



A simple key to the commoner families of British beetles

Brian Eversham

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This key is not comprehensive, but covers about 37 of the families most likely to be noted by novices; it aims to include:

- all families with 100 or more British species
- smaller families with several species which are large (>5mm) and common
- families with a popular following in Britain and Europe
- families which are particularly prone to be collected by pitfall trapping

The distribution of British beetles between families is:

1 species	15 families
2-5 species	13 families
6-10 species	13 families
11-15 species	9 families
16-20 species	5 families
21-200 spp	27 families
200-500 spp	3 families
500-1000 spp	1 family

The four largest families account for over half the species, or, in a fauna of nearly 4000 species, 166 species account for 41 out of 86 families. Hence, being able to identify a dozen or so families will allow one to place over 70% of the British species.

- 1 Hind coxae flattened and fixed immovably to metasternum. First abdominal segment visible only outside of coxae. Antennae with 11 simple or bead-like segments **2**
Hind coxae articulating with metasternum, moving when hind leg moves. Antennae variable, often clubbed or thickened. **5**
- 2 Terrestrial beetles of various shapes; legs not modified for swimming (not paddle-like, and tarsi without fringes of hairs). **ground beetles *Carabidae***
Aquatic beetles, streamlined shape for swimming; either legs paddle-like or with fringes of hair on hind tarsi **3**
- 3 Mid and hind legs paddle-like; rather narrow oval beetles which swim rapidly on water surface; 3.5-7.8mm long **whirligig beetles *Gyrinidae***
Mid and hind legs not flattened or paddle-like; swimming beneath the surface; various shapes and sizes **4**
- 4 Hind coxae in form of square or rectangular plates which cover the bases of the hind femora and cover much of the abdomen; yellowish-brown beetles with deep punctures on elytra and thorax narrower than elytra base; 2.5-5mm long **'crawling' water beetles *Halplidae***
Hind coxae not in form of plates, articulating visibly with base of femora; striae with smaller punctures; often darker or larger. **diving beetles *Dytiscidae***

- 5 Elytra short, leaving at least 3 abdominal segments exposed 6
Elytra covering all of abdomen, or last 1-2 segments of abdomen (unless abdomen bloated by being preserved in liquid) 7
- 6 Beetle usually elongate, with 3-6 abdominal segments exposed; seldom with 2 orange spots on each elytron; if elytra have striae, then beetle less than 5mm long rove beetles **Staphylinidae**
Beetle broader and less elongate, with 1-3 abdominal segments exposed; either black and with strong raised ridges on elytra, or smooth and with 2 orange spots on each; at least 10mm long sexton beetles **Nicrophoridae**
- 7 Head protrudes in front of eyes as a 'beak' or rostrum of variable length, with mandibles at tip; if beak is short and inconspicuous, basal antennal segment is much longer than others, forming a scape 8
Head not stretched forward into a beak; antennae usually without a scape 9
- 8 **(3 choices)**
Beak at least as long as broad; antennae with distinct scape; tibiae untoothed; various colours; about 2-20mm weevils **Curculionidae**
Beak less long than broad; antennae without scape (segment 1 little longer than segment 2); tibiae with small teeth along edges; beetle usually covered in black and white scales; 3-12mm black and white weevils **Anthribidae**
Beak less long than broad; antennae with long scape; tibiae untoothed; overall colour dark brown; 1.5-9mm bark or ambrosia beetles **Scolytidae**
- 9 Antennae clubbed, the last few segments clearly wider than the rest 10
Antennae not clubbed, segments of almost uniform width (a few families, with segments gradually thicker toward tip, key out both ways) 24
- 10 Maxillary palps longer than antennae, which are 6-9-segmented; tarsi all with 5 simple segments; water beetles with flat underside and convex upper side 11
Antennae longer than palps 12
- 11 Thorax broadest at middle, and contracted toward elytra; 1-3mm 'scavenger' water beetles **Hydraenidae**
Thorax widest at base, next to elytra; 1-48mm 'scavenger' water beetles **Hydrophilidae**
- 12 Fore and mid tarsi with 5 segments, hind tarsi with 4 segments 13
All tarsi with same number of segments (commonly 5; sometimes 3 or 4) 15
- 13 Upper surface of beetle mostly bright red; antennae serrate or pectinate; 8-18mm cardinal beetles **Pyrrochroidae**
Most of upper surface not red, often black or dark brown; antennae not pectinate or serrate 14
- 14 Thorax broadest at base, which is often exactly the same width as the elytra; thorax completely rounded at front (no protruding angles); mid and hind tarsi usually strongly tapered and longer than tibiae tumbling flower beetles **Mordellidae & Scaptidae**
Thorax usually broadest at middle and contracted slightly at base; front angles often protruding; tarsal segments of uniform width; tarsi shorter than tibiae darkling beetles **Tenebrionidae**
- 15 Antennal club lamelliform (widened on one side only, as a group of separate finger-like or plate-like appendages); 2.5-35mm chafers & dung beetles **Scarabaeidae**
Antenna club more or less symmetrical, not made of several fingers or plates 16
- 16 Body very rounded, and convex both above and below 17
Body usually more elongate, and not convex below 18

