



**Title: Quantifying impacts of extreme climatic events on bees and butterflies in Britain (and identifying potential land management options for adaptation and mitigation)**

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This PhD research will contain three main components. Firstly, it will focus on modelling extreme climatic events, including abnormally high temperatures and extreme rainfall/hail and their impacts on bee and butterfly communities in Britain. Secondly, the project will explore the potential tipping points caused by climatic extremes and the impact they may have on both the bee and butterfly populations concerning their diversity and distribution, phenology and life cycle. Depending on the outcomes of the initial phase, further investigation into the insects' physiology may be required. The final section of the study will model the interactive impacts of changing climate and land use on these species and communities and test if particular land use / land management can help the insects adapt to or mitigate the impacts of changing climate.