

Butterfly monitoring on Hampstead Heath 2024 Update



In Brief

- Heath Hands surveyed two butterfly transects in 2023, following standard 'Pollard Walk' survey methods, as set out by the national UK Butterfly Monitoring Survey (UKBMS) guidelines.
- During a 26-week period between 1 April and 29 September 2023, two members of staff and 13 volunteers conducted 41 field visits, contributing over 150 volunteer hours.
- A total of 1,441 butterflies were recorded.
- 21 different species were recorded on the transects, with a further 3 species spotted 'off transect', bringing the total number of different species seen on the Heath this year to 24. This report does not include any information from the CoLC Conservation Team led butterfly transect.

Background

The UK's butterfly (*Lepidoptera*) populations have declined by 80% since the 1970s (State of UK's Butterflies 2022 report). As important indicators of the health of our ecosystems, it is useful to monitor how they are faring on Hampstead Heath to help inform habitat management practices and maintain and improve the Heath's rich mosaic of habitats for the benefit of the biodiversity they support.

- There are three UKBMS-registered 'live' transects on Hampstead Heath, the first having been monitored by Hampstead Heath Rangers since 1977 (Fig.A, no.1).
- Heath Hands carried out a pilot transect centred around the Highgate Ponds Chain and newly planted wildflower meadows in 2019. Note: The pandemic prevented this transect from being walked in 2020.
- In 2021, the pilot transect was modified and registered with UKBMS as the 'Ponds' transect (Fig.A, no.2) This was surveyed in 2021, 2022 and 2023.
- In 2022, a dormant transect route on the Kenwood Estate was revised and walked as a pilot study. This transect was named 'Kenwood 2023' (Fig.A, no.3) and registered with UKMBS in 2023.



Staff and volunteers monitoring butterflies on the Kenwood Estate

Methodology

Monitoring takes place weekly between 1 April and 30 September. As per UKBMS guidelines, set transects (Fig. A) are walked between 10.45am and 3.45pm when weather conditions are suitable for butterfly activity. To ensure counts are standardised as much as possible, monitors must ensure:

- The transect is not walked when the temperature is below 13°C.
- When it's 13-17°C, the transect may be walked providing there is at least 60% full sun.
- Above 17°C, the transect may be walked in any conditions, providing it is not raining.
- When wind speeds are above 5 on the Beaufort scale, transects should not be walked.
- walking at a leisurely pace to avoid recording duplication; monitors record species in a fixed 5m wide band



