

Identifying soldierflies and allies: horseflies (clegs) in genus *Haematopota*

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

Version 1 at 9 January 2022

These guides are only possible thanks to the generosity of the brilliant photographers who have allowed their images to be used. Special thanks to Steven Falk, whose photo collections form the backbone for this species guide:

Steven Falk's [photo collections on Flickr](#)

Other photos included in this guide are by Andy Grayson, Janet Graham and Martin Harvey, some using specimens from the Natural History Museum in London, taken with the photo-stacking camera equipment in the Angela Marmont Centre at the NHM.

Males are shown first, one page for each species, then females. The two common species (*H. crassicornis* and *H. pluvialis*) are shown first. 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 [British soldierflies and their allies](#), by Alan Stubbs and Martin Drake. See also the recording scheme's [additional notes](#) to accompany the Stubbs and Drake keys.

For lots more information on soldierflies and allies go to the recording scheme [website](#), [Twitter](#) page or [Facebook](#) group.

For lots more information and events, and to support the study and conservation of flies, please consider joining [Dipterists Forum](#).

Records wanted!

Once you have identified your fly, please let the recording scheme have the details! Add to [iRecord](#) or send to the [recording scheme](#) so that we can share the records for conservation and research.

The Soldierflies and Allies Recording Scheme is part of Dipterists Forum



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



Recognising the genus: *Haematopota*

The 'clegs' in genus *Haematopota* are part of the horsefly family Tabanidae, and unpopular with many people, due to the painful bites that females of some of the species can inflict on humans. There are five species confirmed from the UK, with the possibility that others could be here but not yet recognised.

As a genus *Haematopota* is fairly distinctive: medium-sized flies (7–13mm long) with colourful eye patterns and mottled grey markings on the wings. Identifying the species can be more of a challenge, and it is not always possible to confirm them from photographs. Specimens would be welcomed by the recording scheme for the three rarer species, and for any individual that doesn't seem to match the typical appearances.

For the best chance of identifying the species, photographs need to show the antennae as clearly and closely as possible, with a **directly side-on view**. The colours and patterns on the abdomen are also important features, but this can be very hard to observe on flies in the field, because the mottled wings obscure the abdomen markings. The colour of the femora is also a useful distinguishing feature for *H. bigoti*.

The antennae show some good characters for identification, especially in the females. **Take care** when examining the antennae for a 'notch' in the first segment – people often confuse this notch with the gap between the first and second segments. Also look out for how much greyish 'dusting' there is on the first segment.

There is **sometimes** a notch at the end of segment 1

There is **always** a break between segments 1 and 2

There is **always** a break between segments 2 and 3

dusted area on outer side

shiny (undusted) area on outer side

© Martin Harvey / Natural History Museum

There are two species that are frequent in many parts of the UK, both on the coast and inland, and these are the ones that most people see most of the time: *H. crassicornis* and *H. pluvialis*. **These are shown first in this guide**, with extra comparison pages for the males and females.

The other three species are mostly confined to coastal habitats: *H. bigoti*, *H. grandis* and *H. subcylindrica*, found in marshes, saltmarshes and grazing levels. *H. grandis* has occasionally been found inland.

The inland *Haematopota* species are most often found in wet, marshy habitats, including grasslands, woodlands and uplands, the three coastal species are associated with saltmarsh and ditch systems. The larvae that are predators, usually found in wet soils, although *H. pluvialis* at least can develop in drier soils as well.

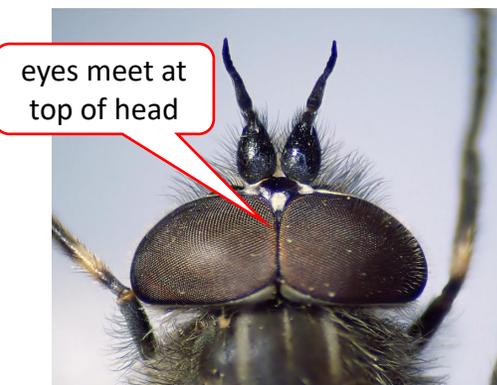
Female clegs, especially *H. pluvialis*, are well-known for being persistent biters of humans. The males do not need a blood meal, and may sometimes be found on flowers.

Typical appearance of female *Haematopota*



© Steven Falk

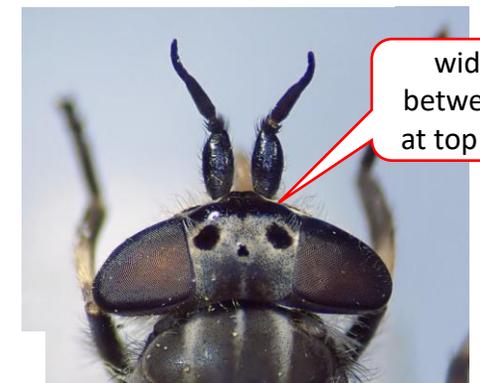
***Haematopota* MALE**



eyes meet at top of head

© Steven Falk

***Haematopota* FEMALE**



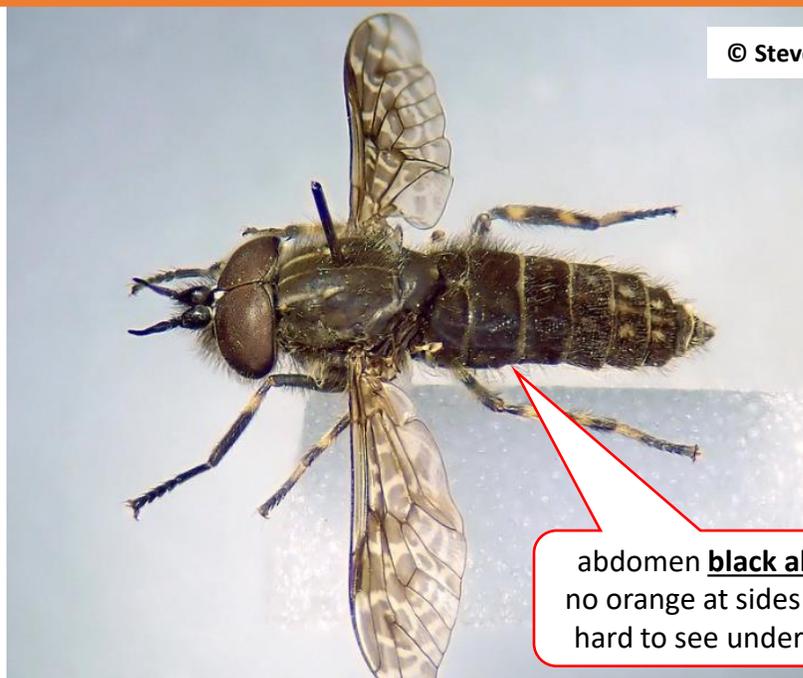
wide gap between eyes at top of head

© Martin Harvey



tergites 2 and 3 usually without spots or median stripe

© Steven Falk



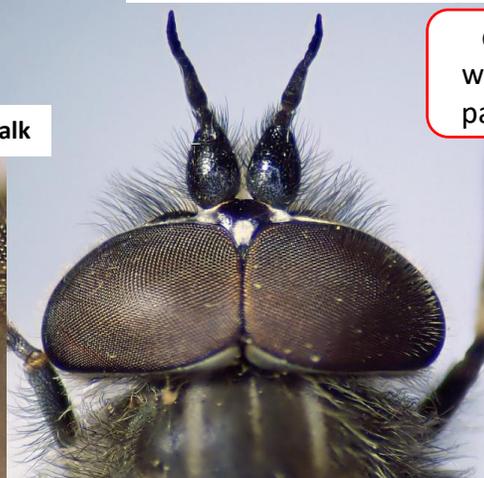
abdomen **black all over**, no orange at sides (can be hard to see under wings)

© Martin Harvey

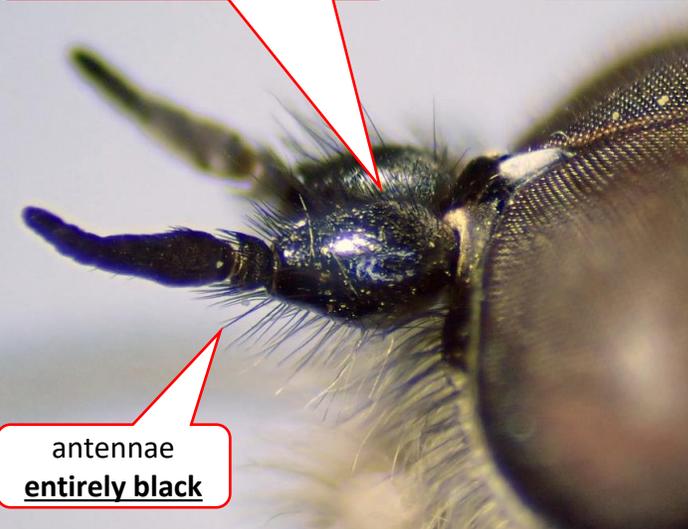
Haematopota crassicornis (Black-horned Cleg) - MALE

1st antennal segment mostly polished black, very little dusting at base; slightly tapered towards tip

