocastani_amei.idba.79_MERGED
XXXXXXXXXXXX-XX-	CP1Sc3S4M5Rh7mag	XXXXXXXXXXXX	CP1Sc3S4M5Rh7mag_Rhopaea_magnicornis_NC_013252	XXXXXXXXXXXX-XX-	CP1Sc3S4M5Rh7mag_Rhopaea_magnicornis_NC_013252_MERGED
-XX-----XX-XXX	CP1Sc3S4R5Ph7hor	--XXXX	CP1Sc3S4R5Ph7hor_Phyllopertha_horticola_amei.idba.189	XXXXXX-XX-XXX	CP1Sc3S4R5Ph7hor_Phyllopertha_horticola_amei.idba.189_MERGED
-XX-----X-XX-X	CP1Sc3S4S5Bu7bis	XXXXXXXXXXXX	CP1Sc3S4S5Bu7bis_Bubas_bison_CS.idba.2	XXXXXXXXXXXX	CP1Sc3S4S5Bu7bis_Bubas_bison_CS.idba.2_MERGED
-XX-----X-X-X	CP1Sc3S4S5Bu7bub	XXXXXXXXXXXX	CP1Sc3S4S5Bu7bub_Bubas_bubalus_CS.idba.14	XXXXXXXXXXXX-X-X-X	CP1Sc3S4S5Bu7bub_Bubas_bubalus_CS.idba.14_MERGED
-----X-----	CP1Sc3S4S5C6Ca7aeq	XXXXXX	CP1Sc3S4S5C6Ca7aeq_Canthon_aequinoctialis_Panama.idba.243	XXXXXX-X-X-X	CP1Sc3S4S5C6Ca7aeq_Canthon_aequinoctialis_Panama.idba.243_MERGED
-X-----X-XX-XXX	CP1Sc3S4S5Ca7bin	XXXXXXXXXXXX	CP1Sc3S4S5Ca7bin_Caccobius_binodulus_CS.idba.46	XXXXXXXXXXXX-XX-XXX	CP1Sc3S4S5Ca7bin_Caccobius_binodulus_CS.idba.46_MERGED
-X-----X-X-X	CP1Sc3S4S5Ca7nig	XXXXXXXXXXXX	CP1Sc3S4S5Ca7nig_Caccobius_nigriritulus_CS.idba.25	XXXXXXXXXXXX-XX-X-X	CP1Sc3S4S5Ca7nig_Caccobius_nigriritulus_CS.idba.25_MERGED
-X-----X-XX-XXX	CP1Sc3S4S5Cl7con	XXXXXX	CP1Sc3S4S5Cl7con_Cleptocaccobius_convexifrons_CS.idba.80	XXXXXX-X-XX-XXX	CP1Sc3S4S5Cl7con_Cleptocaccobius_convexifrons_CS.idba.80_MERGED
-----X-XX-XXX	CP1Sc3S4S5Dig7dia	XXXXXXXXXXXX	CP1Sc3S4S5Dig7dia_Onthophagus_diabolicus_Scarab.idba.18	XXXXXXXXXXXX-XX-XXX	CP1Sc3S4S5Dig7dia_Onthophagus_diabolicus_Scarab.idba.18_MERGED
-XX-----X-XX-XXX	CP1Sc3S4S5Dig7gaz	XXXXXXXXXXXX	CP1Sc3S4S5Dig7gaz_Digitonthophagus_gazella_Scarab.idba.8	XXXXXXXXXXXX-XX-XXX	CP1Sc3S4S5Dig7gaz_Digitonthophagus_gazella_Scarab.idba.8_MERGED
-X-----X-XX-X	CP1Sc3S4S5Dr7kir	XXXXXXXXXXXX	CP1Sc3S4S5Dr7kir_Drepanocerus_kirbyi_CS.idba.15	XXXXXXXXXXXX-XX-X	CP1Sc3S4S5Dr7kir_Drepanocerus_kirbyi_CS.idba.15_MERGED

