WELCOME TO YOUR
INTERACTIVE BIODIVERSITY INDEX REPORT

Report: Gateway Building

Created By: Alec Christie

Created On: 09/11/13

Developed by THE UNIVERSITY OF NORTHAMPTON In partnership with Seed Shared Enterprise Empowering Delivery

Website created by kinetic

INTRODUCTION

This report provides some background information to biodiversity conservation, an overview of the Biodiversity Index tool, and the results of the biodiversity assessment you conducted.

Loss of animals, plants and other organisms is one of the world's most pressing crises. For example, it is estimated that over 20% of the approximately 10,000 species of birds are threatened with extinction, with 130 species having gone extinct since the Sixteenth Century. In the UK, the condition of many habitats has declined over the last 200 years, resulting in the extinction of approximately 500 plant and animal species in England alone.

The Main Factors Driving This Loss Of Biodiversity Are:

- Changes to habitats caused by agricultural and urban development
- Invasive alien species out-competing native species
- Over-exploitation of natural resources
- Pollution
- Diseases
- Climate change

Efforts to conserve and enhance biodiversity have been ongoing for decades. However it was when the Convention on Biological Diversity (CBD) became a legally binding treaty in 1993 that national strategies were developed to facilitate the conservation and sustainable use of the living environment around us, including plants, animals and their habitats. National Biodiversity Strategies and Action Plans are the key instruments used to implement the CBD. The UK's Biodiversity Action Plan (BAP) plan defines which species and habitats are considered priorities for conservation. The ongoing delivery of the UKBAP has been monitored using established indicators to assess its success in conservation of plants and animals and mitigation of the impacts of climate change detailed in the Millennium Ecosystem Assessment.

More recently the emphasis of protecting biodiversity for its intrinsic value has evolved into a more encompassing approach of valuing nature for its benefits to human, economic and cultural wellbeing. The UK National Ecosystem Assessment looked at the benefits the natural environment and its ecosystems provide. Examples of the types of benefits identified for urban areas are genetic resources, air and water quality regulation, flood regulation, pollination and aesthetic values. Overall value of this "natural capital" was estimated as over £30 billion per year.

Businesses and organisations are becoming increasingly engaged with the environment, through various legislative, economic and social drivers. The focus has been on pollution prevention, energy efficiency and wastes and resources management. However biodiversity is now beginning to gain the attention of small, medium and larger companies and organisations, many of whom do not have the knowledge or skills to effectively manage the biodiversity on their sites. In particular, smaller companies often do not have the resources or knowledge to implement biodiversity enhancing initiatives.

With approximately 22% of UK land cover comprised of non-natural built-up areas, any improvement in their biodiversity will have a significant positive impact. These urban and suburban areas are largely ignored in terms of their ecological value. They do however have the potential to provide a significant area of land for potential improvement of biodiversity by providing small patches of habitat that act as stepping stones within the wider ecological network of nature reserves and other wildlife sites.

This Biodiversity Index tool is designed to help a range of organisations manage the biodiversity on the land around their site. The tool is comprised of a practical method to assess the natural environment at an urban location; information on why biodiversity is important; how to report it; and how to manage it.

There are well established ecological survey methods already used by professional ecologists. These types of survey provide a detailed picture of the habitats and species present on a site and are often a requirement for processes such as development and planning. The Biodiversity Index provides a general assessment tool for those wishing to manage biodiversity on their urban site but do not feel they require a detailed ecological assessment. It does not replace existing survey methods and will not provide the level of detail of those methods but it does provide a starting point for many organisations wishing to enhance biodiversity on their sites.

FEATURES

THE UNIVERSITY OF NORTHAMPTON

The Biodiversity Index Provides:

- Broad scale assessment and monitoring of biodiversity at a site level
- Interpretation of the natural environment and presentation of information relating to the sites habitats
- Information to help develop a formal biodiversity management process, such as a company-wide Biodiversity Action Plan
- Help in identifying a range of simple activities to benefit biodiversity that can be carried out in the work place
- Information to help measure the performance of an action plan

WHY ASSESS AND MANAGE BIODIVERSITY?

Legal Compliance

Legal protection of habitats and species is embodied in the 1979 Birds Directive, the 1992 Habitats Directive and water management legislation, all of which focus on prevention of damage or destruction to animals and their habitats. There is little legislation to actually promote biodiversity, although public bodies have a "biodiversity duty" and should pay regard to the Natural Environment and Rural Communities (NERC) Act 2006. The Act encourages organisations to engage in the conservation of biodiversity, for example in the management of the land surrounding their offices, particularly ponds and hedgerows.

Corporate Social Responsibility

Organisations and businesses are increasingly expected to integrate biodiversity into their CSR strategies. Employees, customers and communities are all stakeholders in the natural environment and therefore organisations that engage with biodiversity issues appeal to a broader spectrum of people.

