

## References

Diagram adapted from Unwin (1984)

Duffy (1952), Handbooks for the Identification of British Insects Volume 5 Part 12. Reitter (1908) Fauna Germanica. Die Käfer des Deutschen Reiches Wallin, Nylander & Kvamme, (2009) Zootaxa 2010:31–45 (2009)

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## Checklist

On the next page is a checklist of the 68 species of established Cerambycidae from the Checklist of Beetles of the British Isles, 2012 edition, edited by A. G. Duff. (available from www.coleopterist.org.uk/checklist.htm).



Genus PRIONUS Geoffroy, 1762 coriarius (Linnaeus, 1758) Subfamily LEPTURINAE Latreille, 1802 Genus RHAGIUM Fabricius, 1775 inquisitor (Linnaeus, 1758) bifasciatum Fabricius, 1775 mordax (De Geer, 1775) Genus STENOCORUS Geoffroy, 1762 meridianus (Linnaeus, 1758) Genus DINOPTERA Mulsant, 1863 collaris (Linnaeus, 1758) Genus GRAMMOPTERA Audinet-Serville, 1835 abdominalis (Stephens, 1831) ruficornis (Fabricius, 1781) ustulata (Schaller, 1783) Genus PEDOSTRANGALIA Sokolov, 1896 revestita (Linnaeus, 1767) Genus LEPTUROBOSCA Reitter, 1913 virens (Linnaeus, 1758) Genus LEPTURA Linnaeus, 1758 aurulenta Fabricius, 1793 quadrifasciata Linnaeus, 1758 Genus ANASTRANGALIA Casey, 1924 sanguinolenta (Linnaeus, 1761) Genus STICTOLEPTURA Casey, 1924 cordigera (Füsslins, 1775) rubra (Linnaeus, 1758) scutellata (Fabricius, 1781) Genus PARACORYMBIA Miroshnikov, 1998 fulva (De Geer, 1775) Genus ANOPLODERA Mulsant, 1839 sexguttata (Fabricius, 1775) Genus JUDOLIA Mulsant, 1863 sexmaculata (Linnaeus, 1758) Genus PACHYTODES Pic, 1891 cerambyciformis (Schrank, 1781) Genus ALOSTERNA Mulsant, 1863 tabacicolor (De Geer, 1775) Genus PSEUDOVADONIA Lobanov et al 1981 livida (Fabricius, 1777) Genus STRANGALIA Audinet-Serville, 1835 attenuata (Linnaeus, 1758) Genus RUTPELA Nakane & Ohbayashi, 1959 *maculata* (Poda, 1761) Genus STENURELLA Villiers, 1974 melanura (Linnaeus, 1758) nigra (Linnaeus, 1758)