--X-----X----	CP1Sc3S4S5Eu6Eu7car	XXXXXXXXXXXXX----	CP1Sc3S4S5Eu6Eu7car_Cheironitis_hoplosternus_Scarab.idba.15	XXXXXXXXXXXXX----	CP1Sc3S4S5Eu6Eu7car_Cheironitis_hoplosternus_Scarab.idba.15_MERGED
--X-----X----	CP1Sc3S4S5Eu6Eu7foe	XXXXXXXXXXXXX----	CP1Sc3S4S5Eu6Eu7foe_Eurysternus_foedus_Scarab.idba.1	XXXXXXXXXXXXX----	CP1Sc3S4S5Eu6Eu7foe_Eurysternus_foedus_Scarab.idba.1_MERGED
--X-----X----	CP1Sc3S4S5Eu6Eu7ham	XXXXXXXXXXXXX----	CP1Sc3S4S5Eu6Eu7ham_Eurysternus_hamaticollis_CS.idba.53	XXXXXXXXXXXXX----	CP1Sc3S4S5Eu6Eu7ham_Eurysternus_hamaticollis_CS.idba.53_MERGED
--X-----X----	CP1Sc3S4S5Eu6Eu7inf	XXXXXXXXXXXXX----	CP1Sc3S4S5Eu6Eu7inf_Eurysternus_inflexus_CS.idba.17	XXXXXXXXXXXXX----	CP1Sc3S4S5Eu6Eu7inf_Eurysternus_inflexus_CS.idba.17_MERGED
-XX-----X----XX	CP1Sc3S4S5Eu7ful	XXXXXXXXXXXXX----	CP1Sc3S4S5Eu7ful_Euoniticellus_fulvus_Scarab.idba.0	XXXXXXXXXXXXX-XX	CP1Sc3S4S5Eu7ful_Euoniticellus_fulvus_Scarab.idba.0_MERGED
-XX-----X----XX	CP1Sc3S4S5Eu7int	XXXXXXXXXXXXX----	CP1Sc3S4S5Eu7int_Euoniticellus_intermedius_CS.idba.5	XXXXXXXXXXXXX-XX	CP1Sc3S4S5Eu7int_Euoniticellus_intermedius_CS.idba.5_MERGED
--X-----X----XX	CP1Sc3S4S5Euon7car	-XXXXXXXXXXXXX----	CP1Sc3S4S5Euon7car_Onthophagus_carbonarius_Scarab.idba.19	-XXXXXXXXXXXXX-XX	CP1Sc3S4S5Euon7car_Onthophagus_carbonarius_Scarab.idba.19_MERGED
--X-----X-XX-XX	CP1Sc3S4S5Hel7qua	XXXX-----XX-XX	CP1Sc3S4S5Hel7qua_Helictopleurus_quadripunctatus_CS.idba.79	XXXX-----X-XX-XX	CP1Sc3S4S5Hel7qua_Helictopleurus_quadripunctatus_CS.idba.79_MERGED
--X-----X----XX	CP1Sc3S4S5Het7cas	XXXXXXXXXXXXX----	CP1Sc3S4S5Het7cas_Heteronitis_castelnaui_CS.idba.56	XXXXXXXXXXXXX-XX	CP1Sc3S4S5Het7cas_Heteronitis_castelnaui_CS.idba.56_MERGED
--X-----X----XX	CP1Sc3S4S5Hy7alc	XXXXXXXXXXXXX----	CP1Sc3S4S5Hy7alc_Hyalonthophagus_alcyon_CS.idba.42	XXXXXXXXXXXXX-XX	CP1Sc3S4S5Hy7alc_Hyalonthophagus_alcyon_CS.idba.42_MERGED
--X-----X----XX	CP1Sc3S4S5Li7mil	--XXXXXXXX-----	CP1Sc3S4S5Li7mil_Liatongus_militaris_Scarab.idba.22	--XXXXXXXX-X----	CP1Sc3S4S5Li7mil_Liatongus_militaris_Scarab.idba.22_MERGED
--X-----X----XX	CP1Sc3S4S5Mi7api	XXXXXXXXXXXXX----	CP1Sc3S4S5Mi7api_Millichus_apicalis_CS.idba.13	XXXXXXXXXXXXX-XX	CP1Sc3S4S5Mi7api_Millichus_apicalis_CS.idba.13_MERGED
--X-----X----XX	CP1Sc3S4S5On7ale	XXXXXXXXXXXX-----	CP1Sc3S4S5On7ale_Onitis_alexis_CS.idba.60	XXXXXXXXXXXX-X----	CP1Sc3S4S5On7ale_Onitis_alexis_CS.idba.60_MERGED
--X-----X----XX	CP1Sc3S4S5On7caf	XXXXXXXXXXXXX----	CP1Sc3S4S5On7caf_Onitis_caffer_CS.idba.6	XXXXXXXXXXXXX-XX	CP1Sc3S4S5On7caf_Onitis_caffer_CS.idba.6_MERGED
--X-----X----XX	CP1Sc3S4S5On7fal	XXXXXXXXXXXXX----	CP1Sc3S4S5On7fal_Onitis_falcatus_CS.idba.22	XXXXXXXXXXXXX-XX	CP1Sc3S4S5On7fal_Onitis_falcatus_CS.idba.22_MERGED
-XX-----X----XX	CP1Sc3S4S5On7ful	-----XXXXXXXX----	CP1Sc3S4S5On7ful_Onitis_fulgidus_CS.idba.62	-----XXXXXXXX-XX	CP1Sc3S4S5On7ful_Onitis_fulgidus_CS.idba.62_MERGED
--X-----X----XX	CP1Sc3S4S5On7egr	XXXXXXXXXXXXX----	CP1Sc3S4S5On7egr_Oniticellus_egregius_CS.idba.9	XXXXXXXXXXXXX-XX	CP1Sc3S4S5On7egr_Oniticellus_egregius_CS.idba.9_MERGED
--X-----X----XX	CP1Sc3S4S5On7bid	-----XXXXXXXX----	CP1Sc3S4S5On7bid_Onthophagus_bidentatus_CS.idba.77	--X-----XXXXX----	CP1Sc3S4S5On7bid_Onthophagus_bidentatus_CS.idba.77_MERGED
-XX-----XX----X	CP1Sc3S4S5On7cly	XXXXXXXXXXXXX----	CP1Sc3S4S5On7cly_Onthophagus_clypeatus_CS.idba.50	XXXXXXXXXXXXX-XX	CP1Sc3S4S5On7cly_Onthophagus_clypeatus_CS.idba.50_MERGED
-XX-----XX----X	CP1Sc3S4S5On7coe	XXXXXXXXXXXXX----	CP1Sc3S4S5On7coe_Onthophagus_coenobita_CS.idba.24	XXXXXXXXXXXXX-XX	CP1Sc3S4S5On7coe_Onthophagus_coenobita_CS.idba.24_MERGED
--X-----X----XX	CP1Sc3S4S5On7fim	XXXXXXXXXXXXX----	CP1Sc3S4S5On7fim_Onthophagus_fimetarius_Scarab.idba.6	XXXXXXXXXXXXX-XX	CP1Sc3S4S5On7fim_Onthophagus_fimetarius_Scarab.idba.6_MERGED
--X-----X----XX	CP1Sc3S4S5On7gra	XXXXXXXXXXXXX----	CP1Sc3S4S5On7gra_Onthophagus_gracillipes_Scarab.idba.3	XXXXXXXXXXXXX-XX	CP1Sc3S4S5On7gra_Onthophagus_gracillipes_Scarab.idba.3_MERGED
-XX-----XX----X	CP1Sc3S4S5On7hae	XXXXXXXXXXXXX----	CP1Sc3S4S5On7hae_Onthophagus_haematopus_CS.idba.41	XXXXXXXXXXXXX-XX	CP1Sc3S4S5On7hae_Onthophagus_haematopus_CS.idba.41_MERGED
--XX-----XX----	CP1Sc3S4S5On7lat	-XXXXXXXXXXXXX----	CP1Sc3S4S5On7lat_Onthophagus_laticollis_Scarab.idba.13	-XXXXXXXXXXXXX----	CP1Sc3S4S5On7lat_Onthophagus_laticollis_Scarab.idba.13_MERGED
--X-----X----XX	CP1Sc3S4S5On7lon	XXXXXXXXXXXXX----	CP1Sc3S4S5On7lon_Onthophagus_longimanus_CS.idba.23	XXXXXXXXXXXXX-XX	CP1Sc3S4S5On7lon_Onthophagus_longimanus_CS.idba.23_MERGED
--X-----X----XX	CP1Sc3S4S5On7nit	-XXXXXXXXXXXXX----	CP1Sc3S4S5On7nit_Onthophagus_nitidior_CS.idba.10	-XXXXXXXXXXXXX----	CP1Sc3S4S5On7nit_Onthophagus_nitidior_CS.idba.10_MERGED
--X-----X----XX	CP1Sc3S4S5On7obs	XXXXXXXXXXXXX----	CP1Sc3S4S5On7obs_Onthophagus_obscurior_CS.idba.31	XXXXXXXXXXXXX-XX	CP1Sc3S4S5On7obs_Onthophagus_obscurior_CS.idba.31_MERGED
-XX-----X----XX	CP1Sc3S4S5On7och	-----XXXX-----	CP1Sc3S4S5On7och_Onthophagus_ochreatus_Scarab.idba.30	-----XXXX-----	CP1Sc3S4S5On7och_Onthophagus_ochreatus_Scarab.idba.30_MERGED
--X-----X----XX	CP1Sc3S4S5On7rhi	XXXXXXXXXXXXX----	CP1Sc3S4S5On7rhi_Onthophagus_rhinolophus_Scarab.idba.2	XXXXXXXXXXXXX-XX	CP1Sc3S4S5On7rhi_Onthophagus_rhinolophus_Scarab.idba.2_MERGED
--X-----X----XX	CP1Sc3S4S5On7ror	XXXXXXXXXXXXX----	CP1Sc3S4S5On7ror_Onthophagus_rorarius_CS.idba.1	XXXXXXXXXXXXX-XX	CP1Sc3S4S5On7ror_Onthophagus_rorarius_CS.idba.1_MERGED
--X-----X----XX	CP1Sc3S4S5On7sem	XXXXXXXXXXXXX----	CP1Sc3S4S5On7sem_Onthophagus_semiaureus_CS.idba.51	XXXXXXXXXXXXX-XX	CP1Sc3S4S5On7sem_Onthophagus_semiaureus_CS.idba.51_MERGED
-XX-----X--X--X	CP1Sc3S4S5On7sim	XXXXXXXXXXXXX----	CP1Sc3S4S5On7sim_Onthophagus_similis_CS.idba.37	XXXXXXXXXXXXX-XX	CP1Sc3S4S5On7sim_Onthophagus_similis_CS.idba.37_MERGED
-XX-----X--X--X	CP1Sc3S4S5On7vac	-XXXXXXXXXXXXX----	CP1Sc3S4S5On7vac_Onthophagus_vacca_CS.idba.55	-XXXXXXXXXXXXX----	CP1Sc3S4S5On7vac_Onthophagus_vacca_CS.idba.55_MERGED
--X-----X----XX	CP1Sc3S4S5On7vul	-----XXXXXXXX----	CP1Sc3S4S5On7vul_Onthophagus_vulpes_CS.idba.70	--X----XXXXXXXX----	CP1Sc3S4S5On7vul_Onthophagus_vulpes_CS.idba.70_MERGED
--X-----X--XX	CP1Sc3S4S5Ph7ard	XXXXXXXXXXXXX----	CP1Sc3S4S5Ph7ard_Phalops_ardea_CS.idba.8	XXXXXXXXXXXXX-XX	CP1Sc3S4S5Ph7ard_Phalops_ardea_CS.idba.8_MERGED
--X-----X--XX	CP1Sc3S4S5Pr7bic	XXXXXXXXXXXXX----	CP1Sc3S4S5Pr7bic_Proagoderus_bicallosus_CS.idba.3	XXXXXXXXXXXXX-XX	CP1Sc3S4S5Pr7bic_Proagoderus_bicallosus_CS.idba.3_MERGED
--X-----X--XX	CP1Sc3S4S5Pr7sch	XXXXXXXXXXXXX----	CP1Sc3S4S5Pr7sch_Proagoderus_schwanei_CS.idba.12	XXXXXXXXXXXXX-XX	CP1Sc3S4S5Pr7sch_Proagoderus_schwanei_CS.idba.12_MERGED
--X-----X--XX	CP1Sc3S4S5Ti7sar	XXXXXXXXXXXXX----	CP1Sc3S4S5Ti7sar_Tiniocellus_sarawacus_CS.idba.21	XXXXXXXXXXXXX-XX	CP1Sc3S4S5Ti7sar_Tiniocellus_sarawacus_CS.idba.21_MERGED
--X-----X--XX	CP1Sc3S4S5Tra7dim	XXXXXXXXXXXXX----	CP1Sc3S4S5Tra7dim_Tragiscus_dimidiatus_Scarab.idba.4	XXXXXXXXXXXXX-XX	CP1Sc3S4S5Tra7dim_Tragiscus_dimidiatus_Scarab.idba.4_MERGED
-XX-----XX----	CP1Sc3S4T5Gn7var	XXXXXXXXXXXX-----	CP1Sc3S4T5Gn7var_Gnorimus_variabilis_ameie.idba.13	XXXXXXXXXXXX--XX-	CP1Sc3S4T5Gn7var_Gnorimus_variabilis_ameie.idba.13_MERGED
-XX-----X--XX	CP1Sc13E4Eu7hae	XXXXXXXXXXXXX----	CP1Sc13E4Eu7hae_Eucinetus_haemorrhoidolus_842710_idba.contig_14	XXXXXXXXXXXXX-XX	CP1Sc13E4Eu7hae_Eucinetus_haemorrhoidolus_842710_idba.contig_14_MERGED
-XX-----X--XX	CP1Sc13S4E17min	XXXXXXXXXXXX-----	CP1Sc13S4E17min_Elodes_minuta_ameie.idba.24	XXXXXXXXXXXX--X-	CP1Sc13S4E17min_Elodes_minuta_ameie.idba.24_MERGED
-X-----XX----	CP1Sc13S4Sc7orb	XXXXXXXXXXXX-----	CP1Sc13S4Sc7orb_Scirtes_orbicularis_ameie.idba.100	XXXXXXXXXXXX-----	CP1Sc13S4Sc7orb_Scirtes_orbicularis_ameie.idba.100_MERGED
-XX-----XX----	CP1T3An40m7f1o	--XXXXXXXXXXXX----	CP1T3An40m7f1o_Omonadus_floralis_HQ232825	--XXXXXXXXXXXX----	CP1T3An40m7f1o_Omonadus_floralis_HQ232825_MERGED
-XX-----XX----	CP1T3An4St7tob	XXXXXXXXXXXX-----	CP1T3An4St7tob_Stricticomus_tobias_ameie.idba.57	XXXXXXXXXXXX-----	CP1T3An4St7tob_Stricticomus_tobias_ameie.idba.57_MERGED
-XX-----X--XX	CP1T3B4Bo7sch	XXXXX-----	CP1T3B4Bo7sch_Boros_schneideri_ameie.idba.177	XXXXX-----X--XX	CP1T3B4Bo7sch_Boros_schneideri_ameie.idba.177_MERGED
-X-----XX----	CP1T3C4C5C17mic	XXXXXXXXXXXX-----	CP1T3C4C5C17mic_Cis_micans_ameie.idba.118	XXXXXXXXXXXX-----	CP1T3C4C5C17mic_Cis_micans_ameie.idba.118_MERGED
-XX-----XX--XX	CP1T3C4C50r7pyg	--XXXXXX-----	CP1T3C4C50r7pyg_Orthocis_pygmaeus_ameie.idba.147	-XXXXXX--XX-XX	CP1T3C4C50r7pyg_Orthocis_pygmaeus_ameie.idba.147_MERGED
-X-----XX--XX	CP1T3Me4Mik7gra	--XXXXXXXXXXXX----	CP1T3Me4Mik7gra_Mikadonius_gracilis_JX412823	-XXXXXXXXXXXX-XX	CP1T3Me4Mik7gra_Mikadonius_gracilis_JX412823_MERGED
-X-----XX--XX	CP1T3Me40s7bip	--XXXXXXXXXXXX----	CP1T3Me40s7bip_Osypa_bipunctata_JX313675	-XXXXXXXXXXXX----	CP1T3Me40s7bip_Osypa_bipunctata_JX313675_MERGED
XXXXXXXXXXXXX----	CP1T3Mo4Mo7atr	XXXXXXXXXXXXX----	CP1T3Mo4Mo7atr_Mordella atrata_NC_013254	XXXXXXXXXXXXX----	CP1T3Mo4Mo7atr_Mordella atrata_NC_013254_MERGED
-X-----XX--XX	CP1T3Mo4Morde7mil	XXXXXXXXXXXX-----	CP1T3Mo4Morde7mil_Mordellochroa_millieri_ameie.idba.36	XXXXXXXXXXXX-----	CP1T3Mo4Morde7mil_Mordellochroa_millieri_ameie.idba.36_MERGED
-XX-----XX--XX	CP1T3Mo4To7buc	XXXXXXXXXXXX-----	CP1T3Mo4To7buc_Tomoxia_bucephala_ameie.idba.63	XXXXXXXXXXXX--XX-	CP1T3Mo4To7buc_Tomoxia_bucephala_ameie.idba.63_MERGED
-XX-----XX--XX	CP1T3My4My7qua	--XXXXXXXXXXXX----	CP1T3My4My7qua_Mycetophagus_quadripustulatus_HQ232824	-XXXXXXXXXXXX-XX	CP1T3My4My7qua_Mycetophagus_quadripustulatus_HQ232824_MERGED
-X-----XX--XX	CP1T3O4I7s7cae	XXXXXXXXXXXX-----	CP1T3O4I7s7cae_Iscnomera_caerulea_JX412790	XXXXXXXXXXXX--XX-	CP1T3O4I7s7cae_Iscnomera_caerulea_JX412790_MERGED