© Steven Falk



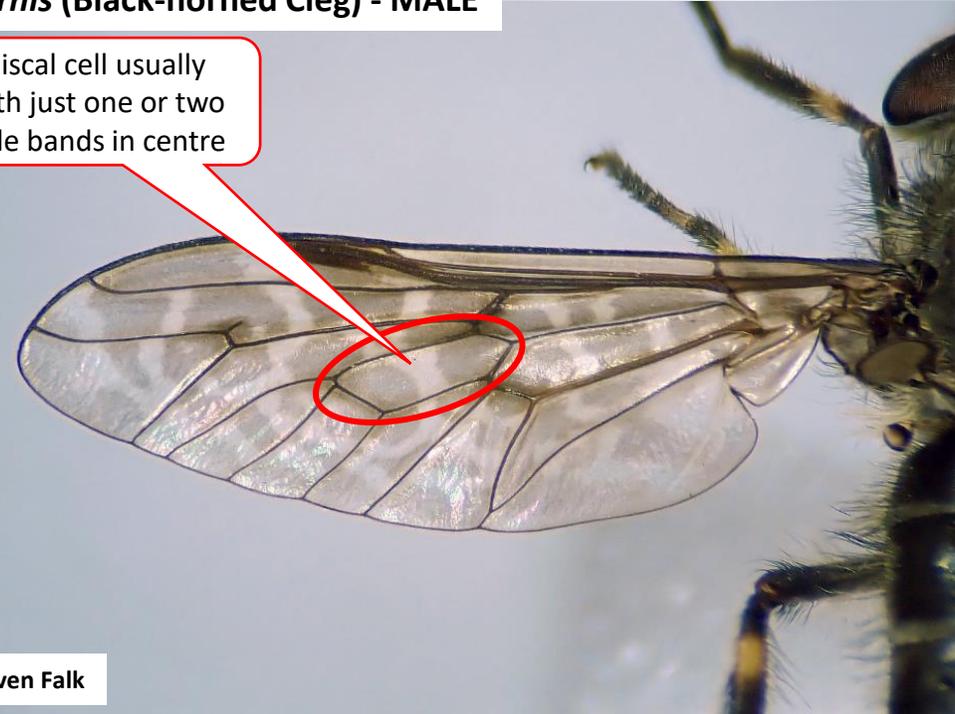
discal cell usually with just one or two pale bands in centre



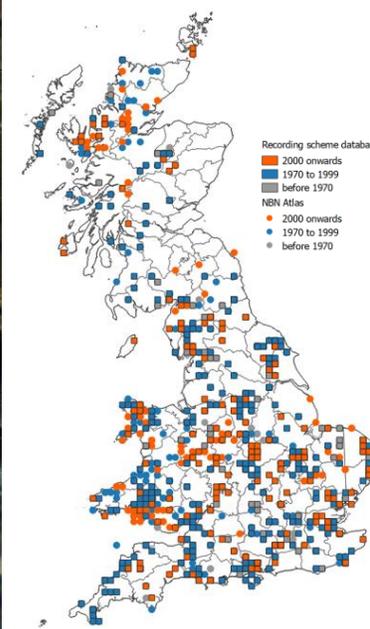
antennae **entirely black**

[Steven Falk link](#)

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- ID difficulty: 3
- Flight period: mid May to early Sep, peak in late Jun and Jul
- GB threat: Least Concern
- widespread, less common in south
- uplands, lowland grazing levels, open habitats
- No. of records: 850 • % since 2000: 33%



[Janet Graham link](#)

© Janet Graham



abdomen pattern often indistinct



© Steven Falk



© Steven Falk

orange at base of abdomen at the sides (can be hard to see under wings)

Haematopota pluvialis (Notch-horned Cleg) - MALE

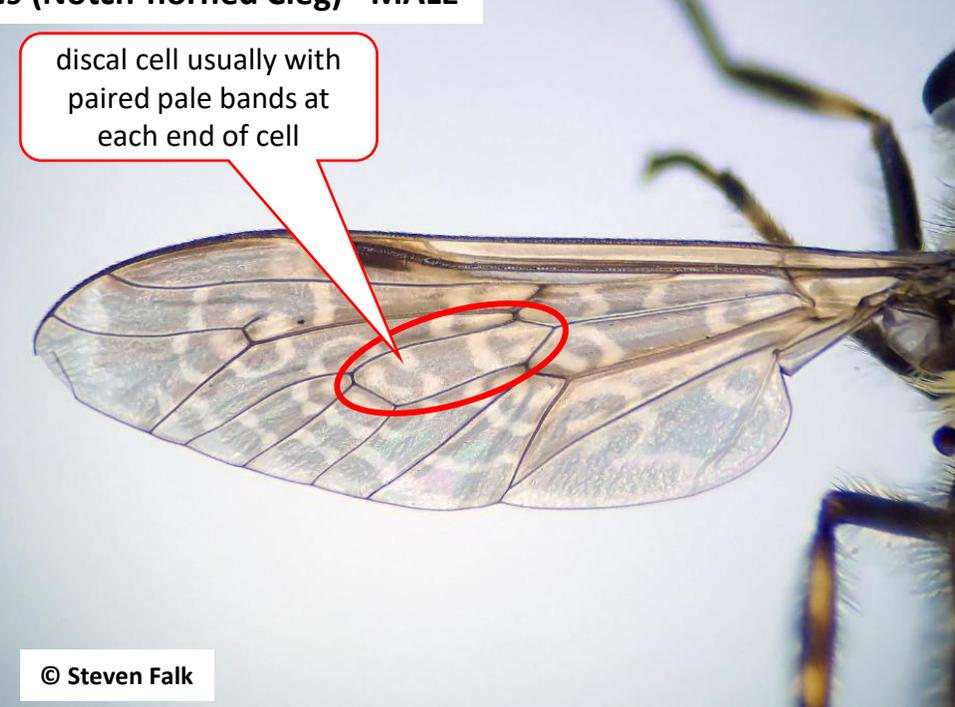
1st antennal segment mostly polished black, some dusting at base; more bulbous towards tip

© Steven Falk



antennae mostly black, **orange** at base of 3rd segment

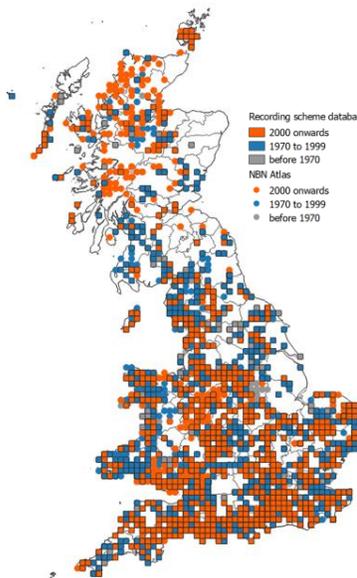
discal cell usually with paired pale bands at each end of cell



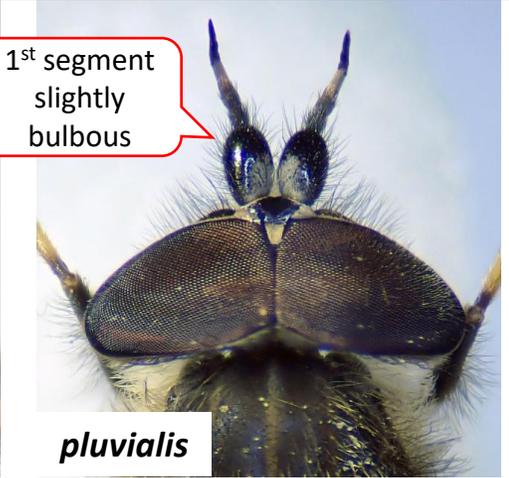
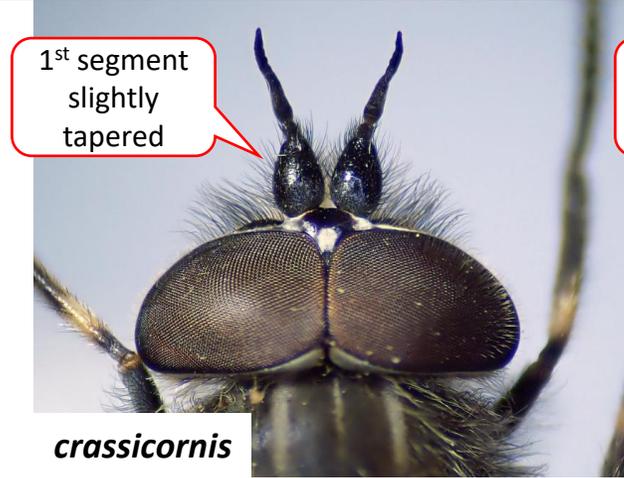
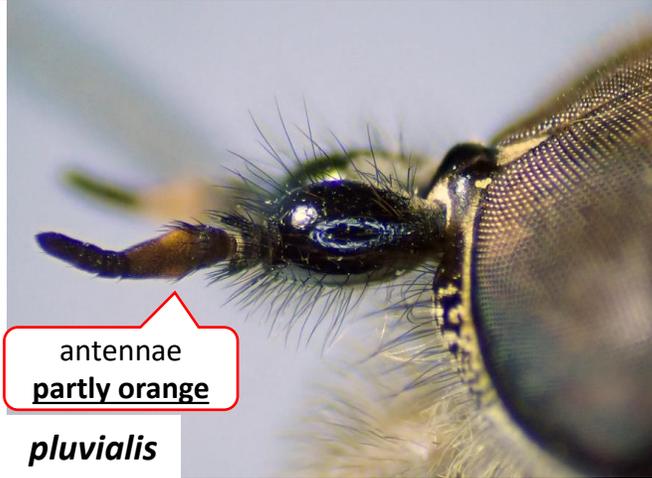
© Steven Falk

