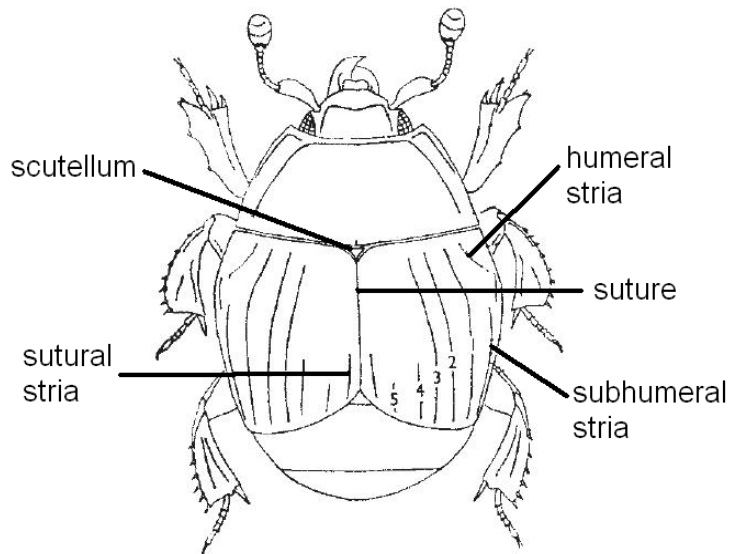
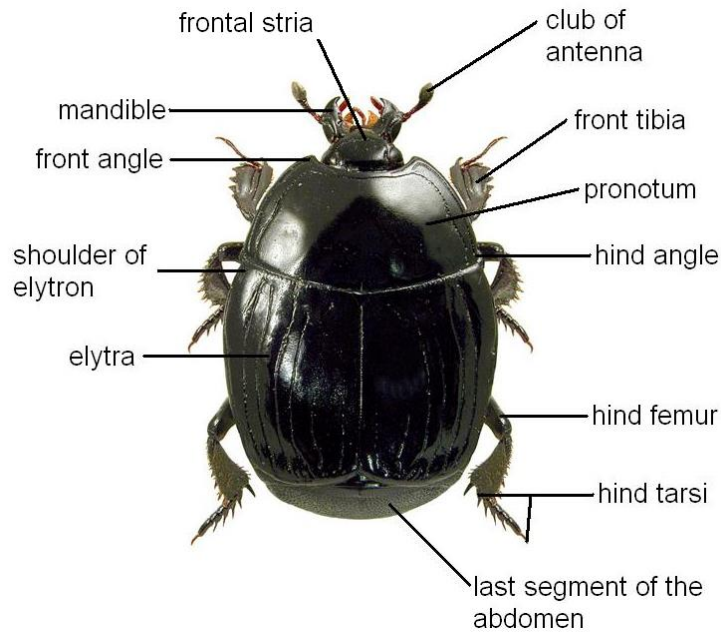


# Family Histeridae

Key to UK genera and species, adapted from Halstead (1963), Handbooks for the Identification of British Insects, volume 4 part 10



## Image Credits

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## Checklist



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From the Checklist of Beetles of the British Isles, 2012 edition, edited by A. G. Duff, available online from [www.coleopterist.org.uk/checklist.htm](http://www.coleopterist.org.uk/checklist.htm)).

**Subfamily ABRAEINAE MacLeay, 1819**

- Genus **ABRAEUS** Leach, 1817  
*granulum* Erichson, 1839  
*perpusillus* (Marsham, 1802)
- Genus **PLEGADERUS** Erichson, 1834  
*dissectus* Erichson, 1839  
*vulneratus* (Panzer, 1796)
- Genus **ACRITUS** LeConte, 1853  
*nigricornis* (Hoffmann, J., 1803)  
*homoeopathicus* Wollaston, 1857
- Genus **AELETES** Horn, 1873  
*atomarius* (Aubé, 1842)
- Genus **HALACRITUS** Schmidt, J., 1893  
*punctum* (Aubé, 1843)
- Genus **TERETRIUS** Erichson, 1834  
*fabricii* Mazur, 1972

**Subfamily SAPRININAE Blanchard, 1845**

- Genus **SAPRINUS** Erichson, 1834  
*aeneus* (Fabricius, 1775)  
*immundus* (Gyllenhal, 1827)  
*planusculus* Motschulsky, 1849  
*semistriatus* (Scriba, 1790)  
*subnitescens* Bickhardt, 1909  
*virescens* (Paykull, 1798)
- Genus **HYPOCACCUS** Thomson, 1867  
*crassipes* (Erichson, 1834)  
*metallicus* (Herbst, 1792)  
*rugiceps* (Duftschmid, 1805)  
*rugifrons* (Paykull, 1798)  
*dimidiatus* (Illiger, 1807)
- Genus **GNATHONCUS** Jacquelin du Val, 1857  
*buyssoni* Auzat, 1917  
*communis* (Marseul, 1862)  
*nannetensis* (Marseul, 1862)  
*rotundatus* (Kugelann, 1792)
- Genus **MYRMETES** Marseul, 1862  
*paykulli* Kanaar, 1979

**Subfamily DENDROPHILINAE Reitter, 1909**

- Genus **DENDROPHILUS** Leach, 1817  
*punctatus* (Herbst, 1792)  
*pygmaeus* (Linnaeus, 1758)  
*xavieri* Marseul, 1873
- Genus **KISSISTER** Marseul, 1862  
*minimus* (Laporte, 1840)
- Genus **CARCINOPS** Marseul, 1855  
*pumilio* (Erichson, 1834)
- Genus **PAROMALUS** Erichson, 1834  
*flavicornis* (Herbst, 1792)  
*parallelepipedus* (Herbst, 1792)

