

# Identifying soldierflies and allies: horseflies in genus *Atylotus*

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

Version 1 at 4 September 2024

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 and Malcolm Storey, whose photo collections form the backbone for this species guide:

Steven Falk's [photo collections on Flickr](#) – Malcolm Storey's [BioImages website](#)

Other photos included in this guide are by Gary Hedges, Paul Brewster, Peter Brash and Rob Wolton.

Males are shown first, one page for each species, then females (in alphabetical order except that the rarest species, *A. plebeius*, is shown last). The pages for males include distribution maps taken from the recording scheme database as displayed on iRecord, along with summary information about habitats and statuses from the 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 (and also the recording scheme's [additional notes](#) on these keys).
- [Field guide to flies with three pulvilli](#), by Theo Zeegers and André Schulten.

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

For general 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



Biological Records Centre



UK Centre for Ecology & Hydrology

## Recognising the genus: *Atylotus*

There are four UK species in genus *Atylotus*. They are medium-large flies, between 8 and 18 mm long, and have the typical horsefly 'bullet' shaped abdomen, with enormous eyes covering most of the head. Males have the eyes meeting on top of the head, females have a gap between the eyes. There are inconspicuous hairs on the eyes (more obvious in *A. plebeius*). The wings are clear.

Like many of the horseflies, the colour of the body and hairs is quite variable, and can mislead. When taking photos for identification it is important to try to obtain views from several angles, including from the side or underside to show the femora and the sternites under the abdomen. In some cases a specimen will be required for records to be accepted, especially if species are found away from their known distributions

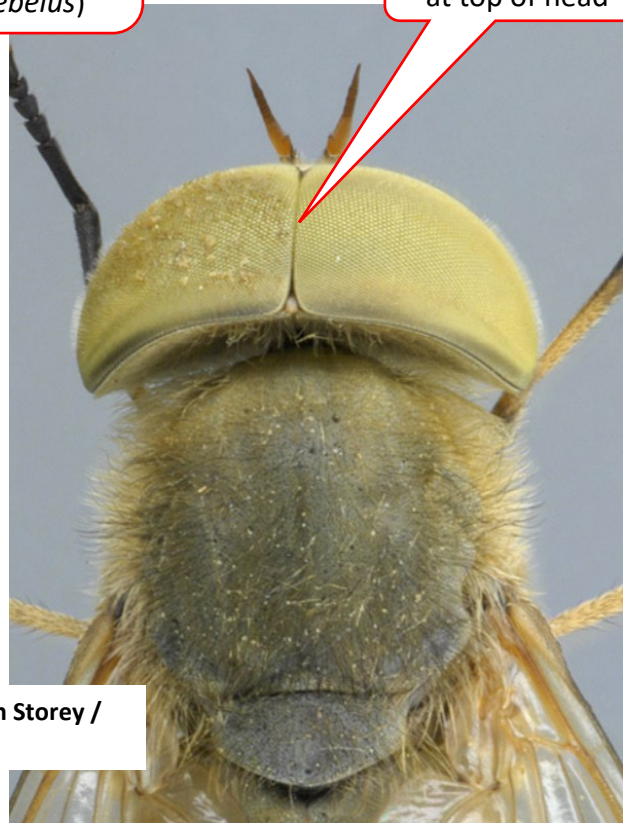
The four *Atylotus* species each have their own habitat preferences, and to a large extent each species is found in different parts of the UK. This can help suggest which species you are likely to find, as shown in the tables on the next page.

The species in this genus fly in the summer months, starting in June, peaking in July, and ending in August.

female: gap  
between eyes

*Atylotus* have  
green eyes when  
alive (grey-green  
for *A. plebeius*)

male: eyes meet  
at top of head



© Malcolm Storey /  
Biolimages



Typical appearance  
of a male *Atylotus*

© Steven Falk

## Guessing guide

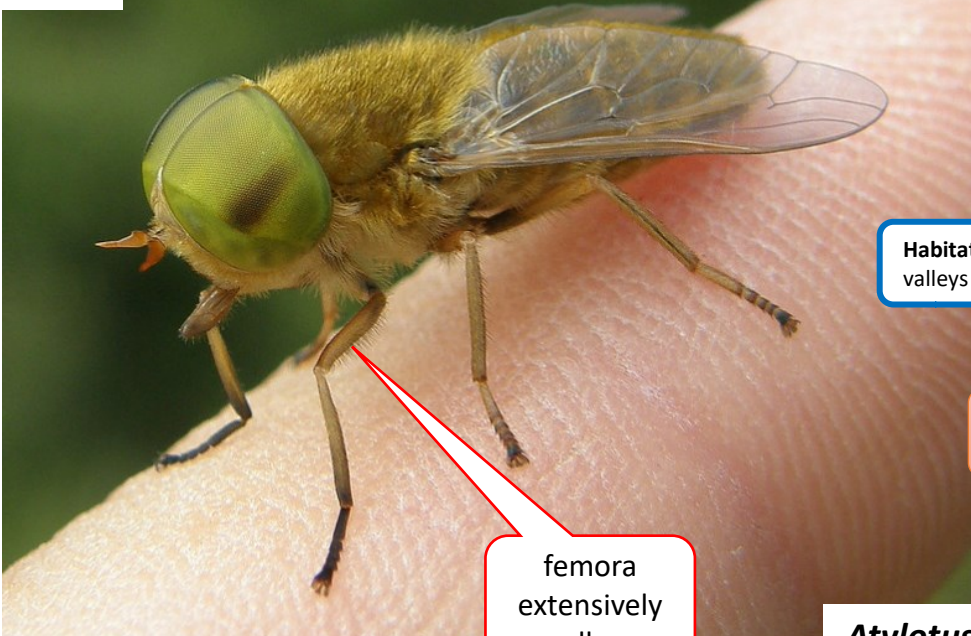
Rather helpfully for identification purposes, there are few places in the UK where you can expect to see more than one species of *Atylotus*! They also have distinct habitat preferences. However, horseflies can fly and disperse, and distributions can change, so you should still **check carefully** to ensure that you are not overlooking something unexpected.

