



DHP Annual Monitoring Report 2023

Chris Panter, Zoe Caals & Emily Rush

DHP MONITORING: 2023

FOOTPRINT ECOLOGY, FOREST OFFICE, BERE
ROAD, WAREHAM, DORSET BH20 7PA
WWW.FOOTPRINT-ECOLOGY.CO.UK
01929 552444



FOOTPRINT
ECOLOGY

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Summary

This report has been commissioned by the Dorset Heaths Partnership as part of their annual monitoring of heathland sites with regard to Dorset and BCP's Strategic Access and Mitigation Monitoring strategy. This report is the third in a series of five annual reports and is the second report to be produced following a calendar year structure rather than over a financial year.

Headline figures and trends for this report, summarising 2023 data are presented below. In addition, this report compares to historic data to understand any trends witnessed in the previous three- or five-year period.

Bird data



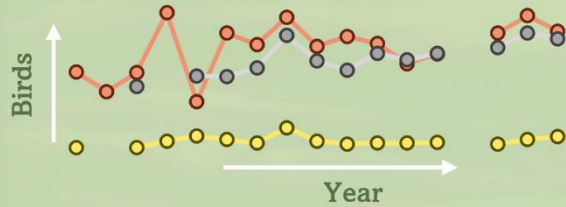
Woodlark: 62 pairs
↑ 32% on 3 yr avg (20 sites)



Dartford Warbler: 563 pairs
0% ↑↓ on 3 yr avg (31 sites)



Nightjar: 494 territories
↑ 11% on 3 yr avg (28 sites)



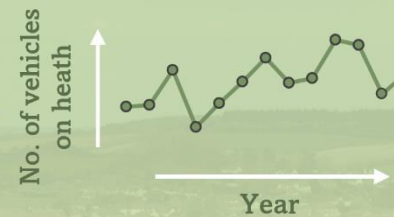
SANG/HIP Sites

4 New SANG; 27 ha. 7% increase in area.
Total SANGs: 34 sites - 392 ha.
5 new HIPs. *Total HIP:*
26 sites, 184 ha.



Vehicle Counts

Avg. 916 vehicles per transect ↓ 14% on last 3 yr avg. *At heaths reduction was less (↓ 7%).*
However, 3 counts were not completed.



Incidents & Fires

140 fires in total. 9.5 ha burnt ("typical" is 39 ha)
Lowest total area in 9 years.
Only 2 >1 ha.



People Counters

50 counters – overall ↓ 8%, but ↑ 7% on heaths.
However, 5 yr avg on heaths ↓ 5%



Pattern of use peaked in spring at SANGs and in summer at visitor attractions.

Wardening

2nd year of recording – 1,664 hrs logged, with 1,627 interactions.
69% interactions people with dogs.
52% chats started due to no specific issues and 31% due to dogs off lead.
67% discussed wildlife. 5% were negative.



Engagement

Education – double level of engagement from 2020/21/22. 221 events with 10,890 people. *Six new schools engaged with.*
Social media – rebranding of Twitter. Insights data has changed, making comparisons hard. Reach of 0.25 million, down on previous years.
Heath week 2023 – nationwide, but no external takeovers. Social media reach 17,000 and 943 face to face engagements, but some cancelled due to weather.



Dorset Dogs

Total of 489 hrs, with 3,197 people engaged face-to-face – *6.5 people per hr.*
Post covid attendance at large scale events was up, with 12 events - *748 people engaged with at these events.*
163 hrs of K9 Firewise.



Table 1: SSSI summary table for percentage change in key datasets in 2023 compared to the previous 5 years. Sizes are sorted alphabetically within 3 size classes (>100 ha, 100-30 ha, >30 ha). White diamonds indicate a change of less than 10%, small arrows a change of 10% to 50% and large arrows of more than 50%. Blanks indicate where there is no recording and therefore no change (in the case of fires, no previous fires).

SSSI	Size	Birds	Fires	Vehicles	Sensors
Arne	●	◇	▼	▼	▼
Canford Heath	●	▼	▼	▼	⊗
Corfe & Barrow Hills	●	◇	▼	◇	⊗
Cranborne Common	●	⊗	⊗	⊗	⊗
Hartland Moor	●	▲	▼	▲	⊗
Holt and West Moors Heaths	●	▼	▲	◇	◇
Holton and Sandford Heaths	●	▼	▼	◇	⊗
Morden Bog and Hyde Heath	●	▲	▼	▼	⊗
Parley Common	●	▲	▼	▼	⊗
Poole Harbour: Brownsea	●	⊗	◇	⊗	◇
Povington and Grange Heaths	●	◇	▼	▼	⊗
Rempstone Heaths	●	⊗	⊗	⊗	⊗
St Leonards and St Ives Heaths	●	▲	▼	▼	⊗
Stoborough & Creech Heaths	●	▼	▼	▼	▲
Stokeford Heaths	●	◇	◇	⊗	⊗
Studland & Godlingston Heaths	●	▼	▼	▼	▼
Town Common	●	◇	▼	◇	▼
Turners Puddle Heath	●	◇	◇	▲	⊗
Upton Heath	●	◇	▼	▲	⊗
Winfrith Heath	●	▲	▼	▼	◇
Black Hill Heath	●	⊗	◇	⊗	⊗
Blue Pool and Norden Heaths	●	◇	◇	⊗	◇
Bourne Valley	●	▲	▲	◇	⊗
Brenscombe Heath	●	⊗	⊗	⊗	⊗
Christchurch Harbour	●	◇	◇	▼	◇
Corfe Common	●	⊗	⊗	⊗	⊗
Ferndown Common	●	▲	▼	▲	⊗
Ham Common	●	◇	▼	▼	◇
Hurn Common	●	◇	⊗	⊗	⊗
Lions Hill	●	◇	▼	▼	▼
Slop Bog and Uddens Heath	●	◇	◇	▲	⊗
Turbary and Kinson Commons	●	▲	▼	◇	⊗
Warmwell Heath	●	⊗	⊗	▼	⊗
Corfe Mullen Pastures	●	⊗	⊗	⊗	⊗
Ebblake Bog	●	⊗	⊗	⊗	⊗
Horton Common	●	⊗	⊗	⊗	⊗
Oakers Bog	●	⊗	⊗	▼	⊗
Poole Harbour: Lytchett Fields	●	◇	▼	▼	◇
The Moors	●	⊗	⊗	⊗	⊗
Thrasher's Heath	●	⊗	⊗	⊗	⊗
Verwood Heaths	●	◇	▲	▼	⊗
Wareham Meadows	●	⊗	⊗	⊗	⊗
Worgret Heath	●	⊗	⊗	⊗	⊗

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Acknowledgements

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Most of the work collecting the data is down to Chloe Lewis, Sophie Clegg and Amy Gallagher (Purbeck and West Dorset Warden), but also wider DHP staff and individual local authority wardens, and our thanks go to all for the data collection.

SANG maps were provided by Katie Azulay, Natalie Phillipson (BCP Council) and Jade North (Dorset Council). Bird data are collected by the RSPB for DHP and their own monitoring, and our thanks to Chris Dieck for supplying the bird data to us. Thanks also to Jon Corkill (Dorset Environmental Records Centre) for supplying the incident data.

1. Introduction

- 1.1 This report is produced for the Dorset Heaths Partnership (DHP, formerly the Urban Heaths Partnership) and is the third in a series of annual reports for the next 5 years. Previous annual monitoring reports have been conducted by Footprint Ecology and reported on a financial year basis (e.g. 1st April 2019 to 31st March 2020). They were becoming increasingly lengthy documents, and monitoring did not cover some important monitoring aspects. Following a large scale review of the DHP mitigation (Panter et al., 2022), this reporting has now evolved to cover a calendar year, produce reports as quickly as possible so that data can be used in the coming season, and changed to cover data such as warden time, housing change and SANG/HIP data, that was previously omitted. This is only the second calendar year report to be produced.

The Dorset heaths

- 1.2 Dorset holds some 7,500 ha of heathland (see Rose et al., 2000), and much of this is recognised as being of European importance (see Map 1). The designated sites are the Dorset Heathlands Special Protection Area (SPA), the Dorset Heaths Special Area of Conservation (SAC) and the Dorset Heaths (Purbeck & Wareham) and Studland Dunes SAC. The designations at the international and national levels reflect the conservation importance of the sites, which hold internationally important bird species (breeding Nightjar, Woodlark and Dartford Warbler), all six native reptiles, various rare plants and notable rare and regionally distinct invertebrates.
- 1.3 The Dorset heaths are fragmented (Webb, 1989, 1990) and many fragments lie within the increasingly urban landscape adjacent to the conurbations of Poole and Bournemouth. Within the local councils of Dorset and BCP there is continual, increasing pressure for more growth and new housing. Increased development can have a range of impacts on heathland and these are well documented (for reviews see Haskins 2000; Underhill-Day 2005; Liley et al. 2006). Such impacts include numbers of pet cats and increased predation of wildlife, increased fire risk, disturbance impacts, eutrophication from dog fouling, anti-social behaviour, contamination, fly tipping, and the introduction of alien plants and animals.

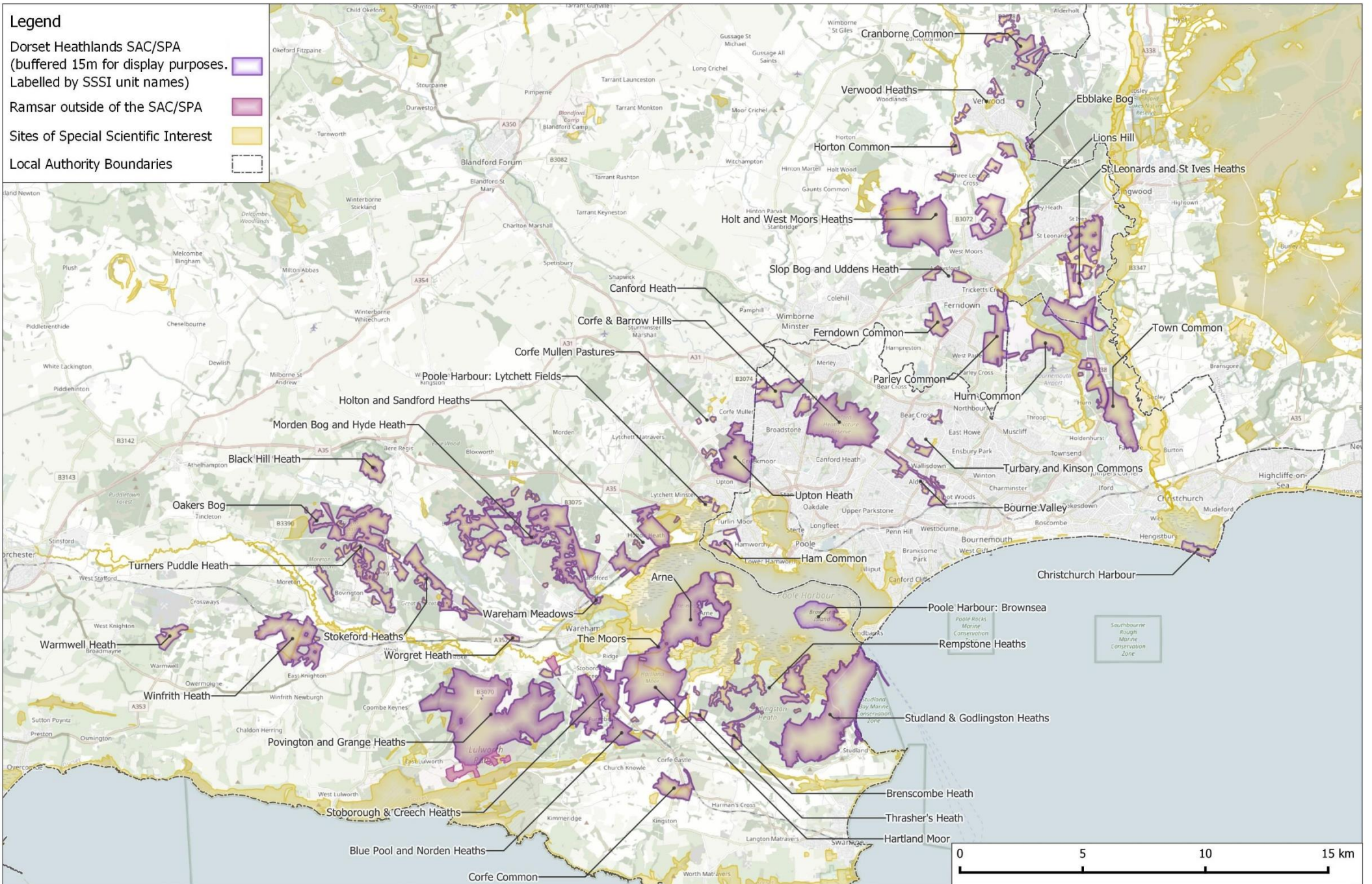
Strategic Access Monitoring and Mitigation

- 1.4 These impacts mean that the Dorset and BCP local authorities are unable to rule out adverse effects on integrity for the relevant European heathland sites as a result of the in-combination effects of new development. However, avoidance or

mitigation measures are possible, and these have been established strategically across the relevant local authorities since 2006 and are enshrined in relevant strategic planning policy. Measures include additional infrastructure, both off-site and on-site, and a range of mitigation focused projects. One of the key physical mechanisms is the provision of new greenspaces (Suitable Alternative Natural Greenspaces, SANGs) or more general improvements of existing recreational areas or supporting land (Heathland Infrastructure Projects, HIPs).

- 1.5 The ongoing updates to the monitoring strategy (see Liley 2007; and revisions by Fearnley & Liley 2014; Panter & Liley 2015, 2017) set out the monitoring elements necessary to coincide with the mitigation. The strategy recognised that both the species present and recreational use of the heathlands must be monitored to evaluate the levels of recreational use and distribution of the vulnerable species. With a baseline established, it should be possible to check the effectiveness of measures to mitigate for or avoid additional urban pressures on European Sites.
- 1.6 Monitoring acts as an early warning and allows mitigation measures to be adjusted as necessary to reflect changes in access patterns, types of use and changes in the distribution and abundance of key species. It is important to note that strategies include monitoring of mitigation sites (e.g. non-heathland), as well as heathland.

Map 1: Component SSSIs of the Dorset Heathlands SAC/SPA and labelled site names, as used in report.



2. Bird monitoring

Introduction

- 2.1 Three breeding bird species are interest features of the Dorset Heathlands SPA: Nightjar *Caprimulgus europaeus*, Woodlark *Lullula arborea* and Dartford Warbler *Sylvia undata*. Changes in the distribution and relative abundance of these species are good indicators of the biological status of the heaths. The three species are also vulnerable to impacts from recreation and fire.
- 2.2 The ongoing recording of the numbers and distribution of these three species across sites is an important part of monitoring. Surveying has been undertaken by the RSPB, commissioned through the DHP. A summary and review of trends in the three species in Dorset since the early 1990s is provided in Liley & Fearnley (2014). It is important to note that the counts indicate territories, but that these are determined with different survey methodologies as appropriate for the different species (e.g. night-time surveys of churring males for Nightjar).

Results

- 2.3 Results presented in this report are for spring 2023 season. Results from the core squares focuses on 31 sites surveyed for the species (see Table 2). Over time the number and composition of the individual sites surveyed for each species has differed. As such, a mean number of birds per site is presented (see Table 2). However, this depends on which sites were not surveyed as shown by later data. Table 2 places the results from 2023 in comparison to the previous survey year (2022) and the short-term average from the previous 3 years (2019, 2021 and 2022 - no surveys were conducted in 2020) based on the simple mean.
- 2.4 To examine this in more detail we considered only the sites with comparable data between the current year's data and an average number for the site. We consider the mean, median and range in values to express the full variability over time. Again, a short-term average considers the previous 3 years' data (Table 3), while the long-term average considers all DHP data (Table 4), of which the number of years for each species was variable.

Table 2: Summary of the number of birds (i.e. pairs for Dartford Warbler/Woodlark and territories for Nightjar), by species, recorded in 2023. Also shown is a value of the mean birds per site for 2022 and the previous 3 years shown for comparison (2019, 2021 and 2022).

	Woodlark	Dartford	Nightjar
Number of site counts 2023	31	31	30
Total number of birds 2023	72	501	455
Mean birds per site 2023	2.3	16.2	15.2
Number of site counts 2022	31	31	31
Total number of birds 2022	62	563	494
Mean birds per site 2022	2.0	18.2	15.9
Number of site counts previous 3 years	32	32	32
Total number of birds previous 3 years	55	494	459
Mean birds per site previous 3 years	1.7	15.4	14.4

Table 3: Comparison of 2023 data to short term average from the previous 3 years' data using values for each site.

	Woodlark	Dartford Warbler	Nightjar
n	20	31	29
mean % change compared to previous 3 years	59%	4%	36%
median % change compared to previous 3 years	32%	0%	11%
range in % change compared to previous 3 years	-63% to 425%	-78% to 83%	-41% to 500%

Table 4: Comparison of 2023 data to long term average (all previous years' data) using values for each site.

	Woodlark	Dartford Warbler	Nightjar
n	20	31	34
mean % change compared to all previous years	113%	13%	130%
median % change compared to all previous years	63%	0%	25%
range in % change compared to all previous years	-57% to 713%	-65% to 131%	-78% to 3100%

2.5 To examine the change at individual sites, the difference between the number of birds per site in 2023 and the short-term average of the previous 3 years was calculated. From these values, the sites with the top 3 increases and bottom 3 decreases in the number of birds for each species is given in Table 5.

Table 5: Sites with the greatest increase and reduction for each bird species. Values are the difference between the values in 2023 and the 'short term average' (the previous 3 years of data). Blue indicates an increase and red indicates a decrease (maximum 3 sites shown). Note for Woodlark, 4 sites were second lowest, and for Nightjar, 2 sites were joint second highest.

Woodlark	Dartford Warbler	Nightjar
Top 3		
Avon Heath North +7.00	Canford Heath +13.00	Barnsfield Heath +7.00
Slepe Heath / Hartland moor squares +5.67	Upton Heath +7.33	Avon Heath North, Hyde's Heath +6.00
Barnsfield Heath +4.00	Arne Heaths +7.00	Slepe Heath / Hartland moor squares +5.00
Bottom 3		
Holt Heath/ Whitesheet -1.67	Holt Heath/ Whitesheet -18.00	Holt Heath/ Whitesheet -8.67
Sandford Heath, Stoborough RSPB, Upton Heath, Verwood Forest / Cranborne Common square -0.67	Ferndown Common -4.33	Great Ovens -5.67
Hurn -0.50	Town Common/SCH -3.67	Canford Heath -5.33

2.6 The results presented in above tables and in Figure 1 (below) suggest the following for each species:

Woodlark:

- Woodlark are always the most variable of the three Annex I breeding bird species, due to the low numbers.
- Overall mean **birds per site was higher** in 2023, with an average of 2.3 birds per site, up from the previous year (2.0) and previous 3 count years (1.7). Bird numbers on a subset of 20 **comparable sites was up around 32%**, compared to the short term average (median).
- There were quite a few sites with increases, notably at **Avon Heath North (7 more pairs compared to the short term average), Slepe Heath / Hartland moor squares (5.7 more pairs) and Barnsfield Heath (4 more pairs)**. The largest reduction compared to the short term average was Holt Heath / Whitesheet, as noted in the previous year also.

Dartford Warbler:

- Dartford Warbler are also quite variable, influenced particularly by harsh winter weather conditions (i.e. 2018 'Beast from the East') – see Figure 1.
- Overall mean **birds per site was lower**, with 16.2 birds per site in 2023, compared to 18.2 from previous year. However, the number of pairs per site this year was higher than the short term average (2019, 2021, 2022) of 15.4. On a subset of 31 **comparable sites there was no increase or decrease** compared to the short term average (median).

- There had been some reasonable increases at a small number of sites compared to the short term average. Three sites had **increases of more than 7 pairs: Canford Heath, Upton Heath, and Arne Heaths** in 2023 compared to the average in the previous 3 years (these sites all showed an increase of more than 10 pairs in 2022 to the short term average). Numbers compared to the short term average had **fallen greatly at Holt Heath / Whitesheet**, with 18 fewer pairs, a reduction of 32% compared to the previous 3 years.

Nightjar:

- The number of territories from recorded churring males is often the most stable of the 3 species and also shows general continued upward trends.
- Overall mean **birds per site was very slightly lower** in 2023, down from 15.9 to 15.2. However, the number of territories recorded on a subset of 29 **comparable sites was up around 11%** compared to the short term average (median). Increases were consistent with the long term average with a **25% increase compared to all previous years' data**.
- At individual sites, increases of more than 5 churring males, compared to the short term average, were recorded at **Barnsfield Heath, Avon Heath North, Hyde's Heath and Slepe Heath / Hartland moor squares**. Compared to the short term average for the last 3 previous years there were **notably fewer churring males at Holt Heath / Whitesheet**, with 8.7 fewer compared the short term average (in part driven by very high numbers in 2022).