**Subfamily ONTHOPHILINAE MacLeay, 1819**

- Genus **ONTHOPHILUS** Leach, 1817  
*punctatus* (Müller, O.F., 1776)  
*striatus* (Forster, 1771)

**Subfamily TRIBALINAE Bickhardt, 1914**

- Genus **EPIERUS** Erichson, 1834  
*comptus* Erichson, 1834 95

**Subfamily HISTERINAE Gyllenhal, 1808**

- Genus **MARGARINOTUS** Marseul, 1854  
*brunneus* (Fabricius, 1775)  
*marginatus* (Erichson, 1834)  
*merdarius* (Hoffmann, J., 1803)  
*neglectus* (Germar, 1813)  
*obscurus* (Kugelann, 1792)  
*purpurascens* (Herbst, 1792)  
*striola* (Sahlberg, C.R., 1819)  
*ventralis* (Marseul, 1854)
- Genus **HISTER** Linnaeus, 1758  
*bissexstriatus* Fabricius, 1801  
*illigeri* Duftschmid, 1805  
*quadrinotatus* Scriba, 1790  
*quadrinotatus* Scriba, 1790  
*unicolor* Linnaeus, 1758
- Genus **ATHOLUS** Thomson, C.G., 1859  
*bimaculatus* (Linnaeus, 1758)  
*duodecimstriatus* (Schränk, 1781)
- Genus **HOLELEPTA** Paykull, 1811  
*plana* (Sulzer, 1776) 96
- Genus **CYLISTER** Cooman 1941  
*elongatus* Thunberg 1787

**Subfamily HAETERIINAE Marseul, 1857**

- Genus **HAETERIUS** Dejean, 1833  
*ferrugineus* (Olivier, 1789)



# Family Histeridae

## Key to UK genera and species

If the length of the specimen is less than 0.8 mm., then proceed to [couplet 22](#). If difficulties arise, then the key must be worked through from the beginning.

- 1 Pronotum with a transverse furrow near the middle which is at least weakly impressed, curved so it is parallel to the front and rear margins. ....  
..... Genus [\*Plegaderus\*](#)



Pronotum without a transverse furrow in the middle. ....[2](#)

2<sup>1</sup> Pronotum and elytra with a series of longitudinal ridges  
..... Genus *Onthophilus*



Pronotum and elytra without ridges. ....3

3<sup>2</sup> Club of antenna more or less parallel-sided and appearing “sheared off” at the tip, not divided into segments; elytra and pronotum with sparse but long yellow hair. Pronotum with a large depression each side, near the hind angles. ....

..... ***Haeterius ferrugineus***

Very rare in southern and eastern England. Associated with the ants *Formica fusca* and *F. sanguinea*.



Club of antenna oval and usually appearing segmented; elytra and pronotum without hair. ....4

4<sup>3</sup> Pronotum more or less parallel-sided in the rear two-thirds; elytra without striae. Hind tibia with apical teeth. ....

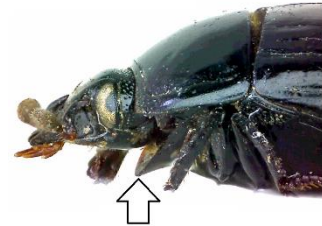
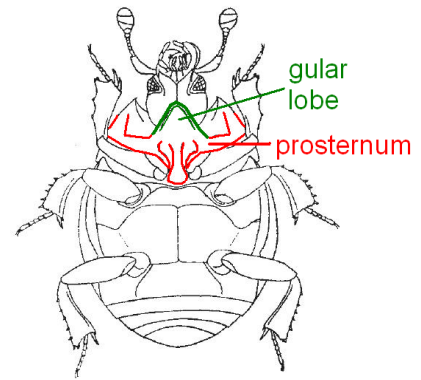
..... ***Teretrius fabricii***

Preys on the immature stages of the beetles *Lyctus brunneus* and *L. fuscus* and other members of Bostrychidae. Very rare. Southern England and possibly Norfolk.



Pronotum broadest at the base or if parallel-sided then elytra with clear striae. 5

5<sup>4</sup> Viewed from below the front of the prosternum is bent downwards and forms a gular lobe. Viewed from the side this looks like a triangular trowel-like structure. ....6

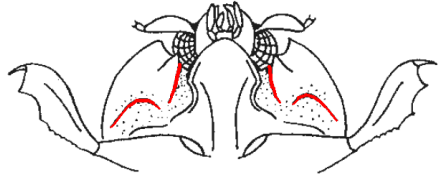


Front of the prosternum not or only very slightly bent downwards; gular lobe absent or very small. Subfamily Sapriniinae. ....15

6<sup>5</sup> Viewed from below the antennal cavities (into which the antennae can be withdrawn) are at the front (front border in red). Subfamily Histerinae. ....7



Front edge of the antennal cavities much further back. Subfamily Dendrophilinae. ....12



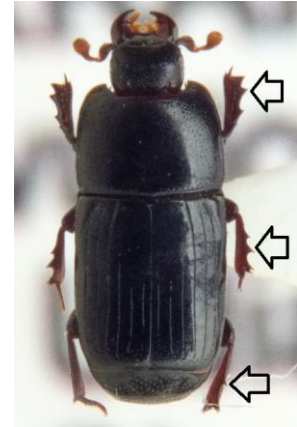


7<sup>6</sup> Body extremely flattened with the head, pronotum, elytra and exposed section of the abdomen in the same plane and all about the same thickness. Head extended towards the front, not covered underneath by the extension of the prosternum. ....  
..... *Hololepta plana*



Body rather convex in section with the head less thick (measured from top to bottom) than the rest of the body. Head covered by the extension of the prosternum up to level with the mandibles. ....<sup>8</sup>

87 Body elongate and more or less parallel-sided from one third of the way back along the pronotum to at least half-way back along the elytra, so that the maximum width of the pronotum and elytra are about the same. All tibiae with flattened teeth along the outer edge. The front tibiae have a deep S-shaped furrow to accommodate the tarsi which is clearly defined on both sides. ....  
..... ***Cylister elongatus***



