



SOUTH EAST DEVON
HABITAT REGULATIONS
PARTNERSHIP

South East Devon Habitat Regulations Executive Committee

*East Devon Pebblebed Heaths annual monitoring
report.*

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Exeter
City Council



Legal comment/advice:

There is no direct legal comment to be made at this time, each and any individual issue will need to be considered as it arises.

Finance comment/advice:

Any financial implications are set out in the report.

Public Document:	Yes
Exemption:	None
Review date for release	None

Recommendations

It is proposed that the Executive Committee:

1. Notes the comment and information presented in the report.
2. Receives future reports concerning the condition of the features of the East Devon Pebblebed Heaths on an annual basis.

Equalities impact: Low

Risk: Low. This report details the condition of the features of the East Devon Pebblebed Heaths (EDPH) in relation to the South East Devon European Site Mitigation Strategy. This is important because without robust and effective mitigation which enables the partner authorities to be certain of no net impact to protected sites, continued development as outlined in respective local plans and within 10km of the heaths is at risk of legal challenge.

1. Summary.

1.1 This report covers the period from 2016 to 2021, the first five years of strategy delivery. Data is collected by site teams across the EDPH annually in relation to Nightjar, Dartford warbler and Southern damselfly. Habitat condition data is collected periodically by Natural England in order for them to make condition assessments.

1.2 Nightjar monitoring effort is constant across the area of interest and covers almost all of the Special Protection Area (SPA). Data suggests that the number of territories remained broadly stable across the area during the five year period, close to the target value of 83.

1.3 Dartford warbler monitoring effort is constant across the area and covers most but not all of the SPA. The data for the period show significant fluctuation in population, with the number of territories dropping to just 25 in 2018, with a steady increase thereafter. The 2021 season returned a count of 173 territories across the surveyed part of the SPA, exceeding the target of 123. The sharp population decline in 2018 can be directly attributed to severe winter/spring weather.

1.4 Southern damselfly are monitored at three known locations on the EDPH. Their population has declined during the period but this is likely due to hydrological and ecological site changes that are not related to recreational pressure.

1.5 Habitat condition information for the north Atlantic wet heaths with cross-leaved heath and the European dry heaths is based on species composition and structure is collected by Natural England. These habitat features are assessed

against idealised favourable condition heathland targets. A complete assessment was carried out across the Special Area of Conservation (SAC) in 2021, with the report pending. This will be reported when available.

1.6 A wide range of factors can impact the condition of any given designated feature. Some may be linked to recreation and population increase in the local area (e.g. disturbance) whilst others may not (e.g. climatic change). In addition, factors can directly or indirectly impact a feature and there are often complex inter-relationships at play and cumulative effects. Where trends in data are clearly related to recreational pressure this is highlighted. However, it is not the purpose of this monitoring report to give an in-depth review of the success of the mitigation measures.

1.7 Annual monitoring by site management teams of the three SAC and SPA species will continue annually, with data being supplied to officers of the mitigation team each autumn for reporting. Habitat condition assessment information from Natural England to cover the habitat features will be included in these reports when available and is next expected in 2022.

1.8 Nightjars are relatively long-lived birds and although recent counts across the site suggest populations are stable, there may be hidden trends related to a reduction in breeding success due to disturbance. The value in gaining insight into the productivity of nightjars in addition to territory counts is highlighted for consideration. This would give confidence that the birds are indeed successfully fledging young in order to maintain the population in the long term.

2. Context.

2.2 Parts of the Pebblebed Heaths were first notified as a Site of Special Scientific Interest (SSSI) in 1952, and the various areas of heath were consolidated into the current SSSI of some 1,119 hectares (ha) in 1986. The site was then notified as a SAC in 1998, covering 1,119.94 ha. The primary reason for selection was the occurrence of north Atlantic wet heaths with cross-leaved heath (*Erica tetralix*), European dry heaths and the populations of southern damselfly (*Coenagrion mercuriale*).

