

Guides to British Beetles

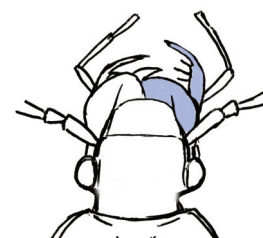
4. Plate-jaw Beetles *Leistus* Ground Beetles (Coleoptera; Carabidae)



This genus of ground beetles is easily recognised by the expanded outer edges of the jaws and heart-shaped pronotum. They are specialist hunters which use their 'plate-like' jaws, lined with rows of strong hairs, to catch springtails.

This guide should enable identification of the six British species. *Leistus* belong to the Carabid tribe Nebriini, the other genera in this tribe are *Pelophila*, *Nebria* and *Eurynebria*.

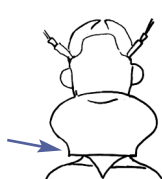
Leistus can be split into two groups. 4 species with black colouration and 2 which are reddish-brown.



Head with jaws highlighted in blue.

Leistus fulvibarbis Bluish Plate-jaw

This species is separated from the other black species by the **shape of the pronotum** which has very rounded sides and is parallel sided-just before the base.



6.5 - 8 mm

Leistus fulvibarbis has a **faint metallic blue reflection** on its **upperparts** (see *Leistus spinibarbis* and *Leistus montanus*). It can have a **very thin red rim** to the pronotum.

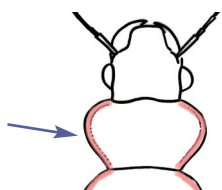
Pronotum showing parallel sides towards base.



Leistus fulvibarbis Bluish Plate-jaw

Leistus rufomarginatus Red-rimmed Plate-jaw

Distinguished by the **broad red-rim** to the pronotum and elytra. **All black upperparts** with no metallic reflection.



8 - 9.5 mm

First recorded in Britain in the 1940s, it is now widespread and locally common amongst leaf litter in woodlands.

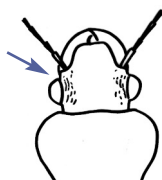
Pronotum showing narrow base and rounded sides.



Leistus rufomarginatus Red-rimmed Plate-jaw

Leistus spinibarbis Prussian Plate-jaw

The only *Leistus* with **darkened antennae**. The femora are usually dark but can be reddish in some specimens (see *Leistus montanus*). **Head with fine wrinkles** on the sides (see diagram). Much **brighter blue reflection** on upperparts than *Leistus fulvibarbis*.



8 - 10.5 mm

Pronotum less rounded and with wider base than previous two species.

Head with fine wrinkles at sides.

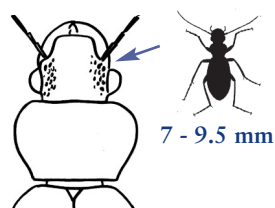


Leistus spinibarbis Prussian Plate-jaw

Common in England and Wales. Occurs in a variety of habitats including woodlands, grasslands, brownfield sites, gardens and dunes.

Leistus montanus Mountain Plate-jaw

Very similar to *Leistus spinibarbis*. The legs are **red** (the femora may sometimes be darkened at the apex). The **antennae are red**. Head with **rough punctures and ridges** on the sides (see diagram). Much brighter blue reflection on upperparts than *Leistus fulvibarbis*.



7 - 9.5 mm

Head is roughly punctured and ridged at sides.

A rare species found on scree slopes and in shingle on mountains. Recent records from north Wales (Snowdonia), Cumbria (the Lake District) and Scotland. There are old records from Northumberland (the Cheviots). It is also found in Ireland.



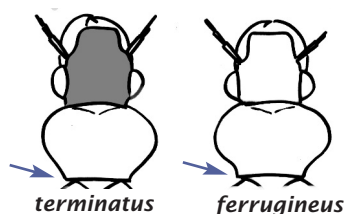
Leistus montanus Mountain Plate-jaw

Leistus terminatus Black-headed Plate-jaw

Readily distinguished from *Leistus ferrugineus* by the **black head** and **darkened end of elytra**. The hind-angles of pronotum are more obtuse than in *Leistus ferrugineus* (see diagrams).



6 - 8 mm



terminatus *ferrugineus*

Showing differences in shape of hind-angle of pronotum

Widespread and common in a variety of habitats including woodland, moorland and grasslands.



Leistus terminatus Black-headed Plate-jaw

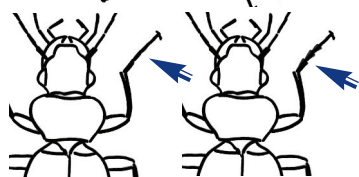
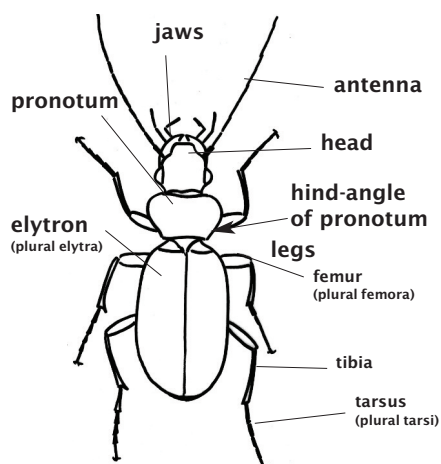
Leistus ferrugineus Rusty Plate-jaw

Distinguished from *Leistus terminatus* by the **reddish-brown upperparts**. The hind-angles of pronotum are right-angled (see diagram) and parallel sided before base as in *Leistus fulvibarbis*. Teneral specimens of other species may cause confusion. The upperparts are pale when teneral and the elytra are soft (see photo below).



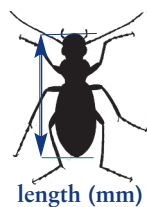
6.5 - 8 mm

Widespread and common in woodlands and grasslands in England, scarcer and more local in the west, Wales and Scotland.



female
all tarsal segments
the same width

male
first 3 segments
of tarsi wider
than 4th and 5th



length (mm)



Leistus ferrugineus Rusty Plate-jaw

If you have any comments on this guide please contact me.

NB The identification notes on *Leistus montanus* are made from one Irish and a small number of museum specimens. I would appreciate the opportunity to photograph more live specimens.



Newly-emerged (teneral)
Leistus spinibarbis

Thanks to Mark Telfer for his comments and suggestions during the preparation of the guide and Stephen McCormack for the specimen of *Leistus montanus*.