Sides of the body smoothly rounded from the front angles of the pronotum to the rear of the elytra, with the elytra broader than the pronotum. Only the front tibiae have teeth; middle and hind tibiae with sharp bristles. Front tibiae with a more or less straight furrow to accommodate the tarsi which is only clearly defined on the inner edge.  
.....9

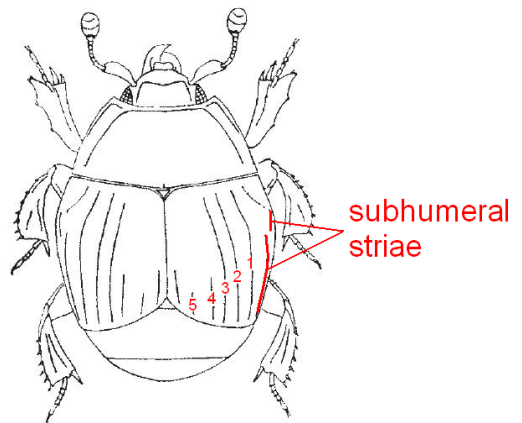


9<sup>8</sup> Pronotum with a distinct depression each side near the front angles; elytra with a large red triangular mark towards the rear. Length 3.5-4.5 mm. ....  
..... ***Atholus bimaculatus***  
In compost heaps, dung etc. Local.



Pronotum without a depression each side near front angles; elytra black or otherwise marked with red. ....[10](#)

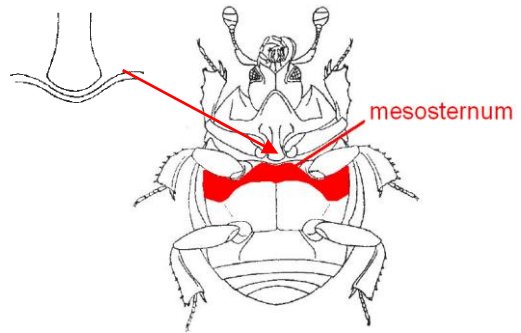
10<sup>9</sup> Elytra without subhumeral striae, OR with two abbreviated subhumeral striae (illustrated), or with one subhumeral stria extending from basal half or basal third to apex. ....[11](#)



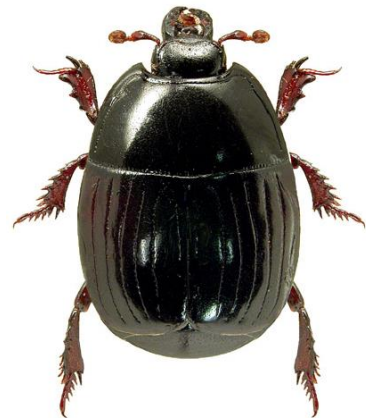
Elytra with one subhumeral stria, usually running the full length of the elytra near the edge, but shortened in *M. obscurus*. ....  
..... Genus [Margarinotus](#)



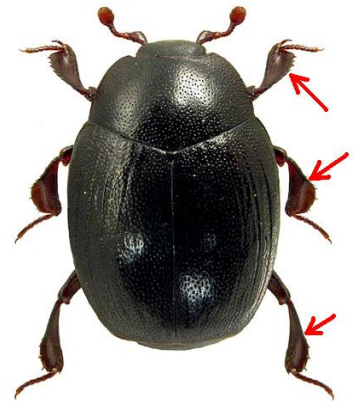
11<sup>10</sup> Mesosternum gently curved in front matching the rounded base of the prosternum. Elytra with reddish markings in some species. Length 3.5-10 mm. ....  
..... Genus *Hister*



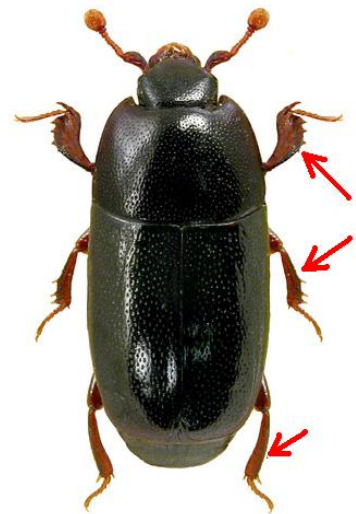
Mesosternum straight or very feebly curved in front, prosternum quite straight at base. Elytra more or less black. Length 4-5.5 mm. ....  
..... ***Atholus duodecimstriatus***  
In dung and compost heaps. Local, but rare in Scotland.



12<sup>6</sup> All tibiae dilated. Elytra with the striae fine to absent.  
..... Genus [Dendrophilus](#)



Front tibiae dilated, middle and hind tibiae widening much less. Elytra with the striae absent and the body elongated or with very distinct striae and a rounded body. ....13



13<sup>12</sup>Body elongate; elytra with indistinct dorsal striae. ...  
..... Genus *Paromalus*



Body oval; elytra regularly and strongly striate. ....[14](#)

14<sup>13</sup>Elytra with four fine dorsal striae, the innermost of which is more weakly impressed and distinctly curves towards the suture towards the front; length 1.0-1.8 mm. Hind tibiae parallel-sided for about the basal half. ....

..... ***Kissister minimus***

At grass roots, especially in sandy places and at the roots of *Rumex acetosella* (sheep's sorrel). Local. England northwards to Lincolnshire.



Elytra with five coarse dorsal striae, the innermost of which is close to the suture and is more or less straight throughout its length; length 1.6-2.8 mm. Hind tibiae broadened from base to apex. ....

