Subfamily Chrysomelinae

Very convex hairless beetles; antennae generally somewhat thickened towards apex. They are usually collected by sweeping in summer, but some may be found in winter in moss, leaf litter etc.

Source material

Joy (1932) A Practical Handbook of British Beetles.

Lompe A. (2013) Käfer Europas: Chrysomelinae published online on pages linked from http://www.coleo-net.de/coleo/texte/chrysomelinae.htm. Translated and published here with permission.

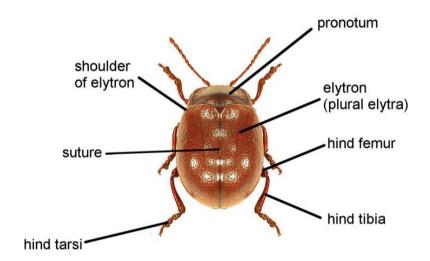


Image credits

Unless otherwise indicated, all images are reproduced from the Iconographia Coleopterorum Poloniae, with permission kindly granted by Lech Borowiec.

Checklist from the Checklist of Beetles of the British Isles, 2012 edition, edited by A. G. Duff, (available to download from www.coleopterist.org.uk/checklist.htm).

Subfamily Chrysomelinae

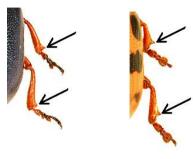
TIMARCHA Samouelle, 1819
CHRYSOLINA Motschulsky, 1860
GASTROPHYSA Dejean, 1836
PHAEDON Latreille, 1829
HYDROTHASSA Thomson, C.G., 1859
PRASOCURIS Latreille, 1802
PLAGIODERA Dejean, 1836
CHRYSOMELA Linnaeus, 1758
GONIOCTENA Dejean, 1836
PHRATORA Dejean, 1836

Creative Commons. © Mike Hackston (2015). Adapted and updated from Joy (1932). Some species keys translated from the German, original from Dr Arved Lompe (published here with permission).

CHRYSOLINA Motschulsky. 1860 GONIOCTENA Deiean, 1836 americana (Linnaeus, 1758) decemnotata (Marsham, 1802) banksii (Fabricius, 1775) olivacea (Forster, 1771) brunsvicensis (Gravenhorst, 1807) pallida (Linnaeus, 1758) cerealis (Linnaeus, 1767) viminalis (Linnaeus, 1758) coerulans (Scriba, 1791) HYDROTHASSA Thomson, C.G., 1859 fastuosa (Scopoli, 1763) qlabra (Herbst, 1783) graminis (Linnaeus, 1758) hannoveriana (Fabricius, 1775) haemoptera (Linnaeus, 1758) marginella (Linnaeus, 1758) herbacea (Duftschmid, 1825) PHAEDON Latreille. 1829 hvperici (Forster, 1771) armoraciae (Linnaeus, 1758) latecincta (Demaison, 1896) cochleariae (Fabricius, 1792) marginata (Linnaeus, 1758) concinnus Stephens, 1831 oricalcia (Müller, O.F., 1776) tumidulus (Germar, 1824) polita (Linnaeus, 1758) PHRATORA Dejean, 1836 sanguinolenta (Linnaeus, 1758) laticollis Suffrian, 1851 staphylaea (Linnaeus, 1758) polaris Schneider, J.S., 1886 sturmi (Westhoff, 1882) vitellinae (Linnaeus, 1758) varians (Schaller, 1783) vulgatissima (Linnaeus, 1758) viridula (De Geer, 1775) PLAGIODERA Dejean, 1836 versicolora (Laicharting, 1781) CHRYSOMELA Linnaeus, 1758 aenea Linnaeus, 1758 PRASOCURIS Latreille, 1802 populi Linnaeus, 1758 iunci (Brahm, 1790) phellandrii (Linnaeus, 1758) tremula Fabricius, 1787 GASTROPHYSA Dejean, 1836 TIMARCHA Samouelle, 1819 *polygoni* (Linnaeus, 1758) goettingensis (Linnaeus, 1758) viridula (De Geer, 1775) tenebricosa (Fabricius, 1775)

Subfamily Chrysomelinae Key to genus adapted from Joy (1932) by Mike Hackston

1 Middle and hind tibiae with a tooth at or near apex of outer side.2



2 Elytra reddish to yellowish, with distinct punctures arranged in rows. Tooth on the tibiae before the apex.

...... Genus Gonioctena

4 species. One species has an all black variety



Elytra blue or green, randomly punctured. Tooth at apex of the tibiae.