Species	Habitat	Overall distribution	Vice-counties with records since 2000
<i>A. fulvus</i>	Mires in heathland valleys and on hillsides	The most widespread species, since 2000 recorded from 18 vice-counties in <b>England, Wales and Scotland</b> , mostly near the coast, some inland records.	East Cornwall; South Devon; North Devon; North Somerset; South Wiltshire; Dorset; South Hampshire; North Hampshire; Surrey; Berkshire; Glamorganshire; Carmarthenshire; Caernarvonshire; Westmorland; South Aberdeenshire; West Inverness-shire; Mid Ebudes; North Ebudes
<i>A. latistriatus</i>	Saltmarsh	Since 2000 recorded from 11 vice-counties on the southern and eastern coasts of <b>England</b> .	Dorset; Isle of Wight; South Hampshire; West Sussex; East Sussex; East Kent; West Kent; South Essex; North Essex; East Suffolk; West Norfolk
<i>A. plebeius</i>	Quaking bogs with a thick covering of <i>Sphagnum</i> and bog plants	Since 2000 recorded only from one vice-county in <b>England</b> .	Cheshire
<i>A. rusticus</i>	Winter-flooding meadows and grazing marshes with ditches	Since 2000 recorded from 8 vice-counties in <b>England</b> , south-east and south-west coasts, plus some inland records. Has been found at new locations in recent years.	South Somerset; North Somerset; West Sussex; East Sussex; East Kent; Oxfordshire; Buckinghamshire; Worcestershire

There are only six vice-counties (so far!) that have records for more than one species of *Atylotus*:

Vice-county	Species
North Somerset	<i>A. fulvus</i> + <i>A. rusticus</i>
Dorset + South Hampshire	<i>A. fulvus</i> + <i>A. latistriatus</i>
East + West Sussex + East Kent	<i>A. latistriatus</i> + <i>A. rusticus</i>

© Steven Falk



bright golden colour when fresh

Habitat: mires in heathland valleys and on hillsides

[Steven Falk link](#)

femora extensively yellow

head is wider than thorax

© Steven Falk



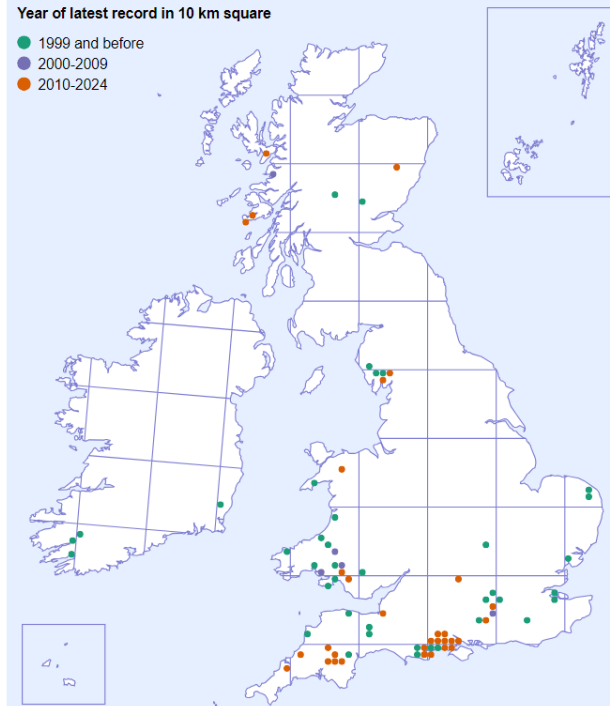
- ID difficulty: 3
- Flight period: mid Jun to mid Aug, peak in Jul
- GB threat: Least Concern • GB rarity: Nationally Scarce
- local in southern England, rare further north

### *Atylotus fulvus* (Golden Horsefly) – MALE

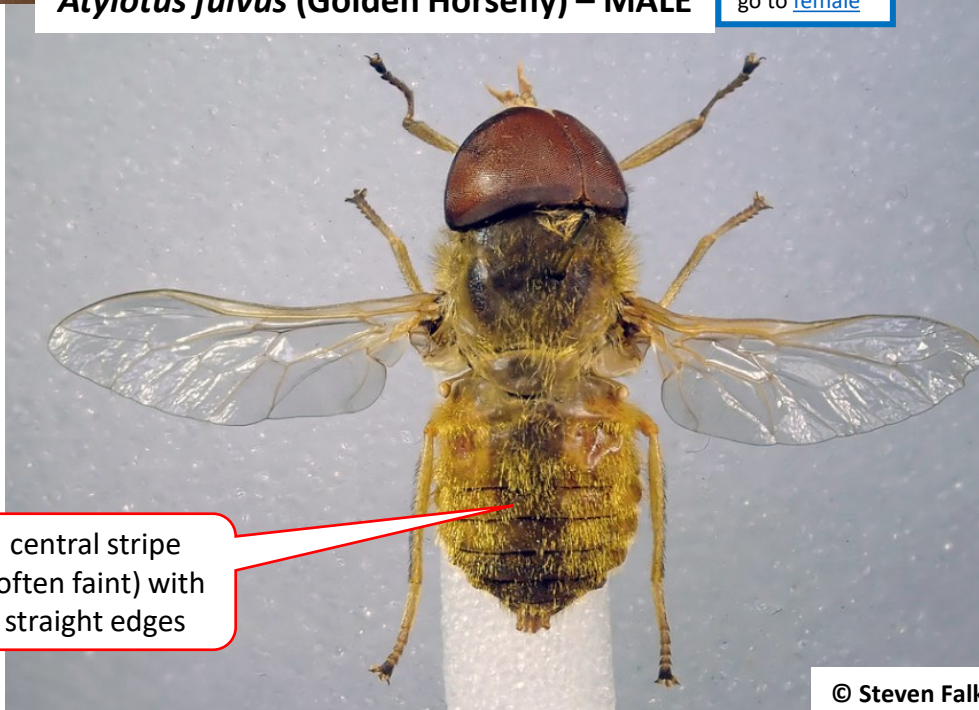
[go to female](#)