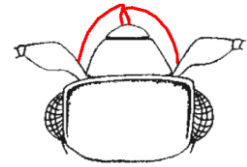
..... ***Carcinops pumilio***

Black, strongly shining. In carrion, rotting grain, decaying vegetable matter, bat-dung etc. Very local, England.

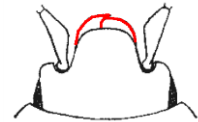




15<sup>5</sup> Mandibles large, prominent; length 1.5-5.5 mm. ....[16](#)



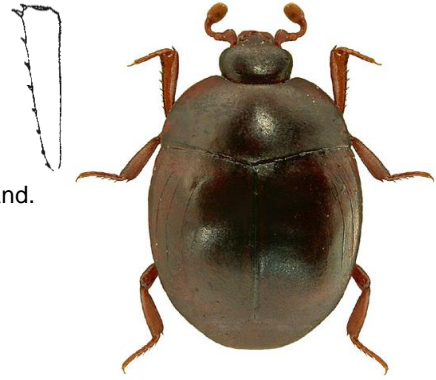
Mandibles small, not prominent; length 0.8-1.5 mm., (except for *Teretrius fabricii* which is 1.8-2.4 mm. ....[20](#)



16<sup>15</sup> Front tibiae without distinct teeth, only small spines present; elytra and pronotum without punctures; elytra with indistinct striae at the sides. Length 2-2.8 mm. ....

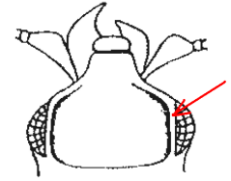
..... ***Myrmetes paykulli***

Associated with the ant *Formica rufa*. Local. England and Scotland.



Front tibiae with distinct teeth; elytra more or less punctured and with distinct striae. ....<sup>17</sup>

17<sup>16</sup>Eyes separated from the frons by a distinct border, best seen when viewed from behind when it appears as a distinct ridge running parallel to the eye. ....[18](#)



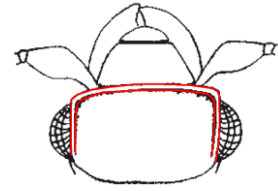
Eyes not separated from the frons by a rim. ....  
..... Genus **Gnathoncus**

18<sup>17</sup>Pronotum without any punctures except for a very narrow row at the basal margin. Length 3-5 mm. .  
..... ***Hypocaccus dimidiatus maritimus***  
Found on the coast in dung, etc. Local.

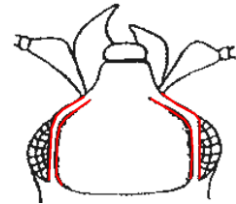


Pronotum punctured (often with the top without punctures). .....<sup>19</sup>

19<sup>18</sup>Rims separating eyes from the frons continuing across the front of the frons as a ridge behind the base of the antennae ..... Genus [Hypocaccus](#)



Rim separating eyes from frons continued forwards to the base of the antennae but then stopping (view the head from the front). ..... Genus [Saprinus](#)



20<sup>15</sup> Shape more or less cylindrical. Hind tibiae bearing teeth apically. ....

..... ***Teretrius fabricii***

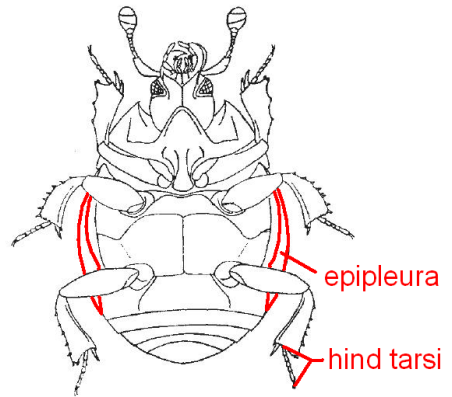
Preys on the immature stages of the beetles *Lyctus brunneus* and *L. fuscus* and other members of Bostrychidae. Very rare. Southern England and possibly Norfolk.



Shape oval to rounded. Hind tibiae without teeth. ....[21](#)

21<sup>20</sup>Hind tarsi with five segments. Epipleura of the elytra without striae. Length 1-1.5 mm. ....  
..... Genus [Abraeus](#)

Hind tarsi with four segments. Epipleura of the elytra with striae. Length 0.8-1.4 mm. ....[22](#)

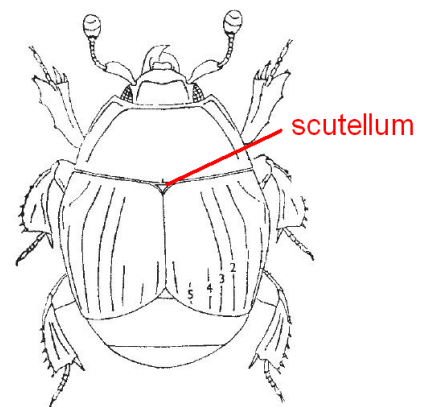


22<sup>21</sup> Scutellum visible; dorsal surface with distinct deep punctures. ....23

Scutellum not visible; dorsal surface with indistinct shallow punctures. Length 0.8-1.0 mm. ....

..... ***Aeletes atomarius***

Found in the burrows of the beetle *Dorcus parallelipedus*. (Associated with the ant *Lasius brunneus* on the Continent.) Worcester and Herefordshire.





23<sup>22</sup>Pronotum crossed by a line of slightly elongated punctures parallel and close to the basal margin; in the middle this line curves forwards from the base leaving a smooth lens-shaped area between it and the base of the pronotum. Front tibiae with many bristles. ....  
..... Genus ***Acritus***



Pronotum without such a line of punctures along the basal margin. Front tibiae with small spines. Length 1.0-1.4 mm. ....  
..... ***Halacritus punctum***

A maritime species occurring on the sand and under seaweed just above high-water level. England and Wales northwards to the Humber. Local.