-XX-----	CP1T304Is7cya	XXXXXXXXXXXXX----	CP1T304Is7cya_Ischnomera_cyanea_BIUK.idba.38	XXXXXXXXXXXXX----	CP1T304Is7cya_Ischnomera_cyanea_BIUK.idba.38_MERGED
-XX-----XXX	CP1T3040e7vir	--XXXXXXXXX-----	CP1T3040e7vir_Oedemera_virescens_HQ232826	-XXXXXXXXXX----XXX	CP1T3040e7vir_Oedemera_virescens_HQ232826_MERGED
-X-----	CP1T3P4Sc7pec	XXXXXXXXXXXXX-----	CP1T3P4Sc7pec_Schizotus_pectinicornis_amie.idba.83	XXXXXXXXXXXXX-----	CP1T3P4Sc7pec_Schizotus_pectinicornis_amie.idba.83_MERGED
--X-----XX--XXX	CP1T3R4Pe7fen	XXXXXXXXXXXXX-----	CP1T3R4Pe7fen_Pelecotoma_fennica_842676_idba_contig_23	XXXXXXXXXXXXX-XXX	CP1T3R4Pe7fen_Pelecotoma_fennica_842676_idba_contig_23_MERGED
-X-----	CP1T3Sa4Li7cur	XXXXXXXXXXXXX-----	CP1T3Sa4Li7cur_Lissodema_cursor_amie.idba.80	XXXXXXXXXXXXX-----	CP1T3Sa4Li7cur_Lissodema_cursor_amie.idba.80_MERGED
--X-----XX--XXX	CP1T3Sa4Rh7ruf	XXXXXXXXXXXXX-----	CP1T3Sa4Rh7ruf_Rhinosimus_ruficollis_BIUK.idba.39	XXXXXXXXXXXXX-XXX	CP1T3Sa4Rh7ruf_Rhinosimus_ruficollis_BIUK.idba.39_MERGED
-X-----	CP1T3Sa4Sa7aen	-----XXXXX-----	CP1T3Sa4Sa7aen_Salpingus_aeneus_JX313680	-X-----XXXXX-----	CP1T3Sa4Sa7aen_Salpingus_aeneus_JX313680_MERGED
-XX-----XXX	CP1T3Sa4Vi7ruf	XXXXXXXXXXXXX-----	CP1T3Sa4Vi7ruf_Vincenzellus_ruficollis_833403_Salpingidae_Vincenzellus	XXXXXXXXXXXXX-XXX	CP1T3Sa4Vi7ruf_Vincenzellus_ruficollis_833403_Salpingidae_Vincenzellus_MERGED
-XX-----XX--XXX	CP1T3Sc5An7mac	XXXXXXXXXXXXX-----	CP1T3Sc5An7mac_Anasps_maculata_BIUK.idba.33	XXXXXXXXXXXXX-XXX	CP1T3Sc5An7mac_Anasps_maculata_BIUK.idba.33_MERGED
-X-----	CP1T3Sc5Cy7pha	XXXXXXXXXXXXX-----	CP1T3Sc5Cy7pha_Cyrtanaspis_phalerata_amie.idba.38	XXXXXXXXXXXXX-----	CP1T3Sc5Cy7pha_Cyrtanaspis_phalerata_amie.idba.38_MERGED
-X-----	CP1T3T4D5Sc7met	XXXXXXXXXXXXX-----	CP1T3T4D5Sc7met_Scaphidema_metallicum_amie.idba.104	XXXXXXXXXXXXX-----	CP1T3T4D5Sc7met_Scaphidema_metallicum_amie.idba.104_MERGED
XXXX-XXX-X-XXX----	CP1T3T4D5U17der	XXXXXXXXXXXXX-----	CP1T3T4D5U17der_Ulomoides_dermestoides_NC_025332	XXXXXXXXXXXXX----	CP1T3T4D5U17der_Ulomoides_dermestoides_NC_025332_MERGED
-XX-----	CP1T3T4T5Na7lae	XXXXXXXXXXXXX-----	CP1T3T4T5Na7lae_Nalassus_laevioctostriatus_2VGB.idba.14	XXXXXXXXXXXXX----	CP1T3T4T5Na7lae_Nalassus_laevioctostriatus_2VGB.idba.14_MERGED
-----X--X-X--	CP1T3T4T5Sca7unc	XXXXXXX-XXXXX----	CP1T3T4T5Sca7unc_Scaurus_uncinus_Soil.idba.92	XXXXXXX-XXXXX-X-	CP1T3T4T5Sca7unc_Scaurus_uncinus_Soil.idba.92_MERGED
XXXXXXXX-X-XXX-XXX	CP1T3T4T5Te7mol	XXXXXXXXXXXXX-----	CP1T3T4T5Te7mol_Tenebrio_molitor_NC_024633	XXXXXXXXXXXXX-XXX	CP1T3T4T5Te7mol_Tenebrio_molitor_NC_024633_MERGED
XXXXXXXXXXXX-XXX----	CP1T3T4Tr7aud	XXXXXXXXXXXXX-----	CP1T3T4Tr7aud_Tribolium_audax_NC_024600	XXXXXXXXXXXXX----	CP1T3T4Tr7aud_Tribolium_audax_NC_024600_MERGED
-XX-----XX--XXX	CP1T3Te4T5Te7fun	XXXXXXXXXXXXX-----	CP1T3Te4T5Te7fun_Tetratoma_fungorum_amie.idba.12	XXXXXXXXXXXXX-XXX	CP1T3Te4T5Te7fun_Tetratoma_fungorum_amie.idba.12_MERGED
--X-----XX--XXX	CP1T3Z4Z5U6Us7lac	XXXXXXXXXXXXX-----	CP1T3Z4Z5U6Us7lac_Usechus_lacerta_679350_idba_contig_8	XXXXXXXXXXXXX-XXX	CP1T3Z4Z5U6Us7lac_Usechus_lacerta_679350_idba_contig_8_MERGED

