

Key to the British species of tribe Pterostichini

Reference

Adapted from Lindroth, C.H. (1974) Coleoptera, Carabidae. Handbooks for the identification of British insects, volume 4, part 2. London: Royal Entomological Society.

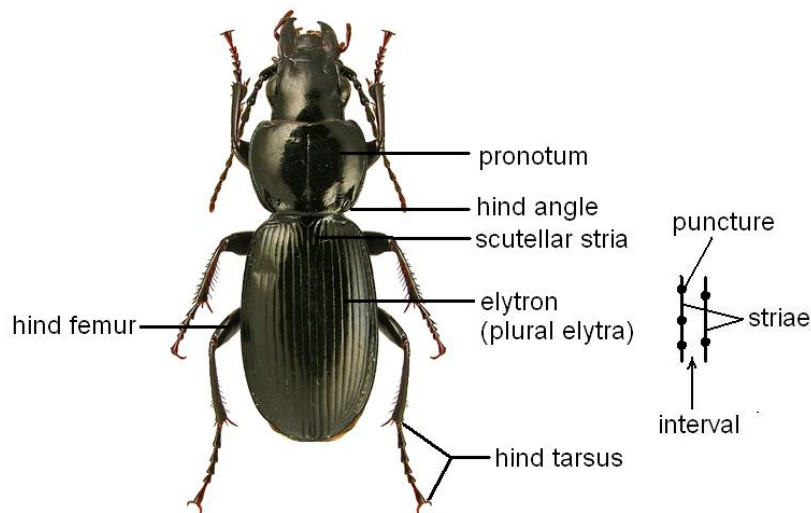


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Checklist

From the Checklist of Beetles of the British Isles, 2012 edition, edited by A. G. Duff.

Genus **Abax** Bonelli, 1810

parallelepipedus (Piller & Mitterpacher, 1783)

Genus **Poecilus** Bonelli, 1810

Genus **Pterostichus** Bonelli, 1810

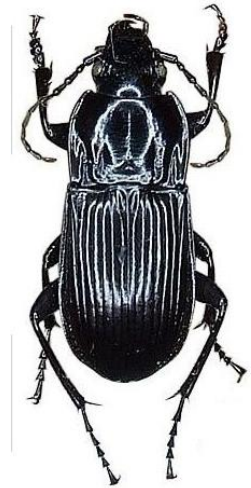
Genus **Stomis** Clairville, 1806

pumicatus (Panzer, 1795)



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- 1 Pronotum with four deep impressions at the base which are smooth with no punctures; length 14-22 mm.
..... ***Abax parallelepipedus***
A common species often found under stones.



Pronotum, if with a tendency to have 4 impressions at base, they are punctured, or pronotum is metallic.2

- 2 Mandibles narrowed and conspicuously extended forwards.
Hind margin of pronotum much narrower than the front
margin.
..... ***Stomis pumicatus***



Mandibles normal; hind margin of pronotum about as broad as, or slightly broader
than, front margin.3

- 3 Segments 1-3 of antennae with a longitudinal keel on upper side, best seen with light coming from the tip or base of antennae, when it is seen as a white line. Generally metallic species with the pronotum and elytra metallic green, purple or reddish.
..... Genus ***Poecilus***



Segments 1-3 of antennae without a keel.
..... Genus ***Pterostichus***

Genus *Poecilus*

Adapted from Lindroth, C.H. (1974) Coleoptera, Carabidae. Handbooks for the identification of British insects, volume 4, part 2. London: Royal Entomological Society.

Genus *Poecilus* Bonelli, 1810

cupreus (Linnaeus, 1758)

kugelanni (Panzer, 1797)

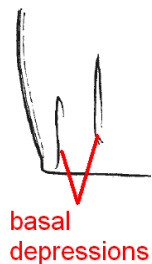
lepidus (Leske, 1785)

versicolor (Sturm, 1824)

- 1 Antennae entirely black. Upper surface uniform in colour but extremely variable: from coppery, green or bluish to virtually black; elytra of female dull. Pronotum not flattened near the hind angles; basal depressions parallel, narrow and very deep, the outer one delimited externally by a strong ridge. Striae of the elytra almost without punctures. Wings usually quite reduced. Length 11-15 mm.