## Genus *Plegaderus*

- 1<sup>1</sup> Usually a completely black species. Side margins of the pronotum straight forming an even transition on to the outline of the elytra; pronotum gently widening from the front to the base; transverse impression weakly impressed, reaching the sides in the front half. Elytra evenly and gently curved from the base to the tip; oblique dorsal striae absent; area around the suture not flattened. Front tibia curved and evenly widening from the base to the tip, the outer edge forming a single curve. ....

..... ***Plegaderus vulneratus***

Very local, associated with conifers in south east England mostly from the New Forest eastwards and south of the Thames, but with a few records from East Anglia.



More reddish-brown species. Side margins of the pronotum distinctly curving outwards just short of the hind angles so the line from the pronotum to the elytra is not even; middle part of the pronotum more or less parallel-sided; transverse impression deep and at about half way. Elytra abruptly widening from the base of the pronotum and then tapering to a rounded tip; oblique dorsal striae distinct and also the elytra are flattened along the line of the suture. Front tibia suddenly expanded at the tip and thus clearly separated into a narrow section and a club

..... ***Plegaderus dissectus***

Length 1-1.5 mm. In wet decaying wood of elm, beech and other trees. Rare, but locally common, for example the New Forest and Windsor Forest. Southern England northwards to Nottinghamshire.



## Genus *Onthophilus*

- 12 Pronotum with five ridges, the central one double and interrupted, the spaces between them having coarse rounded punctures. Length 2.4-4 mm. ....  
..... ***Onthophilus punctatus***  
In the nests of moles. Rare; England northwards to Nottinghamshire



- Pronotum with six raised keels, the spaces between occupied by a network of raised ridges enclosing elongate lens-shaped impressions. Length 1.8-2.4 mm. ....  
..... ***Onthophilus striatus***

In horse-dung, rotting vegetation, leaf litter, etc. Common. My photograph with the head tucked under is how you are likely to see the beetle.



## Genus *Paromalus*

1<sup>13</sup> Body long-oval, distinctly narrowed in front and behind, broadest in the middle. Mesosternum with a curved line of three sections near the front margin, which form an obtuse angle with one another. Length 1.8-2.5 mm.

..... ***Paromalus flavicornis***

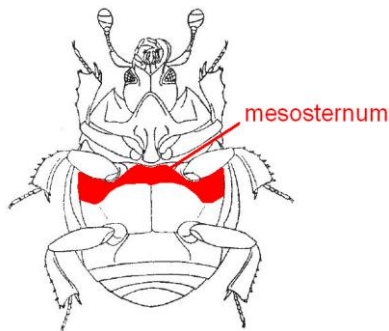
Under bark of oak, beech etc., and sometimes in the rotten wood. Local; southern England



Body more or less parallel-sided, not distinctly narrowed in front and behind. Mesosternum with three curved lines near the front margin which form an angle of 90 degrees or less with one another. Length 1.8-2.0 mm. ....

..... ***Paromalus parallelepipedus***

Under bark. Very rare indeed. New Forest.



## Genus *Abraeus*

121 Front tibiae angularly dilated, with a tooth before the apex. Length 1·3-1·5 mm. ....

..... ***Abraeus perpusilus***

In moist rotten wood of beech, ash, etc. Local.



Front tibiae dilated and rounded, without a tooth before apex. Length 1-1·3 mm. ....

..... ***Abraeus granulum***

In rotten wood. England northwards to Warwickshire; rare.



## Genus *Acritus*

- 1<sup>23</sup> Dorsal surface shining, without a microscopic net-like sculpture between the punctures but the punctures towards the apex of the elytra often become longitudinally wrinkled. ....  
..... ***Acritus nigricornis***  
In rotting vegetation. Common.



- Dorsal surface comparatively dull due to a net-like surface sculpture between the punctures. ....  
..... ***Acritus homoeopathicus***  
Found on burnt ground associated with the fungus *Pyronema confluens* (Discomycetes). Surrey, Essex, Kent and Dorset.



## Genus *Margarinotus*

1<sup>10</sup> Pronotum with two striae more or less running parallel to the side margins. Subgenus *Ptomister*. .....2



Pronotum with one stria near lateral margin. ....4



- 2 Shape elongate oval. Club of antennae reddish brown. Front tibiae with four teeth, the apical one divided into two (often only three teeth are distinct). Area between the lateral striae of the pronotum often with punctures. Length 5-7.5 mm. ....  
 ..... ***Margarinotus merdarius***  
 In rotting vegetation, birds' nests, etc. Local



Shape short-oval. Club of antennae black-brown. Front tibiae with five or six teeth. ....3





- 3 Third dorsal stria of the elytra with a shallow depression at the base, which sometimes extending as far as the fourth stria. Frontal stria twice curved. Length 5.5-7 mm. ....

..... ***Margarinotus striola***

In carrion, putrid fungi, etc. Local.



Third dorsal stria of the elytra without a shallow depression at the base. Frontal stria in the form of a semicircle, usually indistinct in the middle and sometimes very slightly depressed. Length 6-9 mm.

..... ***Margarinotus brunneus***

In carrion, rotting vegetation, etc. Common.



- 4 Subhumeral stria on elytra abbreviated behind for approximately one-half the length of the elytron and in front for approximately one-eighth. Punctures of pygidium and propygidium exceedingly coarse. Subgenus *Stenister*. Length 4-6 mm. ....  
 ..... ***Margarinotus obscurus***  
 In dung, very rare, England northwards to Lancashire.



Subhumeral stria on the elytra running almost the whole length of the elytra. ....5

- 5 Epipleura of elytra finely and sparsely punctured; elytra usually with a large ill-defined reddish spot apically, but not infrequently the elytra are completely black. Length 3.5-4.5 mm. ....