Environmental Management Systems

Many businesses and organisations require environmental standards through the supply chain to both manage risks and secure natural infrastructure. The supply chain is expected to measure and manage their impacts on the natural environment, including biodiversity. Environmental reporting has to demonstrate improved biodiversity management.

THE BENEFITS

THE UNIVERSITY OF NORTHAMPTON

What Can Business And Organisations Do With The Biodiversity Index?

- **Assess the importance of a site** by surveying the site to identify existing wildlife value
- **Improve the biodiversity value of a site** by creating site management plans, incorporating the Biodiversity Index results, using it to identify habitats that can be protected, enhanced or created
- **Create a Biodiversity Action Plan** for the company or organisation detailing the aims, objectives, site management plan and external activities
- **Involve staff:** Use notice boards and newsletters to raise awareness. Identify a Biodiversity Champion, encourage team work and involvement with a biodiversity action plan and promote participating in activities outside the office. Many staff find improving the physical environment a real motivator
- **Improve biodiversity beyond the site:** Become coporate members of nature conservation bodies, get involved in local partnerships through funding and volunteering opportunities
- **Undertake an environmental review** and synergise the site management plan with other business activities
- **Monitor and Report** on activities through regular (annual) review of the Biodiversity Index, re-survey and update the management plan based on the results
- **Communicate your actions** through publicising positive impacts on biodiversity using local media, partnership publications and engagement with stakeholders

YOUR RESULTS

THE UNIVERSITY OF NORTHAMPTON

Here is a summary of your results based on the information you entered.

Biodiversity Index Score

The Biodiversity Index score provides a numerical value to indicate the diversity of habitats on your site, by measuring the frequency and variety of plant species.

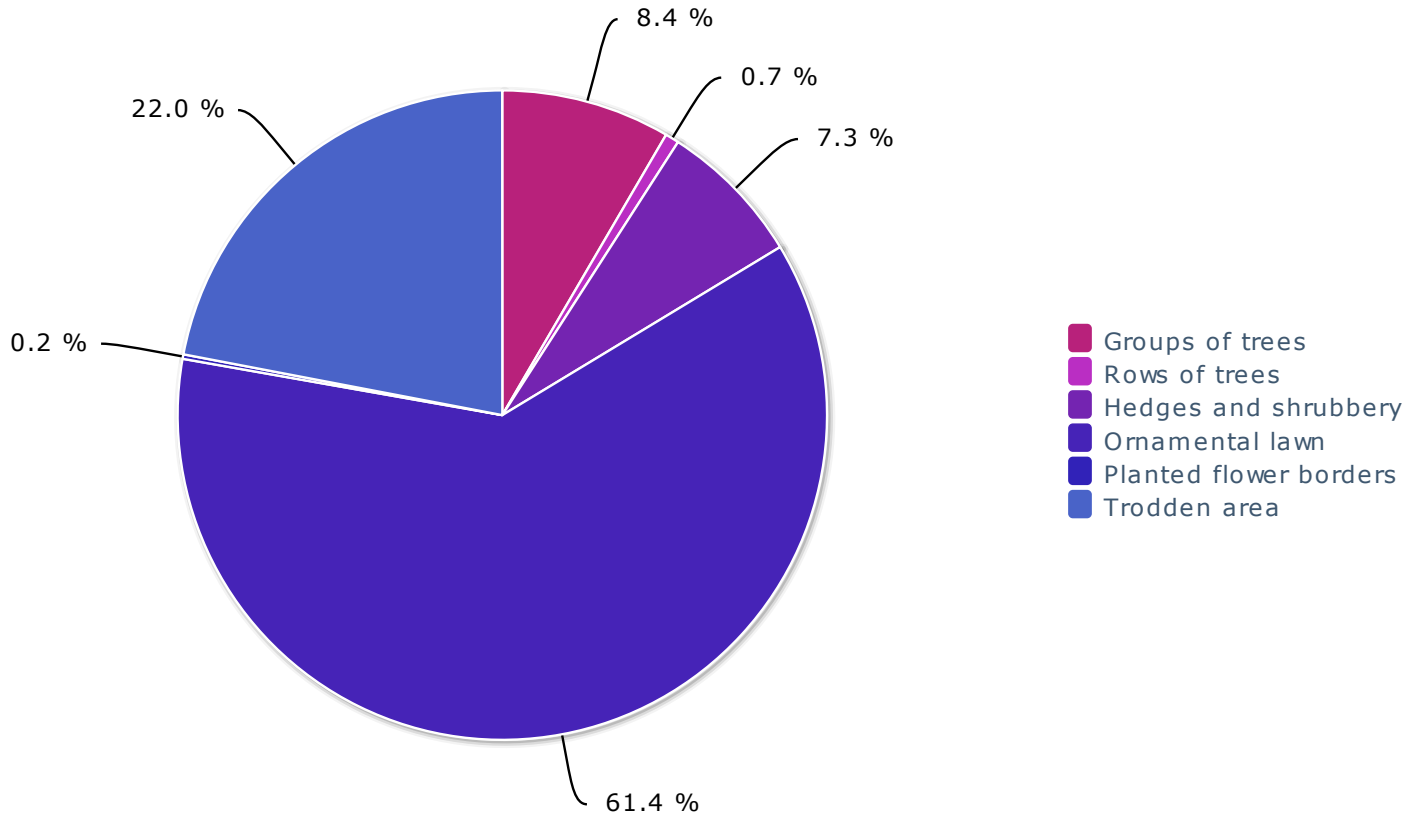
The higher your Biodiversity Index score, the greater the number and variety of species and habitats that exist on your site. Greater plant habitat diversity offers birds, mammals, insects and other organisms more opportunity to exploit the site, resulting in improved overall biodiversity.

