

Subfamily Meligethinae

Key to British species

Source Material

The source of this translation is Lompe (2014) Käfer Europas Meligethes and linked pages. The original text can be found <http://www.coleo-net.de/coleo/texte/meligethes.htm>. These German keys are derived from earlier work by Spornraft (1967) in Die Käfer Mitteleuropas, Volume 7 edited by Freude, Harde & Lohse. Translated by Mike Hackston and reproduced here with the kind permission of Dr Arved Lompe.

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Checklist from the Checklist of Beetles of the British Isles, 2012 edition, edited by A. G. Duff, now updated and available from Pemberley Books

Genus **PRIA** Stephens, 1829
dulcamarae (Scopoli, 1763)

Genus **MELIGETHES** Stephens, 1829

aeneus (Fabricius, 1775)
atramentarius Förster, 1849
atratus (Olivier, 1790)
bidens Brisout de Barneville, 1863
bidentatus Brisout de Barneville, 1863
brevis Sturm, 1845
brunnicornis Sturm, 1845
carinulatus Förster, 1849
coracinus Sturm, 1845
corvinus Erichson, 1845
difficilis (Heer, 1841)
erichsonii Brisout de Barneville, 1863
exilis Sturm, 1845
flavimanus Stephens, 1830
fulvipes Brisout de Barneville, 1863
gagathinus Erichson, 1845
haemorrhoidalis Förster, 1849
incanus Sturm, 1845
kunzei Erichson, 1845

lugubris Sturm, 1845
matronalis Audisio & Spornraft, 1990
morosus Erichson, 1845
nanus Erichson, 184
nigrescens Stephens, 1830
obscurus Erichson, 1845
ochropus Sturm, 1845
ovatus Sturm, 1845
pedicularius (Gyllenhal, 1808)
persicus (Faldermann, 1835)
planiusculus (Heer, 1841)
rotundicollis Brisout de Barneville, 1863
ruficornis (Marsham, 1802)
serripes (Gyllenhal, 1827)
solidus (Kugelann, 1794)
subrugosus (Gyllenhal, 1808)
symphyti (Heer, 1841)
umbrosus Sturm, 1845
viridescens (Fabricius, 1787)



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Hosts

Brassicaceae

Species	NBN records	Hosts
<i>aeneus</i>	6135	<i>Sinapis arvensis</i> , <i>Brassica</i> and others
<i>viridescens</i>	406	<i>Sinapis arvensis</i> , <i>Brassica</i> and other Brassicaceae
<i>fulvipes</i>	127	<i>Sinapis arvensis</i> and other yellow-flowered Brassicaceae
<i>rotundicollis</i>	121	<i>Sinapis arvensis</i> and <i>Sisymbrium officinale</i>
<i>coracinus</i>	3	<i>Sinapis arvensis</i> , <i>Brassica</i>
<i>matronalis</i>		<i>Hesperis matronalis</i>

Lamiaceae

Species	NBN records	Hosts
<i>ruficornis</i>	273	<i>Ballota nigra</i>
<i>obscurus</i>	248	<i>Teucrium scorodonium</i>
<i>pedicularius</i>	179	<i>Galeopsis tetrahit</i> .
<i>morosus</i>	153	<i>Lamium album</i> .
<i>ovatus</i>	140	<i>Glechoma hederacea</i>
<i>difficilis</i>	112	<i>Lamium album</i> .
<i>exilis</i>	84	<i>Thymus</i>
<i>gagathinus</i>	59	<i>Mentha arvensis</i> .
<i>atramentarius</i>	54	<i>Lamium album</i> .
<i>lugubris</i>	54	<i>Thymus</i>
<i>ochropus</i>	53	<i>Stachys palustris</i> .
<i>umbrosus</i>	48	<i>Prunella vulgaris</i> and <i>grandiflora</i>
<i>kunzei</i>	37	<i>Lamium album</i> .
<i>bidens</i>	32	<i>Clinopodium vulgare</i>
<i>serripes</i>	15	<i>Galeopsis angustifolia</i>
<i>persicus</i>	14	<i>Stachys officinalis</i> .
<i>incanus</i>	12	<i>Nepeta cataria</i>
<i>brunnicornis</i>		<i>Stachys sylvatica</i>
<i>nanus</i>	0	<i>Marrubium vulgare</i>