Subfamily PRIONINAE Latreille, 1802

Subfamily SPONDYLIDINAE Audient-Serville, 1832 Genus ASEMUM Eschscholtz, 1830 striatum (Linnaeus, 1758) Genus TETROPIUM Kirby, 1837 castaneum (Linnaeus, 1758) gabrieli Weise, 1905 Genus ARHOPALUS Audinet-Serville, 1834 ferus (Mulsant, 1839) rusticus (Linnaeus, 1758) Subfamily CERAMBYCINAE Latreille, 1802 Genus TRINOPHYLUM Bates, 1878 cribratum Bates, 1878 Genus CERAMBYX Linnaeus, 1758 cerdo Linnaeus, 1758 scopolii Fuessly, 1775 Genus GRACILIA Audinet-Serville, 1834 minuta (Fabricius, 1781) Genus OBRIUM Dejean, 1821 brunneum (Fabricius, 1793) cantharinum (Linnaeus, 1767) Genus NATHRIUS Brèthes, 1916 brevipennis (Mulsant, 1839) Genus MOLORCHUS Fabricius, 1793 minor (Linnaeus, 1758) Genus GLAPHYRA Newman, 1840 umbellatarum (von Schreber, 1759) Genus AROMIA Audinet-Serville, 1833 moschata (Linnaeus, 1758) Genus HYLOTRUPES Audinet-Serville, 1834 bajulus (Linnaeus, 1758) Genus CALLIDIUM Fabricius, 1775 violaceum (Linnaeus, 1758) Genus PYRRHIDIUM Fairmaire, 1864 sanguineum (Linnaeus, 1758) Genus PHYMATODES Mulsant, 1839 623 testaceus (Linnaeus, 1758) Genus POECILIUM Fairmaire, 1864 alni (Linnaeus, 1767) lividum (Rossi, 1794) Genus CLYTUS Laicharting, 1784 arietis (Linnaeus, 1758) Genus PLAGIONOTUS Mulsant, 1842 arcuatus (Linnaeus, 1758) Genus ANAGLYPTUS Mulsant, 1839 mysticus (Linnaeus, 1758) Subfamily LAMIINAE Latreille, 1825 Genus MESOSA Latreille, 1829 nebulosa (Fabricius, 1781) Genus AGAPANTHIA Audinet-Serville, 1835 villosoviridescens (De Geer, 1775) Genus LAMIA Fabricius, 1775 textor (Linnaeus, 1758) Genus POGONOCHERUS Dejean, 1821 fasciculatus (De Geer, 1775) hispidulus (Piller & Mitterpacher, 1783) *hispidus* (Linnaeus, 1758) Genus *ACANTHOCINUS* Dejean, 1821 aedilis (Linnaeus, 1758) Genus LEIOPUS Audinet-Serville, 1835 nebulosus (Linnaeus, 1758) linnei Wallin, Nylander & Kvamme, 2009 Genus SAPERDA Fabricius, 1775 carcharias (Linnaeus, 1758) populnea (Linnaeus, 1758) scalaris (Linnaeus, 1758) Genus STENOSTOLA Dejean, 1835 dubia (Laicharting, 1784) Genus PHYTOECIA Dejean, 1835 cylindrica (Linnaeus, 1758) Genus **OBÉREA** Dejean, 1835 oculata (Linnaeus, 1758) Genus TETROPS Stephens, 1829 praeustus (Linnaeus, 1758) starkii Chevrolat, 1859



**Family Cerambycidae** Key to the 68 species with sustained populations in the wild. Adapted from Handbooks for the Identification of British Insects Volume 5, part 12, Duffy 1952

1 Antennae hairless and distinctly toothed. Sides of pronotum with three teeth on each side. Underneath the prosternum projects as a blunt process behind the front coxae. Length 23-40 mm.

..... Prionus coriarius Male antennae 12-segmented, female 11-segmented. Southern England northwards to Cheshire, rare, August to October



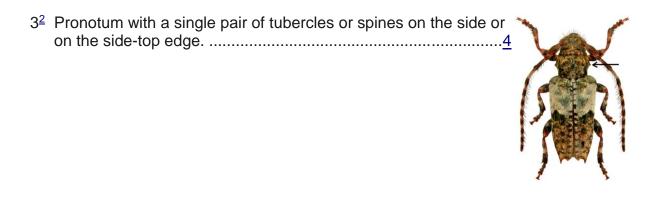
Antennae hairy at least towards the base; segments cylindrical. Sides of	
pronotum with at most one tooth. Underneath the prosternum scarcely project	S
between the front coxae if at all.	<u>2</u>





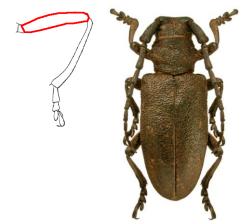
Front of head obliquely or more or less vertically inclined to longitudinal axis of
body. Front tibiae not grooved on their inner side. Last segments of labial palps
enlarged <u>17</u>





Pronotum	without a	single pa	ir of spines	s on the side.	<u>9</u>
1 Ionotani	with loat a	onigio pu			······

