Tang Community Biodiversity Plan 2022-2026

In leafy Tang the wild birds sang -
The brown light lay on Derry's heather;
But years have passed since we the last
Sat courting in the summer weather;
The tender light of stars at night,
That soothes the wanderer so weary,
Could only show the silvery glow
That lit your glance, my darling Mary.

A kiss upon her brow of snow,
A rush across the moonlight meadow,
Whose broom clad hazel, trembling show
The mossy boreen wrapped in shadow;
Away o'er Tully's bounding rill,
And far beyond the Inny river;
One cheer on Carrick's rocky hill,
And Donal Kenny's gone forever.

A poem by John Keegan "Leo" Casey
Source: https://thememorytrail.com/place/2724

Tang, Co. Westmeath
Community Biodiversity Action Plan
2022-2026

Contents

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Cover Photos:

A selection of biodiversity images from Tang Co. Westmeath. Top Row from left hand side: Old entrance to St Mary's Church, Pied Wagtail at Templeavally Cemetery, Flag Iris at Noughaval Cemetery and Ardncraney Cemetery. Bottom Row: Wildflower meadow verge at Tang Bridge. Photos: © C. O'Connell.

Acknowledgements

1. Executive Summary

The Tang Community Biodiversity Action Plan 2022-2026 is supported by the Community Foundation for Ireland and is an initiative of Tang Muintir Community Council Ltd.

This plan documents the species and habitat richness of the village. 108 plants, 13 birds and 14 animals were identified in the biodiversity survey carried out on two visits in April and June 2022. Additional information was obtained from Gerard Curran on 20th February 2022. Three birds recorded in the survey are of conservation concern: House Sparrow, Swallow and Starling. A road kill fox was recorded.

Habitat maps are presented for the eight study areas targeted by the Tang Muintir Community Council Ltd based on data collected in the field (see Appendix 1 for survey parameters). 13 habitats were identified In Tang: Horticultural land BC2, Flower beds and borders BC4, Stone walls and other stonework BL1, Buildings and artificial surfaces BL3, Amenity grassland GA2, Neutral grassland GS1, Grassy verges GS2, Scattered trees and parkland WD5, Scrub WS1, Immature woodland WS2, Ornamental non-native shrub WS3, Hedgerow WL1 and Treeline WL2.

61 biodiversity enhancement actions are proposed in this plan. Grouped in themes the top three biodiversity actions that need to be undertaken in the short term are:

1. Change mowing and amenity grassland area maintenance to create wildflower meadow habitat. Target areas are the village entrances on the N55, St Mary's Church Field and Templeavally Cemetery

2. Organise a second tree donation project to cover the cost of planting more native Irish trees in the village. Plant groves of trees to create woodland habitat and plant bluebells and other native Irish woodland plants beneath the trees. Related to this theme is to allow some hawthorn bushes within the hedges to grow into trees. Target areas are village entrances on the N55 and village hedges along the N55.

3. Focus on birds of conservation concern in the village such as sparrow and swallow and organise a community action to erect swallow nest boxes and sparrow condominiums in suitable locations for these birds. Register with the Westmeath Heritage Office (heritage@westmeathcoco.ie) to receive notification about funding that might be available for this community project

To achieve these actions wider community engagement will be essential. Groups to be consulted are school management board, teachers and pupil, religious congregations and local land owners.

Snowberry, Winter Heliotrope and Cherry Laurel are invasive species in Tang. These must be removed from Templeavally and Nougheval Cemetries, Rathmore Layby and St Mary's Church.

Stop using sprays and moss peat compost in Tang Village. Leave plants alone and compost waste.

Funding sources for biodiversity work are presented in Chapter 9. Tang should register on the all Ireland pollinator map at https://pollinators.biodiversityireland.ie/.

Pupils in St Mary's School undertook a biodiversity survey of birds and bugs in their homes (Appendix 2). They returned 44 bird and 43 bugs and beasties surveys. They identified 26 different birds and 36 different species of bug and beast.

Species data recorded on this survey have been lodged with the National Biodiversity Data Centre (see Appendix 3).

2. Introduction

This Tang Community Biodiversity Action Plan 2022-2026 has been created as an initiative of Tang Muintir Community Council Ltd. The project is funded by The Community Foundation for Ireland. This funding allowed the Tang Muintir Community Council Ltd to employ Dr Catherine O'Connell as an ecologist to develop the Community 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.

Tang Muintir Community Council Ltd

Tang Muintir Community Council Ltd. was established in 1999. The purpose of this group is to address the economic, social, cultural and environmental needs of Tang and provide a focus for local initiative and co-operation and be central to the future development of our area. Our community centre acts as the focal point for numerous activities - Tang ICA, Irish Dancing, Set Dancing, Toddler Group, Chinese Yoga, fitness classes and progressive 25 card games. Our outdoor activities are mainly based on development and maintenance of our public spaces and heritage areas. We have been involved with Tidy Towns for the past twelve years or so and have undertaken many local initiatives.

The top achievements of the Tang Muintir Community Council Ltd include:

*Planting hedges and treelines in a variety of biodiversity sites in the village

*Overseeing the rennovation of the old school to become the Community Centre

*Organsing a "Tree Tree Donation Project" fundraiser within the community to go towards tree planting

*Attracting tree donations from Belvedere Gardens

*Successful funding application and award from the Community Foundation for Ireland 2021 towards the development of the Tang Community Biodiversity Action Plan 2022-2026.
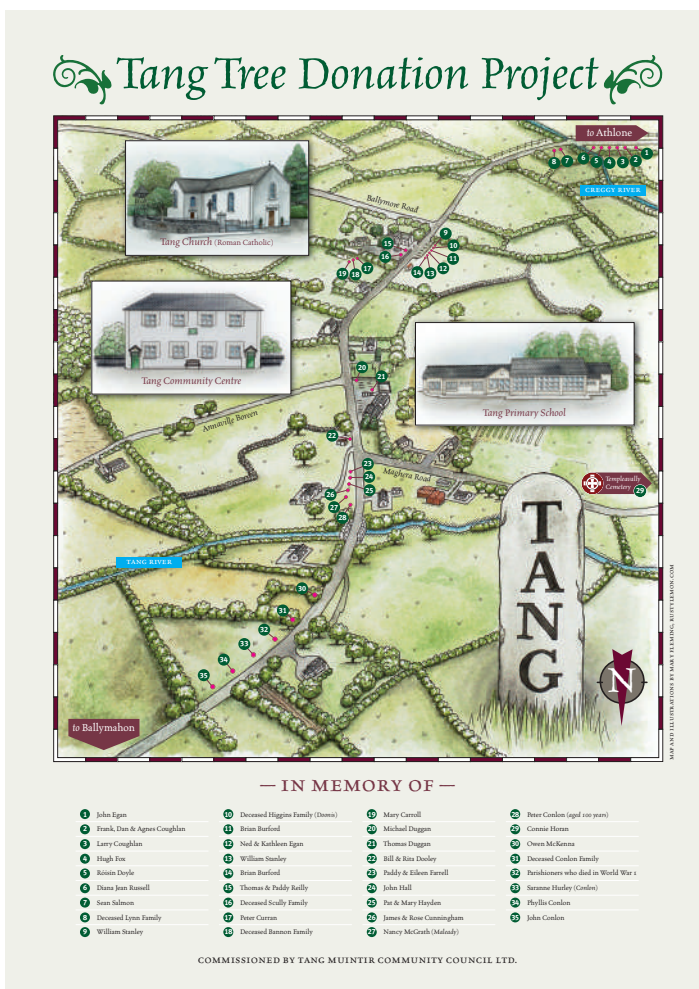
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3. Tang Village Location

Tang (Irish: An Teanga, meaning 'the tongue') is a village and a half-parish in County Westmeath, on the N55 national secondary road between Athlone (to the south west) and Ballymahon (to the north east), County Longford (see Figure 1). Tang is in the parish of Drumraney. It is in County Westmeath (co-ordinates: (53° 32′ 6″ N, 7° 47′ 13.2″ W) but on the border with County Longford from which it is separated by the River Tang which flows into Lough Ree 3 km downstream via the River Inny (Source https://en.wikipedia.org/wiki/Tang,_County_Westmeath). Another tributary of the River Inny - the Creggy River flows south of the village. There is a strong GAA Club within the village with teams successful in winning county games (see https://tang.westmeath.gaa.ie). In addition to the GAA Club facilities in the village include St Mary's Church of the Immaculate Conception (also known as St Catherine's Clogher), St. Mary's National School (see https://www.tangns.ie), a Community Centre, Murray's, Maghera Pub and McCormacks Three Jolly Pigeons Pub. Tang is on facebook at https://m.facebook.com/profile.php?id=112101838815854.

There are a number of sites of archaeological importance in the village and its surrounding countryside. Within the village St Mary's (also known as St Catherine's) Church and Tang River bridge are included in the inventory of historic environments documented by Archaeology Ireland (see https://maps.archaeology.ie/HistoricEnvironment/). In addition to these features there are three historic cemeteries with associated church buildings in the vicinity of Tang also documented by Archaeology Ireland. To the east of Tang are Noughaval and Ardnacranny North Cemeteries while to the west is Templelvally Cemetery which is also the modern community graveyard. All of the memorials in these graveyards have been documented and reported on line (see http://historicgraves.com/graveyard/noughaval/wm-nhvl, http://historicgraves.com/graveyard/ardnacrany-north/wm-acny and https://historicgraves.com/graveyard/templeavally/wm-tvly).
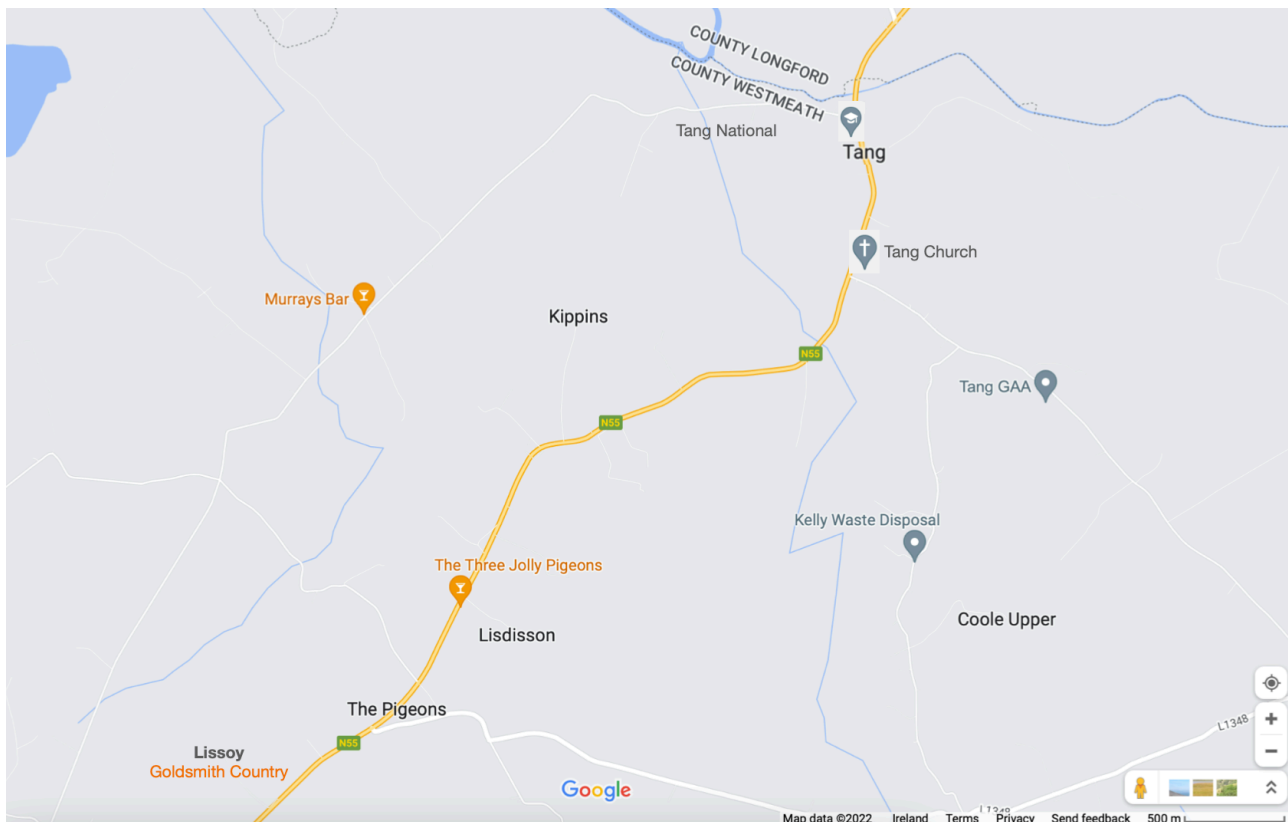
Figure 1: Location Map of Tang, Co. Westmeath. Source: googlemaps.com.

The village has a Memory Trail site (at https://thememorytrail.com/node/2543/members) which allows users to hear and read stories and articles of interest about Tang and its surroundings.

There strong links within the village with "Goldsmith Country" in the townland of Lissoy. In this area there is a ruined rectory building of great historical interest as it was the home of Oliver Goldsmith. For much of his life Goldsmith looked with nostalgia towards his childhood in Lissoy and this area later became the "Sweet Auburn" and 'The Deserted Village' in his poetry and writings (see https://www.buildingsofireland.ie/buildings-search/building/15401510/lissoy-parsonage-lissoy-westmeath). Each year there is a literary festival in the area celebrating the life and poetic works of Oliver Goldsmith (see https://olivergoldsmithfestival.com).