2.3 Both the wet and dry heaths are listed as Annex I in the Habitats Directive and are considered to be of global importance, while the southern damselfly is listed under Annex II and the population is considered to be of national importance. The East Devon Heaths were classified a SPA in 1998, qualifying under Article 4.1 as the area regularly supports 2.4% of the UK population of breeding nightjar (*Caprimulgus europaeus*) (as at 1992), and 8% of the UK population of breeding Dartford warbler (*Sylvia undata*) (as at 1994). The SPA covers 1,119.94ha, matching the SAC boundary.

2.4 A UK wide Common Standards Monitoring programme is undertaken by the statutory conservation agencies with this judged against Favourable Condition Targets. This monitoring assesses the effectiveness of management of the features for which protected areas have been designated. . The SAC/SPA feature targets for the EDPH are given in Table 1.

Table 1: Relevant designated features on the Pebblebed Heaths and their targets

Designation	Feature	Requirement (target in designation)
SPA	Nightjar	83 territories across the area
	Dartford warbler	123 territories across the area
SAC	Southern damselfly	>80 counted across the populations
	Wet heath	Favourable condition assessment
	Dry heaths	Favourable condition assessment

2.5 A wide range of factors can impact the condition of any given designated feature. Some of these may be linked to recreation and population increase in the local area (e.g. disturbance) whilst others may not (e.g. climatic change). Whilst the mitigation Strategy seeks to mitigate the impact of the recreational activities of an increasing local population, it is important to recognise that other factors are also at play.

2.6 Whilst responsibility to deal with these other factors falls to site managers and owners, an awareness of them will assist with understanding the effectiveness of mitigation measures. Factors can directly or indirectly impact a feature and there are often complex inter-relationships and cumulative effects. Where trends in data are clearly related to recreational pressure this has been highlighted. However, it is not the purpose of this monitoring report to give an in-depth review of the success of the mitigation measures.

3. SPA features - results and discussion.

3.1 Nightjar

3.1.1 Coordinated nightjar monitoring has been carried out across the Pebblebed Heaths SSSI and other nearby areas since 2016. A standard methodology is followed, whereby each area is visited at least twice between June-July to record churring males. Visits are carried out at dusk. Locations of churring males are recorded on a map. From these records territories can be estimated.

3.1.2 The results from 2016 to 2021 are given in Figure 1 below. Monitoring effort has remained consistent except in 2020 when Bicton Common was not included. This accounts for the apparent reduction in number of territories that season. During 2016-2020 the number of territories has been close to 80 across the site. The number recorded for 2021 saw a slight reduction. This is in line with the picture elsewhere in the UK for this species and is believed to be due to the poor

weather conditions during the spring which would have coincided with their arrival from migration.

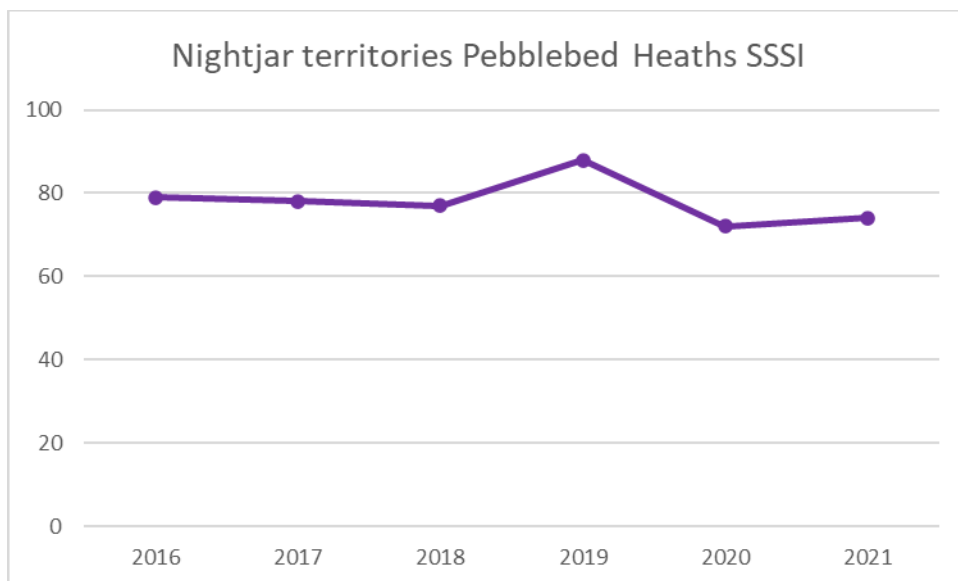


Figure 1: Graph to show recorded nightjar territories across the EDPH SPA from 2016-2021

