

***Pamphilius latifrons* (Fallén, 1808) (Hymenoptera, Pamphiliidae) – a sawfly new to Worcestershire**

Jean Young



01. *Pamphilius latifrons* female on nettle, Bishops Wood, 02.05.24. Jean Young.

On 2nd May 2024 while out with a group of volunteers recording at the Field Studies Council's (FSC) centre at Bishops Wood, near Stourport on Severn, my attention was drawn to an eye-catching black-and-yellow insect. On closer inspection, I realised that it was a sawfly, but not one that I had come across before. It was quite co-operative, allowing me, for the price of a few stings from the nettles it was clambering through, to get close enough to take some photos to aid identification (01 - 03).



02. *Pamphilius latifrons* female on nettle, Bishops Wood, 02.05.24. Jean Young.



03. *Pamphilius latifrons* female on nettle, Bishops Wood, 02.05.24. Jean Young.

I brought my find to the attention of the others in the group and as no-one recognised it, the sawfly was put in to a pot to be examined further when we returned to the centre. We try to identify our finds on site using the identification resources, keys and microscope kindly provided by the FSC along with online resources so that we can release our finds where they were collected, but as this is not always possible some are taken away for a more detailed examination. As we were unable to identify the sawfly straight away, Carol and John Taylor took it to investigate further. I checked my photos and we all came to the conclusion that it was either *Pamphilius histrio* or *Pamphilius latifrons*.

The larvae of both species, as with other *Pamphilius* sawflies, produce silk which they use when creating the leaf rolls where they feed (04). *P. histrio*, which has been given the rather wonderful English name of the Flamboyant Poplar Spinner, uses Aspen *Populus tremula* and White Poplar *Populus alba*, whilst *P. latifrons*, the more mundanely named Broad-headed Spinner, prefers to feed on Aspen but will sometimes use Goat Willow *Salix caprea* (Sawfly Recording Scheme). There were Aspens near to where the sawfly was found.



04. An example of a leaf roll created by a *Pamphilius* sawfly larva, in this case *Pamphilius fumipennis*.

I searched for photos of *P. histrio* and *P. latifrons* to compare with the Bishops Wood specimen, but there were none on the species pages of the Sawfly Recording Scheme website or in Mike

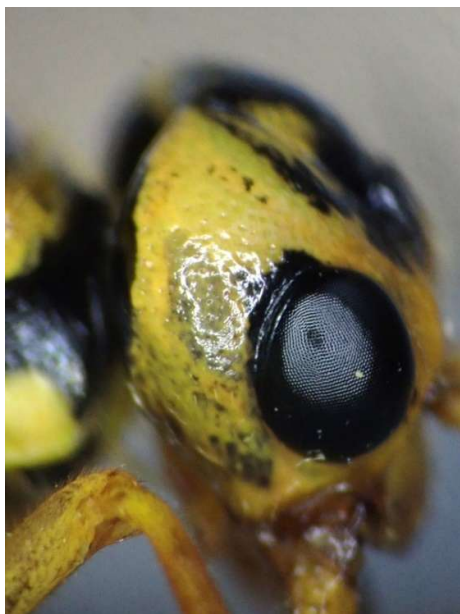
Hackston's Insect Keys 'Superfamily Pamphilioidea key to British species'. I also checked Steven Falk's collections of photos on Flickr and although there were a few photos of pinned specimens and a link to a photo of a live Italian specimen of *P. histrio*, I was still unable to decide to which species I had photographed.

I contacted Andrew Green, co-ordinator of the Sawfly Recording Scheme. He was able to confirm from my photos that it was a *Pamphilius* sawfly and appeared to be a female *P. histrio*. As Carol and John Taylor had retained the specimen, they were able to forward it to Andrew for examination. On receiving the specimen Andrew was able to identify the sawfly as *P. latifrons* and made the following comments. "I have now examined it in detail and rather than it being *Pamphilius histrio* it is in fact *Pamphilius latifrons* based on the following features:

1. The clypeus, temples and vertex are all punctured throughout (05-08). In *histrio*, the punctures on the clypeus are confined to the anterior margin and the temples and vertex are virtually unpunctured.
2. Cell C of the forewing has no setae which would be present on *histrio* (09).
3. There are no protuberances on the posterior margin of the sawsheath (10). There would be obvious outgrowths on *histrio*. I am as sure as I can be that this identification is correct. Nevertheless I will reach out to others in Europe for a second opinion".