Fabaceae

Species	NBN records	Hosts
<i>nigrescens</i>	973	<i>Trifolium repens</i>
<i>carinulatus</i>	239	<i>Lotus corniculatus</i>
<i>erichsonii</i>	23	<i>Hippocrepis comosa</i>
<i>bidentatus</i>	17	<i>Genista tinctoria</i>



Rosaceae

Species	NBN records	Hosts
<i>atratus</i>	724	<i>Rosa</i>
<i>flavimanus</i>	357	<i>Rosa</i>

Campanulaceae

Species	NBN records	Hosts
<i>subrugosus</i>	49	<i>Jasione montana</i> and <i>Campanula glomerata</i> .
<i>corvinus</i>	0	<i>Campanula trachelium</i> .

Boraginaceae

Species	NBN records	Hosts
<i>planiusculus</i>	232	<i>Echium vulgare</i>
<i>symphyti</i>		<i>Symphytum officinale</i>

Cistaceae

Species	NBN records	Hosts
<i>solidus</i>	154	<i>Helianthemum</i>
<i>brevis</i>	34	<i>Helianthemum</i>



- 1 Club of the antennae loosely segmented, formed of four segments in males (left) and three in females (right). Last segment of the abdomen viewed from below without impressed semi-circular lines.

..... ***Pria dulcamarae***

Associated with *Solanum dulcamara* and *Solanum nigrum*



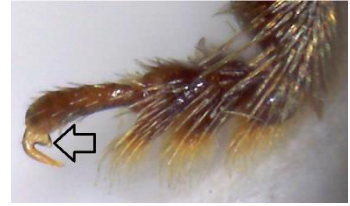
Club of the antennae compact, formed of three segments in both sexes. Last segment of the abdomen viewed from below with distinct, impressed, semi-circular lines each side (sometimes hidden if the base of the last segment is retracted into the rest of the abdomen).

Genus *Meligethes*.2



(C) Mike Hackston

- 2 Claws with a clear tooth at the base.3
Associated with rock roses.



- Claws without a tooth, at most weakly thickened at the base.4

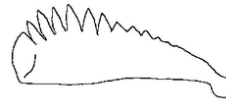
- 3 Front tibia with a comb of four large teeth towards the tip. Upper surface with very fine and dense punctures and a microscopic net-like sculpture which is particularly clear at the base of the pronotum towards the side. Black with a lead-coloured shine, with dark grey hairs. Front of the head also dark but partly reddish around the mandibles. Front legs brownish-red. Length 1.6-3.1 mm.



..... ***Meligethes solidus***

Larvae on *Helianthemum nummularium* and thus mostly in calcareous habitats.

Front tibia with a larger number of narrower teeth. Upper surface shining black with coarse but less dense without a net-like surface sculpture even at the sides of the pronotum towards the base. Length 1.5-2.6 mm.



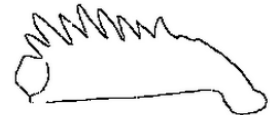
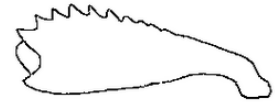
..... ***Meligethes brevis***

Larvae on various *Helianthemum* species.

- 4 Front tibia without teeth along the outer margin, but with regular small serrations towards the tip. Front edge of the clypeus more or less straight.5



Front tibia otherwise.13



- 5 Base of the pronotum weakly concave each side near the hind angles so that the corners appear to be slightly backwardly-pointing; pronotum widest at the base. Upper surface extremely densely but finely punctured. Elytra each with a trace of a longitudinal stria between the humeral swelling and the suture. Legs yellow or yellowish-red. Length 2.3-4.0 mm.6
Associated with shrubs of genus *Rosa*.