Year of latest record in 10 km square

- 1999 and before
- 2000-2009
- 2010-2024



central stripe (often faint) with straight edges



© Steven Falk

© Steven Falk





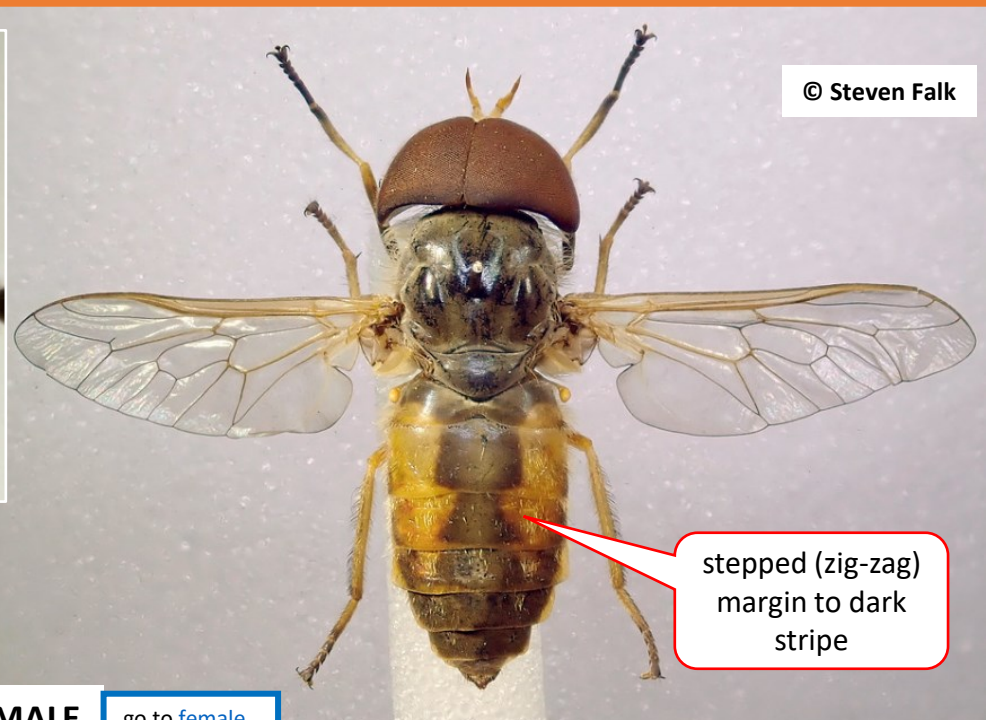
© Steven Falk

femora extensively yellow



long hairs on posterior side of front tibia (not present in *A. rusticus*)

[Steven Falk link](#)



© Steven Falk

stepped (zig-zag) margin to dark stripe

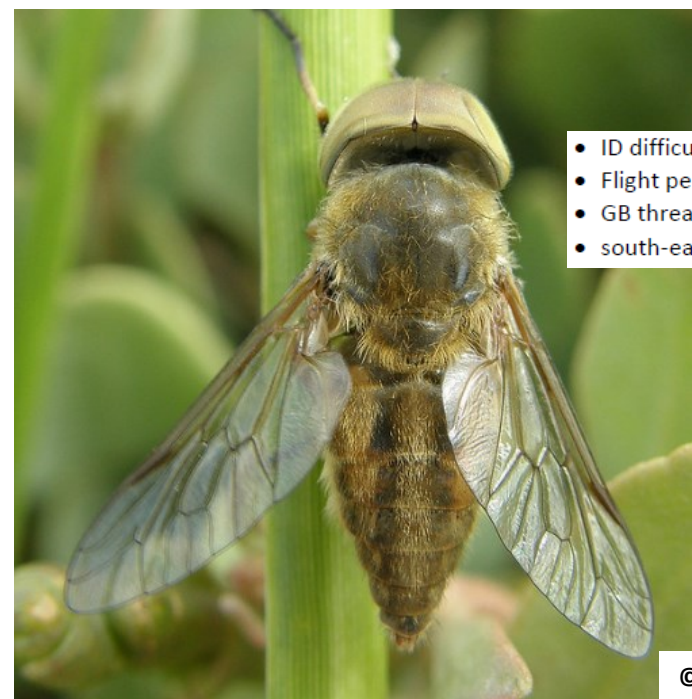
### *Atylotus latistriatus* (Saltmarsh Horsefly) – MALE

[go to female](#)



head is wider than thorax

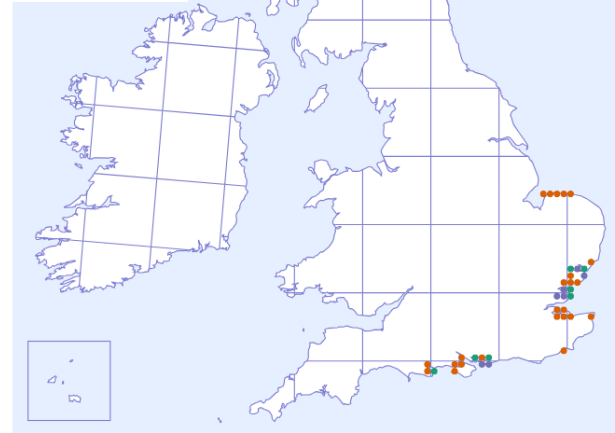
© Steven Falk



© Steven Falk

**Habitat:** saltmarsh

- ID difficulty: 3
- Flight period: late Jun to Aug
- GB threat: Least Concern • GB rarity: Nationally Scarce
- south-east coasts