17

Your Index Score

Percentage Of Habitat Types

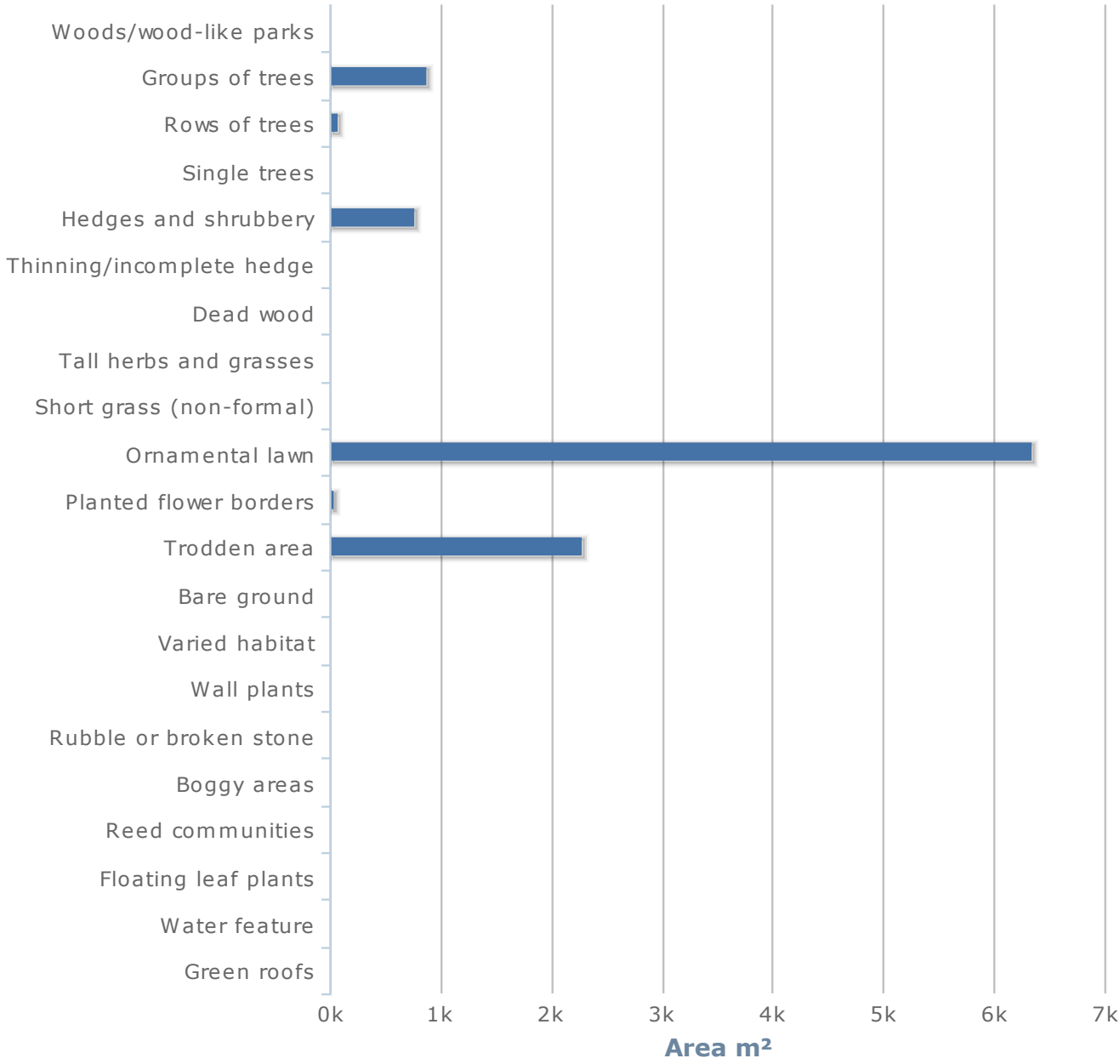
The percentage of different habitats present are represented by this graph. It provides a visual depiction of the general habitat structure on a site. Knowing the habitat structure may aid in any decision-making related to the types of habitat to manage.



