



Croom Town Park, Co. Limerick Biodiversity Action Plan 2022-2026



Contents

Acknowledgements	
Chapter 1. Executive Summary	3
Chapter 2. Introduction	4
Chapter 3. Croom Village Location	5
Chapter 4. Methods	6
Chapter 5. Biodiversity in Croom	7
Chapter 6. What is Biodiversity?	10
Chapter 7. Croom Town Park Biodiversity Survey	15
Chapter 8. Biodiversity Actions for Croom Town Park	21
Chapter 9. Invasive Species in Croom Town Park	32
Chapter 10. Funding Biodiversity Enhancement	34
Appendix 1: Species records for Croom Town Park	35

Citation: O’Connell, C. A. (2022) *Croom Town Park, Co. Limerick Biodiversity Action Plan 2022-2026*. Prepared for Croom Community Development Association, Croom, Co. Limerick.

Cover Photos: Top Row from Left: Speckled Wood Butterfly, Blue Tit, Lime Tree and Grey Wagtail. Middle Row: Woodland and Grassland habitat with Jackdaw. Bottom Row: Willow, Bullfinch, Hoverfly on Rape and Shield Bug. Photos: © C. O’Connell.

Acknowledgements

Thanks to The Community Foundation for Ireland for funding provided under the Environment and Nature Fund 2021 to allow the development of this Biodiversity Action Plan for Croom Town Park.



I am grateful to Croom Community Development Association for the invitation to work with them on this plan and for hospitality they provided on the field visit day. I also wish to thank the Town Park Gardening staff for helpful information on the management and history of the park. I wish to thank Mr John O’Brien of Granagh, a regular visitor to Croom Town Park for providing me with information about sightings of Otter he saw in the Mague River. I wish to thank my sister Angela O’Connell for assisting with the field survey of Croom Town Park and for helpful comments on this Action Plan. Lastly I wish to thank Patricia Ryan, CEO of the CCDA for reviewing the draft document and suggesting valuable amendments.

1. Executive Summary

The Croom Town Park Biodiversity Action Plan 2022-2026 is supported by the Community Foundation for Ireland and is an initiative of Croom Community Development Association (CCDA).

The purpose of this biodiversity plan is to help park managers look at the features that make up Croom Town Park and make them better for biodiversity. For each park feature there are recommendations made to improve and enhance its biodiversity. In addition there are suggestions of how to create new habitats or features for wildlife. These biodiversity actions can easily be added to management plans and carried out on the ground.

This biodiversity and conservation plan documents the species and habitat richness of Croom Town Park.

A total of 96 species were identified in Croom Town Park during a biodiversity survey carried out on the 3rd May 2022. This included 76 plants, 12 birds and 8 animals. Two birds recorded in the survey are of conservation concern: Grey Wagtail and Swallow. Otter is a protected species recorded in the River Maigue.

10 habitats were identified during the survey and classified according to Fossitt Habitats of Ireland (2000). These included: amenity grassland (GA2), scattered trees and parkland (WD5), treeline (WL2), non native shrub flower beds (WS3), scrub (WS1), buildings and artificial surfaces (BL3), river (FW3), hedgerow (WL1), stonework (BL1) and horticultural vegetable plot (BC2).

27 biodiversity enhancement actions are proposed in this plan. The main thrust of the recommendations is the enhancement of habitat particularly wildflower meadow. The creation of a buffer area of long grass around the entire perimeter of the park is a key recommendation as the long grass habitat is totally absent from the park at present. This action can be implemented simply by altering the mowing regime in the park. One area has been identified with potential to create a wildflower meadow through planting annual and perennial seeds. There is ample information about how to do this in the following resource from the National Biodiversity Data Centre: <https://pollinators.ie/wordpress/wp-content/uploads/2018/04/How-to-guide-Wildflower-Meadows-2018-WEB.pdf>

In addition the completion of treelines along paths by filling gaps left in previous planting actions and the doubling up of the number of trees within the lines are recommended in the interests of biodiversity. Leaving grass to grow, flower and set seed under planted trees to create wild flower meadow for pollinators is essential.

Habitat and biodiversity enhancement maps are presented for Croom Town Park.

The biodiversity actions can be achieved if CCDA package them in themes and seek funding for a suite of actions. Project examples might include increasing tree canopy area in the park through planting trees and developing a native tree trail; a pollinator project that enhances biodiversity through less mowing, planting bulbs and sowing wildflower seeds to create habitat and an invasive species eradication programme.

To achieve these actions wider community engagement will be essential as the park is a much loved amenity in Croom.

Two invasive plant species were recorded in Croom Town Park as part of this study. These were Giant Hogweed and Cherry Laurel. These must be removed following best practice methods.

Species data recorded on this survey have been lodged with the National Biodiversity Data Centre.

2. Introduction

This Croom Park Biodiversity Action Plan 2022-2026 has been created as an initiative of Croom Community Development Association. The project is funded by The Community Foundation for Ireland. This funding allowed the Croom Community Development Association to employ Dr Catherine O'Connell as an ecologist to develop the Biodiversity Action Plan, devise actions to maintain and enhance local biodiversity and to help the community to gain a better understanding of the biodiversity hot-spots in their locality.

Croom Community Development Association

Since 1988 Croom Community Development Association (CCDA) has worked in the town and its surrounding area to encourage and support the development of Croom. In the period since its inception, Croom has undergone some significant changes. CCDA has worked with Government agencies, charitable organisations, local development companies to bring about change and bridge gaps in service and facility provision and to improve and enhance the attractiveness of the town. The CCDA has a board of directors comprising a selection of local representatives from designated localities. The community is encouraged to get involved in the activities of the CCDA through membership.



The top achievements of the CCDA in relation to the Town Park include:

- * development and maintenance of Croom Town Park
- * Successful funding application and award from the Community Foundation for Ireland 2021 towards the development of the Croom Town Park Biodiversity Action Plan 2022-2026.

Contact Details

Croom Community Development Association CLG,
Croom Civic Centre
Main Street,
Croom, Co. Limerick
V35 TT68

Tel : 061-602742

e-mail : croomcda@gmail.com

www.croomadh.com

CHY8886

3. Croom Village Location

Croom (*Cromadh* in Irish) is a village in County Limerick. It is located just off the N20 (which has bypassed the town since 2001) on the River Maigue (co-ordinates: (52° 31' 16.68" N, 8° 43' 13.8" W). It is 8 km southeast of Adare on the N20 (see Figure 1). Amongst the local attractions are Croom Castle and Croom Civic Centre, which includes a restaurant, library, computers and function hall. There is also a small selection of shops and pubs in the village as well as a primary school named "St. Marys" and a secondary school named "Coláiste Chiarán. The well-known thoroughbred horse stud Islanmore Stud is on the south side of the village while there is also a Sports Centre, GAA club, soccer club and Town Park (Source: https://en.wikipedia.org/wiki/Croom,_County_Limerick). The history of Croom Village can be accessed on <http://limerickdioceseheritage.org/Croom/hyCroom.htm>

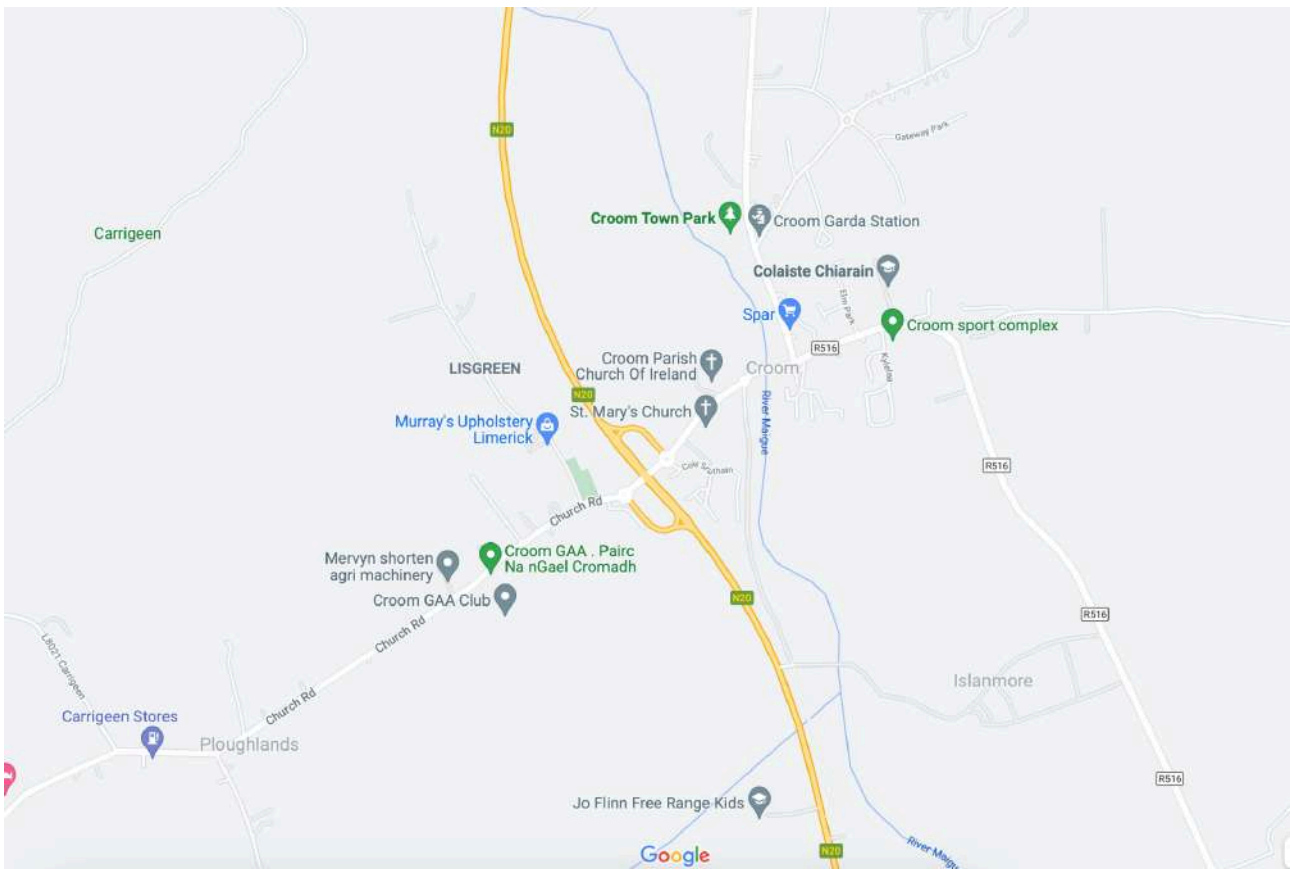


Figure 1: Location Map of Croom, Co. Limerick. Source: [googlemaps.com](https://www.google.com/maps).

4. Methods

Meetings and Project Management

A start up meeting was held by phone on 26th January 2022 with Patricia Ryan, CEO of Croom Community Development Association (CCDA). This was followed by an email sent on the 7th February outlining the work programme and confirming a field visit to undertake the biodiversity survey of the town park and to develop an action plan for its retention and improvement.

Study Site

Croom Town Park was the study area of this biodiversity action plan. A number of different areas occurred within the park including River Maigue and its riparian zone, children's playground, Our Lady's Well and Mass Rock, Community Centre and shrub borders, walkway, car park, scrub, parkland, treeline and the wall along the main street. All of these areas were examined as part of the study.

