

A SHORT GUIDE TO THREE DUBLIN CITY WOODLANDS

SAINT ANNE'S PARK
TOLKA VALLEY PARK
BUSHY PARK



An Boinn Ceolúil,
Oidhreacht agus Gaeltachta
Department of Culture,
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Field layer (Bushy Park)

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Introduction

The lands surrounding Dublin Bay were originally heavily wooded before the City was developed. One of Dublin's Irish names was *Droom-Choll-Coil* that is, "the brow of a hazel-wood", from an abundance of those trees growing about it.

Woodlands are places visually dominated by trees and urban woodland can be defined as all the woodland within the boundary of a town or city. Woodlands within the boundaries of towns and cities provide valuable habitats for many species of plants and animals, and if well managed, can increase urban biodiversity, provide valuable amenity areas as well as reducing pollution and noise.

This guide provides information about three of the most important woodlands in Dublin City at:

St. Anne' Park, between Clontarf and Raheny

Tolka Valley Park, between Ashtown and Finglas

Bushy Park, Terenure.

I A Brief History of Forests in Ireland



After the last Ice Age (10,000 BP), Ireland was initially covered in tundra-like vegetation. As the climate started to warm up 10,000 years ago, trees came in to the country from southern and central Europe, through the United Kingdom. These pioneer species were juniper (*Juniperus communis*), birch (*Betula spp.*) and Scots pine (*Pinus sylvestica*). As temperatures increased they were followed by elm (*Ulmus spp.*), hazel (*Corylus avellana*), willow (*Salix spp.*), oak (*Quercus spp.*), yew (*Taxus baccata*) and ash (*Fraxinus excelsior*). During the Neolithic revolution (4,000 BCE), when humans learned to cultivate lands, extensive clearance of woodlands started to occur. As techniques and agriculture developed in the later prehistoric period, the process of clearing forests continued especially for grazing.

Scots pine (Bushy park).

By the first millennium AD, elm and Scots pine had become rare and studies have shown that forests were then confined to marginal land and upland areas. A human population increase in medieval times resulted in an increased demand for timber, which contributed to a reduction in canopy cover. Nevertheless, there were still some large forests in Ireland until 1600.



*Hawthorn seedling
(Crataegus monogyna).
Bushy Park.*



*Oak leaf (Quercus robur).
Bushy park.*



*Young yew (Taxus baccata).
Bushy Park.*



*Coppiced tree (Bushy
Park).*

The 17th and 18th centuries show the largest decline of the forests and woodlands in Ireland. The invention of the blast furnace in the mid-16th century permitted the production of iron and glass on an industrial scale, which required large volumes of charcoal. This resulted in a large amount of forests having to be coppiced or felled. The demand for timber was further increased for use in the construction of ships and buildings, as well as wood for the tanneries. These all contributed to forest decline.

Between 1700 and 1840, there was another significant human population increase in Ireland, requiring vast areas of forest to be cleared to meet the increasing demand for food and shelter.

By the 1800s, most Irish forests had been cleared and this led to the extinction of many woodland mammals, including wild boar, wolf and red squirrel.

However, by the middle of the 18th century, a growing interest in improving forestry and farming developed in Ireland. In the great estates, landowners started to plant trees as part of land improvements as encouraged by the Royal Dublin Society, founded in 1731. New landscape design styles also encouraged the planting of copses and forests framing the views of the demesnes.

Following these developments, there was a modest reforestation, mostly with exotic tree species. Unfortunately the Land Act (1881), which transferred the lands from landlords to tenants, led to an increase in deforestation as many landlords, who were about to lose their estates, sold their timber crops, whilst new owners started clearing forests in order to make way for tillage and grazing.

By the beginning of the 20th century, about only 1% of the country was covered in woodland and the State began a re-afforestation programme. The aims of this programme were primarily to establish a forest resource that would supply Ireland's timber needs and, latterly, to develop a viable national timber industry. This afforestation effort consisted mainly of the planting of coniferous tree species such as Sitka spruce (*Picea sitchensis*), Norway spruce (*Picea abies*) and Japanese larch (*Larix kaempferi*).

In 1996, the Government published "Growing for the Future", which set targets for the forestry sector to 2035. It established that, in order to reach a scale of timber production large enough to support local industries, the national forest estate would need to increase to 17% of total land area by 2030.

In 2019, Coillte, the state owned forestry business, launched its not-for-profit branch: Coillte Nature. Its aims are to reforest Ireland by planting new native woodlands on un-forested lands, to restore important biodiversity areas by improving habitats, to regenerate urban forests and rehabilitate ecosystem services by bringing sensitive or degraded lands into better health across Ireland.

II Woodland Habitats

Woodlands provide a place where particular plants and animals find food, water and shelter. The nature of the woodland habitat determines the type of plants and animals that can live in it and this nature itself is defined by a series of factors, such as the soil, climate, vegetation and woodland management.