Manual correction of erroneous sequences

This list summarizes the manual corrections done for the tree of Figure 3 (and the complete tree below). These correspond to NCBI terminals whose taxonomic identification (their NCBI taxonomic id) appears erroneous in light of their phylogenetic placement.

NCBI terminals with probable erroneous taxonomic identifications

- CP1Cur3C4M5M6Li7cor
- CP1Cu3Lat4Ak7sle
- CP1S3S4Ps5Ba7del
- CP1Hi3H4S5Gn7com
- CP1Cu3N4Am7C27
- CP1Bo3D4Tro7MC2010
- CP1Cur3C4Ma5Ma7cer
- CP1Ch3Ce4D5Cy7asa
- CP1Cur3C4M5Ph6Cr7pun
- CP1S3Si4S5De7qua
- CP1Cu3N4Cy5Cy7MJM2013

*** Minor errors detected in Genbank ****

- CP1S3S4Ox5Ox7_Oxytelus_sp_JX412796 (should use *Anotylus rugatilis*)
- CP1S3S4O5Ne7TJH2005 is same species as
CP1S3S4O5Ne7bru_Neophonus_bruchi_Staph.idba.0_MERGED

NCBI extraction and Blast threshold

The following table reports the number of mitochondrial loci extracted from the NCBI at different blast E-value thresholds. A value of 1E-5 was retained and is the baseline used for the differences reported below:

Locus	#sequence at 1E-5	Variation at different Blast thresholds					
		1E-12	1E-09	1E-05 (baseline)	1E-03	1E+00	1E+01
<i>12S</i>	4105	-5	-1	0	0	+5	+19
<i>16Sa</i>	14723	-4	0	0	0	+33	+49
<i>16Sb</i>	13487	-13	0	0	0	+54	+96
<i>ATP6</i>	292	-1	0	0	0	+7	+51
<i>cox3</i>	448	0	0	0	0	0	+4
<i>cox2</i>	7363	-1	0	0	0	+44	+148
<i>cox1seg1</i>	46546	-8	0	0	0	+7	+11
<i>cox1seg2</i>	46009	-1	0	0	0	+1	+64
<i>cytb</i>	5370	-6	0	0	0	+0	+1
<i>ef1a</i>	3153	-9	-3	0	+3	+3	+3
<i>nad1</i>	360	0	0	0	0	+6	+63
<i>nad2</i>	612	-2	-2	0	0	+28	+87
<i>nad3</i>	287	-1	0	0	0	+6	+30
<i>nad4</i>	290	0	0	0	0	+15	+35
<i>nad5</i>	1800	0	0	0	0	+9	+105
<i>nad6</i>	191	-29	-19	0	+14	+30	+76

We ran the blast extraction at different Blast E-value thresholds and observed the variation in the number of sequences extracted. When changing the blast E-value threshold between 1e-12 and 1e-3, there is almost no change in the number of extracted sequences. This indicates that the criteria used in the pipeline are efficient in extracting all loci from the Genbank coleopteran data (E-value<1e-5, word size =12, align_length>=60% of the expected locus length). The only notable exception is the locus *nad6*, for which the number of extracted sequences is more dependant to the used threshold. After observing in detail, the new sequences extracted at higher E-value thresholds, we observed that the corresponding Blast alignments were very short (dozens of bases) and were mainly disturbed by the second half of this gene, which contains a large portion of AT-rich segments. AT-rich segments are typically producing lower E-values, because they are abundant in reference databases and the probability to have detected homology by chance and not because of a real signal (the meaning of the E-value), is higher. This mean that in the future, the E-value value threshold should be raised for this Locus, or that better bait sequences should be used. Finally, for several loci, dozens of new sequences are extracted when very weak (and generally not recommended) thresholds of 0.1 or 1 are chosen. This is particularly true for *cox2* and some *nad* genes. These numbers should however be taken with caution. In fact, several of the new sequences are erroneous hits due to the sequence patterns shared by the different mitochondrial genes (similar regions between the different *nad* gene).

Likelihood of the 20 tree searches based on the NCBI+MMG min3loci 1RY_3Del matrix

We launched 20 searches based on the NCBI+MMG min3loci 1RY_3Del matrix, the best tree (see below, seed = 12000) was used as starting tree for the search based on the NCBI+MMG min2loci 1RY_3Del matrix (topology unconstrained). RAxML command:

```
raxmlHPC-PTHREADS -T 12 -n result_min3loci_smv5.1_seed12000 -s infile.txt -q partitions.txt -p 12000 -k -c 25 -m GTRCAT
```

RAxML seed (-p)	Gamma-based Likelihood	GAMMA-based Score of best tree	time (hours)	diff to best.
1000	-11450706.323166	-11450306.278547	118.416336	-436.6692709997
2000	-11451121.951837	-11450571.131743	99.527583	-701.5224670004
3000	-11450905.917378	-11450424.776289	117.397756	-555.1670129988
4000	-11450695.323051	-11450132.612988	113.556559	-263.0037120003
5000	-11450574.745977	-11450226.311419	131.865519	-356.7021430004
6000	-11451095.862001	-11450515.188733	150.632361	-645.5794569999
7000	-11450840.566406	-11450141.221002	112.649898	-271.611725999
8000	-11451099.812055	-11450562.367976	103.53299	-692.7587000001
9000	-11451038.838944	-11450574.763927	107.389821	-705.1546509992
10000	-11450999.71374	-11450638.532262	119.203391	-768.9229859989
11000	-11450803.022373	-11450319.245878	100.511854	-449.6366019994
12000	-11450428.470626	-11449869.609276	124.213404	(best)
13000	-11450558.60822	-11450214.256986	106.185383	-344.6477099992
14000	-11450694.326608	-11450315.357446	114.860602	-445.7481699996
15000	-11450675.505885	-11450182.739883	153.660767	-313.1306069996
16000	-11450922.880813	-11450268.350853	110.463154	-398.7415769994
17000	-11450701.234511	-11450250.937053	111.724028	-381.3277770001
18000	-11450850.682595	-11450266.0749	101.416929	-396.465623999
19000	-11451405.119621	-11450915.764047	120.598017	-1046.1547710002
20000	-11451133.805351	-11450629.176252	121.664275	-759.5669759996

Annotation of NCBI+MMG min2loci 1RY_3Del tree

Total number in this tree based on a minimum of two loci is 15983.

