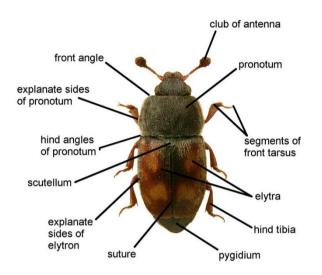
Family Nitidulidae

Keys translated by Mike Hackston from Lompe (2012) Käfer Europas Nitidulidae, published online at http://www.coleo-net.de/coleo/texte/nitidulidae.htm and linked pages. Reproduced here with the kind permission of Dr Arved Lompe.



Checklist

From the Checklist of Beetles of the British Isles, 2012 edition (R.G. Booth), edited by A. G. Duff.

Subfamily Carpophilinae Urophorus Murray, 1864 Carpophilus Stephens, 1829 Epuraea Erichson, 1843 Subfamily Meligethinae Pria Stephens, 1829 Meligethes Stephens, 1829 Subfamily Nitidulinae Nitidula Fabricius 1775 Omosita Erichson, 1843 Soronia Erichson, 1843 Amphotis Erichson, 1843 Cychrmus Kugelann, 1794 Pocadius Erichson, 1843 Thalycra Erichson, 1843 Subfamily Cryptarchinae Cryptarcha Stuckard, 1839 Glischrochilus Reitter 1873 Pityophagus Stuckard, 1839 ferrugineus (Linnaeus, 1761)

Subfamily Cybocephalinae Cybocephalus Erichson, 1844

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Family Nitidulidae

Key to genus



Only the last segment of the abdomen is exposed beyond the elytra.4





Elytra shortened to leave the last two tergites 3 uncovered. Length 1.8-4.5 mm.

tergite partly uncovered.



Elytra shortened to leave the last three tergites uncovered. Length 3-5 mm. Urophorus humeralis U. humeralis (Fabricius, 1798)



(C) U Schmidt





Without the above characters in combination.<u>5</u>



Frontoclypeus	and labrum united, separated by at most a fine indication of	f
a curved line.	Subfamily Cryptarchinae15	





Middle and hind tibiae with a doubled outer edge.	Subfamily Nitidulinae
	<u>8</u>



7 Head broader in proportion to the pronotum. Segment 1 of antennae more or less symmetrical and club slightly elongate and loosely-segmented (formed of four segments in males and three in females). Middle and hind tibiae broader in proportion to the front tibia. Yellowish to dark brownish-yellow species with the head and area around the scutellum region often darker. Very small beetle, length 1.5-2.0 mm.



...... **Pria dulcamarae** *P. dulcamarae* (Scopoli, 1763). Associated with the flowers of Solanum dulcamara; very local.

A genus rich in species which are uniform in appearance. Males are primarily distinguished by the form of the anal segment which is unfortunately not visible except by dissection; further sexual differences exist in the shape of the metasternum and the last sternite of the abdomen. Larvae and adults are found at flowers where they feed on pollen, occasionally chewing the anthers and ovaries.





8 Pronotum with two rounded impressions, close together in the middle in front of the hind margin. Elytra (at least in the rear part) with distinctly impressed sutural striae which are separated from the suture by a ridge. Elytra with a reddish-brown and dark pattern.

..... Genus Omosita

Males have the front and middle tarsi rather more developed than the females. The male anal segment is only visible after dissection. Feed on bones, dry carrion and similar substrates.



Pronotum without such impressions, but if with a trace then the elytra lack sutural striae.





10 Sides of the pronotum and elytra lacking a distinct fringe of hairs, at most with microscopically fine hairs.

..... Genus *Epuraea*

The anal segment is visible in males. The larvae are found in the feeding galleries of bark beetles, sap runs and in fungi. The adults are also found at flowers.



Sides of the pronotum and elytra with a fringe of hairs which is apparent as a distinct white border even with 10x magnification.<u>11</u>



11 Fringe of hairs on the sides of the pronotum shorter than that on the elytra. Club of the antennae looselysegmented. Capable of partially curling into a ball. Length 3.5-5.5 mm.

..... Cychramus luteus

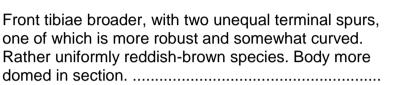
C. luteus (Fabricius, 1787). A common species on flowers and in decaying fungi. Males are completely dull and are relatively larger than females with finer and denser punctures. Females lack a leathery microscopic surface sculpture and this leads to a clear shine; ovipositor broadly truncate at the rear and often exposed. Probably on fungi.



