# Family Coccinellidae

Key adapted from my translation of Lompe (2012) (published online at http://www.coleo-net.de/coleo/texte/coccinellidae.htm and linked pages) and reproduced here with permission of the author.

# Checklist

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

Subfamily COCCIDULINAE Genus COCCIDULA Kugelann in Illiger, 1798 rufa (Herbst, 1783) scutellata (Herbst, 1783) Genus RHYZOBIUS Stephens, 1829 chrysomeloides (Herbst, 1792) forestieri (Mulsant, 1853) litura (Fabricius, 1787) *Iophanthae* (Blaisdell, 1892) Genus RODOLIA Mulsant, 1850 cardinalis (Mulsant, 1850) Genus STETHORUS Weise, 1885 punctillum (Weise, 1891) Genus CLITOSTETHUS Weise, 1885 arcuatus (Rossi, 1794) Genus SCYMNUS Kugelann, 1794 auritus Thunberg, 1795 femoralis (Gyllenhal, 1827) frontalis (Fabricius, 1787) haemorrhoidalis Herbst, 1797 interruptus (Goeze, 1777) jakowlewi Weise, 1892 limbatus Stephens, 1832 nigrinus Kugelann, 1794 rubromaculatus (Goeze, 1777) schmidti Fürsch, 1958 suturalis Thunberg, 1795 Genus NEPHUS Mulsant, 1846 bisignatus (Boheman, 1850) quadrimaculatus (Herbst, 1783) redtenbacheri (Mulsant, 1846) Genus CRYPTOLAEMUS Mulsant, 1853 montrouzieri Mulsant, 1853 Genus HYPERASPIS Dejean, 1836 pseudopustulata Mulsant, 1853

#### Subfamily CHILOCORINAE

Genus PLATYNASPIS Redtenbacher, 1843 luteorubra (Goeze, 1777) Genus CHILOCORUS Leach, 1815 bipustulatus (Linnaeus, 1758) renipustulatus (Scriba, 1791) Genus EXOCHOMUS Redtenbacher, 1843 quadripustulatus (Linnaeus, 1758)

Subfamily COCCINELLINAE Genus COCCINULA Dobzhansky, 1925 quattuordecimpustulata (Linnaeus, 1758) Genus ANISOSTICTA Dejean, 1836 novemdecimpunctata (Linnaeus, 1758) Genus TYTTHASPIS Crotch, 1874 sedecimpunctata (Linnaeus, 1761) Genus MYZIA Mulsant, 1846 oblongoguttata (Linnaeus, 1758) Genus MYRRHA Mulsant, 1846 octodecimguttata (Linnaeus, 1758) Genus PROPYLEA Mulsant, 1846 quattuordecimpunctata (Linnaeus, 1758) Genus CALVIA Mulsant, 1846 quattuordecimguttata (Linnaeus, 1758) Genus VIBIDIA Mulsant, 1846 duodecimguttata (Poda, 1761) Genus HALYZIA Mulsant, 1846 sedecimguttata (Linnaeus, 1758) Genus PSYLLOBORA Dejean, 1836 vigintiduopunctata (Linnaeus, 1758) Genus ANATIS Mulsant, 1846 ocellata (Linnaeus, 1758) Genus APHIDECTA Weise, 1899 obliterata (Linnaeus, 1758) Genus HIPPODAMIA Dejean, 1836 tredecimpunctata (Linnaeus, 1758) variegata (Goeze, 1777) Genus COCCINELLA Linnaeus, 1758 hieroglyphica Linnaeus, 1758 magnifica Redtenbacher, 1843 quinquepunctata Linnaeus, 1758 septempunctata Linnaeus, 1758 undecimpunctata Linnaeus, 1758 Genus ADALIA Mulsant, 1846 bipunctata (Linnaeus, 1758) decempunctata (Linnaeus, 1758) Genus HARMONIA Mulsant, 1846 axyridis (Pallas, 1773) quadripunctata (Pontoppidan, 1763)

Subfamily EPILACHNINAE Genus HENOSEPILACHNA Li, 1961

argus (Geoffory in Fourcroy, 1762) Genus SUBCOCCINELLA Guérin-Méneville, 1844 vigintiquattuorpunctata (Linnaeus, 1758)



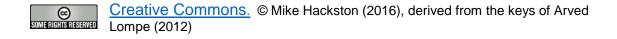
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# Family Coccinellidae Key to British species

 Antennae inserted in deep notches in the front of the frons between the eyes; base of antennae visible from above. Upper surface hairy. Eyes round. Mandibles without a tooth towards the base. Plant eaters. Subfamily Epilachninae.

