## Results from the last five years

Events	Species	1999	2000	2001	2002	2003
winter arrivals	fieldfare	24-Oct	4-Nov	3-Nov	1-Nov	26-Oct
	redwing	22-Oct	6-Nov	7-Nov	5-Nov	30-Oc
summer departures	swift	19-Aug	26-Aug	26-Aug	20-Aug	20-Au
	swallow	29-Sept	28-Sept	24-Sept	23-Sept	21-Sep
first tint	haaah	26 Sont	20 Sont	29 Sont	26 Sont	20 5 0
	beech	26-Sept	•	28-Sept	26-Sept	20-Sep
	horse chestnut	14-Sept	21-Sept	21-Sept	18-Sept	10-Sep
	maple	1-Oct	6-Oct	1-Oct	29-Sept	20-Sep
	oak	4-Oct	8-Oct	6-Oct	3-Oct	29-Sep
	rowan	20-Sept	24-Sept	28-Sept	21-Sept	13-Sep
	sycamore	27-Sept	2-Oct	28-Sept	27-Sept	20-Sep
full tint	beech	24-Oct	25-Oct	4-Nov	25-Oct	21-Oc
	horse	10-Oct	16-Oct	20-Oct	16-Oct	12-Oc
	chestnut		10-000	20-000	10-001	12-00
	maple	24-Oct	25-Oct	2-Nov	22-Oct	16-Oc
	oak	31-Oct	2-Nov	11-Nov	30-Oct	29-Oct
	rowan	15-Oct	18-Oct	24-Oct	14-Oct	11-Oc
	sycamore	24-Oct	22-Oct	29-Oct	19-Oct	17-Oc
leaf fall	ash	23-Oct	28-Oct	29-Oct	24-Oct	18-Oc
	beech	26-Oct	28-Oct	4-Nov	26-Oct	23-Oc
	horse chestnut	18-Oct	24-Oct	26-Oct	22-Oct	17-Oc
	maple	25-Oct	2-Nov	7-Nov	27-Oct	22-Oc
	oak	30-Oct	5-Nov	11-Nov	3-Nov	29-Oc
	rowan	15-Oct	20-Oct	27-Oct	17-Oct	15-Oc
	sycamore	23-Oct	26-Oct	29-Oct	20-Oct	16-Oc
bare	ash	9-Nov	10-Nov	19-Nov	8-Nov	6-Nov
	beech	18-Nov	17-Nov	29-Nov	16-Nov	15-No
	horse chestnut	12-Nov	14-Nov	22-Nov	10-Nov	10-No
	maple	18-Nov	19-Nov	29-Nov	14-Nov	12-De
	oak	24-Nov	25-Nov	5-Dec	26-Nov	23-Nov 21-Nov
	rowan	4-Nov	6-Nov	17-Nov	2-Nov	4-Nov

The following is a summary of the results from the last five years. (Average dates for the UK).

	sycamore	14-Nov	15-Nov	25-Nov	10-Nov	11-Nov
fruit ripe	elder	7-Sept	10-Sept	8-Sept	5-Sept	28-Aug
	horse chestnut	27-Sept	27-Sept	26-Sept	23-Sept	19-Sept
	oak	1-Oct	5-Oct	29-Sep	25-Sep	20-Sept
	rowan	6-Sept	5-Sept	1-Sept	26-Aug	24-Aug
	holly	15-Oct	12-Oct	15-Oct	12-Oct	5-Oct
	blackberry		30-Aug	27-Aug	25-Aug	14-Aug
flowering	ivy	28-Sept	29-Sept	1-Oct	27-Sept	24-Sept
presence	flyagaric	28-Sept	1-Oct	30-Sept	4-Oct	6-Oct
last cut	lawn	28-Oct	21-Oct	5-Nov	24-Oct	21-Oct
temperature	August	16.2	16.6	16.8	17.0	
	September	15.5	14.7	13.4	14.4	
	October	10.7	10.6	13.3	10.1	
		<sup>1</sup> Pedunculate and Sessile <sup>2</sup> Pedunculate <sup>3</sup> Sessile				

## Analysis of autumn 2003

The most recorded event in autumn 2003 was once again the blackberry with 1728 records. The first record being made in time for Wimbledon in late June, in London!

The dominant feature of late summer and early autumn in 2003, was lack of rainfall. This produced some interesting records, with first tint on trees occurring on average 8 days earlier than in 2002. Indeed records for first leaf-tint dates were being received as early as late July, particularly for more shallow rooted species such as silver birch Betula pendula.

We have not yet been able to establish a benchmark autumn year. However, 2002 records were early, relative to the very late autumn of 2001, so for 2003 events to be earlier still was most interesting.

We felt confident that lack of rainfall was the causal factor in early leaf tinting and leaf fall in 2003, but it is always worth examining the data to establish facts. Phenological theory in the autumn suggests that mild autumns delay autumn events, so with warmer temperatures, first tints on leaves for example would be seen later (Figure 1). In 2003, mean August-October temperature (CET) was actually 0.6°C above the 30-year average and almost identical to 2002.

We would therefore expect to see events occurring at approximately the same time as 2002. The fact that we saw events occurring earlier than in 2002 meant that it was likely that some other climatic factor was involved. Figure 2 demonstrates the relationship of first

leaf tint date with rainfall. The higher the rainfall, the later first-tint day occurs and conversely the lower the rainfall, the earlier leaf tint occurs. Rainfall appears to have more impact on leaf colour than on leaf fall. October was 1°C cooler in 2003, it was also drier than 2002. This helps to explain the fact that full tint was on average 3 days earlier than in 2002.

Species/event	England	Wales	Scotland	N. Ireland
Horse Chestnut First tint	11-Sept	9-Sept	10-Sept	5-Sept
HC full tint	12-Oct	10-Oct	9-Oct	5-Nov
HC fruit ripe	19-Sept	16-Sept	20-Sept	25-Sept

HC leaf fall	17-Oct	16-Oct	11-Oct	16-Oct
HC bare	10-Nov	9-Nov	7-Nov	6-Nov
Blackberry ripe	13-Aug	12-Aug	26-Aug	25-Aug
Swallow last seen	20-Sept	24-Sept	22-Sept	24-Sept
Lawn last cut	21-Oct	20-Nov	12-Oct	2-Nov