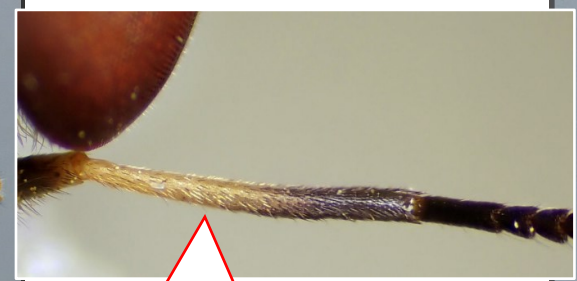


head slightly wider than thorax

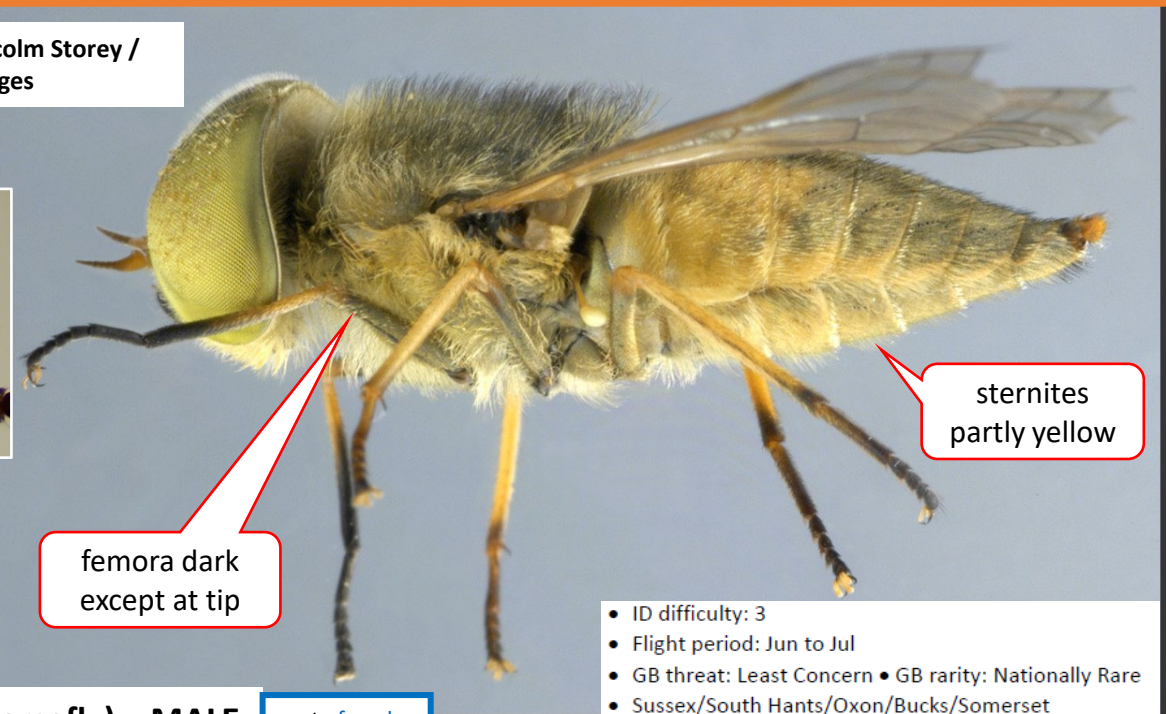
© Malcolm Storey / Biolimages

[Biolimages link](#)

© Malcolm Storey / Biolimages



no long hairs on posterior side of front tibia (compare with *A. latistriatus*)



sternites partly yellow

femora dark except at tip

- ID difficulty: 3
- Flight period: Jun to Jul
- GB threat: Least Concern • GB rarity: Nationally Rare
- Sussex/South Hants/Oxon/Bucks/Somerset

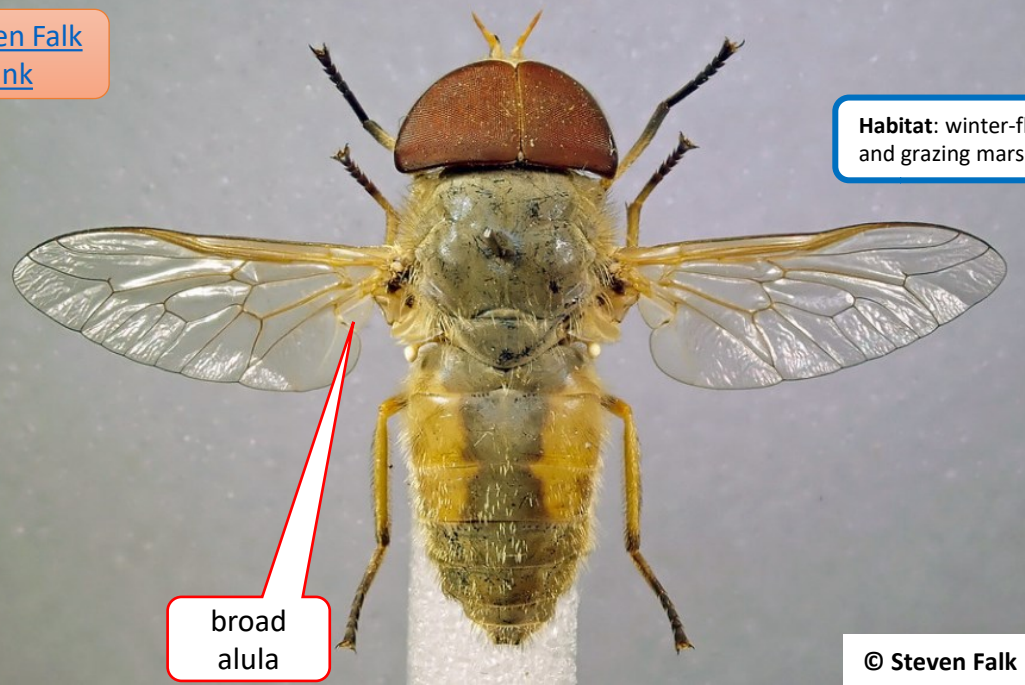
### *Atylotus rusticus* (Four-lined Horsefly) – MALE