...... Genus Gastrophysa

2 species.



..... Oomorphus concolor

Now in separate subfamily Lamprosomatinae, with one European genus.



Tibiae not so dilated.<u>4</u>

4	Elytra with random punctures, or if with a tendency of punctures being arranged in rows then the beetle is at least 6 mm.	
	Elytra with the punctures arranged in regular rows. Length 2.5-5 mm	<u>8</u>

Creative Commons. © Mike Hackston (2015). Adapted and updated from Joy (1932). Some species keys translated from the German, original from Dr Arved Lompe (published here with permission).

5 Pronotum much narrower than elytra at shoulders. Either the elytra and the pronotum are both green or the elytra are reddish and the pronotum is black.

...... Genus *Chrysomela* 3 British species



Pronotum not so much narrower than elytra.6

	Plagiodera versicolora
	surface flatter
6	Small dark beetle, length 3-4 mm. Under-



Larger species, length 5-11 mm.<u>7</u>



Elytra variable, but less rounded at sides, and segments of tarsi broader than long but not distinctly so.

...... Genus *Chrysolina*

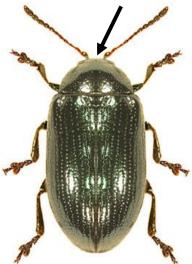
18 British species



8 Space between the points of attachment of the antennae about equal to the length of segment 1 of antennae.

...... Genus Phratora

4 British species.



Space between insertion of antennae about twice as long as segment 1.

9	Elytra less elongate, distinctly rounded at
	sides. Hind margin of pronotum without a
	raised border.

..... Genus *Phaedon*

4 British species



Elytra more elongate, quite or nearly parallelsided.10



10 Hind margin of pronotum slightly but distinctly ridged; pronotum not as distinctly broad compared to its length. Elytra more elongate.

...... <u>Genus *Prasocuris*</u> 2 British species.



Pronotum with hind margin without a raised border. Elytra less elongate.

...... Genus Hydrothassa

3 British species.



Genus Gonioctena

Key adapted from Joy (1932) by Mike Hackston

1 Yellowish-red species, with one or two black marks at the base of the pronotum, and with (usually) three to five round or oval ones on each elytron. Segments 9 and 10 of antennae broader than long. Length 5-7.5 mm.2



Reddish-yellow to black, without round or oval black marks. Segments 9 and 10 of antennae as long as broad.3

2 Legs orange-red.

...... Gonioctena decemnotata

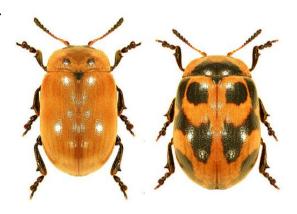
England and Scotland, local on aspen.



Legs dark brown to black.

..... Gonioctena viminalis

England, local on sallow.



3 Middle of the pronotum with much finer punctures than the sides. Front tibia with a small tooth on outer side. Length 3.5-5 mm. Elytra uniformly orange brown, or often darkened along the suture (v. *litura* F.), or entirely black (v. *nigricans* Weise).

...... Gonioctena olivacea

England and Scotland, local on broom.



Pronotum with the punctures in the middle quite, or nearly, as strongly punctured as sides. Front tibiae without a tooth. Length 5-7 mm. Entirely pale brown species.

..... Gonioctena pallida

Generally distributed; local on hazel.



Genus Gastrophysa

Key adapted from Joy (1932) by Mike Hackston

On Rumex, Polygonum and in moss in winter.





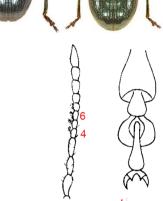
© SUMERIUS RESERVED Creative Commons. © Mike Hackston (2015). Adapted and updated from Joy (1932). Some species keys translated from the German, original from Dr Arved Lompe (published here with permission).

Genus Phratora

Translated and adapted from Lompe A (2011), Käfer Europas: Phratora

Antennal segments 2 and 3 of almost the same length; segments 4-6 with a cluster of upright hairs on the underside (easiest to see in males). Seventh interstice of the elytra weakly impressed in the middle and separated from the eighth interstice by a keel-like fold. Body elongate, usually blue, often metallic green, copper-violet or black shine. Base of the claws broad with distinct teeth. Male: first segment of the

On various species of willow. Common throughout Europe. April to October. Line drawings from Mohr.