..... ***Poecilus lepidus***

In open, dry habitats, usually on sandy soils, e.g. on moraine or in sandy heathland. England northwards to Cumbria, south Wales, Scotland. Local.



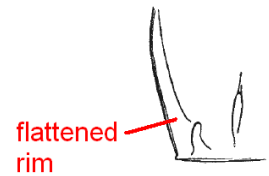
Antennae with the two basal segments paler, at least slightly so underneath.[2](#)

- 2¹ Pronotum without a flattened border at the side. The two basal antennal segments brown, usually darker above. Usually with the head and pronotum coppery and the elytra green (very rarely entirely brown or black). Pronotum similar but with the basal depressions shallower. Striae on the elytra with distinct punctures; intervals becoming flatter towards the tips. Wings fully-developed. Length 12-14 mm.

..... ***Poecilus kugelanni***

On sandy or gravelly heaths, also on the coast. Rare; Devon to Norfolk, South Wales.

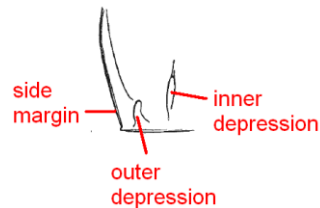
Sides of pronotum with a flattened rim extending from the base. The first two segments of the antennae are pale.³



- 3² Head with distinct punctures. Deepest part of the outer depression on the pronotum closer to side margin than to inner depressions. Shorter than the two preceding species and with broader elytra. Upper surface with a somewhat dull metallic shine, rarely black; usually uniform in colour but occasionally with the head and pronotum green contrasting with browner elytra. Femora sometimes reddish. Pronotum not wider than elytra at shoulders. Elytra with very few punctures. Length 11-13.4 mm.

..... ***Poecilus cupreus***

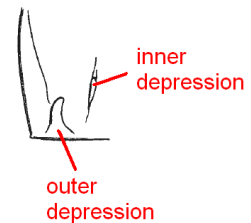
In open, not too dry meadows and fields, sometimes near water. Widely distributed; common, but local.



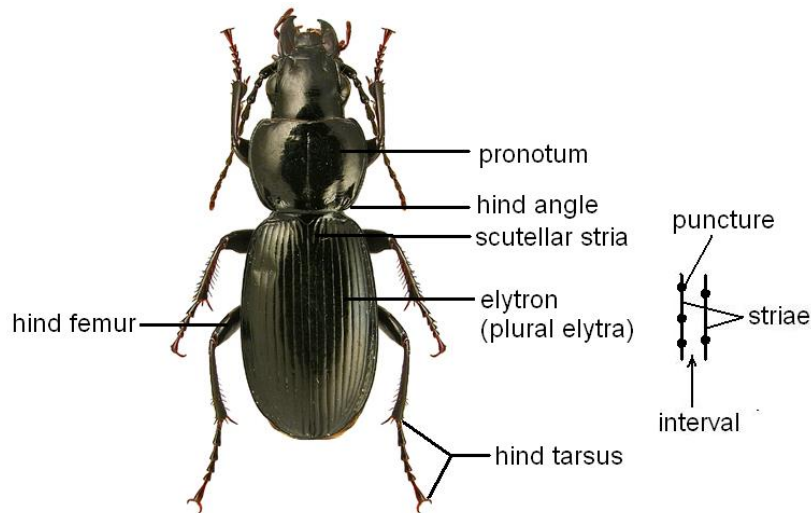
Head almost without punctures. Pronotum with the outer depression at the base, about half-way between the side margin and the inner depression. Shorter with the pronotum broader than the elytra at the shoulders. More shining and more variable in the colour of the shine, from bluish to golden, often mottled. Spines along inside of hind tibiae stronger. Length 9-12.2 mm.

..... ***Poecilus versicolor***

More tolerant of dry conditions; in all kinds of open habitats. Widely distributed through the British Isles, but probably declining.