[go to female](#)



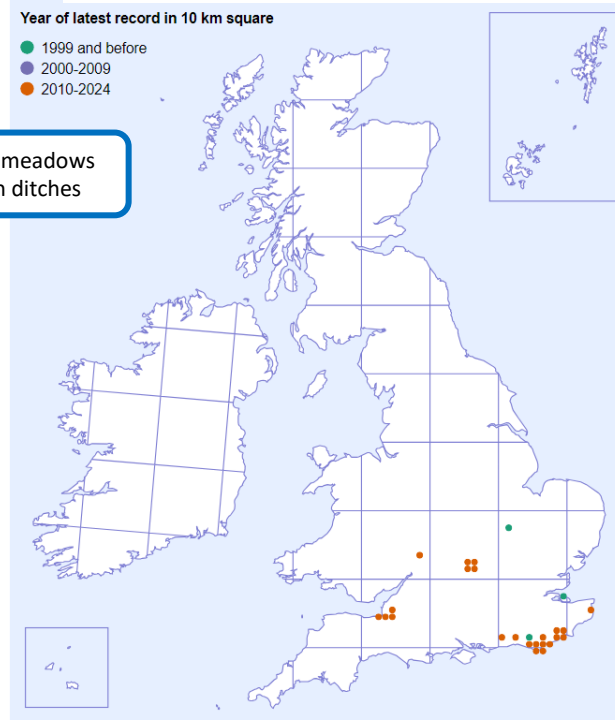
© Steven Falk

[Steven Falk link](#)



broad alula

Habitat: winter-flooding meadows and grazing marshes with ditches



© Steven Falk

femora  
mainly dark

© Paul Brewster  
via [iRecord](#)

smaller (8–11 m  
long) than the other  
*Atylotus* species

© Gary Hedges via  
[North West Invertebrates](#)

predominantly  
grey body and  
hairs

**Habitat:** quaking bogs with a  
thick covering of *Sphagnum* and  
bog plants (**Cheshire only**)

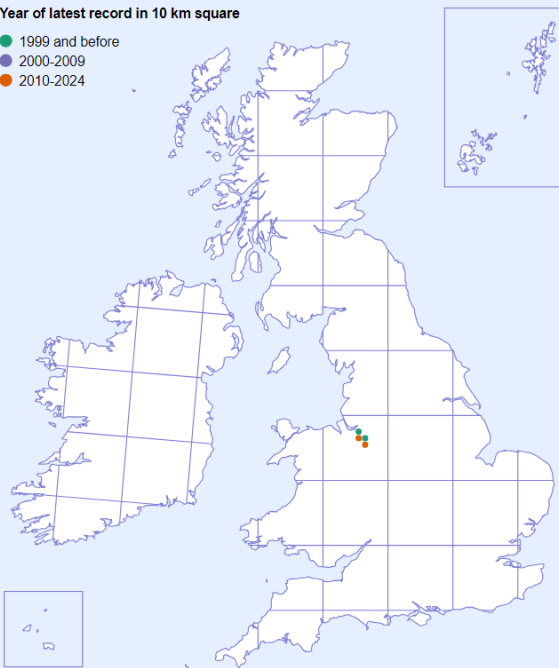
sternites  
grey

### *Atylotus plebeius* (Cheshire Horsefly) – MALE

[go to female](#)

Year of latest record in 10 km square

- 1999 and before
- 2000-2009
- 2010-2024



A similar species, *A. sublunaticornis*, is present in similar habitats on the continent. It is not known from the UK and is perhaps unlikely to be found, but worth checking. Both sexes of *A. sublunaticornis* have a dense fringe of long black hairs on the vertex, the longest being about as long as the hairs on the thoracic dorsum, and more than twice as long as those on the frons. Both sexes of *A. plebeius* usually have only fine pale hairs on the vertex and, when thicker black hairs do occur, they are shorter, intermixed with finer pale hairs, and do not form such a dense fringe. (Info from Andy Grayson.)



© Malcolm Storey / Biolimages



3<sup>rd</sup> antennal segment relatively short and tall (the non-UK *A. loewianus* has this segment longer and less tall)

Habitat: Mires in heathland valleys and on hillsides



© Steven Falk



underside

[Steven Falk link](#)

© Steven Falk

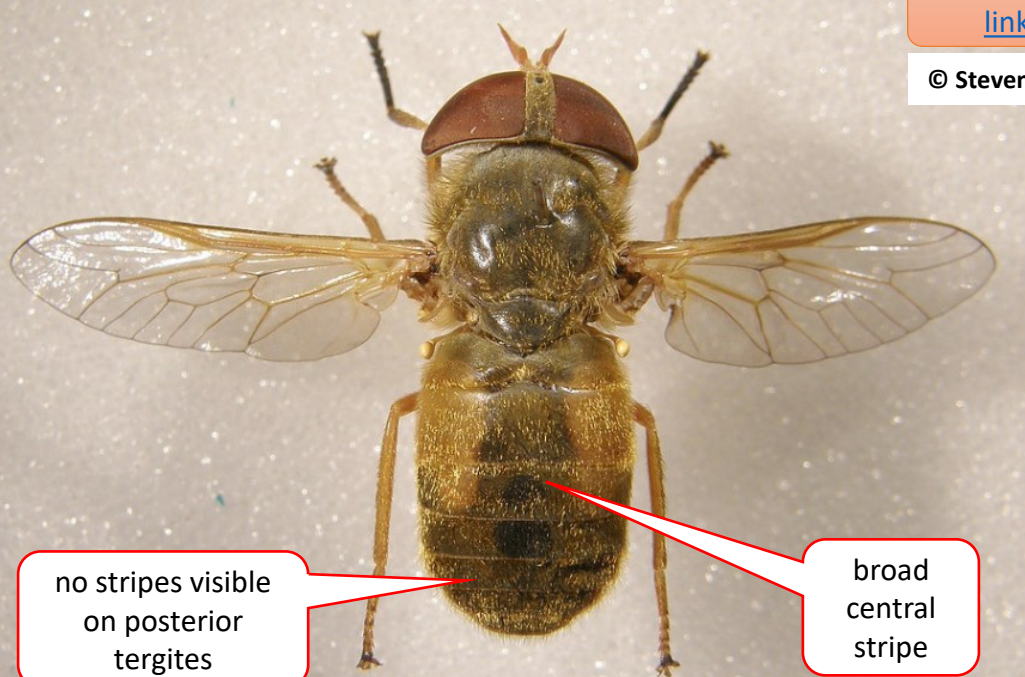
***Atylotus fulvus* (Golden Horsefly) – FEMALE**