Biodiversity Field Visit

A field visit was undertaken on the 3rd May 2022 to document the habitats and species present in the town park with a view to mapping the information and making recommendations on biodiversity enhancement and maintenance and to propose new biodiversity projects. Habitats were identified according to Fossitt (see <https://www.npws.ie/sites/default/files/publications/pdf/A%20Guide%20to%20Habitats%20in%20Ireland%20-%20Fossitt.pdf>).

Desktop Studies

A desktop study was undertaken to establish information in the public domain about Croom Town Park, its history, archaeology, habitats and biodiversity. Information was searched on the websites of the following organisations, all of which have map viewer facilities: National Biodiversity Data Centre website (biodiversityireland.ie), the National Parks and Wildlife Service (npws.ie), Ordnance Survey Ireland (osi.ie), Archaeology Ireland (archaeology.ie) and Wetland Surveys Ireland (<https://www.wetlandsurveys.ie>). In addition the Irish Peatland Conservation Council's Hop to It Frog Survey Website was consulted (www.ipcc.ie). The folklore collection was also consulted (see www.duchas.ie).

Community Engagement

During the field visit, the ecologist spoke with gardening staff to explain the project and with visitors to the park who were curious about the survey.

National Biodiversity Data Centre

Species data recorded on this survey have been lodged with the National Biodiversity Data Centre in the format recommended (see Appendix 1).

5. Biodiversity in Croom

Desktop research of biodiversity information available about Croom and its surrounding countryside was undertaken.

National Parks and Wildlife Service

In close proximity to the village Tory Hill is a designated site of conservation importance (see Figure 2).

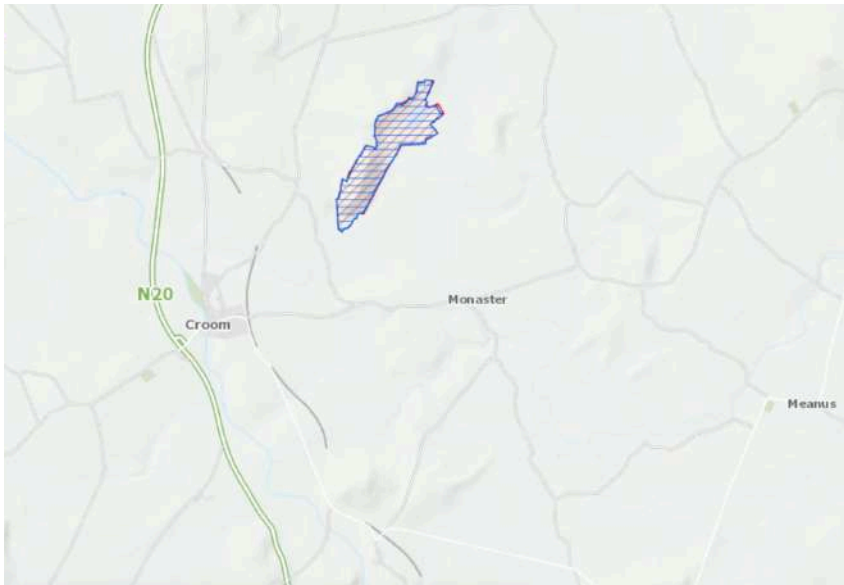


Figure 2: Tory Hill is designated for conservation and is located north east of Croom, Co. Limerick. Source: www.npws.ie.

Tory Hill, Co. Limerick Special Area of Conservation (SAC) Site Code: 000439 (see <https://www.npws.ie/sites/default/files/protected-sites/synopsis/SY000439.pdf>). This designation refers to the habitats present in the site and these include: [6210] Orchid-rich Calcareous Grassland* , [7210] Cladium Fens* and [7230] Alkaline Fens. This site is also remarkable for its stand of Yew (*Taxus baccata*) trees, a feature now rare in Ireland.

At 113m high, Tory Hill dominates the landscape of Manister close to the town of Croom. This isolated, limestone hill is of particular geological interest due to the end-moraine left by glaciers at the end of the last Ice-Age as well as the ice marks visible on exposed areas of rock. These glacial deposits are amongst the largest in Europe.

There are large areas of yew woodland and scrub woodland, where blackthorn, hazel and other trees flourish. There is also a limestone heath-scrub area on Tory Hill that is similar to the Burren. This limestone base supports calcium-loving plants, for example Yellow-oat Grass and Shining Crane's Bill. A further habitat occurring is orchid-rich calcareous grassland, where Bee Orchid, Pyramidal Orchid, Early-purple Orchid and Common Spotted-Orchid have been recorded.

In general, Tory Hill provides plenty of cover in its dense overgrowth to support a large wildlife community. Lough Nagirra, which is situated to north-east of Tory Hill and included in the SAC, supports a number of bird species such as swans, heron, ducks and geese.

National Folklore Collection

Tory Hill is noted for its legends. There are a number of stories included in the The Schools' Collection, Volume 0525, © National Folklore Collection, UCD. These include: The Legend of Tory Hill (Ref: <https://www.duchas.ie/en/cbes/4922104/4852454/4948533?ChapterID=4922104>), The Tale of Tory Hill Men (Ref: <https://www.duchas.ie/en/cbes/4922104/4852449/4948511>), Bidy Early and the Tory Hill Orchardman (Ref: <https://www.duchas.ie/en/cbes/4922104/4852448/4948504?ChapterID=4922104>), Tory Hill (Ref: <https://www.duchas.ie/en/cbes/4922104/4852446/4948503?ChapterID=4922104>) and Tory Hill and Battle of Manister 1579 (Ref: <https://www.duchas.ie/en/cbes/4922104/4852450/4948520?ChapterID=4922104>).

Wetland Surveys Ireland

The River Maigue (site code: WMI_LI267) is noted on the Wetland Surveys Ireland map of Ireland (see <http://www.wetlandsurveysireland.com/wetlands/map-of-irish-wetlands--/map-of-irish-wetlands---map/>). The river which is a tributary of the River Shannon (see Figure 3) is given a C+ rating which means that it is of County Importance. The habitats present in the river system include river, reed swamp, tall herb swamp, wet grassland, wet woodland, riparian woodland, scrub and fen. Further information about this important site which flanks the western boundary of Croom Town Park is available from the Maigue River Trust. This group have undertaken a number of studies on the River System and these can be viewed on <https://maiguerivertrust.ie/biodiversity/scientific-reports-and-studies-on-the-river-maigue/>.



Figure 3: Location of sites of conservation importance included in the Wetland Surveys Ireland database. Tory Hill and the River Maigue are most adjacent to the Croom. Source: Wetland Surveys Ireland.

National Biodiversity Data Centre

Additional information on the species diversity present in Croom is available from the National Biodiversity Data Centre (NBDC). Species records can be found for areas of the country based on a system of 1km square grids (see <https://maps.biodiversityireland.ie/Map>). The grid numbers for Croom are R5041 and R5141. Data is uploaded by various recorders to the NBDC.

A scan through the NBDC data set indicates that Croom and the River Maigue have been included in a number of species surveys including: Road Kill Survey, Irish National Frog Database, River Biologists' Database (EPA), Birds of Ireland, National Invasive Species Database, Butterflies of Ireland, Moths Ireland, Bees of Ireland, Mayflies of Ireland, Grasshoppers, Crickets and Allied Insects (Orthoptera) of Ireland and Mammals of Ireland 2016-2025.

There is an impressive list of species held in the NBDC datasets for the park area including many species of moth, bee, mayfly and other invertebrates.

Hop to It Frog Survey

The Hop To It Frog Survey database held 2 records of frogs in the Croom area. The first was an adult frog sighting from 2003 at Islandmore Stud, the second was frog spawn and tadpoles sighted at Athlacca in March 2003 (see <http://www.ipcc.ie/help-ipcc/hop-to-it-national-frog-survey-irelandcard/>).

Local Information

Mr John O'Brien of Granagh provided information on the sighting of an Otter on two occasions in the River Maigue in March 2022.

6. What is Biodiversity?

Biodiversity is the variety of living things around us, from mammals and birds to plants and microbes, and the habitats they live in. It is a term used to mean wildlife, but more inclusive, as wildlife is often thought to refer to animals only.

The biodiversity of a site or locality is the range of species found there. A green space in any housing estate includes the familiar biodiversity of the blackbird and the robin, ducks, butterflies and the trees and grass, as well as many hundreds of species of smaller, more elusive and less familiar species such as bats, hoverflies, molluscs and fungi.

The Value of Biodiversity

Biodiversity is a key component of vibrant, rich and attractive open spaces in villages and the surrounding countryside. The values of biodiversity are listed in Table 1. Biodiversity value is reflected in the way that habitats, parks and green spaces are managed. People want nature in their public spaces and want to get involved in its management. Success will be the result of leadership, teamwork and commitment. What to aim for is that the care of parks, habitats and open spaces is informed by ecological principles. The result of this approach is the creation of more self-sustaining, cost-effective landscapes that provide better wildlife habitat and more locally distinctive surroundings. Using the biodiversity approach can put small villages and parks on the visitor map and help local communities to be proud of their village because of it.

Biodiversity Value	Notes
Biodiversity is good for people	Naturalistic landscapes offer an alternative experience to more formalised, green space, and can be used for both exercise and relaxation.
Biodiversity involves communities	Encouraging biodiversity offers opportunities for people to get involved in creating and looking after parts of their local neighbourhood or park or for recording species through citizen science initiatives.
Biodiversity is cost-effective	Because biodiversity schemes, such as planting woodland, require less intensive maintenance, resources, which are always limited, can be directed to other activities in the community.
Biodiversity creates a sense of place	Biodiversity helps to make an area reflect the character of its own locality, rather than looking and feeling the same as everywhere else.
Biodiversity is good for wildlife	Biodiversity is good for wildlife, whether rare and protected species or common, familiar plants and animals, all of which are interconnected.
Biodiversity contributes to sustainability	Less intensive techniques and the reduction of chemicals, water and fertilisers are all aspects of managing for biodiversity. The best ecological systems require low levels of intervention and are therefore readily sustainable.
Biodiversity contributes to a green infrastructure	The network of habitats, parks and green spaces in a village helps to ameliorate the effects of climatic extremes, heavy rainfall and pollutants. Naturalistic green spaces are generally more effective in this respect thanks to their more complex vegetation structure.

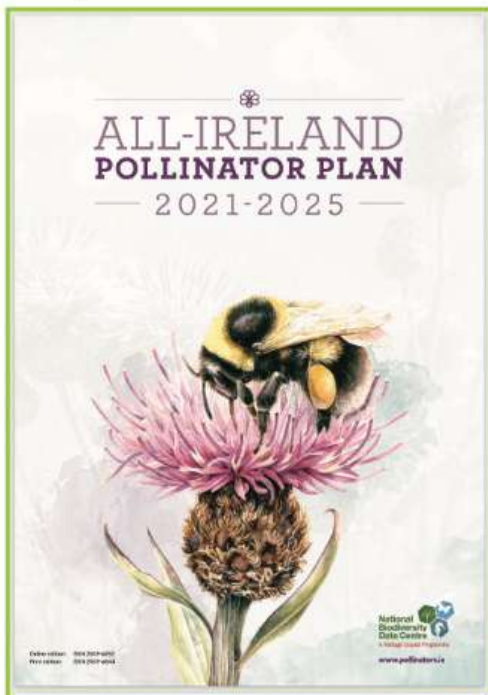
Where can we find biodiversity?