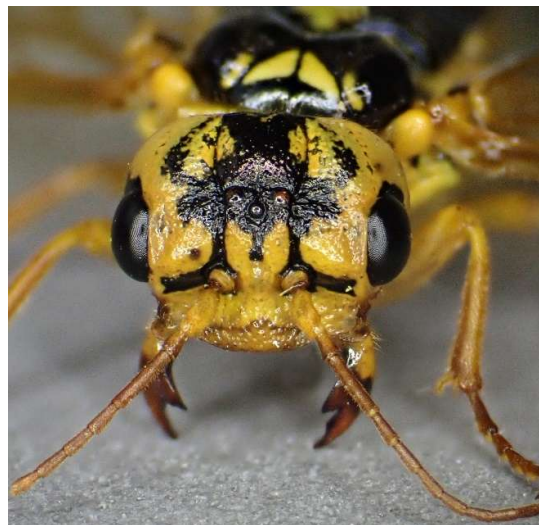
05. *Pamphilius latifrons* female clypeus. Andrew Green.



06. *Pamphilius latifrons* female temple. Andrew Green.



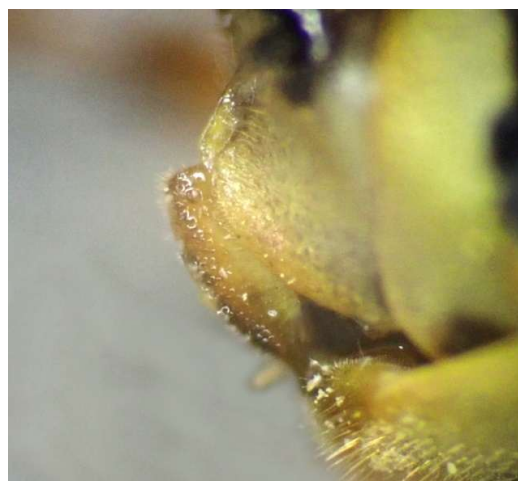
07. *Pamphilius latifrons* female vertex. Andrew Green.



08. *Pamphilius latifrons* female face. Andrew Green.



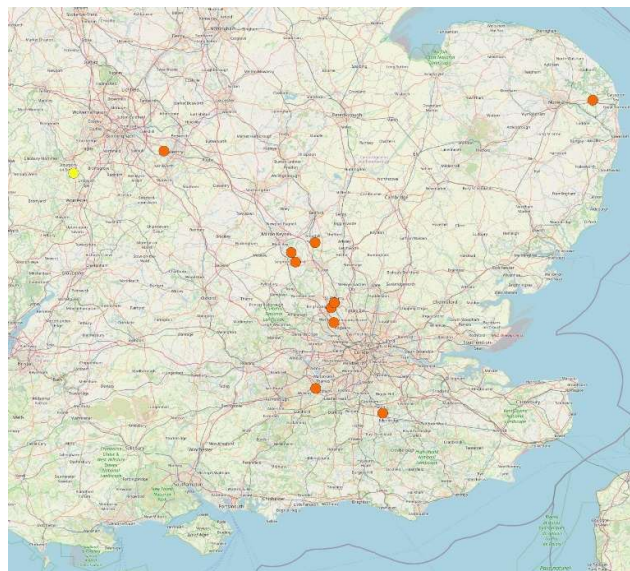
09. *Pamphilius latifrons* female fore-wing cell. Andrew Green.



10. *Pamphilius latifrons* female saw-sheath. Andrew Green.

Andrew's identification was confirmed via iNaturalist by sawfly specialist Andreas Taeger (Senckenberg Institute of Entomology). There were no Worcestershire records of *P. latifrons* on either the NBN Atlas or iRecord and Simon Wood of the Worcestershire Biological Records Centre (WBRC) confirmed (on 19.06.24) that although *P. histrio* has been recorded twice in the county by Kevin McGee (Tiddesley Wood on 28.05.08 and Mill Meadow, Drakes Broughton on 02.05.09) there were no records of *P. latifrons*.

Andy Musgrove reported that the Sawfly recording scheme held 10 records of *P. latifrons* but none in Worcestershire and commented: "Nice find, not many records of this still when I did the review two years ago, and none from Wores. Nearest was a Coventry record in 1986. All mapped here". Andy kindly provided an updated map (11) showing the new and existing records from Sawfly Recording scheme.



11. *Pamphilus latifrons* records from the Sawfly recording scheme. Andy Musgrove.

A list of useful identification resources can be found on the website of the Sawfly Recording scheme and if you require further help Andrew Green recommends uploading your photos to the British and Irish Sawflies (Symphyta) facebook group or iNaturalist where experts will be able to comment on your images.