Fig. A. UKBMS butterfly transects on Hampstead Heath and Kenwood Estate

Results

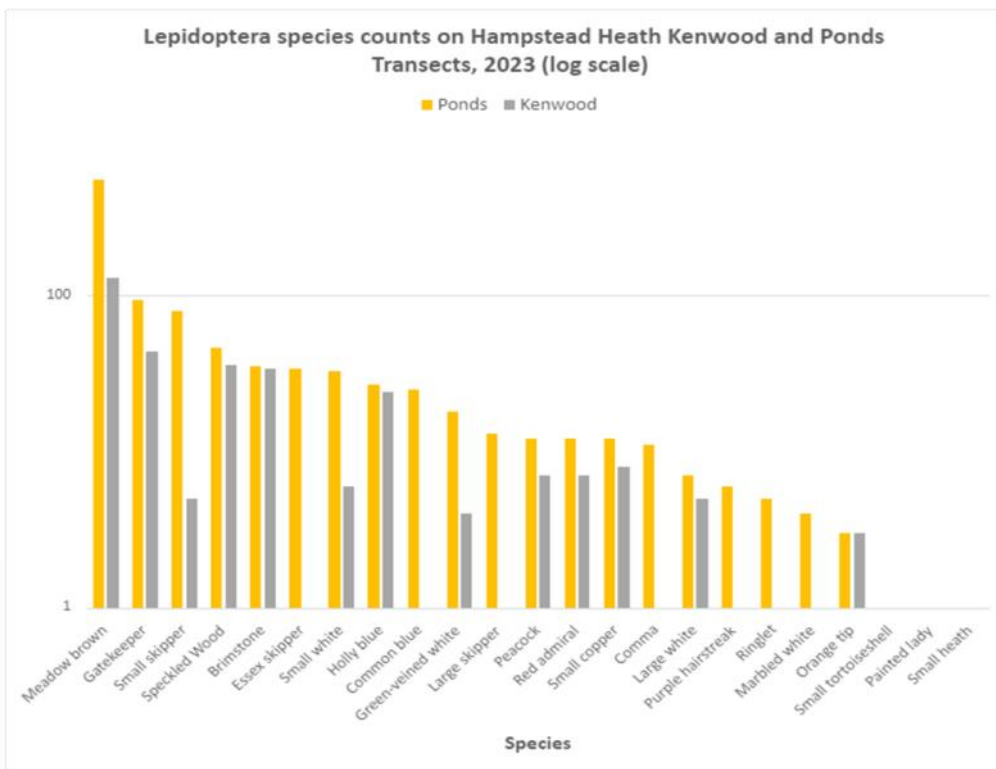
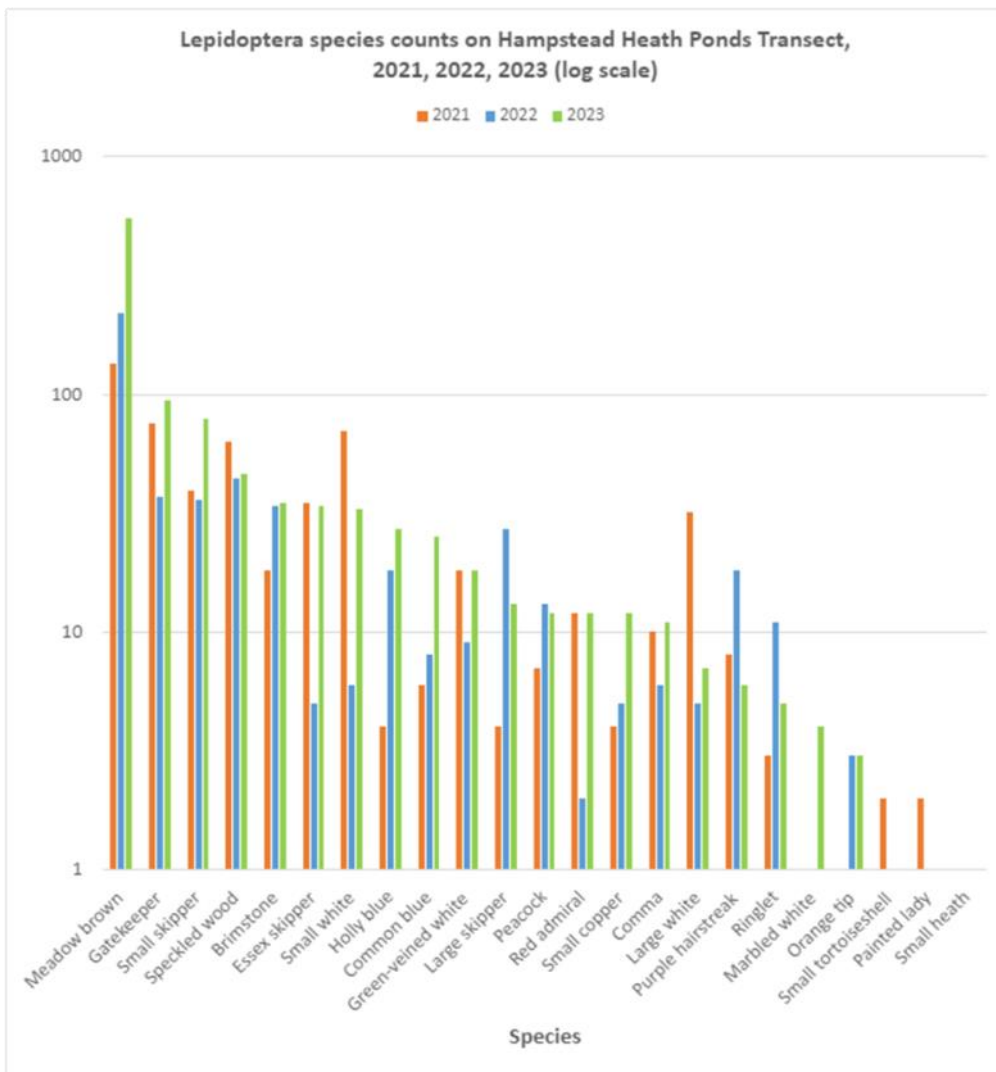
Species	Ponds transect		
	2021	2022	2023
Meadow brown	134	218	547
Gatekeeper	75	37	94
Small skipper	39	36	79
Speckled wood	63	44	46
Brimstone	18	34	35
Essex skipper	35	5	34
Small white	70	6	33
Holly blue	4	18	27
Common blue	6	8	25
Green-veined white	18	9	18
Large skipper	4	27	13
Peacock	7	13	12
Red admiral	12	2	12
Small copper	4	5	12
Comma	10	6	11
Large white	32	5	7
Purple hairstreak	8	18	6
Ringlet	3	11	5
Marbled white	0	1	4
Orange tip	0	3	3
Small tortoiseshell	2	0	1
Painted lady	2	1	0
Small heath	0	0	0
Total identifiable	372	512	1022
No. species	20	21	21
Transects walked	16	19	20

