



*The Brassy Longhorn
moth and it's
parasitoid.
(Or a tale of three
organisms in balance)*

By Sue Taylor

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Female Brassy Longhorn ovipositing into a Field Scabious flower.
Bradenham 29/6/18

Brassy Longhorn Moth

The Brassy Longhorn moth *Nemophora metallica* is described as local and restricted largely to the south of England on calcareous grassland where its foodplants grow. I tend to find it mainly on Field Scabious, though it will use Small Scabious too.

The moth is very distinctive with metallic brassy wings, long antennae and its head covered with ginger 'fur'.

It is active June to Aug



Male Brassy Longhorn moths (*Nemophora metallica*)
Dancersend July 2020

Brassy Longhorn cont'd

The males have very long antennae coloured mainly white. They are used in display and it is not uncommon to see up to six males displaying together 'dancing' in the air before settling on the scabious or nearby plants.

Males seem to appear first in the season, the females only becoming obvious when they start to lay eggs.

Neither male or female moth seem to actively deter the parasitoid wasps which are often on the same flowers with them and which seek out the moth eggs in order to lay their own eggs on them.



The Parasitoid.

Stilbopsis ruficornis is an Ichneumon wasp in the family Stilbopinae.

This is an easy to find, easily observed species and probably found wherever the Brassy Longhorn moth is found as it requires this species of moth to reproduce.

It is a very under recorded species. Searches on NBN atlas yield just 4 results, iRecord has 37 records.*

Almost all records are from the Chilterns, but this probably reflects recording effort rather than the real distribution.

*other people admit to having seen it though.



10/7/17 College Lake

It is **easy** to search for *Stilbops ruficornis* and so increase our knowledge of where it can be found.

- Find Field Scabious or Small scabious in flower (Jun to early august)
- Look for Brassy longhorn moths (*Nemophora metallica*) at their peak in July
- Look for small black wasps with red abdomen on the flower head.
- Job done!!
- These three species are totally dependent on each other, too many moths the scabious dies, the parasitoid wasp helps keep moth numbers in check allowing all three species to live.



Female *Stilbops ruficornis* laying into scabious seeds, they will still lay into seeds even once the petals have fallen. Female moth above.

The wasp and the moth

Stilbops ruficornis is a parasitoid.

It lays its eggs in or near to the eggs of its host species *Nemophora metallica* the Brassy Longhorn moth.

The Brassy longhorn moth lays its eggs in the fertilised ovule of the Field scabious flower.

The caterpillar feeds first on the developing seeds and then the lower leaves before pupating.

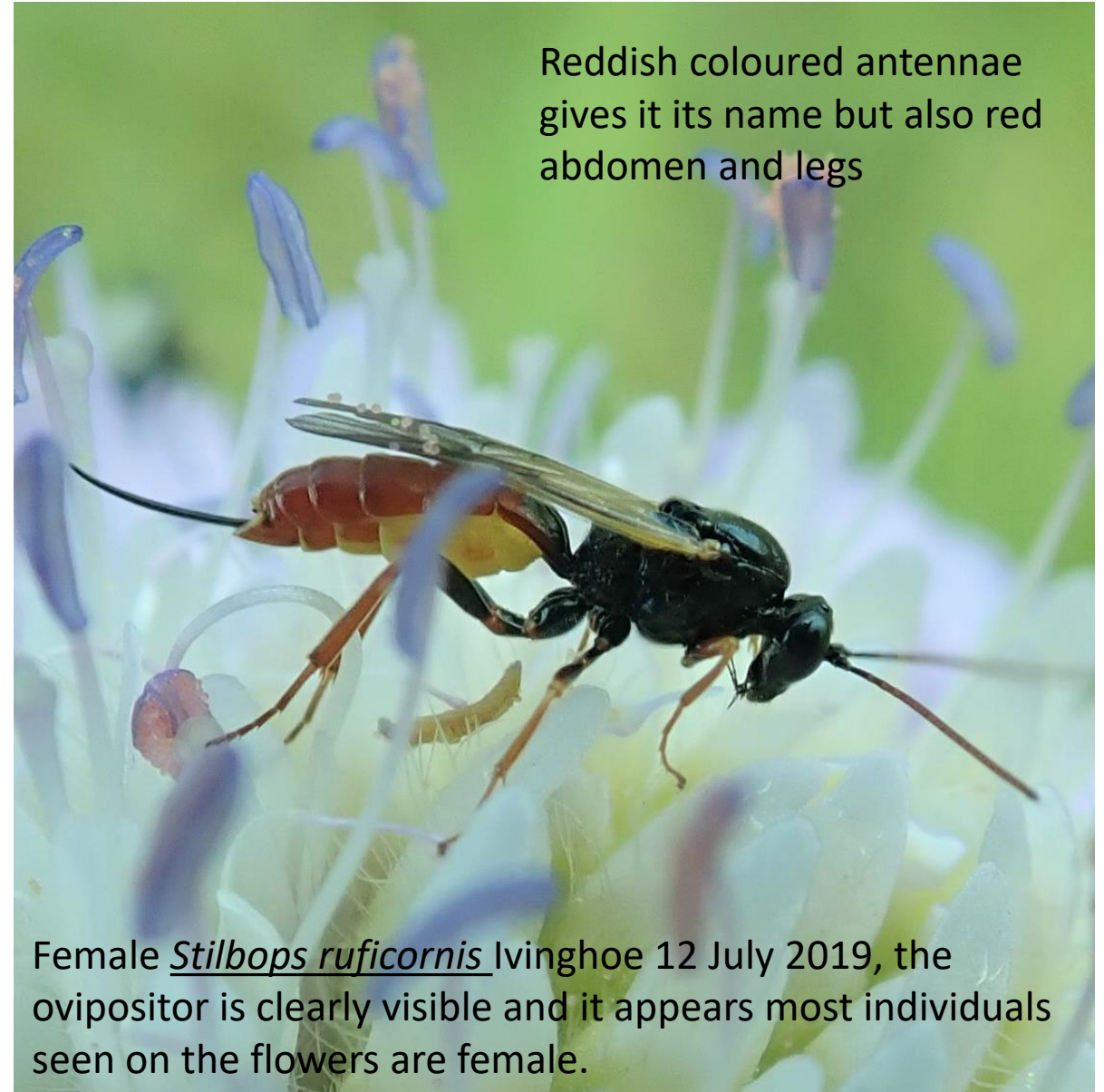
The ichneumon larva feeds on the moth caterpillar as it grows, eventually killing it. It is likely it overwinters as a pupa on or near its host.

I have not observed *S. ruficornis* away from scabious or seen other confusion species on Scabious.

So seeing an ichneumon of this description on scabious is a fairly safe ID.



Male *Stilbops ruficornis* College Lake July 2020
Taken off a scabious flower, it would be difficult to recognise without the flower association. (specimen retained)



Reddish coloured antennae gives it its name but also red abdomen and legs

Female *Stilbops ruficornis* Ivinghoe 12 July 2019, the ovipositor is clearly visible and it appears most individuals seen on the flowers are female.



College Lake July 2016

Observations

- Up to eight *S. ruficornis* have been seen by me on a single flower
- Wherever I have observed *Nemophora metallica* I have seen its parasitoid wasp.
- Given the numbers of the wasp it is surprising to me that moth numbers are not significantly compromised.
- A great species to show people and illustrate the interactions between 3 species with plant, moth and parasitoid all visible together.
- You will also find other species associated with both plant and moth including Chalcid wasps.

If you see the moth, or the wasp please put your sighting on iRecord so the true extent of both species can be worked out.