

Table S2. Provisional check-list of arctic-alpine and boreo-montane species shared between the Alps and Fennoscandia but not barcoded from both major distribution areas in this study; taxonomic status of several taxa needs revision.

Nepticulidae

Stigmella vimineticola

Stigmella dryadella

Enteucha acetosae

Adelidae

Nematopogon magna

Prodoxidae

Lampronia aeripennella

Tineidae

Niditinea truncicolella

Nemapogon fungivorella

Agnathosia mendicella

Psychidae

Siederia rupicolella

Dahlica charlottae

Bucculatricidae

Bucculatrix argentisignella

Gracillariidae

Phyllonorycter pyrifoliella

Callisto insperatella

Gracillaria loriolella

Yponomeutidae

Paraswammerdamia conspersella

Nepticulidae

Lyonetia pulverulentella

Elachistidae

Depressaria silesiaca

Elachista festucicolella

Elachista compsa

Elachista excelsicola

Elachista kilmunella

Elachista ornithopodella

Elachista tengstromi

Elachista tetragonella

Elachista zernyi

Scythrididae

Scythris disparella

Coleophoridae

Coleophora idaeella

Coleophora ledi

Coleophora graminicolella

Coleophora paradrymidis

Gelechiidae

Monochroa inflexella

Monochroa ferrea

Aristotelia heliacella

Athrips pruinosa

Filatima incomptella

Gelechia cuneatella

Caryocolum cassella

Scrobipalpula diffluella

Tortricidae

Argyroploce lediana

Argyroploce concretana

Phiaris dissolutana

Aterpia sieversiana

Pelochrista huebneriana

Epinotia gimmerthaliana

Aethes fennicana

Clepsidrinella lindebergi

Epermenidae

Epermenia profugella

Crambidae

Loxostege manualis

Metaxmeste phrygialis

Catoptria maculalis

Agriphila biarmicus

Lycaenidae

Plebejus glandon

Plebeius orbitulus

Nymphalidae

Boloria titania

Lasiocampidae

Eriogaster arbusculae

Geometridae

Eupithecia conterminata

Eupithecia veratraria

Baptria tibiale

Macaria carbonaria

Erebidae

Gynaephora selenitica

Noctuidae

Agrotis fatidica

Xestia sincera

Spaelotis suecica

Sympistis funebris

Acronicta cinerea