A well-established old broadleaf woodland is made of four distinct layers. The top layer (canopy), up to 20 meters or more, consists of the largest and tallest trees such as ash (*Fraxinus excelsior*), oak (*Quercus spp.*), beech (*Fagus sylvatica*), birch (*Betula spp.*), Scots pine (*Pinus sylvestica*) or other more exotic tree species. These trees restrict the growth of plants by blocking out light and, therefore, affect the composition of the species underneath.

Scots pines dominating the understory in Bushy Park.

The second layer (understorey) is made of smaller trees, such as hawthorn (*Crataegus monogyna*), blackthorn (*Prunus spinosa*) or hazel, all adapted to grow successfully with less light and water.

The third layer (field layer), consists mostly of non-woody plants: grasses, ferns such as deer fern (*Blechnum spicant*), sedges, and flowering plants such as wood anemone (*Anemone nemorosa*). This layer also includes low-growing woody plants such as bramble (*Rubus fruticosus*), honeysuckle (*Lonicera periclymenum*), creepers and ivy (*Hedera Hibernica*) as well as tree seedlings.



Field layer (Bushy Park).

At the bottom is the ground layer which include mosses, liverworts, lichens, fungi, ivy, decomposing leaves and rotten timber.

III Woodlands in Dublin City Parks:

III.1 St. Anne's Park (Clontarf).

The landscaping of St. Anne's Park began when the Guinness brewing family bought Thornhill House demesne. Subsequent years saw the demesne renamed as St. Anne's as well as the acquisition of more lands to create a large estate of almost 500 acres.

In 1838, Benjamin Lee Guinness established his family home there and was involved in the construction of the follies located throughout the demesne. His son Arthur (Lord Ardilaun) inherited the estate in 1868. Both he and his wife, Lady Olive Ardilaun went on to rebuild and extend the house and continue to develop the landscaping of the estate with the assistance of a team of

professional gardeners who worked at other Guinness properties, including Ashford Castle and Muckross House (now Killarney National Park).

One of the most distinctive characteristics of the park are the avenues of fine trees, which originally framed the main house. Notably the long and wide East/West Avenue is planted with holm oaks (*Quercus ilex*), Monterey pines (*Pinus radiata*) and Austrian Pines (*Pinus nigra*). There are several other avenues framed with yews (*Taxus baccata*), horse chestnuts (*Aesculus hippocatanum*), holm oaks or Monterey pines. Another feature of St. Anne's Park is the extensive planting of holm oak. This species, resistant to sea wind was selected by the Guinness family to act as a shelter belt along its coastal boundary and along the boundary of the park. It was also Lord Ardilaun's favourite tree.



Roots system of a holm oak (St. Anne's park). Photo by Ludovic Beaumont.

The Naniken River also flows through the park. The walks along the Naniken River are dominated by large and mature beech (*Fagus sylvatica*). Adjacent woodlands contain holm Oak, Monterey cypress, yew, horse chestnut as well as self-seeded trees such as wych elm (*Ulmus glabra*), ash trees and sycamore (*Acer pseudoplatanus*).



River walk, gothic bridge and yews (St. Anne's Park). Photo by Ludovic Beaumont.

Woodland species such as wild garlic (*Allium ursinum*), Hart's-tongue (*Asplenium scolopendrium*), lords and ladies (*Arum maculatum*), lesser celandines (*Ficaria verna*) and primroses (*Primula vulgaris*) can be found in the field layer during springtime.



Naniken River, horsechestnut leaves and riparian vegetation.



One of the many waterfalls and riparian vegetation.



Naniken River, temple and young beech trees.

The Chestnut Meadow has a diverse collection of meadow species such as lesser knapweed (*Centaurea nigra*), field scabious (*Knautia arvensis*), oxeye daisy (*Leucanthemum vulgare*), bee orchid (*Ophrys apifera*) and pyramidal orchid (*Anacamptis pyramidalis*), which is a rare species. Aquatic species that are rarely found in Dublin have also been recorded in the pond; the broad-leaved pondweed (*Potamogeton natans*) and horned pondweed (*Zannichellia palustris*).

St. Anne's is also home to one of Dublin City Council's native tree trails. (http://www.dublincity.ie/sites/default/files/content//RecreationandCulture/DublinCityParks/Documents/st.annes_english.pdf).

III.2 Tolka Valley Park

Tolka Valley Park is an important park rich in plant and animal life. Covering about 50 hectares, it consists primarily of the existing Tolka Valley Park and the site at Cardiffsbridge Nature Park. Parts of the park are situated over a former city landfill. Previously, the eastern section of the park was the estate of Finglaswood House, which included ancient woodlands referred to by Henry II during his visit in 1171-1172. These are visible on Rocque's maps of 1757-1760. Finglaswood House was home to Walter Seagrave a former Lord Mayor of Dublin City (1588-1589).