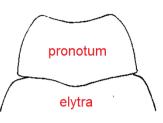
antenna tarsus





On various willow and poplar species

 3 Sides of the pronotum behind often parallel or only slightly curved before the base, at most only weakly narrowing from the base to the front. Sides of the elytra less regularly punctured, with weak swellings on the shoulders. Colour metallic bronze, copper or bluish (rarely black). Length 3.5-5.0 mm.



...... Phratora vitellinae

On various willow and poplar species. Widespread throughout the Palearctic.



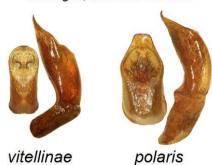
Pronotum strongly convex, widest at or slightly behind the middle, but only distinguished for sure by examination of the male genitalia. Boreal species. Length 3.5-4 mm.

..... Phratora polaris

On Salix herbacea. At high altitude in the Scottish Highlands first found in the late 1960s.



aedeagus, face and side view



Genus Prasocuris

1 Pronotum and elytra 2-coloured, metallic bronze or greenish-blue and yellow longitudinal strips (sometimes interrupted and occasionally absent) and side margins. Elytra with strong striae. Third tarsal segment not broader than the second, with two narrow, pointed lobes. Length 5-6 mm.

..... Prasocuris phellandrii

Larvae are stem-miners on various aquatic Apiaceae including *Oenanthe* species.



Body uniformly black with a metallic sheen, except for the tip of the abdomen which has a narrow reddish border. Third segment of the tarsi slightly wider than the second one, the lobes less pointed. Length 4-5 mm.

..... Prasocuris junci

Larvae feeding on *Veronica beccabunga* and *Anagallis* species in damp habitats.



Genus Hydrothassa

Translated and adapted from Lompe A (2012), Käfer Europas: Hydrothassa

Pronotum scarcely narrower than the base of the elytra and without a reddish border. Body shorter, long-oval. Pronotum with numerous punctures. Elytra uniformly metallic or with a yellowish side border. Length 3.0-4.4 mm.

...... Hydrothassa glabra

On various Ranunculus species



2 Elytra relatively long, almost parallel, with finely punctured striae. Pronotum and elytra with a reddish border but with no other red markings. Length 3.5-4.5 mm.

...... Hydrothassa marginella

On various species of the buttercup family, including *Caltha palustris*.



Elytra not as elongate, weakly rounded at the edge, with coarsely punctured striae. Elytra with the reddish border and a longitudinal stripe which extends from the third to the fifth interstice (sometimes interrupted and occasionally missing altogether). Length 4-5 mm.



Genus Phaedon

Adapted from Joy (1932)

1 Pronotum without punctures on the upper surface. Blue, green, brassy to black.

Phaedon tumidulus
Widely distributed in the British Isles.



Pronotum with distinct punctures.2



 3 Generally blue species. Aedeagus as shown.

..... Phaedon cochleariae

A pest of mustard. Widespread and common in the British Isles, although becoming less common northwards into Scotland.





A very local species of salt marshes in England and Wales with some records from inland.





Genus Timarcha

Adapted from Joy (1932)





Creative Commons. © Mike Hackston (2015). Adapted and updated from Joy (1932). Some species keys translated from the German, original from Dr Arved Lompe (published here with permission).

Genus *Chrysolina*Translated and adapted from Lompe A (2011), Käfer Europas: *Chrysolina*.

1	Last segment of the front tarsus with a distinct
	apical tooth before the claws. Eyes oval, not
	kidney-shaped



...... Chrysolina fastuosa

Widespread in Britain.



Claws of the front tarsus without a distinct apical tooth. Eyes more or less kidney-shaped.2

On various labiate plants, especially *Mentha aquatica*. Widespread and common in Great Britain.



3	Elytra with a red border. Upper surface black or metallic
	Flytra without a contrasting red border



Last segment of the maxillary palps relatively slender, not truncate and not broader than the second to last segment. Elytra finely to fairly strong punctured, the punctures usually clearly doubled, often in rows.



..... Chrysolina marginata

Widespread in Britain but local.



5 Fully winged. Antennae relatively slender, segments 7-9 not broader than long (occasional specimens occur where they approach being as broad as long). Not an upland species.

Yorkshire.



Wings shortened. Antennae relatively robust. Boreal species.

...... Chrysolina laticincta

Most records in the north of Britain, but scattered records in the south e.g. in Norfolk.