4. Methods

Meetings and Project Management
Regular email and phone calls were conducted throughout the project with members of ang Muintir Community Council Ltd.

Study Sites
Following discussions over the phone and having read through materials provided by Tang Muintir Community Council Ltd, 8 sites were chosen for study. At these sites the ecologist would determine the biodiversity present and make recommendations on its enhancement or maintenance. A map was drawn up of the location of the sites and approved by the community.

Biodiversity Field Visits
Field visits were undertaken to document the habitats and species present in the study sites with a view to mapping the information and making recommendations on biodiversity enhancement and maintenance. These visits took place on the 27th April 2022 and the 15th June 2022.

Desk Top Studies
A desk top study was undertaken to establish information in the public domain about Tang, its history, archaeology, habitats and biodiversity. Information was searched on the websites of the following web sites, 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).

Biodiversity Survey Work Sheet
A field recording sheet for biodiversity was developed for the project and is presented in Appendix 1. The information collected at each study sites was as follows: plants, animals and birds present, invasive species, threats, land management, habitat description and classification, biodiversity enhancement recommendations, soil type and location co-ordinates.

Community Engagement
Survey sheets for birds and wildlife were distributed to families within the village in February 2022. The pupils in Tang National School returned 44 bird surveys and 43 bugs and beasties surveys (see Appendix 2). On all site visits, members of the community joined the ecologist and showed a very strong interest in the project.

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 3).

5. Biodiversity in Tang

Desk top research of biodiversity information available about Tang and its surrounding countryside was undertaken. Very quickly it was obvious that the area is understudied. A search for designated sites in the area yielded nothing close to the village. The nearest designated site is Lough Ree, west of Tang.

Lough Ree (see Figure 2) is both a Special Area of Conservation (SAC#000440) and a Special Protection Area (SPA#004064). Both designations are given by the National Parks and Wildlife Service and they relate to the quality of the habitats, wildlife and species of bird found here. These include:

· Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation [3150]
· Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) [6210]
· Active raised bogs [7110]
· Degraded raised bogs still capable of natural regeneration [7120]
· Alkaline fens [7230]
· Limestone pavements [8240]
· Bog woodland [91D0]
· Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0]
· Lutra lutra (Otter) [1355]
· Little Grebe (Tachybaptus ruficollis) [A004]
· Whooper Swan (Cygnus cygnus) [A038]
· Wigeon (Anas penelope) [A050]
· Teal (Anas crecca) [A052]
· Mallard (Anas platyrhynchos) [A053]
· Shoveler (Anas clypeata) [A056]
· Tufted Duck (Aythya fuligula) [A061]
· Common Scoter (Melanitta nigra) [A065]
· Goldeneye (Bucephala clangula) [A067]
· Coot (Fulica atra) [A125]
· Golden Plover (Pluvialis apricaria) [A140]
· Lapwing (Vanellus vanellus) [A142]
· Common Tern (Sterna hirundo) [A193]
· Wetland and Waterbirds [A999]
(Source: https://www.npws.ie/protected-sites/spa/004064 and https://www.npws.ie/protected-sites/sac/000440)

Information on the species diversity present in Tang 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 screened for Tang are N1252, N1253, N1352, N1353, N1452, N1453. Data is uploaded by various recorders to the NBDC.

A scan through the NBDC data set indicates that Tang has been included in a number of species surveys including: the Badger Setts of Ireland Database, The Irish Squirrel Survey 2007, Butterflies of Ireland dataset and the Birds of Ireland dataset. Four species are recorded in the NBDC datasets for Tang. These are Grey Squirrel, Badger, Common Buzzard and Peacock Butterfly.
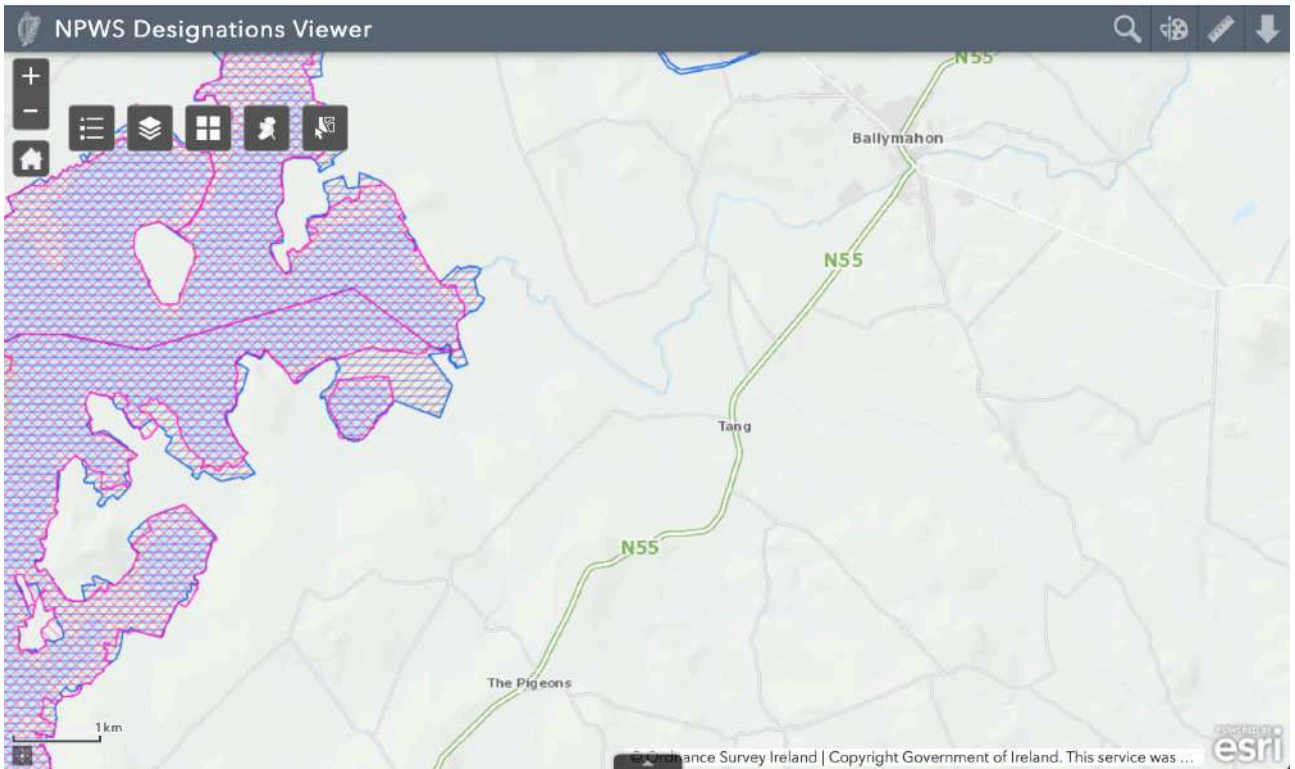
Figure 2: Location Map for part of Lough Ree SAC and SPA designated site in relation to the village of Tang, Co. Westmeath. Source: npws.ie.

6. Tang Biodiversity Study Areas

The following areas were targeted by Tang Muintir Community Council Ltd for biodiversity in this Community Biodiversity Action Plan (see Figure 3).

1. Noughaval Cemetery
2. Templevally Cemetery
3. Ardnacrany North Cemetery
4. Community Centre
5. St Mary's Church
6. St Mary's National School
7. Rathmore Layby
8. Village N55 route from Creggy Birdge to Tang Bridge

Figure 3: Biodiversity Study Areas in the village of Tang, Co. Westmeath. 1. Noughaval Cemetery, 2. Templevally Cemetery, 3. Ardnacrany North Cemetery, 4. Community Centre, 5. St Mary's Church, 6. St Mary's National School, 7. Rathmore Layby and 8. Village N55 route from Creggy Bridge to Tang Bridge. Map source: <u>osi.ie</u>.

7. 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.

Table 1: The Values of Biodiversity	
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.

Table 2: Settings for Biodiversity
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 Tang 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
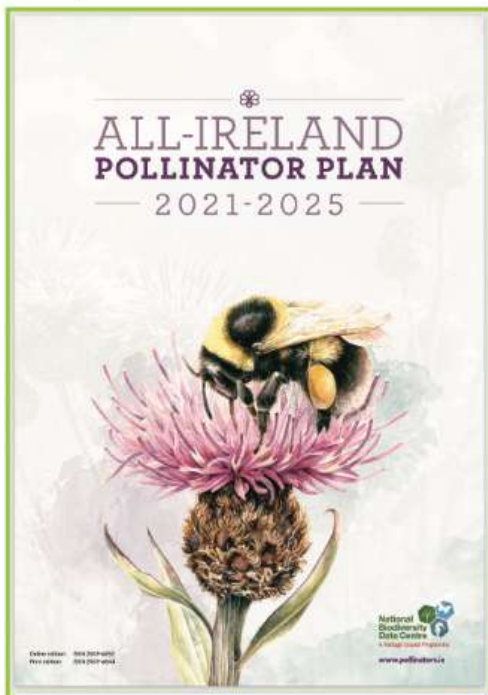
exploitation of resources, agricultural conversion and urbanization are the main factors contributing to the loss of biodiversity. The consequent fragmentation of habitat creates small isolated patches of land that cannot maintain populations of species into the future.

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. Dandelion and clover, two of the top valuable plants for pollinators are found in grassland (see Table 3). 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.

Table 3: 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	• 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	• Flowers in spring providing vital food (pollen and nectar) early in the season.
Bramble	• 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	• Flowers are a rich nectar and pollen source for bees including the common carder bee, honeybee and red-tailed bumblebee.
Ivy	• 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.

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.

Biodiversity Enhancement Actions

Biodiversity enhancement action tables presented in Chapter 8 of this plan.

8 Biodiversity Maps and Actions

8.1 Noughaval Cemetery - Location 53.524352 -7.778571

Description
Noughaval is an historic cemetery located off a minor road linking the N55 with the L1348. This cemetery contains 130 memorials which are documented on https://historicgraves.com/graveyard/noughaval/wm-nhvl. The poorly preserved ruins of a church occur in the cemetery on a low hill and these are overgrown with yew, elderberry, ivy and cherry laurel. The memorials are standing in long grass. The cemetery occupies an area of 3079 square metres or 0.31ha (see Figure 4). The approach to the cemetery is through a privately owned field of wet grassland with flag iris which is grazed by horses. There is a wooden fense to protect walkers into the site which is in need of repair.

Figure 4: Location and Habitat map for Noughaval Cemetery, Tang, Co. Westmeath. Map source: www.google.com, amended C. O'Connell.

Management
A grass path is mowed around the cemetery for access. Tree prunings have been made into log piles. A stone bench in memory of those buried in the cemetery was installed in 2022. There is evidence of the cleaning of at least two memorials in the cemetery.

Habitats Present

A map showing the location of the habitats present at the community centre are shown in Figure 4.

Stone Walls and Other Stonework BL1
The walls of the cemetery, the old building, graves and the headstones are included in this habitat. These had a good covering of ivy which was flowering in parts, with bramble, elderberry and guelder rose. The memorials had a good covering of crustose lichens. There was evidence of cleaning being employed for at least two of the memorials which is not regarded as best practice in the management of historic graveyards (see https://www.heritagecouncil.ie/content/files/ guidance_care_conservation_recording_historic_graveyards_2011_7mb.pdf).

Amenity Grassland GA2
Within the cemetery, the grave stones and the access path are classified as amenity grassland. This is managed habitat and the following species were noted cock's foot grass, speedwell, buttercup and vetch. The invasive plant Winter heliotrope (*Petasites pyrenaicus*) was noted in this habitat spreading from the trunk base of one of the yew trees.

Scrub WS1
Between the mowed grass path and the walls of the cemetery, bramble scrub was a dominant habitat with rose, elderberry, guelder rose and the invasive cherry laurel also present.

Immature Woodland WS2
Along the southern boundary of the cemetery inside the walls, there was woodland stand of *Populus tremula*. Hawthorn was present. In the ground layer there was ivy, willowherb, bishop's weed (*Aegopodium podagraria*), nipplewort and thistle. In this habitat snowberry (*Symphoricarpos albus*) was present. This species is regarded as invasive spreading to form dense thickets by suckering.

Invasive Species
Three invasive species occurred within the cemetery. These were snowberry, winter heliotrope and cherry laurel (Figure 5). All of these need to be removed as they are detrimental to native species and biodiversity.

Biodiversity Actions
The Noughaval cemetery should be seen as an oasis of nature, a place where flora and fauna should be encouraged by undertaking an annual maintenance regime that welcomes nature into the graveyard. Please note the way the graveyard is cared for shows respect for the resting place of the dead, but also for life and living things. Community engagement is vital in the successful implementation of the management actions proposed to enhance biodiversity presented in Table 8.1. Please also refer to the management of graveyards for guidance (see https:// www.heritagecouncil.ie/content/files/ guidance_care_conservation_recording_historic_graveyards_2011_7mb.pdf) and to www.ecocongregationireland.com for an environmental check up to help get started.