3.1.3 The target for nightjar is 83 territories across the SSSI. Though the data suggests the SSSI has supported slightly less than this target value in recent years, except in 2019 with 88 recorded, it should be recognised that these birds also make use of the surrounding landscape. There is suitable habitat on non-designated heathland and plantations directly adjacent to the SSSI so fluctuation is expected.

3.1.4 Nightjars often favour nesting in recently clear-felled conifer plantations when these are associated with heathland. Thus, the felling and restocking cycles of adjacent woodland areas outside of the control of the Pebblebed Heaths can also influence counts on the heaths. Long term data sets are valuable in tracking population trends and so continuation of this monitoring is a priority.

3.1.5 Spatial data on territories is held by the managing organisations and can be made available for further analysis if required. In the 2016 Pebblebed Heaths Visitor Management Plan, a sub-set of data was used to explore whether territory selection was influenced by visitor pressure. At that time no clear trends were discernible to suggest that nightjar were deterred from nesting near to areas with high visitor use. Now that more extensive nightjar data is available there would be value in repeating this early modelling work. However, nightjars are long-lived and there may be underlying negative trends related to breeding success.

3.1.6 The current collection and analysis of data is good enough to track territory use across the heaths and modelling could explore territory selection in relation to visitor use. However, it is not able to give any insight into the productivity of these birds. Even if there is confidence that territory selection is not limited by visitor pressure (i.e. the birds are making use of the best quality habitat regardless of visitor use and not pushed into sub-optimal locations), this does not assess whether disturbance limits the breeding success of these pairs. It is possible that if nesting attempts fail to produce enough fledglings the population will become unsustainable and decline over longer periods. This may go undetected as other birds may move in to occupy empty territories, masking the real decline in the population.

3.2 Dartford warbler.

3.2.1 Data is collected by individual organisations with two different methodologies used. PHCT use a playback survey method, while RSPB record Dartford warblers as part of their general breeding bird surveys. For continuity over time, organisations will continue to use their existing methods in place on the parts of the site they manage. It is not recommended that one or other change method. Surveys are carried out annually, between late March and May. Signs of probable breeding are recorded as a territory (displaying male, pair or bird collecting nesting material). Devon Wildlife Trust do not formally collect annual data for Bystock or their part of Venn Ottery Common. No data is available for Lypstone Common which is in private ownership.

3.2.2 The results from 2016 to 2021 are given in Figure 2 below. In the breeding seasons of 2016 and 2017, territories hovered at 100 across the site with this having recovered from a very significant crash related to a particularly harsh winter in 2009. The population then crashed again to just 25 territories in 2018. Since 2018 this species has steadily increased, with 2021 returning a count of 173 territories across the surveyed part of the SSSI. The target for Dartford warblers is 123 territories across the SSSI. This is currently being exceeded.