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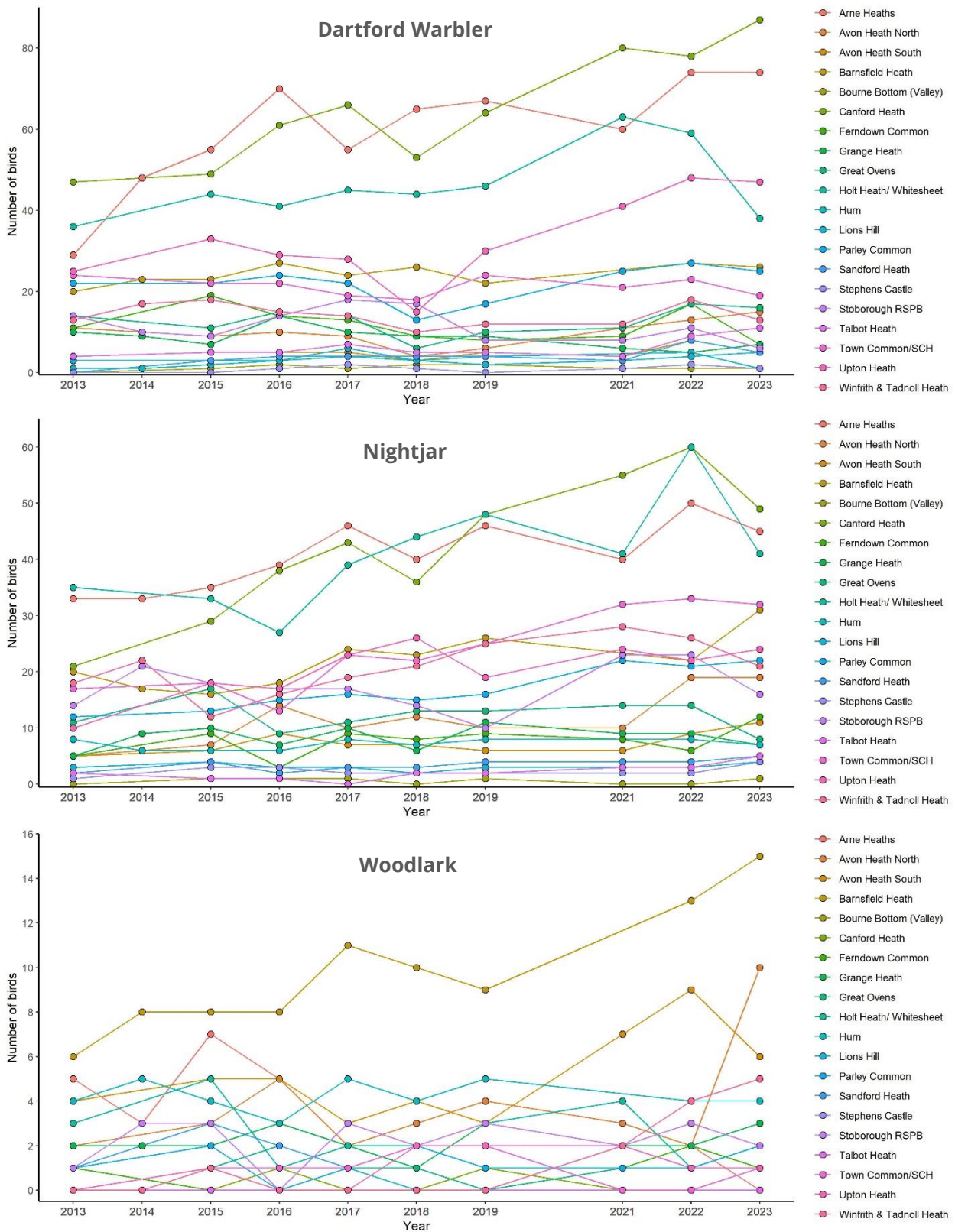
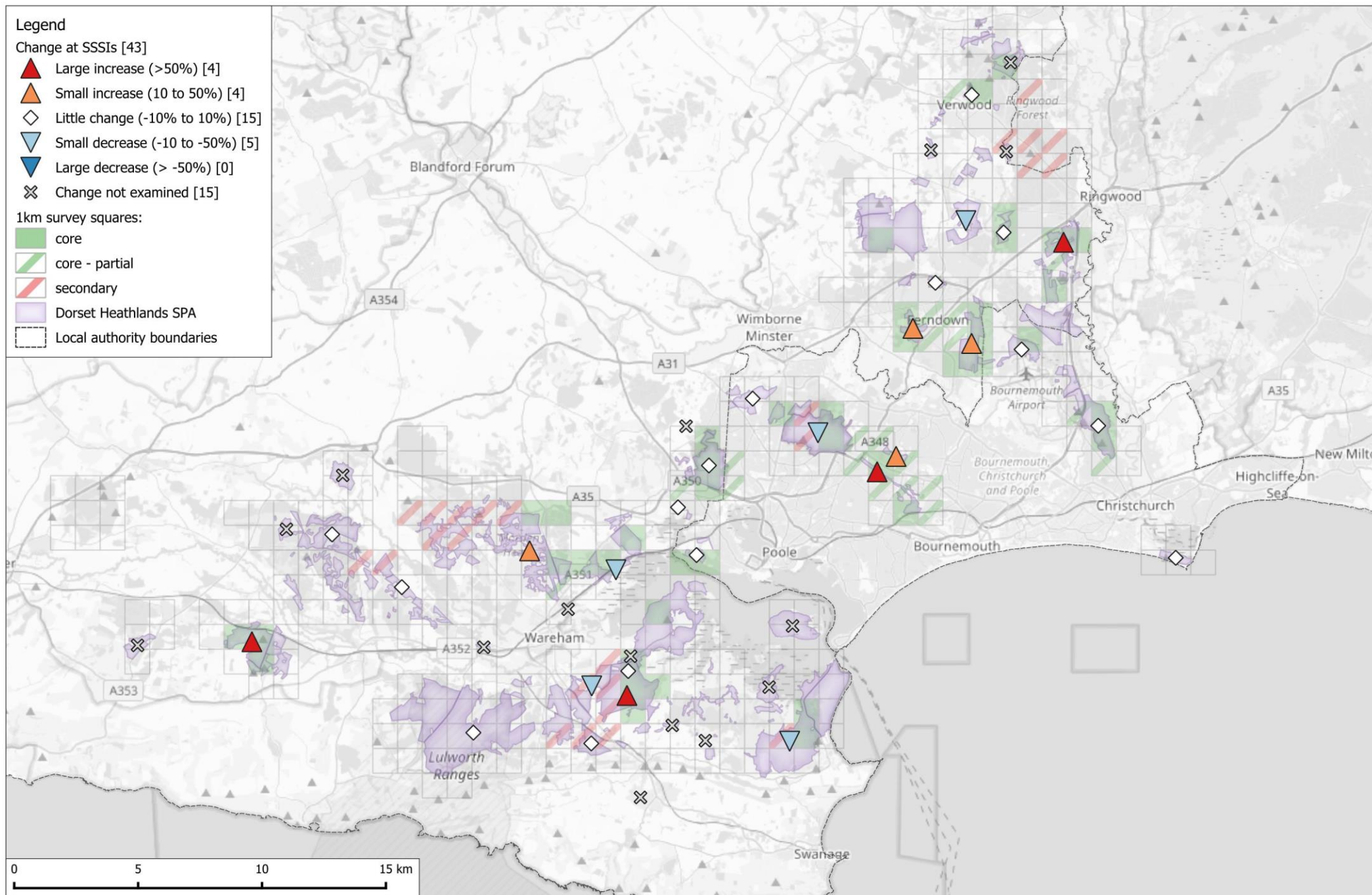


Figure 1: Number of birds recorded (by the differing standard survey methodologies) at each site (or 1km squares which represent a subset of sites). Note that the number of sites presented differs for each species due to different filters applied in order to select sites with the most data (Dartford \geq 13 years, Nightjar \geq 10, Woodlark \geq 12). Data gap in 2020 is present for all species.

Map 2: Averaged percentage change in numbers of Dartford Warbler, Woodlark and Nighjar between 2023 and the previous 3 years for each SSSI.



3. SANG and HIP site provision

3.1 This section updates the number of mitigation sites - both SANG and HIP sites which have become 'live' during the period. This includes sites of which there was no previous access, or sites which did already have access at the time that improvements were implemented.

3.2 The large number of mostly smaller HIP and SANG sites were opened in 2023:

- Challow Walkers Car Park, Corfe Castle (0.1 ha) – strategic HIP, car park improvements for visitors.
- Huntley Down, Milborne St Andrew (1.3 ha) – a development linked HIP, immediately adjacent to new development in the north western edge of Milborne St Andrew.
- Rowe Hill, Holt (1.6 ha) – a development linked HIP, close to the edge of Holt Heath.
- Upton Wood, Upton (5.2 ha) – a strategic HIP, extension to the existing site (2.5 ha additional area), opposite Upton Country Park.
- Riverside Walk, West Moors (3.3 ha) – a strategic HIP along the back of the Ferndown Forest Golf Course.
- Jubilee Farm, Three Legged Cross (0.3 ha) – a development linked SANG, close to the edge of Holt Heath.
- Verwood Edmondsham South, Verwood (3.1 ha) – a development linked SANG, immediately adjacent to new development in the northern edge of Verwood.
- Potters Wood, Verwood (9.4 ha) – a development linked SANG, immediately adjacent to new development in the northern edge of Verwood.
- Silverlake, Crossways (14.2 ha) – a development linked SANG (holiday lets), at a former quarry site west of Crossways.

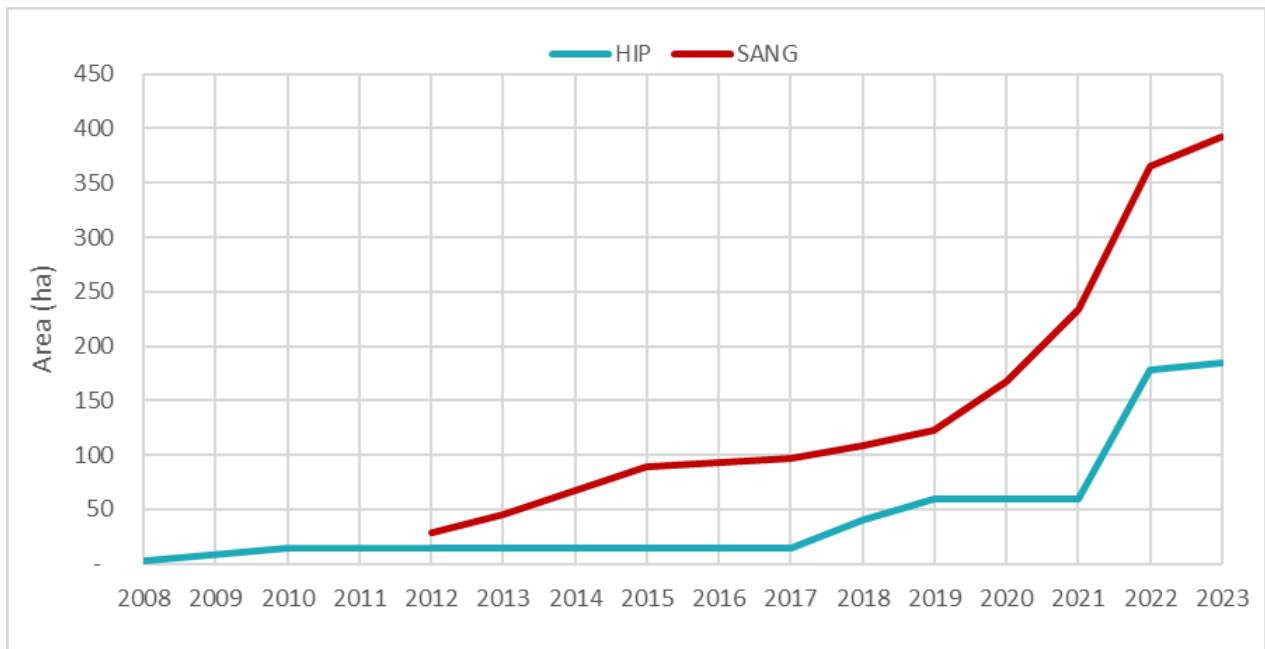


Figure 2: The combined area of all SANG and HIP sites shown over time. (Note some without a year of opening or an area figure).

- 3.3 There has been approximately 27 ha of new SANG, representing around 7% increase in SANG area. This is a slower increase, following on from significant new SANG in the previous year and a substantial increase in 2021. Overall the rate of SANG provision is tracking at a fairly consist level of 40 ha of new SANG per year.
- 3.4 The distribution of SANG and HIP provision is shown in Map 3, which has recently been updated by Dorset and BCP Councils. It is suggested that an important next step is systematic and consistent recording of SANG details, such as year of opening, nature of site etc.

Visitor data

- 3.5 Visitor surveys are conducted occasionally in DHP monitoring, as a way of recording both visitor numbers and visitor behaviours, attitudes and thoughts on sites. Current visitor surveys focus on SANGs, for which visitor monitoring is often a requirement. The current timetable for surveying is set out in Table 6, although it should be noted these are not rigid dates and can shift depending on availability of resources, works at sites, or new sites/developments in the wider area.
- 3.6 DHP staff conducted interviews at the following sites in 2023:
- The Chase, Verwood
 - St Leonards
 - Canford SANG Phase 2, Round 2

- Silverlake SANG
- Iford Meadows HIP, Round 2
- Stourview (Leigh Rd), Round 2

Table 6: Details of completed and future planned surveys at existing or soon to be completed SANGs and HIPs that have visitor survey monitoring. The timing is a requirement of some SANGs, and is not fixed, but forms a useful suggested framework for other sites. Completed surveys are shown in bold, but note many surveys were delayed due to the coronavirus pandemic.

Site	Pre-works (if existing access)	On opening (i.e. post works)	Second Round (2-5 year)	Third Round (5 -10 year)	Additional surveys (10 year/ linked to other projects)
Year from opening	-1	0	2-5	5-10	10+
Potterne	2010	2011	2012	2015	
Woolslope	2012/13	2013/14	2015-17	2018/19	2022
Bytheway		2012/13	2015/16	2017/18	2022
Stanpit	2015	2016	2018/19	2021	
UCP P1		2015	2018	2022	
UCP P2		2018	2022	2024	
UCP P3		2021	2024	2026	
Bog Lane		2017	2022	2027	
Frenches Farm		2018	2022	2028	
Canford Park SANG P1		2019	2022	2024	
Canford Park SANG P2		2023	2026	2028	
Riversmeet		2019	2022	2024	
Iford		2019	2023	2029	
Stourview	2018	2020	2023	2028	
Holmwood		2021	2024-26	2031	
Dogdean	2020	2022	2025-27	2032	
Edmondsham Rd		2020	2025	2030	
Cherry Tree		2021	2024	2026	
Meridians		2021	2024	2026	
Barrow Hill		2021	2026	2031	
Rivers Edge		2021	2023-26	2031	
The Chase, Verwood		2023	2026-28	2033	
St Leonards		2023	2026-28	2033	
Bernards Mead HIP		2022	2025	2027	
Purbeck Park (HIP)		2022	2027	2032	
Slop Bog		2022	N/A	N/A	
Riverside		2022	N/A	N/A	
Priests Way (HIP)	2023	TBC			
Silverlake SANG		2023	2026	2028	
Rivers Edge		2021	2023-26	2031	

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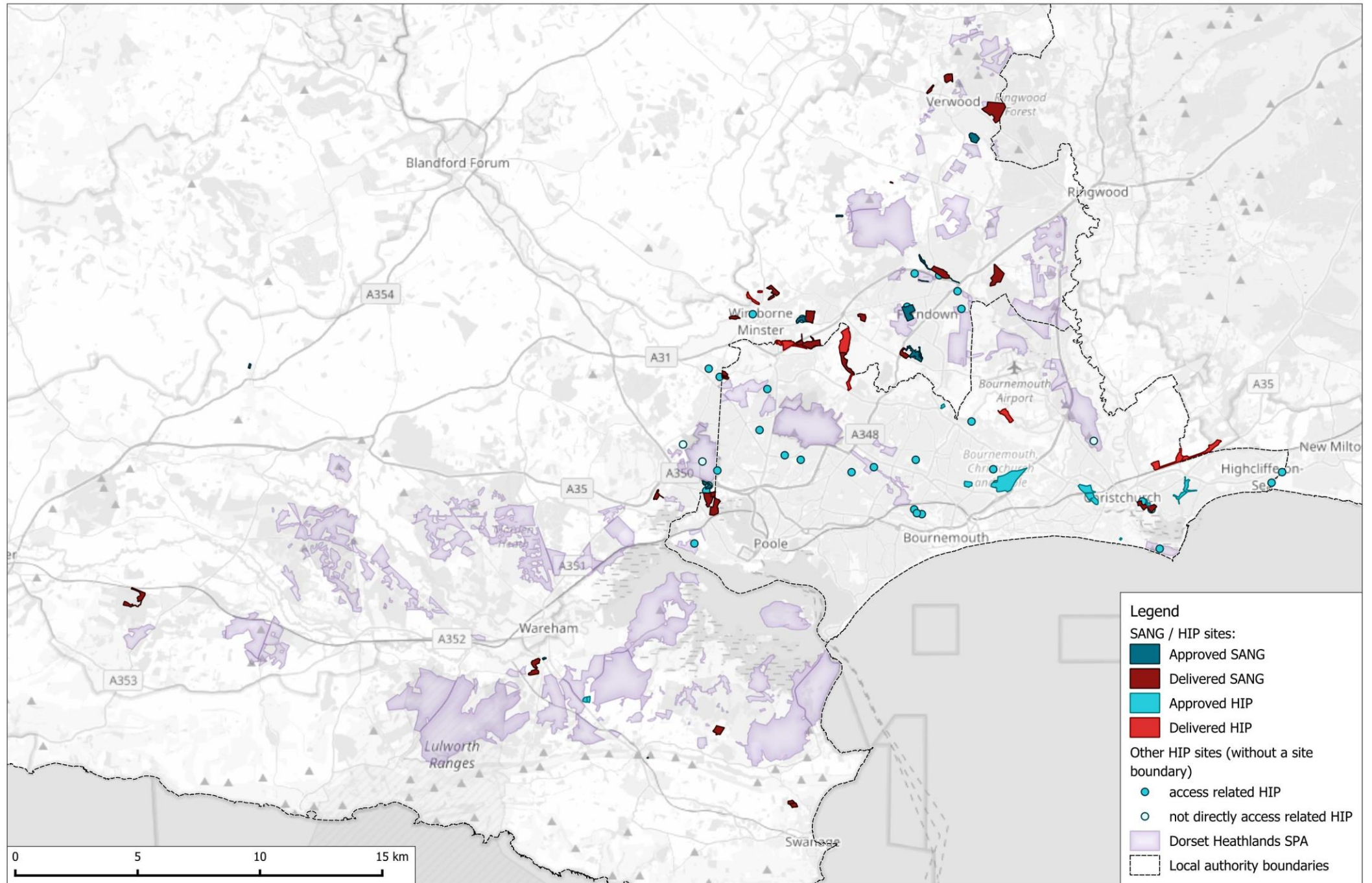
Table 7: Key summary metrics for SANG surveyed, compared to the Dorset Heaths visitor survey in 2019. Asterisk indicates values from tally counts.

Site	Date of survey	Year relative to 'opening'	n	% arriving by car	% visiting daily (or more freq.)	% dog walking	% member of Dorset Dogs	Mean group size*	Number of dogs per person (entering)*	Median route length (km)	Median linear distance from home postcode to survey point (km)	75th percentile (Q3) linear distance from home postcode to survey point (km)
DORSET HEATHS	Summer '19	n/a	946	52%	30%	74%	6%	1.53	0.63	2.3	-	-
UCP P2	March '22	4/5	93	58%	33%	72%	2%	1.7	0.6	-	-	-
Bog Lane	March April '22	5/6	21	76%	29%	76%	5%	1.5	1.2	-	-	-
Frenches Farm	April '22	4/5	46	48%	63%	91%	11%	1.5	0.8	-	-	-
Canford Park SANG P1	July '22	4/5	69	87%	26%	88%	10%	1.8	0.7	-	-	-
Riversmeet	Nov '22	4/5	103	48%	42%	72%	2%	1.4	0.5	-	-	-
Bernards Mead	Spring '22	1	61	21%	44%	85%	2%	1.5	0.6	-	-	-
Corfe Barrows SANG	Autumn '21	-1	22	9%	68%	86%	0%	1.3	0.6	-	-	-
Meridians HIP	Autumn '21	0	14	21%	50%	57%	0%	1.5	0.5	-	-	-
Cherry Tree HIP	Spring '21	0	40	65%	23%	75%	8%	1.6	0.6	-	-	-
Canford SANG	Summer '19	0	62	87%	15%	87%	15%	1.73	0.9	2.3	2.2	3.8
Iford HIP	Autumn '19	0	70	50%	50%	83%	7%	1.39	0.7	-	0.8	1.3
Riversmeet & Stanpit	Summer '19	0 (/5)	-	55%	52%	91%	-	1.33	0.64	2	1	2.8
Upton Country Park -P1	Summer '18	2/3	127	79%	26%	88%	13%	1.88	1.08	-	2.9	4.6
Frenches Farm	Spring '18	0	44	36%	43%	98%	9%	1.37	0.86	1	0.8	1.5

D H P M O N I T O R I N G : 2 0 2 3

Site	Date of survey	Year relative to 'opening'	n	% arriving by car	% visiting daily (or more freq.)	% dog walking	% member of Dorset Dogs	Mean group size*	Number of dogs per person (entering)*	Median route length (km)	Median linear distance from home postcode to survey point (km)	75th percentile (Q3) linear distance from home postcode to survey point (km)
South of Leigh Road East	Autumn '18	-1	22	45%	23%	55%	9%	1.55	0.53	2.9	3.4	6.1
Upton Country Park -P2	Spring '18	1	101	55%	30%	69%	8%	1.67	0.44	-	2	4.8
Bytheway	Winter '17/18	5	68	62%	23%	72%	-	5.16	1.33	-	1.2	1.9
Upton Woods	Summer '18	10	-	-	-	-	-	1.5	0.44	-	-	-
Bog Lane	Spring '17	0	12	75%	17%	83%	8	1.27	0.84	1.1	5.1	11.6
Stanpit	Winter '16	2/3	53	51%	32%	66%	-	n/a	0.52	-	0.9	2.1
Upton Country Park -P1	Summer '15	1	133	68%	33%	77%	8%	2.34	0.45	2.6	3.4	6.1
Woolslope	Winter '13/14	0	14	7%	64%	64%	-	2.21	0.81	-	0.4	0.4
Bytheway	Winter '12/13	0	28	18%	32%	79%	-	-	-	-	0.6	1.1
Woolslope	Winter '12/13	-1	13	15%	-	-	-	-	-	-	0.3	0.6
Potterne Park	Summer '12	2/3	80	68%	-	-	-	-	-	-	-	-
Stanpit	Autumn '12	-1	11	64%	-	-	-	-	-	-	1.1	79.9

Map 3: Distribution of SANG and HIP sites.



