#### Searching for plant galls in south-east Worcestershire Terry Knight

In 2011 a book on plant galls by Michael Chinnery with good photographs and descriptions was published. This covered about 200 of the more common galls likely to be encountered, and was revised and updated in a second edition (Chinery 2016). In 2021 I acquired the later edition of the book which encouraged me to take an interest in the subject.

I began by looking at a few galls in the local area and trying to identify them. As my confidence grew, I decided to search for galls in the whole of the south-east part of 'Greater Worcestershire'. The survey area was bounded in the north-west by the River Avon and in the west by the north part of the River Isbourne and the west edge of OS grid square SP03 (see Figure 24). In the area there are a total of 159 whole or part monads (1km by 1km squares of the OS grid). Surveying was done on foot and a typical visit to survey a monad took about three-quarters of an hour in the peak season around October time. A notable exception to this was the search for galls caused by Aceria fraxinivora (01) on the keys of Ash Fraxinus excelsior. I looked for these from a bicycle in the first months of 2022, when the trees had bare branches and the galls were very noticeable, hanging down like cherries in the tree canopy. Identification of most of the galls necessitated being within touching distance of them, so hedges were the source of many of the records. In general, trees presented a problem as the branches were often out of reach, but a short period of opportunity occurred to examine leaves, acorns, etc. in October/November when these had fallen to the ground.



01. Aceria fraxinivora gall on Ash keys. Gary Farmer.

However, galls are still likely to be under-recorded, in particular on Alder *Alnus glutinosa*, lime *Tilia spp.*, oaks *Quercus spp.* and poplar *Populus spp.* trees. The book says that the rosettes of *Dasineura crataegi* on the shoots of hawthorn *Crataegus* hedges are particularly noticeable in September and the silhouette allows recognition even from moving vehicles. This was found to be a bit misleading as many rosettes in the autumn were very small and would be un-noticed by most people. These need to be examined closely to confirm the presence of hair/spine-like growths on the affected leaves.

Table 1, together with Figures 1 to 23 list the host species, the galls found up to November 2023 and their distribution in the survey area. Nearly all the records are of galls from tree species, the only ones from herbaceous plants being those from Meadowsweet *Filipendula ulmaria* and Creeping Thistle *Cirsium arvense* (02) which have galls that are easily seen, unlike those of most of the galls on other herbaceous species. Some of the hosts in Table 1 are given as groups and clarification of these is given in Table 2. Other plants commonly found in hedges in the villages were Beech *Fagus sylvatica*, Dogwood *Cornus sanguinea*, Hazel *Corylus avellana* and Hornbeam *Carpinus betulus*. No galls were seen on any of these, and none were noticed on Elder *Sambucus nigra* plants.



02. Urophora cardui gall on Creeping Thistle. Gary Farmer.

Figure 24 shows the number of different galls recorded in each monad, the maximum being 22 (in the square in which the recorder lives!). In a few monads no galls were found.

There is plenty of scope for adding to the list in the future, particularly for herbaceous plant galls.

#### References

Chinery, M. 2016. *Britain's Plant Galls: A photographic guide*. WILDGuides Ltd. Redfern, M, & Askew, R. R. 1992. *Plant Galls*: Naturalists Handbook 17, Richmond Publishing Co.

#### **Figures and tables**

Table 1 Summary of recordsTable 2 details of some tree speciesFigures 1 to 23. Distribution maps of gall-causing species recordsFigure 24. Number of gall-causing species recorded in each monad

## Images

- 01. Aceria fraxinivora on Ash keys. Gary Farmer.
- 02. Urophora cardui gall on Creeping Thistle. Gary Farmer.

Host	Gall-causing Species	Number of Monads	Monads (all SP****)
Alder	Acalitus brevitarsus	6	0238, 0338, 0342, 0647, 0748, 0942
	Aceria nalepai	3	0338, 0744, 0748
	Eriophyes laevis	3	0241, 0547, 0647
Ash	Aceria fraxinivora	130	See Figure 1
	Dasineura fraxini	73	See Figure 2
	Psyllopsis fraxini	92	See Figure 3
Broom	Aceria genistae	1	0543
	Aceria campestricola	86	See Figure 4
Elma	Eriosoma lanuginosum	6	0340, 0745, 0746, 0845, 0943, 1046
EIIIIS	Eriosoma ulmi	3	0339, 1146, 1246
	Tetraneura ulmi	1	0440

