

PN BUTTERFLY TRANSECT 2017

Weather conditions were suitable for butterflies in 22 of the 26 weeks available from 1 April to 30 September, with frequent periods of cool rainy weather through the late summer. Transect walkers were Virginia Deradour, Paul Heath, J Horwood, Howard Judge, Chris Lee, George Lewis, Tony Marshall, John Obee, David Page, Phillip Pratt, Sue Reynders, Kieran Sweeney, and MJ Webster.

Overall numbers

The total of individuals seen flying was 2004, slightly above average, and a marked improvement on last year. The number of different species was also slightly above average. **Brown argus** was low last year and did not recover - we did not see one this year; nor did we see any fritillaries. But other uncommon butterflies were still around - **small copper**, **small heath**, **dingy skipper** and **green hairstreak**. We even added a new species to the Transect - a **purple hairstreak** seen late in September when there were few other butterflies flying. It flew up from low vegetation in Meadsgarden Field into the top of an oak at the edge of Meadsgarden Wood (a new site for this species). 2017 was a good year for this butterfly nationally.

Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Individuals	3191	730	1327	2020	2263	1679	1008	2353	2812	2858	1426	2004
Species	25	21	22	24	24	27	20	23	25	22	22	24

Numbers seen on any one walk varied from 9 (5 May) to 381 (1 July), but with only six weeks yielding over 100 (mid-June to early August), the main season was very truncated. Perfect conditions - high temperature, 100% sunshine, and low wind - never seemed to occur together.

Differences between sections of the transect

As usual Meadsgarden Field north of the Picnic Site had by far the highest total of individuals (779, 62% up on last year) and also the highest total per 100m (to allow for the different lengths of transect sections). The Picnic Site was used by more species than any other section (21 out of the total 24 seen altogether), although Meadsgarden Field came close with 18. The next highest species total was 14, at Stonygreen Bank (recovering chalk grassland like Meadsgarden) and Well Field (across the road from the Picnic Site). Stonygreen Bank is only a short section and it actually had the second highest total of individuals per 100m (more than the Picnic Site) and the second highest total of species per 100m (exceeded neither by Meadsgarden nor the Picnic Site, but a short section of old hedgerow and rough grassland on top of Denner Hill). Well Field is a long section and actually has low numbers of individuals and species per 100m - its numbers are also boosted by its vicinity to the Picnic Site and Meadsgarden Field. The poorest sections, as always, were the roads and woods, which also had low species numbers.

Species accounts

As always, the most numerous species was **Meadow Brown** with 1018, our fourth best year for it. It dominated the totals through June and August, getting off to a slightly earlier start than usual because of the high temperatures in June. It accounted for just over half of all sightings.

Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Meadow brown % of total	54.5 %	39.6%	50.1%	37.9%	30.9%	33.9 %	57.6 %	34.3 %	39.1 %	44.7 %	33.1 %	50.8 %
Numbers of meadow brown	1,739	289	665	766	700	570	581	808	1,099	1,277	472	1,018
Numbers of other species	1,452	441	662	1,254	1,563	1,109	427	1,545	1,713	1,581	954	986

Most species numbers were below their long term averages, even though the overall total and the number of species seen were both very slightly above average. Most of the "browns" were slightly above average (**Meadow** and **Hedge Browns**, **Speckled Wood**, **Marbled White**) - but neither **Ringlet** nor **Small Heath**. **Red Admiral** had a decent year with substantial immigration in July and a surge in September which may have been a native brood from the July newcomers. **Small Copper** and **Orange-tip** also had slightly higher than average numbers. We are lucky to see any hairstreaks on the transect, but we did see two this year, one **Green Hairstreak** and one **Purple** (as mentioned above).

The number of **Small** and **Essex Skippers** continues to plummet, although we did encounter 3 **Large Skippers**, which would normally be seen as poor but was at least better than last year's *nil points*. **Brimstone** failed to repeat the good results of the last few years, while the **Whites** have not had a good year since 2013. **Common Blue** recovered somewhat from two poor preceding years, but is still not near its average showing, while the **Holly Blue** looks like it may be in trouble. **Peacock**, **Small Tortoiseshell**, **Painted Lady** and **Comma** all did better than 2016 but are still not thriving.