4. Coordinated vehicle counts

- 4.1 The provision of parking spaces at, or adjacent to, the heaths is an important factor determining the number of visitors interacting with sites. In the 2019 Dorset Heaths visitor survey, over half of the interviewees had arrived by car (Panter & Caals, 2020).
- 4.2 Counts of the number of vehicles parked at access points to the heath can be conducted quickly to provide a good indication of the number of visitors at a site. Meaningful counts require a co-ordinated approach, using a set methodology and surveying period.
- 4.3 The survey aims to cover almost all heathland parking access points, plus a number of other key parking locations at other types of sites such as SANGs, HIPs, key visitor centres and visitor attractions. However, it is important to note that the latter are not exhaustive, and these are included only if they are considered of high importance, or do not add considerably to the length of time for the driven transect.

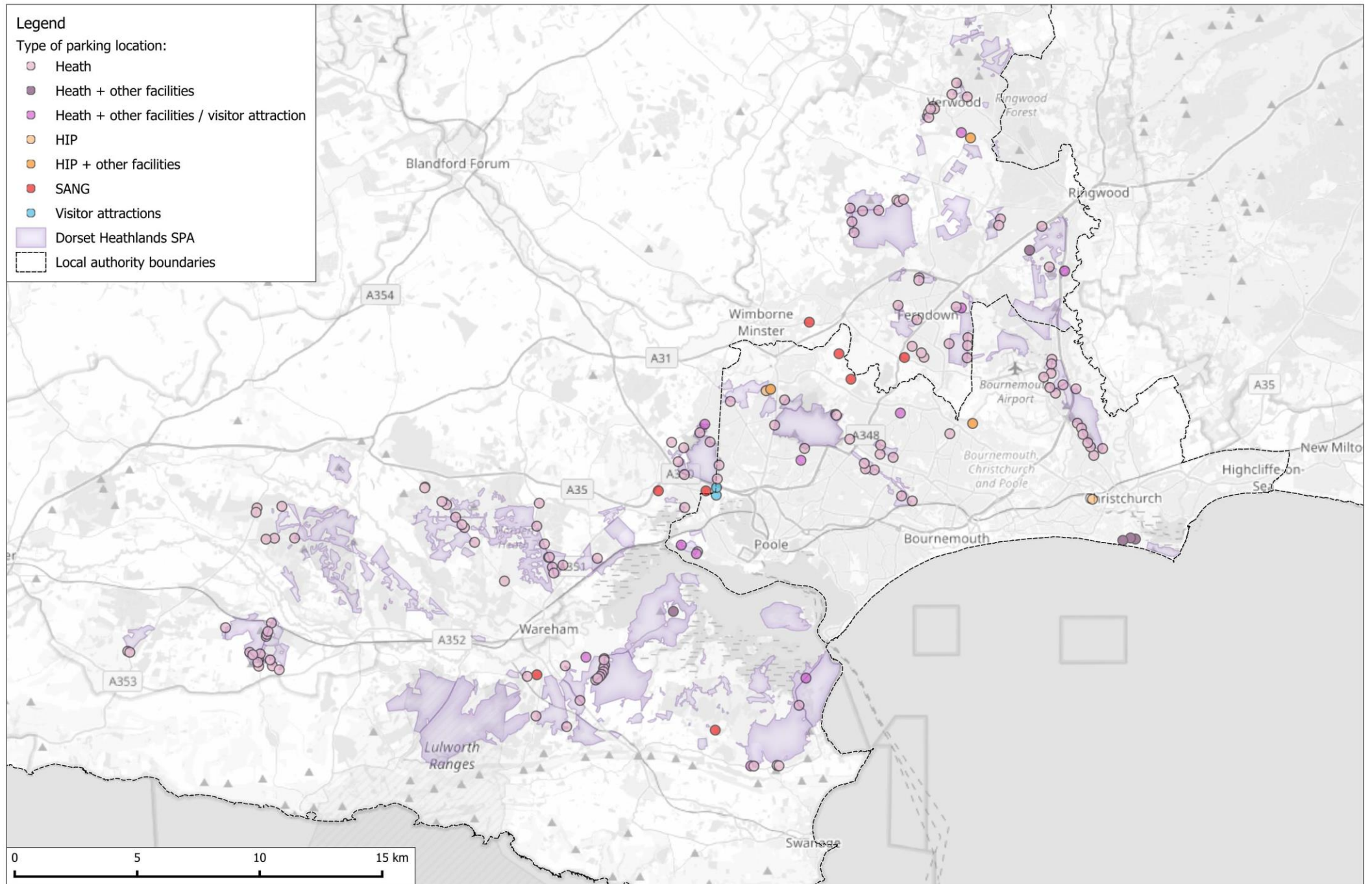
Categorisation of locations

- 4.4 Monitoring increasingly encompasses the range of types of sites, such as SANGs, as well as the protected sites themselves. As such, the parking locations are categorised to reflect this wide variety.
- 4.5 This categorisation is based on how these locations may change over time, the type of site, and the degree to which these values are likely to vary. For example, at the simplest level by categorising sites as heaths or SANG we can determine whether changes are different on the two types of sites. Sites where the car park includes access to other facilities (e.g. football pitches, cafés or other habitats), rather than just a heath or SANG, are likely to be more variable (e.g. due to events) and changes in access can relate to changes in these facilities and are therefore less of a concern. Table 8 details a summary of the different types of categories used.
- 4.6 No new parking locations were added in 2023. However, a car park audit was conducted in March 2023 which highlighted where some changes need to be made to the list of locations i.e. removing ones that are no longer accessible and adding in new locations.
- 4.7 The distribution of all the parking locations which were surveyed is shown by location type in Map 4 and summarised in Table 8.

Table 8: Summary of the different types of parking locations counted in 2023.

Type of parking location	Number of parking locations	Example locations
Heath (parking is only used by those visiting heaths)	134	All car parks around Canford Heath, Dewlands Common, Great Ovens
Heath & other facilities (parking provides access to heaths, but also facilities, e.g. visitor centres/cafes, football pitches, or other habitats e.g. coast, support land, viewpoints)	11	Stoborough Heath car park at Sunnyside (providing access onto the grassland as well as the heath), Ham Common car park which is also used by those accessing Poole Harbour, Avon Heath viewpoint car park, Studland Ferry Road
Heath & other facilities / Visitor attractions (locations which provide a clear visitor or tourist attraction, particularly in summer)	5	RSPB Arne car park, Avon Heath visitor centre, Hengistbury Head
HIP (parking is only used by those visiting HIP)	1	Delph Woods 1
HIP & other facilities (parking provides access to HIP, but also facilities, e.g. cricket pitches, support land)	4	Delph Woods 2, Granby Road Barn, Potterne Park
SANG (parking is only used by those visiting SANG)	8	Upton Country Park SANG, Bog Lane SANG, Burnbake
Visitor attractions	2	Upton Country Park (main car park and small car park)
Total	165	

Map 4: Distribution of all parking locations counted.



Survey dates

4.8 Target dates for the vehicle counts are calculated by examining the dates used in previous years. This attempts to ensure that dates continue to fall roughly within the same named transect window (e.g. early-mid April), while also remaining on the set type of day (i.e. weekday/weekday), and do not subtly shift year on year. The target and actual dates for transects in 2023 are shown in Table 9. Three transects were not completed at all (in late March, late September and mid-December), and the transect on 01/05/2023 was only partially completed (135 locations visited out of 165).

Table 9: Target and actual dates for vehicle counts in 2023. Rows are coloured by whether the date is a weekday, weekend or bank holiday.

Annual transect number	Time of year and day	Start time	Target date	Actual date
1	Early Feb weekday	10:00	06/02/2023	06/02/2023
2	Late Feb/early March weekday	14:00	06/03/2023	13/03/2023
3	Late March weekend	14:00	26/03/2023	NOT DONE
4	Early-mid April weekend	10:00	16/04/2023	16/04/2023
5	Early May Bank Holiday	14:00	01/05/2023*	01/05/2023
6	Late May/early June weekend	10:00	04/06/2023	11/06/2023
7	Late June weekday	07:00	19/06/2023	26/06/2023
8	Mid-late Aug weekend	14:00	20/08/2023	20/08/2023
9	Early Sep/late Aug weekday	14:00	04/09/2023	04/09/2023
10	Summer Bank Holiday	14:00	28/08/2023*	28/08/2023
11	Late Sept weekend	10:00	24/09/2023	NOT DONE
12	Early-mid Nov weekday	10:00	13/11/2023	13/11/2023
13	Late Nov weekend	10:00	26/11/2023	26/11/2023
14	Mid Dec weekend	10:00	17/12/2023	NOT DONE

*Target dates for the bank holiday dates are fixed, rather than calculated.

Results

4.9 Other than the four dates named above, between 163 and 165 parking locations were visited on each transect. Sometimes one or two locations on each transect were either not recorded or were inaccessible due to temporary access issues such as roadworks.

4.10 Rain was recorded on three dates, and only two of these dates (11/06/2023 and 26/11/2023) had rain for over three quarters of the vehicle count transect.

- 4.11 In total 10,071 parked vehicles were counted in 2023, an average of 916 vehicles on each date. 169 of the parked vehicles had bike racks, an average of 15 on each date.
- 4.12 The percentage of parking spaces that were occupied on any given date varied between 10% and 52%, with an average of 25%.
- 4.13 The mean number of vehicles counted at each parking location in this period is shown in Map 5.

Differences between dates

- 4.14 The total number of vehicles varied between dates, as shown in Figure 3. The highest vehicle count this year was on 20th August, when 1,686 vehicles were counted. This was closely followed by the Summer bank holiday (28th August), when 1,635 vehicles were counted. The lowest count was on 26th June, when 387 parked vehicles were counted.

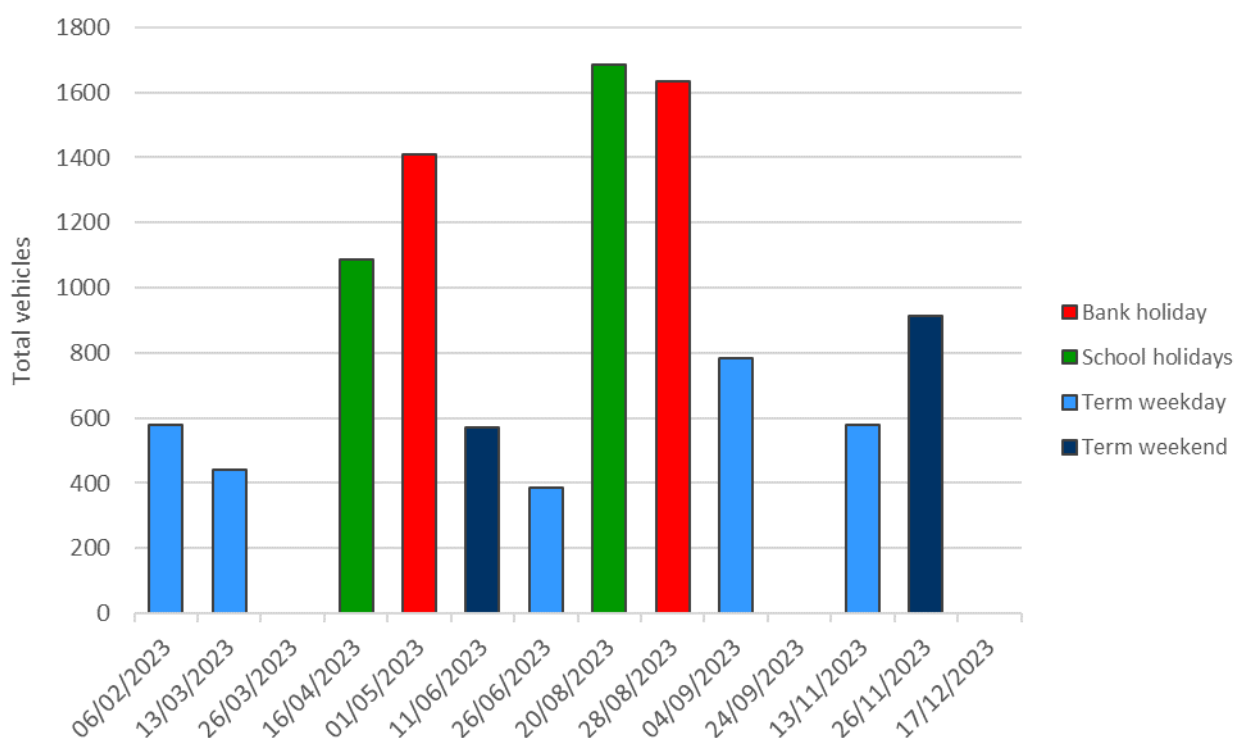
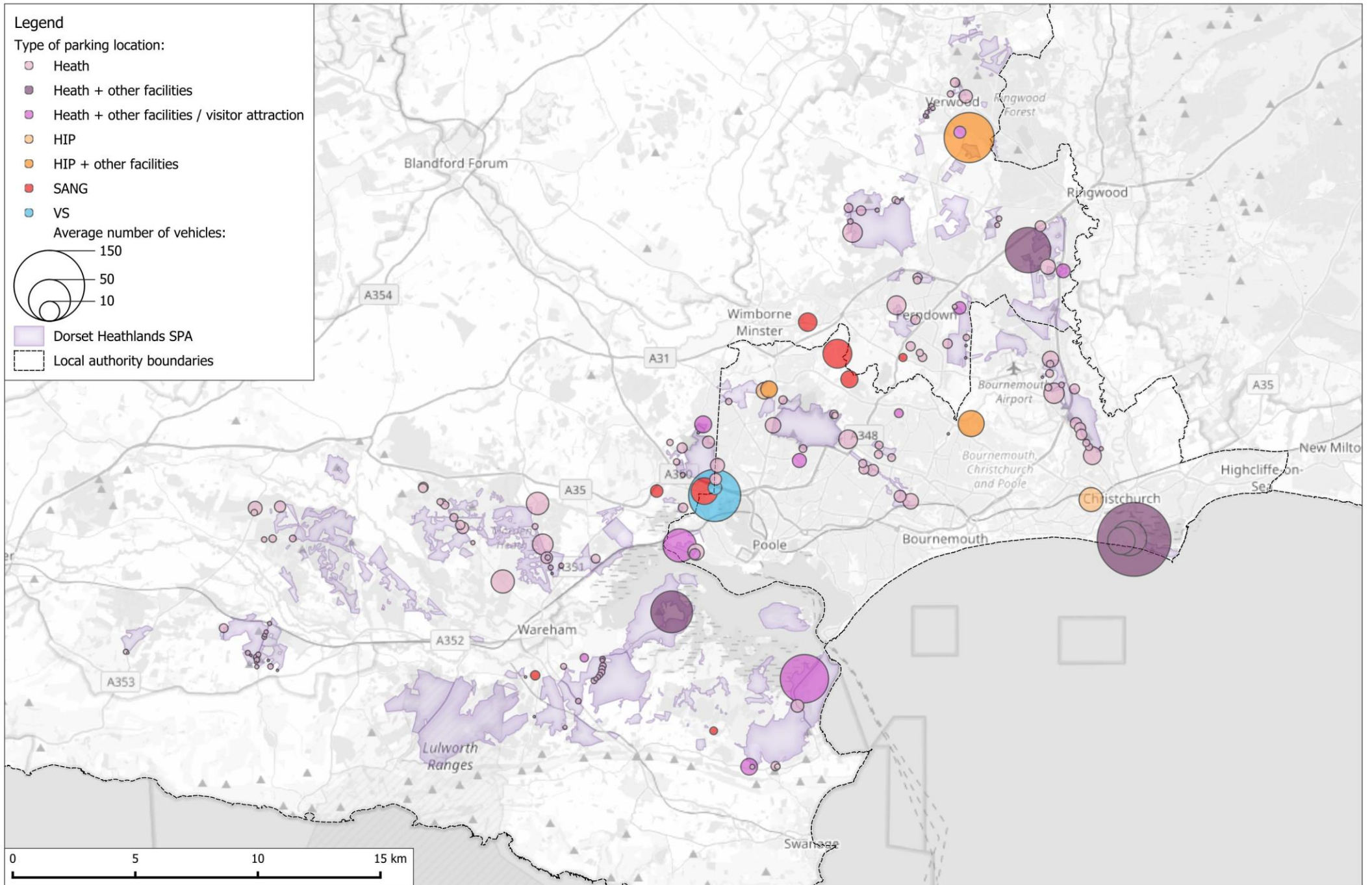


Figure 3: Total number of parked vehicles counted on each date, coloured by the type of day. Three transects were not completed (26th March, 24th September, 17th December) and the 1st May transect did not include locations within 'East 1' area.

Map 5: Distribution of all parking locations counted in 2023 sized by the average number of vehicles.



Comparison with previous years

- 4.15 Examination of individual transect dates over time is shown in Table 10. The totals for each date are compared to the average from the previous 3 years of data (2020 to 2022). The two highest counts in 2023 were on the same transects as the highest average counts for 2020 to 2022 (transects 8 and 10) and also had very similar values. The lowest count also occurred on the same transect as the lowest average count for 2020 to 2022 (transect 7).
- 4.16 The biggest difference was in transect 6, which had a count of over 1,000 fewer vehicles than the 3-year average. However, in 2 out of the 3 previous years, this count had been made during the May half-term holiday, whereas in 2023 it was done the following weekend, during term-time, which may explain why it was lower than normal.
- 4.17 Some differences may also relate to Covid-19 restrictions in 2020 and 2021. For example, transect 5 in 2021 was carried out when there were still restrictions on overnight stays and social gatherings and was not carried out at all in 2020 due to the first lockdown. Weather conditions may also account for some variability between years.

Table 10: Comparison of vehicles counts in 2023 with the average of last 3 years (2020 to 2022). Rows are coloured by whether the date is a weekday, weekend or bank holiday. In each column, the two largest values are highlighted in red and the two smallest values are highlighted in blue.

Annual transect number	Time of year and day	Vehicle count 2023	Average of last 3 years	Difference between 2023 and last 3 year average
1	Early Feb weekday	579	622	-43
2	Late Feb/early March weekday	441	651	-210
3	Late March weekend	-	1,450	N/A
4	Early-mid April weekend	1,088	1,471	-383
5	Early May Bank Holiday	1,408	973	435
6	Late May/early June weekend	572	1,584	-1,012
7	Late June weekday	387	260	127
8	Mid-late Aug weekend	1,686	1,629	57
9	Early Sep/late Aug weekday	782	718	64
10	Summer Bank Holiday	1,635	1,677	-42
11	Late Sept weekend	-	975	N/A
12	Early-mid Nov weekday	578	656	-78
13	Late Nov weekend	915	928	-13
14	Mid Dec weekend	-	995	N/A
	Annual average count	916	1,042	-126

4.18 Overall, the average (mean) number of vehicles per transect at heath locations in 2023 was 652 – see Figure 4. This represents an increase of 11% on the previous year but a decrease of 7% compared to the average for the last 3 years. The increase between 2022 and 2023 was largely due to increases at Arne 1 (which had missing data in the past) and the Hengistbury Head car parks.

4.19 The other location types – HIPs, SANGs and visitor attractions - all showed a slight decrease in average vehicle counts, both when compared to the previous year and the average of the last 3 years.

4.20 Changes at individual parking locations are shown in Map 6.

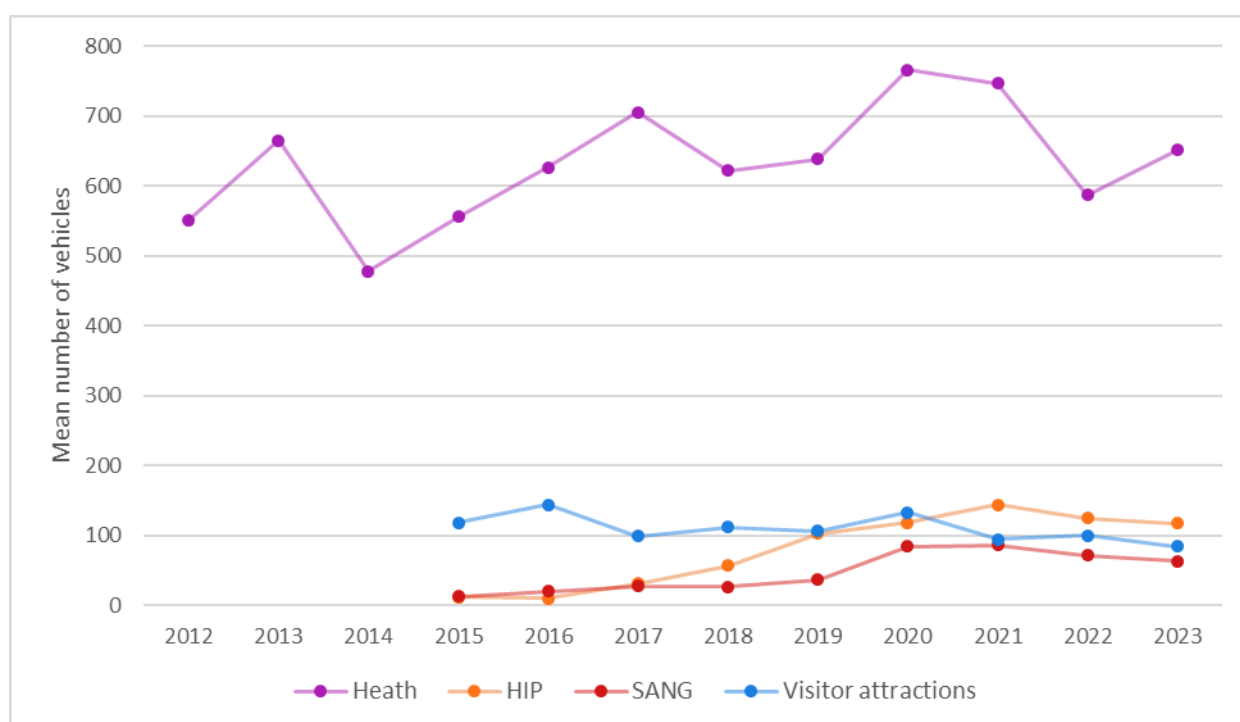


Figure 4: Mean number of vehicles counted on each transect, by calendar year, for heath locations (including those with other facilities or visitor attractions), HIPs, SANGs and visitor attractions.