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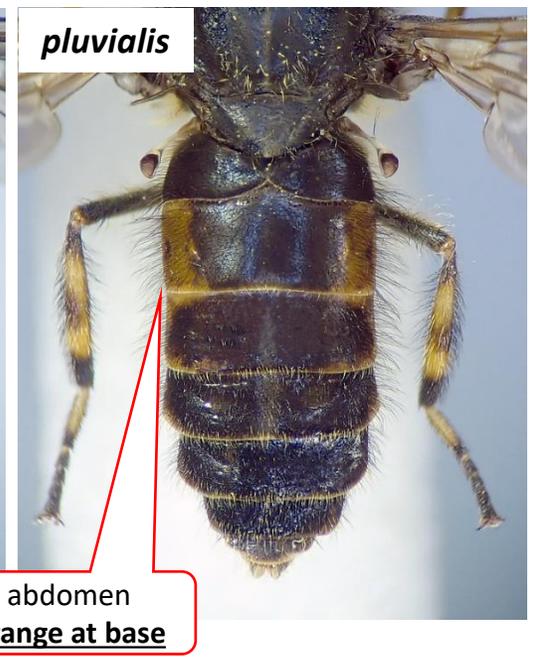
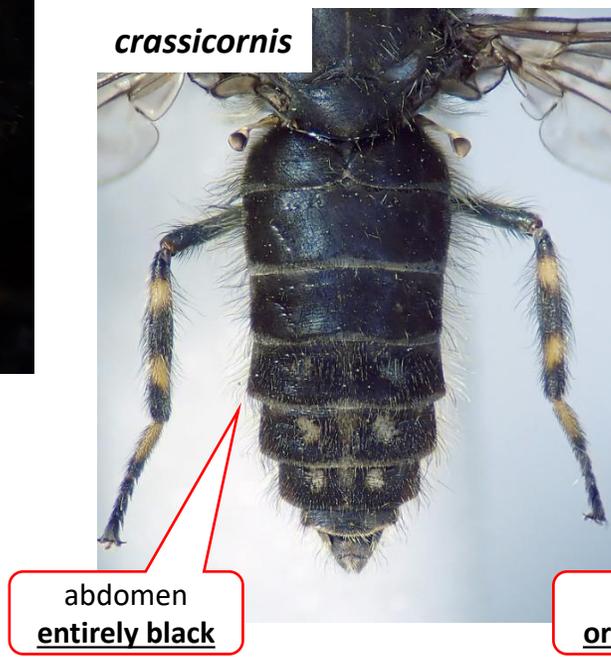
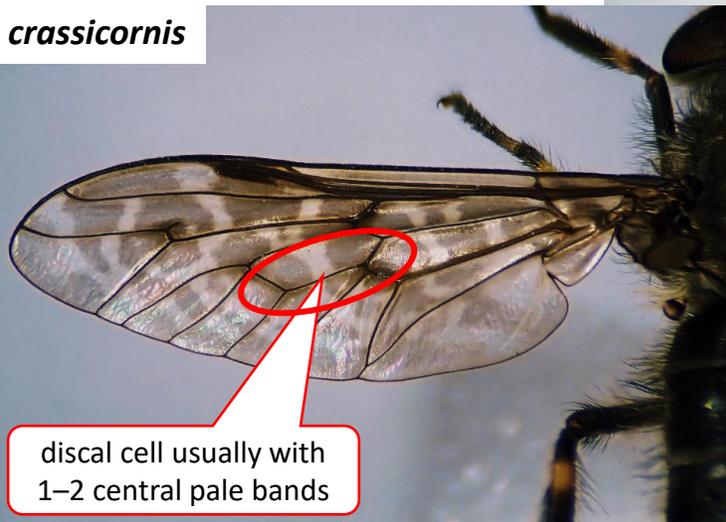
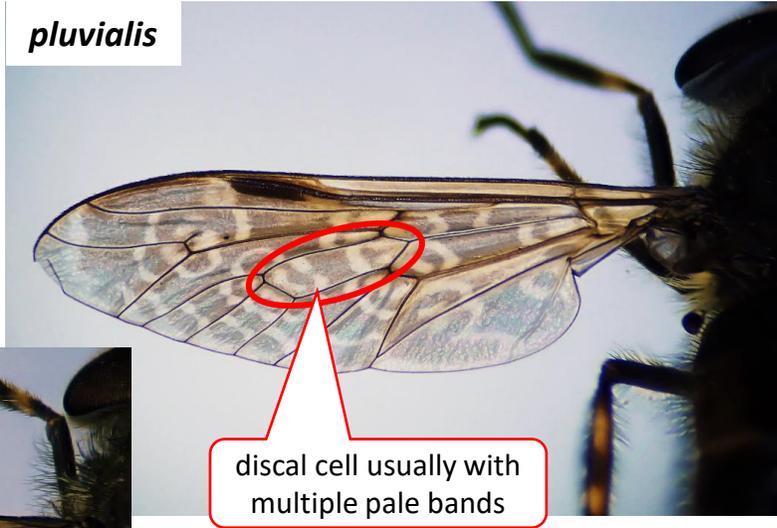
- ID difficulty: 3
- Flight period: May to Oct
- GB threat: Least Concern
- widespread
- various habitats
- No. of records: 4859 • % since 2000: 47%



COMPARISON of *Haematopota crassicornis* and *Haematopota pluvialis* MALES



Warning!: none of these distinctions is 100% reliable on its own, but taking several together should give confidence in the identification



© Steven Falk



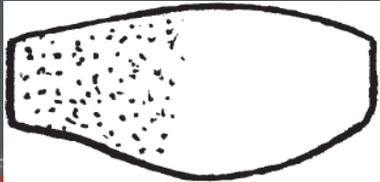
© Steven Falk



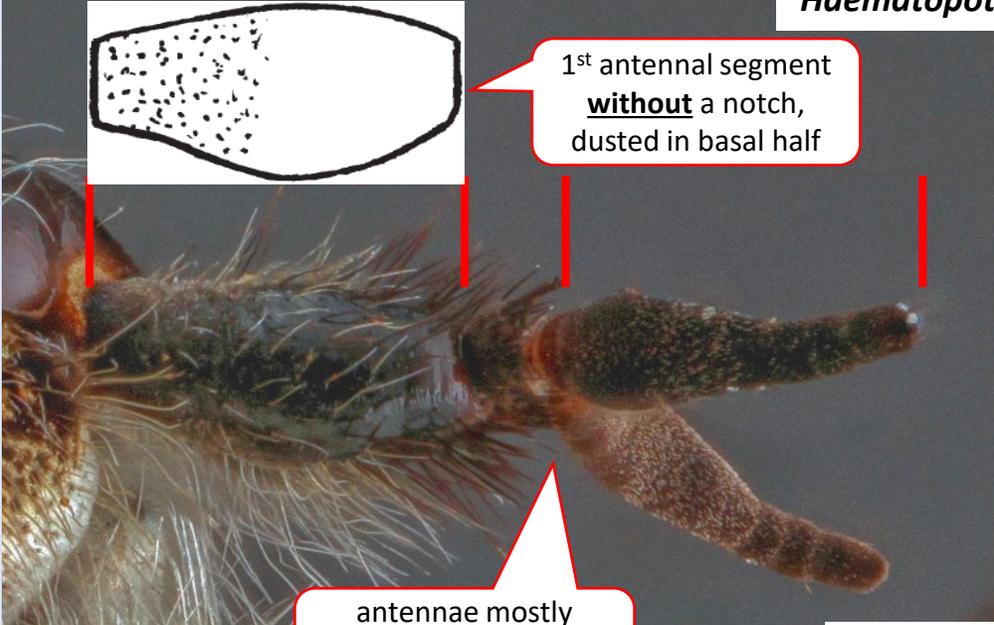
tergites 3 or 4 to 6 usually with paired spots

discal cell usually with just one or two pale bands in centre

Haematopota crassicornis (Black-horned Cleg) - FEMALE



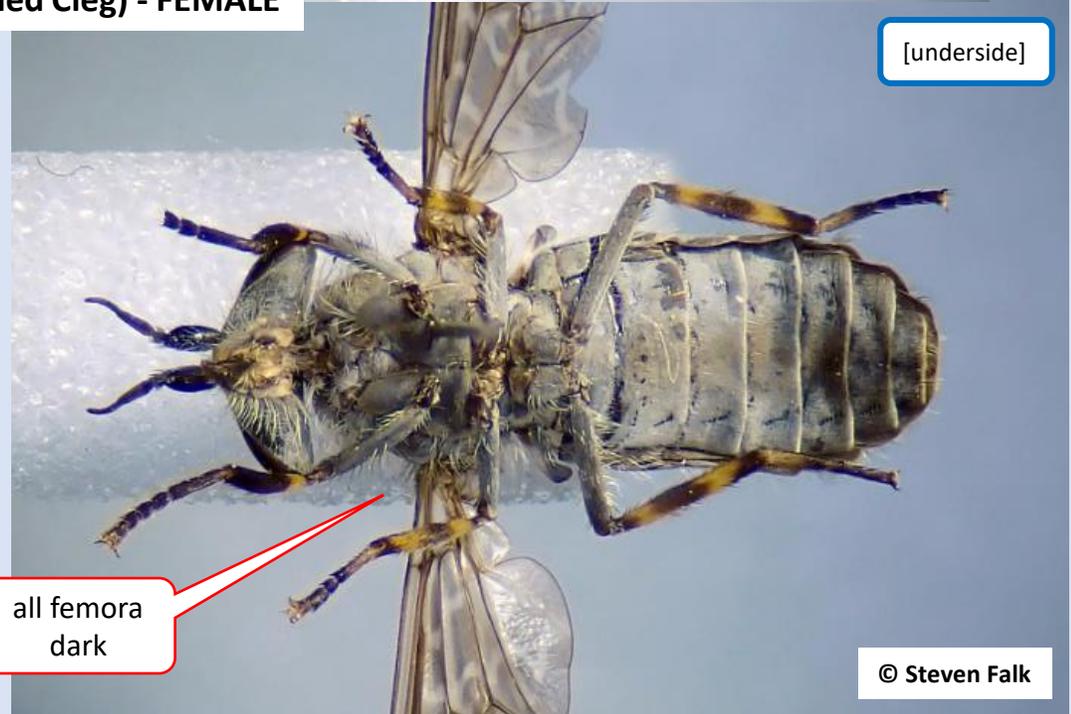
1st antennal segment **without** a notch, dusted in basal half



antennae mostly black, can be orange at base of 3rd segment

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[underside]