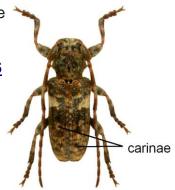




Comoro distinati		ماييله ملموت	a d)	F
Femora distincti	y swollen (	ciub-snap	ea)	 <u>5</u>



5<sup>4</sup> Antennae not or scarcely extending beyond the tips of the <sup>4</sup> elytra, and bearing numerous long erect hairs. Elytra each with two to three longitudinal carinae. Mainly on the dead twigs of fruit trees. Genus *Pogonocherus*. .........6



Antennae extending well beyond the ends of the elytra (often considerably) and	
covered with hairs that more or less lay on the surface. Elytra without raised	
ridges8	

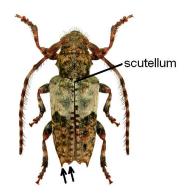


 6<sup>5</sup> Elytra more or less sheared off at the tip, without teeth. Length 5-7 mm.
*Pogonocherus fasciculatus* Northern species. Bred from coniferous trees



Elytra shallowly notched at the tip and toothed at the outer angles. Southern	
species. In deciduous trees, especially pear <u>7</u>	



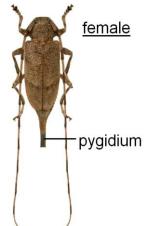






8<sup>5</sup> Antennae in the male about four times as long as body; in the female about twice as long. Pygidium of female strongly produced into a tubular process. Elytra with scattered reddish, bead-like granules showing through pubescence. Length 13-19 mm.

...... Acanthocinus aedilis Northern species; scarce, but frequently imported in pines.





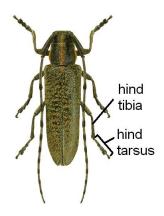


9 <u>3</u>	Antennae with the basal segments white, yellow or grey and the apical segments
	black or brown. Tarsal claws not bifid, split or toothed. Front coxae distinctly
	separated <u>10</u>

Antennal segments uniform in colour.	Tarsal claws bifid,	, split, or toothed ba	isally.
Front coxae more or less fused			<u>14</u>







Antennae with 11 segments. Hind tarsi distinctly shorter than hind tibiae. Elytra with clearly defined patterning. Genus **Saperda**.....<u>12</u>



Bred mostly from poplars. Photograph from www.zin.ru.



Elytra with distinct bands or markings of a lighter colour; apex of elytra rounded.	
<u>13</u>	



13<sup>12</sup> Pronotum becoming narrower towards the rear, with the base of the elytra distinctly broader than the rear of the pronotum. Elytra black and with a broad bright yellowish-green longitudinal band of pubescence extending along suture and branching at intervals, and with a few scattered spots of similar pubescence. Length 14-18 mm.

Northern species. Mainly from genus Prunus, pears and oaks

Pronotum more or less parallel-sided, about as wide at the rear as the base of the elytra. Elytra with rather scanty yellowish pubescence and with a few scattered patches of similar but denser pubescence forming conspicuous patches. Length 9-14

mm.

...... **Saperda populnea** Southern species. Bred from poplars and willows





14<sup>9</sup> Elytra yellowish-brown with darker tips. Eyes completely divided into two parts. Pronotum with a very deep transverse impression on each side near the base. Length 3-5 mm. *Tetrops praeusta* A second species *Tetrops starkii* has been recorded from Oxfordshire. It is very similar and differs in its relatively darker elytra which are sometimes darkened laterally and generally lighter legs.





15<sup>14</sup> Pronotum and underside of abdomen orange-brown. Elytra distinctly sheared off at the tip and slightly concave. Hind tibiae not nearly reaching the tips of the elytra. Length 16-20 mm.

..... **Oberea oculata** On willows.