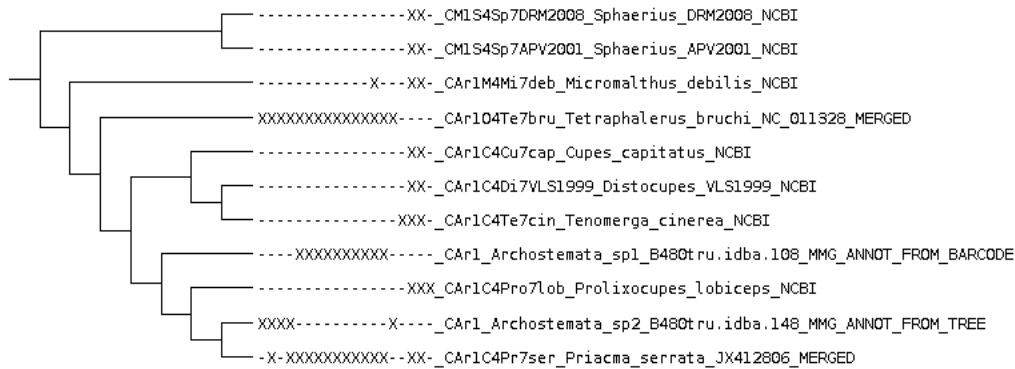
Use Suppl. File S2 to access taxonomic code details.

1. Suborder monophyly and basal relationships.

Molecular studies have generally recovered the four suborders as monophyletic, but their relationships are not supported. Recent consensus is (Outgroup (*Polyphaga* (*Archostemata* (*Myxophaga* + *Adephaga*)))) based on transcriptomes (Misof et al., 2014), PhyloBayes analysis of mitogenomes (Timmermans et al., 2016), and multiple nuclear markers (Mckenna et al., 2015). An observed relationship in minimum-2 tree is (Outgroup (*Myxophaga* (*Archostemata* (*Adephaga* + *Polyphaga*))))). Other trees from min3loci and NCBI-only data show (Outgroup (*Myxophaga* (*Archostemata* (*Polyphaga*+*Adephaga*))))).

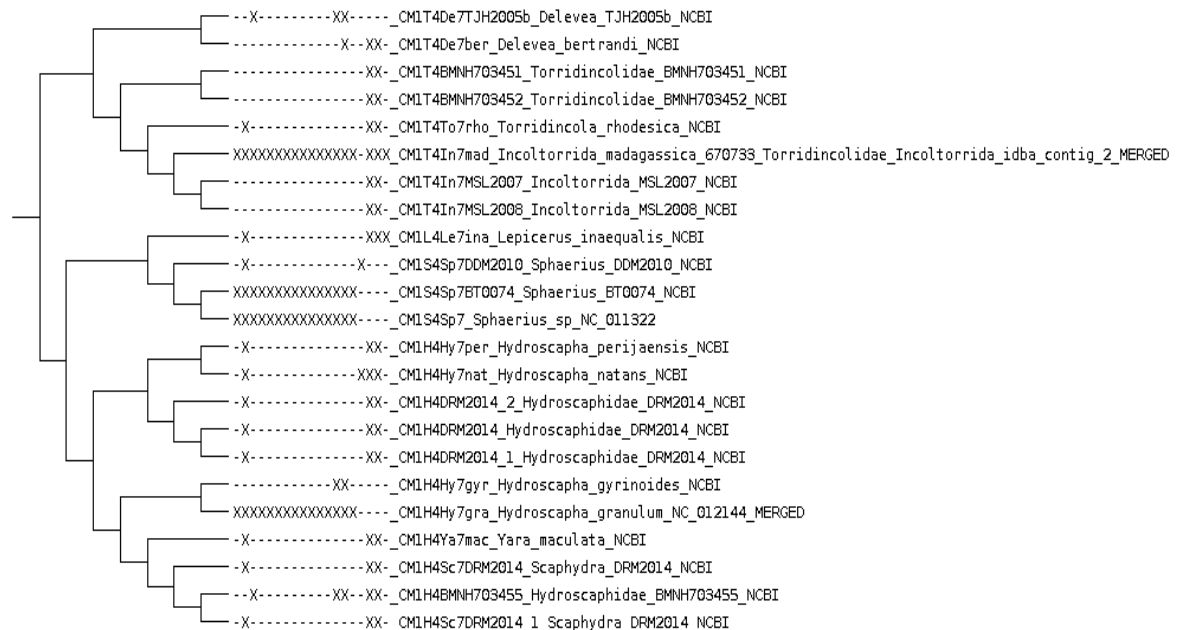
2. *Archostemata* (9 terminals, codes starting with CAr1).

All monophyletic except for two 18S sequences of *Myxophaga* sister to *Archostemata*. Three families are represented: (*Micromalthidae*, (*Cupedidae* + *Ommatidae*)). Two contigs from a Bornean metagenome probably correspond to a single specimen.



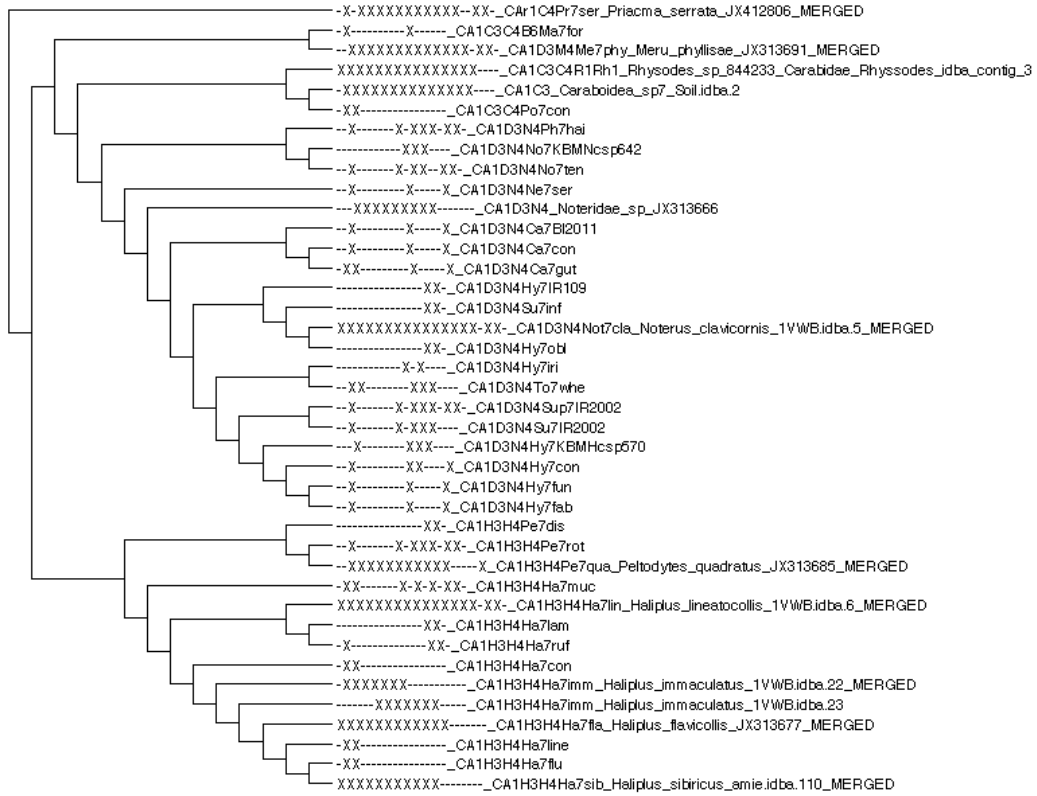
3. *Myxophaga* (25 terminals, codes starting with CM1).

The suborders are monophyletic except for two *cox1*+18S sequences of *Sphaeriusidae* that are sister to *Archostemata*. Four families are represented, with relationships (*Torridincolidae* (*Lepiceridae*, *Sphaeriusidae*) *Hydroscaphidae*)).