YOUR RESULTS

THE UNIVERSITY OF NORTHAMPTON

Total Area Of Each Habitat Type



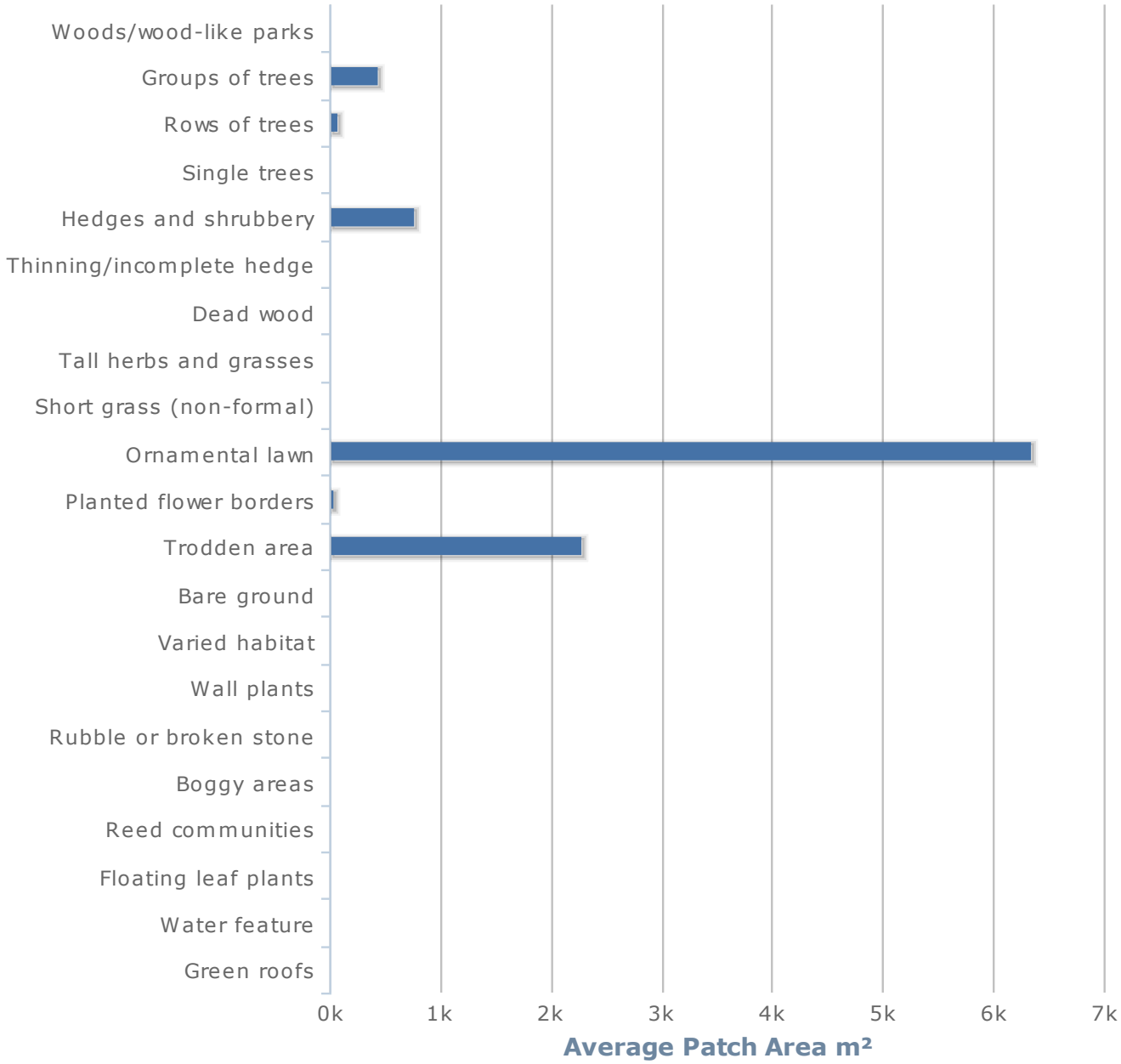
Biodiversity Index Calculations

The Biodiversity Index score is a snapshot of the natural environment at a specific location (and a specific point in time) and can be used as a benchmark to monitor and manage biodiversity improvement. Currently there is no benchmark for what a "good" score is but as the tool gets used and scores are registered we can build up benchmark data for different types of sites and sectors. In the meantime the aim is to increase the score because the more diverse the habitats are, the higher the number will be.

YOUR RESULTS

THE UNIVERSITY OF NORTHAMPTON

Average Habitat Area Patch Size



Average Patch Size

Average patch size allows land managers to determine the most dominant habitats of the estate across several survey areas. It may also help identify habitats that are made up of very small patches across a site as these tend to be more prone to damage or loss. Consider joining them together to make them larger.