4.21 The individual parking locations were assigned to sites based on SSSI groupings as shown in Table 11. At most sites, the relative fullness (i.e. percentage of occupied spaces) of parking locations at several sites had either decreased or stayed similar to previous years. Exceptions were at Arne, although this is mostly due to missing data in previous years, at Lytchett Fields and at Upton Heath. Sites with the largest decreases in percentage fullness were Holt & West Moors Heaths, Canford Heath and Turners Puddle Heath.

Future counts

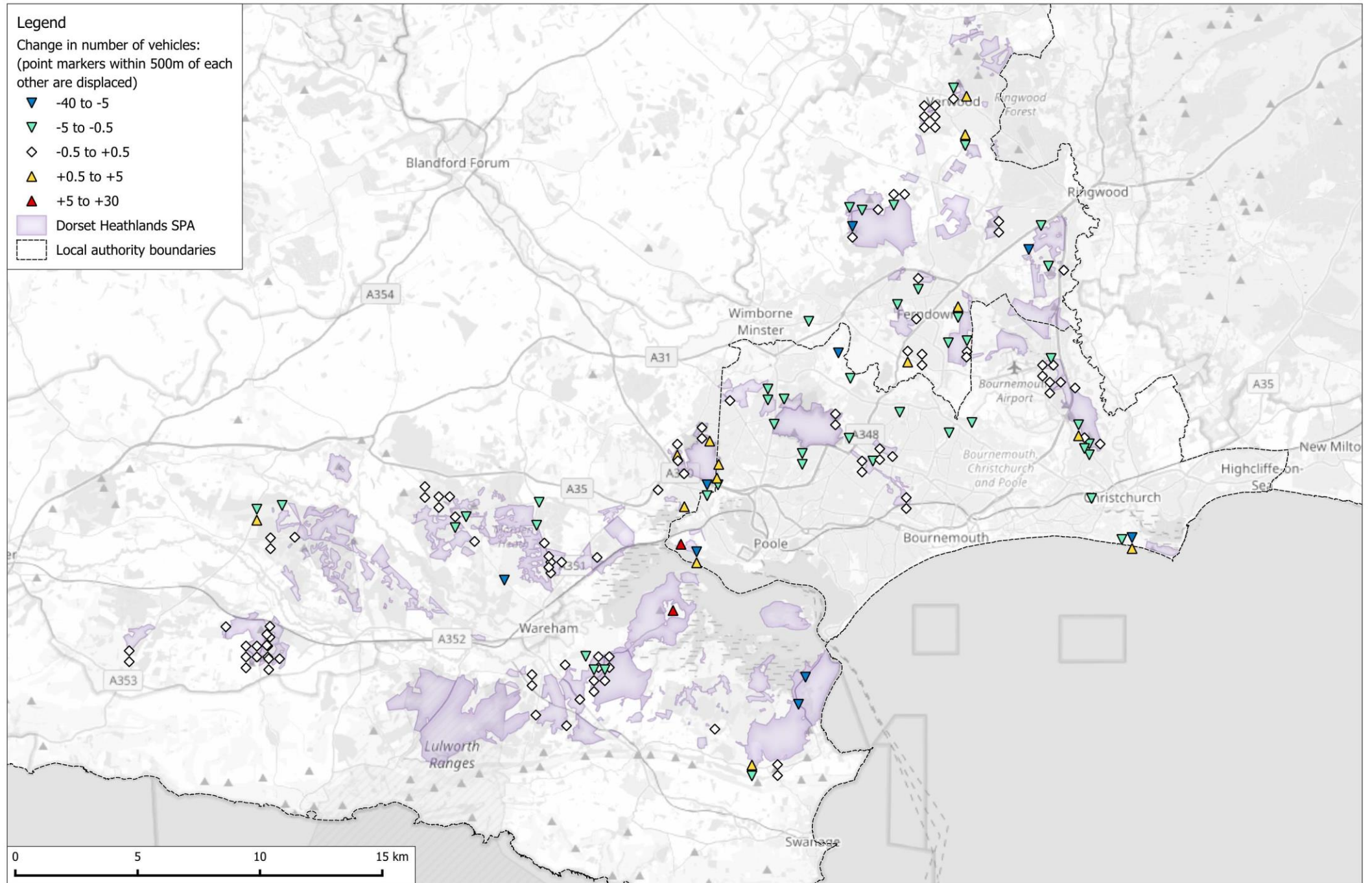
- 4.22 Data collected from the vehicle counts are proving very useful for monitoring long-term trends in visitor patterns, so efforts should be made to ensure that future counts are as complete and consistent as possible.
- 4.23 The results of the 2023 car park audit should be used to update the list of parking locations that are included in the 2024 vehicle counts, so that they are up-to-date and accurate, and ensure consistency between surveyors. The audit results will also be used to update the capacity estimates of each location that are used in future analysis.

Table 11: Average percentage fullness of parking locations at locations grouped into sites (based on SSSIs). Table presents the average for the last 3 years and the current year (n showing the number of counts, including at multiple locations), with the difference between these shown in a column with red to blue colour shading for high to low values. A plot line also shows the variation in the annual average since 2008.

Site	Last 3 years (2020-2022)		2023		Difference in fullness current year compared to last 3 (percentage points)	Annual line plot
	n	Average % fullness	n	Average % fullness		
Arne	46	15	18	71	56	
Bourne Valley	190	36	45	35	-1	
Canford Heath	228	46	54	30	-15	
Christchurch Harbour	111	18	26	21	3	
Corfe & Barrow Hills	38	12	9	13	1	
Ferndown Common	76	50	18	50	0	
Ham Common	114	14	27	14	-1	
Hartland Moor	304	22	72	14	-8	
Holt and West Moors Heaths	304	56	72	35	-21	
Holton and Sandford Heaths	38	26	8	29	3	
Lions Hill	76	9	16	14	5	
Morden Bog and Hyde Heath	683	40	162	34	-6	
Oakers Bog	190	9	45	10	1	
Parley Common	228	32	48	28	-4	
Poole Harbour: Lytchett Fields	38	11	9	25	14	
Povington and Grange Heaths	38	8	9	0	-8	
Slop Bog and Uddens Heath	76	33	18	26	-7	
St Leonards and St Ives Heaths	152	36	32	34	-2	
Stoborough & Creech Heaths	189	11	44	10	-1	
Studland & Godlingston Heaths	210	27	54	24	-3	
Town Common	570	51	120	44	-7	
Turbary and Kinson Commons	148	36	36	28	-9	
Turners Puddle Heath	38	47	9	35	-12	
Upton Heath	340	25	78	33	8	
Verwood Heaths	340	21	80	24	3	
Warmwell Heath	76	2	18	3	1	
Winfrith Heath	564	7	135	5	-3	
SANG*	285	45	71	34	-11	
Visitor attractions*	76	45	18	37	-8	
HIP*	180	42	44	39	-3	

*not recorded prior to 2014

Map 6: Change in the average number of vehicles record in 2023 compared to the average for the 3 previous years.



5. Sensor data

Introduction

- 5.1 Automated counters represent an effective way to gather large, long-term datasets. They can be used to remotely monitor subtle access patterns at a range of sites, including increasing use at SANG or HIP sites. The counters are usually in the form of buried pressure slabs or invisible beams located on the access points to sites. The resulting count data provide a good approximation of the number of people passing and directly accessing sites.
- 5.2 Such long-term monitoring data collected by sensors is key to detecting gradual changes in visitor pressures. The monitoring strategy recommended that on heathland sites sensors need to be in place for consistent long-term data, whilst on mitigation project sites (e.g. SANGs, HIPs) sensors should be installed to establish a baseline in visitor counts prior to any site improvements. Over time these can be left in situ, removed but reinstalled at a later date, or removed and supplemented with infrequent on-site visitor counts to determine any changes in access patterns.
- 5.3 Sensors require a proportion of DHP time for regular upkeep. This includes regular checks, any repairs or replacements (due to vandalism and theft) and regular (approximately every four/five months) downloading of the data from sensors.
- 5.4 Since 2007 a total of 168 sensors have been placed on the SPA or at SANG/HIP sites (including replacements at slightly different locations). Sensors have been installed and some subsequently removed over this period, but the total data amounts to 919 years of recording.

Categorisation of data

- 5.5 As previously stated for the car parking data, the nature of the different locations will greatly affect visitor use and whether any changes in access are viewed as a cause for concern or not. The same categorisation of locations as applied for car park count data, has been applied to the sensor data.
- 5.6 The number of sensors for each location type are given in Table 12 and shown in Map 7.

Table 12: The number of sensors collecting data in the current period [55] and in the entire dataset to date [165].

Type of site	Number of sensors in current period	Number of sensors to date
Heath (only used by those visiting heaths)	19	74
Heath & other locations* (provides access to heaths, but also other habitats e.g. woodlands and some other facilities e.g. schools)	0	2
Heath & other / visitor attractions (provides access to heath habitats, but other habitats or visitor attraction facilities; e.g. Moors Valley Country Park)	4	8
HIP (only used by those visiting HIP – may be accessing other greenspaces e.g. Stour Valley. Includes sites that were not named as ‘HIP’)	11	24
HIP & other facilities (people not using the site or non-related activity) (could provide access to heath/SSSI, but also facilities e.g. cricket pitches, support land)	4	6
HIP & heathland* HIP projects which are adjacent to heathland sites (e.g. Stoborough Heath)	0	6
Other access types (Castleman Trailway)*	0	17
SANG (only used by those visiting SANG)	15	22
Visitor attractions (e.g. Upton Country Park, Avon Country Park main car park – may include commuters)	2	6

*no sensors currently in these categories, but these were present in previous years.

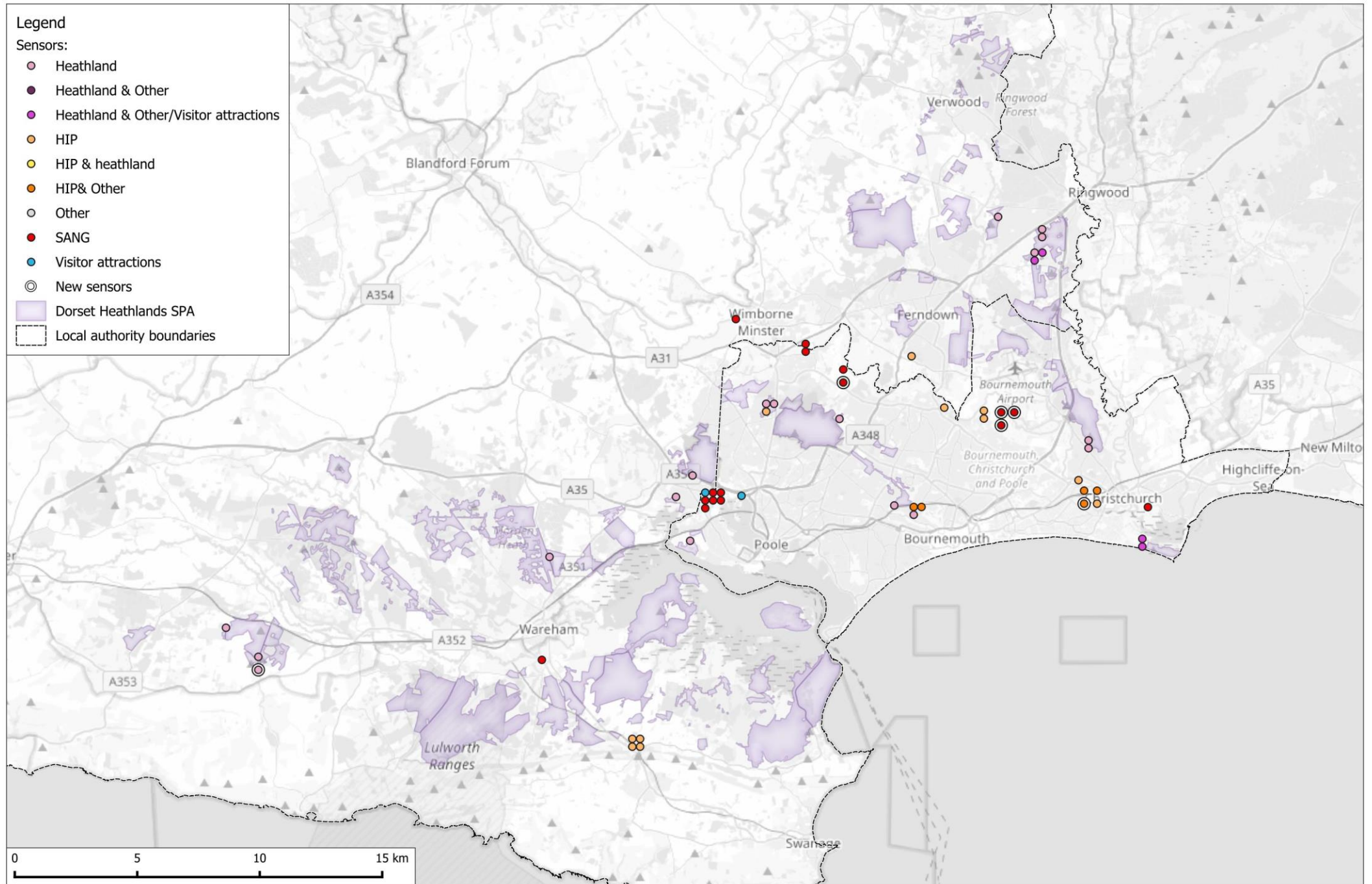
2023 data

- 5.7 Over 2023, 58 sensors have been collecting data at some point (up from 51 in 2022), roughly around the target level of sensors for maintaining in the long term. The locations of these sensors are given in Map 7.
- 5.8 A small number of new sensors were installed in the period. A list of 7 new sensors in given below:
- BIM2A – Long range pyro installed 29/09/2023 at Iford Meadows HIP. Repair of BIM2, entrance of Iford Lane. Purpose is to monitor the HIP improvements.
 - BTS1 – Long range pyro installed 08/09/2023 at Throop SANG. Purpose of monitoring access at new SANG, access from Taylor Drive.

- BTS2 – Long range pyro installed 08/09/2023 at Throop SANG. Purpose of monitoring access at new SANG, access from Watery Lane.
- BTS3 – Long range pyro installed 21/09/2023 at Throop SANG. Purpose of monitoring access at new SANG, access beside the Weir.
- PCA1A Long range pyro installed 24/01/2023 at Canford Heath. Replacement for PCA1 (installed in 2018). Purpose of monitoring heathland access into site from Gravel Hill car park.
- PCS2 – Long range pyro installed 24/04/2023 at Canford Park SANG. Purpose of monitoring access at new SANG, access into new Phase 2 area.
- WWH1A – Long range pyro installed 06/07/2023 at Winfrith. Replacement for WWH1, installed in 2014, as post had rotted. Purpose of monitoring heathland access into site from layby on Gatemore Road.

- 5.9 The sensor data is complex and there are a large number of factors to be accounted for, such as, the number of sensors in use as sensors are installed / removed and the patchiness of data as sensors malfunction. In the data presented here, we have conducted preliminary cleaning to remove data which is clearly incorrect. This removes extremely large values, but is not a complete examination of values, as this would require significantly more time than is set aside for annual reporting. It is envisaged that robust cleaning would examine the whole dataset to conduct automated checking to remove anomalies which are outside usual ranges or patterns.
- 5.10 Furthermore, values between sensor types are not directly compared. The raw averages shown depend on the number and composition of different types of locations, and types of sensors. All values would require stricter data cleaning and calibration before values can be compared in this way with confidence.
- 5.11 This year, the separation of sensors into much smaller groups means the effect of the addition and removal of sensors is magnified. As such presenting certain results using solely cleaned data for the year is often not meaningful due to data gaps. This was particularly notable in the examination of monthly sensor values which show large variations. Robust examination would require greater data cleaning and averaging or interpolation based on using the previous year's data.

Map 7: Location of sensors collecting data in 2023 shown by the type of site. The location of new sensors are highlighted.



2023 results

5.12 The period examined after the simple cleaning process provides a total of 3,257,435 passes from 50 sensors. The sensor data, of all datasets presented in this report, are the most difficult to present simply and accurately. The data require more detailed processing (for example incorporating calibration results to give number of people rather than raw passes) before robust results are produced, but a simple overview of average monthly number of raw passes is presented by each location in Map 8.

5.13 Variation across the year is shown in Figure 5. Most site types showed a peak in access in April/May, as was noted last year, but is much less pronounced than had been previously observed, with the exception of SANG sites. Use in the summer was more typical, although slightly lower than expected at both SANGs and Visitor attractions, but not for heathlands. The drop in the summer may have been related to a generally unsettled and wetter than usual August.

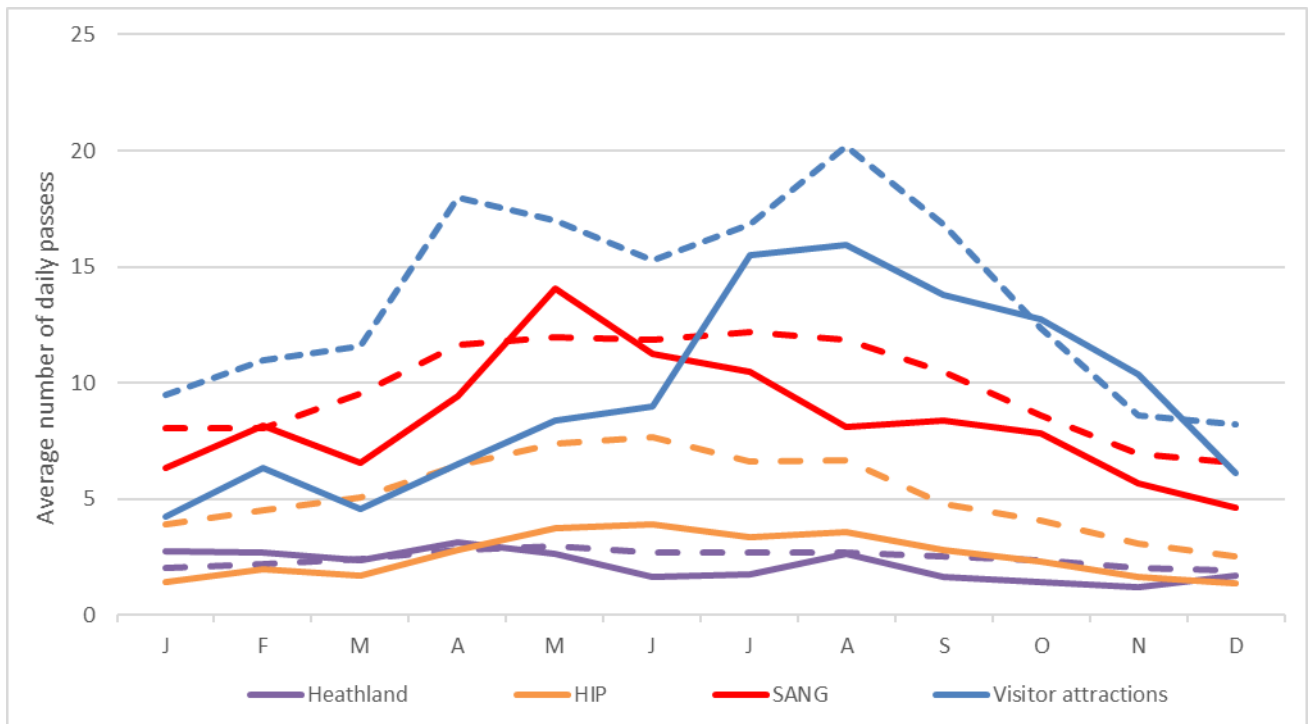


Figure 5: The monthly average number of passes recorded at sensor types, shown heathland sites [n=17], HIP sites [11], and HIP & other sites [4] SANG [12], and Visitor attractions [3]. These are shown in comparison to an average monthly figures for the sensor type based on all previous data using the dotted line.

5.14 Monthly patterns, while interesting, can provide a misleading picture and should be viewed with some caution, due to the low sample sizes considered for the

single year, patchiness of data, and importantly the addition / removal of sensors to the database.