When people think of places to encourage wildlife, it is often the wilder, more out-of-the-way parts of the village or the woodland and hedges at the edge of the village. Actually everywhere has the potential for biodiversity (see Table 2). In order to enhance the opportunities for biodiversity, groups must create and encourage more species-rich and structurally diverse vegetation. Common examples include reducing mowing to encourage wildflowers and the establishment of field and shrub layers under groups of planted trees.

Biodiversity Locations in Your Area
Parks and public/private gardens
Natural and semi-natural spaces (including wastelands and derelict open land)
Green corridors
Rivers, streams and wetlands
Roadside verges
Cemeteries, churchyards and other burial grounds
Civic spaces, including market squares and other hard-surfaced areas designed for pedestrians
Accessible countryside in urban fringe areas
Urban planting schemes
Amenity green spaces
Playgrounds for children and young people
Allotments, community gardens and city farms
Outdoor sport pitches
Running tracks
Walkways

Why Does Croom Town Park Need a Biodiversity Action Plan?

Global biodiversity is under threat. Action is required at local, national and global levels to protect our natural heritage. Habitat loss from



exploitation of resources, agricultural conversion and urbanization are the main factors contributing to the loss of biodiversity. The consequent fragmentation of habitat creates small isolated patches of land that cannot maintain populations of species into the future.

Ireland's National Biodiversity Plan 2017-2021 (see <https://www.npws.ie/sites/default/files/publications/pdf/National%20Biodiversity%20Action%20Plan%20English.pdf>) highlights the role that Communities can play in enhancing and protecting the biodiversity in their locality. A key action area arising from the National Biodiversity Plan is the need to take steps to protect pollinators. The All Ireland Pollinator Plan 2021-2025 (see <https://pollinators.ie/wp-content/uploads/2021/03/All-Ireland-Pollinator-Plan-2021-2025-WEB.pdf/>) aims to help local communities to enhance habitat for pollinators through planting native species that provide food and shelter year round (see the Pollinator-friendly Planting Code at <https://www.biodiversityireland.ie/wordpress/wp-content/uploads/Pollinator-friendly-planting-code-temporary-draft.pdf>).

The Basics of Biodiversity Management

Managing sites for biodiversity involves thirteen general principles that may challenge traditional practices.

1. **You don't know what you've got until it's gone.** Make the most of what is already there. Very often the value of this may not be recognised. For example, regularly-mown amenity grassland may in places contain a good number of wildflowers but these never flower because of the frequent mowing. Always make sure you know what you already have before you try to change it.
2. **Challenge the myths.** It is important to seek expert advice to ensure that myths about wildlife do not infiltrate management decisions. For example, not all birds nest in trees; many nest on the ground. Many shrubs promoted as good for butterflies are suitable only for the adults, which drink nectar, and if the food plants of their larvae are not present as well, they will not serve their purpose.

3. **Keep it appropriate.** Most habitats, parks and green spaces have a local distinctiveness: the species and their habitats generally relate to their locality and are derived from the underlying substrates and geology, climate, hydrology and ecological characteristics. A green space in the South West will have different biodiversity from one in the North East, even if the layout and structure are broadly similar. To ensure that biodiversity has a long-term future, management objectives must be appropriate to the local ecology, as must the species that are planted.
4. **Keep it clean.** Wildness is often thought to mean leaving nature to look after itself. But it is important to make sure the site does not appear neglected. Litter picking is as important in a wildlife area as in a formal rose bed.
5. **Keep it dynamic.** Standard management practice aims to keep elements of the landscape in the same condition: shrubs are pruned to a regular shape, lawns are close mown to the same height, all self-sown plants are removed from flower beds. Change is therefore limited. Management for biodiversity, on the other hand, may actively encourage change so that more varied opportunities are present for wildlife. Some grassland might be allowed to change gradually into woodland or shrubs may be pruned less frequently. Many species have no permanent place in a green space managed to suppress all change, yet continuity of habitat is absolutely vital to many species.
6. **Size matters.** Although the quality of a park is not generally dependent on its size, in the context of increasing biodiversity it can often be crucial. Some species, mainly birds and mammals, have minimum area thresholds. So it is important to provide the largest area or mass of habitat wherever possible, as this enhances the chances for species that have large territories or that are vulnerable to disturbance. This provides the basic rationale to extending biodiversity beyond the bounds of the nature garden and integrating it into the wider management of parks and green spaces.
7. **Safety in numbers.** A greater diversity of plants is likely to support a wider range of animals. For example, a wildflower meadow is usually thought to be better for wildlife than areas of unmown, tall grassland, because the greater variety of flowering plants supports more nectar-feeding insects than grasses alone. Similarly, a mixed planting of shrubs or a mixed hedge may help encourage more species of birds than a planting or hedge made up of a single species.
8. **The sum is bigger than the parts.** Combining different habitat types together creates a more complex and varied environment for wildlife, because of the larger number of opportunities for shelter and feeding. For example, the song thrush feeds both on invertebrates in open lawns and on berries from hedgerows or woodland edge. Thus, combining areas of short-mown grass with shrubs, hedges and woodland provides all sorts of foraging opportunities as well as nesting cover. Rich mosaics of different habitats can also be very attractive to people and are desirable if the size of the site and local circumstances permit.
9. **More structure means more diversity.** The key to providing enhanced habitats for biodiversity is generally increasing the structural diversity of the habitats. For example, long grass meadows provide more opportunities than short swards. A woodland with ground flora, dead wood and a small tree layer provides significantly more habitat than one stripped of everything except its trees.
10. **It's a matter of life and death.** We are used to thinking of nature as the living things we can see all around us, whether they are plants or animals. However, biodiversity – the totality of living things – includes also those myriad species that are scarcely visible. Many organisms are involved in death and decay and in feeding upon and recycling the dead remains of other life into soil nutrients. Therefore, one of the ways of encouraging greater biodiversity is to encourage this natural recycling by, for example, leaving dead wood on the ground in woodland areas.

11. **Life on the edge.** Biodiversity hotspots often occur at the meeting point between two or more habitats. For example, where a shrubby woodland edge meets tall grass or meadow, plants and animals from both grassland and woodland habitats can thrive. Such boundaries and edges can be very useful where space is limited, particularly if allowed to merge rather than being maintained as two or more separate areas. They can be especially valuable in warm and sunny aspects where the greatest diversity of wildlife can be expected.
12. **Remember the bigger picture.** It is easy to focus on an individual site or a particular area or feature within that site, to the exclusion of the surrounding area. However, wildlife rarely takes notice of our site boundaries. We should not forget to look at how an individual site fits into a much wider network of spaces and how that connection can be strengthened. We should also consider the role of private gardens, which extend the habitat available for wildlife beyond the public open space.
13. **Keep it sustainable.** Throughout the 20th century, managers of parks and green spaces (as well as the countryside) often unintentionally used specific techniques to remove biodiversity, which was seen to be a problem. This later rebounded through the food chain, or caused damage well away from the parks themselves. Adopting more sustainable approaches, for example reducing chemical inputs, water extraction and fertilisers, mulching to bulk up soil and avoiding the use of peat, can greatly enhance biodiversity.

Did You Know? Top 5 Plants for Biodiversity	
(Source: https://www.fingal.ie/sites/default/files/2020-04/gardening-for-biodiversity-booklet.pdf)	
Plant Name	Importance for Biodiversity
Dandelion	<ul style="list-style-type: none"> • Flowers in early spring providing vital food early in the season. • Seed heads are bird food for greenfinch and goldfinch. • Leaves are food for Garden Tiger Moth Caterpillars
Willow	<ul style="list-style-type: none"> • Flowers in spring providing vital food (pollen and nectar) early in the season.
Bramble	<ul style="list-style-type: none"> • Flowers provide vital food for pollinating insects in late summer. • Berries are loved by birds, mammals and people. • Bramble provides secure nesting sites for birds. • In spring moth larvae feed on its leaves.
Red Clover	<ul style="list-style-type: none"> • Flowers are a rich nectar and pollen source for bees including the common carder bee, honeybee and red-tailed bumblebee.
Ivy	<ul style="list-style-type: none"> • Ivy flowers in late autumn providing pollen and nectar when food is running low for insects such as bees, wasps, hoverflies and butterflies including Red Admiral, Painted Lady, Small Tortoise Shell and Speckled Wood. • Holly blue butterfly caterpillars feed on ivy flower buds in autumn and then the caterpillars pupate hidden in the ivy until spring when they emerge. • 16 species of moth use ivy as caterpillar food. • Black ivy berries are a very important source of food for birds such as blackbirds, thrushes and pigeons in late winter. • Ivy provides cover for nesting birds and hibernating butterflies.

7. Croom Town Park Biodiversity Survey

The Town Park is the focus of this Biodiversity Action Plan and a map has been provided of the park area from Croom Community Development Association CLG (see Figure 4).



Figure 4: Map showing details of Croom Town Park including projects completed and planned in the park by Croom Community Development Association CLG. Source: Croom Community Development Association CLG.

Location

Croom Town Park is situated between the River Maigue and farmland on its west side and the Main Street and a private home on its east side in the town of Croom 52.522359, -8.720458 (see Figure 4). The park is 5.7ha in extent (14 acres). There is a car park to the south of the park and a pedestrian entrance. There is another pedestrian entrance from the main street opposite the Garda Station.

The Park has a wide range of amenities including a multiple 1.1km circular walking route (see <https://www.alltrails.com/trail/ireland/county-limerick/croom-town-park-circular>) starting on the banks of the River Maigue and continuing through the parkland to the community orchard via St. Mary's Holy Well and the Mass Rock (see Figure 5). Shorter walks are also possible by using one of two paths, partially treelined, which cross the park from east to west. Croom Town Park has a playground as well as adult exercise machines and many picnic areas and park benches. The park is the focus of many community events throughout the year and is on facebook (see <https://m.facebook.com/profile.php?id=635413546921545>). Croom Civic Centre is located south of the park adjacent to a car park.

In the centre of the park there is an historic monument called Lady's Well (Code LI030-026). This was included on 1840 ordnance survey map of the area. The well is now enclosed in a concrete tank, overflowing into a basin. Two boulders, said to bear the marks of Our Lady's hands, are shown as the former site of the well (Source: <https://maps.archaeology.ie/HistoricEnvironment/>).