HABITAT DETAILS

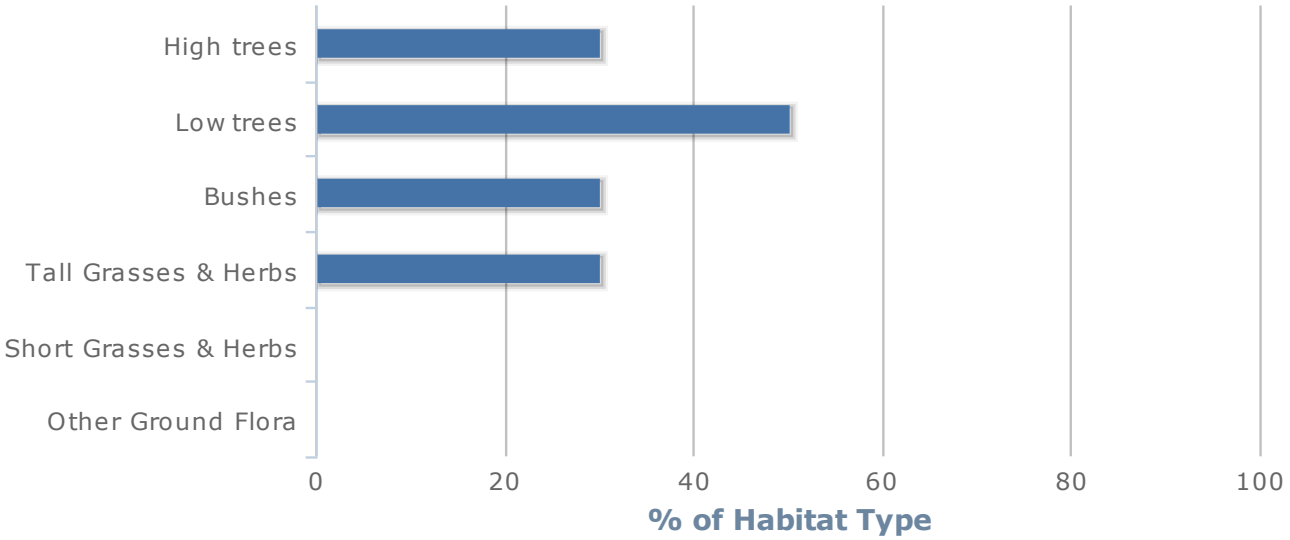
Groups Of Trees

Several trees grouped together but not wooded.

% of Total Area: 8%

Habitat Size: 868 m^2

Number of Forms: 7 - 12, 7 - 12



IMPROVEMENTS

When planting always try to use native species

Add artificial habitats such as bird and bat boxes to trees. More than 60 species of birds will use bird boxes and bat boxes are used by 11 species of bat for roosting, hibernating and breeding

Advice for birds: http://www.rspb.org.uk/advice/helpingbirds/nestboxes/index.aspx

Advice for bats: http://www.bats.org.uk/publications.php

HABITAT DETAILS

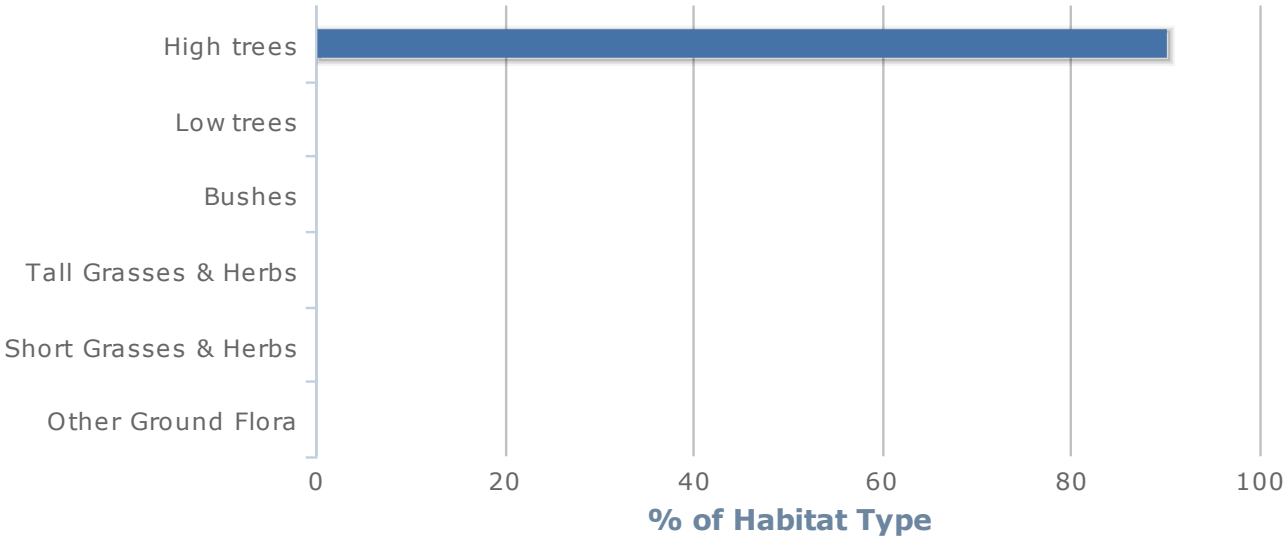
Rows Of Trees

Row of trees (not within a hedgerow)