..... ***Margarinotus purpurascens***

When viewed from below, the epipleura form a roughly triangular area at the edge of the elytra which is folded under. This area extends from between the level of the middle and hind legs to beyond level with the hind legs with the narrower point extending backwards. Rotting vegetation, compost heaps, etc. Local. Subgenus *Paralister*.



- Epipleura of elytra with distinct punctures; elytra always uniformly black. ....6



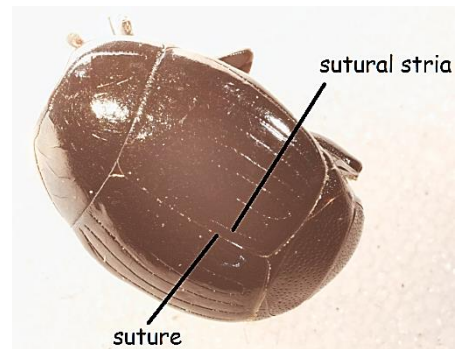
- 6 Elytra with sutural stria almost entire and often meeting dorsal stria 5 at the base. Pronotum generally distinctly punctured at the sides. Length 4-5.5 mm. ....

..... ***Margarinotus marginatus***

In nests of moles. Rare and local with widely scattered records in England, Scotland and Wales. Subgenus *Promethister*.



Elytra with sutural stria reaching only from about the middle towards the apex and not joining another suture. Pronotum not punctured at sides. Subgenus *Paralister*. ....7



- 7 Length 5.5-7.5 mm.; long-oval. Pronotum less strongly narrowed in front. Frontal stria more distinctly angled in the middle. ....

..... ***Margarinotus neglectus***

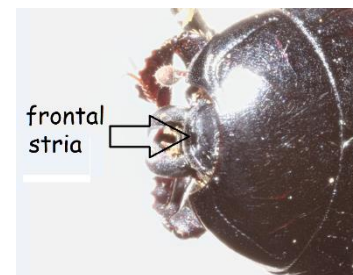
In carrion, flood refuse, moss, etc. Local.



- Length 4-6 mm.; short-oval. Pronotum more strongly narrowed in front. Frontal stria less distinctly angled in the middle, sometimes without an angle. ....

..... ***Margarinotus ventralis***

In carrion, dung, rotting vegetation, etc. Common.

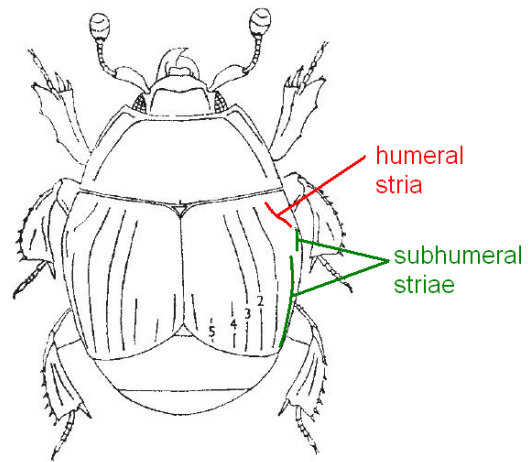


# Genus *Hister*

Translated by Mike Hackston from the Dr A Lompe's original in German  
Original available at <http://www.coleo-net.de/coleo/texte/hister.htm>

1<sup>11</sup> Elytra with one or two subhumeral striae; in some cases only the back section of one of these striae is apparent. ....2

Elytra without subhumeral striae, showing at most a trace of a humeral stria near the shoulder. ....4



- 2 Epipleura of the pronotum with bristles (the epipleura are the very edge sections of the pronotum that are folded downwards at the side). Elytra with four red patches, which are often merged forming a crescent shape (rarely completely black). Front tibiae with three teeth and with a series of transverse wrinkles on the underside. Length 7-11 mm. ....



..... ***Hister quadrimaculatus***

Mainly in cow and horse dung but also from rotting vegetables. Very rare in southern England. Diagram of tibia from Dr Arved Lompe's online key (<http://www.coleo-net.de/coleo/texte/hister.htm>)

Epipleura of the pronotum bare. Underside of the front tibiae without transverse wrinkles. ....3

- 3 Elytra with red patches, each with one on the shoulders and the other in the middle, sometimes merged. Front tibia with three teeth. Length 6-8 mm. ....  
 ..... ***Hister quadrinotatus***  
 In manure and dung. In Europe becoming common to the south east.



- Elytra black, without red patches, with one or two well developed subhumeral striae. Head short-oval. Underside of last two abdominal segments with similarly strong punctures. Front tibia with 3-4 teeth. Length 7-10 mm. ....  
 ..... ***Hister unicolor***  
 In compost heaps, cow-dung, rotting fungi, etc. Local.





- 4 Elytra with four complete striae. Black. Front tibiae with 4-5 teeth. Length 3-5 mm. ....  
..... ***Hister bissexstriatus***  
In cow-dung, etc. Local in England, Common throughout Europe



Elytra with only three complete striae. ....5

- 5 The third (basal) tooth of the front tibiae with a ridge on the underside. Red patches on the elytra forming a crescent. The inner stria near the edge of the pronotum running nearly to the base of the pronotum, being about twice as long as the one right on the edge. Length 6.0-8.5 mm. ....

..... ***Hister illigeri***

Particularly in dung. Uncommon in central Europe, becoming more common to the south.



Third tooth of the front tibia without a ridge on the underside. The two striae near the margin of the pronotum are about the same length, the inner one stopping well short of the base of the pronotum. Length 6-8 mm. ....

..... ***Hister quadrinotatus***

In manure and dung. In Europe becoming common to the south east.



## Genus *Dendrophilus*

1<sup>12</sup> Dorsal surface without distinct punctures, seemingly smooth with x10 magnification (microscopic punctures present, seen at higher magnification). Elytra with fine striae. Length 2-3 mm. ....