- 5.15 The average daily passes in 2023 across all sensors were 8% lower than 2022 (see Table 13), and for broad sensor types, the heathland sites were 7% higher in 2023 compared to 2022, possibly due to the just above average figures in early 2023 (which was much milder and drier than usual). Most other sites showed a decrease on the previous year. Furthermore, the long term pattern shows values in 2023 on the heaths were 5% lower than the average for the previous 5 years.

Table 13: Summary of percentage change in access between 2022 and 2023, categorised by the site type.

Site type	n	Average daily passes in 2022	Average daily passes in 2023	Percentage change 2022 to 2023	Percentage change 5 yrs previous to 2023
Heathland	16	3.1	3.3	7%	-5%
Heathland & Other/Visitor attractions	3	23.9	24.2	1%	-2%
HIP	11	3.4	2.9	-13%	-18%
HIP& Other	4	6.1	4.9	-20%	-24%
SANG	12	10.3	8.8	-15%	-27%
Visitor Attractions	1	14.0	13.2	-6%	6%
Total	47	6.9	6.3	-8%	-10%

- 5.16 Table 14 gives the change between 2023 and the previous year for sensors grouped by SSSI. The categorisation by SSSI does not just include those in the heathland category, but also other site types, for example Christchurch Harbour SSSI relates to sensors categorised as Heathland & Other/Visitor attractions on Hengistbury Head. The change between 2023 and 2022 at comparable sensors on heathland suggests a 3% increase in access. The largest increases were at St Leonards and St Ives Heaths with a 27% increase, compared to the largest decrease of 32% at Lions Hill.
- 5.17 The same comparison can be made but using the 5-year mean results for 2023, using slightly different figures, due to the selection of comparable sensors. The percentage change shown in Table 15 and suggests a slight reduction in access on SSSIs. These figures are used the summary section table and overall recorded 3% decrease in passes in 2023 at heathland sensors, but importantly this will be influenced by figures during the Covid pandemic. Largest increase was a 11% increase for the two sensors at Town Common, while the largest decrease was of 47% for the sensor at Upton Heath.

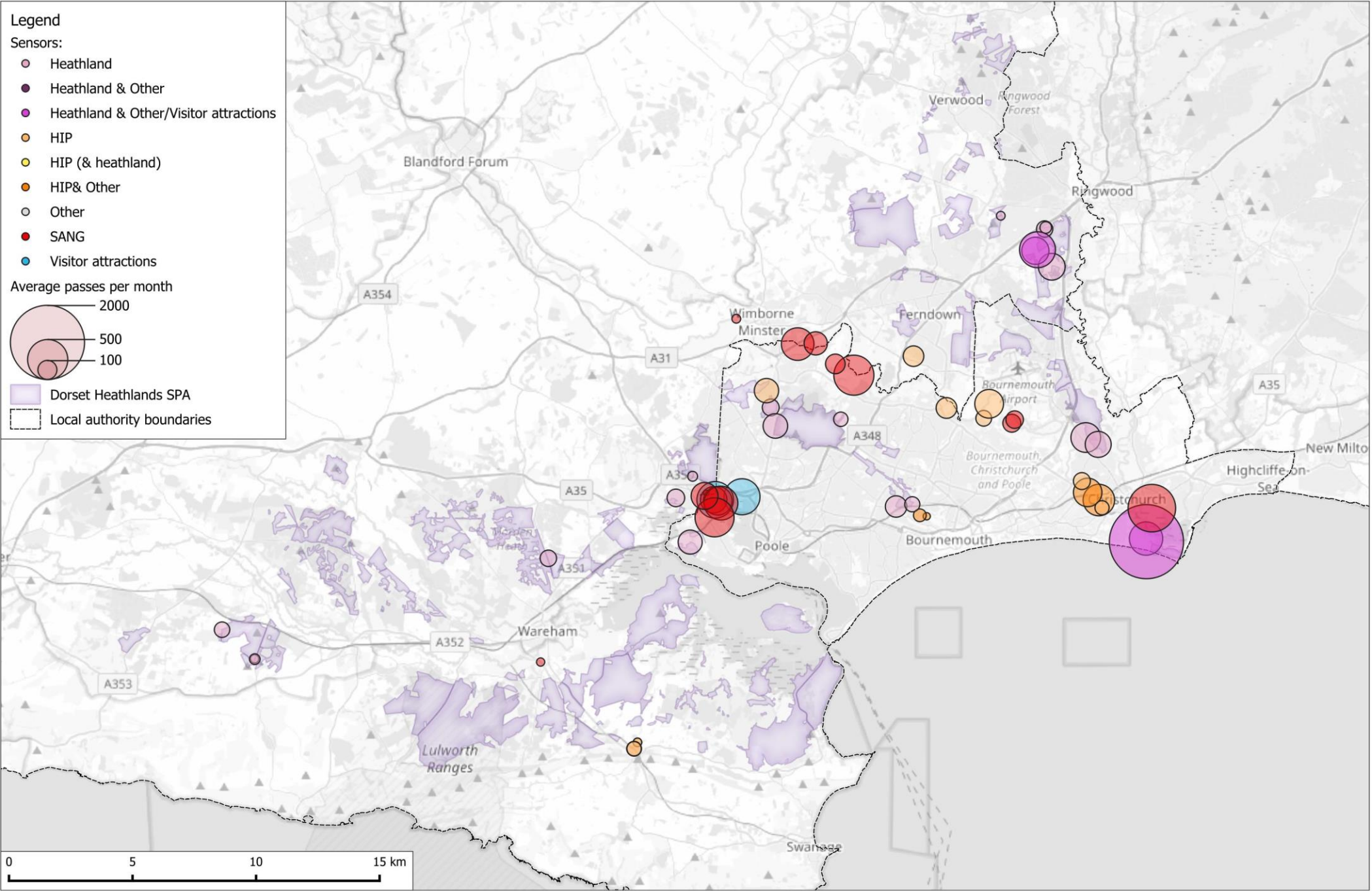
Table 14: Summary of percentage change in access between 2023 and 2022 for heathland only sensors, categorised by the SSSI.

SSSI	n	Average daily passes in 2022	Average daily passes in 2023	Percentage change between 2022 and 2023
Bourne Valley	2	3.0	3.1	2%
Canford Heath	3	3.7	3.3	-11%
Christchurch Harbour	2	32.7	32.6	0%
Ham Common	1	4.9	5.6	15%
Lions Hill	1	0.5	0.3	-32%
Morden Bog and Hyde Heath	1	2.3	2.3	1%
Poole Harbour: Lytchett Fields	1	2.5	2.7	8%
St Leonards and St Ives Heaths	3	4.0	5.1	27%
Town Common	2	7.0	7.7	11%
Upton Heath	1	0.6	0.5	-6%
Winfrith Heath	2	1.2	1.1	-10%
Total	18	6.4	6.6	3%

Table 15: Summary of percentage change in access between 2023 and the previous 5 years for heathland only sensors, categorised by the SSSI.

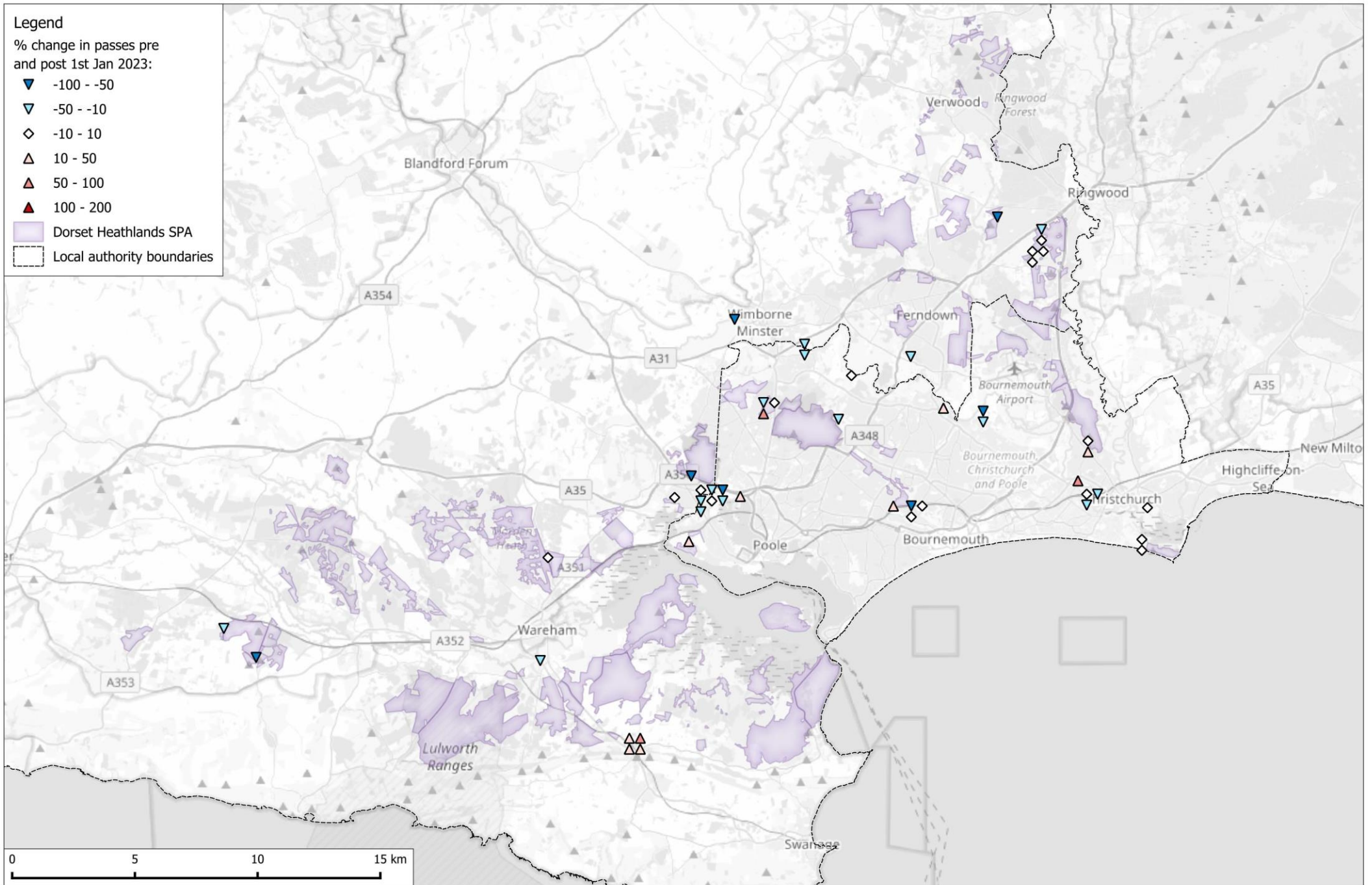
SSSI	n	Average daily passes in 5 years previous	Average daily passes in 2023	Percentage change between previous 5 years and 2023
Bourne Valley	2	3.2	3.1	-2%
Canford Heath	3	3.8	3.3	-13%
Christchurch Harbour	2	32.6	32.6	0%
Ham Common	1	5.5	5.6	2%
Lions Hill	1	0.6	0.3	-46%
Morden Bog and Hyde Heath	1	2.2	2.3	4%
Poole Harbour: Lytchett Fields	1	2.8	2.7	-4%
St Leonards and St Ives Heaths	5	6.8	6.1	-10%
Town Common	2	7.0	7.7	11%
Upton Heath	1	1.0	0.5	-47%
Winfrith Heath	2	1.3	1.1	-12%
Total	21	6.9	6.7	-3%

Map 8: Location of sensors, with markers sized by the average number of passes per month in 2023.



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Map 9: Sensor locations categorised by the percentage change in access from all data pre 2023 and all data in 2023.



6. Incident data

Introduction

- 6.1 The Dorset Heaths Partnership coordinates the reporting and recording of any illegal, anti-social or potentially destructive activities which will impact on the heaths. These 'incidents' are recorded by the individual local authority mitigation officers (formerly DHP wardens) or other individuals from the partnership organisations on the Dorset / BCP (Bournemouth, Christchurch and Poole) Councils' 'Dorset Explorer' mapping system. Incidents cover a range of activities including: fires, motorcycles / off-roading, fly tipping (including green waste), cyclists (off designated paths), horse-riders (off bridleways etc.), vandalism, abandoned vehicles, anti-social behaviours and a wide range of 'other' incidents (e.g. harassment, wildlife crime, firearms, catapults, dens/camping).
- 6.2 Incidents relating to fires on the heath are considered the most robust of all the incident data. The importance of such events means these are much more reliably recorded. The recording of fires is based upon the logged callouts by Dorset and Wiltshire Fire and Rescue, with additional reporting by wardens (from the Dorset heath fires WhatsApp log), which covers any other burnt areas or small campfires, which are otherwise missed in formal Fire and Rescue callout data. The wardens also conduct regular on the ground checks of the dataset and amend any errors. As such it is important to state that continued efforts by partners are needed to record these robustly.

Fires

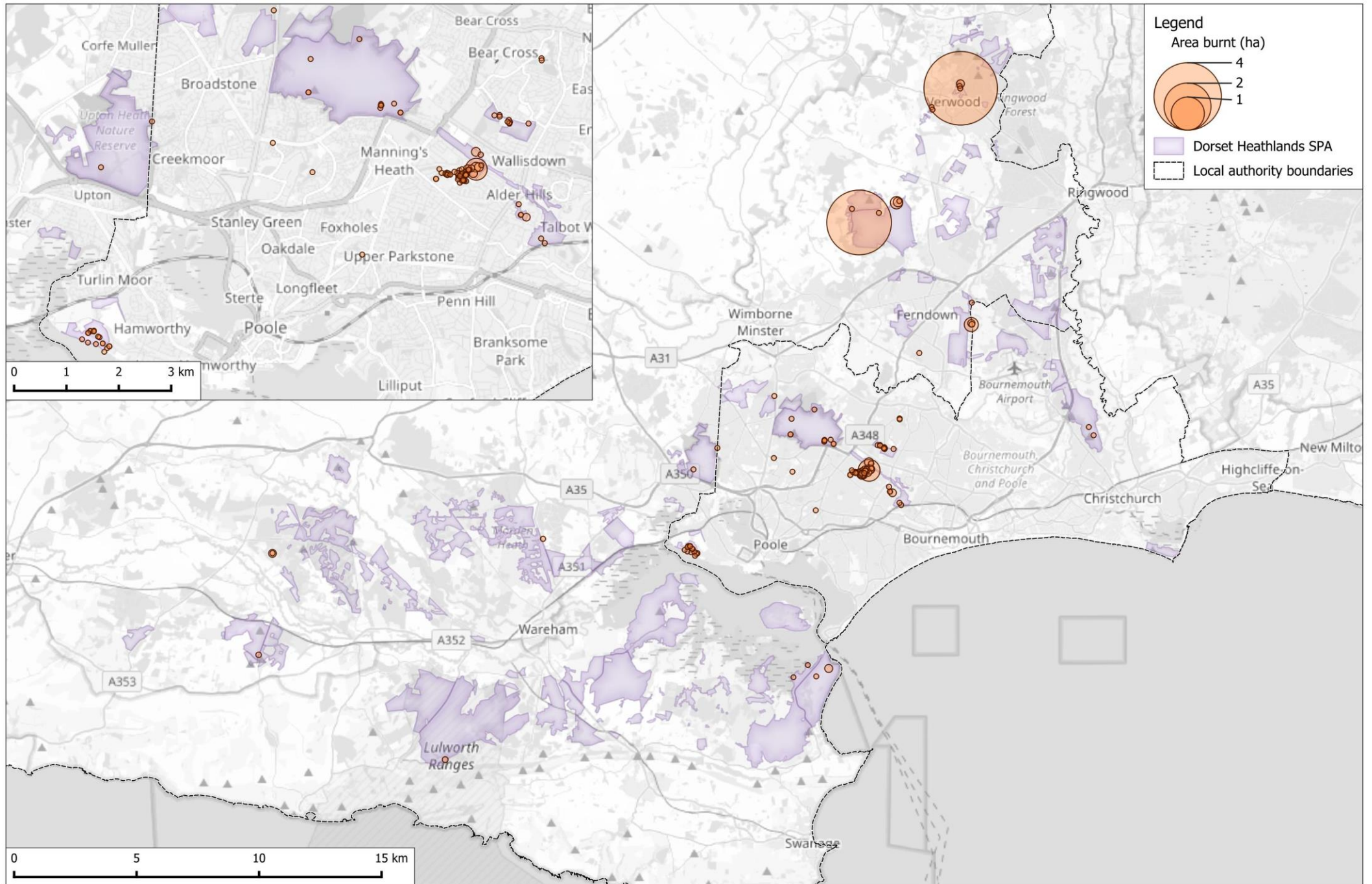
- 6.3 Incidents categorised as "fire" or "barbecue" are examined here. Barbecue incidents refer to recording of a barbecue without an area burnt, however barbecues or campfires are also recorded in the fires category, not always with an area figure or often a nominal 0.5m² area. For this reason both are combined in the analysis.
- 6.4 In 2023, there were a total of 140 fires, amounting to 9.5 ha burnt. Most fires were, as usual, small campfires and barbecues that lead to a very small area affected. Over three-quarters of fire incidents (110 incidents, 79%) covered an area of less than 10m². However, there were two fires in 2023 that were greater than 1 ha, these were:
- On 31st May at Stephen's Castle in Ringwood Forest (4.7 ha)
 - On 23rd December at Holt Heath (3.7 ha)

6.5 The distribution of the fires is shown in Map 10 and presented by site name in Table 16. The sites with the most fires this year were Bourne Valley, Ham Common and Canford Heath.

Table 16: Breakdown of the number of fire incidents (fires and barbecues) recorded at each site in 2023. Fires are categorised by size (m²) and site names are as recorded in Dorset Explorer.

Site name	0 to 10	10 to 100	100 to 1,000	1,000 to 10,000	10,000+	Total
Bourne Valley	36	6	10	1		53
Ham Common	22					22
Canford Heath	14					14
Turbary Common	9					9
Holt Heath	3		2		1	6
Alder Hills	3		1			4
Parley Common	1	1	1	1		4
Studland & Godlingston Heaths	3		1			4
Stephens Castle	2		1			3
Dewlands Common	2					2
Kinson Common	2					2
Moreton	1		1			2
Talbot Heath	2					2
Town Common	2					2
Gore Heath	1					1
Povington & Grange Heaths		1				1
Ringwood Forest					1	1
Upton Heath	1					1
Winfrith Heath		1				1
<No site name>	6					6
Total	110	9	17	2	2	140

Map 10: Distribution of fire incidents recorded in 2023, categorised by the size of the area burnt. Inset map for the Poole area.



6.6 Fire incidents were recorded in every month this year, although the highest numbers were in May and June (Figure 6 and Table 17). The months with the largest total area burnt were May and December. The long-term data shows that the spring months (March to May) typically have the largest total area burnt.

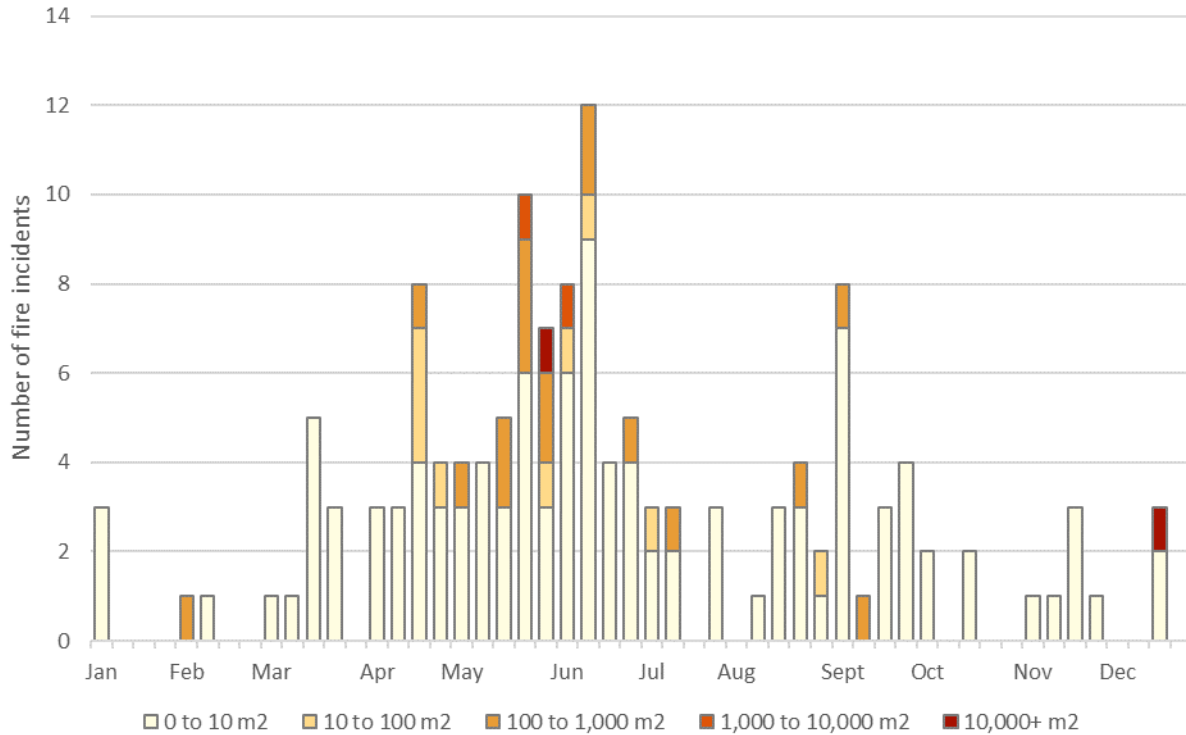


Figure 6: Number of fires per week, categorised by the size of the area burnt (m²).