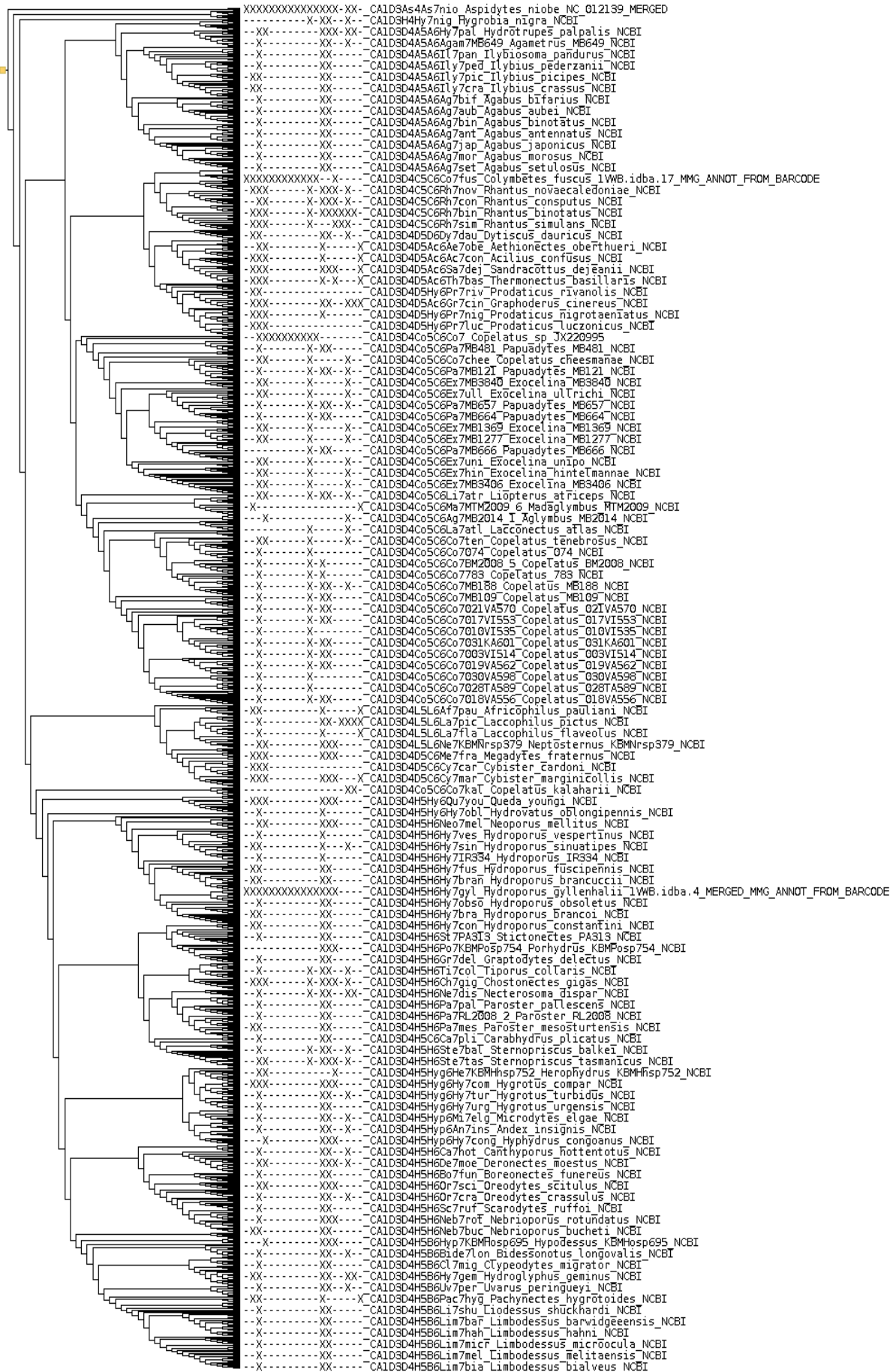
4. **Adephaga (3403 terminals, codes starting with CA1).**

Basal relationships have been separated into reciprocally monophyletic aquatic *Hydradephaga* and terrestrial *Geadephaga* (Maddison et al., 2009; Shull et al., 2001) which is confirmed by recent full mitogenome studies (Lopez et al., submitted). Here we find a paraphyletic *Hydradephaga*, with a comb-like arrangement of ((*Noteridae* + *Meruidae*) (*Haliplidae* + *Dytiscoidea*)) ((*Gyrinidae* (*Cicindelidae* + *Carabidae/Trachypachidae*))). The topology with basal split of (*Noteridae* + *Meruidae*) from all others matches Timmermans et al. 2016. *Hydradephaga* are paraphyletic also in Bocak et al., 2014, but with *Gyrinidae* at the basal split. Mckenna et al., 2015 constrained the monophyly of *Geadephaga* and *Hydradephaga*.



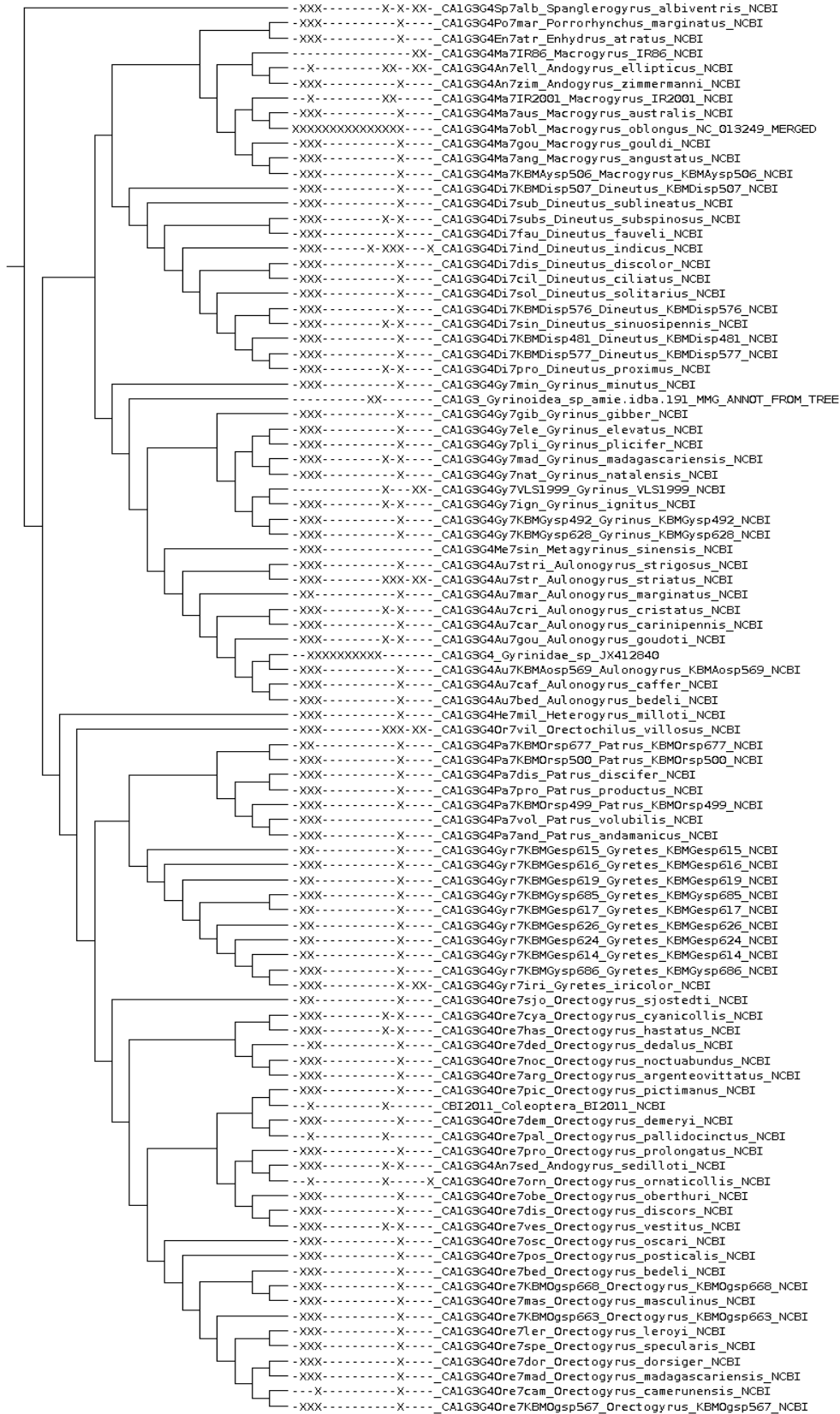
5. **Dytiscoidea (1518 terminals, codes starting with CA1D3).** The superfamily contains six families.
- a. **Basal relationships of Dytiscoidea.** The tree shows ((*Aspydytidae* + *Amphizoidae*) (*Hygrobiiidae* (*Dytiscidae*))), which is in agreement with Balke et al., 2008. *Noteridae* + *Meruidae* are placed distantly at the base of *Adephaga* tree (see above). All families are monophyletic, except for a few representatives of *Laccophilinae* are included with *Hygrobiiidae*.
 - b. **Dytiscidae (1488 terminals, codes starting with CA1D3D4).** The most complete molecular tree available is Ribera, 2008, which found several subfamilies non-monophyletic. The current tree is more in agreement with the subfamily classification than the summary tree of which are recovered as monophyletic here.
 - i. *Dytiscinae* is monophyletic, except for the distantly related *Cybistrini*. Ribera, 2008 recovered tribes *Acilini* and *Hydaticini* / *Hyderodini* in a clade different from *Dytiscini*, which is not observed here.
 - ii. *Agabinae* is monophyletic: *Hydrotrupes* is sister to *Platynectes* and relatives. All together they are sister to *Agabini*; these groups were not a monophylum in Ribera, 2008. The two large genera *Ilybius* / *Ilybiosoma* and *Agabus* are reciprocally monophyletic except for species of *Platambus* which are scattered throughout the *Agabini*.
 - iii. *Laccophilinae* is monophyletic and includes *Agabetini*, which was recovered distant to *Laccophilini* in Ribera, 2008.
 - iv. *Copelatinae*: *Agaporomorphus* is deeply embedded in this subfamily, near *Madaglymbus* (not recovered as closely related to other *Copelatinae* in Ribera, 2008). *Liopterus* is sister to the large *Aglymbus* / *Copelatus* clade, which is reciprocally monophyletic to the *Exocelina* / *Papuadytes* clade (Balke et al., 2004).
 - v. Relationships within *Dytiscidae* show four main lineages:
 1. Basal split is *Aubehydrini* (*Dytiscinae*) as sister to all others. In Ribera, 2008 *Aubehydrini* is recovered near the base together with *Hydrodytinae* / *Matinae* (here found nearer *Hydroporinae*, clade 4.)
 2. ((*Coptotominae* + *Lancetinae*) *Agabinae*)
 3. ((*Colymbetinae* + *Dytiscinae*) *Copelatinae*) (NB: *Copelatinae* are not fully monophyletic because of four species represented by 18S only are placed distantly).
 4. ((*Matinae* (*Laccophilinae* + *Cybistrini*)) ((*Hydrodytinae*) *Hydroporinae*)).