..... ***Dendrophilus pygmaeus***

Associated with the nests of the ant *Formica rufa*. Local.



Dorsal surface with distinct punctures. ....2

- 2 Elytra without a sutural stria; dorsal stria 5 usually absent but may be present on the basal half of each elytron. Length 2.6-4.0 mm. ....

..... ***Dendrophilus punctatus***

Associated with the ant *Formica rufa*, but also found in birds' nests, carrion, granaries, etc. Local. Continental records are from rotting wood in old trees, particularly in holes used by roosting birds.



- Elytra with the sutural stria generally present but may be indistinct or present only at the base; dorsal stria 5 present and as long as dorsal stria 4. Length 2.5-3.8 mm. ....

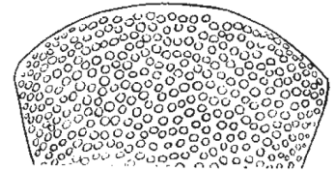
..... ***Dendrophilus xavieri***

Found in rotting grain and flour in warehouses and flour mills in Bristol, London and Liverpool. A native of Japan, but also found in N. America

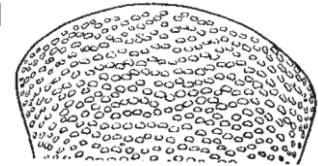
# Genus *Gnathoncus*

Confident identification is only possible by [dissection of males](#). Males have large broad flat bristles under the four basal segments of the front tarsi; these are not present in the female.

- 1<sup>17</sup> Viewed from above the last segment of the abdomen has the punctures in the basal half distinctly rounded. If the microscopic sculpture of this segment is dense then the sutural stria is one third to one half the length of the elytra. ....2



Last segment of the abdomen with the punctures of basal half not distinctly round, but instead oblong or ovate. ....3  
In *G. communis* some of the central punctures of the basal half of the pygidium are more rounded, but a dense microscopic sculpture is combined with a short sutural stria (one-tenth to one-sixth of the length of the elytra)



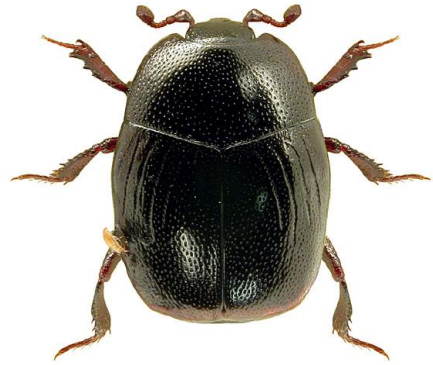
- 2 Sutural stria short, one-sixth to one-third of the length of the elytra. Areas in between the punctures on the last segment of the abdomen with a sparse, rather indistinct, microscopic sculpture. Apical half of elytra more or less smooth between the punctures. Length 2.4-4.0 mm. ....  
..... ***Gnathoncus nannetensis***  
In birds' nests, carrion, bracket fungi (*Polyporus*) and in granaries. Local.



- Sutural stria longer, one-third to one-half of the length of the elytra. Areas in between the punctures on the last segment of the abdomen with a dense distinct microscopic sculpture. Apical half of the elytra usually with distinct microscopic ridges between the punctures especially towards the sides. Length 2.2-3.4 mm. ....  
..... ***Gnathoncus buyssonii***  
In birds' nests (recorded from Scandinavia in squirrel nests and in fungi (*Polyporus* and *Poria*)). Berkshire, Hampshire, Kent, Norfolk, Surrey, Sussex



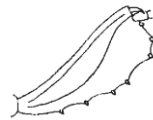
3 Punctures in the basal half of the last segment of the abdomen oblong or ovate with their axes at right angles to the body; areas between the punctures without a distinct microscopic sculpture. Front tibia deeply notched between the spines in both sexes. Apical half of the elytra with indistinct microscopic ridges or smooth. Length 1.8-3.0 mm. ....



..... ***Gnathoncus rotundatus***

In nests of birds, especially pigeon, bat roosts, carrion and in granaries. Local.

Punctures on the basal half of the last segment of the abdomen somewhat rounded and not distinctly aligned at right angles to the axis of the body (density of punctures denser than in *G. buyssoni* or *G. nannetensis*; areas between the punctures with a distinct microscopic sculpture. Front tibia of male only slightly notched between the spines; front tibia of female more distinctly but not deeply notched. Apical half of elytra usually with strong microscopic pattern of ridges. Sutural stria one-tenth to one-sixth of the length of the elytra. Length 2.0-3.0 mm. ....









..... ***Gnathoncus communis***







In birds' nests, rarely in carrion or granaries. Local

## Dissection of male genitalia

- Soften the specimen by placing it in boiling water for 1-2 minutes.
- Place beetle on a flat surface on its back and hold with the index finger, leaving only the last abdominal segments exposed.
- Insert a fine needle between the apex of the last dorsal segment section and the last segment section underneath
- Pull upwards and remove the last dorsal segment section. This exposes the opening left by the retracted genitalia.
- Remove the genitalia with a pair of very fine forceps or a fine needle.
- Boil the genitalia in 10% potassium hydroxide solution for two minutes or leave in nearly boiling solution for a little longer.
- Place in water and dissect under a binocular microscope.

	lateral view of the eighth abdominal sternite	profile of aedeagus
<b><i>G. nannetensis</i></b>		
<b><i>G. buyssonl</i></b>		
<b><i>G. rotundatus</i></b>		
<b><i>G. communis</i></b>		



	10 <sup>th</sup> abdominal tergite	junction of parameres and basal piece, ventral view	aedeagus, dorsal view
<b><i>G. rotundatus</i></b>			
<b><i>G. communis</i></b>			

## Genus *Hypocaccus*

- 1<sup>19</sup> Pronotum without any punctures except for a very narrow row at the basal margin. Length 3-5 mm. .  
..... ***Hypocaccus dimidiatus marltlmus***  
Found on the coast in dung, etc. Local.