[go to male](#)

[Biolimages link](#)



© Malcolm Storey / Biolimages



no stripes visible on posterior tergites

broad central stripe





[Steven Falk link](#)

see [next page](#) for comparison with *A. rusticus*

central grey stripe reaches to tergite 6



***Atylotus latistriatus* (Saltmarsh Horsefly) – FEMALE**

[go to male](#)

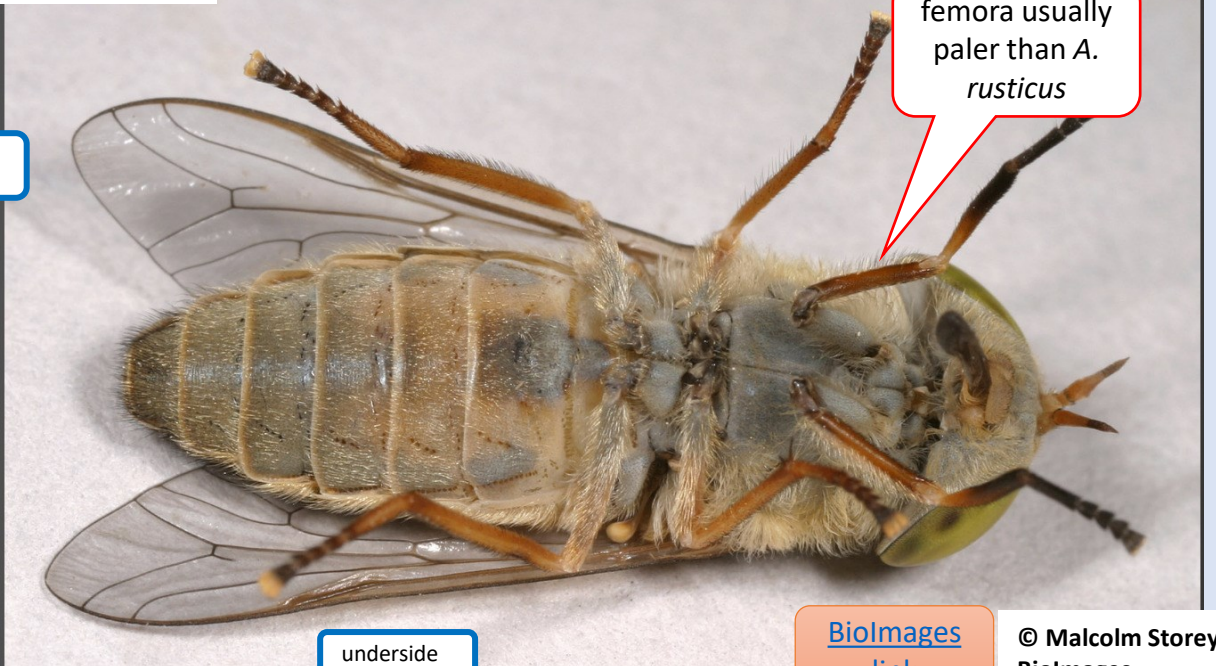
frons is relatively broad

Habitat: saltmarsh

femora usually paler than *A. rusticus*

underside

[Biolimages link](#)



# COMPARISON of *Atylotus latistriatus* and *Atylotus rusticus* FEMALES

dark hairs on vertex  
(difficult to see)

pale hairs on vertex  
(difficult to see)

© Malcolm Storey /  
Biolmages

© Malcolm Storey /  
Biolmages

longer hairs on eyes  
(difficult to see)

shorter hairs on eyes  
(difficult to see)