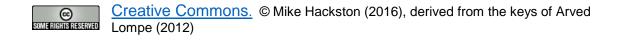


Antennae inserted just in front of the eyes, under the side margin of the frons and usually behind a forward projection of the cheeks which runs along the inner edge of the eyes. This means the base of the antennae are not usually visible from above. Upper surface hairy or not. Mandibles with a tooth towards the base. Feeding on aphids or fungi.



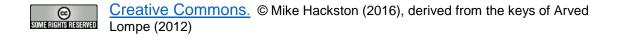






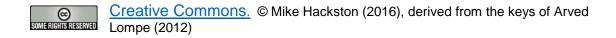


Head not expanded in front of the eyes. Base of the antennae exposed. ......7



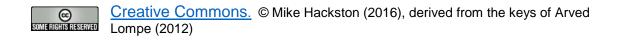


Upper surface not hairy (at most with single inconspicuous hairs on the margins	
of the elytra)	5



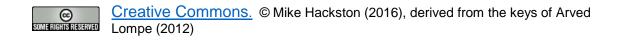












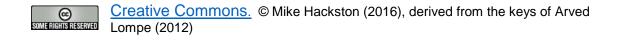
7	Upper surface of the body hairy
	Subfamily Coccinulinae (except Hyperaspis)

Upper surface of the body not hairy. ......<u>32</u>





Elytra and pronotum otherwise marked	9
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Antennae very short, about as long as the tarsi. .....14



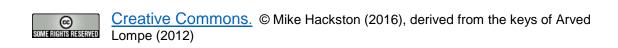


11 Pronotum broadest at the base. Elytra more rounded at the sides. Genus *Rhyzobius*.



Pronotum broadest at about the middle. Elytra parallel-sided. Genus *Coccidula*......13





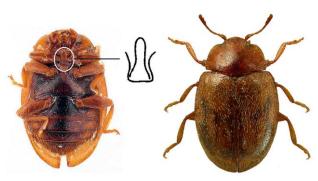
12 Elytra usually with a vaguely darkened horseshoe-shaped mark although they may vary from being completely darkened to having no markings at all. Pronotum broadest across the hind angles, narrowing smoothly to the front. Under the thorax between the base of the front legs, the ridges on the process of the prosternum are straight sided and diverging.

Widespread species

process of the

, prosternum

Elytra more extensively darkened with more complex markings. Pronotum more parallel-sided from the hind angles. Ridges on the process of the prosternum converging from the base then becoming parallel before a rounded apex. Source of information - the Watford Coleoptera Group. Records from Surrey and north-west London.



Smaller more rounded species with long fine setae on the elytra which are directed at right angles to the surface. ..... ...... Rhyzobius lophanthae An Australian ladybird predatory on scale insects, possibly becoming established in the



Upper surface uniformly black; underside of abdomen red. Elytra with the hairs on it appearing to be combed in a wavy pattern.

### ..... Rhyzobius forestieri

south-east. Image from http://www.ento.csiro.au/

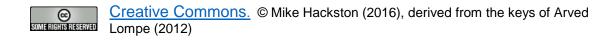
Reported from London in 2014 probably feeding on scale insects. An Australian species released for biological control of scale insects in the Mediterranean.



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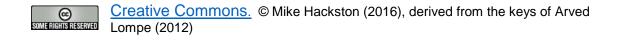








Pronotum black except sometimes for orange-brown colour along the front	
margin; tips of elytra black or orange-brown	15





Small species, larger than 1.7 mm.	If smaller then not as above with respect to
coloration and/or shape	

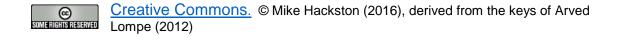


16 EITHER black with a yellowish-brown horseshoe-shaped mark in the middle of the elytra OR orange-brown with a black mark in the middle of each elytron with lighter colour around it. Length 1.2 mm.
Clitostethus arcuatus
Yory rate in conthem England parthwards to Leigesterphire; collected by bestin



Very rare in southern England northwards to Leicestershire; collected by beating old ivy.

Elytra no	t marked as above.	 7





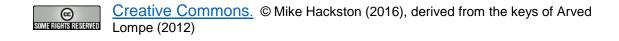
Legs at least partly pale1
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The following species are variable in the coloration of the upper surface and therefore firm identification must rely on other less obvious characters, starting with features of the underside to separate genera.