Fringe of hairs on the sides of the pronotum longer than that on the elytra	a,
or fringe of hairs uniform on both. Not capable of any sort of curling. Clu	ub
of the antennae more compact.	<u>12</u>



Anal segment of males not externally visible; front and middle tibiae more strongly developed than in females. Feed on bones, dry carrion and similar substrates.



..... Thalycra fervida

T. fervida (Olivier, 1790). Rare but widespread; collected by sweeping with a net in the evening. Middle and hind tibiae with a covering of hairs and small teeth on the outer surface, clearer on the middle one. Anal segment externally visible in males.







13 First segment of the antennae more or less distinctly broadened into a rectangular lobe which is often larger than an eye. Elytra with several conspicuous continuous ribs and flattened margins. Front border of the pronotum deeply concave. Length 3.8-5.9 mm.

...... **Amphotis marginata** A. marginata (Fabricius, 1781). Rare in southern England northwards to Derbyshire. Associated with the nests and forage trails of the ant *Lasius* fuliginosa.



First segment of the antennae simply thickened or with a rounded extension towards the front.<u>14</u>



14 Elytra with yellow or reddish-yellow markings. Pronotum with impressions on the top and with the front margin concave and hind angles blunt. Elytra sometimes with very slightly raised lines with rows of tiny bristles between them, curved towards the rear; flattened sides dull with a fine leathery texture. Genus Soronia

The patterning on the upper surface is unique in the family. Species have been collected from sap runs, rotting vegetation and Cossus tunnels



Upper surface more or less uniformly reddish-brown to blackish-brown. Pronotum with the front margin hardly concave and with sharp hind angles. Elytra with lines marked by fine punctures and with distinct erect hair.



..... Genus *Pocadius*



15 Upper surface hairy. Pronotum with the hind margin distinctly curving back at the sides. Elytra with a buff-brown pattern.
Genus Cryptarcha
If the upper surface is short hairy and the elytra are uniformly dark return to couplet 6

Upper surface bare.	Elytra either with two distinct yellowish or reddish	
markings or uniforml	ly reddish-brown	<u>16</u>







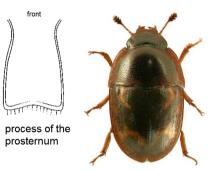


Genus Cryptarcha

Translated from Lompe (2012) http://www.coleo-net.de/coleo/texte/cryptarcha.htm

strigata (Fabricius, 1787) *undata* (Olivier, 1790)

1 Larger species, 3.2-4.4 mm. Process of the prosternum comparatively broad and concave at the tip (projects between the bases of the front legs). Dark brown species with a reddish-yellow patch on the shoulders of the elytra and a jagged transverse band in the last third (markings very variable).



...... **Cryptarcha strigata** Line drawings from Spornraft (1967) Die Käfer Mitteleuropas





Genus **Glischrochilus**

Adapted and translated from Lompe (2011) http://www.coleo-net.de/coleo/texte/glischrochilus.htm

Subgenus Glischrochilus quadripunctatus (Linnaeus, 1758) Subgenus Librodor hortensis (Geoffroy in Fourcroy, 1785) quadriguttatus (Fabricius, 1777)

Process of the prosternum (pointing back between the bases 1 of the front legs) sheared off at the tip or slightly rounded. Flatter, more parallel-sided species. Pronotum narrowing just before the hind angles, the width at the hind angles being narrower than the base of the elytra. Elytra each with two reddish spots. Tarsi only very slightly broadened. Length 3-6 mm. Female elytra sharply pointed next to the suture. Aedeagus as shown. Subgenus Glischrochilus.

...... Glischrochilus quadripunctatus Found under the bark of conifers.

Process of the prosternum strongly rounded at the tip. More oval and convex species. Pronotum not narrowed towards the base and as wide as the base of the elytra. Tarsi clearly

broadened. Subgenus Librodor.2











2 Elytra with whitish-yellow patches and with the humeral patch usually three-branched. Male aedeagus as shown. Length 3.2-5.5 mm. *Glischrochilus quadriguttatus*











Genus Nitidula

Translated from Lompe (2012) http://www.coleo-net.de/coleo/texte/nitidula.htm

bipunctata (Linnaeus, 1758) *carnaria* (Schaller, 1783) *flavomaculata* Rossi, 1790 *rufipes* (Linnaeus, 1767)



Elytra usually with yellowish or reddish-yellow markings.2





England and Wales with scattered records northwards into Scotland.