Figure 5: Cherry laurel is an invasive species occurring in Noughaval Cemetery and needs to be removed and treated. Photo: © C. O'Connell

Table 8.1: Biodiversity enhancement actions for Noughaval Cemetery

Action Number	Action	Notes
8.1.1	**Monitoring**	Visit the site at least four times each year to ensure that there are no activities that would adversely affect the historic monument and its wildlife. Check for spread of invasive species. Monitor the status of the memorials and church buildings to ensure that the care of these historic items follows best practice guidance in their management (see https://www.heritagecouncil.ie/content/files/guidance_care_conservation_recording_historic_graveyards_2011_7mb.pdf).
8.1.2	**Cherry Laurel Invasive Species removal (Figure 5)**	Cherry laurel occurs in two locations within the cemetery, the first site in association with the ruined church building and the second area along the path. 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 is robust and casts shade in woodlands preventing natural germination and growth of trees. It must be removed from the cemetery. This will require liaison with the National Biodiversity Data Centre (https://invasives.ie), Westmeath County Council, local landowners and Tang Muintir Community Council Ltd.
8.1.3	**Snowberry Invasive Species removal**	Snowberry is forming a thicket in the cemetery along the eastern margin below the poplar woodland. This plant is invasive spreading by suckering and forming dense stands that exclude native species. It must be removed from the cemetery. This will require liaison with the National Biodiversity Data Centre (https://invasives.ie), Westmeath County Council, local landowners and Tang Muintir Community Council Ltd.
8.1.4	**Winter heliotrope invasvie species removal**	Patches of Winter Heliotrope were noted around the base of one yew tree and spreading by underground stems or rhizomes into the grassland adjacent. This is an invasive plant which needs to be removed from the cemetery in liaison with National Biodiversity Data Centre (https://invasives.ie), Westmeath County Council, local landowners and Tang Muintir Community Council Ltd.
8.1.5	**Buffer zone and right of way**	Liaise with the local landowner to maintain a buffer of wet meadow habitat on the western margin of the cemetery and to maintain the fenced, mowed pathway approach to the entrance of the cemetery.
8.1.6	**Grass path**	Maintain the grass at 1.5m wide path by mowing. Do not pick up grass cuttings.

8.2 Templeavally Cemetery - Location 53.535861 -7.806668

Description
Templeavally cemetery is an open cemetery alongside an historic cemetery located on the L5473 road from Tang to Maghera. This cemetery contains 106 memorials which are documented on https://historicgraves.com/graveyard/templeavally/wm-tvly. The L5373 forms the northern boundary of the site. There is a limestone wall along this minor road with access gates and styles. The western and eastern boundaries are walled. The southern boundary is partially walled and the remainder is fenced. On this boundary there is wet grassland with flag iris. The old cemetery and a church in ruins lies in the centre of the site and has a number of yew trees, with a car park to its eastern side and the modern graveyard to the west. The cemetery occupies an area of 0.5ha (see Figure 6).

Figure 6: Location and Habitat map for Templeavally Cemetery, Tang, Co. Westmeath. Map source: www.google.com, amended C. O'Connell

Management
Litter clean ups, grass mowing, hedge and tree planting and the provision of water are all elements of the management of this cemetery. Please ensure to follow best practice guidelines in the management and care of the cemetery (see https://www.heritagecouncil.ie/content/files/guidance_care_conservation_recording_historic_graveyards_2011_7mb.pdf).

Habitats Present

A map showing the location of the habitats present at the community centre are shown in Figure 6.

Stone Walls and Other Stonework BL1
The walls of the cemetery, the old building, graves and the headstones are included in this habitat. The younger walls along the roadside and western boundaries of the site had a poor cover of plants but ferns such as wall rue and rusty back were begining to colonise. The older walls of the historic cemetery had a good covering of ivy which was flowering in parts.

Hedgerow WL1
Recently planted hawthorn hedgerow occurred along the southern and eastern boundaries of the car park. This was 1m high. A variety of grassland herbs were growing alongside the hedge including vetch, herb robert, creeping thistle, speedwell, lords and ladies and nettle.

Treeline WL2
A treeline has been planted along the southern margin of the car park with birch, rowan and oak. Another tree line has been planted along the western margin of the site with exotic species cherry blossom, hawthorn, whitebeam and red sycamore.

Immature Woodland WS2
A birch and alder grove of trees has been planted south of the car park and east of the old cemetery. This is a small area of younger trees. Elderberry has colonised the area. Grass clippings from the graveyard have been dumped beneath the trees and there is an abundance of nettles. There is also a water tower in this area linked to a tap inside the cemetery.

Amenity Grassland GA2
The large open grassland area on the west side of the site within the cemetery is mowed regularly and is species poor (see Figure 7) with white clover, buttercup, daisy, dandelion, willow herb, and creeping thistle. Some areas of grassland where there were no obvious headstones were less intensively mowed and this allowed for flowering of meadow species including black medick, forget me knot, white clover and birds foot trefoil.

Figure 7: Amenity grassland in Templeavally Cemetery should be maintained as a wildflower meadow, a habitat that is rare in Tang and much more valuable for wildlife. Photo: © C. O'Connell.

Invasive Species
The invasive species cherry laurel occurred within the cemetery. This needs to be removed as it is detrimental to native species and biodiversity (see Figure 8).

Figure 8: Cherry laurel is an invasive species occuring in Templeavally Cemetery associated with the ancient churh building ruins. It needs to be removed. Photo: © C. O'Connell.

Biodiversity Actions

This modern and historic cemetery is a beautiful area in Tang. There are a number of simple measures that can be taken to enhance its biodiversity. Please see Table 8.2.

Table 8.2: Biodiversity enhancement actions for Temple-A-Vally Cemetery

Action Number	Action	Notes
8.2.1	Hedge management	The ideal hedgerow for wildlife is tall, wide and dense at the base, with a wide, uncultivated, grassy margin. Such hedgerows really are 'networks for nature'. Trim all existing hedges to an "A" shape, wide at the bottom and narrow at the top. Allow the upper part of hedge to produce flowers and fruit for wildlife. Encourage some trees within the hedge to mature so as to create an attractive tree line on the eastern boundary of the car park. Please note that hedge cutting between 1st March and 31st August is prohibited under the Wildlife Act. Avoid cutting all your hedgerows at once, consider a 3-5 year rotation to allow flowers and berries to grow in alternate sections. Gradually reduce cutting intensity each year to allow your hedgerow to expand and diversify. This is especially relevant for the young hedges which are just getting established. For more advice on the frequency of hedgerow trimming please visit https://www.farmingfornature.ie/resources/best-practice-guides/hedgerow-management/.
8.2.2	Tree line	Replace dead tree in the tree line along the western margin of the graveyard with a native species good for birds such as guelder rose, bird cherry, crab apple blackthorn or hawthorn.
8.2.3	Grass management	Reduce the intensity of grass mowing by allowing the grass to grow, flower and set seed along the western margin of the graveyard and in areas without headstones elsewhere within the graveyard. This will reduce the need to dispose of the grass and enhance biodiversity.
8.2.4	Retain plant cover on walls	Allow ivy on the old walls to elongate and produce flowers and fruit for wildlife. Ivy is one of the top valuable plants for biodiversity (see Table 3). *Campanula* is another blue flowering plant that could be established on the vertical walls.
8.2.5	Plant *Sedum* (stonecrop) on top of boundary wall	The castellated nature of the outer boundary wall of the church grounds provides planting pockets and an opportunity to plant succulent *Sedum* or stonecrop on it. This plant can survive the dryness and when it flowers it is a rich source of nectar for pollinators. Add a little soil or peat-free compost to the wall and plant up with stonecrop. House leaks could also be considered.
8.2.6	Hedge planting	There are gaps in the newly planted hedge along the eastern margin of the car park which should be filled in with new 2 year old bare rooted whips of hawthorn plants (See https://www.teagasc.ie/news--events/daily/environment/how-to-plant-a-hedge.php). Once planted the hedge should be managed for wildlife (see 8.2.1).
8.2.7	Host plants for butterflies	The nettle bed created under the trees behind the car park should be retained as butterfly caterpillar food. Nettles are essential for the larvae of peacock, small tortoiseshell and red admiral butterflies. Grasses that flower and set seed are essential food for the caterpillars of meadow brown, speckled wood and ringlet butterflies and will be a benefit of allowing grassland areas to flower and set seed (see 8.2.3). Providing food plants for butterfly larvae is an example of targeted biodiversity actions for a species group.
8.2.8	Compost heap	Create a compost heap for organic waste generated within the cemetery. This needs to be managed correctly to get the best value from it.
8.2.9	Litter control	Continue to control litter and other waste associated with the cemetery. This should be removed from the site.

Action Number	Action	Notes
8.2.10	**Remove invasive Cherry Laurel**	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 and destroyed. This may require liaison with the National Biodiversity Data Centre (https://invasives.ie) and the Ballinahown Community Association.
8.2.11	**Monitoring**	Monitor the status of the memorials and church buildings and wildlife to ensure that the care of these historic items follows best practice guidance in their management (see https://www.heritagecouncil.ie/content/files/guidance_care_conservation_recording_historic_graveyards_2011_7mb.pdf).

8.3 Ardnacraney Cemetery - Location 53.523938 -7.753578

Description

Ardnacraney cemetery is an old Carmelite monastery founded in 1291 and graveyard located off a minor road linking the N55 with the L1348. It contains 13 memorials which are documented on https://historicgraves.com/graveyard/ardnacrany-north/wm-acny. The site is located in a farmland setting, on a low mound and is surrounded by a retangular-shaped limestone wall on all sides which is overgrown with ivy. Inside the walls there are mature yew trees which cast shade over the site. There is a gravel central path which is overgrown. The whole cemetery is overgrown with plants of woodland and grassland. The cemetery occupies an area of 609 square meters or 0.06ha. The walled structure sits in an unimproved grassland field which is grazed by cattle (see Figure 9).

Figure 9: Location and Habitat map for Ardnacraney Cemetery, Tang, Co. Westmeath. Map source: www.google.com, modified C. O'Connell.

Management

Access to the site is across a country lane which is gated by the local farmer. As such there is no management of the site apparent.

Habitats Present

A map showing the location of the habitats present at the community centre are shown in Figure 9.

Stone Walls and Other Stonework BL1

The walls of the cemetery, the graves and the headstones are included in this habitat and all were covered with ivy. The yew trees in the graveyard were also covered with ivy which was casting shade over the site. Elderberry, greater celendine, vetch, nipplewort, herb robert, cow parsley, nettle and hog weed were noted.

Neutral Grassland GS1
Surrounding the graveyard was grassland habitat which was grazed by cattle. This had a good diversity of herbs including thistle, plantain, white clover, red clover, speedwell, buttercup, daisy, creeping thistle, chickweed, willow herb, common sorrel, nettle and sow thistle.

Figure 10: Ardnacraney Cemetery, Tang, Co. Westmeath. The neutral grassland habitat surrounding the cemetery is species rich. A buffer zone of this habitat should be agreed with the landowner (see Action 8.3.3 in Table 8.3). Photo: © C. O'Connell.

Biodiversity Actions
This ancient and historic cemetery had a lovely quiet atmosphere and as it is considerably wild and undisturbed, an oasis of nature there are few recommendations needed. Please see Table 8.3.

Please note the way the graveyard is cared for shows respect for the resting place of the dead, but also for life and living things. Community engagement is vital in the successful implementation of the management actions proposed to enhance biodiversity presented in Table 8.1. Please also refer to the management of graveyards for guidance (see https://www.heritagecouncil.ie/content/files/guidance_care_conservation_recording_historic_graveyards_2011_7mb.pdf) and to www.ecocongregationireland.com for an environmental check up to help get started.

Table 8.3: Biodiversity enhancement actions for Ardnacraney Cemetery

Action Number	Action	Notes
8.3.1	**Monitoring**	Visit the site at least four times each year to ensure that there are no activities that would adversely affect the historic monument and its wildlife. Check for invasive species.
8.3.2	**Maintenance**	Maintain the central path in the cemetery so that is allows access to the headstones.
8.3.3	**Buffer habitat**	Liaise with the local landowner to maintain a buffer of meadow habitat 10m wide around the outside perimeter of the cemetery that is lightly grazed (see Figure 10).

8.4 Community Centre - Location 53.532361 -7.791421

Description
Tang Community centre is located in the newly refurbished old school which dates to 1858. The centre is accessed from the N55 and is located at a bend in this road (see Figure 11). The front of the centre is a rendered wall. The grounds of the centre are small and gravelled and are surrounded by high 2m walls on three sides. A fire escape staircase to the back of the building is built on a paved stone area. Outside the walls of the centre on the north side along the N55 there is a gravelled area in fornt of a hedge in which a cherry blossom tree has been planted. On all other sides there are farmed fields and a hedge abutts the community centre to the north east with hawthorn and elderberry.

Figure 11: Location and Habitat map for Tang Community Centre, Tang, Co. Westmeath. Map source: https://www.apple.com/maps/, amended C. O'Connell

Management
The centre is well maintained, the gravel areas around it are easily weeded. Plant containers to the front of the buidling are maintained.

Habitats Present

A map showing the location of the habitats present at the community centre are shown in Figure 11.

Stone Walls and Other Stonework BL1

The limestone brick walls surrounding the centre on three sides have been recently refurbished and there were few plants colonising them. However ivy, wall rue spleenwort, rustyback fern, herb robert and crustose lichens such as *Xanthoria parietina* were found on the older portions. The walls to the front of the centre along the N55 have been rendered recently as part of the refurbishment and are devoid of plants.

Buildings and Artificial Surfaces BL3

This includes the gravelled and paved areas to the front, sides and rear of the Community centre as well as the building itself (see Figure 12). A variety of herbs and grasses had seeded into the gravel including forget me not, dandelion, vetch, sow tthistle, cat's ear, daisy, white clover Yorkshire fog, white clover, ragwort, chickweed, shepherds purse and willow herb.