6 Elytra with the punctures in distinct rows (at most becoming weaker near the tips of the elytra). EITHER the base of the elytra with smaller punctures than the dense and deeper ones in the rows - rows of punctures in these cases always completely regular and becoming paired OR base of the elytra without or with very few punctures - in this case the rows of punctures become irregular in places, the punctures doubled or not.7

Punctures towards the base of the elytra irregular or at most only partly in rows EITHER elytra completely without superimposed rows of punctures or only traces of these present OR rarely with some partially complete rows of punctures, but these are the same size as those at the base of the elytra.

7 Explanate border of the pronotum extending from the base almost to the front margin forming a sharp shelf. Top of the pronotum at most finely punctured.



..... Chrysolina oricalcia

Widespread in Great Britain, but becoming rare towards the north.



Explanate border of the pronotum reaching at most from the base to the middle, very unclear in the front half, usually represented by a coarse puncture. Striae on the elytra approaching being in pairs.8

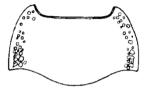
8	Elytra and pronotum striped, the colour of
	the stripes usually red and green. Length
	6-9 mm



Elytra and pronotum not striped.9

9 Explanate sides of the pronotum indicated by a sharp, fine, usually punctured ledge, extending a third to a half of the length of the pronotum.

10



...... Chrysolina marginata

Widespread but not particularly common.



10 Number of punctures in both of the outermost striae generally at least 25. Punctures in the interstices between the striae clear. Front tarsi in females (not including the claws) longer than the distance separating the antennae at their base.



...... Chrysolina brunsvicensis

Widespread in Great Britain, but becoming rare towards the north.

Number of punctures in the two outer striae on the elytra generally less than 25. Elytra in females more or less matt.

...... Chrysolina hyperici

Widespread in Great Britain, but becoming rare towards the north.



11 Upper surface with coloured longitudinal stripes. Background colour of the upper surface bright red. Each elytron with three stripes with violet centres and green borders and a similarly coloured stripe along the suture. Pronotum with one central and two lateral longitudinal stripes. Underside generally purple. Upper surface very



variable in the punctures and coloration. The background colour varies from green to blue with the stripes then much less distinct or it can be purple in which case the stripes are indistinct.

...... Chrysolina cerealis

On various species of Lamiaceae, such as *Thymus serpyllum, Calamintha nepeta, Satureja montana, Mentha longifolia*. Rare – north Wales.

Upper surface without longitudinal stripes of different colours.12

12 Body iridescent green to coppery, elytra bla	ack with a bright brassy shine
Chrysolina polita	
Rare aberrations of this key to here - see couplet 2. On aquatica. Widespread and common in Great Britain.	arious labiate plants, especially Mentha
Otherwise coloured	13

Creative Commons. © Mike Hackston (2015). Adapted and updated from Joy (1932). Some species keys translated from the German, original from Dr Arved Lompe (published here with permission).

13 Smaller species, about 6.5 mm. Elytra finely, very regularly but indistinctly double-punctured. Pronotum also uniformly densely and finely punctured (usually finer than the elytra), without an explanate edge but sometimes with a short indentation at the side near the base. Fully winged. Third segment of the maxillary palps not broader than the second. Body, legs and antennae dark with a variegated metallic sheen, coppery-red, brassy, green, blue or purple, rarely dirty brownish-black, relatively shining to almost matt. Length 4.5-6.5 mm.



...... Chrysolina varians

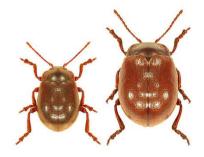
On Hypericum species. Widespread in the British Isles.

Differing from the above in at least one character.14

14	Inner edge of the explanate side of the pronotum defined by a notch at least at the base or a line of coarse punctures. The notch is sometimes small and shallow, but then the edge is clearly angled. Explanate side of the pronotum either short and very narrow at the base or elongate towards the front and partly broad and thickened
	Base of the pronotum without a notch or a line of punctures along the edge of the explanate margin, occasionally however with a coarsely punctured area or shallow depression. Without a clear transition to the explanate side and without coarse punctures

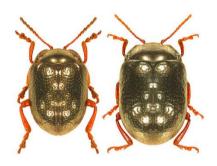
Some forms key here. Rare – North Wales.





On Mentha rotundifolia. Widespread and common in Britain.