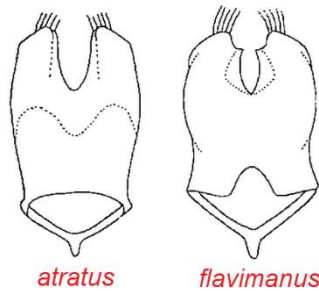


Hind angles of the pronotum not appearing backwardly-pointing.7

- 6 More elongate and flattened species with the elytra at least around 1.12 times longer than wide. Margins of the pronotum usually translucent reddish, particularly near the front angles. Antennae (except for the club) and the legs reddish.
..... ***Meligethes atratus***



Less elongate and more convex species with the elytra at most around 1.1 times longer than wide. Margins of the pronotum usually not translucent reddish.
..... ***Meligethes flavimanus***
Confirmation is by dissection of the genital capsule.



- 7 Intensely black species, shining, appearing polished.
Antennae and legs black or dark brown. Outer edge of the
front tibiae with tiny serrations all along (appearing more or
less smooth except at higher magnification). Pronotum
completely smooth between the punctures, at most with a fine leathery texture
near the hind angles.8
Associated with Campanulaceae



Black with a leaden shine or bronzy, or metallic green to blue-green. Outer edge
of the front tibiae with small sharp serrations at least towards the tip.9
Associated with Brassicaceae although more general early in the year.



- 8 Elytra with the punctures tending to form rows with tiny ridges appearing between the rows. Body less elongate and less convex in section.

..... ***Meligethes subrugosus***

Larvae feed on *Jasione montana* and *Campanula glomerata*.



Elytra without the punctures running into one another. More elongate and convex in section.

..... ***Meligethes corvinus***

Larval food plant *Campanula trachelium*.



9 Black species with a leaden or bronzy sheen or appearing greasy or chestnut-brown.10

Black species with a metallic green, blue-green or bluish sheen.12
Take care - this leads to two of our commonest species, in which the metallic shine is often very weak.

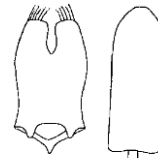


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- 10 Legs and the club of the antennae dirty yellow or reddish-yellow, the club paler than the middle section of the antennae. Upper surface grey-black with a weak olive-green or brassy sheen, finely punctured. Length 1.8-2.6 mm.

..... ***Meligethes fulvipes***

On *Sinapis arvensis* and other yellow-flowered members of Brassicaceae. Rare to locally common, near the coast and in marshy habitats inland from the south coast of England to south Yorkshire.



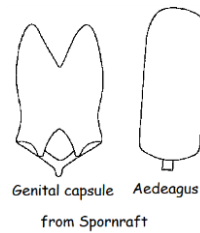
Genital capsule
from Spornraft

Club of the antennae always dark, the antennae usually uniformly coloured from the third segment onwards. Legs darker in colour, with the front legs are often paler than the middle and hind legs.11

- 11 Pronotum broadest at the base, the sides narrowing straight or slightly rounded. Usually black to dark brown with a non-metallic, weak green or bronze sheen. Length 1.5-2.7 mm. ..

..... ***Meligethes coracinus***

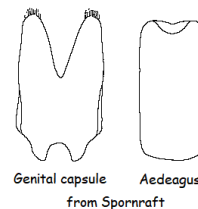
On species of *Brassica* and *Sinapis*. Few records.



Pronotum broadest before the base. Upper surface pale to dark chestnut-brown. Areas between the punctures on the elytra more or less smooth. Male parameres much more deeply incised. Length 2.2-3.1 mm.