Pronotum and underside of abdomen black. Elytra not or scarcely sheared off at
the tips. Back legs much longer, with the hind tibiae more or less reaching the
tips of the elytra <u>16</u>



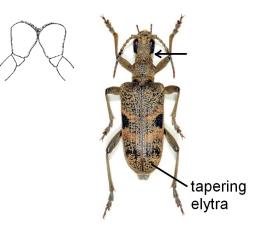


Mainly on limes.

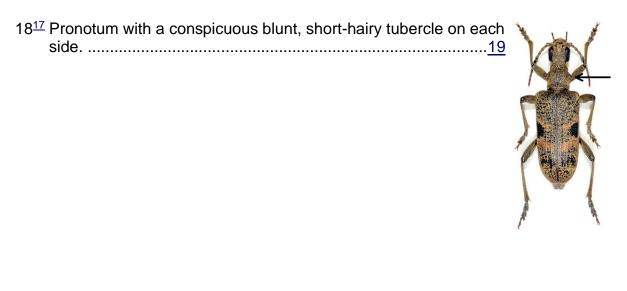




17<sup>3</sup> Viewed from below, the front coxae are distinctly conical. Sides of head strongly constricted behind temples, which are usually strongly protuberant. Elytra usually strongly tapering posteriorly. ..<u>18</u>



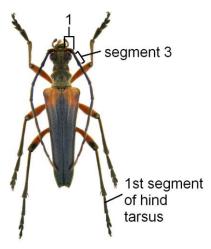




Pronotum without lateral tubercles.	22



> 1st segment of hind tarsus





Photograph from www.cerambyx.uochb.cz.









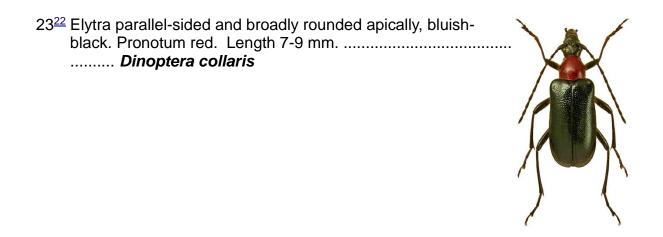




Posterior angles of pronotum acutely produced	into a
distinct spine-like process.	<u>30</u>







Elytra slightly to strongly tapering towards the rear.	Pronotum usually black, but
if reddish then elytra also reddish	<u>24</u>





Elytra dull, entirely black, red or yellow,	or black and yellow/orange/red with the
tips obliquely sheared off or notched	



25 Elytra mainly red or orange with the tips black and a black patch in the middle that narrows towards the rear and joins with the black at the tip. .....

First recorded a few years ago on thistles on Hackney Marsh. Photograph © Mark Telfer. See further details at http://markgtelfer.co.uk/2014/07/30/tales-of-the-unexpected/





25a<sup>25</sup> Elytra more or less parallel-sided, black, each with three orange or yellow marks which are sometimes confluent. Length 8-11 mm. ..... Anoplodera sexguttata Southern species



Elytra distinctly tapering posteriorly; never black with orange or yellow marks.	



26 <sup>25</sup> Elytra entirely black.	Scutellum covered with very dense
golden pubescence.	<u>27</u>



Elytra mainly or entirely reddish or yellowish.	Scutellum sparsely covered with
fine greyish pubescence	



One recent record from the Welsh border near Monmouth. Previously thought to be extinct.



Elytra appearing shiny with little hair, the underlying sculpture of tiny pits clear on the elytra. Antennal segments uniformly blackish. Tips of elytra sheared off.

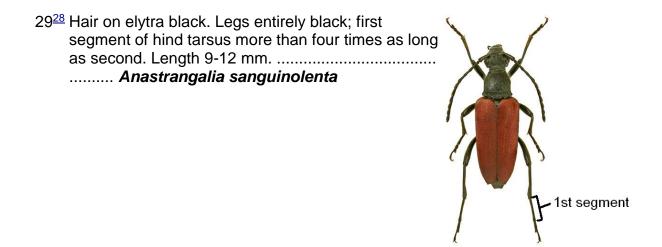
...... *Stictoleptura scutellata* Mainly on beech in the south.