Pronotum punctured (often with the central region without punctures). .....2

- 2 Elytra dull, with elongate punctures which form tiny ridges; each elytron with an oval smooth area. Black, sometimes slightly greenish. Length 3-3.8 mm. ....

..... ***Hypocaccus rugiceps***

In dung, carrion, etc., generally found on sand dunes near the coast. Rare.



Elytra shining, the basal half to third with microscopic punctures only and without a well-defined smooth area. ....3

3 Front tibiae with four teeth, a trace of a fifth sometimes present. Frons with a general pattern of microscopic transverse ridges. Colour dark metallic green or, rarely, brownish. Length 2.5-3.2 mm. ....

..... ***Hypocaccus metallicus***

In dung, carrion etc., found on coastal sand dunes. Rare. England northwards to Lincolnshire.



Front tibiae with six teeth. Frons without a microscopic pattern of transverse ridges. Colour metallic light green or black. Length 2.5-3.2 mm. ....

..... ***Hypocaccus rugifrons***

In dung, carrion, etc., frequently coastal, on sand dunes but also inland. Local.



## Genus *Saprinus*

Confident identification of some species is only possible by dissection of males. Males have large broad flat bristles under the four basal segments of the front tarsi; these are not present in the female.

1<sup>19</sup> Top of pronotum without punctures or only with very small punctures. Colour black, often with a dark brassy reflection. ....2

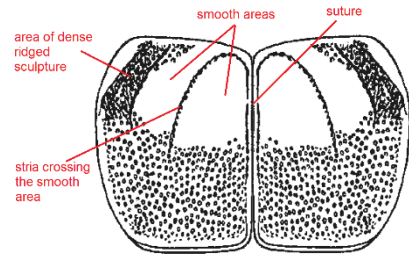
Top of pronotum with punctures. Colour metallic green.  
Length 3.0-3.5 mm. ....

..... ***Saprinus virescens***

Preys on the larvae of species of the chrysomelid genus *Phaedon*. (It bears a strong superficial resemblance to the adult *Phaedon*.) Rare. England northwards to Yorkshire.



2 Elytra with a dense ridged sculpture towards the margin in the basal half, with a well-defined smooth area between this and the suture. The smooth area is crossed by a single stria, which curves towards the suture at the front. Length 2.8-4 mm. ....3



Front half of the elytra smooth from the suture to the margin and crossed by four or more striae, the innermost of which curves towards the suture as above. Length 4-7 mm. ....4

- 3 Spaces between the punctures on the rear half of the elytra in many places as wide as the diameter of the punctures. Smooth area of the elytra between the ridged area and the stria more than half as wide as the smooth area between the stria and the suture. The stria crossing the smooth area usually links with the stria running alongside the suture. Black and shining, often with a brassy reflection. Length 2.8-3.5 mm. ....



..... ***Saprinus aeneus***

In carrion, dung, etc. Common.

Spaces between the punctures on the rear half of the elytra in all cases narrower than the width of the punctures. Smooth area of the elytra between the ridged area and the stria clearly less than half as wide as the smooth area between the stria and the suture. The stria crossing the smooth area usually fades as it nears the centre line and does not connect with the stria running alongside the suture. Black and shining, but generally lacking a brassy reflection. Length 3-4 mm. ....



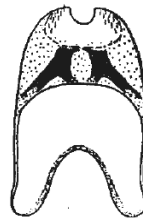
..... ***Saprinus immundus***

In dung, carrion, etc. Local. England northwards to Lincolnshire.

- 4 Rim at the margin of the pronotum with clear hairs.  
 Largest species of the genus at 6.0-8.5 mm.  
 Mesosternum usually with very coarse punctures, rarely with finer punctures; aedeagus apically truncate; eighth abdominal segment of male characteristic. ....

..... ***Saprinus semistriatus***

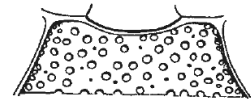
In carrion, rarely dung. Common. The male has a median shallow furrow on the metasternum and long lanceolate ventral setae on the four basal segments of the front tarsi; these characters are not present in the female.



8th abdominal segment



aedeagus

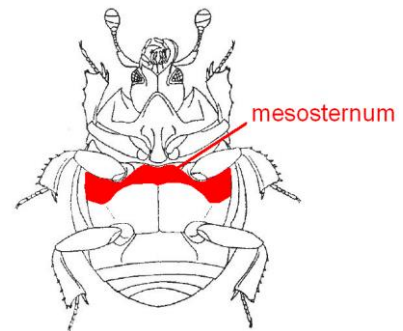


mesosternum

Margin of the pronotum without hairs. Mesosternum never with very coarse punctures, either with fine punctures, or with the central part without punctures, or entirely without punctures. Aedeagus apically pointed. ....5



aedeagus



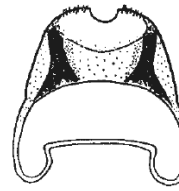


Only males of these species can be separated, although Witzgall (1971) states there is a difference in the sutural stria which is mentioned below.

5 Eighth abdominal segment characteristic. ...

..... ***Saprinus planiusculus***

In carrion, rarely dung. Locally common but widely distributed. Sutural stria usually fading beyond the middle and not distinctly connecting to the stria running parallel to the rear edge. The distances between the other striae are often unequal as one of the striae may be absent.



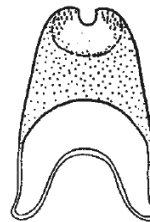
8th abdominal segment



Eighth abdominal segment characteristic

..... ***Saprinus subnitescens***

Very few records. Sutural stria clear well into the rear half of the elytra and usually distinct to connect with the stria which runs parallel to the rear edge. The distances between the other striae are more even.



8th abdominal segment