..... ***Meligethes matronalis***

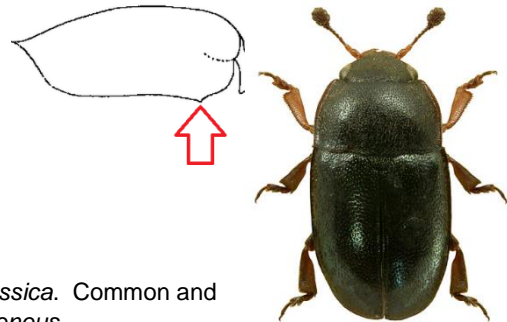
On *Hesperis matronalis*.



- 12 Middle femora with a tooth on the ventral surface in the outer third. Upper surface distinctly metallic shining, green to blue. Femora only three times longer than wide. Length 2.0-2.5 mm. Flattened edge of the pronotum narrow.

..... ***Meligethes viridescens***

On various Brassicaceae including *Sinapis arvensis* and *Brassica*. Common and widespread although with far less than 10% the records of *aeneus*.



Middle femora without such a tooth. Upper surface at most weakly shining greenish (rarely bluish, violet or blackish) - colour best seen on the elytra. Antennae and legs darker brown, front legs usually paler. Length 1.5-2.7 mm. Flattened edge of the pronotum narrow at the front and then broadening towards the rear, ceasing before the hind angle.

..... ***Meligethes aeneus***

On various Brassicaceae including *Sinapis arvensis* and *Brassica*. The **commonest and most widespread** species in Britain. Early in the year this species is found on other early-flowering species like crocuses. The colour is easier to see on the elytra than on the pronotum because there is a minute net-like surface sculpture in between the punctures on the pronotum. This is also present on the elytra but is nowhere near as distinct. To see the shine view the beetle obliquely from the side with illumination from the side.



- 13 Front tibia with uniform, small, spine-like teeth from the basal third to the tip. Front border of the frontoclypeus broadly but shallowly concave with the side angles sharp. Pronotum twice as wide as long with evenly rounded sides with a closely-meshed reticulate microscopic sculpture between the punctures on the upper surface; area by the hind angles not smooth.



..... ***Meligethes rotundicollis***

Black with a leaden sheen. Length 1.5-2.5 mm. Metasternum with an impressed longitudinal line along the centre line. On various *Sinapis arvensis* and *Sisymbrium officinale*. Records concentrated in the south east corner of England, from Hampshire to Essex with scattered records elsewhere to southern Cornwall, south Wales, the Midlands and coastal Norfolk.

Front tibia otherwise, always with some of the teeth distinctly larger than the others. Other characters not in combination.14

- 14 Outer surface of the front tibia with very fine teeth to at least the basal third and then with a group of gradually larger teeth which are quite long, sharp and downwardly-pointing, up to the second to last one. Pronotum twice as wide as long or very nearly so. Surface between the punctures on the pronotum smooth. Host plants are in Lamiaceae.15

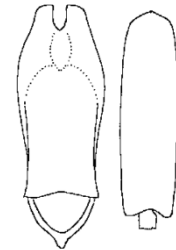
Outer surface of the front tibiae otherwise, or if almost so then the other characters are not present in combination.24



- 15 Tip of the abdomen in males usually conspicuously reddish-yellow or yellowish brown. Distinctly narrow species, half as wide as long. Metasternum in males broader impressed towards the rear, often with a very fine median keel. Legs blackish-red; front tibiae comparatively narrow. Length 1.7-2.3 mm.

..... ***Meligethes haemorrhoidalis***

On *Lamium album*.



male genital capsule

Abdomen uniform in colour. Shape not as narrow, more than half as wide as long and with the front tibiae broader.16

16 Upper surface metallic. Elytra with a leathery surface texture.18

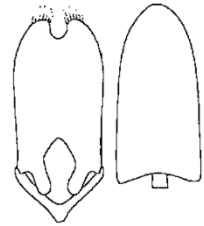
Upper surface not metallic. Elytra with a leathery surface texture at most along
the hind edge.19



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- 18 Elytra dull with a distinct microscopic reticulate sculpture. Head and pronotum smooth and shining. Upper surface greenish or bluish. Antennae and legs (reddish-) yellow. Sides of the pronotum only rounded towards the front. Length 2.0-3.1 mm. Male metasternum deeply impressed along its whole length with a tubercle each side.