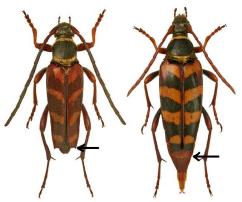
















31<sup>30</sup> Elytra black, with four transverse yellow or orange bands, usually broken in the middle by a black or darkened line along the suture.

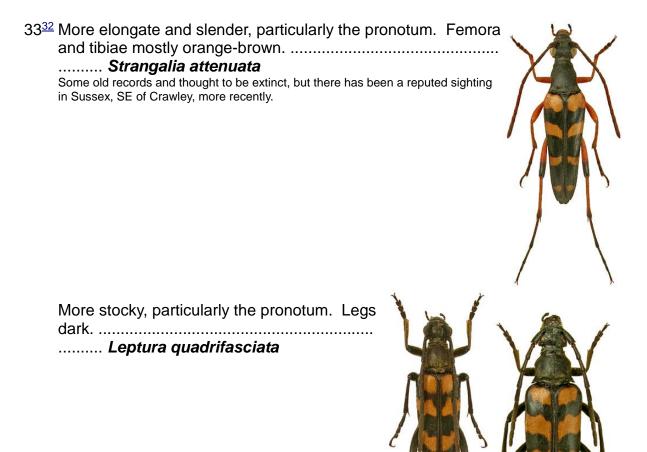






Front and hind margins of pronotum not densely fringed with yellow	
pubescence.	<u>33</u>







34<sup>31</sup> Each antennal segment with the basal third yellowish and the apical two-thirds black. Elytra yellowish-brown with black markings. Length 15-17 mm.

..... **Rutpela maculata** The colour patterns are variable. The front black section illustrated here as two spots and a middle patch may be joined

illustrated here as two spots and a middle patch may be joined together. The second black section may also be joined or separated into two lateral patches. The fourth yellowish-brown area may be reduced to two small spots.



Antennal segments entirely black or reddish. Elytra never yellow with black	
markings except at apex <u>34</u>	<u>5</u>



35<sup>34</sup> Head, pronotum and legs reddish. Pronotum with a pair of very small protuberances in the middle at the side. Length 9-15 mm

..... **Pedostrangalia revestita** Very rare in southern England



Head, pronotum and legs black. Pronotum without a pair of lateral	
protuberances	<u> 36</u>





Elytra mainly chestnut-brown (male) or reddish (female). Length 7-9 mm. ...... *Stenurella melanura* 





37 <sup>30</sup> Elytra tapering at least slightly towards the rear; marked yellowish-brown and
black <u>38</u>

Elytra parallel-sided; reddish brown or black but never both	<u> 39</u>
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Northern species.







39<sup>37</sup> Antenna with first segment shorter than third segment. Eyes almost touching front margin of head. Elytra with a black ground colour. Genus *Grammoptera*......<u>40</u>



Antenna with first segment as long as third. Eyes placed well behind front margin of head. Elytra reddish-brown. Length 6-8 mm.

..... Alosterna tabacicolor







Femora and tibiae partly or entirely black. Elytra completely but sparsely	
covered with greyish-yellow pubescence	<u>41</u>



41<sup>40</sup> Front tibiae reddish brown. Segments of at least apical half of antennae red basally, black apically. Length 4.5-6 mm. ... ......... *Grammoptera ruficornis* 









Pronotum without a distinct tubercle each side.	43	
	10	2



43 <sup>42</sup> Elytra short, leaving at least the apical third of the abdomen uncovered, the
remainder covered by the wings

Elytra completely covering the wings
--------------------------------------



44<sup>43</sup> Femora with a basal narrow section and a bulbous apical section. Elytra dark reddish-brown......<u>45</u>













46<sup>43</sup> Femora very distinctly swollen compared to the tibiae AND hind femora extending beyond level with the tips of the elytra.



