



MSc Project

Closing date: when position filled

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Habitat use of wintering Wood Warblers in Ghana

Timescale: End of 2024

Location: Home-based / University

Resources available: data (student will need good statistical knowledge)

Background

Long-distance Afro-Palaeartic migrant birds are suffering greater population declines than either European resident or short-distance migrants (Sanderson et al. 2006, 2016). Wood Warbler, *Phylloscopus sibilatrix*, has experienced declines in the UK of 76% between 1995 and 2020 (Massimino et al. 2023).

Despite a considerable amount of work on the species (Mallord et al. 2012, 2016a,b, 2018, Bellamy et al. 2018, Buchanan et al. 2020, Maag et al. 2023a,b), the causes of their decline have yet to be established. Previous work has identified preferred wintering habitats at sites in central Burkina Faso and in the Guinea forest/forest savannah transition zone in Ghana, with clear preferences for individual tree species and habitat structures (Mallord et al. 2016).

However, less is known about their habitat use within the forest zone and in cocoa plantations, where tree species composition is very different. With increasing interest in sustainable commodities, including shade-grown cocoa, it is important to understand how species use these landscapes, and what features may be important if bird habitats are to be maintained alongside cocoa production.

Brief Aims and Methods

Data on 9 radio-tagged Wood Warblers at a cocoa-dominated site in the Guinea forest zone in Ghana will provide an informative comparison with previous work in Burkina Faso and Ghana (Mallord et al. 2016). Tagged birds were followed until observed, with the tree species in which the bird was found identified, and a range of habitat variables recorded at that location. The same variables were also collected at control (unused) points.

Following the methods of Mallord et al. 2016, the student will calculate home range sizes, Jacobs Preference Indices for tree species at two scales, and will use generalised linear mixed models to identify wider landscape habitat preferences.