Nature Positive Universities Pledge

Update November 2023

1. Baseline

Between July and September 2022 ecologists undertook Biodiversity Baseline Surveys and Baseline Biodiversity Net Gain Assessments (BNGA) across the University estate. An evaluation and assessment of the ecological value of the various sites using biodiversity metric calculations was completed and recommendations for further biodiversity enhancements included.

Methodology
Surveyed areas include Main Campus, Residential Campus' Whitworth Park, Fallowfield and Victoria Park, Broomcroft Hall and Jodrell Bank.

Biodiversity Baseline Surveys comprised ecological desk studies and ecological walkover surveys, including UKHabitat surveys, to inform an assessment of the ecological value of the sites and their potential to support, or be used by, habitats and species protected under either UK or European nature conservation legislation.

The initial BNGA was to identify sites' biodiversity baseline with regards to habitat value specifically using the Biodiversity Metric 3.1 and identify opportunities for enhancements that will result in biodiversity net gain. The Biodiversity Metric determines a proxy biodiversity value by measuring habitat type, its condition and the size of the area. The metric is designed to assess changes in biodiversity value.

Results
Sites have potential to support common amphibians (e.g. common frog), various bat, bird and invertebrate species, badgers, reptiles (e.g. slow worms), hedgehogs and great crested newts (Jodrell Bank).

The estate baseline area habitats have produced a biodiversity value of 370 habitat units (HU) and baseline linear habitats a value of 9.67 HU. Habitat condition and ecological value varies between sites (**Figure 1**). There is very little habitat in 'good' condition.

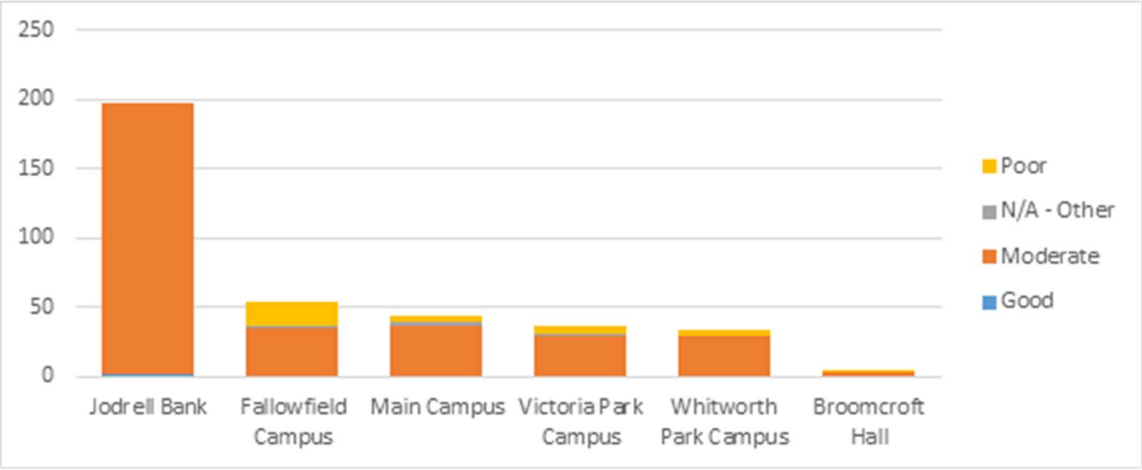

Figure 1: Habitat condition by site

Condition is a measure of the habitat quality in relation to the ecological optimum of the habitat type and allows for direct comparisons of habitat quality to be made for the same habitat type. Habitat condition is defined as either good, moderate or poor by assessment against a suite of condition criteria which are specific to the habitat type.

It should be stressed that condition in biodiversity terms is not to be confused with traditional perceptions of condition or maintenance. A grassland that might be perceived to be well maintained (e.g. regularly mown) is very likely to be in poor condition.

Almost half (**Figure 2**) of the habitat value across the estate (not including Jodrell Bank) comes from our urban trees highlighting their importance and the need to protect and manage them carefully. Modified grassland, or amenity grass, has a very low ecological score but because there is a significant amount across the estate it contributes a third of the habitat value (**Figure 2**). There is opportunity to replace amenity grass with more species rich options and improve the condition of habitats.