% of Total Area: 1%

Habitat Size: 69 m^2

Number of Forms: 1 - 6



IMPROVEMENTS

When planting always try to use native species

Add artificial habitats such as bird and bat boxes to trees. More than 60 species of birds will use bird boxes and bat boxes are used by 11 species of bat for roosting, hibernating and breeding

Advice for birds: http://www.rspb.org.uk/advice/helpingbirds/nestboxes/index.aspx

Advice for bats: http://www.bats.org.uk/publications.php

HABITAT DETAILS

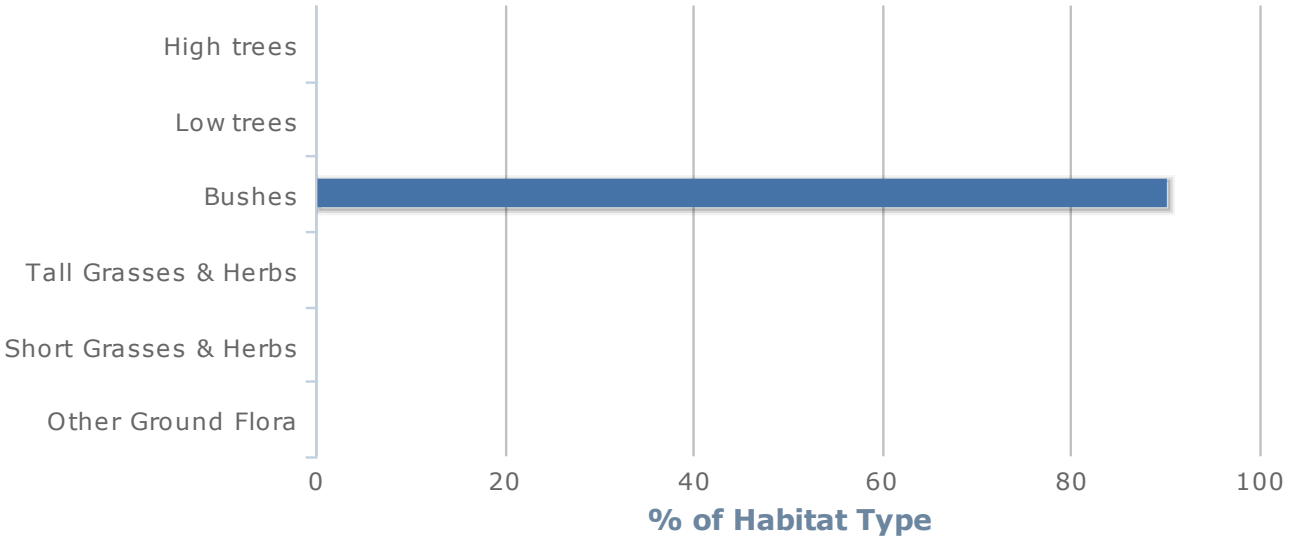
Hedges And Shrubbery

Shrubs in linear arrangement that may have standard trees interspersed along it

% of Total Area: 7%

Habitat Size: 747 m^2

Number of Forms: 13 - 18



IMPROVEMENTS

Add native species that produce fruit and berries right through winter such as hawthorn, crab apple and guilder rose. These provide a valuable food source for birds and mammals.

Try and connect hedgerows to create corridors for animals to move along.

If possible trim every 2-3 years only and do so in a varied rotation encouraging multiple ages of trimming

Allow hedgerow trees to grow out of the hedge by selecting individual stems to grow out of the top of the hedge

Advice on hedgerows: http://www.hedgelink.org.uk/hedgerow-management.htm#Hedge_planting_6