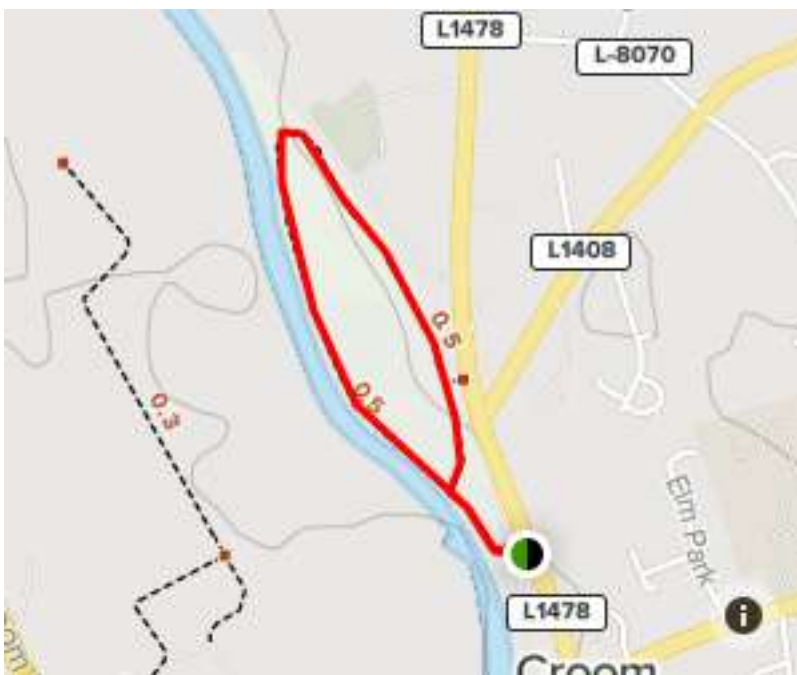


Figure 5: Croom Town Park Circular Walking Route. Source: <https://www.alltrails.com/trail/ireland/county-limerick/croom-town-park-circular>

Existing Management

CCDA have been active in the care of the much loved Town Park. Maintenance of the park's trees and grassland areas is a top priority as well as the various amenities provided in the space including the playground, car park, bins, picnic tables, seating, mass rock and well. Grass is mowed and the cuttings are left on the ground. Trees have been planted singly and in groves. Bird feeders and nest boxes have been provided. A strawberry and raspberry bed has been created and apple trees have been planted. Part of the park has been allowed to grow wild for biodiversity. The park is fenced off from the River Maigue along its western margin and from the grounds of large homes on its eastern margin. Visitor information signs have been provided, two about park

wildlife, one at Our Lady's Well and a welcome sign at the visitor car park. The children's playground in the south of the park adjacent to the entrance is fenced off. Up to 8 exercise machines are located in the mid zone of the park.

As the Park is an important gathering point for the community, there is an opportunity for CCDA to showcase their best practice management and biodiversity enhancement works at this site.

Species Diversity

Flora, fauna and birds were identified and recorded for the Croom Town Park. Appendix 1 lists all of the species found in the format required by the National Biodiversity Data Centre. The greater the diversity of habitats created within the park, the greater number and variety of species are recorded. One bird observed in the Mague River - the Grey Wagtail - was noteworthy as it is on the red list of Birds of Conservation Concern in Ireland. This bird is a resident of fast flowing rivers. It feeds on insects caught on the ground or in flight. It breeds along the river, frequently building its nest under a bridge.



Figure 6: Grey wagtail a red listed bird of conservation concern in Ireland is resident in the Mague River.
Photo © A. O'Connell

This bird requires quality river habitat for its survival. The swallow was also seen catching insects flying close to the surface of the water in the river. This bird is also of conservation concern and is amber listed in Ireland (see <https://birdwatchireland.ie/publications/birds-of-conservation-concern-in-ireland-bocci-2020-2026/>). It is an insect feeder. The loss of wild flowers through habitat removal and extensive mowing of amenity grasslands reduces insect food for this migratory bird. Actions included in Table 3 target the creation of meadow habitat with abundant wild flowers to attract more insects for species such as swallow.

Habitats Present

The range of habitats in the Town Park include amenity grassland (GA2), scattered trees and parkland (WD5), treeline (WL2), non native shrub flower beds (WS3), scrub (WS1), buildings and artificial surfaces (BL3), river (FW3), hedgerow (WL1), stonework (BL1) and horticultural vegetable plot (BC2). The distribution of the habitats in the park are shown in Figure 7.

Amenity Grassland (GA2): This was the most common habitat in the park occupying up to 70% of the area. It is intensively managed through mowing and as a result is species poor. Wildflowers commonly noted were daisy and dandelion. Less common was white clover but it is unlikely that this is allowed to flower. Jackdaws were common here foraging. There is a local tradition of feeding the jackdaws oat flakes.

Scattered Trees and Parkland (WD5): this habitat overlaps with amenity grassland in the sense that there are a number of mature specimen trees randomly growing throughout the grassland area. These included oak, ash, rowan, silver birch, hawthorn, yew, maple, beech, Irish whitebeam, sycamore, willow, Scot's pine, cedar (*Thuja occidentalis*) and lime. The grassland below the trees was being mowed which does not allow wild flowers to complete their life cycle and set seed. The specimen trees within the parkland would make an interesting Tree Trail for visitors to enjoy. Stands of trees were planted around the Holy Well and the Mass Rock by CCDA. Species recorded here included holly, willow and cherry blossom.

Tree Line (WL2): Along the eastern margin of the park there was an embankment with a treeline of mature beech trees underplanted with larch trees adjacent to the boat house and club house. In an other area understorey species were present but not forming a woodland layer. These included hawthorn and elderberry. The ground layer of the treeline was being allowed to grow and flower and a number of wild flowers of grassland and woodland were recorded here including cow parsley, bush vetch, lesser celendine, bramble, ivy, cleavers, speedwell, groundsel, plantain, blue bell, wood avens, pendulous sedge, sowthistle, dock, daisy, white clover and dandelion. Wood pigeon, blackbird, song thrush, wren, hooded crow and jackdaw were observed along the tree line. The treeline is shared with neighbouring homes. A fence delimited park land from private land along this eastern margin.

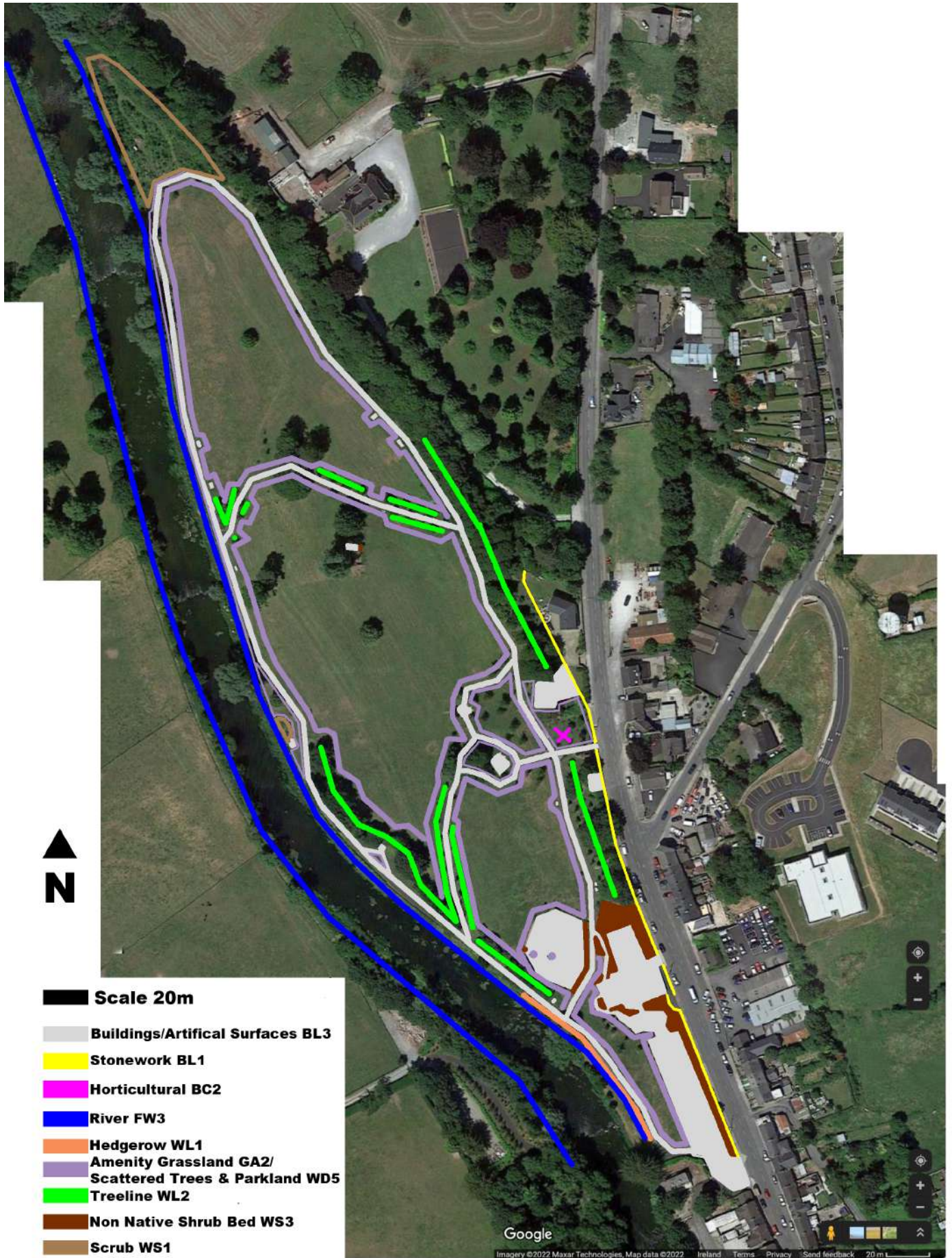
CCDA have been active in planting avenues of trees along walking paths through the park and adjacent to the river. Rowan, larch, birch and Irish whitebeam were being used for this purpose.

Non native shrub flower beds (WS3): around the Civic Centre and car park there were a number of mixed herb and shrub beds planted. Shrubs recorded included red robin, butterfly bush, Rugosa rose, Mexican orange (*Choisya ternata*), box and Mahonia.

Scrub (WS1): at the northern end of the park there is an area of scrub woodland surrounded on its east and northern margins by a ditch. This sheltered site contained the richest diversity of species in the park. Plant species recorded included guelder rose, bird cherry, ground ivy, daisy, dandelion, rapeseed, clover, hawthorn, nettle, dock, oak, ivy, Scot's pine, bramble, honeysuckle and elderberry. Stands of rape in flower were attracting hoverflies in abundance. The hawthorn shield bug, a spider, the common garden snail, robin, bull finch and speckled wood butterflies were noted. Of concern however was the spread of Giant Hogweed in this area. A discussion with park staff indicated that it is being carefully treated with glyphosate (RoundUp) however in the interests of health and safety the area should be fenced off until this invasive has been removed completely.

Buildings and artificial surfaces (BL3): The car park, civic centre, picnic sites and walking routes all represent man-made surfaces of little biodiversity value. This category includes a circular playground area. This is fenced off with a post and two wooden rail fence and chicken wire. Some of the upright posts have been screen planted successfully with honeysuckle but the playground is largely open to the park presumably for health and safety reasons. There are two earthen mounds within the playground with grassland habitat and 5-6 smooth tree trunks shaped into seats and other structures.

Figure 7: Habitat map for Croom Town Park, Co. Limerick. Prepared by Catherine O'Connell. Map source: www.google.com.



River (FW3) and Riparian Zone: The Mague River forms the western boundary of the park. This fast flowing river is under the care of the Mague River Trust. Three weirs occur in the river within sight of the park walkway. On one of these a Grey Wagtail was observed. This is a red-listed bird of conservation concern due to the loss of quality wetland habitat. A local park user observed an Otter in the river on two occasions in March 2022 in this zone. A swallow was observed feeding on insects close to the river water surface.

The riparian zone or edging bank of the river was species poor. There were large white willow trees (*Salix alba*) binding the banks and attracting blue tit, robin and long-tailed tits but the presence of Giant Hogweed, a dangerous invasive species was of concern. In addition there was an abundance of nettles growing in this zone and may reflect the dumping of cut grass along the river bank in the past. An area of flag iris was observed on the bank close to the water's edge. In the water clumps of reed sweet grass were noted. The river bank is fenced off from the park and *Rugosa* rose has been planted along this fence. It is heavily pruned.

Hedgerow (WL1): A hornbeam hedge with mature trees has been planted along the river margin to the south of the park adjacent to the playground. This is clipped and maintained at 1.2m height.