The woodland was planted in 2011 with deciduous trees and shrubs, with emphasis placed on native species, incorporating existing mature specimen trees along the river bank. Sycamores, ash and one impressive specimen of hawthorn (*Crataegus monogyna*) are the more mature specimens in the park. Willow, silver birch (*Betula pendula*), downy birch (*Betula pubescens*), alder (*Alnus glutinosa*), blackthorn (*Prunus spinosa*), elder (*Sambucus nigra*) and hawthorns cover the sloping banks.

Cardiffsbridge has an ancient hedgerow running along most of its southern boundary, along parts of the river and crossing the site along historic field boundaries. It is a mature hedge/tree line and consists of mostly mature woody species along the top of a dry ditch. Tree species in the hedgerows include hawthorns, elder, field maples (*Acer campestre*), bird cherry (*Prunus padus*), hazel, sycamore and willows.

In the woodlands, common typical woodland species that are growing include ivy (*Hedera helix*), ground-ivy (*Glechoma hederacea*), wood sanicles (*Sanicle Sanicula europaea*), bramble (*Rubus fruticosus agg*) and Hart's-tongue Fern.

An 'Integrated Constructed Wetland' (ICW) was built in the park in 1999 as an innovative way of treating the Finglaswood Stream, which was heavily polluted at the time. The ICW removes pollution by containing and treating water run-off in a series of areas aesthetically and biologically sympathetic to the local environment. Nitrogen and phosphorus are removed by the plants as they use them for growth. Suspended solids are removed by filtration as the flow proceeds through the wetland. This process also permitted the creation of a new wetland habitat.



Marsh-marigold (*Caltha palustris*). Photography by Maryann Harris.



Primrose (*Primula vulgaris* var. *alba*). Photography by Maryann Harris.

Reeds and sedges were planted and other plants have colonized naturally. The common reed (*Phragmites australis*), bulrush (*Cyperaceae* spp.) and yellow iris (*Iris pseudacorus*) have become the dominant plants in the wetland. Ground flora is influenced by the level of water inundation, with yellow iris, wild angelica (*Angelica sylvestris*) and reed canary-grass (*Phalaris arundinacea*) in wetter parts. Vigorous perennials such as common nettle (*Urtica dioica*) and cow parsley (*Anthriscus sylvestris*) thrive in drier parts.

Tolka Valley Park is also home to one of Dublin City Council's native tree trails.

http://www.dublincity.ie/sites/default/files/content//RecreationandCulture/DublinCityParks/Documents/st.annes_english.pdf

III.3 Bushy Park

Bushy Park (approximately 22 ha or 54 acres) is found on the north bank of the Dodder between Terenure and Templeogue.

The first big house, known as 'Bushe's House', was built by Arthur Bushe of Dangan in 1700 on a site of 4 hectares. The demesne was considerably enlarged by Abraham Wilkinson in 1791, who

gave the estate to his daughter, Maria, as part of her dowry when she married Robert Shaw in 1796. The Irish playwright George Bernard Shaw was a distant relative of this branch of the Shaw family, who owned Bushy Park until 1951, when they sold the estate to Dublin Corporation (now Dublin City Council).

The estate was developed in the English Landscape Garden style, which was fashionable in the early 19th century. The house was accessed by a long avenue flanked by large fields planted with copses of parkland trees. A large ornamental woodland was planted near the Dodder with a serpentine lake as its centrepiece. The lake and woods were the principal pleasure grounds associated with the estate. Typical features of 19th century demesnes are still in existence such as an icehouse; narrow bridges; path networks, and a shell house.



The serpentine lake (Bushy Park).

The eastern part of the woodland is dense and retains numerous trees typical of 19th demesne landscaping with a mix of deciduous and evergreen species. Large-leaved limes (*Tilia platyphyllus*), common oaks, horse-chestnut, and numerous beech are the largest specimen deciduous trees. Yews, deodar cedar (*Cedrus deodora*), western red-cedar (*Thuja plicata*), and numerous Scots pine (*Pinus sylvestris*) are among the largest coniferous specimens. One magnificent specimen of giant redwood (*Sequoiadendron giganteum*) grows beside the lake. Ash, willow, sycamore, and alder have also self-seeded in the woodland.



Pond and riparian vegetation.

The shrub layer is composed mostly of cherry laurel (*Prunus laurocerasus*) and a smaller amount of Lauristinus (*Viburnum tinus*), snowberry (*Symphoricarpos albus*), holly (*Ilex aquifolium*) and hawthorn.