..... ***Meligethes atramentarius***

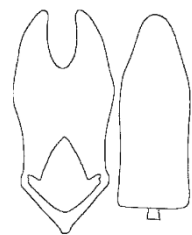


male genital capsule

Microscopic surface texture present on head, pronotum and elytra. Sides of the pronotum rounded in front of the hind angles. Upper surface dark metallic blue. Length 2.0-3.1 mm. Male metasternum with a longitudinal impression in the middle, with a weak swelling each side and with a small tubercle on the hind margin.

..... ***Meligethes symphyti***

On *Symphytum officinale*



male genital capsule

19 Sides of the pronotum almost straight from the hind angles to beyond the middle and then roundly narrowing towards the front.20

Sides of the pronotum also roundly narrowing toward the hind angles, although sometimes only very weakly so.25

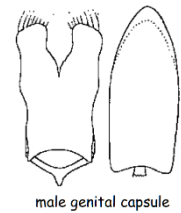


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20 Elytra with the punctures more sparse and often stronger than those on the pronotum.	21
Elytra and pronotum with the same density of punctures.	23



- 21 Unusually strongly convex in section, short and compact. Frontoclypeus sheared off straight at the front. Length 1.8-2.4 mm. Male metasternum shortly forked in the middle. Last sternite with a small shining swelling on the hind margin.
..... ***Meligethes ochropus***



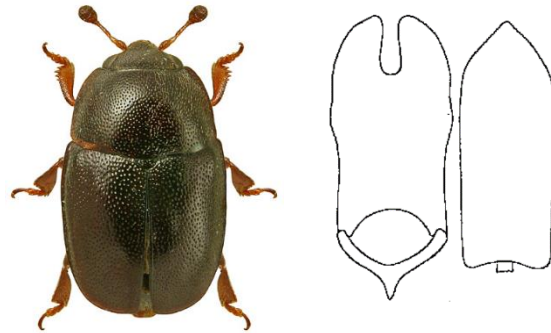
More elongate and less convex in section.22

22 Teeth on the front tibiae stronger.

Frontoclypeus clearly concave on the front margin. Length 1.7-2.0 mm. Male metasternum deeply impressed along the centre line with a tubercle each side and curved between the hind coxae. Female metasternum similar to the male but the impression is weak to barely visible, but the curve is still always visible around the hind coxae.

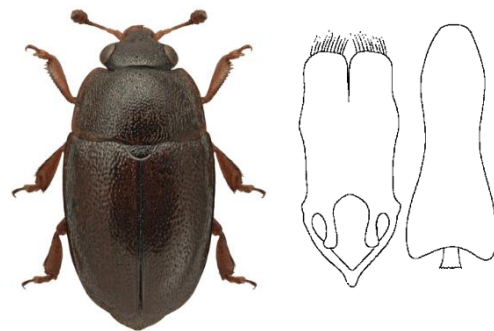
..... ***Meligethes difficilis***

On *Lamium album*



Teeth on the front tibiae weaker. In males only differentiated by the genital capsule and the characteristics of the metasternum. Male metasternum compressed, broadened to the rear in a basin-shape, without tubercles and not curving around the inner side of the hind coxae. Female metasternum impressed towards the rear in a flat triangle. Length 1.8-3.1 mm.

..... ***Meligethes kunzei***



23 Length 1.8-2.3 mm. Antennae (except for the first two segments), middle and hind legs usually brownish black. Male metasternum evenly impressed.