HABITAT DETAILS

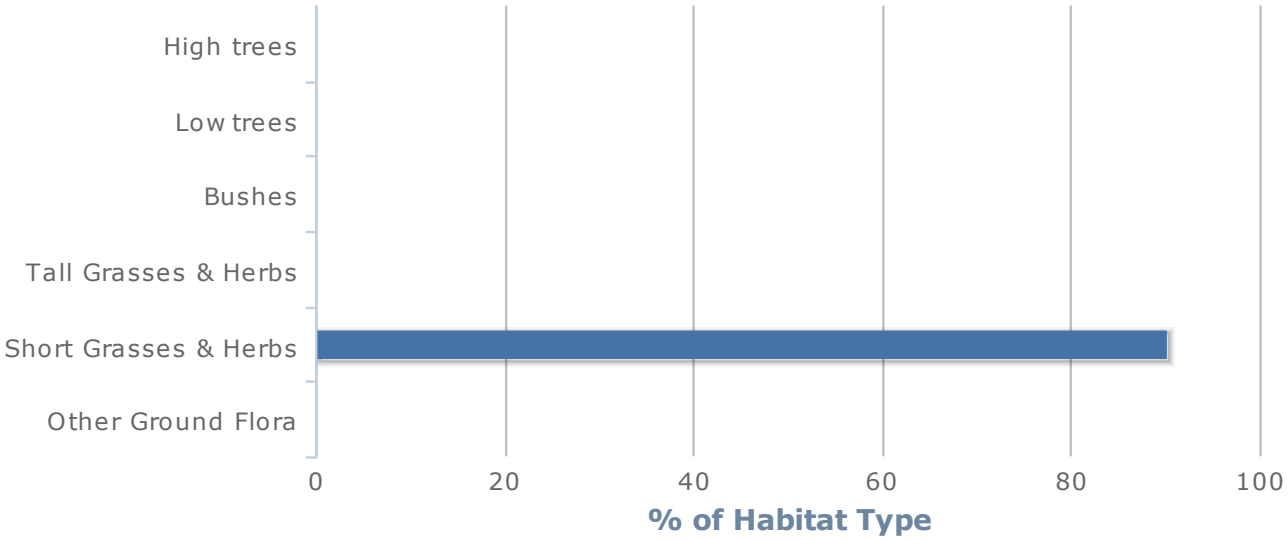
Ornamental Lawn

Close mown manicured lawn

% of Total Area: 61%

Habitat Size: 6,329 m^2

Number of Forms: 1 - 6



IMPROVEMENTS

Consider a reduced mowing regime in selected areas

Use a wild flower mix when re-seeding or planting up areas to create a more diverse range of plants beneficial to birds and insects

Advice on lawn management: http://www.rspb.org.uk/advice/gardening/lawns/advanced.aspx

HABITAT DETAILS

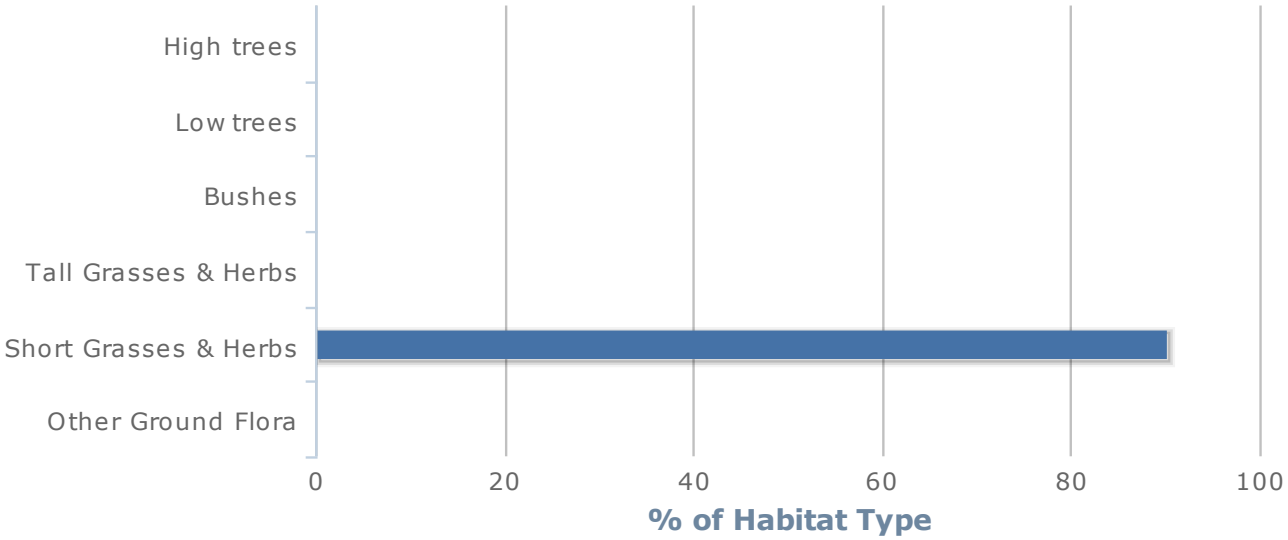
Planted Flower Borders

Planted areas of annual flowering plants

% of Total Area: 0%

Habitat Size: 25 m^2

Number of Forms: 7 - 12



IMPROVEMENTS

Choose plants with single flowers (these provide easily accessible nectar for pollinating insects)