The western part of the woodland is an open canopy mixed broadleaved woodland. The trees include ash, sycamore, lime, yew, with some recent plantings of pine (*Pinus spp.*) and holm oak. The shrub layer has hazel, elder, butterfly-bush (*Buddleja davidii*), bramble, hawthorn, holly and snowberry (*Symphoricarpos albus*). The herb layer is floristically rich. It has some typical demesne garden plants, including pendulous sedge (*Carex pendula*) and Himalayan honeysuckle (*Leycesteria formosa*) as well as typical woodland native herbs such as wood-sedge (*Carex sylvatica*), false brome (*Brachypodium sylvaticum*) and great woodrush (*Luzula sylvatica*). The rare broad-leaved helleborine (*Epipactis helleborine*) was first recorded from Bushy Park one hundred years ago.



Broad Buckler-fern (*Dryopteris dilatata*).



Hart's-tongue (*Asplenium scolopendrium*).

Bushy Park is also home to one of Dublin City Council's native tree trails. (http://www.dublincity.ie/sites/default/files/content//RecreationandCulture/DublinCityParks/VisitaPark/Documents/Bushy_Park_Native_Tree_Trail_english_version.pdf).

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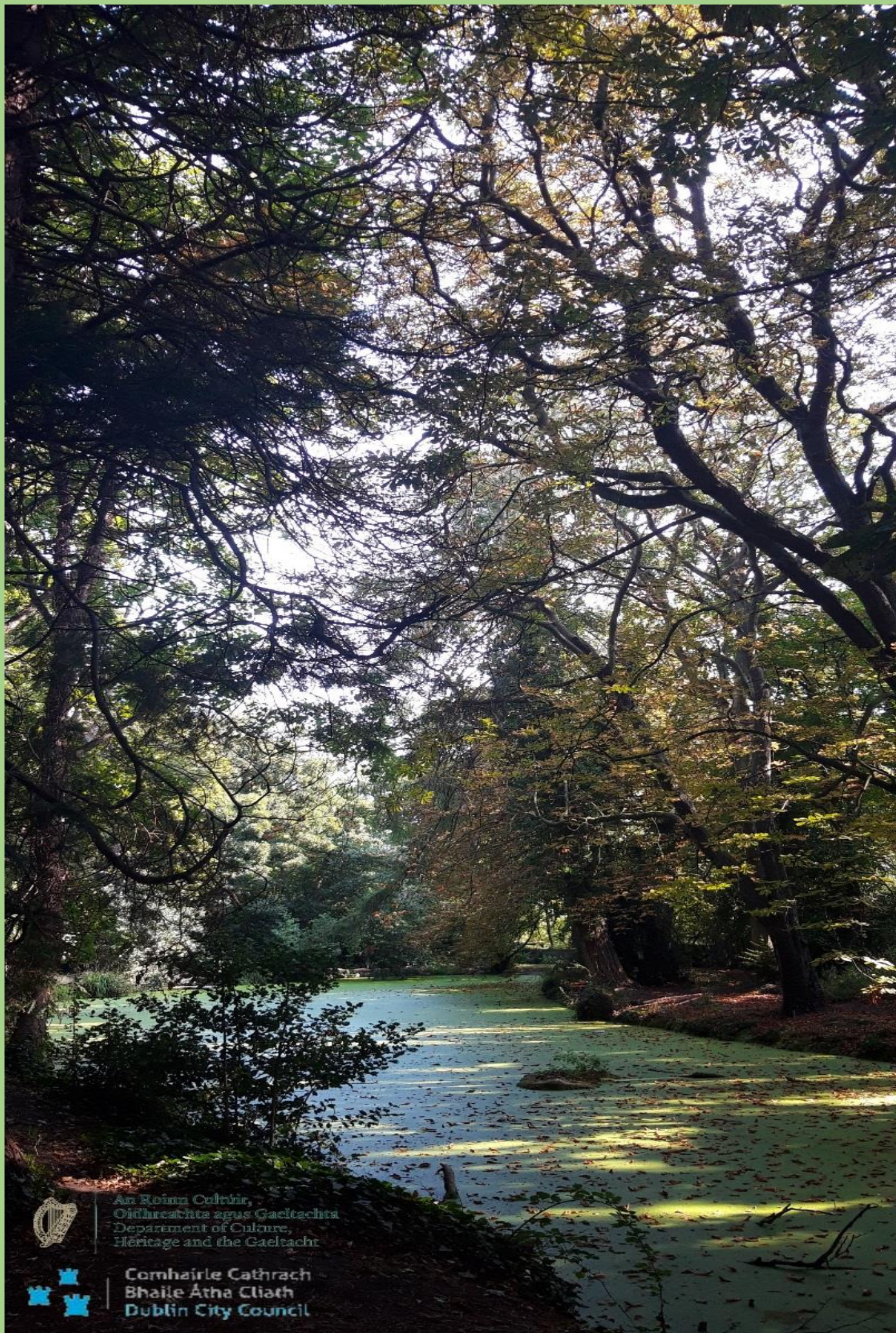
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