Important note: The following tree figure is a compressed versions of the 1488 *Dytiscidae* terminals. Details are part of the complete tree included in Suppl File S4 and S5 (which spans over many pages). The corresponding subtree can be reached by searching (CTRL+F) for the Label prefix "CA1D3D4".



6. **Gyrinoidea (Gyrinidae) (93 terminals, codes starting with CA1G3).**

A recent study of Miller and Bergsten, 2012 produced a tree very similar to that found here. The basal split is *Spanglerogyrus* versus all others, as expected; two main clades include ((*Macrogyrus* + *Dineutus*) *Gyrinus*) and (*Heterochilus* (*Orectochilus* ((*Patrus* + *Gyretes*) *Orectogyrus*))). Miller and Bergsten recover (*Macrogyrus* + *Dineutus*) as sister to the latter clade, but with low support.



7. **Carabaeoidea (=Geadephaga) (1774 terminals, codes starting with CA1C3).**

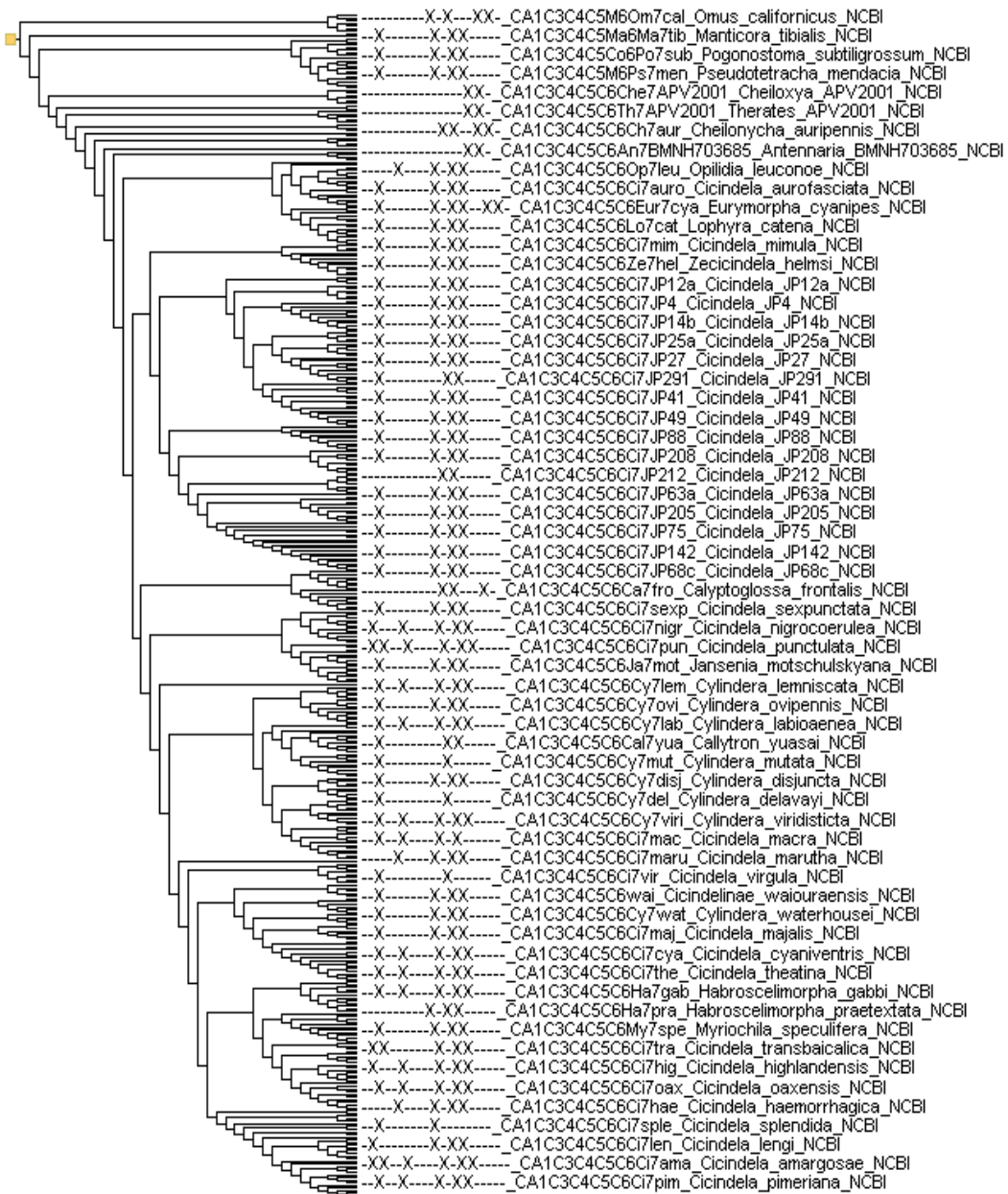
A major attempt for resolving basal relationships was by Maddison et al., 1999 using 18S, and basal relationships in the large subfamily Harpalinae (Ober, 2002) based on 28S and wingless. The NCBI taxonomy recognises four families, *Carabidae*, *Cicindelidae*, *Trachypachidae* and *Rhysodidae*. We find *Cicindelidae* and *Carabidae* + *Trachypachidae* split into two sister lineages (The single representative of *Rhysodidae* groups with *Cicindelidae*).

a. ***Cicindelidae* (442 terminals, codes starting with CA1C3C4C5).**

Basal relationships have been assessed by Vogler and Pearson, 1996 using 16S and 18S rRNA. Treated as subfamily of *Carabidae* in the GenBank taxonomy but is sister to all other caraboids in the current tree (except for three members of tribe *Rhysodini* represented by 18S sequences and thus deserves family status (also see López-López and Vogler, 2017). *Cicindelidae* is monophyletic, with three main groups recognised in NCBI.