all femora dark

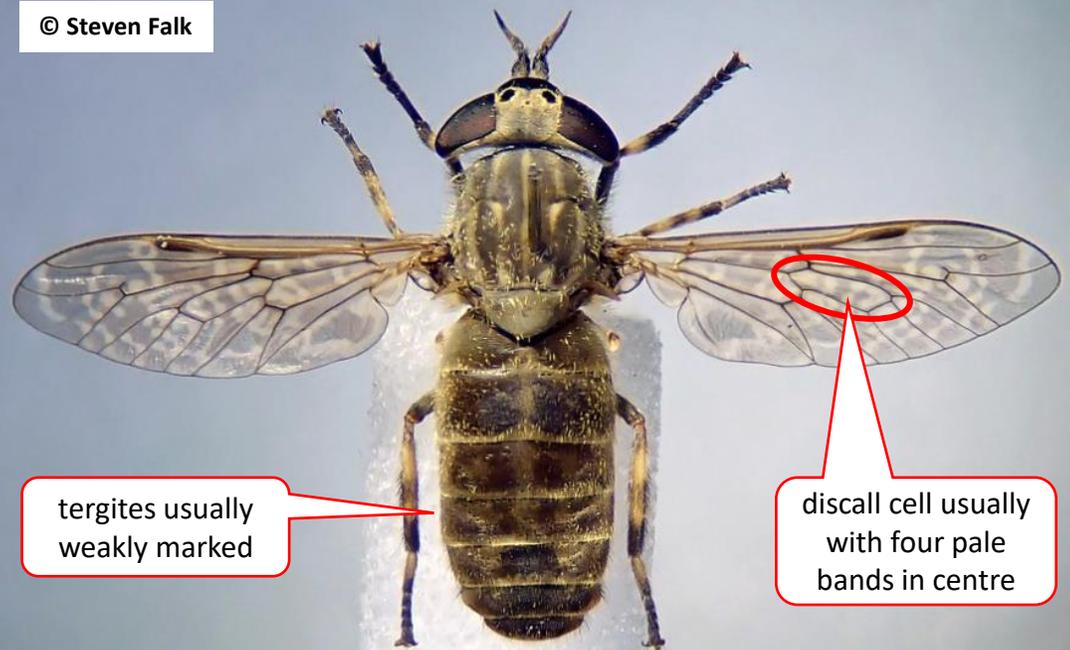
© Martin Harvey / Natural History Museum

© Steven Falk

© Steven Falk

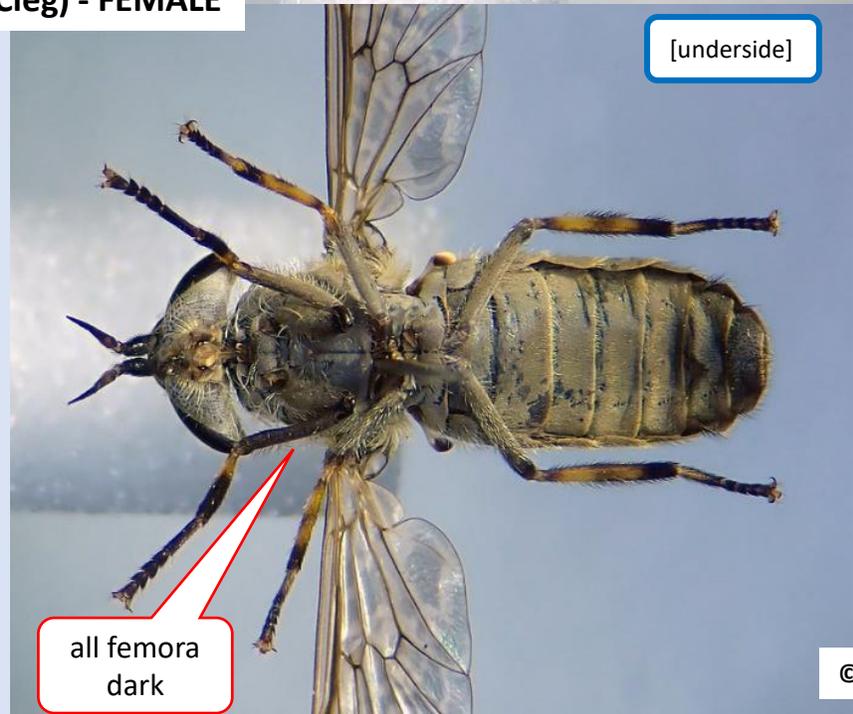


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Haematopota pluvialis (Notch-horned Cleg) - FEMALE

[underside]



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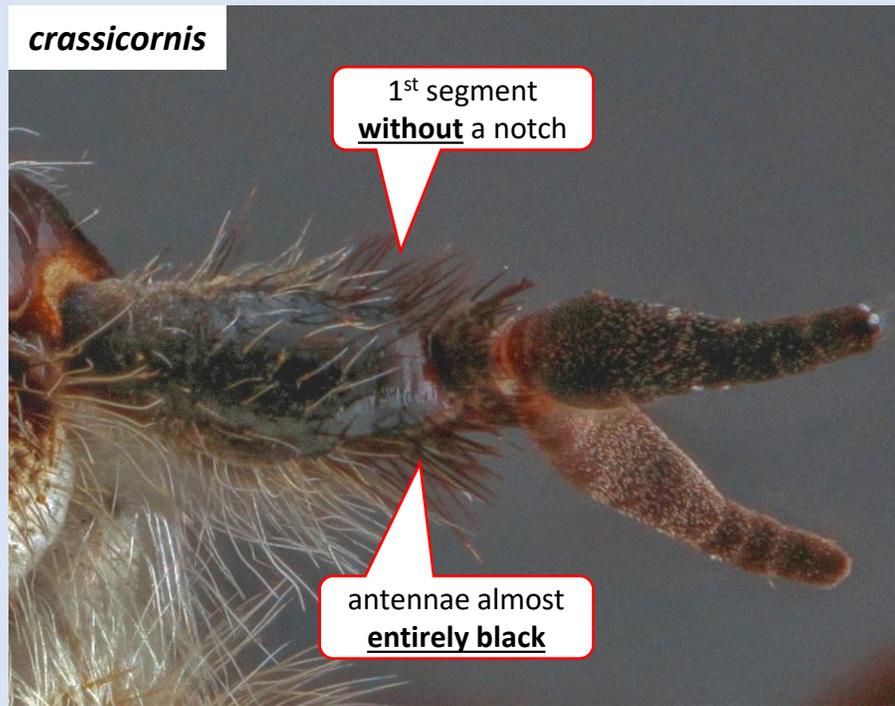
1st antennal segment with a notch, dusted in basal half (depth of notch varies)

antennae black plus orange at base of 3rd segment

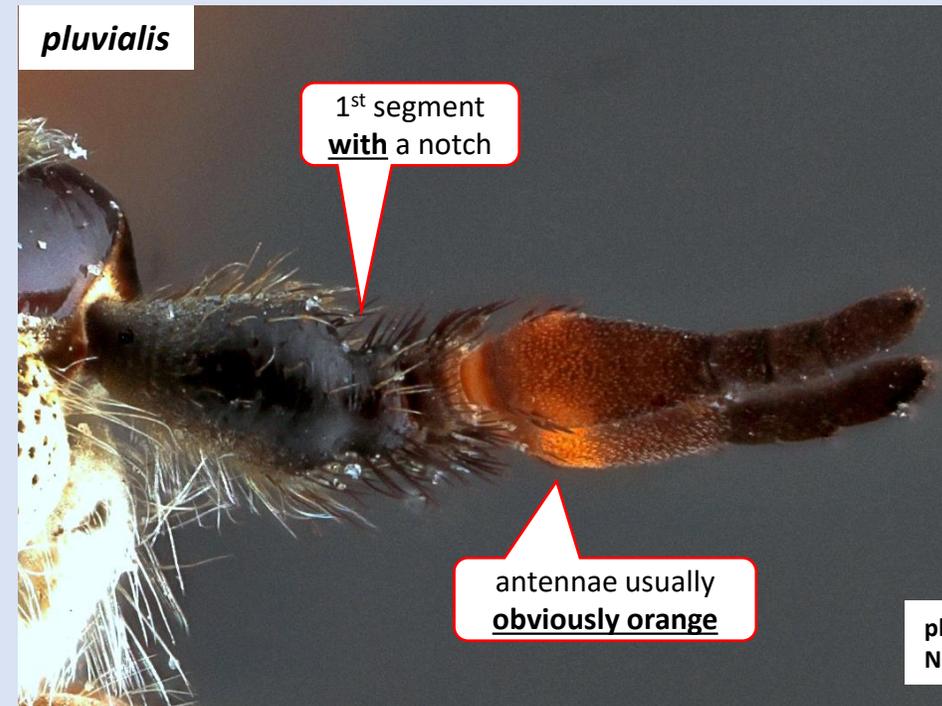
© Martin Harvey / Natural History Museum

