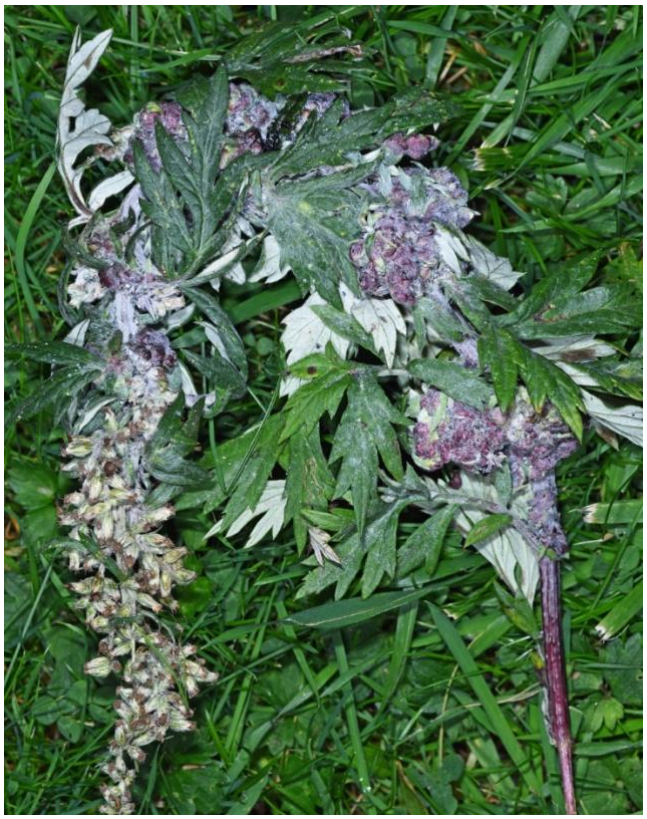
Cryptosiphum artemisiae Buckhorn, 1879. Hemiptera, Aphididae, Mugwort Gall Aphid and possible Triglyphus primus Loew, 1840. Diptera, Syrphidae.

John Bingham

Denise and I were at Blackstone Fields, Bewdley on 2nd October 2020 when we noticed numerous large galls occurring on several dozen *Artimesia vulgaris* Mugwort plants in the first field next to the main road (01). They looked quite impressive and unusual galls so out of interest one was collected to identify (02).



01. Mugwort *Cryptosiphum artemisiae* Aphid gall, showing bent over stem. John Bingham.

02. *Cryptosiphum artemisiae*. John Bingham.

Identification led to Bob Dransfield's Aphid site (Influentialpoints) on the internet where we discovered the gall was *Cryptosiphum artemisiae*, an aphid gall on Mugwort (03). We contacted Bob who was very helpful and confirmed the identification. It appears to be a rather uncommon but under-recorded gall in UK, possibly rare, but searched for by few people.

03. *Cryptosiphum artemisiae* alate. John Bingham

The aphid internet page also had reference to a hoverfly, *Triglyphus primus* that uses these galls to breed in so we opened up a gall to check and soon discovered a hoverfly larvae matching the illustration on the internet (04). Bob thinks it could well be a *Triglyphus primus* larvae which it certainly resembles, but to be sure we will have to try and breed it out hopefully to confirm for next year.

04. *Triglyphus primus* larvae from *Cryptosiphum artemisiae* gall. John Bingham.

The gall appears not to have been recorded before in Worcestershire but possibly overlooked as there are several records for Shropshire (*Cryptosiphum* NBN). There are no records for the hoverfly for Worcestershire but it has been recorded once in Shropshire at Shrewsbury (*Triglyphus* NBN).

Unfortunately, the field at Blackstone is now (September 2020) being grazed by cattle and appears to have lost most of the Mugwort plants.

Footnote, November 2021.

John Bingham

Several stems of Mugwort with large galls were overwintered in breeding cages and over a period of a fortnight from 17th May 2021 hoverflies started to emerge. None of the hoverflies were *Triglyphus primus* but were a *Pipiza* species (05).

05. *Pipiza sp.* bred from *Cryptosiphum artemisiae* galls on Mugwort. May 2021. John Bingham.

I identified these tentatively as *Pipiza noctiluca*, a species which has been reared from ground layer aphids, typically *Cavariella* aphids on Hogweed *Heracleum sphondylium* (Stubbs & Falk 2002). Unfortunately, *Pipiza* are according to Stubbs, infuriating and intractable taxonomically to name to species, so identification is at best *P. noctiluca* 'in the broad sense'. I can only conclude that *Cryptosiphum artemisiae* galls on Mugwort can contain species of *Pipiza* hoverflies and the target species *Triglyphus primus* in this case did not appear to be present.

Acknowledgements
Thanks to Bob Dransfield for help in confirming the identification of the gall.

Reference
Stubbs, A.E & Falk, S.J. (2002) *British hoverflies. An Illustrated Identification Guide.* Beitish Enromological and Natural History Society.
Influentialpoints, accessed Oct 2020. https://influentialpoints.com/Gallery/Cryptosiphum_artemisiae_mugwort_gall_aphid.htm
Triglyphus NBN, accessed Oct 2020 2020https://records.nbnatlas.org/occurrences/search?q=lsid:NBNSYS0000007090&fq=occurrence_status:present#tab_mapView
Cryptosiphum NBN, accessed Oct 2020 https://species.nbnatlas.org/species/NHMSYS0020705316

Images
01. Mugwort *Cryptosiphum artemisiae* Aphid gall, bent over stem. John Bingham.
02. *Cryptosiphum artemisiae.* John Bingham.
03. *Cryptosiphum artemisiae* alate. John Bingham
04. *Triglyphus primus* larvae from *Cryptosiphum artemisiae* gall. John Bingham.
05. *Pipiza sp.* bred from *Cryptosiphum artemisiae* galls on Mugwort. May 2021. John Bingham.