Body two-coloured. Underside predominantly brownish. Upper surface dark metallic (olivaceous bronze to coppery-red or purple). Pronotum broadest near the base, with the explanate edge distinctly broad and bordered with a furrow. Elytra relatively more elongate, usually coarsely punctured. Length 8-11 mm.



...... Chrysolina banksii

On labiates. England, Wales and Ireland with a clear tendency to coastal habitats.

17 Legs metallic (more or less violet), with the tarsi contrasting brown to pale yellow. Upper surface uniformly densely and finely punctured, those on the elytra and pronotum similar although those on the pronotum are all single while those on the elytra are inconspicuously doubled. Elytra dull or weakly shining, bright or dull violet to greenish violet, brassy-brown,



greenish or bluish. Pronotum narrowing towards the front at least from around the middle. First two segments of the antennae (rarely more than two) predominantly pale. Sexually dimorphic: the males have distinctly broadened tarsi and are considerably smaller than females. Length 6-10 mm.

..... Chrysolina sturmi

Associated with *Glechoma hederaceum, Gallium* and *Circium*. England and Wales.

 18 Punctures on the pronotum not dense, more or less irregular and generally doubled (i.e. in part similar to those on the elytra). Side margins of the pronotum commonly with very coarse punctures. More elongate-oval, fully winged species. Usually with a pale-green, golden-yellow or bluish-green metallic shine.

Pronotum comparatively densely and finely punctured, about twice as dense as those on the elytra and distinctly finer. Side margins in part with larger punctures but these are never coarse, not or only slightly larger than those on the elytra. Short-oval species with reduced wings. Never brightly pale-green.

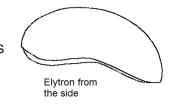


...... Chrysolina haemoptera

Mostly southern England and Wales, with a tendency to coastal habitats

19 Viewed from the side the epipleura are visible well beyond the middle of the elytra. Elytra with dense and usually distinctly deep punctures, the punctures sometimes running into one another forming wrinkles. Punctures on the top of the pronotum usually smaller than those on the elytra. Sides of the pronotum coarsely punctured. Upper surface shining metallic green, golden-green, or bluish-green (rarely faded and only slightly shining). Elytra often with a mix of green and golden-brown colour, e.g. golden brown along the suture with the rest green or the suture pale green with the rest bluish. The colour along the suture is often extended onto the shoulders, the base of the elytra or with stripes

parallel to the suture. Second segment of the





antennae usually mainly reddish-yellow. Very convex species. Length 8-11 mm.

...... Chrysolina graminis

Usually in moist habitats. Reportedly associated with *Tanacetum vulgare* and with various labiates including *Mentha aquatica*. Widespread in England but not common.

 20 Elytra and pronotum usually strongly and densely punctured (only rarely less strongly and more scattered). Second segment of the antennae usually mostly reddish yellow. Upper surface generally uniformly green or goldengreen (occasionally blue-green to blue, in which case the suture and outer angles of the elytra are partly and narrowly darker, and the second



antennal segment is darker). Colour very rarely dirty olive.

...... Chrysolina herbacea

On various species of mint, Common in southern England, becoming rare to the north.

Elytra and pronotum with the punctures weaker and less dense and usually extended to form tiny fissures. Second segment of the antennae mainly dark metallic. Upper surface usually shining bluish green to blue to dirty blue. Suture and outer angles of the elytra narrowly darker blue to black; edge of elytra sometimes broadly darkened and often also with a darker



longitudinal smudge. Scutellum and pronotum often darker, at least at the base. Length 6-10 mm.

..... Chrysolina coerulans

On various species of mint. Rare.

Genus Chrysomela

Adapted from Joy (1932)

Generally distributed in Britain, but much commoner north of a line between the Severn and Humber estuaries. Associated with alders. Image © Malcolm Storey bioimages.org.uk.



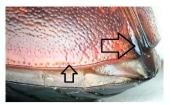
Pronotum bluish or greenish; elytra reddish. Associated with willows and poplars.2

Creative Commons. © Mike Hackston (2015). Adapted and updated from Joy (1932). Some species keys translated from the German, original from Dr Arved Lompe (published here with permission).

2 Elytra with a small black patch at the tip alongside the suture and with a single row of punctures along the side. Length 9-12 mm.

..... Chrysomela populi

Associated with willows. England and Wales.





Elytra with the tips alongside the suture the same colour as the rest. Sides of the elytra with a doubled row of punctures. Length 6-9 mm.

...... Chrysomela tremula

Associated with aspen. England and Wales, but becoming rarer to the north.