Genus *Pterostichus*



Checklist

From the Checklist of Beetles of the British Isles, 2012 edition, edited by A. G. Duff,

Genus ***PTEROSTICHUS*** Bonelli, 1810

adstrictus Eschscholtz, 1823

aethiops (Panzer, 1796)

anthracinus (Panzer, 1795)

aterrimus (Herbst, 1784)

cristatus (Dufour, 1820)

diligens (Sturm, 1824)

gracilis (Dejean, 1828)

longicollis (Duftschmid, 1812)

macer (Marsham, 1802)

madidus (Fabricius, 1775)

melanarius (Illiger, 1798)

minor (Gyllenhal, 1827)

niger (Schaller, 1783)

nigrita (Paykull, 1790)

oblongopunctatus (Fabricius, 1787)

quadrioveolatus Letzner, 1852

rhaeticus Heer, 1837/8

strenuus (Panzer, 1796)

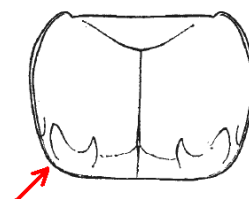
vernalis (Panzer, 1795)



Genus *Pterostichus*

Adapted from Lindroth (1974) by Mike Hackston

- 1 Hind-angles of pronotum completely rounded.2



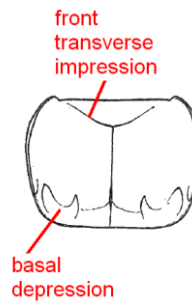
- Hind angles of the pronotum distinct, at least represented by a small tooth.4



- 2¹ Third interval of the elytra with 3 or 4 distinct dorsal depressions; outer striae absent towards the front. Black and very shiny, appearing varnished. Front transverse impression of the pronotum deep, basal depression single, large. Wings fully-developed. 13-15 mm.

..... ***Pterostichus aterrimus***

Subgenus *Lyperosomus*. On the edge of ponds and lakes, on soft muddy or peaty soil. **Very rare**. England: Hampshire, Huntingdon, Cambridgeshire, Norfolk.



Elytra with 1 to 3 fine, dorsal punctures. All striae well impressed. Wings strongly reduced. (Subgenus *Steropus*).³

- 3² Third interval of the elytra with 3 dorsal punctures. Basal depression of pronotum not clearly bordered externally. Black, with dark brown legs and antennae. Elytral intervals convex, striae without punctures. Basal segments of hind tarsi with deep external furrow. Viewed from below the second to last abdominal segment of males has a transverse ridge. Length 12-14 mm.

..... ***Pterostichus aethiops***

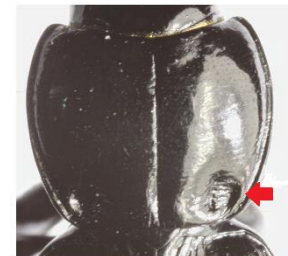
Under stones in upland areas. SW England, Lancashire to Cumbria. Wales. Scotland.



Third interval of the elytra normally with a single dorsal puncture (situated about two-thirds of the way back) (rarely 2, exceptionally 3); other intervals almost flat, striae with small punctures. Basal depression of pronotum delimited externally by a blunt ridge. Black, legs either dark or, usually, with reddish femora. Tarsal furrow absent. Last abdominal segment of male with a very distinct transverse ridge (observe from the side). Length 13-17 mm.

..... ***Pterostichus madidus***

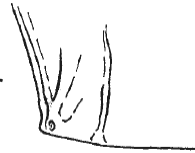
In open country, often on cultivated soil, in gardens, etc. **Very common.**



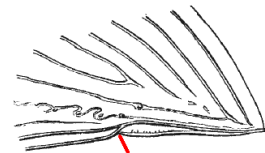
- 4¹ Elytra with the epipleura not crossed, strongly iridescent. Black species. Pronotum, with sides strongly curved near the base; hind angles sharp, almost right angled; inner basal impression deep and linear, curved, the outer more or less absent. Striae of the elytra deep, almost without punctures, third interval with 3 or 4 dorsal punctures. Wings reduced. Underneath the abdomen, the male has a longitudinal ridge on the last segment. Length 14-18 mm.

..... ***Pterostichus cristatus***

Subgenus *Pterostichus* s. str. British specimens belong to subspecies *parumpunctatus*. In rather moist places, both in the open and in woodland. Northern England. **Very local** but sometimes abundant.