Stonework (BL1): A wall of irregularly shaped limestone occurs along the south eastern margin of the park. This was species poor but ivy, herb robert, ivy-leaved toadflax and maidenhair spleenwort were noted here. The wall was 1.5m high. Behind a residential home on the boundary of the park, a block wall is present.

Horticultural vegetable plot (BC2): Adjacent to the Boat House (now a shed) and the Club House (now the gardener's base) there was a fruit bed with strawberry and raspberry plants in the shape of a cross. Apple trees have been planted adjacent to the Civic Centre, the beginning of an orchard. The grassland habitat below these is managed through mowing.

8. Biodiversity Actions for Croom Town Park

The biodiversity actions proposed in Table 3 are based on a simple principle – that biodiversity benefits by increasing the amount and types of available habitat. Long grass/meadow habitat is absent in Croom Town Park and this can easily be remedied by creating a buffer of at least 2-3m of grass that is not mowed around the perimeter of the park. This action simply requires a change of mowing regime.

Some actions focus on increasing the amount of habitat by adding more vegetation to the park such as wildflowers, long grass areas, shrubs and trees. Others focus on increasing the volume of soil habitat by applying mulch.

Additional actions focus on creating habitat where there was none – such as growing climbers up walls. New types of habitat can really make a big difference for biodiversity. Something as simple as allowing grass to grow long creates new habitats such as long hollow stems for overwintering insects and seed heads to feed birds as well as feeding areas for butterfly caterpillars. Creating nest sites for birds or invertebrates (such as bird boxes or log piles) or summer roosts for bats can be a big help if natural sites are scarce.

Croom Town Park is a focal point in Croom for public events and recreation and is a home for biodiversity. Communication is vital with users to foster understanding of any biodiversity enhancement measures being undertaken.

Figure 8 shows the location for the different actions proposed in Table 3.

Figure 8: Croom Town Park Biodiversity Action Map. Photo: C. O'Connell and www.google.com. The key to the letter and action codes are as follows: A - carpark; B - Civic Centre; C - Playground; D - Mass Rock; E - Holy Well; F - Boat House (Shed); G - Club House (Gardener's base); H - Pergola; I - Exercise Machine; J - River Maigue. Action 1 - Tree Planting; 2 - Tree Planting; 3 - Wall Habitat; 4 - Log Pile; 5 - Meadow Buffer Grassland Strip; 6 - Wildflower plugs and bulbs planting; 7 - Wildflower area; 8 - Spring and summer flowering bulb planting; 9 - Grassland meadow creation with mowed grass paths; 10 - Bluebell planting; 11 - Specimen tree management; 12 - Insect Hotel; 13 - Wild daffodil naturalisation; 14 - Giant Hogweed invasive species removal; 15 - Cherry Laurel invasive species removal; 16 - Alder Tree planting; 17 - Pollinator friendly rockery garden; 18 - Spring and summer bulb planting; 19 - Damaged tree repairs; 20 - Bird feeding/bathing station; 21 - Nettle bed for butterfly caterpillars; 22 - scented screening of playground fence; 23 - water butt installation; 24 - Native tree walk; 25 - composting area; 26 - autumn leaf mulch and 27- bin removal.

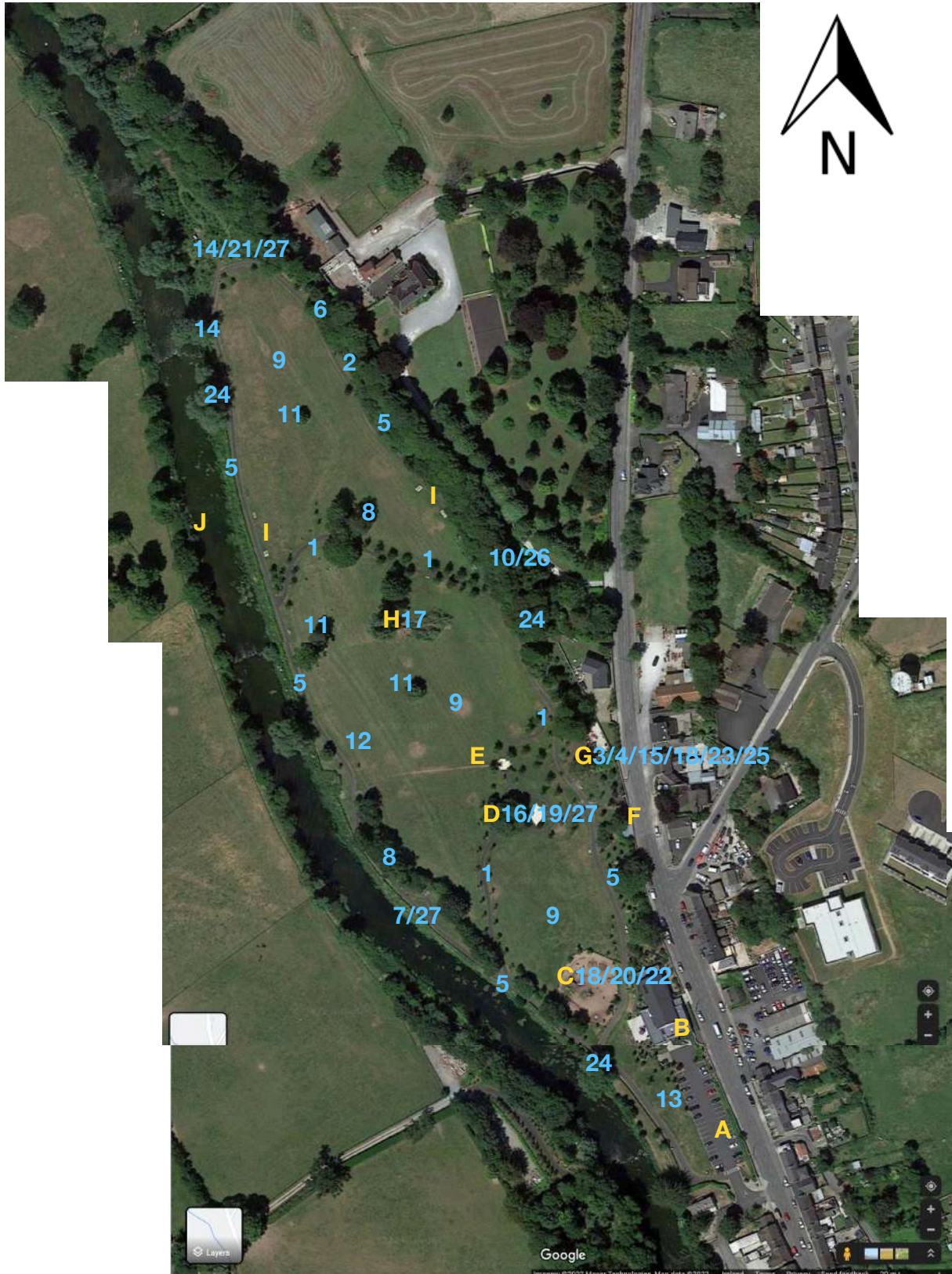


Table 3: Biodiversity Action Plan for Croom Town Park (see Figure 8)

Action Number	Biodiversity Action	Notes
1	Plant trees to create a woodland corridor on the two paths which cross the well meadow from east to west. (See Plate 8).	Gaps in the existing tree lines planted across the two paths running east to west in the park need to be filled with new trees. A second row of trees should be planted adjacent to the first row to create a wildlife corridor. Species to plant rich in berries and fruit would be mountain ash, hawthorn, crab apple, wild cherry, guelder rose, alder, elderberry, spindle and blackthorn. The grassland between the trees should be allowed to grow, flower and set seed to provide food and nectar for insects and birds and a refuge for animals.
2	Plant trees to extend the treeline on the eastern margin of the park (see Plate 10).	Two rows of trees and woodland flora should be planted along the eastern margin of the park to screen an ugly fence which marks the boundary of the existing treeline in private ownership. Species to plant rich in berries and fruit would be mountain ash, hawthorn, crab apple, wild cherry, guelder rose, alder, elderberry, spindle and blackthorn. The grassland between the trees should be allowed to grow, flower and set seed to provide food and nectar for insects and birds and a refuge for animals.
3	Create new habitat for wildlife at the boat house (Gardener's base). See Plate 6.	The walls of the boat house should be covered with climbing plants to create habitat for wildlife. Species to include are honeysuckle, Clematis, Ivy and wild rose. A flower bed at the base of the building can be planted with spring and summer flowering bulbs in addition to structural shrubs that attract pollinators year round (example: <i>Erica</i> heathers (choose lime loving varieties), <i>Berberis darwinnii</i> , <i>Cotoneaster horizontalis</i> , <i>Escallonia</i> , <i>Hypericum</i> - St. John's Wort, <i>Lavendula</i> - Lavender, <i>Mahonia</i> , <i>Ribes sanguineum</i> - Flowering Currant, spindle (<i>Euonymus europaeus</i>), Broom or Gorse.
4	Leave logs, prunings and other dead wood in place to decompose, including standing dead wood where possible.	A log pile is a complex home and food source for all sorts of beneficial creepy crawlies and invertebrates. They can even be used by larger animals such as frogs and hedgehogs for hibernation. Large logs give a more stable environment but every log counts. Stack them up randomly leaving some space between them. Partly bury some logs into the ground to create the cool moist conditions loved by ground dwelling invertebrates including woodlice, centipedes, ground beetles and the devil's coach horse. Log piles are not static. Continue to add to the pile as it rots down. This will ensure that you have fresh dense wood at the top and brittle, soft decomposing wood at the bottom. A log pile is a wildlife sanctuary and will enhance the wildlife value of this amenity area with very little effort. Such features are a great sign to the community that biodiversity enhancement is a priority.
5	Reduce the area of heavily managed grassland by creating a buffer strip of biodiversity natural grass or meadow extending 1-2 metres from the base of the treelines, fences and hedges right around the perimeter of the park.	Let the grass grow, flower and set seed. This action helps to diversify the habitats present increasing their number and creating a transition from one habitat to another e.g. mowed grass to long grass to treeline. The long grass meadow provides shelter, food and habitat for a range of invertebrates and is a natural corridor along which insects or animals can pass. Once a year mow the entire grassland meadow area and remove waste to the compost heap. This helps to control vigorous grass growth. Scarify the ground with rakes to help wild flower seeds make contact with bare soil and germinate to increase the abundance of wild flowers in subsequent years. This action helps to promote biodiversity around the perimeters of species poor habitats such as amenity grassland. To have year round flowering in the verges mowing needs to shift to autumn and winter. In a given calendar year the first cut should be undertaken before the end of February and the second cut after September when seeds have shed. For more information about the creation and management of a wild flower meadow please refer to: https://pollinators.ie/wordpress/wp-content/uploads/2018/04/How-to-guide-Wildflower-Meadows-2018-WEB.pdf
6	Enhance grassland biodiversity	Increase plant species diversity through planting native wildflower plugs, bulbs or mature plants in selected grassland areas of the park. To have year round flowering in the verges mowing needs to shift to autumn and winter. In a given calendar year the first cut should be undertaken before the end of February and the second cut after September when seeds have shed.