Species	Transect count 2023		
	Ponds	Kenwood	Total
Meadow brown	547	130	677
Gatekeeper	94	44	138
Small skipper	79	5	84
Speckled Wood	46	36	82
Brimstone	35	34	69
Essex skipper	34	0	34
Small white	33	6	39
Holly blue	27	24	51
Common blue	25	1	26
Green-veined white	18	4	22
Large skipper	13	1	14
Peacock	12	7	19
Red admiral	12	7	19
Small copper	12	8	20
Comma	11	1	12
Large white	7	5	12
Purple hairstreak	6	1	7
Ringlet	5	0	5
Marbled white	4	1	5
Orange tip	3	3	6
Small tortoiseshell	1	0	1
Painted lady	0	0	0
Small heath	0	0	0
Total identifiable	1022	319	1341
Total unidentified	73	27	100
Grand total	1095	346	1441
No. species	21	18	
Transects walked	20	21	

	Ponds transect	Kenwood transect	Overall
Number of butterflies	1095	346	1441
Numbers of transect visits	20	21	41
Sighting rate	54.7	16.5	35.1



Meadow brown: the most abundant species on Hampstead Heath



Key Findings

- more than a thousand butterflies were recorded on the 'Ponds' and 'Kenwood' transects; two-thirds of which were recorded on the Ponds transect (T) (although 'Kenwood' was walked an extra time).
- three more species were recorded on Ponds (21) than Kenwood (18)
- the most abundant species on both the Kenwood (130) and Ponds (547) transects was again Meadow Brown.
- of the skipper species, Kenwood had a total of just 6 individuals (5 small skipper; 1 large; 0 Essex), while there was a clear abundance of skippers on the Ponds, in line with records elsewhere in Herts & Middlesex regions. This is likely representative of the varied habitats of each transect.
- a small and steady increase in the number of Small Copper recorded over the past three years, which is encouraging since this species is of local concern.
- Monitors were also delighted to spot 4 marbled whites this year. This is a species whose range has been increasing north towards London, and is also a species of concern.
- Small Heath butterflies were not recorded in 2023. However, there was one 'incidental' sighting reported. Two Small Heath were recorded on the Ponds T during the 2019 pilot study.
- it would be beneficial to provide targeted training to volunteers to improve identification of 'brown' species, as well as other difficult-to-identify groups, such as skippers and 'whites'.
- other incidental sightings include: Painted Lady, Purple Emperor and White-Letter Hairstreak, bringing the total number of species spotted on the Heath in 2023 to 24. Incidental sightings of day-flying moth species include Silver-Y, Hummingbird Hawk moth, Burnet Companion and a proliferation of Jersey Tigers.



Small copper: Doing relatively well on the Heath



Large skipper: Species of skipper are notoriously difficult to identify



Marbled white: Range is moving north towards the Heath

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