Figure 12: The community centre in Tang is located in the old school building. This building is recently refurbished and has little biodiversity value. In the gravel area shown above, a Wildflower welcome area is suggested to enhance wildlife (see Action 8.4.1 in Table 8.4) and Figure 13. Photo: © C. O'Connell.

Figure 13: Community planted wild flower area in Dublin, an example of what could be achieved at the Community Centre in Tang. Photo: © C.O'Connell

Biodiversity Actions

Biodiversity actions for the Community Centre are presented in Table 8.4. At present the building is very stark and is devoid of plant life and as a consequence its biodiversity value is limited. The actions proposed below focus on pollinators and sustainability. The Community Centre is a hub for events and as such there is an opportunity to show best practice in this area.

Table 8.4: Biodiversity enhancement actions for Tang Community Centre

Action Number	Action	Notes
8.4.1	**Wildflower welcome area (Figures 12 and 13)**	Create a wildflower rich zone in the gravelled area north of the centre wall on the N55 against the hedge backdrop to welcome the community to Tang. Remove gravel and rake the soil to a fine tilth. Sow with a wildflower 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 or faced with railway sleepers to prevent damage. An alternative method of establishing a wildflower area is to purchase wildflower turf which is available from https://summerhilllawns.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. This action will create visitor impact and help to begin a biodiversity enhancement conversation with the community. 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
8.4.2	**Low maintenance peat-free planters for pollinators**	The small planters outside the Community Centre are not sustainable. Better to install two or more very large planters to the front of the community centre for impact and biodiversity value. Using peat-free compost plant with a native trees to attract birds such as Hawthorn, Whitebeam, Crab apple, Blackthorn or Rowan. Plant shrubs with blue flowers to attract pollinators around the bottom of the chosen tree such as: Hebe, *Ceanothus* - California lilac and *Lavendula* - Lavender. Bulbs of the native Irish bluebell (*Hyacinthoides non-scripta*), *Crocus* species, Grape Hyacinth (*Muscari armeniacum*) and squill (*Scilla bifolia*) can be included for spring interest as well as herbaceous plants such as *Campanula* - harebell, *Nepeta* - catmint, *Linaria purpurea* - purple toadflax, *Echinops* - globe thistle, *Salvia officinalis* - garden sage, *Knautia arvensis* - field scabious, *Lunaria annua* - honesty and *Geranium pratense* - meadow cranesbill for summer insect visitors. Pollinator insects see the colour blue/purple most strongly. Follow the Pollinator-friendly Planting Code (https://www.biodiversityireland.ie/wordpress/wp-content/uploads/Pollinator-friendly-planting-code-temporary-draft.pdf).
8.4.3	**Screening of wall to front of Community Centre**	An extensive area of rendered wall to the front of the Community Centre is devoid of plants. Increase the biodiversity interest by planting *Clematis montana* (Travellor's Joy), *Lonicera* (Honeysuckle), Ivy (*Hedera*) and Wild Rose (*Rosa canina*).
8.4.4	**Down pipes water collection**	To the rear of the building are two downpipes which would be suitable for rainwater collection. The water collected can be used for plant containers. This is more sustainable than using tap water.

8.5 St Mary's Church - Location 53.529084, -7.793017

Description

The St Mary's Catholic Church in Tang is located on the eastern side of the N55 main road between Athlone and Ballymahon. The boundary with the N55 is a low stone wall which runs from the entrance and exit to the car park along the road front to the northern boundary, where the old entrance to the church occurs. This is no longer used as a vehicle entrance, and is an avenue lined with mature conifer and beech trees. Inside the fronting wall there is a narrow grass border planted with a line of trees There is a bottle recycling bank located in the car park and a stone ornamental shrub and flower bed. To the back of the car park there are four champion Cedar of Lebanon trees and a hedge of hawthorn separating the adjacent farmland from church grounds. The car park also serves as the entrance to the Parochial House which is located to the north east. The parochial house garden is grassland and it is surrounded on three sides by a well maintained hedge of Leylandii.

Church lands also include a small field with some outhouses located to the north east adjacent to the Parochial House. In this field disused objects are stored, grass cuttings are dumpled and there is an overgrown compost heap. Three sides of the field are fenced and the fourth side is a rendered stone wall adjacent to the parochial house. Hedges have been planted on the south eastern and north western sides and three trees have been planted on the north western side in front of the hedge.

The church itself occurs in the southern section of the site and is surrounded by stone walls on three sides. The N55 road side is completely open to the front. There are two pedestrian gates from the car park to the church. One of these gates opens from a path at the back of the car park which leads back to the parochial house. There are flower beds planted at the base of the hedge here with roses and Agapanthos. There are planters to the front of the church.

Figure 14: Location and Habitat map for St Mary's Church grounds, Tang, Co. Westmeath. Map source: www.google.com, amended C. O'Connell.

Across the N55 there is an overflow car park for the church. On its southern and eastern boundaries there are raised ornamental shrub beds made from stone. The western boundary of the overflow car park has a 1.2m high hawthorn hedge. A line of trees has been planted to the front into a 1m wide grass verge (see Figure 14).

Management
The hedge boundary of the overflow car park and surrounding the garden of the parochial house are regularly clipped and maintained. All of the grass verges and the field adjacent to the parochial house are regularly mowed. The flower beds at either end are maintained.

Habitats Present

A map showing the location of the habitats present at the community centre are shown in Figure 14.

Hedgerow WL1
Hawthorn hedge was present on the boundary of the overflow car park, to the back of the church car park and in the church field. These were planted by the community. The quality of the hedge was poor in the highly shaded area beneath the four large Cedar of Lebanon trees in the church car park. Further hedges occur of Leylandii around the parochial house. Hawthorn hedges were also planted on two sides of the field in addition to an existing hedge adjoining the old farm out houses.

Improved Amenity Grassland GA2
The grounds of the parochial house, the grassland strips along the church grounds wall, the overflow carpark and the field are all classified as improved amenity grassland due to the maintainence of these areas through regular mowing. These were species poor and contained daisy, sow thistle, dandelion, buttercup, white clover, cleavers, thistle, herb robert, Yorkshire fog and annual meadow grass.

Treeline WL2
The old entrance to the church is a tree lined avenue. The trees were mature beech and conifers and up to 12m in height. Additional trees recorded included elderberry, sycamore and hawthorn. Woodland plants such as lords and ladies, cow parsley, ivy and herb robert were growing in the leaf litter and shaded conditions of this treeline. Treelines were also planted along the road front of the church and along the hedge of the overflow car park. The species included here were copper beech, whitebeam, hawthorn, cherry blossom, hornbeam, crab apple, chestnut, rowan and tulip tree.

Ornamental non native Shrub Beds WS3
The fence line near to the parochial house has been planted with ornamental shrubs including *Buddleia, Euonymous* and St John's Wort. Two stone fronted shrub beds occurred at either end of the overflow car park. These were planted with Hebe, *Santolina, Philadelphus, Photinia* (red robin) and evergreen spindle. A stone surrounded flower bed measuring 4m diameter occurred in the church car park. This bed has a stunning honeysuckle growing over an Elwood tree. A variety of herbaceous plants and shrubs were growing in this bed including Geranium, lavender and Hebe. The path from the parochial house to the church had a 10m long rose bed.

Buildings and artificial surfaces BL3
The church building, bell tower, outhouses and the car park areas are included in this habitat. As these structures are in public use and well maintained they are clear of any plant life.

Stone walls BL1
The stone walls surrounding the church building were made from limestone and had a catellated top. Ferns including cetarach and wall rue together with ivy-leaved toad flax were growing on these walls. The wall along the front of the car park on the boundary of the N55 was also castellated and ivy was flourishing on this wall in one area.

Invasive Species
Cherry laurel was noted beneath the church bell in the hedge. This is an invasive species and needs to be removed. See Table 8.5 and Figure 15.

Figure 15 Cherry Laurel occurs adjacent to the bell tower in St Mary's Church grounds. This invasive species needs to be removed. Photo: © C. O'Connell.

Biodiversity Actions
Biodiversity actions for the St Mary's Church and Grounds are presented in Table 8.5. Liaison with the parish priest and the community will be an important factor in the implementation of the actions proposed. It is important for the parish to join the Eco-Congregation Ireland initiative. This group provide wealth of inspiration, newsletters and awards for actions taken within the Church and Church grounds.

Table 8.5: Biodiversity enhancement actions for St Mary's Church and Grounds, Tang

Action Number	Action	Notes
8.5.1	**Remove invasive Cherry Laurel (Figure 15)**	Cherry laurel is growing in the hedge beneath the church bell. This is an invasive species and needs to be removed with care. Please liaise with Westmeath County Council and the National Biodiversity Data Centre (https://invasives.ie).
8.5.2	**Low maintenance peat-free planters for pollinators**	The small planters outside the Church are not sustainable and have little biodiversity impact. Better to install two or more very large planters for biodiversity. Using peat-free compost plant with a native trees to attract birds such as Hawthorn, Whitebeam, Crab apple, Blackthorn or Rowan. Plant shrubs with blue flowers to attract pollinators around the bottom of the chosen tree such as: Hebe, *Ceanothus* - California lilac and *Lavendula* - Lavender. Bulbs of the native Irish bluebell (*Hyacinthoides non-scripta*), *Crocus* species, Grape Hyacinth (*Muscari armeniacum*) and squill (*Scilla bifolia*) can be included for spring interest as well as herbaceous plants such as *Campanula* - harebell, *Nepeta* - catmint, *Linaria purpurea* - purple toadflax, *Echinops* - globe thistle, *Salvia officinalis* - garden sage, *Knautia arvensis* - field scabious, *Lunaria annua* - honesty and *Geranium pratense* - meadow cranesbill for summer insect visitors. Pollinator insects see the colour blue/purple most strongly.

Follow the Pollinator-friendly Planting Code (https://www.biodiversityireland.ie/wordpress/wp-content/uploads/Pollinator-friendly-planting-code-temporary-draft.pdf). |
| 8.5.3 | **Screening of wall to front of car park along N55** | Increase the biodiversity interest of the car park wall by planting *Clematis montana* (Travellor's Joy), *Lonicera* (Honeysuckle), Ivy (*Hedera*) and Wild Rose (*Rosa canina*). The top of the wall should be planted with Sedum (see 8.5.4) |
| 8.5.4 | **Plant *Sedum* (stonecrop) on top of boundary wall** | The castellated nature of the outer boundary wall of the church grounds provides planting pockets and an opportunity to plant succulent *Sedum* or stonecrop on it. This plant can survive the dryness and when it flowers it is a rich source of nectar for pollinators. Add a little soil or peat-free compost to the wall and plant up with stonecrop. House leaks could also be considered. |

Action Number	Action	Notes
8.5.5	Hawthorn hedge planting	Behind the church bell there is a wire fense separting a field from the church grounds. This small area should be planted with 2 year old bare rooted whips of hawthorn plants. See https://www.teagasc.ie/news--events/daily/environment/how-to-plant-a-hedge.php for guidelines on hedge planting.
8.5.6	Yew hedge planting	A hawthorn hedge planted under the Cedar's of Lebanon is not doing well. Plant with Irish yew which is more shade tolerant.
8.5.7	Insect hotels	Three tree stumps in the front garden of the parochial house should be turned into insect hotels and incorporated into a newly constructed wild flower meadow in this area (see 8.5.8).
8.5.8 (see Figure 17)	Create wild flower meadow in the parochial house grounds with insect hotels	The large garden around the parochial house is intensively and regularly mowed and has little biodiversity interest. The western side of the garden could be turned into a wildflower area incorporating three tree stumps already in this area. This would be ideal for a wildflower area. Create a wildflower meadow by cutting the grass to a very short sward, scarify the surface to create bare soil and sew 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). An alternative method of establishing a wildflower area is to purchase wildflower turf which is available from https://summerhilllawns.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.
8.5.9	Encourage Sparrows to breed in the church field (Figure 20)	Sparrows are amber listed bird species due to loss of their habitat and food source in the wild. They were utilising the church field for feeding and nesting. Sparrows are birds that breed in colonies. Encourage them to breed in this area by erecting nesting condominiums (see https://www.irishgardenbirds.ie/product/sparrow_condo/) at a cost of €30 for three nest boxes in one sparrow condo. Sparrows are grain feeders. Take the opportunity within the church field to plant up a bed with suitable grains and seeds as food sources such as ragweed, wheat, oats sunflower and buckwheat. Sparrows like dense hedges and good cover from ivy. Manage the hedges and the ivy on the walls of the old buildings to provide this habitat for them.
8.5.10	Change the cutting regime of the Church field	Reduce the cutting intensity in the church field allowing the grass to grow longer, flower and set seed. A grass path can be mowed through the area to create a meditative spiral. The long grass in between will be of benefit to insects and sparrows (see 8.5.9). See 8.5.15 recommendation for the development of a community biodiversity garden and allotment in this area.
8.5.11	Biodiversity inspired Prayer Walk	The old entrance to the church which is lined with conifer and beech trees should be retained. Open grass areas on this path should be planted in woodland bulbs such as the native Irish blue bell, ramson, anenome and lesser celendine. This avenue is an ideal location for a meditative prayer walk inspired by the beauty and peace of the natural world.
8.5.12	Compost area	Re-establish the composting system in the church field. Cut grass is being dumped in one part of the field. It looks unsightly and is encouraging the spread of stinging nettles. Composting is a more sustainable practice.
8.5.13	Tree planting	Plant Irish yew in the treelines established at the wall of the church grounds and in the overflow car park where trees are missing. Plant woodland bulbs and ferns in these grasslands to create a woodland habitat. Species to consider are native Irish blue bell, ramson, anenome, polypody fern, buckler fern, wood sorrel and lesser celendine This will be more beneficial for wildlife and provide a corridor for species to migrate.