Table 1 (below) Summary of records

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Hawthorn	Dasineura crataegi	84	See Figure 5
	Eriophyes exilis	3	0643, 0645, 0746
Lime	Eriophyes tiliae	20	See Figure 6
	Phytoptus erinotes	1	1143
	Aceria eriobia	1	1236
N 1	Aceria macrochela	80	See Figure 7
Maple	Aceria myriadeum	78	See Figure 8
	Dasineura tympani	1	0845
	Dasineura pustulans	1	1445
Meadowsweet	Dasineura ulmaria	4	0843, 0943, 1043, 1445
	Andricus aries	2	1045, 1046
	Andricus curvator	12	See Figure 9
	Andricus foecundatrix	9	0643, 0743, 0839, 0849, 1046, 1141, 1245, 1348, 1546
	Andricus grossulariae	1	0846
	Andricus kolari	11	See Figure 10
	Andricus legitimus	1	0544
	Andricus quercuscalicis	67	See Figure 11
	Andricus quercusradicis	2	0644, 0948
	Andricus solitarius	1	1245
Oaks	Cynips longiventris	1	0849
	Cynips quercusfolii	1	0849
	Heliozela seriella	1	0844
	Macrodiplosis pustularis	1	0544
	Neuroterus albipes	9	0340, 0341,0541, 0544, 0844, 0846, 1141, 1142, 1149
	Neuroterus anthracinus	11	See Figure 12
	Neuroterus numismalis	13	See Figure 13
	Neuroterus quercusbaccarum	41	See Figure 14
	Neuroterus tricolor	1	0846
	Synergus clandestinus	1	0846
Plum and hybrids	Eriophyes similis	60	See Figure 15
	Harmandiola globuli	1	0647
Poplars	Pemphigus bursarius	3	0942, 0943, 0946
	Pemphigus spyrothecae	3	See Figure 5   1143   1236   See Figure 7   See Figure 8   0845   1445   0843, 0943, 1043, 1445   1045, 1046   See Figure 9   0643, 0743, 0839, 0849, 1046, 1141, 1245, 1348, 1546   0846   See Figure 10   0544   See Figure 11   0644, 0948   1245   0849   0849   0844   0544   See Figure 11   0644, 0948   1245   0849   0849   0844   0544   See Figure 12   See Figure 13   See Figure 14   0846   0846   0647   0942, 0943, 0946   0647, 0942, 0943   0746, 0846, 0847, 0938, 0939, 0946, 0948, 1141   See Figure 15   0647   0942, 0943, 0946   0647, 0942, 0943   0746, 0846, 0847, 0938, 0939, 0946, 0948, 1141
Rose	Diplolepis nervosa	8	0746, 0846, 0847, 0938, 0939, 0946, 0948, 1141
Rose	Diplolepis rosae	21	See Figure 16
	Aculus laevis	2	0746, 0939
	Dasineura aurita	1	0846
Sallow	Eupontania pedunculi	1	0846
	Iteomyia capreae	1	0837
	Iteomyia major	3	0645, 0746, 1236
Sucomore	Aceria cephaloneus	14	See Figure 17
Sycamore	Aceria macrorhyncha	3	0342, 1046, 1142
Thistle	Urophora cardui	18	See Figure 18
Walnut	Aceria erinea	28	See Figure 19
	Aculus tetanothrix	10	See Figure 20
117'11	Eriophyes triradiatus?	14	See Figure 21
Willows	Pontania proxima	66	See Figure 22
	Rabdophaga rosaria	27	See Figure 23

Table 1. Summary of records

Elms Ulmus spp.	All records were from small-leaved elms in hedges apart from three of the gall caused by <i>Eriosoma ulmi</i> on Wych Elm <i>U. glabra</i> .
Hawthorn Crataegus spp.	No records were from Midland Hawthorn C. laevigata or its hybrid C. x media.
Lime Tilia spp.	All records were from Common Lime <i>Tilia</i> × <i>europaea</i> .
Maple Acer spp.	All records were from Field Maple A. campestre.
Oaks Quercus spp.	One record was of the gall caused by <i>Andricus grossulariae</i> on Turkey Oak $Q$ . <i>cerris</i> , all others were from Pedunculate Oak $Q$ . <i>robur</i> or its hybrid with Sessile Oak $Q$ . <i>petraea</i> = $Q$ . <i>x rosacea</i> .
Plum and hybrids <i>Prunus spp</i> .	One record was from an orchard tree and all the rest were from plants in hedges. These include wild plum, Blackthorn <i>P. spinosa</i> and a range of hybrids, the separation of which is difficult. Unexpectedly, no galls were found on plants that could be positively identified as Blackthorn.
Poplars Populus spp.	Records of the gall caused by <i>Pemphigus spyrothecae</i> were from Black Poplar <i>Populus nigra</i> , the other records were from cultivars.
Roses Rosa spp.	Field Rose Rosa arvensis is rare in the area, all records were from plants loosely described as 'dog rose'.
Willows Salix spp.	Records were from Crack Willow S. fragilis, White Willow S. alba or their hybrids.

Table 2. Details of some tree species

## Worcestershire Record | Number 52 (November 2023) | Worcestershire Recorders



Figures 1 to 23. Distribution maps of gall-causing species records (cont. below)

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Figures 1 to 23. Distribution maps of gall-causing species records (continuation from above)

0									1*	1*	1*	1*					
9								6*	14	9*	13*	12*	1*	*			
8	SP	04					5*	14	13	13	3		10	9	8*		
7						5*	16*	10	13	10	6	7	8	8	8*		
6					*	14	14	22	20	14	18	9	11	12	7	6*	*
5					1*	9	15	11	13	5	14	6	14	8	6	5*	
4					4*	15	12	10	17	10	11	4	6		*		
3				11*	5*	14	14	13	14	14	8	11	1	1*			
2			3*	11	10	13	10	11	9	12	8	6	5*				
1			9*	10	6	11	9	7	10	7*	*	14*					
0			5*	13	9	4	8	6	1	9*							
9	1	1	5	10	9	10	9	5	6	8							
8	5	7	8	5	4	3	3	9	8	6	12	2*					
7	4	1*	1*	*	6	4*	*	1	11	11	6	5	*				
6	1*				*			*		10	7	7	3*				
5										8	5	5	1*				
4	SP	03								*	4*	2					
3													*	*			
	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6

Figure 24. Number of gall-causing species recorded in each monad surveyed in south-east Worcestershire

\* = monads with less than two-thirds of a square kilometre in recording area

total number of monads = 159