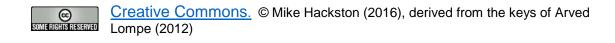
18 Process of the prosternum with an inverted U-shaped		
ridge or two divergent ridges	V	V

), (

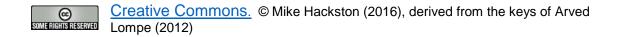






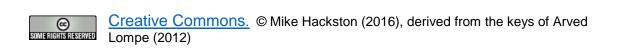


Elytra uniformly black, without markings	.21
Elytra with markings.	.24



21 Legs completely pale,	at most with the base of the femora darkened.	22
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Femora brown or com	pletely	black23

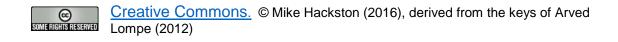


22 Broadly oval species, comparatively convex. Length 1.8-2.3 mm. Male head and pronotum more or less reddish; female with only the mandibles yellowish. Antennae and mouthparts yellowish. .....

..... **Scymnus rubromaculatus** Dry habitats.





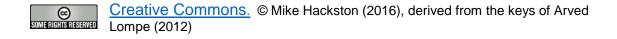


23 Broadly oval species. Length at most 2.3 mm. Femora usually darkened but very rarely completely pale.

#### ...... Scymnus femoralis

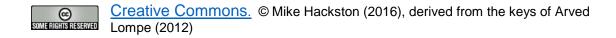
Very similar in shape to S. *interruptus* and is differentiated by the uniform black colour and the stronger punctures on the underside.

More elongate	oval species	
Melanic	forms of <b>Scymnus frontalis</b> and <b>Scymnus schmidti</b>	





Each elytron with a single paler s	pot25
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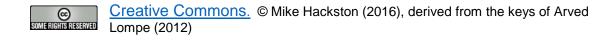


25 Elytra black with a small pale yellow marking present between the middle and the tip of each elytron (may be indistinct). Shortly oval, shining species with dense, yellow hairs. In males the head and the front angles of the pronotum are broadly reddish. Legs reddish. Underneath the male abdomen the fifth segment is weakly concave at the tip and clearly flattened; the flattened area reaches the middle of the segment and is densely hairy in this area.



...... Scymnus jakowlewi

A mountain species recently found in moss in the Scottish Highlands.

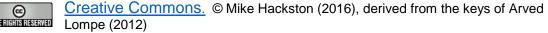


Three very similar species

26 Head and usually the front angles of the pronotum reddishbrown. Antennae, mouthparts and legs reddish brown; femora more or less darkened. The reddish-brown patch on the elytra is large but does not extend to the margin of the elytra. ..... Scymnus schmidti

Length 1.5-2.2 mm. Males: head and front angles of the pronotum reddish-brown. Females: only the mandibles are yellowish. The orange-brown patch on the elytra is large and reaches the edge of the elytra and onto the vertical border and forwards to the front edge. ..... ..... Scymnus interruptus

Length 2-3 mm. Head reddish brown in males and black in females (at most the front edge reddish-brown). Pronotum usually reddish-brown along the front edge and the sides (rarely completely black). ...... Scymnus frontalis









27	Antennae with eleven segments.	Subgenus Pullus.	
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Antennae with ten segments.	Subgenus Neopullus.	



28 Elytra black for the most part with the tips reddish-brown or completely black. More rounded.

#### ..... Scymnus auritus

Tip of abdomen on the underside reddish. Head reddish in both sexes (occasionally all black in females). Pronotum reddish-brown in males with the centre black (occasionally absent); pronotum black in females. Antennae, palps and legs yellowish-brown, at most the femora darkened towards the base. On deciduous trees, especially oak. Feeds on *Phylloxera* species on oak leaves.



Elytra brown, usually with the front margin black and this colour extending along the suture (occasionally all brown).

More elongate.

#### ...... Scymnus suturalis

Particularly on coniferous trees; in winter on moss or under bark. Feeds on the aphid *Chionaspis salicis.* 



29 Hairs curly. Dark brown species with black along the suture and along the sides. Process of the prosternum with two fine ridges which usually do not quite reach the front margin. Completely black forms (melanics) occur.

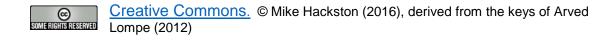
...... Scymnus limbatus

On the banks of streams, especially in water meadows on willows and poplars. In winter on rotting willows and under fallen leaves.