Action Number	Action	Notes
8.5.14	**Join Eco Congregation Ireland**	Join the Christian faith communities eco-congregation. This group helps with project ideas to transform church grounds into havens for creation. They have a newsletter and an awards system (see https://www.ecocongregationireland.com).
8.5.15	**Community Garden**	A long term biodiversity project would be to build a community biodiversity garden and allotment in the Church field.

Figure 16: Action 8.5.2 in Table 8.5 recommends installation of large planters outside the church which have better biodiversity value and impact and lower maintenance. Two examples that could be tried in Tang are shown in these images. Photos: © C. O'Connell.

Figure 17: Action 8.5.8 in Table 8.5 recommends the creation of pollinator friendly flower beds incorporating old tree stumps as insect hotels in the garden of the parochial house. The photo on the right shows the possibilities for enhancing biodiversity, a bird nest box has been constructed on top of the tree stump. Photos: © C. O'Connell.

8.6 St Mary's National School - Location 53.534446 -7.792992

Description
St Mary's National School is located on the western side of N55, the main road between Athlone and Ballymahon. The school building is located to the north of the site and is surrounded by parkland and hedges on its northern and western margins. To the front there is a yard separated from the N55 by a wall inside which is a privet hedge and a line of trees has been planted. There is a small open sided shed in the yard and limited car parking. South of the school building is the main car park accessible via two entrances from the N55. The car park is landscaped with shrub beds to the front, back and sides (see Figure 18).

West of the car park is an all weather basket ball pitch which has high fences and the school garden. The school garden was designed by Paddy Madden and has a number of features. There are 5 planting beds, a herb bed around a water feature, worm compost bins, fruit trees and ornamental shrubs which cover a septic tank.

The southern portion of the school site contains the grassed sports pitches. These are surrounded by a daily mile walking route. The pitches are separated from the neighbouring farm on the south side and the N55 on the east by brick walls. On the western boundary of the pitch there is a beech hedge.

To the front of the school and pitch walls is a grass verge with planted trees.
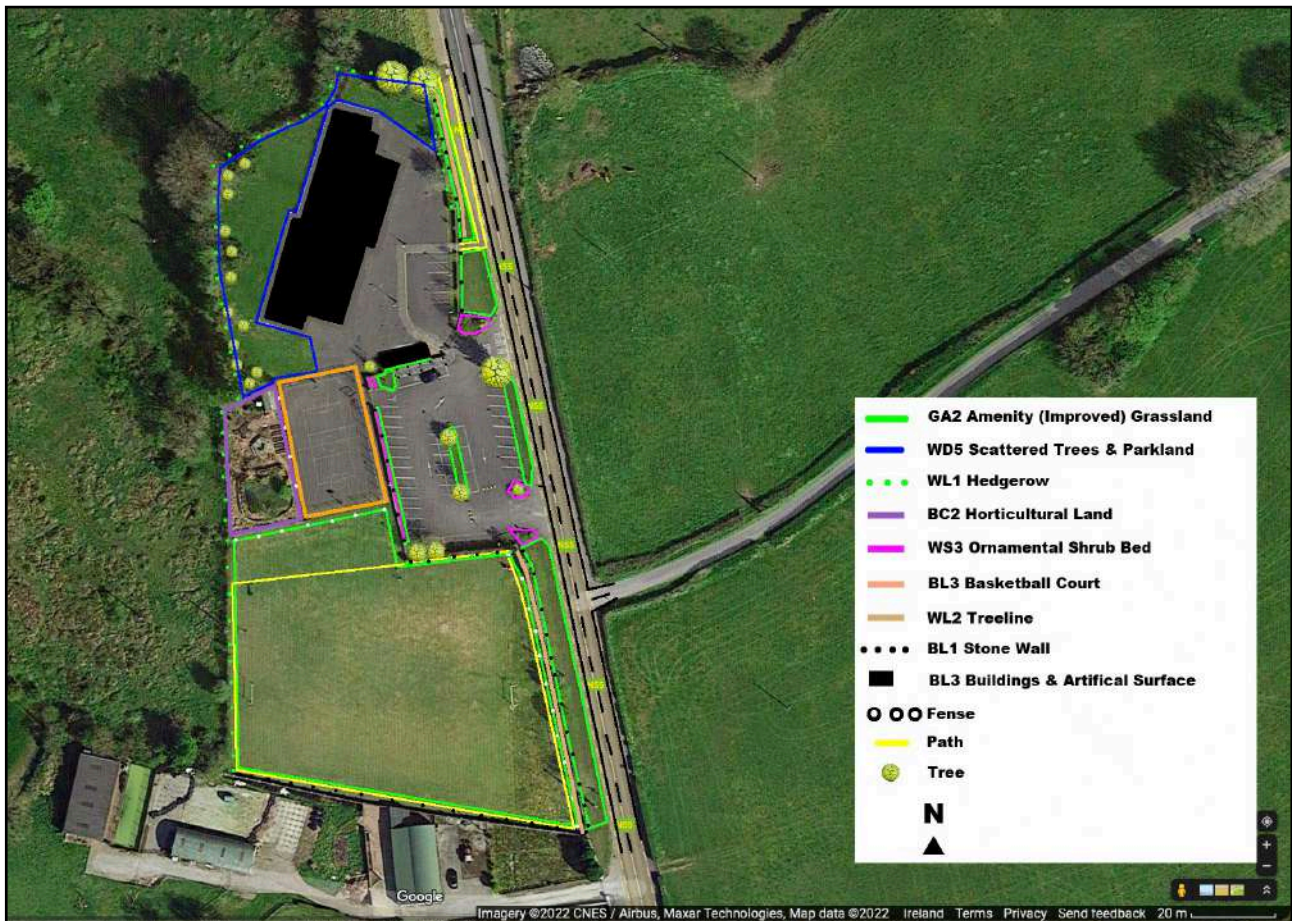
Figure 18: Location and habitat map for St Mary's National School, Tang, Co. Westmeath. Map source: www.google.com, modified C. O'Connell.

Management

Mowing grass is a priority on the verge outside the school along the N55 and in the parkland area immediately around the school building. The grass sports pitches are also maintained by mowing. Ornamental shrub and flower beds are maintained in the school car park. The school garden is planted and maintained to a limited extent.

Habitats Present

A map showing the location of the habitats present at the St Mary's National School is shown in Figure 18.

Hedgerow WL1
A beech hedge is located at the western margin of the sports pitch, behind the school garden and the school buildings. Additional species in the hedge were bramble, lords and ladies, hogweed, buttercup, ragwort, dock and nettle.

Improved Amenity Grassland GA2
The sports pitches in the school grounds are amenity grasslands, as is the grassy verge located outside the school wall along the N55. As these are all regularly mowed they are of little value for biodiversity with daisy, dandelion, white clover and buttercup visible in areas that were difficult for the mower to reach.

Treeline WL2
Outside the school walls a line of trees has been planted inside and outside the school wall. These included wytch elm, whitebeam and birch.

Scattered Trees and Parkland WD5
Behind the school is an area of amenity grassland with planted trees of different varieties which the pupils in the school have named. This area is managed as parkland. They include broad-leaved and conifer trees. There were three insect hotels constructed in this habitat and bird seed feeders were hanging from the tree branches.

Ornamental Non Native Shrub Beds WS3
Landscaping in the car park includes the maintenance of shrub beds with a variety of species including periwinkle and euonymous.

Horticultural Land BC2
The growing beds for vegetables, fruit, aromatic herbs and flowers in the school garden fall into this habitat category.

Buildings and artificial surfaces BL3
The school building, covered shelter, the basket ball pitch and the car park areas are included in this habitat. As these structures are in public use and well maintained they are clear of any plant life.

Stone walls BL1
The stone walls to the front of the school along the N55 are well maintained and are without plant life. The wall along the western margin of the school grounds between the school playing pitch and a neighbouring farm is rendered and without plant life.

Biodiversity Actions
Table 8.6.1 outlines a number of suggestions to enhance the biodiversity of Tang National School. These actions will need the co-operation of the school staff, pupils and the board of management. The teachers in the school are keen that the school garden can be used as a teaching resource and the recommendations made in relation to this area have the dual function of enhancing biodiversity and providing an unique hands-on teaching resource.
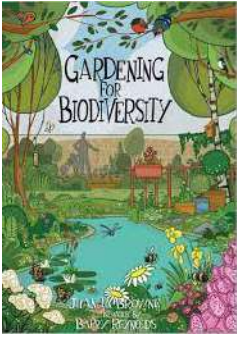
There are a number of valuable resources that can be used by teachers including: https://www.fingal.ie/sites/default/files/2020-04/gardening-for-biodiversity-booklet.pdf.

For guidance on Creating a Biodiversity Action Plan for the school grounds from: http://www.heritageinschools.ie/content/resourcespdfs/Biodiversity_Action_Plan_for_Schools.pdf.

Figure 19: Action 8.6.7 in Table 8.6 recommends screening of wall to south of playing pitch shared with neighbouring farm. Clematis shown on the right is one planting suggestion. Photo: © C. O'Connell.

Figure 20: Action 8.6.9 in Table 8.6 recommends installing sparrow condo's as a targeted biodiversity action in the school grounds and in the grounds of St Mary's Church (Action 8.5.9 in Table 8.5). Photo:

Figure 21: Action 8.6.12 in Table 8.6 recommends planting sunflowers which provide nectar for pollintors and later on seeds for sparrows behind the shed in the school grounds. Photo: © C. O'Connell.

Table 8.6: Biodiversity enhancement actions for St Mary's School, Tang

Action Number	Action	Notes
8.6.1	**Maintain all garden features in working condition**	The school garden is enriched with a rainwater collecting system, a water feature, bird feeders, outdoor classroom and a weather vane. Ensure that these resources are maintained in working condition as part of the education programme of the school. Ensure that bird feeders are topped up.
8.6.2	**Peat free gardening in the school garden - composting**	The use of horticultural moss peat in the school garden must be phased out. Moss peat is mined from wild raised bog habitat which is a threatened and endangered in Ireland. The use of moss peat is un-necessary when it is possible to produce home made compost. This is an activity that should be established in the school garden as part of teaching about care for the environment and sustainable gardening. An existing worm composting bin needs to be cleaned of its litter and fed with garden waste to restart the composting process by the brandling worms and a composting cone should be installed.
8.6.3	**Spring and summer bulb beds in the school garden**	Teachers in the school identified bulbs as a topic that they educate children about. One of the five planting beds should be planted with spring bulbs and a second bed should be planted with summer/autumn flowering bulbs for year round value to pollinators and for teaching.

Spring bulbs are planted in autumn and include: crocus, narcissus, daffodil, blue bell (make sure it is the native Irish bluebell), Muscari armeniacum - grape hyacinth, tulip, Colchicum and Sternbergia - autumn crocus, Allium Moly-Yellow Garlic, Eranthis hyemalis - Winter Aconite, snowdrop and Cyclamen hederifolium - hardy cyclamen.

Summer bulbs are planted in the spring once the soil is beginning to warm up and the risk of frost has passed. They flower in summer and autumn. Species to plant are: Dahlia, Lilies, Eucomis, Crocosmia (and Montbrettia), Begonia, Peony, Agapanthus, Gladioli, Nerine, Freezias, Alliums, Agapanthus and Polianthes.

Plant the bulb with its tip pointing upwards and roots pointing down. Plant each bulb twice its depth in the soil. |
8.6.4	**Sensory plant bed in the school garden**	The beds around the water feature should be planted with low maintenance shrubs that have a sensory value. Species to consider are: Lavender, Rosemary, Fennel, Oregano or Marjoram, Lamb's Ears (Stachys byzantina), lemon balm, thyme, curry plant (Helichrysum italicum), Santolina, Camomile, Buddleia, 7. mock orange (Philadelphus), purple coneflower (Echinacea purpurea), Allium, Bamboo (plant in a pot to restrict its roots), Mint (plant in a pot to restrict its roots) and sunflower.
8.6.5	**Bird Feeders and sunflowers in the school garden**	Keep bird feeders topped up to attract birds to the garden. Grow sunflowers to attract pollinators during flowering and seeds in the autumn for birds.
8.6.6	**Establish a nectar rich flower bed for butterflies and food plants for butterfly caterpillars in the school garden**	One of the five planting beds in the school garden could be developed as a butterfly friendly zone. The top 10 nectar plants for butterflies are: 1. Buddleia, 2. Ice Plant, 3. Lavender, 4. Michaelmas Daisy 5. Oregano, 6. Aubretia, 7. Red Valerian, 8. French Marigold, 9. Hebe and 10. Candytuft. In addition to providing nectar for adults, an area for a nettle bed and some long grass should be established to provide food for the caterpillars of the butterflies. For more information see: https://butterfly-conservation.org/sites/default/files/1.bc_gardening_leaflet_v3.pdf
8.6.7	**Screening of wall to south of playing pitch shared with neighbouring farm (Figure 19)**	Increase the biodiversity interest of the sports pitch wall by planting Clematis montana (Travellor's Joy), *Lonicera* (Honeysuckle), Ivy (Hedera) and Wild Rose (*Rosa canina*).