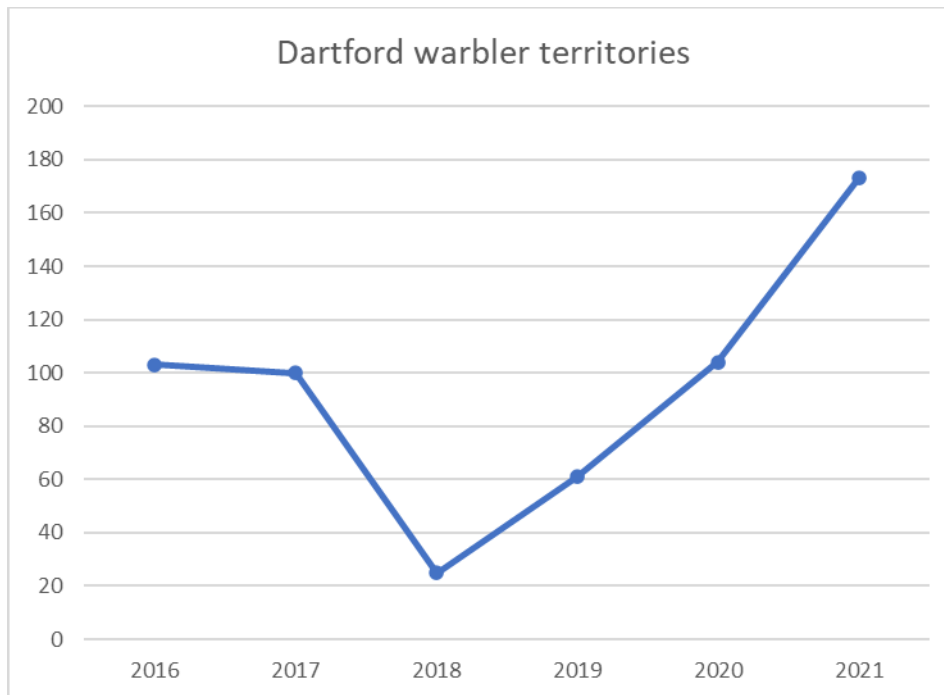


Figure 2: Graph to show Dartford warbler territories across the EDPH SPA from 2016-2021.

3.2.3 The population crash in 2018 can be directly attributed to poor weather in spring 2018, the ‘beast from the east’. The prolonged cold weather and heavy snow fall resulted in poor winter survival. As a species at the north of its range, and resident during the winter, it is widely accepted that these birds are vulnerable to severe winter conditions, with winter survival being one of the greatest limiting factors to this species.

3.2.4 Given favourable conditions Dartford warblers are able to recover rapidly, as shown during this time period. To enable recovery, it is crucial that available habitat is in the best possible condition to provide cover and foraging opportunities, and that birds can nest and raise young without disturbance. Given the right conditions a pair can raise two, or on occasion, three broods. Pairs that rear late first broods are known to have both fewer broods and fewer successful broods, leading to significantly fewer chicks being fledged per pair.

3.2.5 With respect to the objectives of the mitigation Strategy, it is vital that increasing recreational pressure does not impact their ability to recover from these inevitable severe weather events, either directly through disturbance, or indirectly through reducing the quality of the habitat. It is encouraging to see that during the reporting period the Dartford warbler population recovered strongly after the 2018 weather event, indicating that recreational pressure is not limiting the species ability to thrive on the Pebblebed Heaths. Our spatial data indicate that the species is also recolonising part of the heaths that was destroyed by a wildfire in 2010.

3.3 Southern damselfly.

3.3.1 There are three distinct colonies of southern damselfly on the EDPH. During May-July visits are made during optimal weather conditions in the middle of the day (at least 17°C, sunshine and light wind) and the total number of southern damselflies recorded.

3.3.2 The results from 2016 to present are shown in Figure 3 below. The graph illustrates the maximum count for each season at each location to allow comparison. The population on Colaton Raleigh remains consistently low with numbers in single figures. Venn Ottery shows a recent decline. Aylesbeare, while greater in number, shows a degree of fluctuation and an overall decline. The total for the EDPH shows a general decline, however, it still exceeds the target of >80 counted across the site, with a total max count of 128 in 2021.

