

Recording Scorpionflies, Snakeflies and Snow Fleas

Steve Garland

Mecoptera – Scorpionflies and Snowfleas



Raphidioptera - Snakeflies

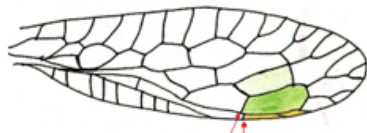


Draft key to British Snakeflies using forewing characters visible in photographs – Steve Garland, 2022

This is an attempt to provide a better guide for identifying UK Snakeflies from photographs. Hind-wings are usually impossible to see, but in good pictures, there will often be enough visible to confirm an identification. Neuroptera are prone to atypical wing-venation on occasion, so caution is always required, but I hope that this key may help with IDs. You also need to be careful as in some photos the hind wing venation can show through and cause confusion. I would of course welcome feedback and constructive criticism – send to steve@stevegarland.co.uk. I have also included notes on three species that may turn up/ be discovered in the UK.

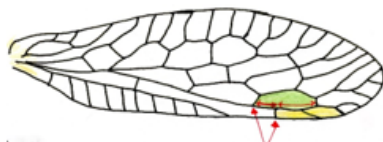
1 - Pterostigma as long as cell below it –

Go to 2



- Pterostigma up to 2/3 length of cell below it –

Go to 3



2 – Three veins leaving cells 1 and 2

Xanthostigma xanthostigma - Small Snakefly

As it is possible that the front wing venation is not 100% reliable – also check the following:

- Scape yellow, not brown at the base
- Head broadly triangular and flat
- Ocelli (on top of head) not raised and rear two closer to the sides of the head than to each other – left image
- Hindwing veins/cells as at bottom of page 2 is a clear difference

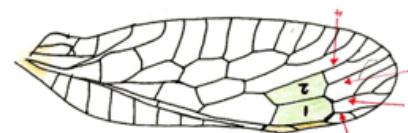


- Four veins leaving cells 1 and 2

Subilla confinis - Scarce Snakefly

- Scape brown at base and yellow at the tip
- Head rather convex, black with a brown central band and coarsely sculptured
- Ocelli raised and closer together
- Hindwing veins/cells as at bottom of page 2 is a clear difference

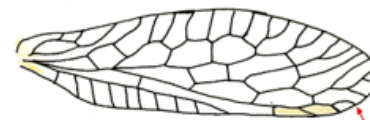
Widespread, but local in central, eastern and south-eastern England. In Europe is associated especially with fruit trees, but has been found on oak and maple.



3 – Small apical vein extending from stigma to wing-tip – this is usually very distinctive in photos

Atlantoraphidia maculicollis - Pine Snakefly

Found in Scotland, England and Wales, but most numerous in the south. Associated with coniferous and deciduous woodland, possibly especially pine.



- No apical vein running from the stigma. Branched vein running from cell 1.

Go to 4

4 - 2 veins crossing the dark brown stigma, >12 costal veins

Phaeostigma notata - Oak Snakefly

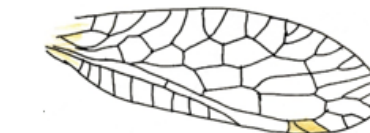
This is a distinctive species in the UK where the very dark pterostigma gives an immediate clue that it may be this species and the number of costal veins is also diagnostic. However, in Southern Europe it is part of a complex of species and presents identification challenges! Widespread in England and Wales.



- 1 vein crossing the dark brown stigma, <10 costal veins

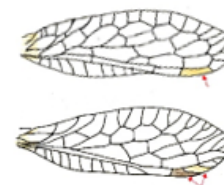
Raphidia ophiopsis - Northern Pine Snakefly

This species has not yet been found in the UK, but is found widely in Scandinavia, Belgium and the Netherlands, so is very likely to be discovered, possibly with Scotland the most likely area? Associated primarily with Pine in Europe.



Additional species:

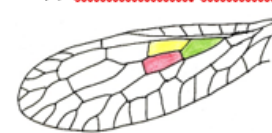
- Isocellia crassicornis – Square-headed Snakefly: Known from Norway, Sweden and Belgium. It belongs to a different family (Isocellidae) and is immediately distinctive because it has no cross-vein in the yellow-brown pterostigma and has no ocelli on the top of its head. Its head is also rectangular, not narrowing towards the neck, as in the other species. In Scandinavia it is associated with Pine on hot, dry sites.
- Dichrostigma flavipes – Bicoloured Snakefly: Known from Sweden and Germany, but not Belgium, Netherlands or France so maybe unlikely in the UK at present. It would key to Raphidia ophiopsis, but has a very distinctive, bicoloured stigma – dark at the base and pale distally.



Notes on hind-wing venation

Plant's 1997 key uses some useful hindwing characters, but these are rarely, if ever, visible in photographs. There are two forms (based on the form of vein MA) as shown below and the genera fall into these two groups:

(a) Atlantoraphidia, Xanthostigma



(b) Subilla, Phaeostigma, Raphidia, Dichrostigma



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