Action Number	Biodiversity Action	Notes
7	Create highly visible wild flower area at the picnic table beside the river (see Plate 3)	An area of grassland that is regularly mowed occurs on a raised mound adjacent to a picnic table beside the river. This would be ideal for a wildflower area. Create a wildflower meadow from this amenity grassland area by cutting the grass to a very short sward, scarifying the surface to create bare soil and sowing a wild flower seed mix. Wild Flower seeds are available from www.wildflowers.ie . Get the GF03 mix for attracting butterflies, bees and birds. €22 per 100 gram or €170 per kilo. (1 gram covers an area of 1.5 square metres). If necessary this area may need to be fenced off to prevent trampling. An alternative method of establishing a wildflower area is to purchase wildflower turf which is available from https://summerhillawns.ie/wildflower-turf/ and costs €132.50 for 5 square metres. The mowing regime is crucial to the success of this area and needs to shift to autumn and winter. In a given calendar year the first cut should be undertaken before the end of February and the second cut after September when seeds have shed.
8	Plant spring and summer flowering bulbs under tree groves in the park to extend the season for biodiversity (see Plate 4)	Create meadow habitat under tree groves by leaving grass and wildflowers to grow, flower and set seed and by naturalizing bulbs planted. Choose a limited colour palette of bulbs for this project as it looks more natural. Do not cut the grass until autumn. This allows the bulbs to ripen in the ground and ensures they divide and flower in subsequent years. Species ideal for naturalizing include: wild daffodil (<i>Narcissus pseudonarcissus</i>), snowdrop (<i>Galanthus elwesii/nivalis</i>), bluebell (<i>Hyacinthoides non-scripta</i>), wood anemone (<i>Anemone nemorosa</i>), Ramson (<i>Allium ursinum</i>), <i>Crocus</i> species and squill (<i>Scilla bifolia</i>). The bulbs are tossed gently onto the bank. Plant them where they land at a depth of 3-4 times the size of the bulb. Spring flowering bulbs are planted in autumn. Summer flowering bulbs are planted in late April/early May after the last frost. Species include Dahlias, Lilies, Eucomis, Crocosmia, Begonia, Peonu, Agapanthus, Gladioli, Nerine, Canna, <i>Zantedeschia</i> and Allium Moly (Yellow Garlic).
9	Change the cutting regime of the central Well Meadow area (see Plate 5)	Reduce the cutting intensity in the central Well Meadow area of the park allowing the grass to grow longer, flower and set seed. Grass paths can be mowed through the area creating new opportunities for recreation and wildlife.
10	Introduce woodland wildflowers and ground flora in areas being managed for woodland (eastern margin of the park with the Main Road). See Plate 7	Species to consider are bluebell, anemone, ramson, primrose, violet, herb robert, ferns, bugle, lesser celendine and cow parsley. Plant bulbs or plant plugs. Please plant the native Irish bluebell - <i>Hyacinthoides non-scripta</i> .
11	Specimen tree management (see Plate 1)	Leave 1-2m of uncut grass around the base of all single specimen trees occurring in the park. Naturalise bulbs under single trees to enhance biodiversity. Naturalised bluebells create a spectacular display in spring and the blue flowers are very attractive to pollinators.
12	Species-specific insect hotels should be placed in meadow habitats and wildlife corridors (see Plate 2)	A large insect hotel was seen partially burned in the scrub area to the north of the park. Species-specific hotels should be purchased or constructed and placed within the meadow habitats around the perimeter of the park. Such features are a great sign to the community that biodiversity enhancement is a priority. See https://www.birdfood.ie for the range of smaller insect hotels available for a variety of species including solitary bees, butterflies, lacewings and ladybirds.
13	Naturalize wild daffodils on the grass mound between the car park and the Civic Centre	Naturalise the wild daffodil (<i>Narcissus pseudonarcissus</i>) on the mound area to make an arresting entrance to the park in spring. This daffodil produces seeds from which it spreads and naturalises over an area given time. Note plants growing from seeds take 5 years to produce a flower.

Action Number	Biodiversity Action	Notes
14	Giant Hogweed (<i>Heracleum mantegazzianum</i>) Invasive Species removal	Giant hogweed occurs in the scrub area at the northern end of the park. This area is open to the public and the presence of this species in that zone represents a health hazard. It also occurs on the banks of the River Maigue. Giant hogweed produces a sap which is hazardous to humans, particularly in the presence of direct sunlight. Serious infestations can lead to the closure of public footpaths and recreational areas. The large leaves create sufficient shade to suppress native vegetation on river banks and slopes. Please liaise with the National Biodiversity Data Centre (https://invasives.ie), the Maigue River Trust and the CCDA in the removal of this plant from the scrub area and the river banks.
15	Cherry Laurel (<i>Prunus laurocerasus</i>) Invasive Species removal	This is an invasive species of woodlands. The leaves of this shrub are thick and laurel-like and are poisonous with cyanide. The white flowers are produced on upright spikes and are succeeded in autumn by blackish cherry-like fruits that should not be eaten. This plant casts shade in woodlands preventing natural germination and growth of trees. It must be removed from the park. This will require liaison with the National Biodiversity Data Centre (https://invasives.ie) and the CCDA.
16	Increase number of trees at the mass rock area	Willow trees are doing well in this area. Another tree that enjoys damp soil and which is absent from the park is Alder which should be planted in this area.
17	Create a pollinator friendly rockery garden at the pergola	Remove slabs beneath pergola. Position natural rocks to create a raised bed at the pergola area. Plant with bee and butterfly friendly shrubs of low maintenance that provide year round interest including Erica heathers (choose lime loving varieties), <i>Berberis darwinnii</i> , <i>Buddleia</i> (butterfly bush), <i>Ceanothus</i> - California lilac, <i>Cotoneaster horizontalis</i> , <i>Escallonia</i> , <i>Hypericum</i> - St. John's Wort, <i>Lavendula</i> - Lavender, <i>Ligustrum vulgare</i> - Common Privet, Mahonia, <i>Prunus spinosa</i> - Blackthorn, <i>Ribes sanguineum</i> - Flowering Currant, <i>Rosa</i> (choose species rose), Guelder rose (<i>Viburnum opulus</i>) spindle (<i>Euonymus europaeus</i>), <i>Fatsia japonica</i> (Caster Oil Plant), <i>Arbutus unda</i> (Strawberry Tree), Hebe and Gorse. Clematis should be planted to cover the pergola structure in addition to the roses that are already there. Follow the Pollinator-friendly Planting Code (https://www.biodiversityireland.ie/wordpress/wp-content/uploads/Pollinator-friendly-planting-code-temporary-draft.pdf).
18	Prolong the interest of spring bulb beds by planting summer flowering bulbs (near boathouse, children's playground and under the cherry trees adjacent to the Maigue River)	Three grassland areas within the park have been enhanced through the addition of bulbs including daffodil and crocus. Extend the interest of these beds by planting summer flowering bulbs such as: Dahlias, Lilies, Eucomis, Crocosmia, Begonia, Peony, Agapanthus, Gladioli, Nerine, Canna, Zantedeschia and Allium Moly (Yellow Garlic). The two mounds of grass in the children's playground could also be a focus for this action.
19	Listing trees repair at Mass Rock and Holy Well	2-3 trees are falling over adjacent to the mass rock and Holy Well. These need to be repaired or removed and fresh trees planted.
20	Bird feeding stations and bird baths	Set up and maintain bird feeding stations near the mass rock, the picnic tables and in the children's playground. Include bird baths for added interest particularly in the playground.
21	Host plants for butterflies (wildlife scrub area to the north of the park and all long grass areas)	<p>Nettles are essential for the larvae of peacock, small tortoiseshell and red admiral butterflies. They were noted in the scrub area north of the park around a disused compost heap. These should be retained for butterfly larvae.</p> <p>Grasses that flower and set seed are essential food for the caterpillars of meadow brown, speckled wood and ringlet butterflies.</p> <p>Providing food plants for butterfly larvae is an example of targeted biodiversity actions for a species group.</p>

Action Number	Biodiversity Action	Notes
22	Scented screen on children's playground fence	An extensive area of fencing in the childrens playground is devoid of plants. Increase the biodiversity interest by planting <i>Clematis montana</i> (Traveller's Joy), <i>Lonicera</i> (Honeysuckle), Ivy (<i>Hedera</i>) and Wild Rose (<i>Rosa canina</i>) on additional upright posts.
23	Water Butt	There is a down pipe on the club house that would be suitable for installation of a water butt that is visible as a sustainable gardening feature to park users. This is in addition to water butts in service areas of the park. Water can be used to maintain the nearby fruit beds and is a good example of a sustainable activity.
24	Native Tree Walk or Trail of 17 trees	Croom Town Park has 17 fine specimen trees in its parkland area including white willow, hornbeam, beech, larch, lime, ash, yew, sycamore, oak, rowan, hawthorn, apple, elder, holly, scot's pine, birch and Irish whitebeam. Develop a native Irish tree walk/trail around the park by identifying large specimen trees with tags and providing an on-line trail map around the trees for park visitors and users to download before their visit. Work with a local naturalist from Ballyhoura Development CLG to name the mature trees in the park and develop the walking trail. See an example of the Native Tree Trail developed at Bushy Park in Dublin (https://www.dublincity.ie/sites/default/files/2020-11/bushy_park_native_tree_trail_english_version.pdf).
25	Ensure that excess waste plant material is composted (see Plate 9)	Establish an organised composting zone in the yard of the storage shed (the old boathouse) to compost waste plant material that is collected. The compost can be used to mulch shrub beds. Remove the existing derelect compost heap from the wild scrub area to the north of the park.
26	Ensure that autumn leaves from the trees are collected and used as a mulch to increase the volume of soil in the park	Mulch can be used around the base of trees, in planted shrub and fruit borders and in woodland/treeline habitats.
27	Litter bin positioning	Every contemplative spot within the park had a rubbish bin alongside. Particularly obvious were the bins adjacent to the Holy Mass Rock. Restrict all bins to the car park entrance and Civic Centre areas.

Selection of images to show suggested actions for biodiversity in Croom Town Park



Plate 1: the image on the left shows a specimen tree of Lime in Croom Town Park. The image on the right shows a beech specimen tree in Emo Gardens Co. Laois where native bluebells (*Hyacinthoides non-scripta*) have been naturalised under the tree. For many people the emergence of bluebells is a sign that spring has sprung. Action 11 in Table 3 proposes this biodiversity enhancement for Croom Town Park. Photos © C. O'Connell



Plate 2: the image on the left shows the burned remains of an impressive insect hotel that was installed in Croom Town Park, perhaps in an area out of the main public thoroughfare. This should be replaced with species specific insect hotels positioned around the park. The image on the right shows a bee hotel which is available from CJ Wildlife (see <https://www.birdfood.ie/>). Action 12 in Table 3 proposes this biodiversity enhancement for Croom Town Park. Photo Left © C. O'Connell and right © CJ Wildlife <https://www.birdfood.ie/>.