Altogether, despite the slightly higher than usual overall numbers, most species are really not doing very well, this being disguised by the dominance of the **Meadow Brown** and its close relatives, which hanging on pretty well.

Butterfly of the Year

Each year we celebrate a butterfly that has done exceptionally well in the past year, with its best showing so far. In 2017 no species achieved exceptionally high totals, so I shall nominate for 2017 the species that was seen for the first time (even though we shall be lucky to see it again), **Purple Hairstreak**.



Butterfly of the Year

Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	AVE
Small/Essex skipper	86*	7	19	19	17	27	4	66*	80*	77*	31	9	40
Large skipper	3	6	13*	8	30*	11*	0	3	11*	4	0	3	8
Dingy skipper	5*	0	3	2	10*	4	1	3	10*	4	2	3	4
Grizzled skipper	0	0	0	0	0	1?*	0	0	0	0	0	0	0
Clouded yellow	0	0	0	0	0	0	0	1*	0	0	1*	0	0
Brimstone	20	29	15	36	55*	45*	20	11	90*	83*	52*	33	40
Large white	292*	50	131	191*	135	177*	41	325*	60	122	133	81	144
Small/Green-veined white	222*	47	62	175*	231*	318*	34	312*	99	54	97	37	141
Orange-tip	19	12	9	23	46*	68*	14	24	56*	15	23	39*	29
Green hairstreak	0	0	0	0	0	1*	0	1*	1*	0	1*	1*	0
Purple hairstreak	0	0	0	0	0	0	0	0	0	0	0	1*	0
White-letter hairstreak	0	0	0	0	0	0	0	0	0	0	0	0	0
Brown hairstreak	0	0	0	0	0	2*	0	0	1*	0	0	0	0
Small copper	11*	3	7	11*	29*	14*	3	14*	6	3	0	16*	10
Brown argus	1	0	0	2*	0	2*	0	2*	1	0	0	0	1
Common blue	97	12	47	105	401*	96	20	92	298*	66	29	90	112
Holly blue	9*	10*	8*	1	18*	6	2	0	2	9*	5	5	6
Duke of burgundy	3*	0	0	0	2*	3*	0	0	0	0	0	0	1
Red admiral	30*	23*	8	5	7	19*	12*	0	12*	2	6	15*	11
Painted lady	16*	0	0	12*	0	0	0	1	0	9*	2	4	4
Small tortoiseshell	14	5	4	15	8	18	0	22	83*	63*	10	19	22
Peacock	30	81*	45	76*	70*	12	19	27	90*	47*	6	30	45
Comma	24*	8	11	34*	20*	30*	1	7	10	7	4	12	14
Dark green fritillary	0	0	0	0	1?*	3?*	0	0	0	0	0	0	0
Silver-washed fritillary	0	0	0	0	0	0	0	0	1*	0	0	0	0
Speckled wood	62	22	57	115*	54	79*	39	21	67*	70*	92*	73*	63
Marbled white	119	29	28	44	36	20	19	81	193*	507*	161*	184*	119
Hedge brown/gatekeeper	269*	29	121	120	175*	66	94	165*	168*	180*	97	160*	137
Meadow brown	1739*	289	665	766	700	570	581	804	1099*	1277*	472	1018*	832
Ringlet	97	64	64	224*	215*	77	92	361*	362*	242*	195*	163	179
Small heath	23*	4	5	36*	3	10	7	10	11	17*	7	8	12
TOTAL	3191*	730	1327	2020*	2263*	1679	1008	2353*	2812*	2858*	1426	2004*	1973
TOTAL NO. SPECIES	25*	21	22	24*	24*	26*	18	22	25*	22	22	24*	23
Above average species*	14	3	2	10	14	15	0	9	16	11	6	9	

Bold = best year yet for that species