Table 17: Number of fires and average burnt area per month (m²). The largest two values in each column are highlighted in red.

Month	Number of fires	Total area burnt in 2023	Average area in all previous years	Average area in last 3 years
Jan	3	3	165	1
Feb	2	241	4,364	2
Mar	10	17	98,336	19,500
Apr	19	252	85,154	97,729
May	25	53,905	124,581	684,913
Jun	33	1,993	34,368	10,274
Jul	9	236	24,854	3,943
Aug	10	266	14,712	62,876
Sep	16	1,399	3,244	2,614
Oct	4	7	3,598	510
Nov	6	1	16,452	1
Dec	3	37,019	75	0
Annual Total	140	95,337	386,346	882,361

6.7 Table 18 compares the number and scale of fires over the years. This shows that in 2023, the number of fire incidents recorded was fairly high but the total area burnt was much lower than average.

6.8 Since the majority of fires recorded are very small (e.g. campfires and BBQs), Figure 7 excludes these, and just examines the trend over time for 'small/medium' fires (10 to 10,000 m²) and 'big' fires (at least 10,000 m²). Over the past 20 years, the number of small/medium fires has declined, although in recent years it has remained fairly constant at 20-40 fires per year. The number of large fires shows less variation, with typically 1-5 such fires per year.

Table 18: Summary of the number of fires and area of fires that have been recorded in each calendar year.

Year	Number of fires, by size					Total number of fires	Total area burnt (ha)
	Up to 10m ²	10m ² to 100m ²	100m ² to 1,000m ²	1,000m ² to 10,000 m ²	Over 10,000 m ²		
2023	110	9	17	2	2	140	9.5
2022	107	7	12	13	4	143	33.6
2021	65	6	10	8	4	93	26.5
2020	78	11	11	10	5	115	204.6
2019	46	10	13	5	1	75	18.1
2018	76	6	12	8	11	113	59.2
2017	41	3	16	7	5	72	21.8
2016	25	2	14	10	2	53	10.1
2015	31	2	7	10	7	57	87.7
2014	78	4	12	4	2	100	8.9
2013	59	15	21	13	3	111	12.8
2012	60	3	12	6	3	84	6.9
2011	91	18	36	14	4	163	71.1
2010	80	20	37	17	8	162	41.3
2009	79	37	41	11	6	174	18.7
2008	56	16	23	7	1	103	4.6
2007	29	17	8	5	2	61	5.9
2006	69	27	38	20	2	156	54.3
2005	47	82	57	16	2	204	24.1
2005	47	82	57	16	2	204	4.3
2004	71	37	39	11	0	158	31.7
2003	334	45	46	23	4	452	64.9
2002	72	18	11	4	2	107	33.6

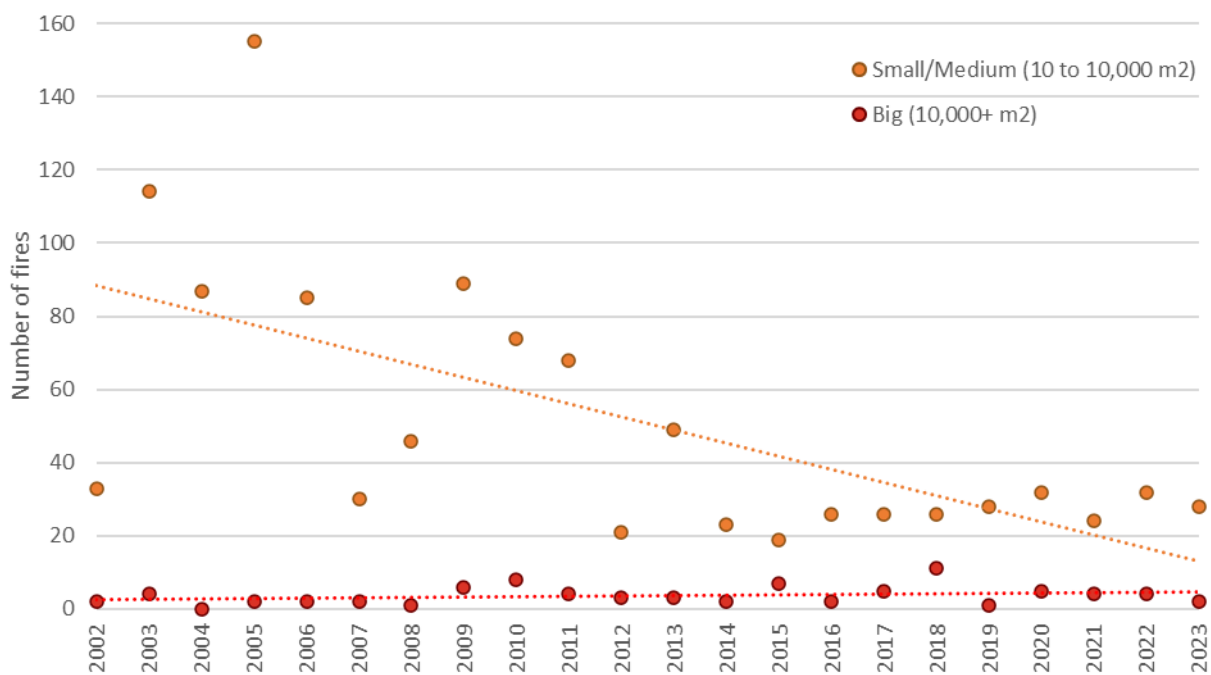


Figure 7: Number of fires over time separated into small to medium fires and very big fires. Fires less than 10 m² are not included.

Other incidents

- 6.9 In 2023, a total of 73 non-fire incidents were reported, far fewer than in 2022 (182) and 2021 (133). The most common incident type was motorcycling on the heaths, which accounted for 29 incidents, followed by fly tipping (19 incidents). The 14 incidents categorised as “other” included criminal damage, fireworks, e-scooters, threatening behaviour, camping and littering. August had the highest number of incidents, followed by April (see Figure 8).
- 6.10 The distribution of these incidents is presented in Map 11, showing a concentration around Canford Heath and Bourne Valley.
- 6.11 As always, the number of incidents recorded at each site will depend on several factors, and it is quite possible that incidents occurred at sites other than those listed, which were either not observed or not recorded.

DHP MONITORING: 2023

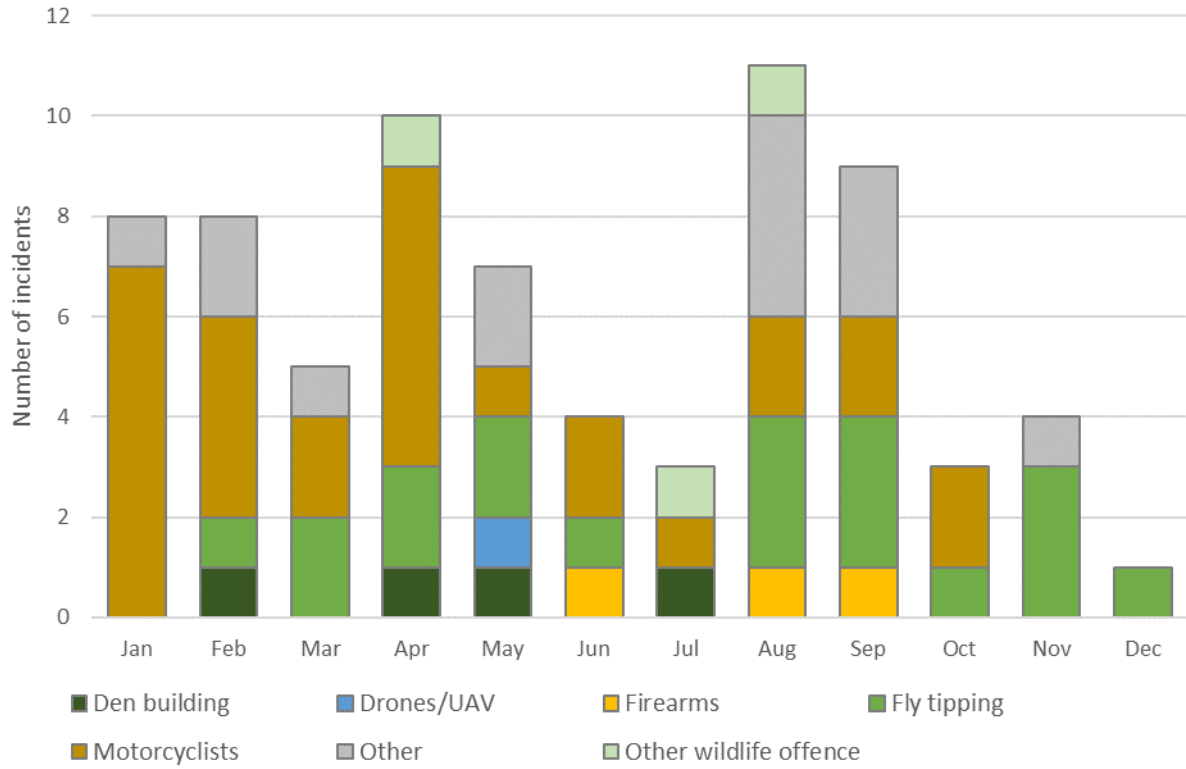
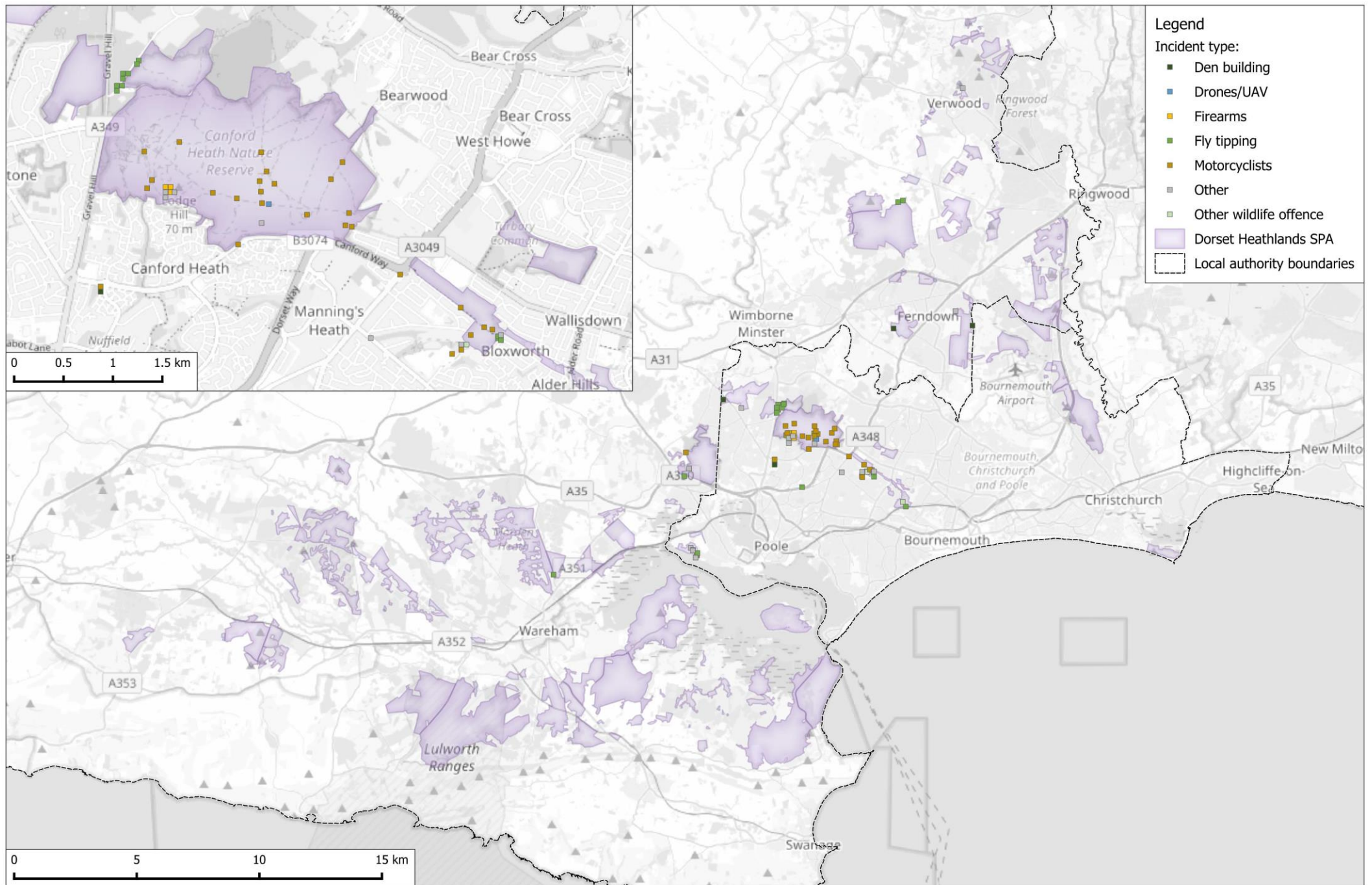


Figure 8: Monthly number of incidents in 2023, categorised by the nature of the incident.

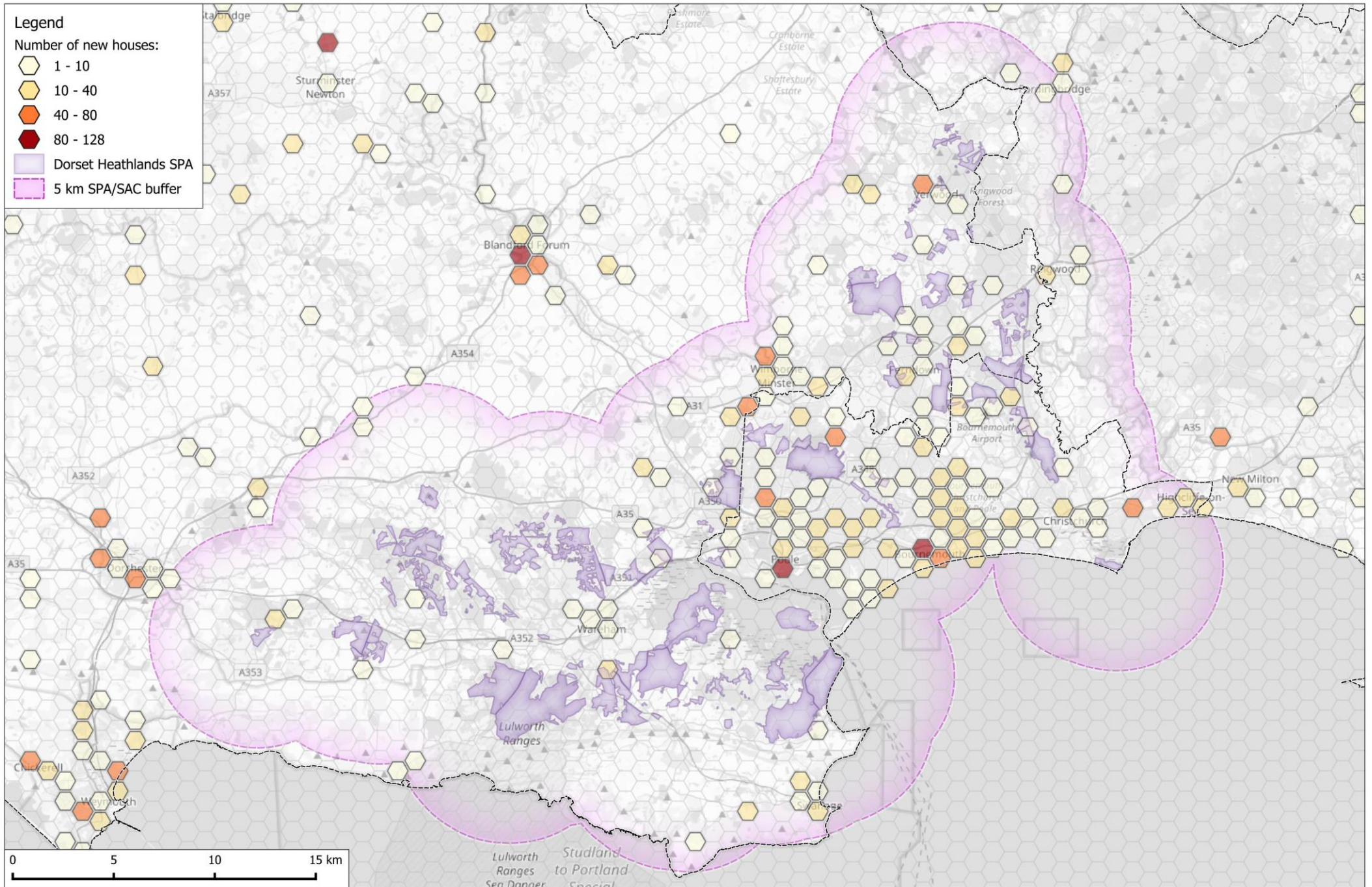
Map 11: Distribution of incidents (excluding fires) recorded in 2023. Inset map for Canford Heath/Bourne Valley.



7. Housing data

- 7.1 Housing data from taken from January 2023 and again 12 months later show there were an additional 1,812 dwellings registered in our residential postcode database within 5km of the SPA/SAC boundary. This equates to a 0.7% increase with the current total estimated at 267,150 residential properties within 5km.
- 7.2 Within the 5km buffer, two cells are highlighted with over 80 new dwellings (see Map 12). They are associated with developments in Poole and Bournemouth. Other significant growth is in Verwood, Creekmoor and Bearwood and several areas around Wimborne.
- 7.3 As in previous recent years, there has been continued growth in Blandford Forum, as well as ongoing smaller developments in Poundbury and Weymouth, although this is outside the 5km zone of influence of the Dorset Heaths.
- 7.4 This section could also include the locations of individual developments completed within the period to more specifically target new housing and residents. However, this would require the provision of more detailed GIS data from both Local Authorities.

Map 12: Housing growth between January 2023 and January 2024.



8. Wardening

8.1 This year is the second year of DHP wardens recording time on site for their engagement with members of the public over the summer months (May to September). This provides an excellent way to understand the wardening effort and more information on people's behaviours and the interactions with wardens.

Time on sites

8.2 A total of 1,664 hours of warden time had been logged in 2023, with each visit consisting of just above 2 hrs (mean time on site was 2.47 hrs). In 2022, a total of 750 hours were logged, but the recording of time only started in July 2022. Time on site is shown in Table 21 and ranged from just 1 hour at Iford Meadows to 521 hours at St Catherine's Hill. Warden effort was greatest in July with a total of 263 hrs across the sites.

Interactions

8.3 Wardens recorded interactions with members of the public. A total of 1,627 interactions with approximately 2,549 people¹ were recorded. Interactions were also grouped by sites².

Table 19: Summary of wardening efforts logged over time.

	2022	2023
Warden hours logged	750	1,664
Number of interactions	754	1,627
Total people interacted with	1,249	2,549
Percentage of interactions during bird breeding season	50%	56%
Percentage of groups interacted with who had one or more dog/s	65%	69%
Percentage of positive interactions	86%	81%

8.4 Number of interactions with one or more persons varied greatly based on the busyness of the sites and interactions per hour ranged from 31.5 interactions per hour at Canford Heath to 0.06 at Ramsdown. A number of sites listed in Table 21 had some data missing, for example either interactions were recorded but no

¹ Groups larger than 5 are recorded as "5+", with an exact figure only occasionally given. As such an exact number of people is not always known.

² Note Lytchett Central and East were merged, as they were not separated in the time recording sheet.

warden time was logged at the site, or vice versa. These include Alder Hills, Bernard’s Mead, Corfe Hills, Creech, Dewlands Common, Dunyeats, Ferndown Common, Ferndown Valley, Iford Meadows, Nea Meadows, Parley Common, Sandford Heath, Stoborough Heath, Stocker’s Mead, Tadnoll and Upton Heath.

- 8.5 During the interactions the reason for initiating the conversation, and the topics addressed were recorded. Table 20 gives the issue/s which started the interaction. Overall, most interactions were started for no particular issue, but due to a “general visitor interaction” as was the case in 52% of interactions (838). This was followed by interactions instigated because of dogs off lead 31% (500) and all other reasons accounted for 17% of interactions.
- 8.6 Interactions were assessed by the wardens as positive, negative or neutral. In total 75 interactions were negative (5%), mostly with those whose reason for being engaged for a dog/s being off lead, but these still were in the minority within these groups. A total of 212 interactions (13%) were described as a neutral, for which around half the first reason given for this related to dogs off lead.
- 8.7 The topics discussed in the interaction were broad and often multiple topics were covered in the single interaction. The most common topic was “wildlife”, with 67% of interactions discussing this topic (1,156), followed by ground nesting birds (47%, 809) and responsible dog ownership (45%, 784).

Table 20: Summary of topics the wardens were initially engaged to discuss and topics covered in the discussion that followed with the group. Top three in each column highlighted in bold red text.

Issue/ Topic	Topic intially engaged about	Topics discussed in interaction
General visitor interaction	838 (52%)	-
Dog off lead	500 (31%)	-
Other	78 (5%)	142 (8%)
Visitor approached Warden	80 (5%)	-
Cycling/horse riding off bridleway	48 (3%)	114 (7%)
Jump use/digging	3 (0%)	47 (3%)
Dog fouling	6 (0%)	277 (16%)
Wildlife	-	1,156 (67%)
Ground nesting birds	-	809 (47%)
Responsible dog ownership	-	784 (45%)
BBQs/Campfires/fires	-	292 (17%)
SANGs	-	265 (15%)
Litter	-	199 (11%)
Den building	-	182 (8%)
Camping	-	83 (5%)

Motorbike use	-	77 (4%)
Fishing	-	67 (4%)

- 8.8 Dogs were present in 69% of the interactions (up from 65% in 2022) and it was recorded as to whether the dogs were on or off lead. Overall, 67% of dogs were off lead from a total of 1,156 dogs present. A total of 38 interactions were with commercial dog walkers, of which 30 were positive.