Plate 3: the image on the left shows a raised area of grassland beside a picnic bench overlooking the river and the park that could be a focal point for the creation of a wildflower meadow. The image on the right shows a wildflower meadow developed in Herbert Park Dublin. Action 7 in Table 3 proposes this biodiversity enhancement for Croom Town Park.
Photos © C. O’Connell & A. O’Connell



Plate 4: the image on the left shows a double row of trees planted in Croom Town Park. The grass beneath the trees is intensively mowed. The image on the right shows a copse of trees in a housing estate in Dublin where the grass beneath has been allowed to grow so that it flowers and sets seed in the interest of biodiversity. Action 8 in Table 3 proposes this biodiversity enhancement for Croom Town Park. A border of grass is maintained through regular mowing to the outside of the meadow area to ensure that the area does not look neglected or of management.
Photos © C. O’Connell



Plate 5: the image on the left shows the well meadow area of Croom Town Park which is regularly mowed. The image on the right shows a meadow area in the grounds of University College Dublin with a mowed lawn path. The long grass and wildflowers are a destination for biodiversity. Action 9 in Table 3 proposes this biodiversity enhancement measure for Croom Town Park. Photos © C. O'Connell



Plate 6: the image on the left shows the side of the club house in Croom Town Park. A flower bed has been prepared. The image on the right shows a wall area on the side of a private home in Newtownforbes, Co. Longford that has been planted with sweet pea. It has a high impact for people and is an important source of food for pollinators. Clematis, honeysuckle and ivy can also be used to cover walls and enhance biodiversity. Action 8 in Table 3 proposes this biodiversity enhancement measure for Croom Town Park. A water butt is also proposed for the down pipe on this building in addition to other rainwater harvesting already in place to provide a resource for watering the adjacent fruit beds of strawberries and raspberries (see Action 23). Photos © C. O'Connell



Plate 7: The image on the left shows the treeline habitat and mowing regime of the under canopy herb layer in Croom Town Park. The image on the right shows the development of a herb layer of cow parsley in Bushy Park, Dublin through the absence of mowing in spring. Please note also that long grass and meadow flowers have been allowed to grow around parkland specimen trees planted adjacent (see Action 8 in Table 3). At Croom Park there is an opportunity to undertake this kind of management in the interest of enhancing biodiversity and creating a spring display of wild flowers to the delight of park users. See Action 10 in Table 3.
Photos © C. O'Connell and A. O'Connell



Plate 8: The image on the left shows one of two paths which cross Croom Town Park from the main street towards the river. An incomplete line of rowan trees has been planted here. Action 1 in Table 3 recommends planting trees in the gaps along the path and planting a second row of trees alongside to create a woodland corridor. Grass below the corridor should be allowed to grow, flower and set seed in the interest of biodiversity.
Photo © C. O'Connell



Plate 9: An abandoned composting unit at Croom Town Park located in the wild scrub area to the north of the park. Action 25 in Table 3 recommends setting up a new composting unit in the yard behind the Club House to compost waste materials in the interest of sustainability. A composting system can be constructed from recycled plastic lumar available from Murrays Recycling to the park's own specification. The photo on the right hand side shows a large capacity composting system located in the Bog of Allen Nature Centre in Co. Kildare. Photos © C. O'Connell and N. Madigan



Plate 10: the fence line along the eastern margin of the park with the privately owned tree line behind. Action 2 in Table 3 recommends tree planting and woodland creation in this area to ensure connectivity with the existing treeline of beech within the park on this margin. Two rows of trees should be planted to include species rich in berries for birds such as rowan, hawthorn, guelder rose, elderberry, blackthorn and crab apple. Photo © C. O'Connell

9. Invasive Species

Two invasive species were recorded during the survey of the park. These are Giant Hogweed (*Heracleum mantegazzianum*) and Cherry Laurel (*Prunus laurocerasus*). Both plants are shown in Plates 11 and 12.



Plate 11: Giant hogweed occurs in the scrub area at the northern end of the park and along the bank of the adjacent river. The scrub area is open to the public and the presence of this species in that location represents a health hazard. It also occurs on the banks of the River Maigue. Giant hogweed produces a sap which is hazardous to humans, particularly in the presence of direct sunlight. Serious infestations can lead to the closure of public footpaths and recreational areas. The large leaves create sufficient shade to suppress native vegetation on river banks and slopes. Please liaise with in the removal of this plant from the scrub area and the river banks. Please liaise with the National Biodiversity Data Centre (<https://invasives.ie>), the Maigue River Trust and the CCDA in the removal of this plant from the scrub area and the river banks.

The location for this image is Latitude: 52° 31' 27.192" N, Longitude: 8° 43' 20.052" W.
Photo © C. O'Connell



Plate 12: Cherry laurel occurs in some abundance around the Club House gardener's base in Croom Town Park. There are up to 10 large bushes present and there is a danger that this will spread into the adjacent treeline woodland habitat. Cherry laurel is an invasive species of woodlands. The leaves of this shrub are thick and laurel-like and are poisonous with cyanide. The white flowers are produced on upright spikes and are succeeded in autumn by blackish cherry-like fruits that should not be eaten. This plant casts shade in woodlands preventing natural germination and growth of trees. It must be removed from the park. This will require liaison with the National Biodiversity Data Centre (<https://invasives.ie>) and the CCDA.

The location for this image is Latitude: 52° 31' 20.292" N, Longitude: 8° 43' 10.692" W.
Photo © C. O'Connell

10. Funding Biodiversity Enhancement Measures

The following groups provide funding for different aspects of biodiversity enhancement. Further information for each scheme can be found on the relevant organisation's web site.

Peatlands Community Engagement Fund Scheme. Annual programme focusing on peatlands administered by the Department of Heritage, Culture and the Gaeltacht.

Heritage Council Grants Schemes for buildings and management works.

Waterways and Communities Grant Schemes

Leader (lcr1.ie)

Community Foundation of Ireland

Community Grant Support Scheme of Limerick City and County Council (www.limerick.ie)

Community Enhancement Programme of Limerick City and County Council (www.limerick.ie)

Limerick City and County Council (www.limerick.ie) Heritage Grant Scheme

Department of Agriculture, Food and the Marine have a number of funding streams available to local communities including Common Agricultural Policy (CAP) Post 2020: Pillar 2 Infrastructure, Environment and Development Support (The main schemes include GLAS, EIP-AGRI and TAMS).

Ballyhoura Development CLG have a number of funding and grant schemes available (see <https://www.ballyhouradevelopment.com/Pages/Category/grants>)

Appendix 1: Species records for Croom Town Park

Recorder Name	Species Name	Coordinates Latitude	Coordinates Longitude	Location Name	Date	Abundance	Habitat (Fossitt where possible)	Comment	Determiner Name
Catherine O'Connell	<i>Acanthosoma haemorrhoidale</i>	52.524611	-8.72049	Groom Town Park, Co. Limerick	03/05/2022	1	WS1		Catherine O'Connell
Catherine O'Connell	<i>Armadillidium vulgare</i>	52.522990	-8.720768	Groom Town Park, Co. Limerick	03/05/2022	1	BL1	Under rock	Catherine O'Connell
Catherine O'Connell	<i>Bombus lucorum</i>	52.522400	-8.720464	Groom Town Park, Co. Limerick	03/05/2022	1 adults	GA2		Catherine O'Connell
Catherine O'Connell	<i>Cornu aspersum</i>	52.524611	-8.722049	Groom Town Park, Co. Limerick	03/05/2022	3	WS1		Catherine O'Connell
Catherine O'Connell	<i>Celastrina argiolus</i>	52.523789	-8.720863	Groom Town Park, Co. Limerick	03/05/2022	1 adult	WL2		Catherine O'Connell
Catherine O'Connell	<i>Macrosiphum rosae</i>	52.522997	-8.720929	Groom Town Park, Co. Limerick	03/05/2022	1	WD5		Catherine O'Connell
Catherine O'Connell	<i>Aegithalus caudatus</i>	52.523789	-8.720863	Groom Town Park, Co. Limerick	03/05/2022	2	WD5		Catherine O'Connell
Catherine O'Connell	<i>Corvus cornix</i>	52.523789	-8.720863	Groom Town Park, Co. Limerick	03/05/2022	1	WL2	foraging as grass was being cut in park	Catherine O'Connell
Catherine O'Connell	<i>Corvus monedula</i>	52.522400	-8.720464	Groom Town Park, Co. Limerick	03/05/2022	5	GA2		Catherine O'Connell
Catherine O'Connell	<i>Columba palumbus</i>	52.523789	-8.720863	Groom Town Park, Co. Limerick	03/05/2022	1	WL2		Catherine O'Connell
Catherine O'Connell	<i>Cyanistes caeruleus</i>	52.522997	-8.720929	Groom Town Park, Co. Limerick	03/05/2022	2	WD5		Catherine O'Connell
Catherine O'Connell	<i>Erithacus rubecula</i>	52.524611	-8.722049	Groom Town Park, Co. Limerick	03/05/2022	2	WS1 WL2		Catherine O'Connell
Catherine O'Connell	<i>Hirundo rustica</i>	52.522174	-8.721503	Groom Town Park, Co. Limerick	03/05/2022	1	FW2		Catherine O'Connell
Catherine O'Connell	<i>Motacilla cinerea</i>	52.524129	-8.722474	Groom Town Park, Co. Limerick	03/05/2022	1	FW2	on the weir in the river Maigue	Catherine O'Connell
Catherine O'Connell	<i>Pyrhula pyrrhula</i>	52.524611	-8.72049	Groom Town Park, Co. Limerick	03/05/2022	3	WS1	foraging	Catherine O'Connell
Catherine O'Connell	<i>Turdus merula</i>	52.523789	-8.720863	Groom Town Park, Co. Limerick	03/05/2022	1	WL2	proclaiming territory	Catherine O'Connell
Catherine O'Connell	<i>Turdus philomelos</i>	52.523789	-8.720863	Groom Town Park, Co. Limerick	03/05/2022	1	WL2		Catherine O'Connell
Catherine O'Connell	<i>Troglodytes troglodytes</i>	52.523789	-8.720863	Groom Town Park, Co. Limerick	03/05/2022	1	WL2	food in its beak	Catherine O'Connell
Catherine O'Connell	<i>Pararge aegeria</i>	52.524611	-8.72049	Groom Town Park, Co. Limerick	03/05/2022	3	WS1		Catherine O'Connell
Catherine O'Connell, John O'Brien	<i>Lutra lutra</i>	52.522174	-8.721503	Groom Town Park, Co. Limerick	03/05/2022	1	FW2		Catherine O'Connell
Catherine O'Connell	<i>Acer pseudoplatanus</i>	52.522997	-8.720929	Groom Town Park, Co. Limerick	03/05/2022	1	WD5		Catherine O'Connell
Catherine O'Connell	<i>Alnus glutinosa</i>	52.522997	-8.720929	Groom Town Park, Co. Limerick	03/05/2022	1	WD5		Catherine O'Connell
Catherine O'Connell	<i>Anglica sylvestris</i>	52.523754	-8.722174	Groom Town Park, Co. Limerick	03/05/2022	1	FW2		Catherine O'Connell
Catherine O'Connell	<i>Anthoxanthum odoratum</i>	52.524611	-8.722049	Groom Town Park, Co. Limerick	03/05/2022	1	WS1		Catherine O'Connell
Catherine O'Connell	<i>Anthoxanthum sylvestris</i>	52.523789	-8.720863	Groom Town Park, Co. Limerick	03/05/2022	1	WL2		Catherine O'Connell
Catherine O'Connell	<i>Asplenium trichomanes</i>	52.522990	-8.720768	Groom Town Park, Co. Limerick	03/05/2022	1	BL1		Catherine O'Connell
Catherine O'Connell	<i>Aurinia saxatilis</i>	52.521012	-8.718585	Groom Town Park, Co. Limerick	03/05/2022	1	WS3	Planted	Catherine O'Connell
Catherine O'Connell	<i>Bellis perennis</i>	52.522400	-8.720464	Groom Town Park, Co. Limerick	03/05/2022	1	GA2	Planted	Catherine O'Connell
Catherine O'Connell	<i>Betula pubescens</i>	52.523183	-8.720571	Groom Town Park, Co. Limerick	03/05/2022	1	WL2	Planted	Catherine O'Connell
Catherine O'Connell	<i>Brassica rapa</i>	52.524611	-8.722049	Groom Town Park, Co. Limerick	03/05/2022	1	WS1		Catherine O'Connell
Catherine O'Connell	<i>Buddleja davidii</i>	52.521012	-8.718585	Groom Town Park, Co. Limerick	03/05/2022	1	WS3		Catherine O'Connell
Catherine O'Connell	<i>Buxus sempervirens</i>	52.521012	-8.718585	Groom Town Park, Co. Limerick	03/05/2022	1	WS3	Planted	Catherine O'Connell
Catherine O'Connell	<i>Carex pendula</i>	52.524611	-8.722049	Groom Town Park, Co. Limerick	03/05/2022	1	WS1	Planted	Catherine O'Connell
Catherine O'Connell	<i>Carpinus betulus</i>	52.520621	-8.719029	Groom Town Park, Co. Limerick	03/05/2022	1	WL1	Planted	Catherine O'Connell
Catherine O'Connell	<i>Choisya ternata</i>	52.521012	-8.718585	Groom Town Park, Co. Limerick	03/05/2022	1	WS3	Planted	Catherine O'Connell
Catherine O'Connell	<i>Cirsium arvense</i>	52.522400	-8.720464	Groom Town Park, Co. Limerick	03/05/2022	1	GA2		Catherine O'Connell
Catherine O'Connell	<i>Cirsium vulgare</i>	52.524611	-8.722049	Groom Town Park, Co. Limerick	03/05/2022	1	WS1		Catherine O'Connell
Catherine O'Connell	<i>Crataegus monogyna</i>	52.523789	-8.720863	Groom Town Park, Co. Limerick	03/05/2022	1	WL2	Planted as a treeline	Catherine O'Connell
Catherine O'Connell	<i>Cymbalaria muralis</i>	52.522990	-8.720768	Groom Town Park, Co. Limerick	03/05/2022	1	BL1	Managed as a hedge	Catherine O'Connell
Catherine O'Connell	<i>Dactyloctenium aegyptium</i>	52.524611	-8.722049	Groom Town Park, Co. Limerick	03/05/2022	1	WS1		Catherine O'Connell
Catherine O'Connell	<i>Fragaria vesca</i>	52.523789	-8.720863	Groom Town Park, Co. Limerick	03/05/2022	1	WL2		Catherine O'Connell
Catherine O'Connell	<i>Ficaria verna ssp. verna</i>	52.523789	-8.720863	Groom Town Park, Co. Limerick	03/05/2022	1	WL2		Catherine O'Connell
Catherine O'Connell	<i>Fragaria ananassa</i>	52.522187	-8.719384	Groom Town Park, Co. Limerick	03/05/2022	1	BC2	Cultivated	Catherine O'Connell
Catherine O'Connell	<i>Fraxinus excelsior</i>	52.522997	-8.720929	Groom Town Park, Co. Limerick	03/05/2022	1	WD5		Catherine O'Connell
Catherine O'Connell	<i>Gallium aparine</i>	52.523789	-8.720863	Groom Town Park, Co. Limerick	03/05/2022	1	WL2 WS1		Catherine O'Connell
Catherine O'Connell	<i>Geranium robertianum</i>	52.522990	-8.720768	Groom Town Park, Co. Limerick	03/05/2022	1	BL1		Catherine O'Connell
Catherine O'Connell	<i>Glechoma hederacea</i>	52.523789	-8.720863	Groom Town Park, Co. Limerick	03/05/2022	1	WL2		Catherine O'Connell