COMPARISON of *Haematopota crassicornis* and *Haematopota pluvialis* FEMALES

crassicornis

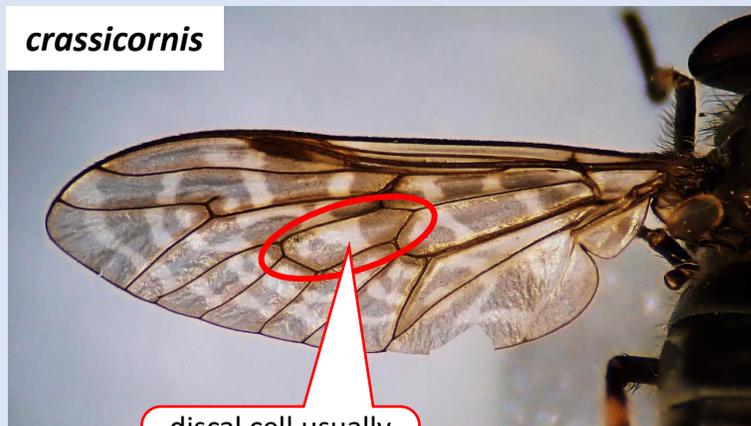


pluvialis

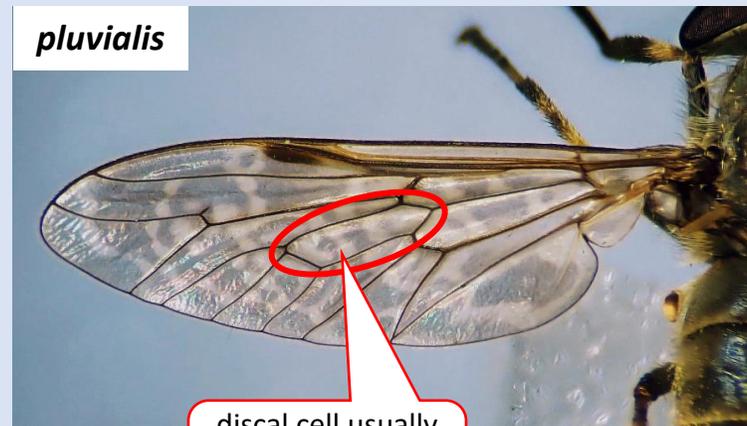


photos © Martin Harvey / Natural History Museum

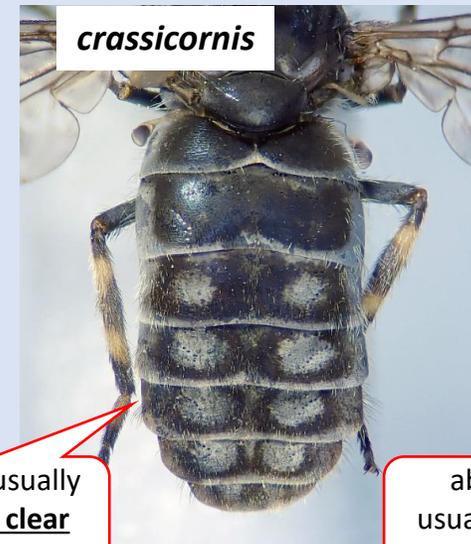
crassicornis



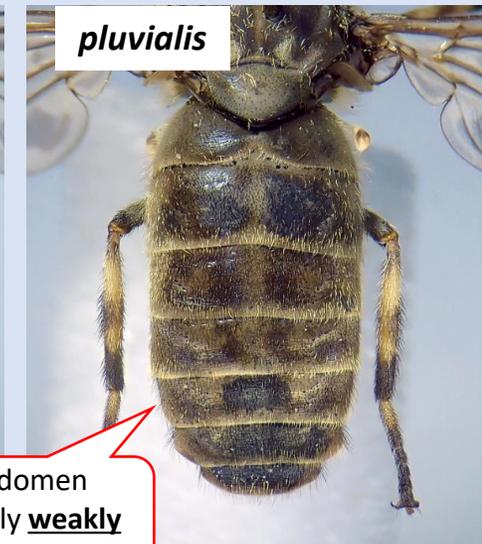
pluvialis



crassicornis



pluvialis



Warning! none of these distinctions is 100% reliable on its own, but taking several together should give confidence in the identification

photos © Steven Falk

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rounded spots on tergite 3

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long dense hairs on top surface of eyes



© Steven Falk

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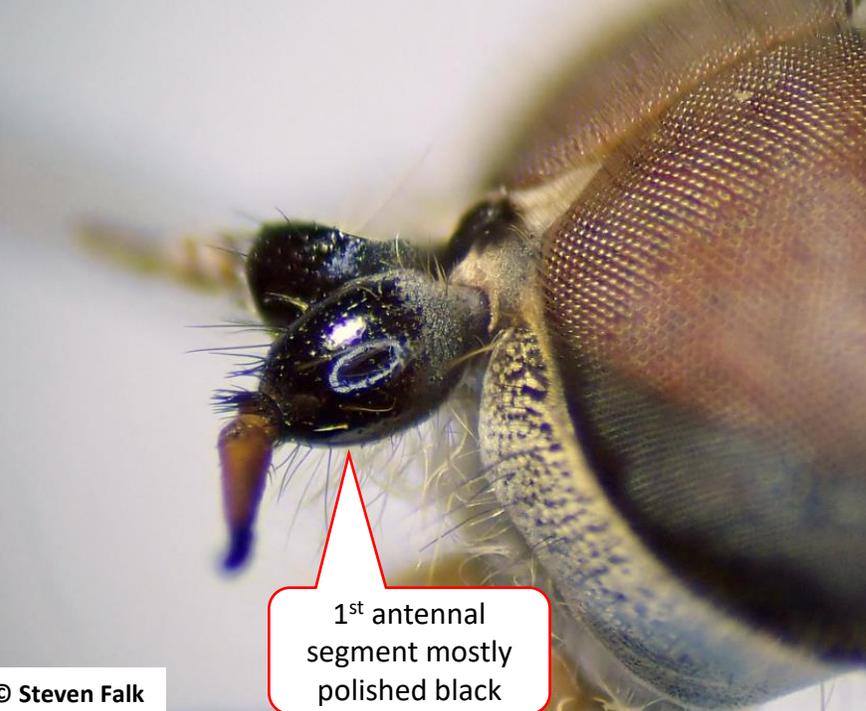
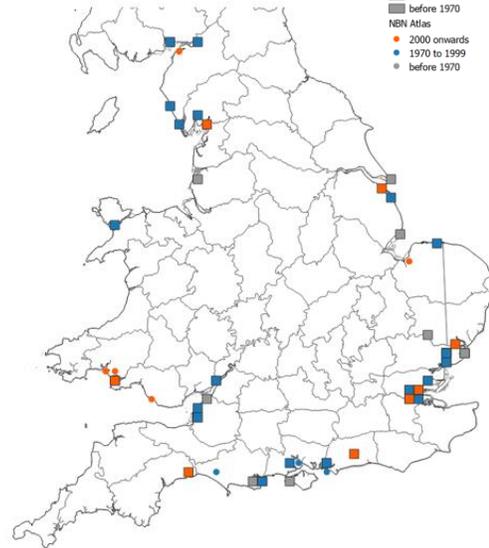


orange at base of abdomen at the sides (can be hard to see under wings)

Haematopota bigoti (Big-spotted Cleg) - MALE

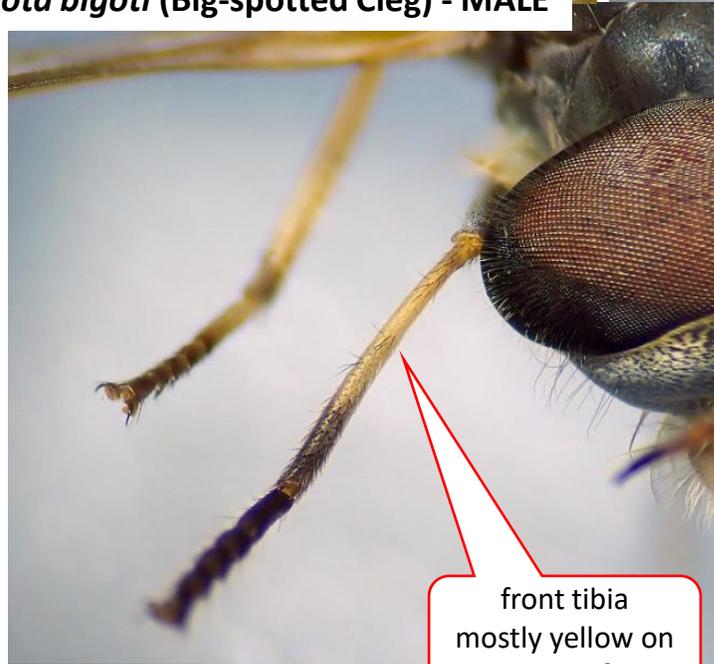
- ID difficulty: 3
- Flight period: early Jul to Aug, peak in Jul
- GB threat: Least Concern • GB rarity: Nationally Scarce
- coastal, more frequent in south
- coastal marshes
- No. of records: 76 • % since 2000: 24%

Recording scheme database
 2000 onwards
 1970 to 1999
 before 1970
 NBN Atlas
 2000 onwards
 1970 to 1999
 before 1970



1st antennal segment mostly polished black

© Steven Falk



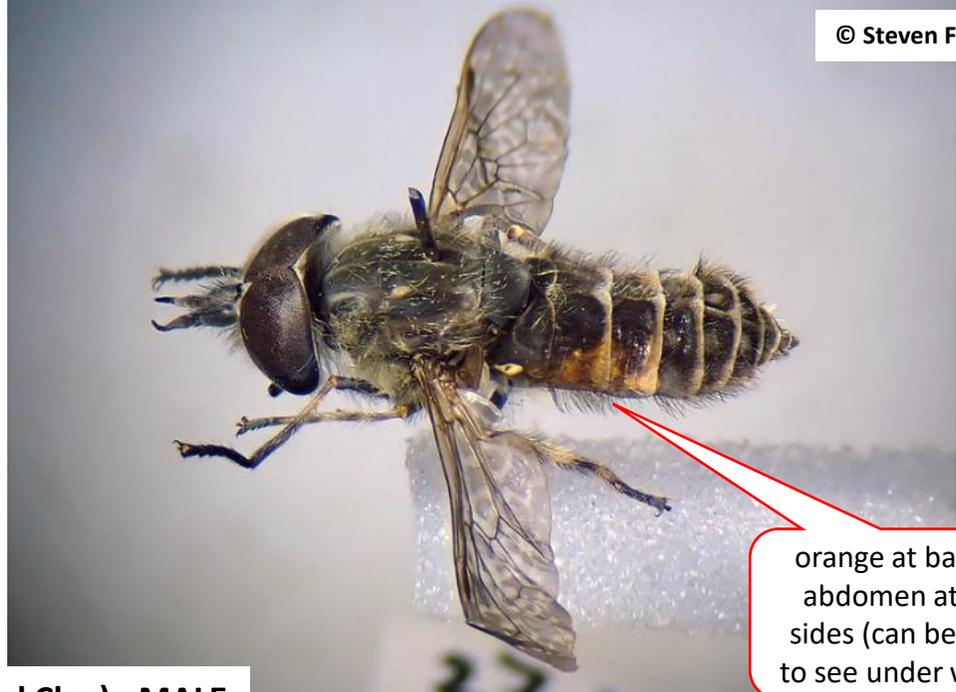
front tibia mostly yellow on upper surface