- 17 Very hard, glossy, usually mainly black; elytra square or rectangular, short, leaving last 1-2 abdominal segments exposed; front tibiae usually very broad and curved; antennal club usually short and almost spherical **Histeridae**
Less hard and glossy, usually hairy and dull brown; elytra longer, covering whole abdomen; fore tibiae less wide, straight; antenna club more oval or less distinct pill beetles **Byrrhidae**
- 18 Overall shape broad oval, thorax wide, head very narrow (less than 40% width of thorax); apex of fore tibiae oblique, with a long spur on inner side carrion beetles **Silphidae**
Shape various; head broader in proportion to thorax; apex of fore tibiae less oblique, not produced on inner side **19**
- 19 Antennae gradually thickened toward apex, so club is ill-defined; upper surface entirely covered with short down; mid and hind tarsi as long as tibiae **Catopidae**
Antenna club distinct; mid and hind tarsi shorter **20**
- 20 Tarsi all with 5 segments **21**
Tarsi all with 3 or 4 segments **23**
- 21 Antenna club tightly defined, elytra often rather short and square-ended sap (or pollen) beetles **Nitidulidae**
Antenna club of 2-5 loose segments **22**
- 22 Thorax much narrower than elytra; beetle rather parallel-sided and elongate; elytra usually with strongly punctate striae; antenna club of 2-5 joints; 1.5-3mm mould beetles **Lathridiidae**
Thorax almost as wide as elytra; rather broad, rounded beetles, usually with downy elytra without striae; antenna club of 3-4 joints; 1.3-7mm **Leiodidae**
- 23 Tarsi with 3 segments, second segment bilobed; antennae with a distinct tight club; elytra without striae, usually smooth and glossy; rounded, often almost circular beetles with smoothly curved sides to pronotum; often colourful (red or yellow with black spots) ladybirds **Coccinellidae**
Tarsi with 4 simple segments; antenna club more elongate, or whole antennae thickened; parallel-sided, elongate beetles; thorax usually with projecting front angles and often with serrations at side; usually uniform dull or yellowish brown **Cryptophagidae**
- 24 Beetle elongate, especially elytra (at least 3 times as long as wide) and soft (easily bent, folded or even rolled up) **25**
Usually less elongate; elytra harder **28**
- 25 Front and mid tarsi with 5 segments, hind tarsi with 4 segments **26**
All tarsi with 5 segments **27**
- 26 Head and thorax thickly covered with long, black, outstanding hairs; last three antennal segments all as elongate as other segments; elytra yellowish **Lagriidae**
Head and thorax with few or no long hairs; last 3 antennal segments roughly square or wider than long; elytra often metallic blue or green **Oedemeridae**
- 27 Body mostly metallic green, often with red marks; antennae usually black with yellow marks malachite beetles **Malachiidae (Melyridae)**
Body various shades of yellow, brown or black, never metallic green; antennae usually of a single colour soldier beetles **Cantharidae**
- 28 Tarsi all apparently 4-segmented (in fact, a tiny additional segment is present, hidden within the lobes of the bilobed segment 3) **29**
Fore and mid tarsi 5-segmented, hind tarsi 4-segmented **31**

- 29 Beetle usually elongate and parallel-sided; antennae very long often longer than head and body; most antennal segments very elongate (at least twice as long as wide), but segment 2 shorter, much shorter than 1 or 3. Eyes each with a notch at the front in which the antennae are inserted.
longhorn beetles **Cerambycidae**
- Beetle often shorter and more rounded; antennae usually shorter; if eyes are notched, then elytra are short and have convex-curved apices, leaving most of the last abdominal segment exposed. **30**
- 30 Often metallic colours; seldom conspicuously hairy, and if so, usually with simple hairs; eyes round, not notched; elytra usually reach tip of abdomen, and are seldom notched at suture
leaf beetles **Chrysomelidae**
- Usually shades of fawn and grey on a darker background; covered in hairs, including pale, flattened scale-like hairs which pattern the elytra and the exposed last abdominal segment; eyes with a notch at front, around bases of antennae; elytra short, with curved apices so there is a notch at the suture (midline) and a rounded point on either side
seed beetles **Bruchidae**
- 31 All tarsi with 5 segments **32**
Front and mid tarsi with 5 segments, hind tarsi with 4 segments **34**
- 32 Prosternum with a backward-directed point, which slots into a groove in the mesosternum; thorax usually with hind angles extended into backward points
click beetles **Elateridae**
Prosternum seldom with point, and never slotted into a tight groove in mesosternum; thorax seldom prolonged into points at hind corners **33**
- 33 4th tarsal segment strongly bilobed **Scirtidae**
4th tarsal segment simple, similar to 3rd and 5th **Catopidae**
- 34 Thorax narrower than elytra; front of thorax formed into a very narrow neck; head usually round, and wider than thorax
ant beetles **Anthicidae**
Thorax broader than elytra; no constricted neck; head various **35**
- 35 Thorax broadest at base, which is often exactly the same width as the elytra; thorax completely rounded at front (no protruding angles); mid and hind tarsi usually strongly tapered and longer than tibiae
tumbling flower beetles **Mordellidae & Scraphiidae**
Thorax usually broadest at middle and contracted slightly at base; front angles often protruding; tarsal segments of uniform width; tarsi shorter than tibiae **36**
- 36 Antennae attached on underside of head, so base of first segment is not visible from above
darkling beetles **Tenebrionidae**
Antennae attached to upper side of head, so bases visible **37**
- 37 All antennal segments elongate, the last three all as elongate as other segments; 3rd segment of hind tarsi simple **Alleculidae**
Antennal segments 8-10 either approximately square or wider than long; 3rd segment of hind tarsi bilobed
false darkling beetles **Melandryidae**