- i. *Megacephalini*: split into two clades, including a diverse set of species of several species poor Southern Hemisphere genera (subtribe *Omina*), and the cosmopolitan genus *Megacephala* s.l. (subtribe *Megacephalina*). The latter is sister to *Collyridini*, a group of mainly arboreal species. Some inconsistencies in tree due to double entry for misspelling of *Platychile* and *Platychila*.
- ii. *Cicindelini*: recovered as monophyletic, includes several genera frequently assigned to subtribe *Prothymina*. Basal split is genus *Pseudoxycheila*, and comb-like arrangement of other genera, in agreement with Vogler and Pearson 1996.
 1. *Cicindelina*: this group is recovered as the terminal portion of *Cicindelidae*, and recovers broadly the subclades of North American groups (Vogler et al., 2005) and worldwide clades based on a smaller subsample, including clades I, II, and III of (Pons et al., 2004), and Asian lineages (Sota et al., 2011). Genus and subgenus assignments in *Cicindelina* have been applied inconsistently, which complicates the use of measures of monophyly.

Important note: The following tree is a compressed version of the 442 *Cicindelidae* terminals. Details are part of the complete tree included in Suppl File S4 and S5 (which spans over many pages). The corresponding tree can be reached by searching (CTRL+F) for the Label prefix “CA1C3C4C5”.

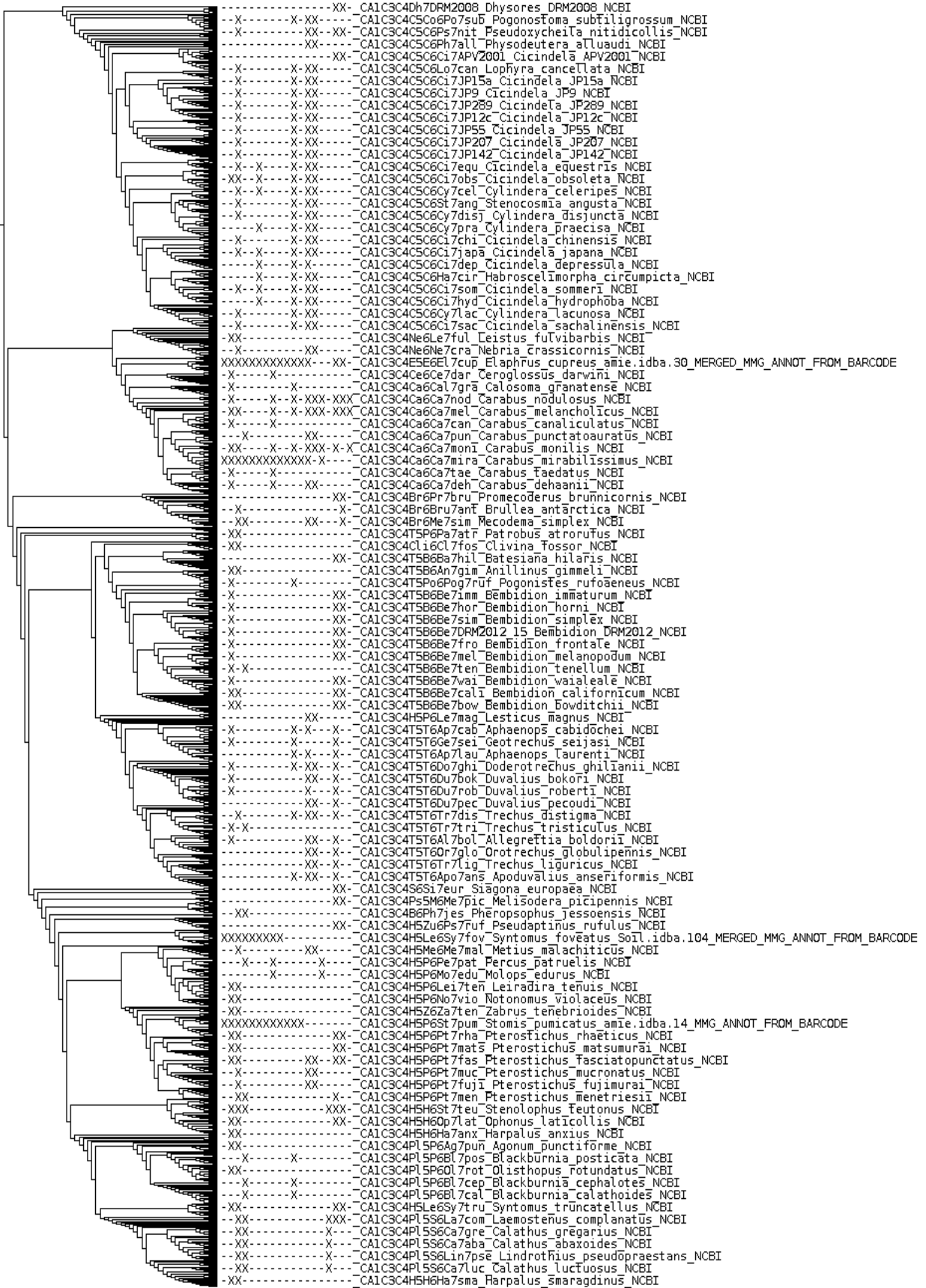


b. **Carabidae (1332 terminals, codes starting with CA1C3C4).**

Data are contributed by Maddison et al., 1999 study using 18S, and basal relationships in the large subfamily *Harpalinae* (Ober and Heider, 2010) based on 28S and wingless. This is complemented by several studies on large genera, e.g. on *Carabus* (Deuve et al., 2012), *Bembidion* (Maddison, 2012), *Trechitae* and various genera of *Harpalinae*.

- i. **Carabidae.** They are a monophyletic (with the inclusion of *Trachypachidae*) and are sister to all other *Carabidae*. This branch includes several clades in a comb-shaped arrangement, including *Trachypachidae* + *Nebriini*, *Elaphrini*, the southern-hemisphere *Pamborus* + *Ceroglossus*, *Cychnus*, and *Calosoma* as sister to *Carabus*. These five major genus-level lineages are monophyletic except for two genera of *Trachypachidae*, *Trachypachis* (represented by full mitogenome) and *Systolosoma* (represented by 18S only) are widely separated.
 1. *Carabus*: the species groups of (Deuve et al., 2012) are mostly recovered but with slightly different relationships to each other. For example, *Neocarabi* are part of a wider clade including *Ohomopterus* and *Archicarabus*. This clade is embedded in a set of species groups of *Multistriati*, which are rendered paraphyletic with regard to the extended *Neocarabi*. Note that *Ohomopterus* from a different dataset (Sota et al., 2001) is embedded in *Multistriati* sister to *C. granulatus / hortensis*. The sister group of the large *Multistriati* + *Neocarabi* clade is (*Ctenocarabus* + *Tachypus*). Basal splits in *Carabus* largely correspond to the structure in Deuve et al. 2012.
 2. Remaining *Carabidae*: *Broscini* sister to all others, followed by several small groups including (*Promecognathinae*, (*Omophroninae* + *Psydrini*)), *Migadopini* and *Loricerini*. Most of these groups have been sequenced for 18S only. The terminal split includes two very large clades, separating *Trechitae* and *Harpalinae*, each clade includes several smaller group of uncertain placement. *Harpalinae* is a terminal group that is embedded in various major lineages, including *Scaritini*, *Clavini*, *Psydrini*, *Brachinini* and others.
- ii. **Trechitae (469 terminals).** Consisting of two major groups, with >200 available species of *Bembidion* internal relationships and relationships with smaller genera were arranged very similarly to the study of Maddison and Ober, 2011. *Patrobini* are part of *Trechitae* (sister to *Trechus*), as found by Maddison and Ober, 2011.
- iii. **Harpalinae.** The NCBI taxonomy splits this group into multiple subfamilies, including *Harpalinae*, *Licininae* and *Platyninae*. Basal relationships in this very large group have been treated by Ober and Heider, 2010 based on 28S and wingless, thus only one locus of those used here. Taxa present are derived from several large genus level studies (each ~100 species), for *Blackburnia*, *Pterostichus*, and *Calathus*. *Harpalinae* are monophyletic. The resolution in this part of the tree shows various incongruences with the tribal taxonomy. Basal splits are *Zuphiini* splitting before the *Lebiini / Cyclosomini*, which are sister to two large terminal clades corresponding mainly to (*Zabrini* + *Pterostichini*) and (*Harpalini* + *Platinini*). The sister relationships of *Harpalinae* are not clear.

Important note: The following tree is a compressed version of the 1332 Carabidae terminals. Details are part of the complete tree included in Suppl File S4 and S5 (which spans over many pages). The corresponding tree can be reached by searching (CTRL+F) for the Label prefix "CA1C3C4".



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