- Epipleura on the sides of the elytra towards the tip crossed. Elytra without or with faint iridescence.5



crossed
epipleura

- 5⁴ Elytra with a single dorsal puncture near the apex. Underneath segments 4- 6 of the abdomen have a transverse impression. Scutellar striae absent or very indistinct. Tarsi are not furrowed. Almost black to brown with reddish appendages. Pronotum with extensive punctures at base; hind-angles sharp, right, basal depression single, linear; sides of the pronotum sinuate in the back half. Striae of the elytra deep, strongly punctured; intervals with faint, small punctures. Wings rudimentary. Length 5-6 mm.

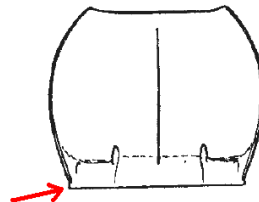
..... ***Pterostichus longicollis***

Subgenus *Pedius*. In open, damp places, often on limestone. England northwards to Yorkshire. South Wales. **Local.**



Third interval of the elytra with at least 2 dorsal punctures. Abdominal segments without transverse impressions.⁶

- 6⁵ Tarsal segments with a longitudinal furrow above. Elytra without a scutellar stria. Dark brown to black, elytra faintly iridescent. Antennae and legs partly pale. Pronotum with a small tooth at the hind angles; sides not wavy forwards of the tooth but regularly curved; base extensively punctured; outer basal depression more or less absent. Elytra with 3 dorsal punctures, striae strong, punctured. Length 6-7.5 mm.

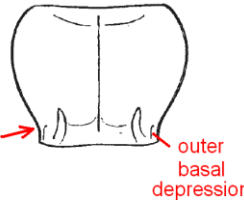


..... ***Pterostichus vernalis***

Subgenus *Lagarus*. Usually in moist meadows with sedges and grasses, often near water; also in flood refuse. **Rather common**; widely distributed.

Tarsi not furrowed. Shortened scutellar stria present.7

- 7⁶ Pronotum narrowing to narrowest part distinctly short of the hind angles; outer basal depression small or more or less absent. Elytra with the posterior of the 3 dorsal punctures very fine and situated close to the apex; striae well incised but smooth; intervals almost flat. Very flat with long, parallel-sided elytra. Almost black to brown with reddish legs. Wings full. Length 11-15 mm.

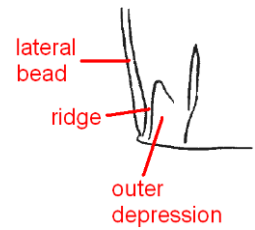


..... ***Pterostichus macer***

Subgenus *Adelosia*. In open country on rather moist soil, rich in humus, in parks, etc., often underground or under bark. England, northwards to Durham. South Wales. **Local.**

Pronotum not constricted as above. Elytra with the posterior dorsal puncture well removed from apex.⁸

8⁷ Pronotum each side with two basal depressions, the outer separated from the lateral bead by a ridge.9

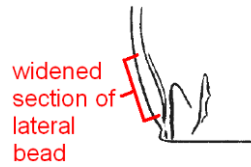


Pronotum with one basal depression on each side. (If a rudiment of an external depression is present, it is not marked on the outer side by a ridge).14

- 9⁸ Last tarsal segment (the one bearing the claws) with tiny bristles underneath. Elytra with 2 dorsal punctures. Lateral bead of pronotum strongly widening towards the base. Ninth interval of the elytra much wider than tenth. Hind tarsi without lateral ridge. Wings usually almost absent. Length 12-18 mm.

..... ***Pterostichus melanarius***

Subgenus *Omasseus*. In all kinds of open, not too dry country. Common though somewhat local; widely distributed.

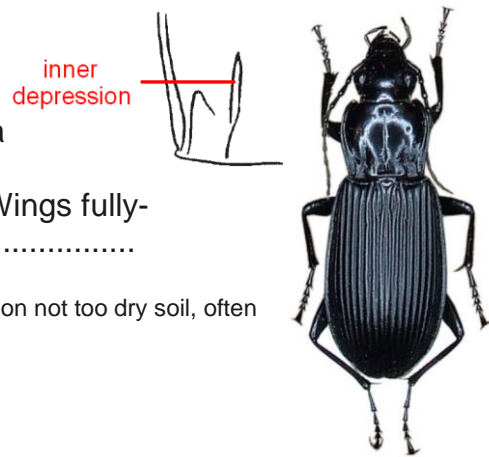


Last tarsal segment bare underneath. Elytra with 3 dorsal punctures. Lateral bead of pronotum less widened towards the base.10

10⁹ Length 15-20.5 mm. Inner basal depression of the pronotum prolonged forwards. Outermost (tenth) interval of the elytra as wide as ninth. Dull black. Striae of the elytra deep; intervals very convex. Hind tarsi with the basal segments with an external ridge. Wings fully-developed.