Hairs not curly or only indistinctly so. Elytra black, paler towards the tip, the boundary between the two rather diffuse. Length 1.5-2.3 mm. The first three segments of the abdomen viewed from below black, the rest reddishbrown.



In damp meadows and riverbanks on shrubs. In winter on fallen alder and willow leaves.



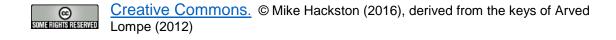
# 30 Antennae with 9 segments. Length 1.5-2.0 mm.

#### ..... Nephus bisignatus

Swellings on the shoulders of the elytra weak. Black species with the front edge of the pronotum paler. Tips of the elytra narrowly pale or elytra completely black. Commonly with an indistinct spot towards the tip of each elytron. Pronotum with indistinct punctures but with a clear net-like microscopic sculpture. Coastal on shrubs.



Antennae with 11	segments.		1
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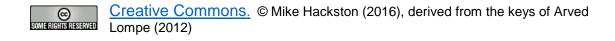


Each elytron with only one paler patch which is elongate and sometimes covers much of the elytra. Occasionally completely black (melanic) forms turn up. Length 1.3-1.8 mm.

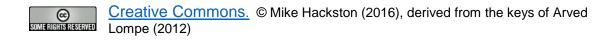
..... Nephus redtenbacheri

In swamps and moorland, damp pastures and in hops cultivation. In winter can be sieved from dead reeds and flood debris.



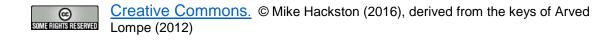




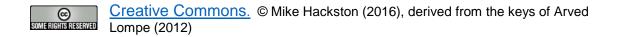








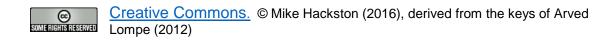
Pronotum without a trace of a fine impressed line running parallel to the rear	
edge	36



Predator of various aphids feeding on conifers.







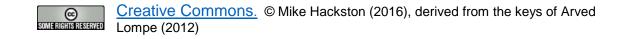
Very variable with the elytra occasionally without spots or completely black. In marshy habitats particularly on *Sparganium, Phragmites* and *Carex*. Also in meadows. Predator of various willow aphids and *Hyalopterus pruni* (which alternates between species of *Prunus* and marsh plants).

Front edge of the pronotum sinuous. Elytra usually with 19 spots and the centre of the pronotum with spots. Length 3-4 mm.

#### ..... Anisosticta novemdecimpunctata

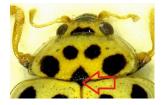
Markings on the elytra sometimes fewer, due to them merging together. On marsh and water plants.

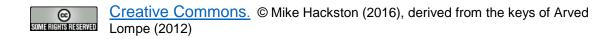


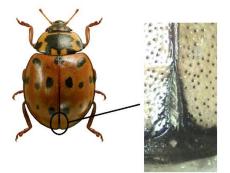


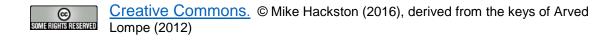


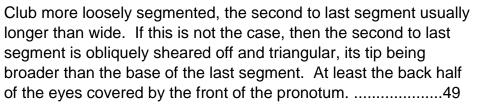
Scutellum always clearly visible.	Usually larger than 3
mm	



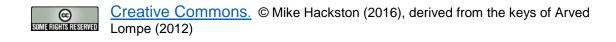




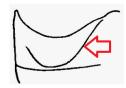




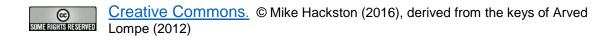








Raised line on the first segment of the abdomen curving from inside the base of the hind legs towards the rear margin and then running very close to the rear margin of the segment. Process of the prosternum (between the base of the front legs) parallel-sided or slightly concave, usually with two raised lines running along the middle.



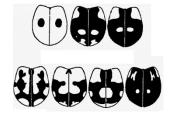


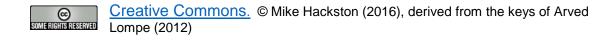
Epimera of the mesothorax black. Elytra smooth before the tip. Broadly oval. The specific name refers to the red variety with two black spots on the elytra. The elytra coloration is very variable.

# ..... Adalia bipunctata

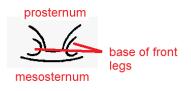
The top three line drawings show the most common varieties which are based on three allelomorphic genes. The other four along with other varieties only form a small percentage of the population.