© Steven Falk



[Steven Falk link](#)

The largest *Haematopota* in the UK, up to 13mm long

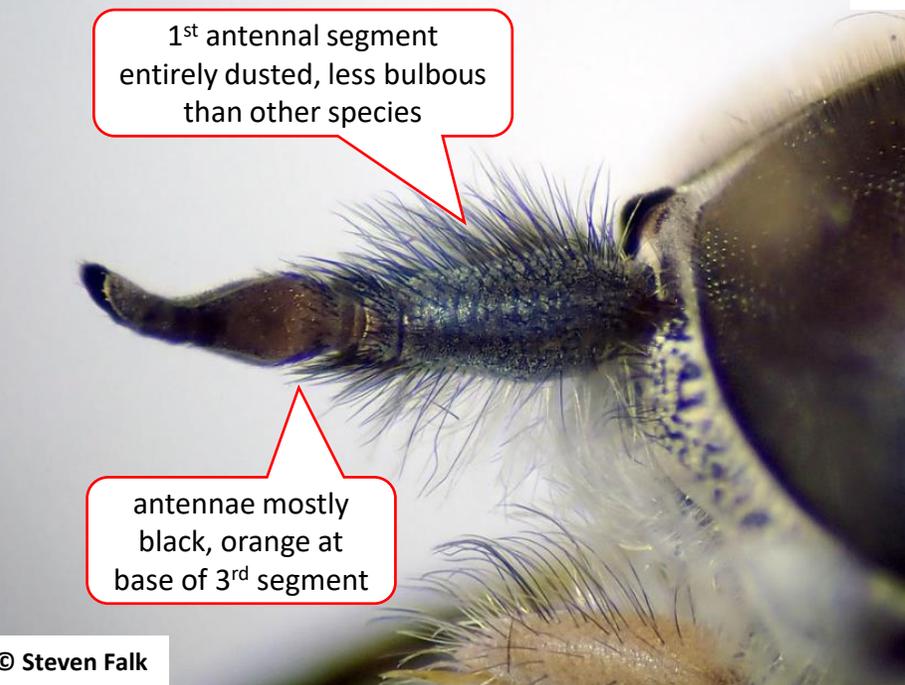


orange at base of abdomen at the sides (can be hard to see under wings)

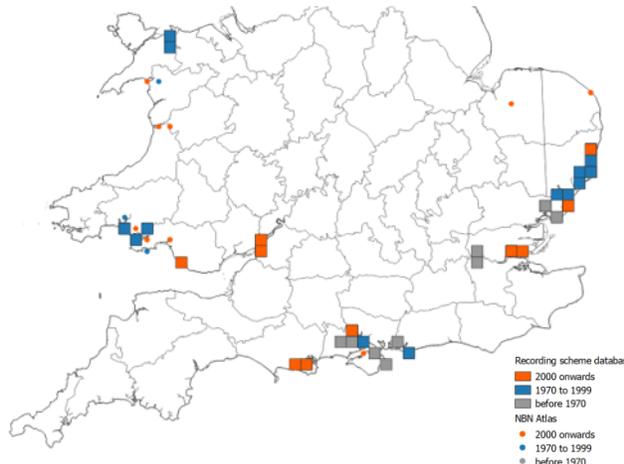
Haematopota grandis (Long-horned Cleg) - MALE

1st antennal segment entirely dusted, less bulbous than other species

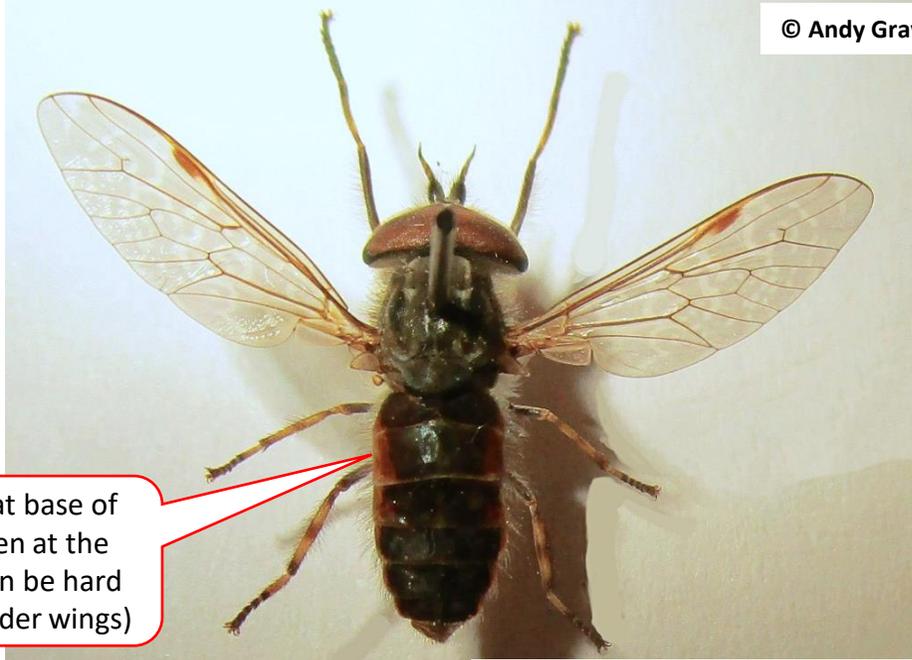
antennae mostly black, orange at base of 3rd segment



- ID difficulty: 3
- Flight period: late Jun to Aug
- GB threat: Least Concern • GB rarity: Nationally Scarce
- mainly coastal, mostly south-east plus Wales, Surrey
- saltmarsh, carr adjoining saltmarsh
- No. of records: 79 • % since 2000: 25%
- **Caveats:** a recent Surrey record (J. Early pers comm) is not yet mapped



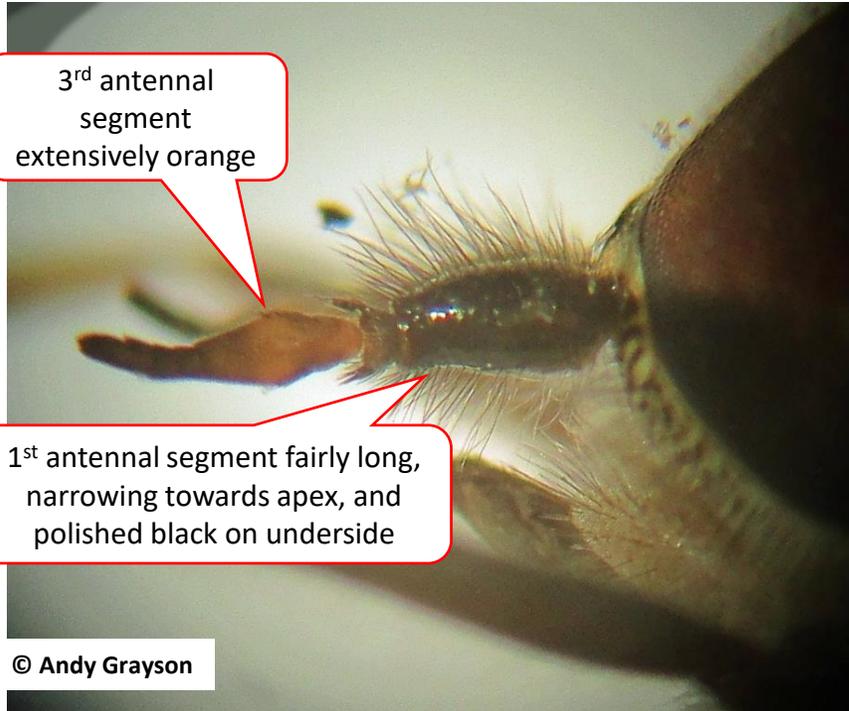
© Andy Grayson



orange at base of abdomen at the sides (can be hard to see under wings)

- ID difficulty: 3
- Flight period: late Jun to late Jul
- GB threat: Least Concern • GB rarity: Nationally Rare
- south-east coast (first recorded 1987)
- grazing levels
- No. of records: 19 • % since 2000: 53%

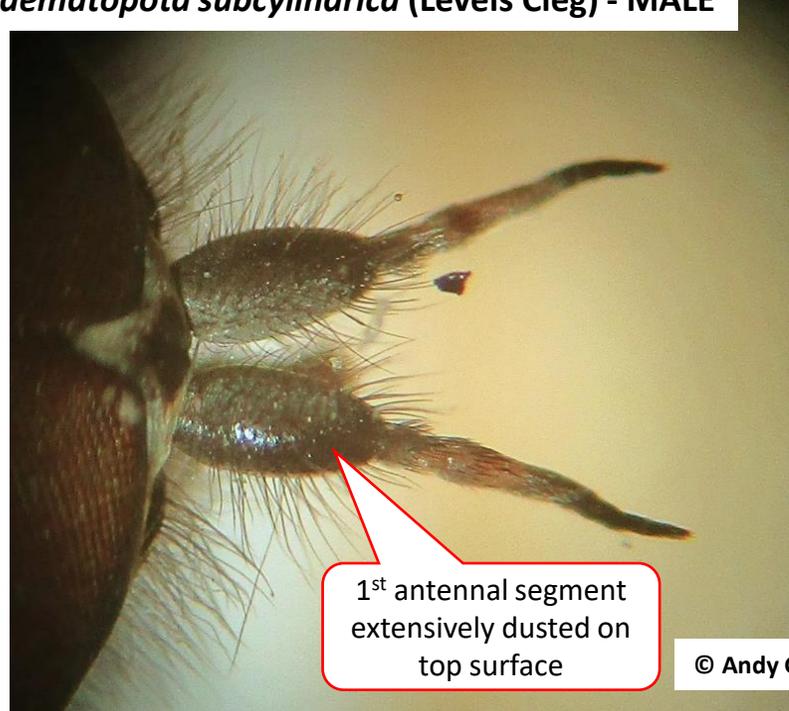
Haematopota subcylindrica (Levels Cleg) - MALE