3 Narrow flattened margin of the elytra viewed from above, always equally visible along the whole length. Elytra usually with a large irregular reddish-yellow patch at the base and a second, elongated patch over the suture beyond half-way which may be united with the basal patches. These markings are quite clearly defined against the background. Larger and broader species, 2.8-5.6 mm. Males with the pronotum very much duller, flatter, broader and less narrowed towards the front than females. *Nitidula flavomaculata* Rare species



Scattered records in SE England and the eastern Midlands.





Genus Omosita

Translated from Lompe (2010), http://www.coleo-net.de/coleo/texte/omosita.htm

colon (Linnaeus, 1758) *depressa* (Linnaeus, 1758) *discoidea* (Fabricius, 1775)

 The raised central part of the pronotum is bordered on each side by a longitudinal, weakly curved furrow. Upper surface with paler markings. Elytra with fine hairs and with rows of short bristles. Normally reddish-brown with a few blackish areas. Length 3-5 mm.
 Omosita depressa Widespread through Great Britain but scattered.



Pronotum without longitudinal furrows. Elytra with paler patches.2



Widespread and relatively common in England and Wales.





Genus Pocadius

Translated from Lompe (2014) http://www.coleo-net.de/coleo/texte/pocadius.htm

adustus Reitter, 1888 *ferrugineus* (Fabricius, 1775)

On puffballs, e.g. *Scleroderma* and other fungi

Surface of the lateral keel of the elytra smooth. Hairs on the pronotum and elytra longer than the first segment of the antennae. Elytra with more upright, whitish-yellow hairs. Bristles of the middle and hind tibiae about 3-4 times as long as the spur. Tip of male pygidium usually clearly concave, forming an obtuse angle each side. Length 2.6-4.6 mm.

..... Pocadius adustus

On puffballs of genera Lycoperdon, Bovista, Calvatia und Langermannia.





Genus Soronia

Translated from Lompe (2013), http://www.coleo-net.de/coleo/texte/soronia.htm

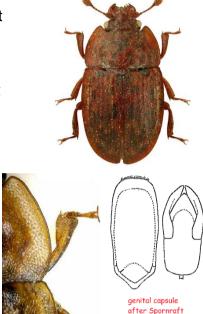
grisea (Linnaeus, 1758) *punctatissima* (Illiger, 1794)

1 Elytra uniformly and more densely punctured with the distance between the punctures* about equal to the diameter of the punctures. Between the suture and the first ridge there are 7-9 punctures. Sides of the pronotum more evenly rounded to the hind margins. Male front tibia bent on the inner surface and widening towards the tip. Larger and generally darker species. Rusty-red to dark-brown with black and reddish-yellow spots. The pale transverse band on the elytra is irregularly wavy and is usually interrupted by the darker suture. Male genital capsule broad and blunt at the tip. Length 4.5-7 mm.

...... Soronia punctatissima

Generally distributed in Great Britain but less often recorded than grisea.

*The elytra have two types of punctures, larger ones which do not have a hair and much smaller ones from which a tiny hair arises. The punctures referred to are the larger ones without a hair.



Elytra with the punctures coarser and less dense, the gaps between the punctures 2-4 times greater than the diameter of the punctures. Between the suture and the first ridge there are 4-5 punctures. Sides of the pronotum more suddenly narrowing to the hind angle. Male front tibia not as above. Smaller and paler species with similar mottling. The pale transverse band is evenly triangular and is usually not interrupted by the suture. Male genital capsule more rounded at the tip.

...... **Soronia grisea** England and Wales, extending to southern Scotland.





Genus Carpophilus

Source Material

Translation and adaptation by Mike Hackston of the German key by Arved Lompe (2013) Käfer Europas, *Carpophilus*, published online at http://www.coleo-net.de/coleo/texte/carpophilus.htm (2011), published here with permission (his key taken derived from that of K. Spornraft).

Checklist of species

From the Checklist of Beetles of the British Isles, 2012 edition, edited by A. G. Duff (available from www.coleopterist.org.uk/checklist.htm). This lists 11 species.