I have always felt uncomfortable about taking specimens and my preferred method of recording is from photographs, although I appreciate that this restricts significantly the species that I am able to record. However, I do recognise that specimens are needed for species that require dissection or close examination to be reliably identified. They also have an important role to play in collections for reference and teaching purposes and I have benefitted from several training course using specimens, which have been helpful in highlighting features to look for in the field.

The difficulty of getting the correct identification of this sawfly was a prime illustration of the value of specimens and it was fortunate (for the identification, but not the sawfly!) that the specimen was collected. Although it will not change the way that I record, at least it is now part of a useful collection, and enabled Andrew to get some close-up images of the identification features.

Andrew's photos of the specimen showing the key features along with some of my images taken in the field are now available on the Sawfly Recording Scheme species webpage. There are few records of both of these attractive sawflies so they are well worth looking out for. As careful examination is required to differentiate between *P. latifrons* and *P. histrio*, the photos (and notes Andrew supplied above) should help and may reduce the need to take a specimen.

Although my photos are not of the best quality as the sawfly was very active and my skill as a photographer is somewhat limited, they have proven to be useful. We all benefit greatly from the availability of on-line resources to aid identification: I rely heavily on Mike Hackston's keys, Steven Falk's albums and the websites of various recording schemes etc. If you spot a gap in the resources for species that you have photos of, it may be worth considering sharing them with the resource providers as I'm sure other recorders would be most grateful.

It is worth remembering that even unpromising photos can be useful. To try and identify what I see, I take lots of photos from as many angles as the subject will allow and inevitably a good number of them are rather poor. I have learnt not to delete any of my photos until I have completed my identification and put in the record, as occasionally even a photo where most of the subject is out of focus may show some important identifying feature. My camera records location data with the photograph but is sometimes slow to pick up the signal. As a result, the photos at the beginning of a sequence may not have the information I need, but even if the quality of the last photo in the sequence is poor, it may hold the valuable location data.

If you are interested in coming along to join us at Bishops Wood for the volunteer recorder days, email Billie at volunteers.bw@field-studies-council.org for details of planned dates etc. We are a friendly bunch with a mix of expertise and it is a good opportunity to learn about new groups while making good use of the FSC's identification books, keys and microscopes that are available on site.

Volunteer recorder days at Bishops Wood take place once a month, sometimes with the additional benefit of being accompanied by an 'expert for the day'. The site has a good mix of habitats, ancient woodland, meadows, ponds, and garden. Please note that as the site is a Field Studies Council Centre where courses are taking place, any visits to record on their site must be booked with them in advance.

Acknowledgements

I am grateful to Andrew Green for his help and permission to use his notes and photos, and to Andreas Taeger for confirming Andrew's identification. Thanks also to Andy Musgrove for providing the map of records, Simon Wood for checking the WBRC database and Carol and John Taylor for passing the specimen on to the Sawfly Recording Scheme.

References

Sawfly Recording Scheme available at: <https://www.sawflies.org.uk/> [Accessed 07/07/24]

British and Irish Sawflies (Symphyta) facebook group, available at: <https://www.facebook.com/groups/408749309504332/> [Accessed 07.07.2024]

Mike Hackston's Insect Keys - Superfamily Pamphiloidea key to British species. Available at: <https://sites.google.com/view/mikes-insect-keys/mikes-insect-keys/keys-for-the-identification-of-british-hymenoptera-bees-and-wasps/keys-for-the-identification-of-british-sawflies-symphyta> [Accessed 07.07.2024]

Steven Falk's Pamphiliidae (leaf-rolling and web-spinning sawflies) collection. Available at:

<https://www.flickr.com/photos/63075200@N07/collections/72157690065616852/> [Accessed 07.07.2024]

A photo of a living adult *P. histrio* female can be seen here: https://en.wikipedia.org/wiki/Pamphilus_histrio [Accessed 07.07.2024]

Field Studies Council, Bishops Wood: <https://www.field-studies-council.org/locations/bishopswood/> [Accessed 07.07.24]

iRecord website. Available at: <https://irecord.org.uk/> [Accessed 07.07.2024]

iNaturalist website. Available at: <https://www.inaturalist.org/> [Accessed 07.07.24]

NBN Atlas overview of *Pamphilus latifrons* records. Available at: <https://species.nbnatlas.org/species/NHMSYS0020481764#overview> [Accessed 07.07.2024]

Images

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