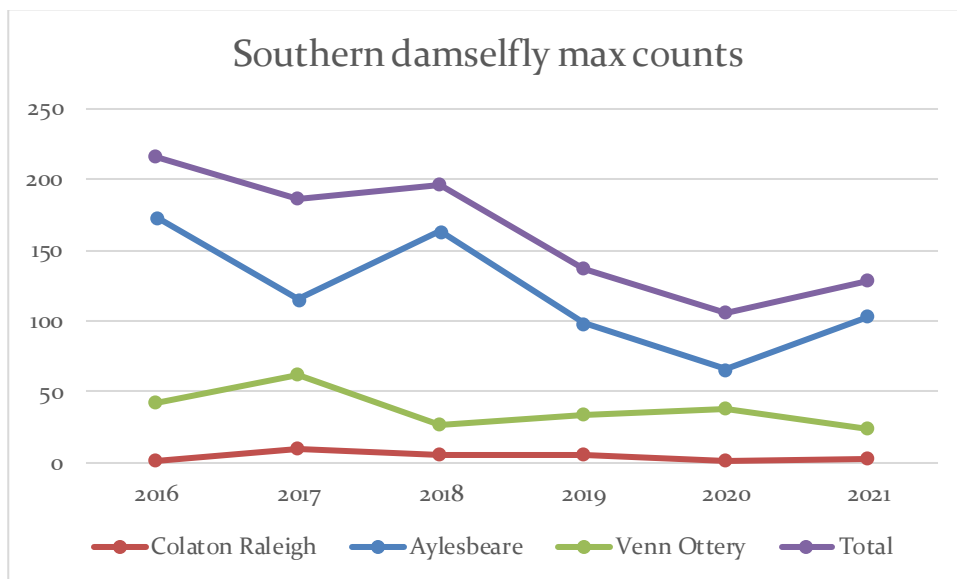


Figure 3: Graph to show southern damselfly maximum count for each season from 2016-2021 across the three known colonies on the SAC

3.3.3 The decline in the southern damselfly population is an ongoing challenge for site management teams. These insects are particularly sensitive, with very specific habitat requirements. Water temperature and habitat attributes that relate to vegetation structure and physical features of watercourses are widely accepted as having the greatest impact on this species ability to thrive. Various changes have been made to management of the Colaton Raleigh mire in an attempt to address this decline, focusing on grazing and hydrology.

3.3.4 There is no evidence to imply a direct link at this time between recreational pressure and the decline of southern damselfly shown by the data. As such this remains a matter to be dealt with by site management teams and is beyond the remit of the mitigation Strategy. Should direct or indirect impacts of recreation come to light, this will of course be raised.