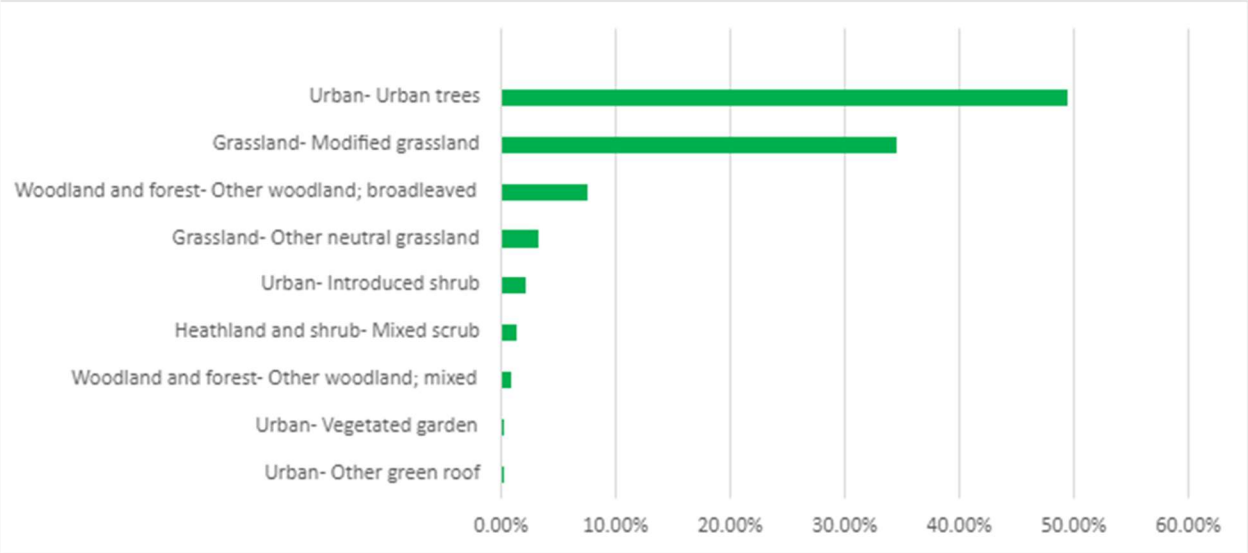

Figure 2: Percentage of habitat value by type across estate (not including Jodrell Bank)

Habitat Type	**UK Habitat Definition**
Urban trees	Trees within constructed, industrial and other artificial habitats.
Modified grassland	Vegetation dominated by a few fast-growing grasses. Frequently characterised by abundance of rye-grass e.g. amenity grass.
Woodland - broadleaved	Land with more than 25% cover of trees more than 5m in height. Broadleaved mixed and yew woodland.
Other neutral grassland	Rye-grass likely to be present at <30% with between 9and 15 further species also present e.g. wildflowers.
Urban introduced shrub	Non-native shrubs planted within constructed, industrial and other artificial habitats.
Mixed scrub	Dense scrub comprising a mixture of species without a single species dominant.
Woodland - mixed	A mixture of broadleaved and coniferous trees in which neither make up more than 80% of tree cover.
Urban vegetated garden	Garden that is principally vegetated, for example with large areas of grass and flower beds within constructed, industrial and other artificial habitats.

Urban green roof	A roof or deck onto which vegetation is intentionally grown or habitats for wildlife are established in constructed, industrial and other artificial habitats.

Recommendations
Key ecological management objectives following the mitigation hierarchy:

- Retain existing key habitat areas for use by foraging/commuting bats and birds, and potential wildlife corridor links for invertebrates and small mammals.
- Enhance existing habitat features, where appropriate, with native species to enhance the existing flora with appropriate management measures.
- Create new habitats to benefit bats, birds, amphibians, invertebrates and small mammals through the provision of foraging and sheltering opportunities. This includes replacing areas of modified grassland with more distinctive grassland and scrub.
- Pond creation and associated sensitive landscaping
- Incorporate features to support specific species e.g. log and brash piles, hibernacula, etc.
- Green roofs and walls
- Signage and promotion to increase awareness
- Involve staff/students/local community in enhancement/maintenance work and specific species survey work.

2. Targets

Our Sustainable Future, the University's Environmental Sustainability Strategy, sets out our "Valuing Nature" objective and commitments.

Objective: Our campus is an environment where people and wildlife thrive together.

Commitments:

- Work with our academics, staff and students to develop biodiversity priorities to enhance wildlife and public spaces on campus.
- Identify opportunities to increase green, cooling and absorbent spaces as an adaptation response to climate change.
- Integrate biodiversity themes into current and future Estates strategy, with nature and green spaces an integral part of planning.
- Eliminate the use of peat-based compost by 2023.
- Continually seek to reduce the use of synthetic chemical herbicides on campus.
- Increase the quality and quantity of existing green space, achieving a 10% increase in urban green space by 2028, from 2018 levels.
- Calculate a baseline and set a target to provide a measurable improvement in biodiversity by 2030.
- Continue our work with academics to measure wellbeing outcomes and improve the staff and student wellbeing scores associated with campus green space by 25% by 2028 from a 2018/19 baseline.
- Maximise opportunities to integrate learning and teaching with our estate's biodiversity.
- Zero reportable pollution incidents to air, land and water across the University estate.
- Achieve 20% biodiversity net gain on all major construction and refurbishment projects.

3. Actions

The Nature Action Group, comprising PS and academic staff, are in the process of drafting an action plan to deliver the "Valuing Nature" commitments set out in the ES Strategy. A baseline has been calculated and we will set a target to improve biodiversity drawing on the recommendations provided in the audit. The appointment of a Future Leaders Graduate to the ES Team in Nov 2023 will assist in finalising the plan.

Live projects in development to increase the quantity of green space on campus include the Martin Harris entrance and the Old Quad, which is estimated to deliver 80% biodiversity net gain.

The Landscaping Team have eliminated the use of peat-based compost, increased the number of wildflower areas on campus and took part in successful No Mow May trials, allowing selected lawns across campus to grow freely for a month to provide a much-needed boost for wild plants and wildlife. It is hoped these areas can be expanded.

In November 2022 the Landscaping Team planted trees and wildlife hedges with saplings provided by the late Queen's Green Canopy project, a unique tree planting initiative created to mark Her Majesty's Platinum Jubilee. Species planted include hawthorn, silver birch, rowan, wild cherry, sessile oak, blackthorn and hazel.