Choose plants that provide a wide range of flowering times, ensuring a continuous food source for insects

Recommended flowering plants: http://www.rspb.org.uk/advice/gardening/planting/flowers/recommended.aspx

HABITAT DETAILS

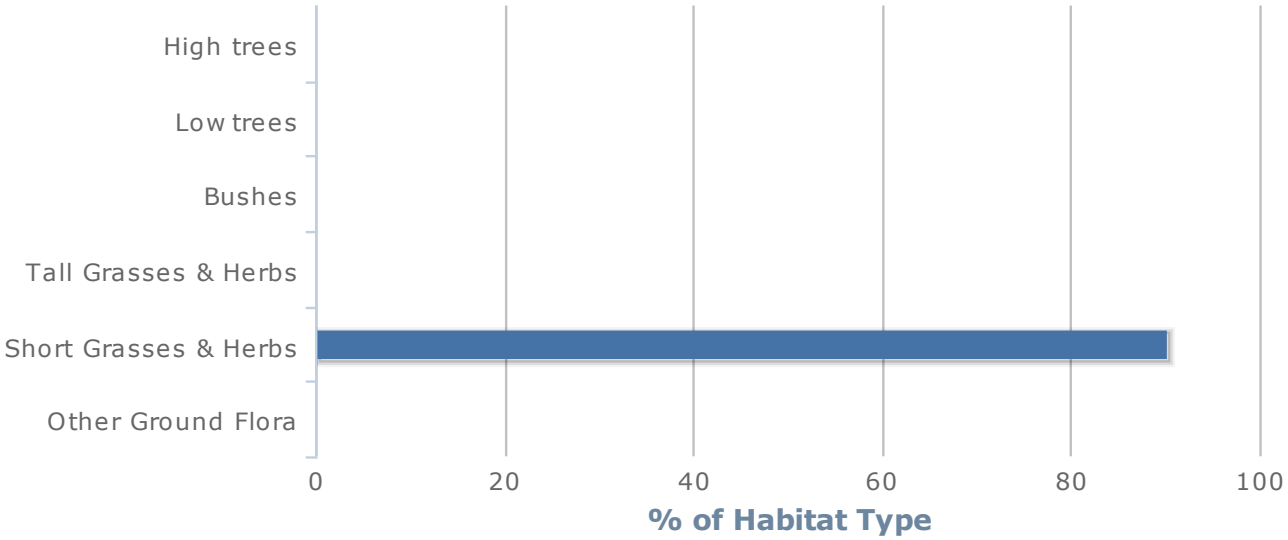
Trodden Area

Plants growing in areas of compacted soil, may have small patches of bare ground

% of Total Area: 22%

Habitat Size: 2,266 m^2

Number of Forms: 7 - 12



IMPROVEMENTS

Trodden areas are important for some animals, solitary bees make their nest tunnels in the ground, choosing either bare soil or areas of short turf

Monitor areas of trodden compacted ground to ensure it does not become the dominant habitat

USEFUL LINKS

The Conservation Volunteers

The Conservation Volunteers engage in practical conservation through environmental projects and a network of 2000 community groups. They also have an online shop for native seed mixes.

Groundwork UK

Groundwork work with organisations, businesses and communities across the UK to achieve environmental and social objectives that help organisations reduce their environental impact.

EAUC Biodiversity Guide

A guide to manage biodiversity, primarily for University campuses but a useful document for any organisation with land holdings.

National Biodiversity Network

An online repository of biodiversity records concerned with making species data available to anyone interested in the UK's biodiversity.

Earthwatch Insitute

Guidelines for biodiversity partnerships

Earthwatch Institute

Useful publications regarding business and biodiversity such as how to formulate a Site Biodiversity Action Plan

Natural England

Lots of good information on habitats, species, ecosystem services and the value of nature to different stakeholders.

Nature Improvement Areas

These areas have been chosen to improve and enrich wildlife by connecting habitats over large areas while enhancing a range of benefits such as recreation, flood protection, and carbon storage. They will also involve local communities, landowners and businesses.

Royal Horticultural Society

Plenty of useful information on plants for pollinators.

Wildlife Trust

The Wildlife Trust is a nature conservation charity with 47 individual Trusts covering their own geographical areas. Contact your local Wildlife Trust for information, advice and opportunities to get involved in regional biodiversity projects.

FEEDBACK

The Biodiversity Index is a newly developed tool and we would appreciate feedback regarding its use. If you have used it please take some time to fill out the feedback form (this is found on the results page) so we can improve the Index in the future.

CONTACT

The Biodiversity Index tool has been developed by The University of Northampton as part of the SEED sustainability project. The University can offer assistance with biodiversity information/advice

For Further Details, Please Contact:

biodiversityindex@northampton.ac.uk

THE UNIVERSITY OF NORTHAMPTON