

Nature Positive Research Projects

Whether you are a keen biologist, someone who loves data and number crunching, a historian wanting to do some local research or a creative person who wants to combine arts and nature, we have something for everyone.

Please get in touch with Sustainability@exeter.ac.uk or grounds@exeter.ac.uk (Exeter Campuses) if you have any project ideas for research on campus. Note that you will need to get in touch with the Grounds team for any research projects carried out on Exeter campuses, and FXPlus for Penryn. This helps them to make sure your research is appropriate, undisturbed and helps keep everyone safe.

Some degrees offer credit bearing work placement modules – some of these projects may be suitable for those, we suggest you talk to your course leads. For extra curricular work placement modules we suggest investigating the Career Zone [Career Zone | Careers Service at the University of Exeter](#)

Please note you will need to find an interested supervisor to supply the academic supervision in most departments. We can supply help and support with on campus fieldwork, and in some cases baseline data. We have indicated which campus any practical work could be based at - note that this doesn't exclude students from other campuses, just that you might need to travel to the other campus, and would need to consider this (we can't pay travel costs). Some data projects can be carried out remotely.

Topic	More info	Level	Campus	Contact
Assessing bumblebee populations on campus using genetic techniques	Using genetic techniques we can assess true bumblebee population density and compare different areas of campus. If repeated for several years we can look at changes to the bumblebee population in response to changes in campus management. For within year project, we can split the campus into different areas and assess the bumblebee population density in relation to different habitat types.	MSc or BSc – discuss with supervisor	Exeter campuses, Penryn	Ros Shaw

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Automated biodiversity monitoring on campus	We have low cost sensors and camera traps that can be used as part of our set monitoring program, which can be used to look at questions such as which species are using which areas of campus, how effective are different kinds of monitoring equipment/survey, use of different habitat types by different species.	MSc, BSc, work placement – discuss with supervisor	Exeter campuses, Penryn, remote	Ros Shaw
Impact of different lighting colours on bats	We have installed some red lighting on Streatham campus, and would be interested in knowing if this affects bat behaviour	BSc, work placement – discuss with supervisor	Exeter	Ros Shaw
Nature positive soundscapes	We would love a creative project looking at how nature positive management sounds.	BA BA, BSc, work placement	Exeter campuses, Penryn	Ros Shaw
How does different habitat management affect infiltration rates?	Soil infiltration rates under different habitat types	BSc or MSc – discuss with supervisor	Exeter campuses, Penryn	Ros Shaw
How do campus green spaces affect people's health and well being?	We have a biennial survey investigating how people feel about campus greenspaces, containing a wealth of data and the opportunity to combine quantitative research with follow up qualitative questions	BSc, MSc, BA, work placement	Exeter campuses, Penryn, remote	Ros Shaw
Communicating the Nature positive strategy	We have a Nature positive strategy, contained in pdf documents on the website – if you have creative ideas in a medium of your choice to communicate the strategy, we would be happy to work with you.	BA, Work placement	Exeter campuses, Penryn, remote.	Ros Shaw
How have changes to campus habitats affected bird populations over time	We have a 10 year dataset of bird territories at Streatham and St Lukes. This can be compared to aerial imagery/current habitat maps to understand spatial changes in populations in relation to bird traits.	MSc or BSc – discuss with supervisor	Exeter campuses, Penryn, remote.	Ros Shaw

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What is the relationship between soil characteristics and plant communities in semi-natural grasslands?	Compare soil characteristics from different areas of campus grassland managed different and compare to plant community data. Assistance can be given with existing plant data or collecting new plant data	MSc or BSc – discuss with supervisor	Exeter campuses, Penryn.	Ros Shaw
History of the Lower Hoopern Valley/wider campus	We have some records of past activities in the Lower Hoopern and some old photos including some taken by the Luftwaffe. Understanding the history of the land use in the Lower Hoopern Valley would aid our current work. Alternatively the entire campus has a rich history which could be fully explored	Discuss with supervisor	Exeter campuses, remote.	Ros Shaw
Freshwater community diversity in relation to surrounding land cover	eDNA assessment of campus ponds linked to surrounding land use and pond physical characteristics.	MSc or BSc – discuss with supervisor	Exeter campuses, Penryn.	Ros Shaw
Understanding growth of trees planted as whips or standard trees	Cornwall Campus – measure growth of trees planted as whips or standard trees	BSc	Penryn	Ros Shaw
Assessing pollinator value of different habitats on campus.	Using published data on pollen and nectar values we can assess the value of different habitats on campus for bumblebees and simulate the impacts on bumblebee populations using BEE-STEWARD	MSc or BSc – discuss with supervisor	Exeter campuses, Penryn, remote.	Ros Shaw
Value of native vs non native trees for invertebrates		MSc or BSc – discuss with supervisor	Exeter campuses, Penryn.	Ros Shaw
Freshwater invertebrate monitoring, Lower Hoopern Valley	We have baseline data for the Lower Hoopern Valley and plan to make the site into a nature based flood demonstration site. Once any substantial changes have been made, we can re-survey the Valley to look at changes.	MSc or BSc – discuss with supervisor	Exeter campuses	Ros Shaw

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eDNA assessment of terrestrial invertebrates		MSc or BSc – discuss with supervisor	Exeter campuses, Penryn.	Ros Shaw
Impact of nature-based flood management solutions in the Lower Hoopern Valley	We have before data prior to installation of nature based flood management solutions. Would need agreement from academic staff running sensors prior to any engagement.	MSc or BSc	Exeter campuses.	Ros Shaw
Impacts of actions to enhance insect diversity and abundance	We have a series of actions we carry out to help increase insect diversity and abundance – longer grass areas, tree veteranisation, woodland areas, insect friendly horticultural beds. These help support birds and bats, including species of conservation concern. We would like to know how these actions impacts insect biodiversity and abundance. Methods could include moth trapping, sweep netting, pitfall trapping	MSc or BSc – discuss with supervisor	Exeter campuses, Penryn.	Ros Shaw
Carbon impacts of campus greenspace management	We are interested to understand the impacts of our green space management and any changes we might make of the amount of above and below ground carbon stored in our University campuses. We have some existing information – habitats, tree data and some existing soil data, but more could be collected, focusing on areas under different grassland management.	BSc or MSc – discuss with supervisor	Exeter campuses, Penryn.	Ros Shaw
Use of bee bricks by solitary bees	We have installed some bee bricks at Penryn and are interested in monitoring how they are used.	BSc or MSc – discuss with supervisor	Penryn	Ros Shaw