frons  
broader

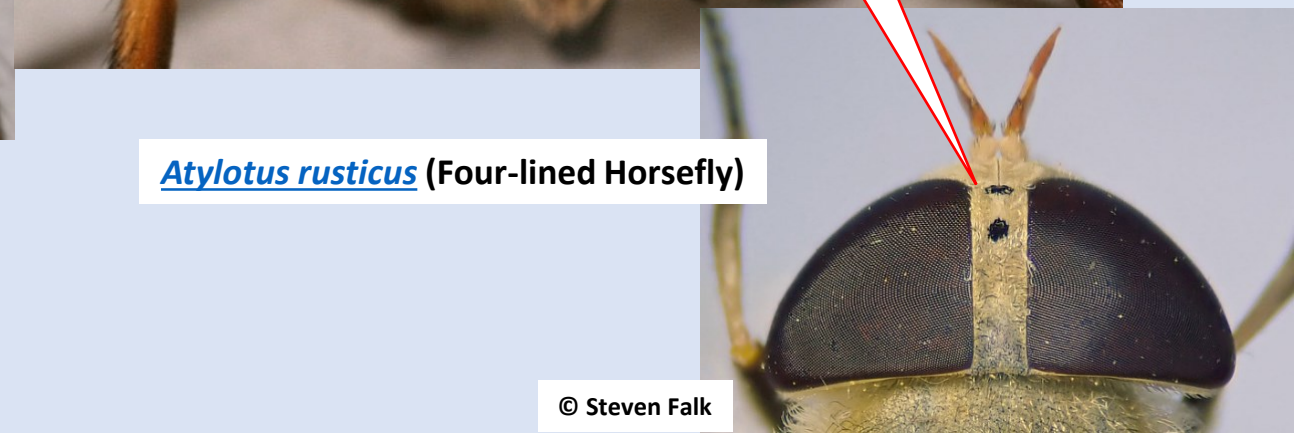
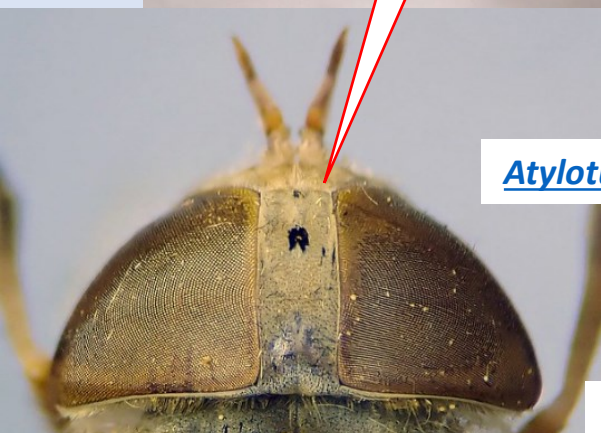
frons  
narrower

*Atylotus latistriatus* (Saltmarsh Horsefly)

*Atylotus rusticus* (Four-lined Horsefly)

© Steven Falk

© Steven Falk

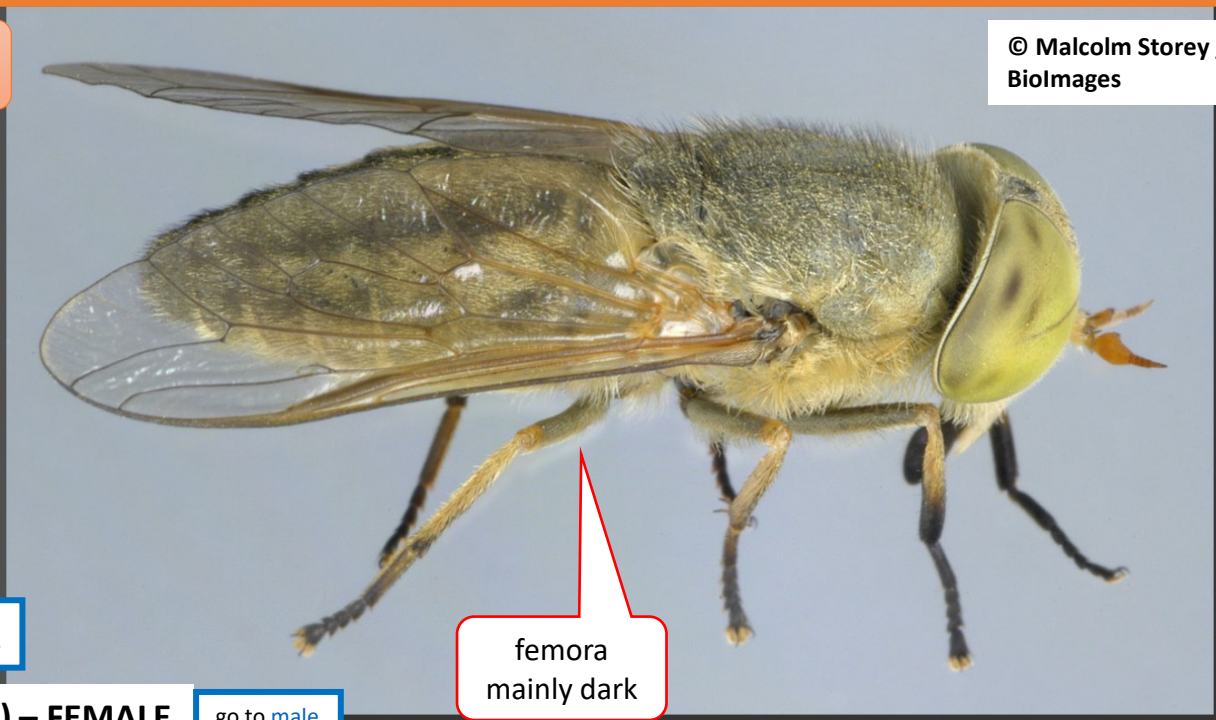


© Steven Falk



[Biolimages link](#)

© Malcolm Storey / Biolimages



femora mainly dark

see [previous page](#) for comparison with *A. latistriatus*

***Atylotus rusticus* (Four-lined Horsefly) – FEMALE**

[go to male](#)