DHP MONITORING: 2023

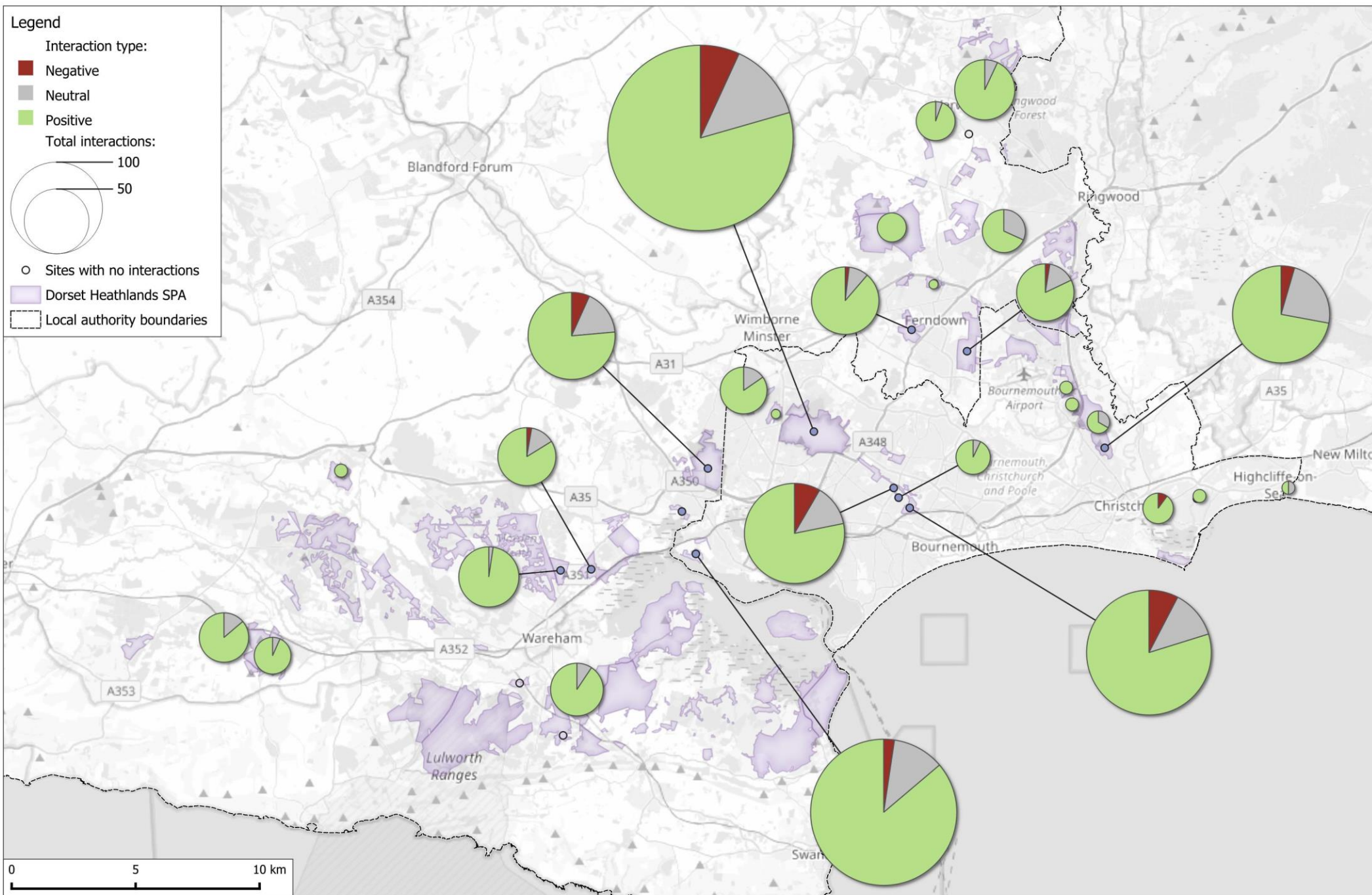
Table 21: Summary of warden interaction and engagement. Highest three values in each column are highlighted in red bold text.

Site	Hours	Total people spoken to	Interactions per hour	Initiated topic: General visitor interaction	Initiated topic: Dog off lead	Discussed topic: Cycling/horse riding off bridleway	Discussed topic: Dog fouling	Discussed topic: Jump use /digging	Discussed topic: Motorbike use	Discussed topic: SANG	% negative interactions	% positive interactions
Alder Hills	0.00	19	0	5	4	0	1	1	0	1	0%	93%
Black Hill	8.65	7	0.231	0	1	2	0	2	0	0	0%	100%
Bourne Valley	0.00	168	0	80	24	3	24	2	24	15	8%	78%
Canford Heath	13.00	664	31.462	142	213	31	38	14	30	90	7%	79%
Chewton Bunny	29.05	2	0.069	1	0	0	1	0	0	0	0%	50%
Corfe Hills	0.00	34	0	20	9	2	2	0	1	4	0%	85%
Dewlands	35.73	28	0.504	15	2	1	7	2	0	2	0%	94%
Dunyeats	0.00	1	0	1	0	0	0	0	0	0	0%	100%
East Holme	11.50	0	0.000	0	0	0	0	0	0	0	-	-
Ferndown	48.27	74	1.119	44	10	5	23	3	0	8	2%	87%
Great Ovens	64.02	63	0.672	31	9	3	15	0	0	10	0%	98%
Ham Common	0.00	436	0	116	76	4	15	2	6	30	2%	86%
Hengistbury Head	7.03	6	0.569	0	2	1	0	0	0	0	25%	75%
Holt	16.02	13	0.624	10	0	0	2	0	0	0	0%	90%
Lion's Hill	31.27	30	0.704	18	3	0	12	0	0	2	0%	68%
Lytchett	46.60	35	0.579	23	3	0	13	0	0	2	0%	93%
Mudford Wood	40.92	4	0.049	2	0	0	0	0	0	0	0%	100%
other	41.13	20	0.267	9	2	0	3	0	0	0	9%	82%
Parley Common	49.68	52	0.785	27	9	3	13	4	1	8	3%	82%
Potterne Hill	3.82	0	0.000	0	0	0	0	0	0	0	-	-

D H P M O N I T O R I N G : 2 0 2 3

Ramsdown	35.93	3	0.056	1	0	1	0	0	0	0	0%	100%
Riversmeet/Stanpit SANG	101.20	18	0.109	10	0	0	0	0	0	7	9%	82%
Sandford Heath	57.72	59	0.693	27	11	2	10	0	0	6	3%	78%
Slop Bog	4.90	2	0.204	1	0	0	1	0	0	0	0%	100%
Sopley Common	27.83	2	0.072	2	0	0	0	0	0	0	0%	100%
St Catherine's Hill	521.07	197	0.215	45	28	38	2	16	4	12	4%	71%
Stephen's Castle	57.92	71	0.742	32	8	1	13	0	1	4	0%	93%
Stoborough Heath	50.73	60	0.650	29	3	3	11	0	0	3	0%	88%
Tadnoll Heath	30.28	38	0.958	24	4	0	8	0	0	1	0%	86%
Talbot Heath	0.00	262	0	92	79	6	28	1	9	44	8%	79%
Town Common	60.48	13	0.099	0	3	2	0	0	0	1	0%	67%
Upton	80.47	140	1.118	66	21	6	30	0	1	14	7%	76%
Winfrith	46.22	28	0.346	13	2	0	5	0	0	1	0%	88%

Map 13: Summary of wardening interactions.



9. Engagement

9.1 This section covers the engagement with the public as part of all aspects of the mitigation including wardening, education, Dorset Dogs work, social media and public events.

Events

Education events

9.2 A total of 221 educational events³ were held in 2023, engaging with a total of 10,890 people – see Figure 9. This was a 141% increase on 2022, when just under 5,000 people were engaged within in the post-covid years.

9.3 Around three-quarters of persons engaged in education were children, as has been typical in recent years. No large events were again held this year which has greatly reduced engagement, relative to pre-Covid figures.

9.4 Engagement with target schools was also up to the pre-covid levels, with 59% of events being target schools. The location of education events and target schools is shown in Map 14, and it was clear that there was a greater focus back to schools around Canford/Upton. Six new schools were engaged with for the first time in 2023; Livingstone Academy, Hayeswood First School, Muscliff Primary School, Rushcombe First School, St Joseph’s Catholic Primary School and Stourfield Infant School.

³ This covers a wide range of “events”, most relate to presentations in schools, but also include talks to organised youth groups, university students, at open library events and other on-site or off-site events such as bioblitz, nature walks and work experience student placement.

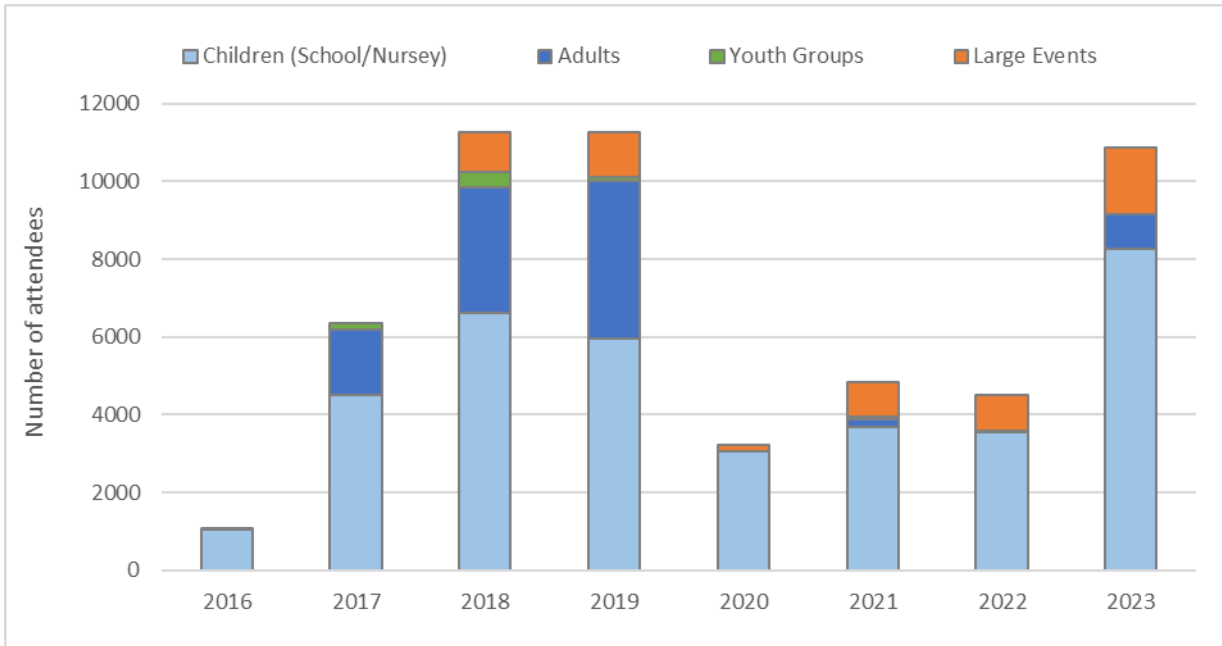
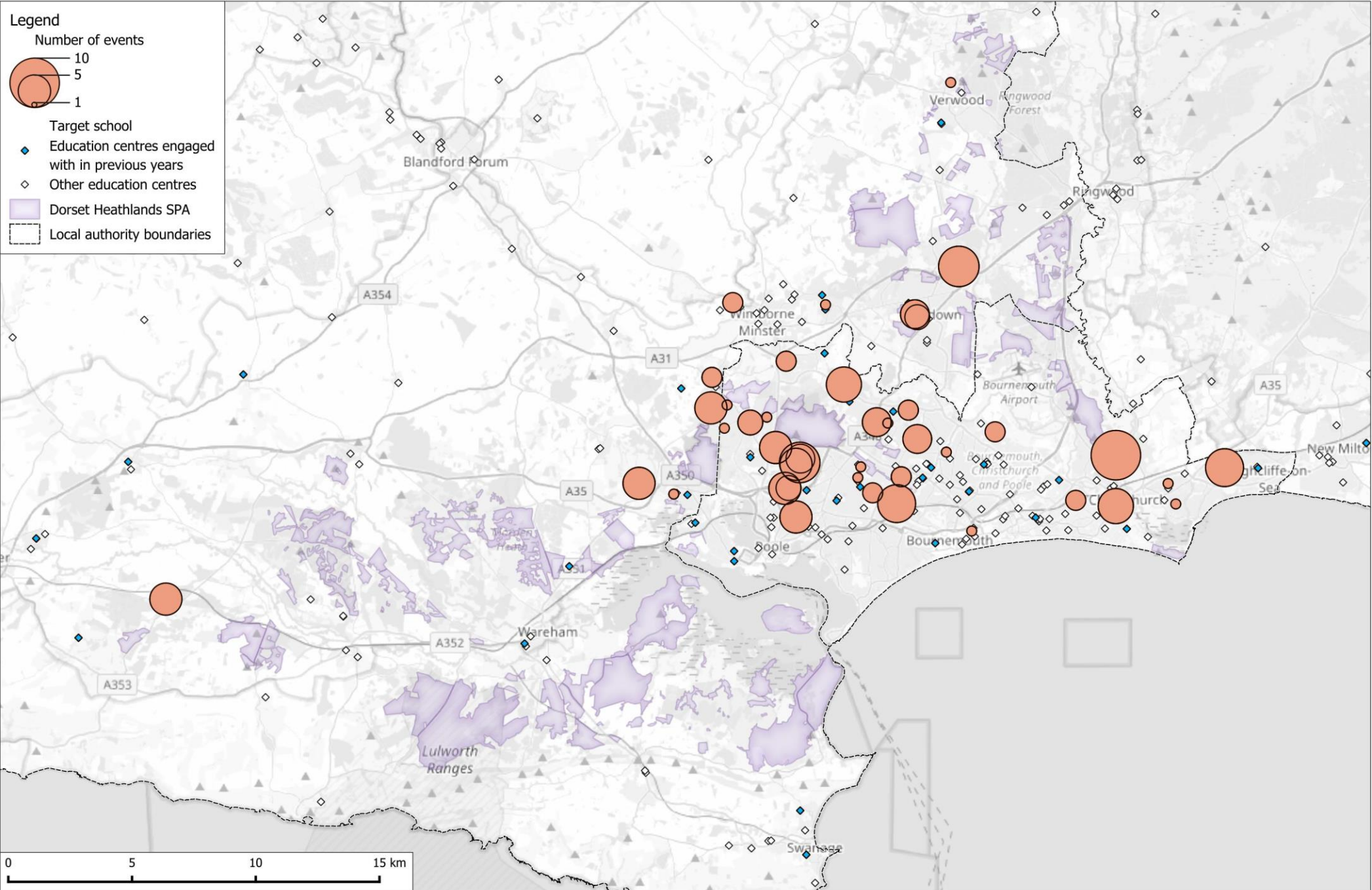


Figure 9: Total number of people attending events - small events record the exact number of people separated into adults and children, but larger events do not make this distinction.

Map 14: Location and number of education events held at schools in 2023.



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Heath Week 2023

- 9.5 Heath Week 2023 ran from 24th – 30th July, which for the third-year running was a coordinated week of events including other mitigation projects such as Thames Basin Heaths and the Pebblebed Heaths. This included numerous face-to-face and online events by DHP and partner organisations including RSPB, DWT, NT, ARC and BCP.
- 9.6 There was no “takeover” by external high-profile figures, as has been conducted in previous years. However, engagement was still very high, especially with the involvement from the numerous partners supporting. Physical events included moth trapping and evening walks, although unfortunately some were cancelled due to weather.
- 9.7 Total estimated engagement was 943 face-to-face engagements and from social media a total reach of approximately 17,000. This reach includes direct DHP accounts, but not associated partner accounts (BCP, ARC, RSPB etc.) which will have had a reach locally and nationally.

Dorset Dogs events

- 9.8 K9 Firewise patrols are undertaken by volunteers and in 2023 there were a total of 146 events amounting to 162.5 hours of person time. This was down on the time spent in 2022, when there were 465 events and 486.5 hours. The most commonly visited site was Upton Heath (as in the previous year), with 50.5 hours on site, accounting for 31% of all K9 Firewise time. Next most common were; Avon Heath, St Catherine's Hill Nature Reserve, Stephens Castle and Ferndown, all with more than 10 hours.
- 9.9 In 2022, the number of Dorset Dogs events decreased due to reduced capacity following staff changes, however in 2023 with new recruitment, the number of events delivered has increased. A total of 489 hours were spent on site engaging with members of the public, including 228 hours at “Pit-stops” and 198 hours at “Park and Patrol” events and 62 hours at other, typically large-scale events. This resulted in engagement with at least 3,197 people, and 2,256 Dorset Dogs goody bags taken.
- 9.10 A total of 66 different sites were visited by the team, roughly 40 hours were spent at Thorncombe Woods and Upton Country Park, followed by 30 hours at Hengistbury Head and Canford Heath. The rate of engagement, number of people engaged with per hour of staff time was highest at the large-scale events (e.g. Maragret Green's “GroundDog Day”, RSPB's Arne “Pull-a-Pine”, Upton Country Park's “Santa Paws”), with 12.1 people per hour engaged with. For the Pit-stops this

was typically 6.5 people per hour and 4.8 at Park and Patrols. A total of 12 large scale events were attended in 2023, during which 748 people were engaged, 23% of all the people engaged with.

- 9.11 Excluding the large-scale events, engagement was highest at busy heath and SANG sites, such as at Sika Trail car park (9.8 people engaged per hour), Hengistbury Head (9.4). At 8 different sites, a total of 7.6 hours were used in which no people were engaged with. Some of these were quiet due to weather conditions and others were sites with naturally lower levels of access and therefore fewer people likely to be present. Engaging with people who use the quieter sites is still important. It is important to note that the above analysis has not accounted for multiple staff members which are more likely at larger events/busier sites.
- 9.12 A single, large-scale engagement event by DHP/Dorset Dogs was not held in 2023 (i.e. the Dorset Dogs Festival), but a joint event with BARI was planned for 2024.

Membership

- 9.13 A total of 45 new members joined Dorset Dogs in 2023. The distribution of the new members in the context of the total membership (2,401 members with postcodes) is shown in Map 15. The distribution is again concentrated within the BCP conurbation and matches with population density and proximity to the heaths.
- 9.14 However, the growth of membership has been slowing. This was in part due to less engagement during Covid and no large scale events as well as less of a push to membership, but higher engagement with social media channels. However, with a new website it is now easier for people to sign up and membership figures were up on last year and will be pushed more for next year.

Social media

- 9.15 In 2023, Twitter was rebranded as X and the insight data they provide changed. This is in addition to changes of the same data on Facebook in 2022. These changes are acknowledged because they make comparison of key metrics from these social media platforms with previous years difficult, and so are presented here with caution. The changes between 2022 and 2023 are presented in Table 22.
- 9.16 Overall an estimated 247,697 people were engaged with on the 4 main social media platforms (note there is some additional engagement by Hengistbury Hounds on Instagram and TikTok).
- 9.17 Different social media channels have varied in the level of engagement received and continually Heath Week provides a surge of engagement. However, numbers

engaged with mostly have been slowly declining since the peak numbers achieved during the pandemic. The number of users of X, formerly Twitter, have declined in the UK so decreases on this platform are perhaps to be expected.

Table 22: Summary of social media engagement on various platforms and key metrics for DHP and Dorset Dogs only. Percentages show the change from the previous year. Asterisk indicates where values are incomplete.