Catherine O'Connell	Geum urbanum	52.523789	-8.720863	Croom Town Park, Co. Limerick	03/05/2022	WL2	Catherine O'Connell
Catherine O'Connell	Geranium lucidum	52.523789	-8.720863	Croom Town Park, Co. Limerick	03/05/2022	WL2	Catherine O'Connell
Catherine O'Connell	Glyceria maxima	52.523754	-8.722174	Croom Town Park, Co. Limerick	03/05/2022	FW2	Catherine O'Connell
Catherine O'Connell	Hedera helix	52.523789	-8.720863	Croom Town Park, Co. Limerick	03/05/2022	WL2	Catherine O'Connell
Catherine O'Connell	Heraclea mantegazzianum	52.524611	-8.722049	Croom Town Park, Co. Limerick	03/05/2022	WS1 FW2	Catherine O'Connell
Catherine O'Connell	Holcus lanatus	52.524611	-8.722049	Croom Town Park, Co. Limerick	03/05/2022	WS1	Catherine O'Connell
Catherine O'Connell	Ilex aquifolium	52.522997	-8.720929	Croom Town Park, Co. Limerick	03/05/2022	WD5	Catherine O'Connell
Catherine O'Connell	Iris pseudacorus	52.523754	-8.722174	Croom Town Park, Co. Limerick	03/05/2022	FW2	Catherine O'Connell
Catherine O'Connell	Jacobaea vulgaris	52.521012	-8.718585	Croom Town Park, Co. Limerick	03/05/2022	WS3	Catherine O'Connell
Catherine O'Connell	Larix decidua	52.523789	-8.720863	Croom Town Park, Co. Limerick	03/05/2022	WL2	Catherine O'Connell
Catherine O'Connell	Lonicera periclymenum	52.524611	-8.722049	Croom Town Park, Co. Limerick	03/05/2022	WS1 WSS3	Catherine O'Connell
Catherine O'Connell	Mahonia aquifolium	52.521012	-8.718585	Croom Town Park, Co. Limerick	03/05/2022	WS3	Catherine O'Connell
Catherine O'Connell	Malus sylvestris	52.521012	-8.720929	Croom Town Park, Co. Limerick	03/05/2022	WD5	Catherine O'Connell
Catherine O'Connell	Photinia x fraseri	52.521012	-8.718585	Croom Town Park, Co. Limerick	03/05/2022	WS3	Catherine O'Connell
Catherine O'Connell	Pinus sylvestris	52.522997	-8.720929	Croom Town Park, Co. Limerick	03/05/2022	WD5	Catherine O'Connell
Catherine O'Connell	Plantago lanceolata	52.522400	-8.720464	Croom Town Park, Co. Limerick	03/05/2022	GA2	Catherine O'Connell
Catherine O'Connell	Plantago major	52.522400	-8.720464	Croom Town Park, Co. Limerick	03/05/2022	GA2	Catherine O'Connell
Catherine O'Connell	Poa annua	52.522400	-8.720464	Croom Town Park, Co. Limerick	03/05/2022	GA2	Catherine O'Connell
Catherine O'Connell	Primula veris	52.522400	-8.720464	Croom Town Park, Co. Limerick	03/05/2022	GA2	Catherine O'Connell
Catherine O'Connell	Prunus laurocerasus	52.523789	-8.720863	Croom Town Park, Co. Limerick	03/05/2022	GA2	Catherine O'Connell
Catherine O'Connell	Prunus padua	52.524611	-8.722049	Croom Town Park, Co. Limerick	03/05/2022	WL2	Catherine O'Connell
Catherine O'Connell	Prunus serrulata	52.522997	-8.720929	Croom Town Park, Co. Limerick	03/05/2022	WS1	Catherine O'Connell
Catherine O'Connell	Quercus petraea	52.522997	-8.720929	Croom Town Park, Co. Limerick	03/05/2022	WD5	Catherine O'Connell
Catherine O'Connell	Ranunculus repens	52.522400	-8.720464	Croom Town Park, Co. Limerick	03/05/2022	GA2	Catherine O'Connell
Catherine O'Connell	Rosa canina	52.521012	-8.718585	Croom Town Park, Co. Limerick	03/05/2022	WS3	Catherine O'Connell
Catherine O'Connell	Rubus fruticosus agg	52.524611	-8.722049	Croom Town Park, Co. Limerick	03/05/2022	WS1 WL2	Catherine O'Connell
Catherine O'Connell	Rubus idaeus	52.52187	-8.719384	Croom Town Park, Co. Limerick	03/05/2022	BC2	Catherine O'Connell
Catherine O'Connell	Rosa rugosa	52.521012	-8.718585	Croom Town Park, Co. Limerick	03/05/2022	WS3	Catherine O'Connell
Catherine O'Connell	Rumex obtusifolius	52.524611	-8.722049	Croom Town Park, Co. Limerick	03/05/2022	WL2 WS1	Catherine O'Connell
Catherine O'Connell	Salix alba	52.523754	-8.722174	Croom Town Park, Co. Limerick	03/05/2022	FW2	Catherine O'Connell
Catherine O'Connell	Salix caprea	52.524611	-8.722049	Croom Town Park, Co. Limerick	03/05/2022	WS1	Catherine O'Connell
Catherine O'Connell	Sambucus nigra	52.524611	-8.722049	Croom Town Park, Co. Limerick	03/05/2022	WS1	Catherine O'Connell
Catherine O'Connell	Senecio vulgaris	52.524611	-8.722049	Croom Town Park, Co. Limerick	03/05/2022	WS1	Catherine O'Connell
Catherine O'Connell	Silene dioica	52.523789	-8.720863	Croom Town Park, Co. Limerick	03/05/2022	WL2	Catherine O'Connell
Catherine O'Connell	Sonchus oleraceus	52.524611	-8.722049	Croom Town Park, Co. Limerick	03/05/2022	WS1	Catherine O'Connell
Catherine O'Connell	Sorbus aucuparia	52.521532	-8.720271	Croom Town Park, Co. Limerick	03/05/2022	WL2	Catherine O'Connell
Catherine O'Connell	Sorbus hibernica	52.522997	-8.720929	Croom Town Park, Co. Limerick	03/05/2022	WD5	Catherine O'Connell
Catherine O'Connell	Syringa vulgaris	52.522997	-8.720929	Croom Town Park, Co. Limerick	03/05/2022	WD5	Catherine O'Connell
Catherine O'Connell	Taraxacum officinale	52.522400	-8.720464	Croom Town Park, Co. Limerick	03/05/2022	GA2	Catherine O'Connell
Catherine O'Connell	Taxus baccata	52.522997	-8.720929	Croom Town Park, Co. Limerick	03/05/2022	WD5	Catherine O'Connell
Catherine O'Connell	Tilia cordata	52.522997	-8.720929	Croom Town Park, Co. Limerick	03/05/2022	WD5	Catherine O'Connell
Catherine O'Connell	Trifolium repens	52.522400	-8.720464	Croom Town Park, Co. Limerick	03/05/2022	GA2	Catherine O'Connell
Catherine O'Connell	Ulex europaeus	52.524611	-8.722049	Croom Town Park, Co. Limerick	03/05/2022	WS1	Catherine O'Connell
Catherine O'Connell	Urtica dioica	52.523789	-8.720863	Croom Town Park, Co. Limerick	03/05/2022	WL2	Catherine O'Connell
Catherine O'Connell	Varonica serpyllifolia	52.523789	-8.720863	Croom Town Park, Co. Limerick	03/05/2022	WS1	Catherine O'Connell
Catherine O'Connell	Viburnum opulus	52.524611	-8.722049	Croom Town Park, Co. Limerick	03/05/2022	WL2	Catherine O'Connell
Catherine O'Connell	Vicia sepium	52.523789	-8.720863	Croom Town Park, Co. Limerick	03/05/2022	WS1	Catherine O'Connell
Catherine O'Connell	Vinca major	52.521012	-8.718585	Croom Town Park, Co. Limerick	03/05/2022	WS3	Catherine O'Connell
Catherine O'Connell	Xanthoxia parietina	52.522997	-8.720929	Croom Town Park, Co. Limerick	03/05/2022	WD5	Catherine O'Connell