Femora not swollen or if swollen then the hind legs are shorter, the hind femora reaching well short of the tips of the elytra. Front coxae more or less fused. Body entirely brown or black. From conifers. .....<u>60</u>



47<sup>46</sup> Pronotum with a conspicuous pair of spines on the side. Length at least 16 mm.













Top of pronotum dull due to being finely punctured. Elytra darker brown. Smaller species - length 4.5-6 mm.

..... **Obrium brunneum** Southern England mostly bred from spruce



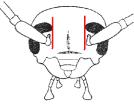




Pronotum with its length equal to its breadth, or distinctly wider than long.	
Antenna with third segment longer than fourth.	<u>52</u>







Sockets of front coxae rounded, much wider than long and not angled externally. Distance between inner margins of eyes above antennae slightly more than distance between bases of antennae. Elytra with conspicuous yellow bands or grey at apex. .<u>57</u>





53<sup>52</sup> Viewed from below the front coxae are distinctly separated by at least their combined width. Sides of pronotum densely covered with long outstanding greyish-white hairs; top of pronotum with a conspicuous pair of round black, shining tubercles. Length 8-20 mm. From dry, seasoned coniferous timbers, especially in attics of houses and in packing-cases.











Elytra never metallic, but if bluish, then pronotum red. Top of pronotum shinin	g
and sparsely or finely punctured	. <u>56</u>





Hind tarsi less slender and less than half the length of the hind tibia. First segment of the antennae at most equal to the length of segments 2-3 combined. Genus *Poecilium*.





57 <sup>52</sup> Elytra densely short hairy, with a conspicuous pattern of contrasting colour.	
Eyes with fine facets.	<u>58</u>















Eyes not deeply notched as above, kidney shaped. Elytra sculptured with tiny ridges; longitudinal striae distinct ......<u>62</u>









62<sup>60</sup> Elytra with only two pairs of distinct striae. Head, pronotum and elytra brown. Eyes very coarsely faceted (each facet distinctly visible with a 15x lens). Genus *Arhopalus*. ......<u>63</u>

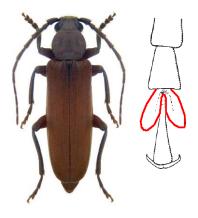




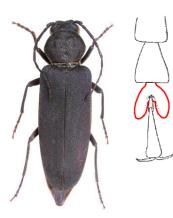


63<sup>62</sup> Eyes with numerous short bristles. Third tarsal segment divided almost to the base. Length 12-16 mm. Northern species.

..... Arhopalus rusticus Photograph from U Schmidt 2009



Photograph from U Schmidt 2005





64<sup>8</sup> Frons narrow and not protruding. Pronotum uniformly greyish with no distinct pattern of yellowish spots in the middle, narrow, flattened with tubercles oblique or absent. Females with the posterior margin of the last abdominal segment viewed from below with very fine and short hair.

...... Leiopus nebulosus

For further details about the differences in the internal male reproductive system see Wallin et al Zootaxa 2010:31–45 (2009). The photographs are taken from this publication which is available at

http://molbiol.ru/forums/index.php?act=Attach&type=post&id=67775

Frons wide and protruding. Pronotum covered with a mixture of brownish and yellowish pubescence forming a pattern of lighter spots or transversal bands in the middle; pronotum wide, often with three to five raised tubercles: two close to the rear margin, one elongated one in the middle, and two close to the front margin. Females with the posterior margin of the last abdominal segment viewed from below with a dense group of long hairs.

..... Leiopus linnei













Pronotum and head black. Elytra much more compact, brown at the base and black from about one third back; black area cut by two narrow whitish bands.

......... Poecilium alni

England northwards to Cumbria, westwards to the Welsh borders