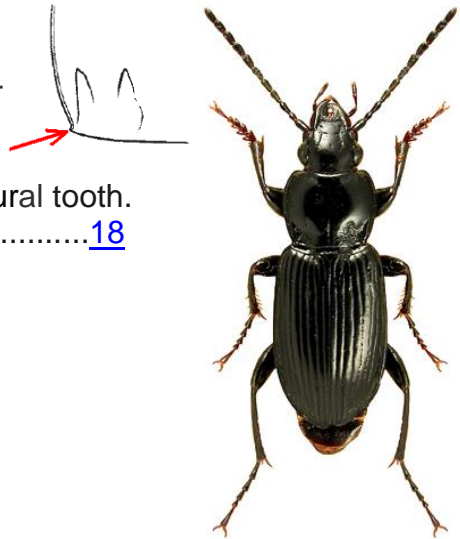
..... ***Pterostichus niger***

Subgenus *Platysma*. Usually in parks, light woodland, etc., on not too dry soil, often under bark. **Common** and widely distributed.



Length less than 13 mm. Inner depression of the pronotum not or little prolonged. Ninth interval of the elytra about twice as wide as tenth. (Subgenus *Pseudomaseus*).[11](#)

- 11¹⁰ Hind angles of pronotum with a small tooth, in front of which the sides are rounded. Black and shiny. Microscopic sculpture of elytra net-like. Wings always fully-developed. Underneath the last segment of the male has a small tubercle or ridge; female without a sutural tooth. Length 8·8-12·8 mm.¹⁸



Pronotum with the sides straight or wavy towards the base; hind angles without a tooth.¹²

12¹¹ Viewed from underneath the abdominal segments are covered with dense, fine, more or less confluent punctures; last segment of male with longitudinal depression. Elytra of female with tiny tooth at the apex of the suture. Elytral intervals less convex, with microscopic sculpture denser and more transverse. Wings either fully-developed or greatly reduced. Length 10.5-17.5 mm.

..... ***Pterostichus anthracinus***

On damp, somewhat shaded ground, often on mud, near water. England northwards to the Lake District. Western Lowlands of Scotland. **Local.**



Abdominal segments underneath without punctures, or any punctures indistinct; last segment of male with a ridge or unremarkable. Female without sutural tooth.¹³

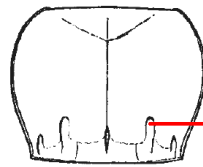
- 13¹² Inner basal depression of the pronotum hardly prolonged. Elytra clearly iridescent due to a very dense microscopic sculpture, at right angles to the axis of the beetle. Underside of male abdomen with the last segment smooth. Pure black. Length 8.5-10 mm.

..... ***Pterostichus gracilis***

On wet, vegetated soil near water. England northwards to Yorkshire. Eastern Highlands of Scotland. **Local.**



Inner depression of the pronotum prolonged forwards. Elytra at most quite faintly iridescent, due to a weak, more irregular, microscopic sculpture. Underside of male abdomen with the last segment with a longitudinal ridge. More dark brown than black, base of antennae somewhat paler. Length 6.8-8.7 mm.



inner
depression

..... ***Pterostichus minor***

At the margin of water, on various soils. **Common** and widely distributed.