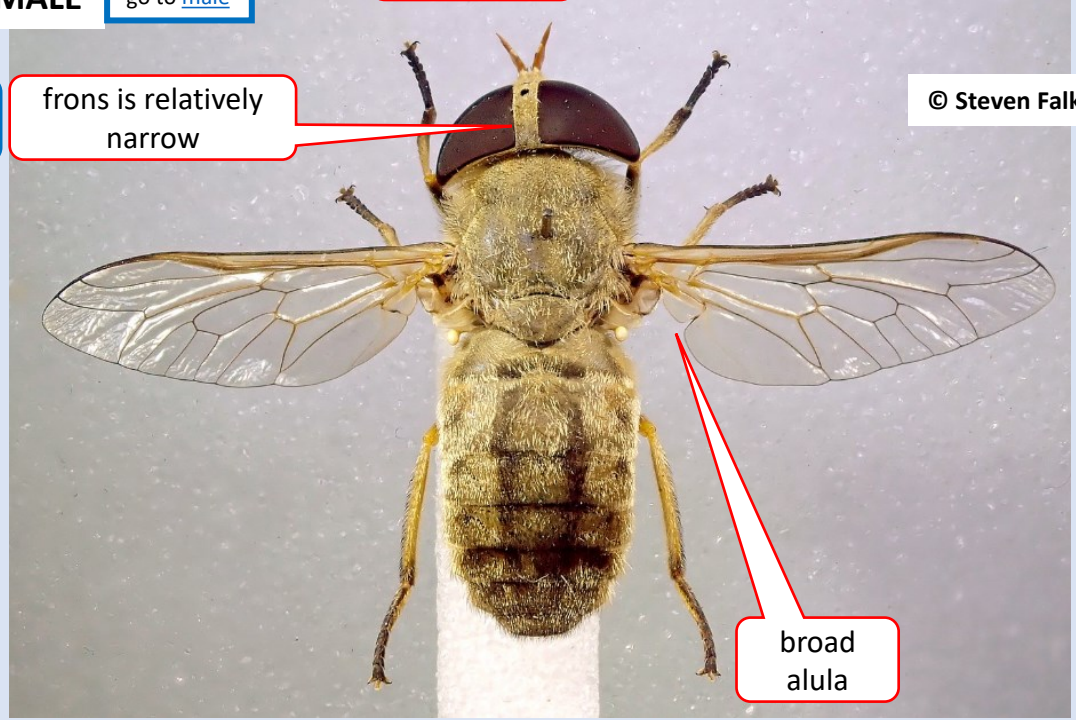
© Steven Falk



dark stripes on abdomen, reaching to tip

**Habitat:** winter-flooding meadows and grazing marshes with ditches

[Steven Falk link](#)

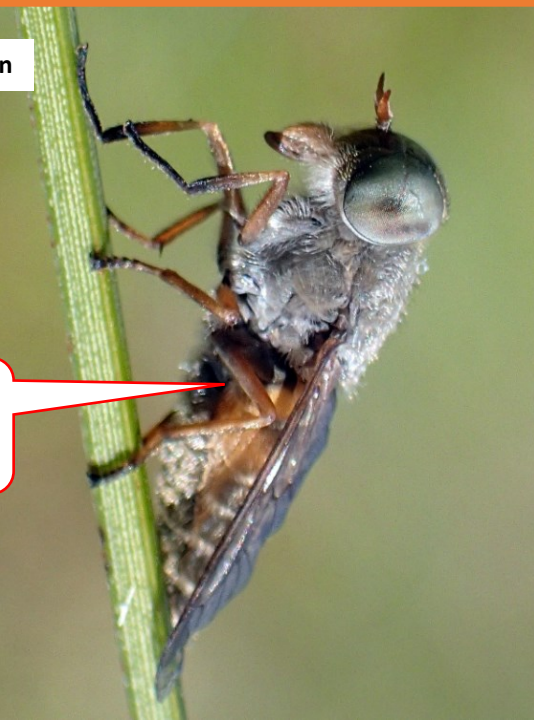


frons is relatively narrow

broad alula

© Steven Falk

© Rob Wolton



femora extensively yellow

**Habitat:** quaking bogs with a thick covering of *Sphagnum* and bog plants (**Cheshire only**)

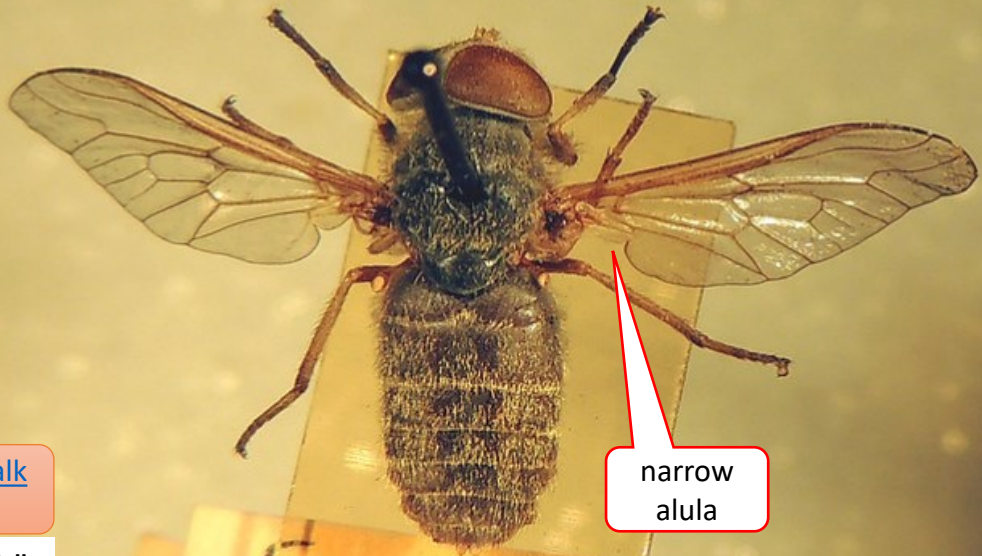
A similar species, *A. sublunaticornis*, is present in similar habitats on the continent. It is not known from the UK and is perhaps unlikely to be found, but worth checking. Both sexes of *A. sublunaticornis* have a dense fringe of long black hairs on the vertex, the longest being about as long as the hairs on the thoracic dorsum, and more than twice as long as those on the frons. Both sexes of *A. plebeius* usually have only fine pale hairs on the vertex and, when thicker black hairs do occur, they are shorter, intermixed with finer pale hairs, and do not form such a dense fringe. (Info from Andy Grayson.)

© Rob Wolton



***Atylotus plebeius* (Cheshire Horsefly) – FEMALE**

go to [male](#)



narrow alula

eyes noticeably hairy

fairly even grey colour on top of thorax

abdomen has two dark stripes with a narrow central pale gap

[Steven Falk link](#)

© Steven Falk

© Peter Brash via [iRecord](#)