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The University of Nottingham
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Jubilee Campus
Flora and fauna

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The grounds of Jubilee Campus, open for all to enjoy

Welcome

Jubilee Campus is just one mile from The University of Nottingham's University Park Campus. Built on the site of the former Raleigh bicycle factory, the 65-acre campus is a model of brownfield regeneration. Its biodiverse habitats have been created to encourage wildlife and complement stunning, sustainable buildings.

This guide explores the rich diversity of flora and fauna at Jubilee Campus and celebrates an award-winning example of a green space in a city environment that is open for all to enjoy.

A coot captures a fish on one of the lakes at Jubilee Campus

Wasteland to wildlife haven

Jubilee Campus was established in 1999 on a derelict industrial site that lacked trees and even soil. Over the years it has been transformed into an environmentally-friendly campus with lakes, sustainable buildings and green spaces.

This transformation has been recognised by numerous awards and in 2013 the campus secured a prestigious Green Flag Award, which recognises the best community parks and green spaces in the country.

The landscape at Jubilee Campus features lakes, reedbeds, wetlands, woodlands, meadows and native plantings. All were created with the aim of increasing biodiversity.

This mosaic of habitats are all priorities in the United Kingdom Biodiversity Action Plan and by linking to the River Leen green corridor, Jubilee has helped to widen access to biodiversity in the city and Nottinghamshire.

The lakes: an evolving habitat

The hydrosere (lake habitat) was created between 1999 and 2002 and Jubilee's 1.3 hectares of lakes and wetland habitats remain a focus of the campus landscape. The lakes have proved to be a hugely successful habitat not only terms of biodiversity but as a key part of the site's sustainability.

The five lakes and drainage ditch system support a diverse range of species — below and on the surface of the water, and at the water's edge. An extensive 0.12-hectare area of reedbed habitat is developing at the lake margins as seral change (when plants colonise changing environments) takes place.

Reedbeds are one of the UK's most threatened habitats and areas above 0.25 hectares are rare. Blocks of reedbed above 0.1 hectares are of ecological value, particularly in urban environments. Reedbeds have the potential to support rare and scarce species identified in both UK and local biodiversity action plans. The lakes at Jubilee are also large enough to be recognised for their high ecological value.

The artificially created hydroseres have changed considerably since 1999. Extensive plant communities in and around the lakes have evolved and there are now terrestrial plant communities of wet meadow, meadow, scrub and woodland.

Hydrosere change has seen reedbeds develop and dry out, while pioneer trees *Betula pendula* (silver birch) and *Alnus glutinosa* (common alder) and *Salix sp* (willow) are established on the lake margins.

As well as being home to wildlife, the lakes provide water for campus buildings — water from the lakes cools buildings in summer and warms them in winter.

Woodland, scrub and water

The linear strips of woodland and avenues of trees create a nesting habitat for birds and important foraging and commuting corridors for bats, with the open water providing foraging habitat for Daubenton's bat.

The local area supports a wide range of bat species such as pipistrelles, noctule, brown long-eared and Myotid species, many of which are located at nearby University Park and Wollaton Hall. The continually evolving scrub at the margins of the woodlands and lakes provide valuable food as well as a habitat for small mammals and groundnesting birds.

Autumn colour is spectacular, with the water mirroring the displays to good effect.

Flora

Lychnis flos-cuculi, (Ragged Robin) has been recorded in the margins of campus lakes, which suggests that such marsh (wet grassland) conditions and the landscape management of Jubilee Campus are capable of supporting a species-rich sward. While it takes years to fully develop a biodiverse rich stand, species such as Ragged Robin suggest conditions suitable for colonisation.

Dactylorhiza fuchsii, (common spotted orchid) was first recorded on Jubilee Campus in 2008. These are relatively common, although they prefer a low soil nutrient status and maintaining these conditions can be a challenge.

Ophrys apifera, (bee orchid) were first found in 2009 in small colonies on the margins of the site's wet ditches and require the same nutrient-poor conditions. However bee orchid is more fickle; being a poor competitor with grassland and herb, its habitat is often restricted to sparse vegetation, a characteristic of Jubilee's landscape. Bee orchids tend to flower for a year and then disappear for anything up to ten years before flowering again.

Well-established and abundant plant communities include *Lythrum salicaria*, (purple loosestrife), *Butomus umbellatus* (flowering rush), *Calltha palustris*, (marsh marigold), *Lysichiton americanus*, (skunk cabbage), *Cardamine pratensis*, (cuckoo flower) *Dipsacus* fullonum (teasel).

Southern marsh orchid (*Dactylorhiza praetermissa*). Facing page: white and red water lilly (*Nymphaea alba*), left, and flowering rush (*Butomus umbellatus*)

Fauna

Diversity of bird life has increased dramatically thanks to the introduction of lakes, ditches, meadows and scrubland. Waterfowl in particular have benefitted from the open water, reedbeds and islands, which provide excellent nest sites.

Frequent visitors and residents include pied wagtails, mallards, swans, coots, moorhens, geese, blue tits and great tits. Less frequent visitors include kingfishers, little grebe, buzzards and kestrels. Herons, like this lovely specimen, can often be seen in their distinctive fishing pose awaiting the arrival of an unsuspecting fish.

Green roofs

Jubilee has 5,250 square metres of green roofs. They reduce rainfall run-off, insulate against summer heat and winter cold, improve biodiversity by allowing a less competitive plant species to establish and offer a safe habitat for nesting birds. For guided tours, contact the University Grounds Manager on 0115 951 3649 or visit the Friends of University Park webpage at www.nott.ac.uk/friends

Our commitment

The University of Nottingham constantly works to improve Jubilee and all its campuses. Phase II of the development of Jubilee includes the GlaxoSmithKline Carbon Neutral Laboratory for Sustainable Chemistry which underlines our commitment to environmentally-friendly design and renewable energy; a paved boulevard and the creation of a new lake and an avenue of 60 *Sophora japonica* (pagoda tree).

Visit our other campuses

A mile from Jubilee Campus is University Park, the University's beautifully landscaped main campus. A *Gardens Guide and Tree Walk*, and a *Guide to the Historic Houses of University Park*, are available.

Sutton Bonington Campus is 10 miles south of University Park. Its rural setting features an arboretum and a wood planted to mark the Queen's Jubilee.
A free Hopper Bus Service serves all three campuses. For timetables, visit nott.ac.uk/hopper

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