Identifying soldierflies and allies: soldierflies in genus *Sargus*

Compiled by Martin C. Harvey for the Soldierflies and Allies Recording Scheme

Version 1 at 9 February 2020

These guides are only possible thanks to the generosity of the brilliant photographers who have allowed their images to be used. Special mention must be given to Malcolm Storey and Steven Falk, whose photo collections form the backbone for most of the species guides:

Malcolm Storey's BioImages website – Steven Falk's photo collections on Flickr

Other photographers included in this guide are David Gould, Ian Andrews, Janet Graham, Martin Harvey, Richard Dickson and Tim Hodge.

Males are shown first, one page for each species, then females. The pages for males include distribution maps taken from the recording scheme's **provisional atlas** (Harvey 2017).

As far as possible, these guides show features that can be seen on live insects in the field, or are likely to be visible in photographs. For comprehensive identification keys and species accounts see <u>British</u> <u>soldierflies and their allies</u>, by Alan Stubbs and Martin Drake. See also the recording scheme's <u>additional notes</u> to accompany the Stubbs and Drake keys.

For lots more information on soldierflies and allies go to the recording scheme <u>website</u>, <u>Twitter</u> page or <u>Facebook</u> group.

For lots more information and events, and to support the study and conservation of flies, please consider joining <u>Dipterists Forum</u>.

Records wanted! Once you have identified your fly, please let the recording scheme have the details! Add to <u>iRecord</u> or send to the <u>recording scheme</u> so that we can share the records for conservation and research.

> The Soldierflies and Allies Recording Scheme is supported by the UKCEH Biological Records Centre



The Soldierflies and Allies Recording Scheme is part of Dipterists Forum



Recognising the genus: Sargus

Genus Sargus contains four fairly large species, all of which have metallic body colours. All share a similar shape, with long, slim abdomens that are longer than the length of the head and thorax combined. There are no spines on the scutellum, which distinguishes them from genus Chorisops, which is also fairly long and slim but has obvious spines on the scutellum.

Identification can be tricky due to differences between the sexes, and because leg colours can vary quite a lot. Size (length) can help pick out *S. bipunctatus* (12–13mm) from the other three species (6–10.5mm).

Two of the species, S. cuprarius and S. iridatus, are very hard to distinguish for certain without dissecting specimens. As far as we know, S. cuprarius is very rare, while S. iridatus is widespread, but more specimens are needed to confirm the status of these species.

All four species can be found in mid-summer, but S. bipunctatus starts later than the others (from July) and can be found right the way through to November.



long hairs behind eyes **do not** extend to top part of head = S. *bipunctatus* and *S. flavipes*

© Steven Falk

long hairs behind eyes **do** extend to top part of head = S. cuprarius and S. iridatus

All of this genus have larvae that develop in rotting matter, including cow-pats and compost heaps, and probably also use other sources of decaying organic matter.

Both males and females have eyes that are separated on the top of the head – male eyes are a little closer together than female eyes, but males are often mistakenly identified as females, which can cause problems.



All species of Sargus have a pair of white spots on the face. These are usually most obvious in S. bipunctatus, and are usually more distinct in females than males, but all species have them to some degree – presence of two white spots does NOT confirm S. bipunctatus!

S. bipunctatus female © Malcolm Storey / Biolmages

© Martin Harvey





I have been unable to find any photo of a confirmed male *Sargus cuprarius* – if you have one please <u>get in touch</u>!

Very similar to <u>S. iridatus</u> and require dissection to confirm. May have a stronger dark wing patch than S. iridatus, but this distinction is not reliable.

Sargus cuprarius (Clouded Centurion) – MALE

- ID difficulty: 4
- Flight period: early Jun to late Sep
- GB threat: Data Deficient GB rarity: Nationally Rare
- Apparently widespread but few fully confirmed records
- grazing levels
- No. of records: 85 % since 2000: 0%





lan Andrews link © Ian Andrews

aedeagus tapering and pointed at tip

© Steven Falk

Steven Falk link

Very similar to <u>S. cuprarius</u> and ideally requires dissection to confirm, although since S. *iridatus* is much more widespread it is very likely that you will see this rather than S. cuprarius. Specimens with heavily marked wings should be retained for checking where possible.

Sargus iridatus (Iridescent Centurion) – MALE

© Martin Harvey

wing with faint dark cloud in centre (not a reliable ID feature)

ID difficulty: 4
Flight period: May to mid Sep, peak in mid Jun to mid Jul
GB threat: Least Concern
widespread in Iowland Britain
wood margins, hedgerows, cattle-grazed fields
No. of records: 964 • % since 2000: 22%

long hairs behind

eyes do extend to

top part of head



legs mostly dark







long hairs behind eyes do extend to top part of head distinctive eye colour pattern Janet **Graham link** © Janet Graham Sargus iridatus (Iridescent Centurion) – FEMALE wing with faint dark cloud in centre (not a reliable ID feature) Very similar to S. cuprarius and ideally requires dissection to confirm, although since S. iridatus is much more widespread it is very likely that you will see this rather than S. *cuprarius*. Specimens with heavily marked wings should be retained for checking where possible.

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link

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legs mostly dark