3.4 North Atlantic wet heaths with cross-leaved heath and European dry heaths.

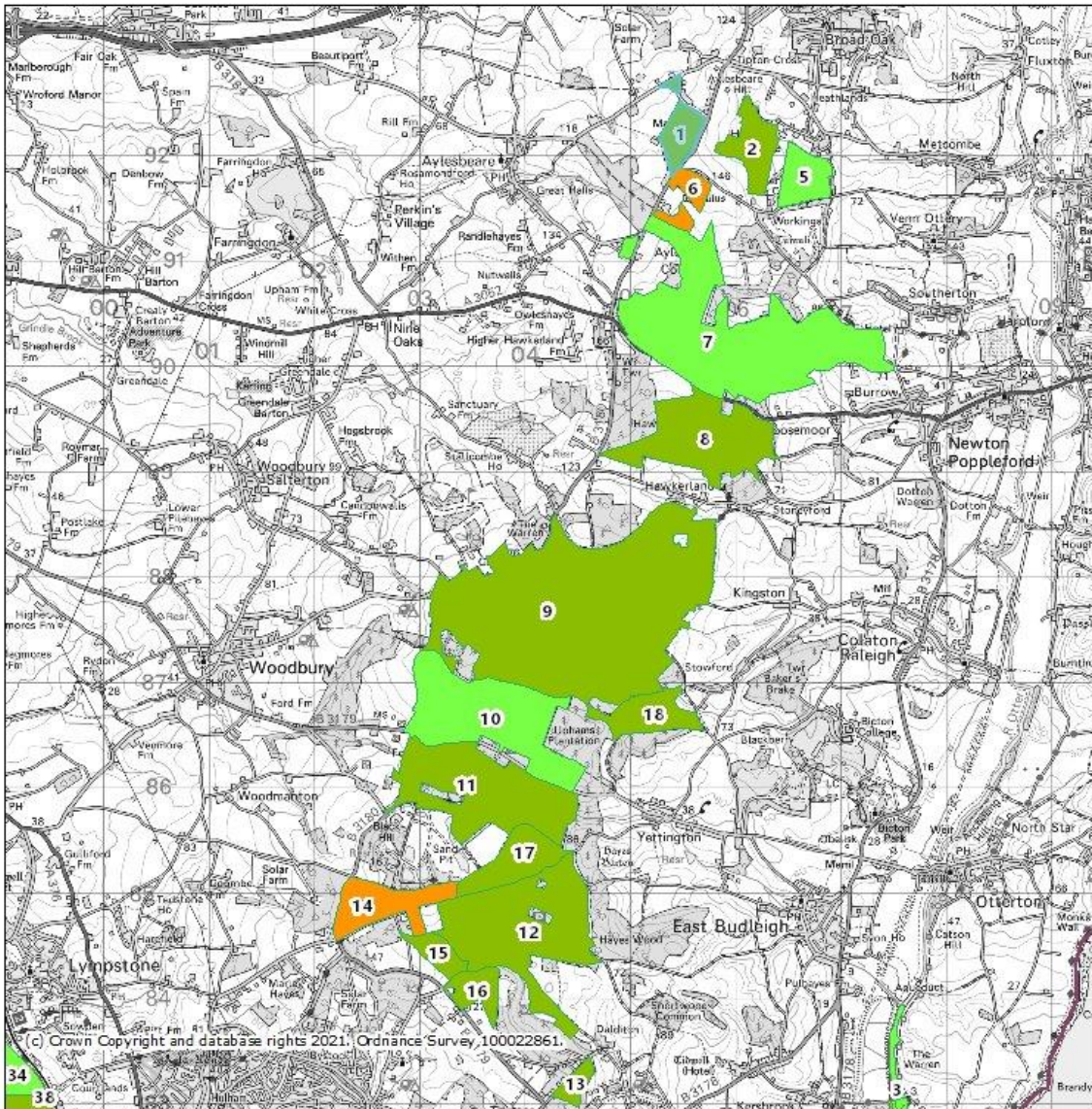
3.4.1 Habitat condition is monitored by Natural England in order to make condition assessments approximately every 6 years, using common standards monitoring. This then informs habitat management on sites with recommendations made by Natural England.

3.4.2 A condition assessment of the EDPH was carried out in 2021 but the results are not yet available. When this information is available, relevant information linked to recreational pressure can be pulled out for review by mitigation officers. The last condition assessments for units in the designated area were carried out in 2012 and/or 2017, Map 1 below shows the overall condition assessment for these units at that time. Detailed feedback from these assessments focuses on habitat management linked to grazing, tree cover and vegetation structure post fire, rather than specific impacts of recreation.

Map 1: Overall habitat condition assessment

MAGiC

EDPH SSSI



<p>Legend</p> <p>Sites of Special Scientific Interest Units (England)</p> <ul style="list-style-type: none"> Favourable Condition Unfavourable Recovering Unfavourable no change Unfavourable Declining Part Destroyed Destroyed Not Assessed 	<p>0 1.5 3 km</p>
<p>Projection = OSGB36 xmin = 294800 ymin = 83590 xmax = 313700 ymax = 92780</p> <p>Map produced by MAGiC on 16 December, 2021. Copyright resides with the data suppliers and the map must not be reproduced without their permission. Some information in MAGiC is a snapshot of the information that is being maintained or continually updated by the originating organisation. Please refer to the metadata for details as information may be illustrative or representative rather than definitive at this stage.</p>	

4. It is recommended that future monitoring reports concerning the EDPH are provided to the Executive Committee on an annual basis for information. Any significant issues within the remit of the mitigation Strategy arising in the interim will be reported as and when necessary.

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January 2022

Natural England comment:

Thank you to Kim for a useful summary of the data for the SPA and SAC species. As noted in the report, the results of the Natural England condition assessment of habitat condition are currently awaited. These will allow the map of SSSI condition on page 11 of the report to be updated. If the findings of the condition assessment have implications for site management in relation to recreational impacts, we recommend this is considered by the Officer Working Group and, if needed, a further report for the Executive is submitted.