Action Number	Action	Notes
8.6.8	**Insect hotels and log piles**	Enhance insect hotels to the back of the school building in the parkland area with the addition of log piles. 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 the school grounds and it is a teaching resource.
8.6.9	**Install Sparrow Nesting Boxes (see Figure 20)**	Sparrows are amber listed bird species due to loss of their habitat and food source in the wild. Sparrows are birds that breed in colonies. Encourage them to breed in the school grounds by erecting nesting condominiums (see https://www.irishgardenbirds.ie/product/sparrow_condo/) at a cost of €30 for three nest boxes in one sparrow condo. Sparrows are grain feeders. Take the opportunity within the school garden to plant up a bed with suitable grains and seeds as food sources such as ragweed, wheat, oats sunflower and buckwheat. Sparrows like dense hedges and good cover from ivy. Manage the hedges and plant ivy on the walls of the the playing field to provide this habitat for them (see 8.6.6).
8.6.10	**Maintain shrub beds in the car park**	Existing shrub beds should be maintained in the car park and enhanced with the addition of shrubs that have blue flowers. Species to consider are: rosemary, Hebe, Ceanothus - California lilac and Lavendula - Lavender.
8.6.11	***Sedum* roof on the covered shed in the school car park**	Build a Sedum roof on the covered shed in the school car park. This flat roof would be ideal for establishing this insect friendly feature. Watch this video presented by the garden ninja - Lee Burkhill - to get started https://www.youtube.com/watch?v=J34VgaeNloQ and materials can be purchased from https://www.greenroofsdirect.com.
8.6.12	**Sunflower Bed to the side of the covered shed in the school car park (see Figure 21)**	A narrow strip of soil exists behind the covered shed in the school car park. This would be an ideal spot for growing giant sunflowers. Sunflowers are rich in nectar for pollinators and in autumn their seeds are enjoyed by birds including sparrows (see 8.6.9).

8.7 Rathmore Layby - Location 53.540474, -7.789754

Description
This layby is located north of Tang Bridge across the county line with Longford. It is situated on the western margin of the N55 and north of the L1143 minor road (see Figure 22). The ground is sloped from the road edge to a hedge of hawthorn and blackthorn. In the field behind are mature trees of oak. Part of the hedge has been invaded by snowberry, which is considered to be an invasive species producing dense thickets by suckering.

Figure 22: Location and habitat map for Rathmore Layby, Tang, Co. Longford. Map source: www.google.com, modified C. O'Connell.

Management
Grass is cut at the junction of the N55 with the minor road to assist with traffic sight lines and some oak trees have been planted by the community.

Habitats Present

A map showing the location of the habitats present at Rathmore Layby are shown in Figure 22.

Amenity Grassland GA2
Grassland habitat that is not regularly mowed. As a result the biodiversity was good. Species such as creeping buttercup, meadow sweet, Yorkshire fog, cock's foot, germander speedwel, dock, dandelion, thistle, nettle, vetch and cow parsley were recorded. Speckled wood butterfly was present here.

Hedgerow WL1
Hawthorn and blackthorn hedge marking the boundary of farmland. The hedge has been allowed to grow and produce flowers and fruit. Woodpigeon and grey crow were recorded.

Biodiversity Actions

Biodiversity actions for Rathmore Layby are presented in Table 8.7.

Table 8.7: Biodiversity enhancement actions for Rathmore Layby, Co. Longford

Action Number	Action	Notes
8.7.1	**Grass cutting management**	Cut a 1m margin around the grassland habitat where is joins the main road and the minor road to assist with sight lines.
8.7.2	**Develop meadow**	Allow the layby grassland to rewild so as to create a wildflower area building on the species already present
8.7.3	**Log pile**	Create log pile from the dead trees that are present in the layby.
8.7.4	**Tree Planting and creation of woodland habitat (Figure 23)**	Plant a copse of trees with wildlife value near to the ditch where there is ample space. Species to include are rowan, birch, hawthorn, oak, blackthorn, guelder rose and alder. Beneath the trees plant woodland flowers such as bluebell, anenome, lesser celendine and ramson.
8.7.5	**Remove invasive snowberry**	Snowberry is forming a thicket along the hawthorn and blackthorn hedge of the layby. This plant is invasive spreading by suckering and forming dense stands that exclude native species. It must be removed. This will require liaison with the National Biodiversity Data Centre (https://invasives.ie), Westmeath County Council, local landowners and Tang Muintir Community Council Ltd.

Figure 23: Action 8.7.4 in Table 8.7 recommends enhancing the trees planted in the layby by planting more trees to form a copse or double tree line strip of woodland. Woodland habitat is the most valuable for biodiversity in the long term. Photo: © C. O'Connell.

8.8. Creggy Bridge (Location 53.525534 -7.795959) to Tang Bridge (Location 53.536234 -7.792934)

Description
The boundaries of Tang village occur at two bridges over the Tang and Creggy Rivers. At both of these areas there are large laybys that are managed by Community Employment Workers. The village signs are located in each area for traffic passing each way (see Figures 24 and 25).

Figure 24 Left: Location and Habitat map for Tang Bridge Layby, Tang, Co. Westmeath. Map source: www.google.com, amended C. O'Connell. Figure 25 Right: Location map for Creggy Bridge Layby, Tang, Co. Westmeath. Map source: //www.apple.com/maps/, amended C. O'Connell.

Management
Grass is maintained by mowing regularly. The hedges are cut to 1.2m high and trees have been planted in a parkland style.

Habitats Present

A map showing the location of the habitats present at the Tang Bridge is shown in Figure 24 and at Creggy Bridge in Figure 25.

Hedgerow WL1
Hawthorns hedges have been planted at both entrances to the village of Tang and these are maintained at 1.2m tall.

Amenity Grassland GA2
Amenity grassland habitat is found at both the Creggy Bridge area and the Tang Bridge Layby. This is regularly mowed to a short sward height and as a result it is poor in flowering grasses or herbs. Species recorded were plantain, vetch, speedwell, daisy, yorkshire fog, perennial rye grass and oxeye daisy.

Grassy Verge GS2
At the Tang River Bridge an area of grassland has been left to develop into a meadow. This species diversity was rich and included: buttercup, plantain, sow thistle, ox eye daisy, vetch, sorrel, ragwort, creeping cinquefoil, white and red clover, cowslip, Yorkshire fog, cock's foot grass, cat's ear, daisy, sweet vernal grass, chickweed, dog's tail grass and annual meadow grass. This is a great demonstration area of what can be achieved if the layby's at both ends of the village were mowed less frequently.

Figure 25: shows two different types of management of grassy verges being undertaken at Tang Bridge. The image on the left shows wildflower meadow habitat with an abundance of flowering plants, to attract pollinators. The image on the right shows the regularly mowed grassland in the same area with no wild flowers and of no value to biodiversity. Action 8.8.1 in Table 8.8 recommends reducing mowing of verges at both entrances to Tang on the N55 and creating wildflower meadow. A margin adjacent to the road should still be cut. Photos: © C. O'Connell.

Flower Bed BC4

A circular stone flower bed occurs in the Tang Bridge layby. This has been planted with a variety of species including creeping jenny, lady's mantle, *Sedum rupestre, Geranium dissectum*, black medick and creeping cinquefoil.

Treeline WL2

Treelines have been planted in each layby. The species included here were cherry blossom, hornbeam, crab apple, chestnut, rowan and tulip tree.

Biodiversity Actions

Biodiversity actions for Tang and Creggy Bridge Laybys are presented in Table 8.8.

Table 8.8: Biodiversity enhancement actions for Creggy Bridge and Tang Bridge, Westmeath

Action Number	Action	Notes
8.8.1	**Grass cutting management (see Figure 25)**	Cut a 2m margin around the grassland habitat of each layby on the side where it adjoins the N55 and leave the remainder to develop into wild flower meadow. The following publication gives guidance on how to develop and manage a wild flower meadow and there is the excellent example at the Tang Bridge outside a private home: https://pollinators.ie/wordpress/wp-content/uploads/2018/04/How-to-guide-Wildflower-Meadows-2018-WEB.pdf. In year 1 leave the grass to grow, flower and set seed. In the autumn cut the grass very short. Scarify the ground to create bare soil and leave overwinter for year 2. Cut in spring and remove cuttings and leave it to grow until autumn. At that stage you can incorporate a seed mix to enhance the number of wild flowers and to keep grass at bay incorporate yellow rattle - the meadow maker. This plant paratises grass roots and weakens them giving wild flowers a better chance of taking hold. 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). The mowing regime is crucial to the success of developing a meadow of wild flowers in these areas 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. Erect signs to inform the public of this biodiversity measure.
8.8.2	**Flower Bed**	Retain the flower bed as an attaction for pollinators. Replenish as necessary with pollinator friendly plants. Follow the Pollinator-friendly Planting Code (https://www.biodiversityireland.ie/wordpress/wp-content/uploads/Pollinator-friendly-planting-code-temporary-draft.pdf). Erect signs to inform the public of this biodiversity measure.
8.7.3	**Existing wildflower meadow at Tang Bridge**	Continue to manage the existing wild flower meadow at Tang Bridge by following the following guide https://pollinators.ie/wordpress/wp-content/uploads/2018/04/How-to-guide-Wildflower-Meadows-2018-WEB.pdf. If necessary introduce yellow rattle to keep grasses in check. Erect signs to inform the public of this biodiversity measure.
8.7.4	**Hedge Management**	The ideal hedgerow for wildlife is tall, wide and dense at the base, with a wide, uncultivated, grassy margin. Such hedgerows really are 'networks for nature'. Trim all existing hedges in the laybys to an "A" shape, wide at the bottom and narrow at the top. Allow the upper part of hedge to produce flowers and fruit for wildlife. Encourage some trees within the hedge to mature so as to create an attractive tree line in addition to the hedge. Please note that hedge cutting between 1st March and 31st August is prohibited under the Wildlife Act. Avoid cutting all your hedgerows at once, consider a 3-5 year rotation to allow flowers and berries to grow in alternate sections. Gradually reduce cutting intensity each year to allow your hedgerow to expand and diversify. This is especially relevant for the young hedges which are just getting established. For more advice on the frequency of hedgerow trimming please visit https://www.farmingfornature.ie/resources/best-practice-guides/hedgerow-management/.

Action Number	Action	Notes
8.7.5	**Tree Planting and creation of woodland habitat**	Plant a double row of trees with wildlife value in the Tang Bridge Layby where there is ample space and a treeline already exists. Species to include are rowan, birch, hawthorn, oak, blackthorn, guelder rose and alder. Beneath the trees plant woodland flowers such as bluebell, anenome, lesser celendine and ramson.

9. 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 (lcrl.ie)

Community Foundation of Ireland

Community Grant Support Scheme of Westmeath County Council (http://www.westmeathcoco.ie/en/ourservices/communitydevelopment/communitygrants/). Please register with the Westmeath Heritage Office to receive information about grants. Contact Melanie McQuade, Heritage Officer at heritage@westmeathcoco.ie

Conservation and Heritage Grants of Westmeath County Council (http://www.westmeathcoco.ie/en/ourservices/planning/conservationheritage/conservationheritagegrants/)

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).

Longford County Council Community Grants (https://www.longfordcoco.ie/services/community-development/community-grant-support-scheme/community-grant-support-scheme-2022.pdf)

Tang Community Fundraising

In the past the community of Tang participated in a ”Tree Tree Donation Project” which raised sufficient funds to purchase trees to plant in community locations. This could be repeated to help fund more tree planting to create woodland habitat.

Tang community also receive bare rooted tree saplings from Belvedere Gardens. Again the community could request a donation from this source of native species for a woodland planting project.

Appendix 1 Biodiversity Survey Work Sheet

Community Biodiversity Action Plan: ……………………………..……… **Sample #** ……………..

Location Name: ……………………………………………..…………… **Map #** ………..……..

Co-Ordinates: Latitude ………………………………… **Longitude** ………………………………

Habitat Type: …..……….…..………………… **Fossitt** ………………. **Name** …………………….…

Altitude (m) ……………… **Recorder:** …………………….………… **Photographs:** …………………

Date: ………………………. **Land Use:** ………………………………………………………………

Threats: ………………………………………………………………………………………………………

Invasive Species:
- ◯ Winter Heliotrope
- ◯ Giant Hogweed
- ◯ Cherry Laurel
- ◯ Rhododendron
- ◯ Japanese Knotweed
- ◯ Other

Details: ……………………………………………………………………………………………..……..

Biodiversity Recommendations:

1.

2.

3.

4.

5.

6.

Species Diversity: Plants ……….…… Animals …..…………..   Birds ……………..

