

Whinchat range changes on Dartmoor

A short summary of the project findings

Robert Hawkes and Helen Booker

Our Common Cause:
Our Upland Commons



Background

The Whinchat is a small perching bird that now breeds almost exclusively in upland areas across Britain, including Dartmoor. They are migratory, traveling to Sub-Saharan Africa to spend the winter. Whinchat breed in open grazed habitats and nest on or very near the ground, concealing their nest in grass tussocks, bracken or other vegetation (e.g. Bilberry). Breeding typically starts in early/mid May once the birds are back on territory, and some will go on to produce a second brood later in the season. Unfortunately, UK Whinchat populations have declined by 57% between 1995 and 2020 alone, with recent research highlighting low breeding productivity (not enough young) as the main issue¹. If we are to recover this iconic but scarce summer migrant conservation efforts need to focus on their breeding grounds.

Objective

Dartmoor is one of the last remaining Whinchat strongholds in South West England, but the local population is mirroring the national trend with strong, rapid declines. Here, we make use of a Dartmoor wide bird survey from 1979 to establish why Whinchat have disappeared from some areas but not others.



Methods



164 historic (1979) Whinchat locations were revisited to confirm whether Whinchat were still present



Whinchat were still present in 60 of these locations and absent from 104



Habitat structure, habitat quality and a range of other factors were measured at each location twice in 2022 – once in April/May and again in June/July

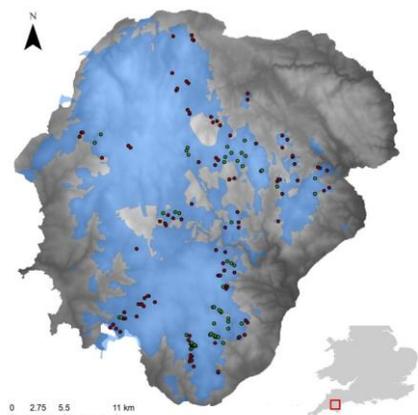


Statistical models were used to explore what factors were associated with range retention

Habitat sampling



Study area (dots = revisited 1979 locations)



Results

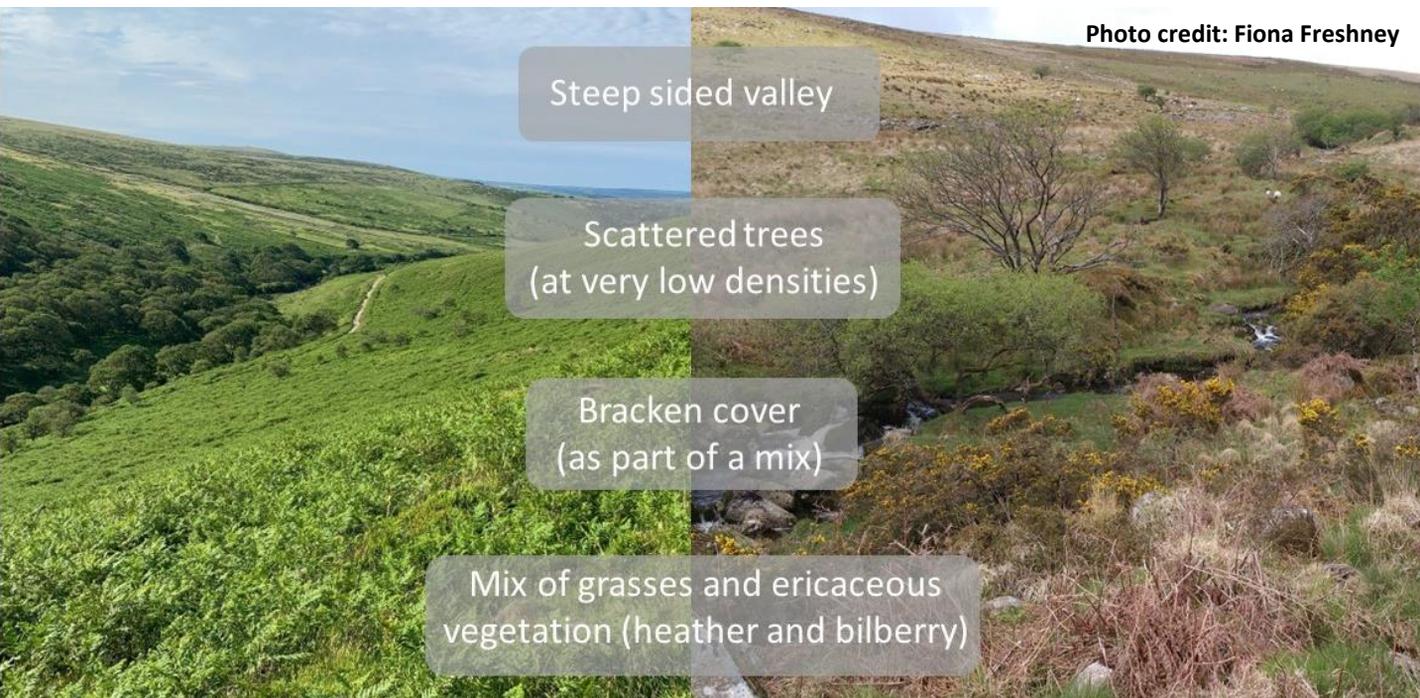
Historic (1979) territories situated in **steep sided valleys**, at **mid-altitudes** (350-400 m) further from **arable or improved pasture** were more likely to retain breeding Whinchat. Habitat context is also important. Historic territories that contained a light **scattering of trees** (c. 5 trees per ha) were more likely to retain Whinchat. Retention was also more likely in areas where **Bracken** dominance was greatest, but only where **ericaceous vegetation** was also abundant (Heather and Bilberry). The full results of this work will be published in a peer-review paper.

Recommendations

Based on this and previous studies^{2,3}, a key conservation recommendation is to ensure that areas that are likely to be used by Whinchat – i.e. steep valleys with sparse trees –are managed to provide suitable breeding habitat. Within these areas Bracken should be maintained as part of a wider field layer mix, with other communities (especially heather and bilberry) encouraged. Studies in other uplands show that breeding Whinchat respond positively to increased vegetation thickness at ground level⁴. On Dartmoor, aim to develop heather and bilberry in valleys where it occurs (or has formerly occurred) in a mix with bracken. The presence of a low density of scattered trees (e.g. Hawthorn) is beneficial to Whinchat (and other moorland bird species); however, proposals for high-density tree planting need to be carefully assessed at a landscape scale to avoid negative effects on Whinchat.

Where breeding Whinchat are present, mechanical land management operations (e.g. Bracken cutting) that coincide with their breeding period (May through to late July) should be delayed to avoid brood destruction.

Ideal Whinchat habitat



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- 1) Fay et al (2021) *Animal Conservation*, 24, 15-25. <https://doi.org/10.1111/acv.12594>
- 2) Stanbury et al (2022) *Journal of Ornithology*, 163, 273-283. [10.1007/s10336-021-01925-6](https://doi.org/10.1007/s10336-021-01925-6)
- 3) Calladine & Bray, J. (2012) *Bird Study*, 59, 43-51. [10.1080/00063657.2011.623767](https://doi.org/10.1080/00063657.2011.623767)
- 4) Douglas et al (2017) *Bird Study*, 64, 242-254. [10.1080/00063657.2017.1317326](https://doi.org/10.1080/00063657.2017.1317326)