14⁸ Length more than 9 mm. Dorsal punctures of elytra more extensive, usually 4 or more in number. Wings fully-developed. (Subgenus *Bothriopterus*).[15](#)

Length less than 7.5 mm. Dorsal punctures shallow, 3 in number. Wings usually reduced. (Subgenus *Argutor*).[17](#)



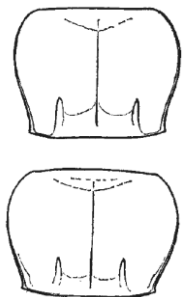
- 15¹⁴ Base of pronotum oblique laterally. Dorsal punctures of elytra 3 or 4; no bristle-bearing puncture at the apex of the first stria. First segment of the antennae much shorter than third. Black with the upper surface sometimes faintly bronzed, legs and antennae somewhat paler. Elytral striae distinctly punctured. Length 9.5-11 mm.

..... ***Pterostichus quadriveolatus***

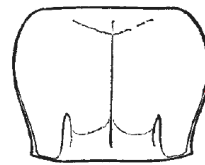
On burnt soil, like *Agonum quadripunctatum*; rarely on heaths without evidence of burning. England: Dorset to Essex; Nottingham to Yorkshire. Apparently a recent colonist.



Base of pronotum almost straight. Elytra usually with 5 or more dorsal punctures; usually 1-3 bristle-bearing punctures at the apex of first stria. First antennal segment barely shorter than third.¹⁶



- 16¹⁵ Pronotum with the sides more wavy towards the back; lateral bead evident almost to the front angles. Tibiae pale. Black to dark brown, upper surface with brassy lustre, at least in the male, rarely bluish or greenish. Elytral depressions usually 4 (sometimes up to 7) in number. 9.5-12.6 mm.



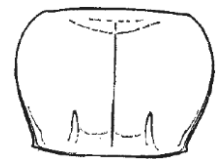
lateral
bead



..... ***Pterostichus oblongopunctatus***

A forest species; on all kinds of soil, often under bark. England northwards to Yorkshire (but lacking in the south east). Wales and Scotland. Common, but local.

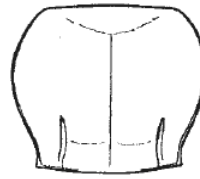
Pronotum with the lateral bead evident only in posterior half. Tibiae black or dark brown. More pure black, rarely with faint bronze hue. Sides of pronotum more flattened towards the rear. Elytra more elongate and parallel-sided. 10.4-13 mm.



..... ***Pterostichus adstrictus***

An upland species; Northern England and Wales northwards.

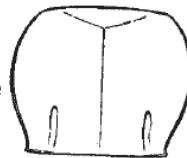
17¹⁴ Pronotum with longer curved section in front of the hind angles, shiny, without microscopic sculpture on top. Underneath the pronotum the plate between the neck and the base of the front legs (prosternum) is coarsely punctured. Dark brown, legs and antennae reddish brown. Elytral striae with punctures. Wings often reduced. Length 6.0-7.2 mm.



..... ***Pterostichus strenuus***

In shady places, mostly in damp deciduous woodland on clay soils, amongst moss and leaves. **Common** and widespread.

Pronotum dull, with reticulate microscopic sculpture. Prosternum without punctures. Pure black, at least femora darkened. Striae of the elytra almost without punctures. Wings nearly always rudimentary. Length 5.3-6.7 mm.



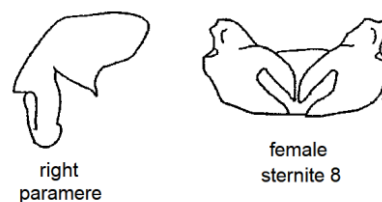
..... ***Pterostichus diligens***

On all kinds of moist ground, often in bogs. Common and widespread.

- 18¹¹ Relatively larger species, length 8.5-12 mm.
 Male right paramere subtly different in shape.
 Aedeagus with the preputial sac containing teeth
 and with a distinct anterior bulge. Female 8th
 sternite with the sclerotised part more robust and
 broad. Wings usually well-developed, easily
 capable of flight.

..... ***Pterostichus nigrita***

Common and widespread in damp places, usually near water,
 often associated with *Carex* species.



from Marggi (2004)

One average smaller. Male right paramere
 different. Aedeagus with the preputial sac lacking
 teeth and with the anterior bulge indistinct. Female
 8th sternite with the sclerotised part more delicate
 and narrow. Wings smaller than above, usually
 incapable of flight.

..... ***Pterostichus rhaeticus***

Common and widespread in similar habitats. For further details see
 Luff 1990, *Entomologists Monthly Magazine*.