Table A: Tang Garden Bird Watch 2022		
Ranking in order most commonly seen	**Bird species**	**Number of surveys on which bird was recorded**
1	Robin	40
2	Blackbird	38
3	Magpie	38
4	Wood Pigeon	30
5	Hooded Crow	26
6	Starling	23
7	Swallow	23
8	Blue Tit	22
9	Chaffinch	22
10	Jackdaw	22
11	Wren	21
12	Song Thrush	20
13	House Sparrow	18
14	Bullfinch	16
15	Goldfinch	14
16	Great Tit	14
17	House Martin	12
18	Coal Tit	11
19	Swift	11
20	Siskin	9
21	Collared Dove	8
22	Dunnock	8
23	Long Tailed Tit	7
24	Yellowhammer	5
25	Goldcrest	3
26	Greenfinch	3
	Total Sightings	**464**

Table B: Tang Bugs and Beasties Search 2022		
Ranking in order most commonly seen	Animal Species	Number of surveys on which animal was recorded
1	Wasp	35
2	White-tailed Bumblebee	35
3	Earthworm	34
4	Garden Snail	34
5	Woodlouse	29
6	Large Black Slug	26
7	Small Tortoiseshell	25
8	House Fly	24
9	Garden Spider	23
10	Seven-spot Ladybird	23
11	Black Garden Ant	22
12	Centipede	22
13	Harvestman Spider	21
14	Honey Bee	21
15	Earwig	19
16	Blue Bottle	17
17	Large White	17
18	Field Slug	16
19	Ground Beetle	15
20	Red Admiral	15
21	Cranefly	14
22	Banded Snail	13
23	Millipede	12
24	Red-tailed Bumblebee	11
25	Aphid Greenfly	10
26	Orange -tip	10
27	Common Frog	9
28	Dragonfly	9
29	Hoverfly	9
30	Single-spot Ladybird	7
31	Damselfly	6
32	Rove Beetle	6
33	Cinnabar Moth	4
34	Cricket	3
35	Froghopper	2
36	Shield bug	2
	Total sightings	600

Appendix 2 Wildlife and Bird Surveys

These surveys were undertaken by pupils in Tang National School in spring 2022. The results are presented in Tables A and B. The survey sheets provided to the pupils are presented in Figures 26 and 27 and the certificate of achievement forwarded to the school upon completion of the surveys is presented in Figure 28.

BIRD Surveys

44 bird surveys were completed
464 birds observed
26 different species (see Table A)

Top 5 common birds around Tang were
1. Robin,
2. Blackbird,
3. Magpie,
4. Woodpigeon and
5. Hooded Crow

Top bird surveyors in the school were
1. Niamh, Alannah and Cian Murray (21 birds seen),
2. Isabella Mannion (19 birds seen) and
3. Grace Reilly (18 birds seen)
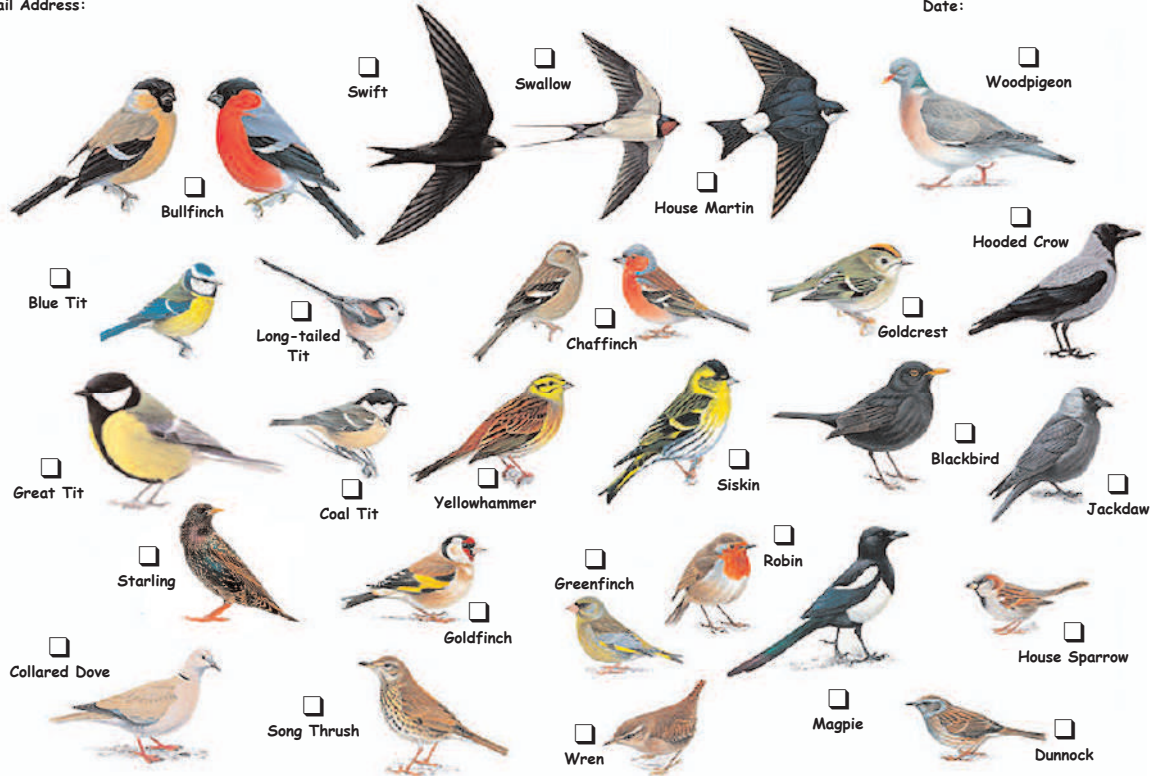
Figure 26: Birds survey sheet sample. Photo: © C. O'Connell
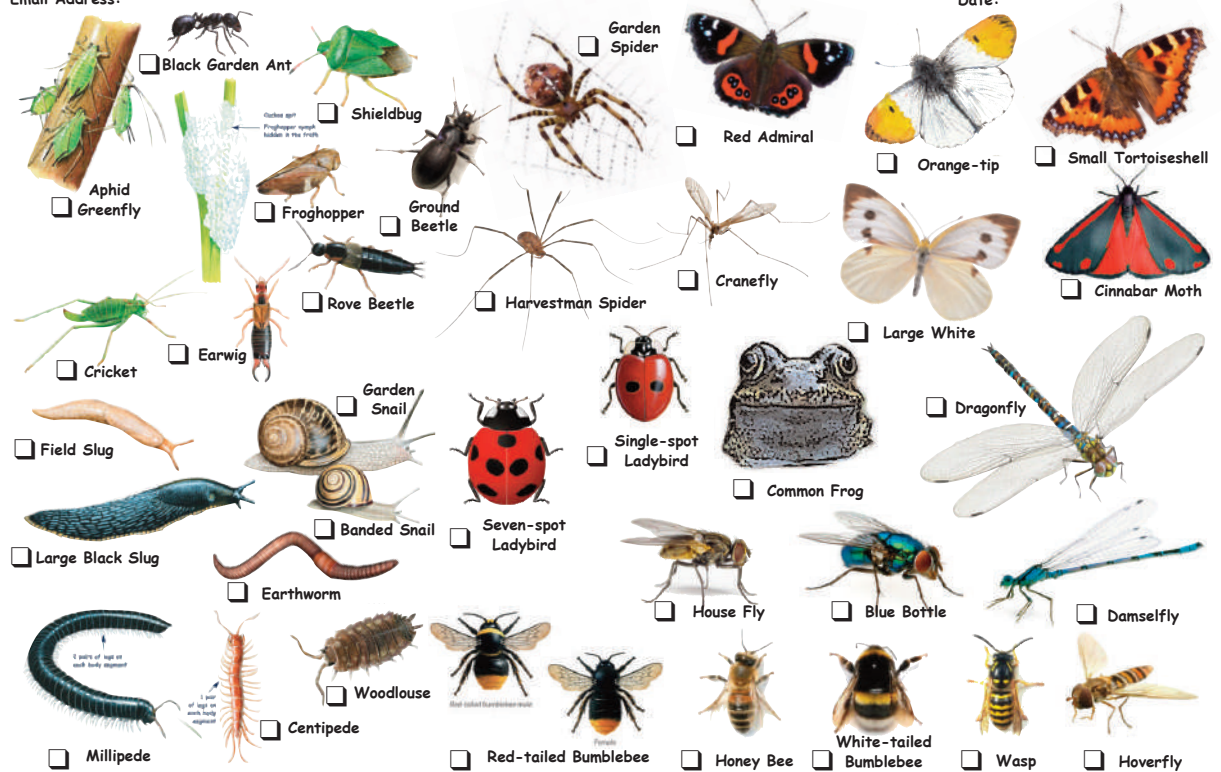
Figure 27: Bugs and Beasties survey sheet sample. Photo: © C. O'Connell
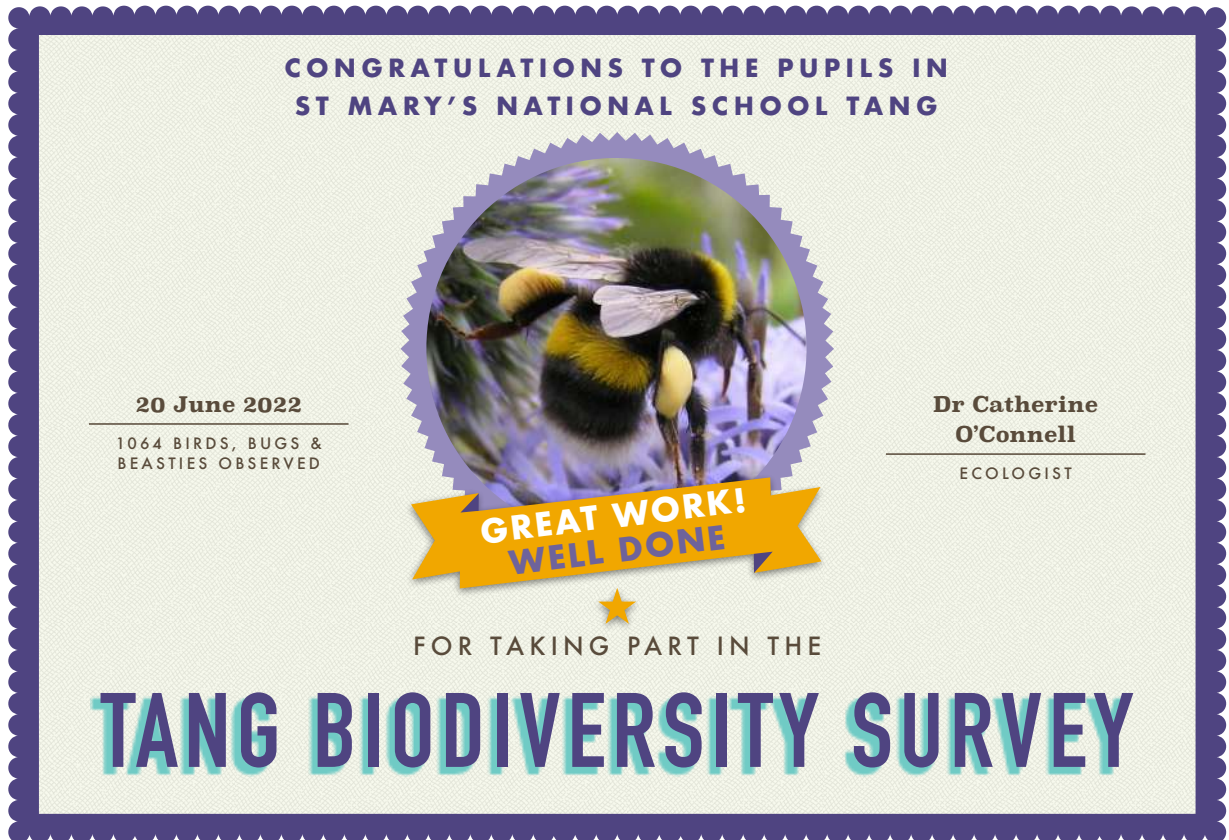
Figure 28: Certificate of achievement designed for pupils in St Mary's National School, Tang, Co. Westmeath to acknowledge the work they did on surveying biodiversity in their environment. Photo: © C. O'Connell

BUGS and BEASTIES Surveys

43 bugs and beasties surveys were completed
600 bugs and beasties observed
36 different species (see Table B)

Top 5 common bugs and beasties around Tang were

      1. wasp,
      2. white-tailed bumble bee,
      3. earthworm,
      4. garden snail and
      5. woodlouse

Top bugs and beasties surveyors in the school were

1. Amy Behan (27 bugs and beasties seen),
2. Frank Scanlon (26 bugs and beasties seen) and
3. Alison Heneghan (26 bugs and beasties seen)

Appendix 3   Species recorded in the Biodiversity Study Areas of Tang, Co. Westmeath

The data presented in this appendix has been submitted to the National Biodiversity Data Centre.