3rd antennal segment extensively orange

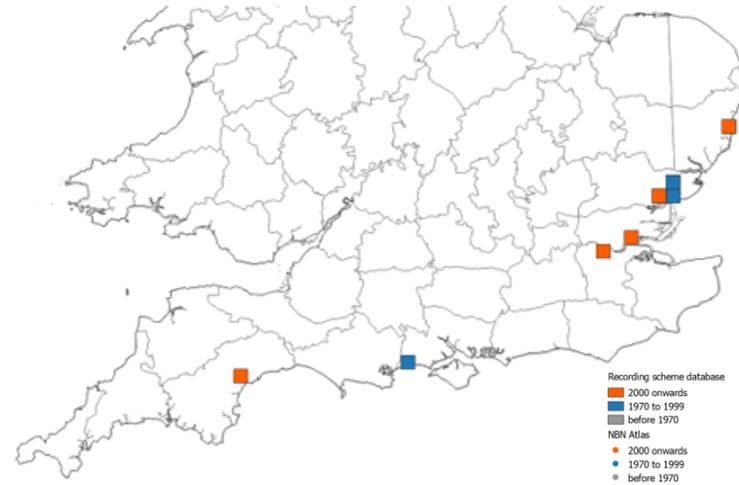
1st antennal segment fairly long, narrowing towards apex, and polished black on underside

© Andy Grayson



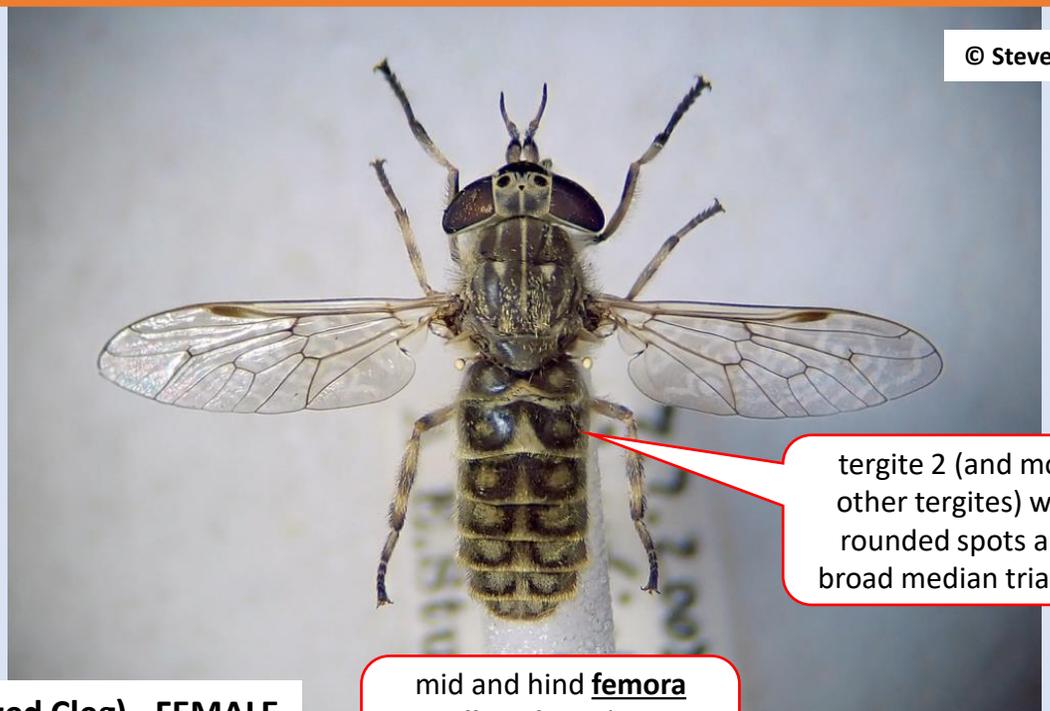
1st antennal segment extensively dusted on top surface

© Andy Grayson





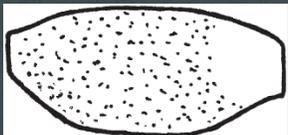
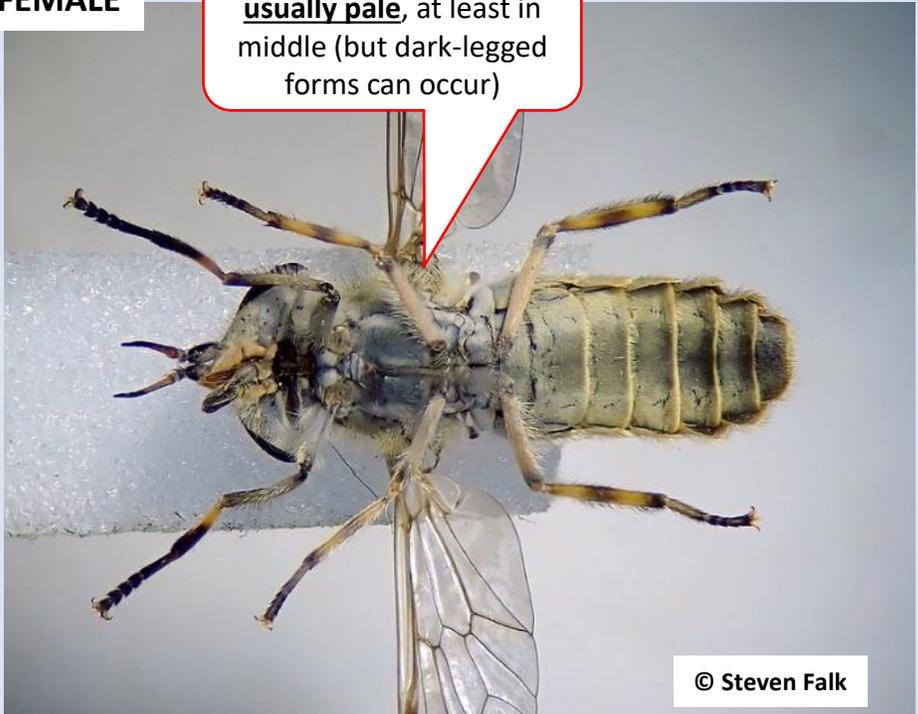
[Steven Falk link](#)



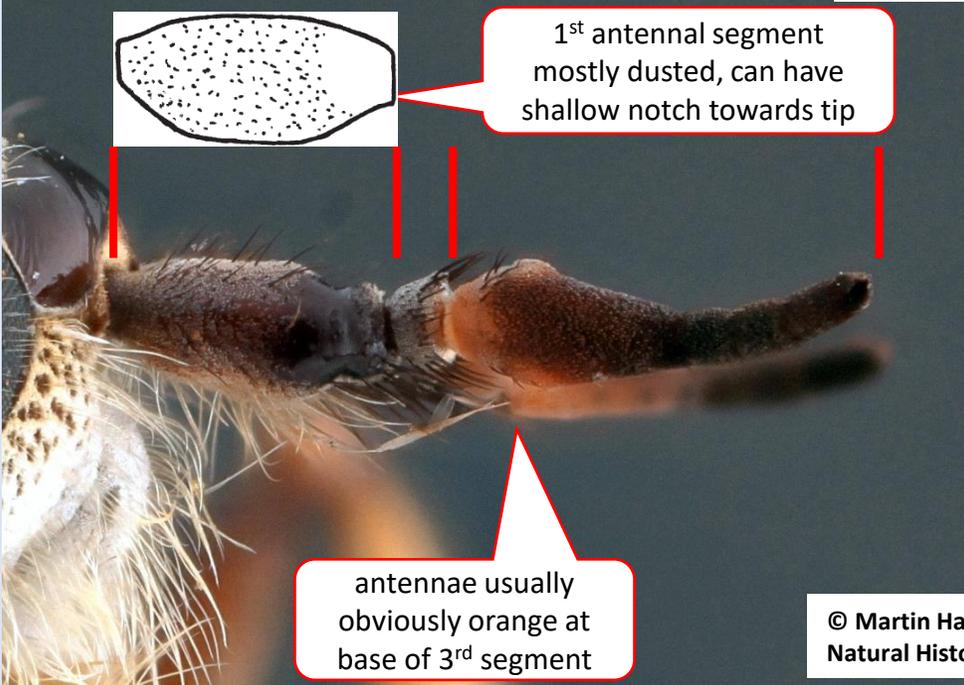
tergite 2 (and most other tergites) with rounded spots and broad median triangle

Haematopota bigoti (Big-spotted Cleg) - FEMALE

mid and hind **femora** usually **pale**, at least in middle (but dark-legged forms can occur)