Genus Carpophilus

dimidiatus (Fabricius, 1792) flavipes Murray, 1864 hemipterus (Linnaeus, 1758) ligneus Murray, 1864 maculatus Murray, 1864 marginellus Motschulsky, 1858 mutilatus Erichson, 1843 nepos Murray, 1864 obsoletus Erichson, 1843 sexpustulatus (Fabricius, 1792) truncatus Murray, 1864

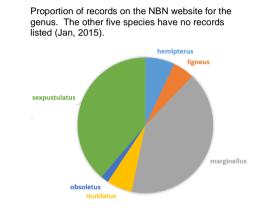


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In males the last sternite is deeply indented to accommodate the anal segment. In females the pygidium sometimes has a more or less distinct swelling or longitudinal central ridge. In the internal male genitalia, the parameres are only visible from above and the side; the aedeagus is small and membranous and so it is the form of the parameres that is used in identification.



Genus Carpophilus

Key to British species





Reddish-brown to pitch black species. Elytra with distinct yellowish-brown spots on the shoulders and before half way each side of the suture, sometimes with a further weaker one beyond half way towards the side. Rather more delicate, darker and more shining. Sides of the pronotum appear reddish-yellow. Last segment of the male abdomen without a clear transverse impression. Last segment of the female abdomen regularly rounded so that the sides do not appear to be rolled over. Length 2.0-3.5 mm.

..... Carpophilus sexpustulatus England and Wales.





3 Pronotum more or less straight in the rear half and without a tooth at the hind angle; transition between the outline of the pronotum and the elytra much smoother. Elytra paler along the front margin and usually along the suture, forming a T-shape. Elytra covering more of the abdomen, with only two segments exposed. Length 1.6-2.0 mm.

........... **Carpophilus maculatus** Image from padil.gov.au © Caroline Harding. Rare.

Pronotum much more distinctly curved in the rear section with a well-defined tooth; transition from the pronotum to the elytra appearing interrupted. Elytra clearly paler in colour than the pronotum but without distinct markings. Elytra shorter compared to the abdomen leaving three exposed segments. Length 2.2-3.5 mm.

..... Carpophilus ligneus

Image from padil.gov.au © Caroline Harding. England and Wales; few records.









Mesosternum without a ridge but at most with punctures over the surface.

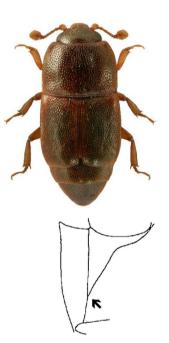


5 Ridge of the mesosternum short, the forked section easily visible. The first segment of the abdomen viewed from below has a raised line that runs parallel to the hind coxae for the most part and reaches the episternum near the front. Elytra usually with yellowish or reddish



hind coxa keel first segment of the abdomen

episternum









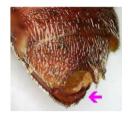


7 Third segment of the antennae clearly longer than the second. Upper surface usually chestnut-brown. Antennae and legs reddish; club of the antennae often darkened. Hairs golden-yellow and black; the golden-yellow hairs usually form a broad but indistinct V marking across both elytra. Length 2-3 mm. *Carpophilus dimidiatus* Rare.





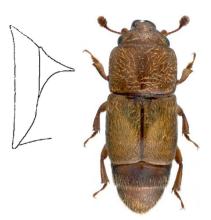
Image $\ensuremath{\mathbb{C}}$ Mississippi Entomological Museum. Few records; England and Wales.







9 Underside of the first segment of the abdomen with a shallow ridge that runs in a wide curve, meeting the episternum in the middle. Elytra usually yellowish- or reddishbrown, with the hind margin and an illdefined patch behind the scutellum chestnut- or dark-brown (the same colour as the underside). Legs and antennae reddishyellow. Hairs sparse and inconspicuous. Length 1.9-3.0 mm.



Shallow ridge on the first segment of the abdomen running parallel to the coxae for nearly 2/3 of their breadth and then curving back meeting or almost meeting the episternum before the middle. Upper surface uniformly chestnut-brown to paler reddishbrown. Legs, antennae and mouthparts yellowish-red. Hairs long and golden yellow.

..... *Carpophilus nepos* Photograph © U Schmidt. Rare





Carpophilus flavipes is not included in the key but is illustrated here (left hand photo). Note the uniformly dark-coloured upper surface and the contrasting yellowish-brown legs. Only *C. obsoletus* (illustrated to the right) could be confused with it. Note the relative proportions of the pronotum and elytra and the shape of the elytra at the front.