Platform/metric	DHP	Dorset Dogs
Website		
Site sessions/users	3,817 (11%)	15,718 (-55%)
Facebook		
Likes	6,536 (10%)	64,983 (4%)
Reach	52,169 (-52%)	75,909 (-21%)
Instagram		
Engagements	1,156 (-29%)	814 (32%)
Reach	14,591 (-54%)	7,596 (-25%)
X (Twitter)		
Engagements	2,815 (-37%)	
Impressions	77,897 (-43%)	
Total Reach/Impressions	148,474 (-47%)	99,223 (-30%)

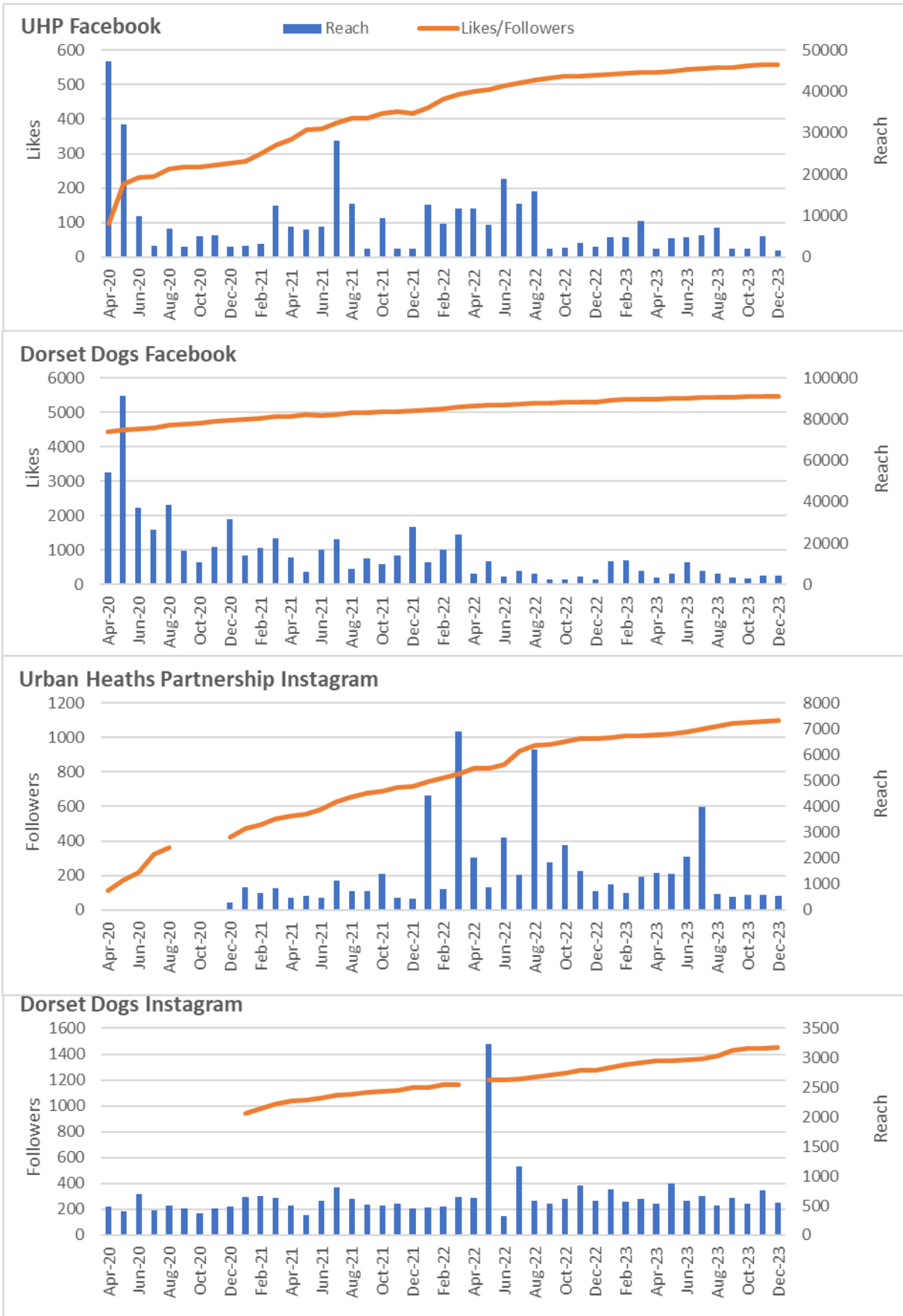
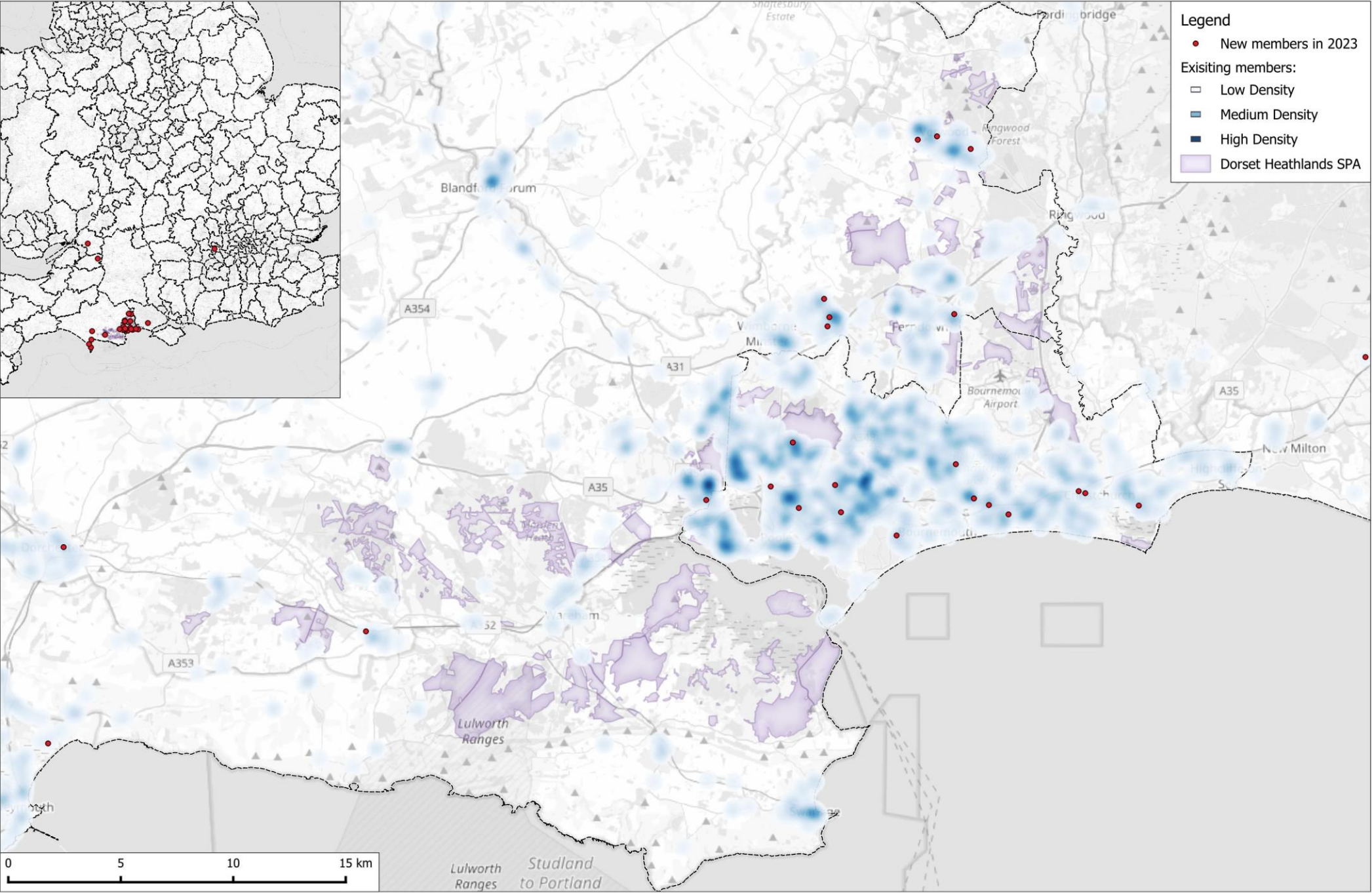


Figure 10: Social media stats for April 2020 onwards.

Map 15: Distribution of new and existing Dorset Dogs members. Inset map shows distribution of all new members.



10. Recommendations

10.1 A series of recommendations can be drawn from this report to inform recording and analysis of future data. These include:

- **SANG and HIP provision:** These data vary in usefulness. Whilst it is possible to ascertain which sites have opened in the last year by comparing to the previous year, a more consistent dataset could be utilised. We suggest that for each SANG / HIP site the year opened, nature of the site and size of site (including any expansions) should be recorded.
- **Coordinated vehicle counts:** An up to date summary of car parks would be useful, as highlighted in the car park audit conducted in March 2023. This would involve the removal of inaccessible car parks and addition of new car parks to the dataset, complete with the capacity estimates, locations and facilities available.
- **Warden data:** There is currently some inconsistency in how sites are recorded. For example, the dataset that compares warden time on site and warden interactions cites different site names despite some clearly being the same location. Removal of duplicates or streamlining of site name data would make it easier to compare site data between years. The warden data also had inconsistencies where interactions occurred – recording of interactions where there had been no warden time recorded.
- **Survey123:** Dates on Survey123 appeared to switch between UK and American format for recording dates. This made some comparisons between months for both the engagement and interaction data difficult to interpret and required a level of cleaning before analysis.

11. References

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Appendix

Table 23: Summary of numbers of Dartford Warbler, Nightjar and Woodlark recorded in 2023 from sites (or the 1km squares which represent a subset of sites).

Site	Woodlark	Dartford Warbler	Nightjar
Alder Hills	0	0	
Arne Heaths	0	74	45
Avon Heath North	10	15	19
Avon Heath South	6	5	11
Barnsfield Heath	15	26	31
Blacknoll	1	1	2
Bourne Bottom (Valley)	0	1	1
Canford Heath	0	87	49
Corfe Bluff	0	0	
Corfe Hills	0	0	0
Creech Heath	0	0	0
Dewlands Common	0	0	0
Dunyeats Hill	0	12	3
East Holme	0	0	
Ferndown Common	1	7	12
Gallows Hill	0	0	
Grange Heath	3	7	7
Great Ovens	2	16	8
Ham Common	0	2	1
Haymoor Bottom	0	0	
Hengistbury Head	0	0	
Holt Heath/ Whitesheet	1	38	41
Holton Lee	0	3	0
Hurn	4	1	7
Hurn Forest	2	5	9
Hyde's Heath	4	12	14
Kinson Common	0	0	
Lions Hill	0	5	4
Lytchett East & Central	0	0	
Noon Hill	0	0	0
Parley Common	2	25	22
Ramsdown	0	0	0
Redhill Common	0	0	
Sandford Heath	1	5	5
Slepe Heath/ Hartland Moor squares	7	28	25
Slop Bog	0	0	
Sopley Common			0
Sopley & Troublefield	0	0	
Stephens Castle	0	1	4
Stoborough Heath	0	0	0
Stoborough RSPB	2	6	16

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Site	Woodlark	Dartford Warbler	Nightjar
Studland/ Godlingston Heath squares	0	16	11
Talbot Heath	0	11	5
Town Common/SCH	1	19	32
Turbary Common	0	2	0
Turnerspudde Heath	0	0	0
Upton Heath	1	47	24
Verwood Forest/ Cranborne Common square	2	4	11
Wareham Forest/ Morden Bog squares	2	7	15
Winfrith & Tadnoll Heath	5	13	21

DHP MONITORING: 2023

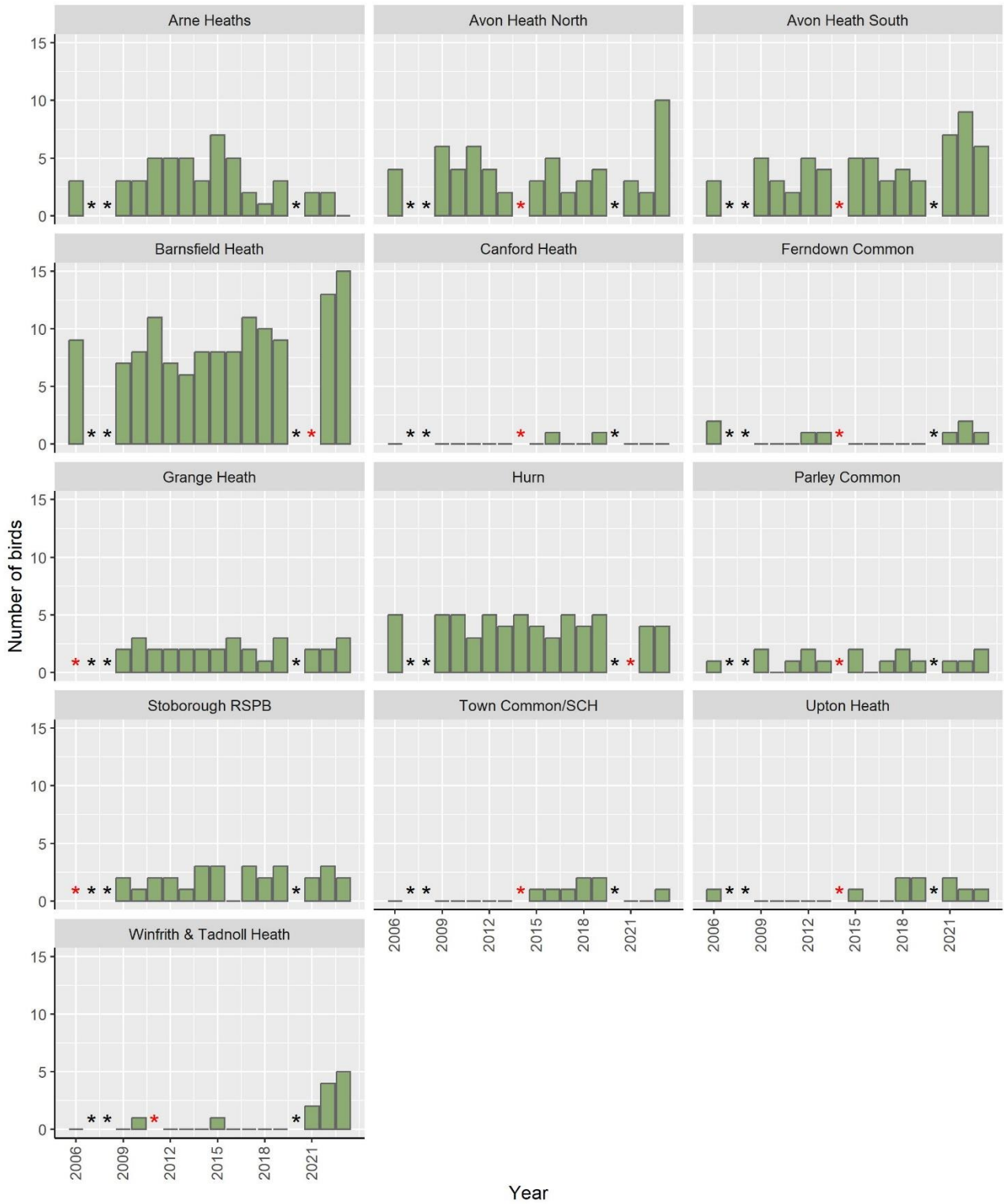


Figure 11: The number of Woodlark recorded at a selection of sites (or the 1km squares which represent a subset of sites) from the annual monitoring data. Sites shown are those with =>14 years of count data.

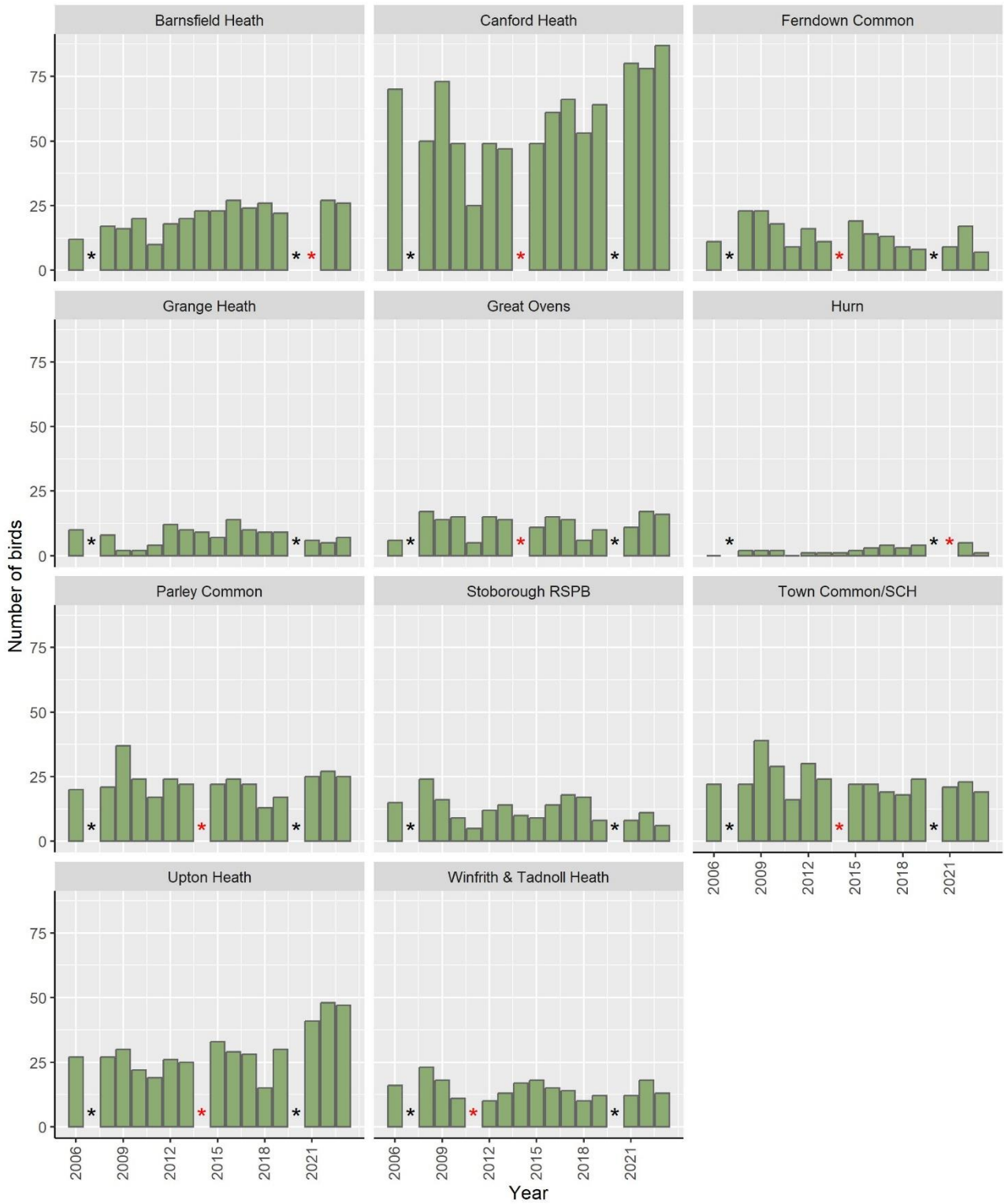


Figure 12: The number of Dartford Warbler recorded at a selection of sites (or the 1km squares which represent a subset of sites) from the annual monitoring data. Sites shown are those with =>15 years of count data.

DHP MONITORING: 2023

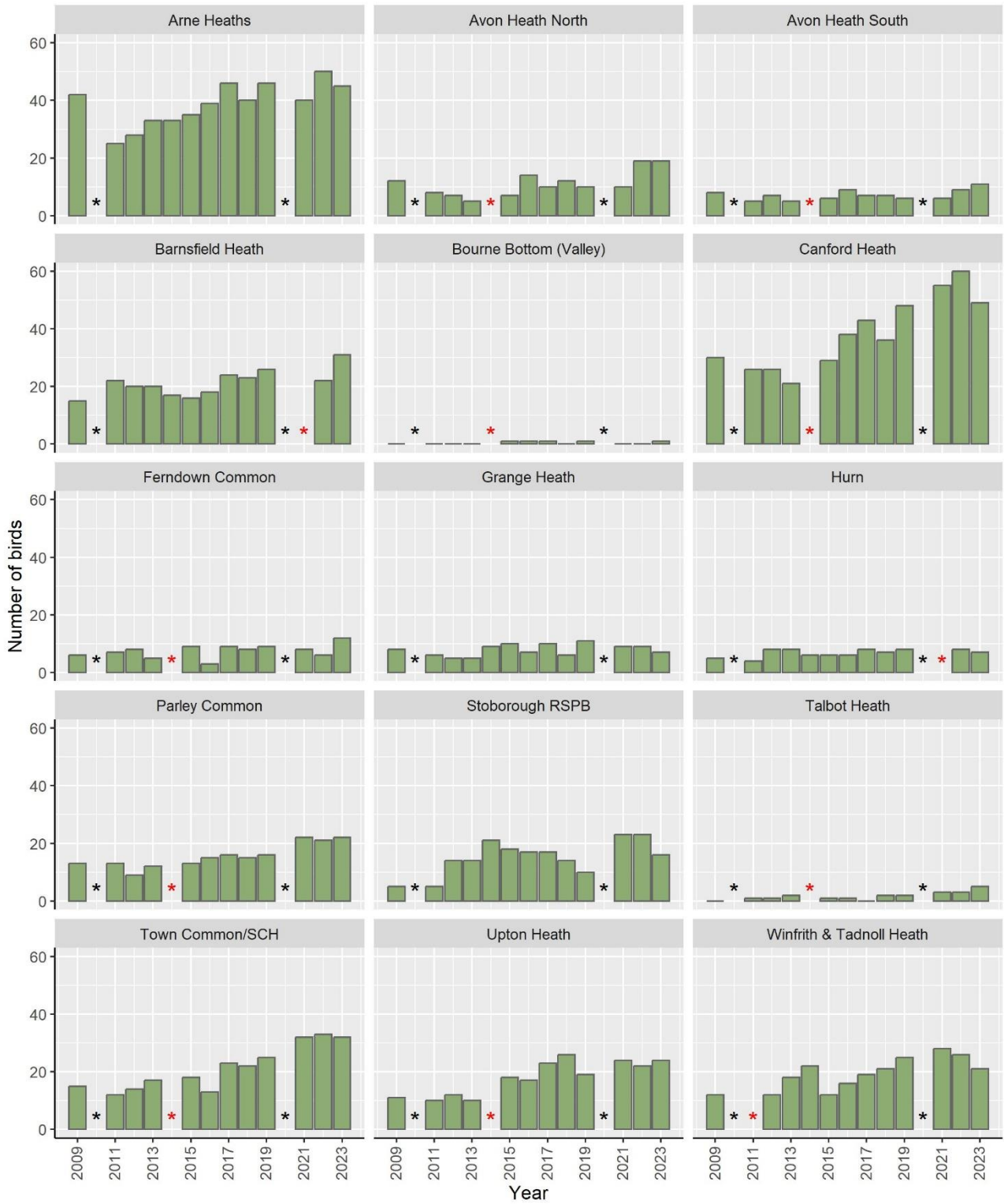


Figure 13: The number of Nightjar recorded at a selection of sites (or the 1km squares which represent a subset of sites) from the annual monitoring data. Sites shown are those with =>12 years of count data. Note missing values for 2010 across all sites.