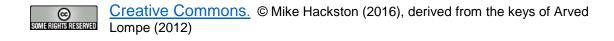


42 Front margin of the mesosternum flat. Hind tibia with a clear spur (thickened bristle). ......43



Front margin of the mesosternum with a rounded to triangular incision. Hind tibia without a spur. Genus *Harmonia*. ......48

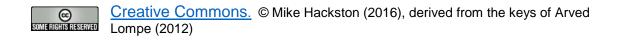




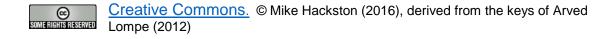


Red with black spots, or if predominantly black then the markings are reddish and elongated. Ridges on the prosternum extend forwards a little beyond the level of the base of the front legs. Genus *Coccinella*......44



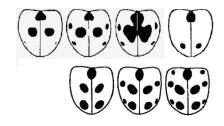


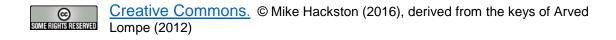




45 Length 6-8 mm. Elytra usually with seven black spots. ......46







46 Side margin of the elytra with a beading. Elytra with seven small spots. The pale-coloured side patches on the pronotum viewed from below reach only about a third of the way down the side of the pronotum, tapering all the time. Length 5.2-8 mm. **Coccinella septempunctata** 

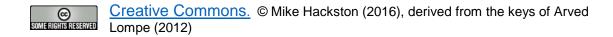
Very common and widely distributed throughout the UK. The beading is easiest to see towards the tip and at the shoulders, requiring at least x20 magnification to see.

Side margin of the elytra more rounded and without a beading. The pale-coloured side patches on the pronotum viewed from below extend beyond half-way, remaining more or less the same width. The three black spots in the centre of the elytra are usually comparatively larger. Always in the company of wood ants. Length 6-8 mm.



## ..... Coccinella magnifica

Most records are SE of a line from Lyme Bay to central East Anglia with records from Dartmoor and scattered localities further north.







Widespread throughout Britain

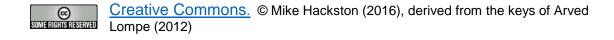


one half of the pronotum



one half of the pronotum





48 Yellowish-brown with black spots, which may be rather indistinct or even absent. Head with a longitudinal row of four black spots, of which the back one is the largest. Underneath the abdomen the ridge on the first segment running from the base of the hind leg is distinctly angled. Length 5.5-6 mm.



### ...... Harmonia quadripunctata

On conifers, particularly Scots Pine. Increasing its range, common in SE and central England spreading to Wales and northern counties of England.

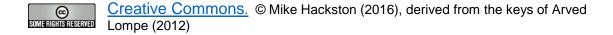
Red species typically with 19 black spots and an M-shaped marking on the pronotum. Numerous colour varieties occur, including those which are completely black or black with two red patches on each elytron. Viewed from the side, the smooth curved outline of the



elytra is broken by a transverse ridge; the suture is also ridged in this area, so viewed from behind the two transverse ridges can be seen meeting the ridge along the suture forming a T shape. Length 6-7 mm. .....

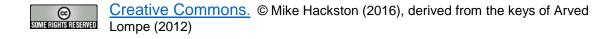
# ..... Harmonia axyridis

Originally from China and Japan, but introduced as a biological control agent in greenhouses towards the end of the twentieth century. First recorded outside in Belgium in 2001 and since then spreading widely, now very common in England and Wales with isolated records in Scotland and Northern Ireland. Hibernates in large groups often indoors.



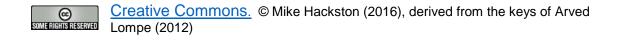


Claws with a tooth near the base	Otherwise coloured	
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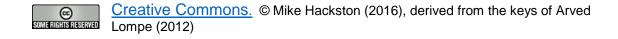


51 Elytra with a broad flat marginal area. Process of the prosternum between the base of the front legs without ridges. Length 5-7 mm.
 ......... Halyzia sedecimguttata
 In deciduous woodland, particularly oak, sycamore and dogwood.
 Widespread in the southern half of England and Wales, becoming local

further north.





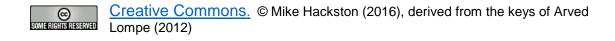


#### Front margin of the mesosternum straight. .....53 52

Front margin of the mesosternum with a deep, rounded incision. .....54 Image © Malcolm Storey 2012. This incision may be less obvious than shown if the beetle has curled slightly after death - the beetle

will then need tilting to see it.







Process of the prosternum without ridges. Upper surfa	се			
yellow with black spots				
Psyllobora vigintiduopunctata				









