Order Psocoptera

Hackston M (2018) Key to the British families of Psocoptera with fully-developed wings

Reference

This key is adapted from New (1974) Handbooks for the Identification of British Insects Volume 1 part 7, published by the Royal Entomological Society and now available on their web site for download.

Check list of families included in this key

Family Amphipsocidae
Family Caeciliusidae
Family Ectopsocidae
Family Elipsocidae
Family Epipsocidae
Family Lachesillidae
Family Lepidopsocidae
Family Liposcelididae
Family Mesopsocidae
Family Pachytroctidae
Family Peripsocidae
Family Philotarsidae
Family Psocidae
Family Psoquillidae
Family Psyllipsocidae
Family Stenopsocidae
Family Trichopsocidae
1 Tarsi 3-segmented. .................................................................2

Tarsi 2-segmented. .................................................................9
2 Venation greatly reduced. Front wings with only two longitudinal veins which fade before reaching margin. 
........... Family LIPOSCELIDAE

Venation more complex. ........................................................................................................3
3 Antennae with 20 or more segments. .................................................................4

Antennae with at most 17 segments, usually less. .................................................6
4 Body, wings and legs covered with flattened scales. Claw with a tiny tooth just before the apex. ...........................................

............ Family LEPIDOPSOCIDAE
British records are of species in stored products.

Body, wings and legs without scales. Claw without a tooth before the apex. ......5
5 Maxillary palps with a conical sensillum on second segment. Front wing with veins \( Cu_2 \) and 1A ending separately on the posterior margin. Pulvillus fairly broad, apex expanded. .............................................
          ............. Family PSOQUILLIDAE

Maxillary palps without a conical sensillum on second segment. Front wing with veins \( Cu_2 \) and 1A meeting together on the posterior margin. Pulvillus narrow. .............................................
          ............. Family PSYLLIPSOCIDAE
6 Antennae with 15 segments with annulations on the segments nearer the tip. Wings elongate, apically rounded and held flat on abdomen at rest. ........................

........ Family PACHYTROCTIDAE

Antennae with never more than 13 segments, not secondarily annulated. Wings not held flat on abdomen at rest. .................................................................7
Veins and wing margins with setae.

Veins and wing margins completely hairless. .......... Family MESOPSOCIDAE
One British genus Mesopsocus with three species.
8 Hind wing with the marginal setae limited to the radial fork; setae not crossing. Found on bark. .............................................................

Family ELIPSOCIDAE

Hind wing with the marginal setae more extensive; setae crossing. .............................................................

Family PHILOTARSIDAE
One British genus *Philotarsus* with two species.
9 Areola postica present in the front wings. ...........10
Note that sometimes the basal part of the vein enclosing the areola postica is missing (i.e. the part nearer the base of the wing). The shape of the areola is however still as illustrated.

Areola postica absent in the front wing. .................17

10 Head elongate; labrum traversed by two sclerotised ridges which converge towards the front. Hairs on the wing margin dense around the wing tip. .................................

Family EPIPSOCIDAE
Note that the head illustration is of a non-British species. Only one British species, Bertkauia lucifuga; only males have fully formed wings and they are very rare; females are wingless, widely distributed but not common.

Head not markedly elongate; labrum without sclerotised ridges. ..........................11
11 Areola postica in the front wing either linked to vein M with a cross vein or vein M forms one edge of the areola postica. 

12

Areola postica in the front wing not joined to vein M.

13
12 Front wing with vein M forming one side of the areola postica.

Family PSOCIDAE

Front wing with the areola postica joined to vein M by a cross vein.

Family STENOPSOCIDAE
13 Front wings without any hair. ...........................

......... Family LACHESILLIDAE
One genus in Britain, *Lachesilla* with three species.

Front wings with hairs on the veins. ........................14
14 Hind wings without hair except for marginal hairs in the radial fork. .........................
............. Family ELIPSOCIDAE

Hind wings with hairs all along the margin. ...........................................................15
15 Posterior margin of hind wing with long and short hairs alternating. ................................................................. 
......... Family TRICHOPODOCIDAE 
Requires about x100 to see. The field of view of the photograph below is about 0.5 mm. Includes one genus in Britain, Trichopsocus with three species.

Posterior margin of hind wing with long setae only. ......................................................... 16
16 Veins in both wings with more than one row of setae, except for vein Cu2 which has a single row.

............ Family AMPHIPOSOCIDAE
One British species Kolbia quisquiliarum. Males key here. Females are wingless or have tiny wing remnants. A rare species found on low vegetation in southern and central England.

Veins of the front wing with single rows of setae; vein Cu2 sometimes without setae.

............ Family CAECILIUSIDAE
17 Claws with a tooth near the tip; pulvillus narrow. Hind wing with veins Rs and M fused for a short length. .......... 
 .......... **Family PERIPSOCIDAE**
 On bark. One genus in Britain, *Peripsocus*, with seven species.

Claws without a subapical tooth; pulvillus broad. Hind wing with veins Rs and M connected by a cross vein. .. 
 .......... **Family ECTOPSOCIDAE**
 One genus in Britain, *Ectopsocus* with seven species. *Ectopsocus briggsi* is the only species of this family likely to be encountered in natural habitats however. There may be one or two undescribed or uncertain species present as well. *E briggsi* is common on foliage.