1st antennal segment mostly dusted, can have shallow notch towards tip



antennae usually obviously orange at base of 3rd segment



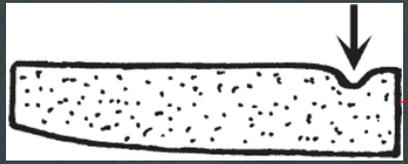
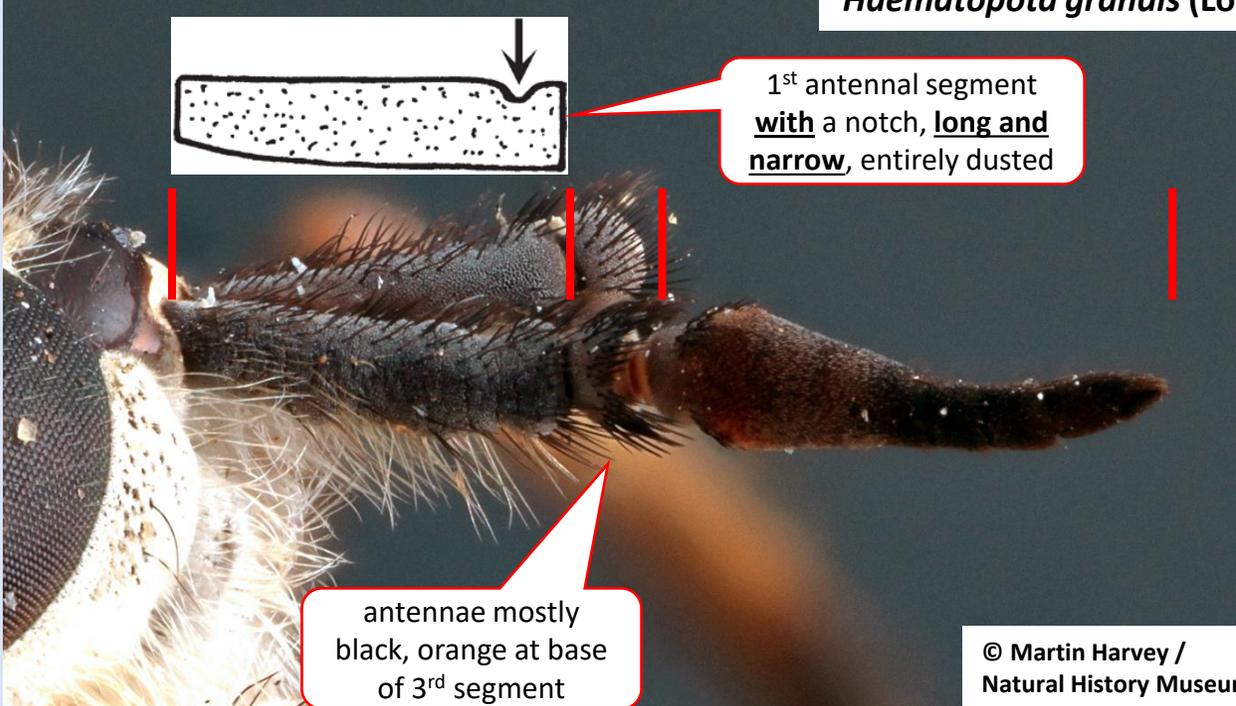
paired spots on tergites 2 to 6

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The largest *Haematopota* in the UK, up to 13mm long



***Haematopota grandis* (Long-horned Cleg) - FEMALE**



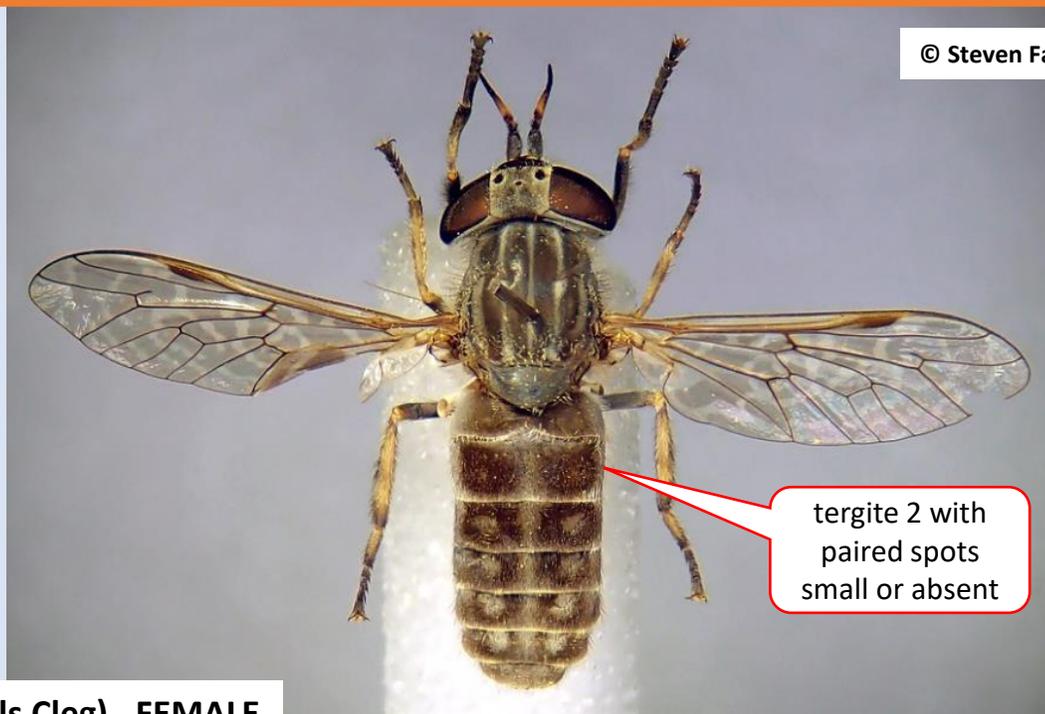
1st antennal segment **with** a notch, **long and narrow**, entirely dusted

antennae mostly black, orange at base of 3rd segment



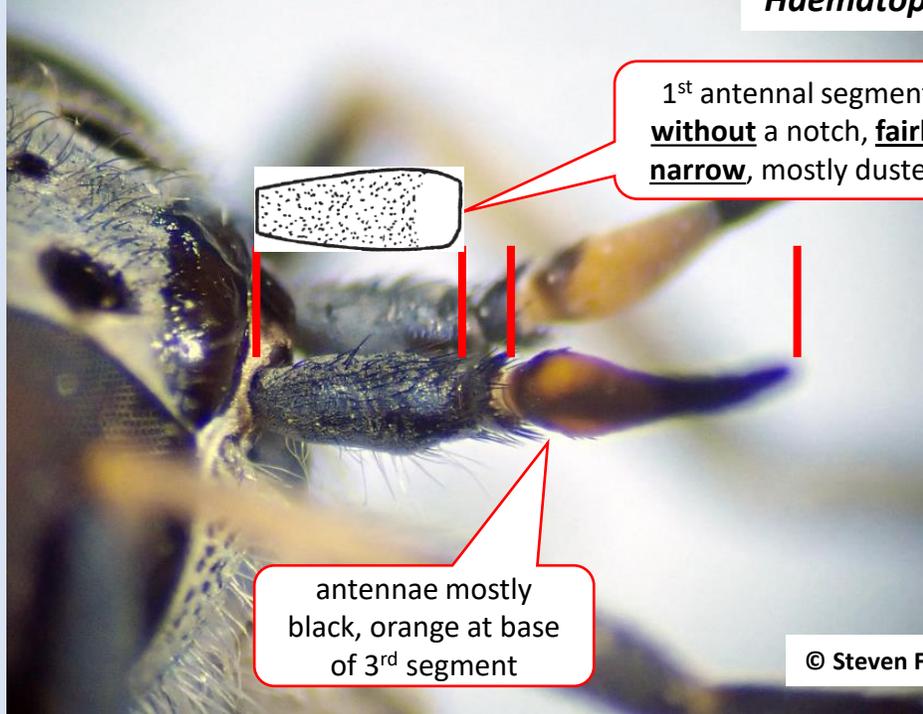


[Steven Falk link](#)



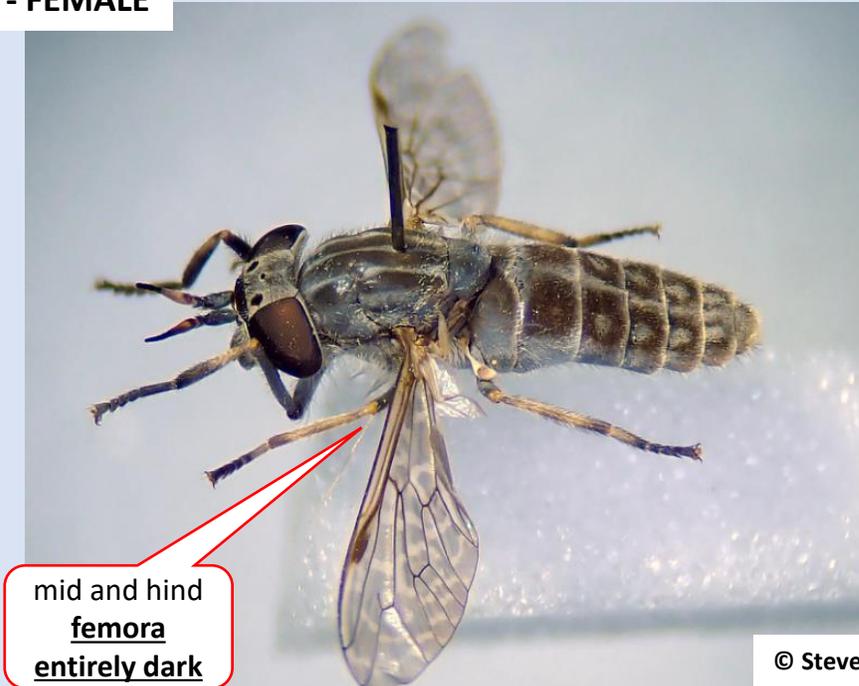
tergite 2 with paired spots small or absent

Haematopota subcylindrica (Levels Cleg) - FEMALE



1st antennal segment **without** a notch, **fairly narrow**, mostly dusted

antennae mostly black, orange at base of 3rd segment



mid and hind **femora** **entirely dark**