..... ***Meligethes morosus***

On *Lamium album*



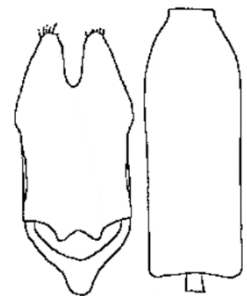
Larger species, 2.2-2.8 mm. Antennae and legs reddish yellow to brownish red. Male metasternum with a short distinct furrow in the middle with a triangular impression behind it. Last sternite with a small hairless knob on the hind margin.

..... ***Meligethes brunnicornis***

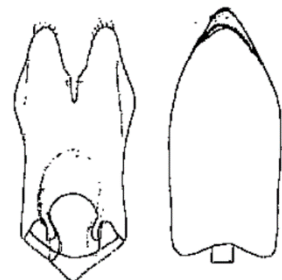
On *Stachys silvatica*



- 24 Elytra only with a fine microscopic sculpture near the hind margin. Antennae and legs usually darker in colour. Length 1.8-2.6 mm. Male metasternum evenly compressed; last sternite bent backwards, sloping away as a shining smooth surface.
 ***Meligethes persicus***



- Elytra with a fine microscopic sculpture from the hind margin forwards to in front of the middle. Antennae and legs usually paler. The largest tooth on the front tibia is more dominant. Length 1.8-2.6 mm. Male metasternum evenly compressed with the last sternite not as above.
 ***Meligethes pedicularius***



25 Surface of the elytra smooth between the punctures.26

Surface of the elytra with a reticulate microscopic sculpture between the punctures towards the front OR if smooth, then with a fine criss-cross striation or with faint obliquely transverse wrinkles near the sides and base.



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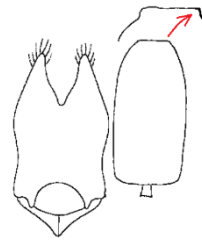
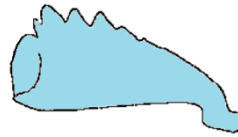
26 Shape more elongate with the sides of the elytra more or less parallel, more strongly convex in section. Pronotum only about 1.5 times broader than long.27



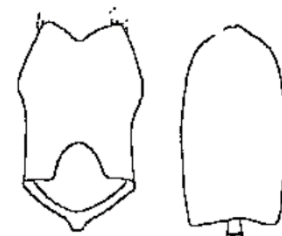
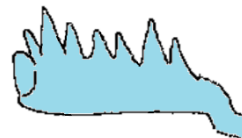
Shape less elongate, parallel-sided and less convex in section. Pronotum broader compared to its length.28



- 27 Front tibiae broadly or very broadly expanded, outwardly distinctly and regularly rounded. The four apical teeth are similar in length.
 ***Meligethes ruficornis***



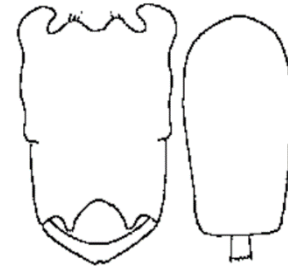
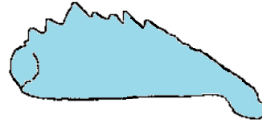
- Front tibiae narrower, not broadening towards a rounded tip. Teeth unequal.
 ***Meligethes nanus***



28 Front tibiae with the outer edge with small irregular sharp teeth in the apical two-thirds. Comparatively broader. Pronotum twice as wide as long. Blackish-brown species with grey hairs.

..... ***Meligethes nigrescens***

On *Trifolium repens*



Front tibiae with the outer edge with comparatively larger teeth. Comparatively narrower. Pronotum not as wide compared to its length. Legs as dark as the body.29

Not keyed yet

bidens Brisout de Barneville, 1863
bidentatus Brisout de Barneville, 1863
carinulatus Förster, 1849
erichsonii Brisout de Barneville, 1863
exilis Sturm, 1845
gagathinus Erichson, 1845
incanus Sturm, 1845
lugubris Sturm, 1845
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umbrosus Sturm, 1845