Recorder Name	Species Name	Coordinates Latitude	Coordinates Longitude	Location Name	Date	Abundance	Habitat (Fossitt where possible)	Comment	Determiner Name
Catherine O'Connel	Cyanistes caeruleus	53.523938	-7.753578	Ardnacraney Cemetery, Tang, Co. Westmeath	15/06/2022	1			Catherine O'Connell
Catherine O'Connel	Cyanistes caeruleus	53.535861	-7.806668	Templeavally Graveyard, Tang, Co. Westmeath	15/06/2022	1			Catherine O'Connell
Catherine O'Connel	Corvus cornix	53.540474	-7.789754	Rathmore Layby, Tang, Co. Westmeath	27/04/2022	1	Hedgerow/Managed Grassland		Catherine O'Connell
Catherine O'Connel	Corvus cornix	53.532361	-7.791421	Tang Community Centre, Tang, Co. Westmeath	27/04/2022	1	Hedgerow/Treeline		Catherine O'Connell
Catherine O'Connel	Corvus frugilegus	53.532361	-7.791421	Tang Community Centre, Tang, Co. Westmeath	27/04/2022	1	Managed Grassland		Catherine O'Connell
Catherine O'Connel	Corvus frugilegus	53.534446	-7.792992	St Mary's National School, Tang, Co. Westmeath	27/04/2022	1	Hedgerow/Treeline		Catherine O'Connell
Catherine O'Connel	Corvus frugilegus	53.524352	-7.778571	Noughaval Graveyard, Tang, Co. Westmeath	27/04/2022	1	Hedgerow/Treeline		Catherine O'Connell
Catherine O'Connel	Columba palumbus	53.540474	-7.789754	Rathmore Layby, Tang, Co. Westmeath	27/04/2022	1	Hedgerow/Managed Grassland		Catherine O'Connell
Catherine O'Connel	Columba palumbus	53.535861	-7.806668	Templeavally Graveyard, Tang, Co. Westmeath	15/06/2022	1	Hedgerow/Treeline		Catherine O'Connell
Catherine O'Connel	Columba palumbus	53.524352	-7.778571	Noughaval Graveyard, Tang, Co. Westmeath	27/04/2022	3	Hedgerow/Treeline		Catherine O'Connell
Catherine O'Connel	Egretta garzetta	53.525534	-7.795959	Creggy Bridge, Tang, Co. Westmeath	20/02/2022	2	Hedgerow/Managed Grassland		Catherine O'Connell
Catherine O'Connel	Erithacus rubecula	53.532361	-7.791421	Tang Community Centre, Tang, Co. Westmeath	27/04/2022	1	Hedgerow/Treeline		Catherine O'Connell
Catherine O'Connel	Erithacus rubecula	53.535861	-7.806668	Templeavally Graveyard, Tang, Co. Westmeath	27/04/2022	1	Hedgerow/Managed Grassland		Catherine O'Connell
Catherine O'Connel	Fringilla coelebs	53.525534	-7.795959	Creggy Bridge, Tang, Co. Westmeath	27/04/2022	1	Hedgerow		Catherine O'Connell
Catherine O'Connel	Fringilla coelebs	53.534446	-7.792992	St Mary's National School, Tang, Co. Westmeath	27/04/2022	1	Hedgerow/School Garden		Catherine O'Connell
Catherine O'Connel	Hirundo rustica	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	27/04/2022	5 nests in disused outhouses			Catherine O'Connell
Catherine O'Connel	Hirundo rustica	53.534446	-7.792992	St Mary's National School, Tang, Co. Westmeath	27/04/2022	2	Managed Grassland/Hedgerow/Treeline	in flight to and from ne	Catherine O'Connell
Catherine O'Connel	Hirundo rustica	53.535861	-7.806668	Templeavally Graveyard, Tang, Co. Westmeath	15/06/2022	1			Catherine O'Connell
Catherine O'Connel	Motacilla alba yarrellii	53.532361	-7.791421	Tang Community Centre, Tang, Co. Westmeath	27/04/2022	1	Wall/Hard Surface		Catherine O'Connell
Catherine O'Connel	Motacilla alba yarrellii	53.534446	-7.792992	St Mary's National School, Tang, Co. Westmeath	27/04/2022	1	School Car Park		Catherine O'Connell
Catherine O'Connel	Motacilla alba yarrellii	53.535861	-7.806668	Templeavally Graveyard, Tang, Co. Westmeath	15/06/2022	3	Headstones/Stone Walls		Catherine O'Connell
Catherine O'Connel	Pararge aegeria	53.523938	-7.753578	Ardnacraney Cemetery, Tang, Co. Westmeath	15/06/2022	1			Catherine O'Connell
Catherine O'Connel	Pararge aegeria	53.535861	-7.806668	Templeavally Graveyard, Tang, Co. Westmeath	15/06/2022	1			Catherine O'Connell
Catherine O'Connel	Passer domesticus	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	15/06/2022	1	Hedgerow/Managed Grassland		Catherine O'Connell
Catherine O'Connel	Passer domesticus	53.524352	-7.778571	Noughaval Graveyard, Tang, Co. Westmeath	27/04/2022	1	Managed Grassland/Hedgerow/Treeline		Catherine O'Connell
Catherine O'Connel	Philaenus spurmarius	53.536234	-7.792934	Tang Bridge Layby, Tang, Co. Westmeath	15/06/2022	numerous	Amenity Grassland (Improved) GA2/Flower Bed BC4		Catherine O'Connell
Catherine O'Connel	Philaenus spurmarius	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	15/06/2022	numerous	Hedgerow/Managed Grassland		Catherine O'Connell
Catherine O'Connel	Philaenus spurmarius	53.523938	-7.753578	Ardnacraney Cemetery, Tang, Co. Westmeath	15/06/2022	numerous	Stone Walls and other stonework BL1		Catherine O'Connell
Catherine O'Connel	Philaenus spurmarius	53.535861	-7.806668	Templeavally Graveyard, Tang, Co. Westmeath	27/04/2022	1	Hedgerow/Managed Grassland	commuting with food f	Catherine O'Connell
Catherine O'Connel	Sturnus vulgaris	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	27/04/2022	12	Managed Grassland	Feeding party in farml	Catherine O'Connell
Catherine O'Connel	Sturnus vulgaris	53.532361	-7.791421	Tang Community Centre, Tang, Co. Westmeath	27/04/2022	1	Managed Grassland/Hedgerow/Treeline		Catherine O'Connell
Catherine O'Connel	Sturnus vulgaris	53.534446	-7.792992	St Mary's National School, Tang, Co. Westmeath	27/04/2022	4	Managed Grassland/Hedgerow/Treeline		Catherine O'Connell
Catherine O'Connel	Turdus merula	53.524352	-7.778571	Noughaval Graveyard, Tang, Co. Westmeath	27/04/2022	1	Hedgerow/Managed Grassland		Catherine O'Connell
Catherine O'Connel	Turdus merula	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	27/04/2022	3	Hedgerow/Managed Grassland		Catherine O'Connell
Catherine O'Connel	Turdus merula	53.535861	-7.806668	Templeavally Graveyard, Tang, Co. Westmeath	27/04/2022	1	Hedgerow/Treeline		Catherine O'Connell
Catherine O'Connel	Turdus viscivorus	53.524352	-7.778571	Noughaval Graveyard, Tang, Co. Westmeath	27/04/2022	1	Managed Grassland		Catherine O'Connell
Catherine O'Connel	Turdus viscivorus	53.524352	-7.778571	Noughaval Graveyard, Tang, Co. Westmeath	15/06/2022	1			Catherine O'Connell
Catherine O'Connel	Aglais urticae	53.535861	-7.806668	Templeavally Graveyard, Tang, Co. Westmeath	15/06/2022	1			Catherine O'Connell
Catherine O'Connel	Anthocharis cardamines	53.524352	-7.778571	Noughaval Graveyard, Tang, Co. Westmeath	27/04/2022	1	Wetland	sunning on grasses	Catherine O'Connell
Catherine O'Connel	Anthocharis cardamines	53.540474	-7.789754	Rathmore Layby, Tang, Co. Westmeath	27/04/2022	1	Hedgerow/Managed Grassland		Catherine O'Connell
Catherine O'Connel	Anthocharis cardamines	53.525534	-7.795959	Creggy Bridge, Tang, Co. Westmeath	27/04/2022	1	Hedgerow/stream		Catherine O'Connell
Catherine O'Connel	Bibio marci	53.525534	-7.795959	Creggy Bridge, Tang, Co. Westmeath	27/04/2022	Numerous	Hedgerow/stream		Catherine O'Connell
Catherine O'Connel	Bombus lucorum	53.525534	-7.795959	Creggy Bridge, Tang, Co. Westmeath	27/04/2022	1	Hedgerow/stream	flying close to the gro	Catherine O'Connell
Catherine O'Connel	Bombus lucorum	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	15/06/2022	1			Catherine O'Connell
Catherine O'Connel	Bombus lucorum	53.524352	-7.778571	Noughaval Graveyard, Tang, Co. Westmeath	27/04/2022	1	Hedgerow/Stone building	flying close to the gro	Catherine O'Connell
Catherine O'Connel	Bombus lucorum	53.534446	-7.792992	St Mary's National School, Tang, Co. Westmeath	27/04/2022	1	School garden	flying close to the gro	Catherine O'Connell
Catherine O'Connel	Bombus muscorum	53.535861	-7.806668	Templeavally Graveyard, Tang, Co. Westmeath	27/04/2022	1	Treeline/Amenity Grassland/Headstones/	flying close to the gro	Catherine O'Connell
Catherine O'Connel	Bombus muscorum	53.535861	-7.806668	Templeavally Graveyard, Tang, Co. Westmeath	15/06/2022	1			Catherine O'Connell
Catherine O'Connel	Cornu aspersum	53.535861	-7.806668	Templeavally Graveyard, Tang, Co. Westmeath	15/06/2022	1			Catherine O'Connell
Catherine O'Connel	Eisenia fetida	53.534446	-7.792992	St Mary's National School, Tang, Co. Westmeath	27/04/2022	Numerous	School garden worm bin		Catherine O'Connell
Catherine O'Connel	Musca domestica	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	15/06/2022	numerous			Catherine O'Connell
Catherine O'Connel	Pararge aegeria	53.540474	-7.789754	Rathmore Layby, Tang, Co. Westmeath	27/04/2022	1	Hedgerow/Managed Grassland		Catherine O'Connell
Catherine O'Connel	Pararge aegeria	53.525534	-7.795959	Creggy Bridge, Tang, Co. Westmeath	27/04/2022	1	Hedgerow/stream		Catherine O'Connell
Catherine O'Connel	Pararge aegeria	53.524352	-7.778571	Noughaval Graveyard, Tang, Co. Westmeath	27/04/2022	1	Hedgerow/Stone building		Catherine O'Connell
Catherine O'Connel	Pararge aegeria	53.523938	-7.753578	Ardnacraney Cemetery, Tang, Co. Westmeath	15/06/2022	1			Catherine O'Connell

Recorder	Species	Latitude	Longitude	Location	Date	Count	Habitat/Notes	Notes	Recorder
Catherine O'Connel	Pararge aegeria	53.535861	-7.806668	Templeavally Graveyard, Tang, Co. Westmeath	15/06/2022				Catherine O'Connel
Catherine O'Connel	Scathophaga stercoraria	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	15/06/2022	1			Catherine O'Connel
Catherine O'Connel	Scathophaga stercoraria	53.536234	-7.792934	Tang Bridge Layby, Tang, Co. Westmeath	15/06/2022	1			Catherine O'Connel
Catherine O'Connel	Succinea putris	53.524352	-7.778571	Noughaval Graveyard, Tang, Co. Westmeath	15/06/2022	1	on Flag Iris		Catherine O'Connel
Catherine O'Connel	Vulpes vulpes	53.525534	-7.795959	Creggy Bridge, Tang, Co. Westmeath	20/02/2022	1	Hedgerow/stream/managed grassland		Catherine O'Connel
Catherine O'Connel	Vulpes vulpes	53.532361	-7.791421	Tang Community Centre, Tang, Co. Westmeath	15/06/2022	1		road kill	Catherine O'Connel
Catherine O'Connel	Acer pseudoplatanus	53.525534	-7.795959	Creggy Bridge, Tang, Co. Westmeath	27/04/2022				Catherine O'Connel
Catherine O'Connel	Acer pseudoplatanus	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	27/04/2022				Catherine O'Connel
Catherine O'Connel	Acer pseudoplatanus	53.535861	-7.806668	Templeavally Graveyard, Tang, Co. Westmeath	27/04/2022		Treeline/Amenity Grassland/Headstones/Stone Walls		Catherine O'Connel
Catherine O'Connel	Aegopodium podagraria	53.525534	-7.795959	Creggy Bridge, Tang, Co. Westmeath	27/04/2022				Catherine O'Connel
Catherine O'Connel	Aesculus hippocastanum	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	15/06/2022		Treeline Wl2		Catherine O'Connel
Catherine O'Connel	Alchemilla vulgaris	53.536234	-7.792934	Tang Bridge Layby, Tang, Co. Westmeath	15/06/2022		Flower Bed BC4		Catherine O'Connel
Catherine O'Connel	Alchemilla vulgaris	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	15/06/2022		Ornamental Non-native Shrub Bed WS3		Catherine O'Connel
Catherine O'Connel	Alnus glutinosa	53.525534	-7.795959	Creggy Bridge, Tang, Co. Westmeath	27/04/2022				Catherine O'Connel
Catherine O'Connel	Alnus glutinosa	53.524352	-7.778571	Noughaval Graveyard, Tang, Co. Westmeath	27/04/2022				Catherine O'Connel
Catherine O'Connel	Anthriscus sylvestris	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	27/04/2022				Catherine O'Connel
Catherine O'Connel	Anthriscus sylvestris	53.540474	-7.789754	Rathmore Layby, Tang, Co. Westmeath	27/04/2022		Hedgerow/Managed Grassland		Catherine O'Connel
Catherine O'Connel	Anthriscus sylvestris	53.523938	-7.753578	Ardnacraney Cemetery, Tang, Co. Westmeath	27/04/2022				Catherine O'Connel
Catherine O'Connel	Anthoxanthum odoratum	53.536636	-7.793234	Tang Bridge, Tang, Co. Westmeath	15/06/2022		Grassy Verge GS2		Catherine O'Connel
Catherine O'Connel	Anthoxanthum odoratum	53.535861	-7.806668	Templeavally Graveyard, Tang, Co. Westmeath	15/06/2022		Amenity Grassland (Improved) GA2		Catherine O'Connel
Catherine O'Connel	Arabidopsis thaliana	53.535861	-7.806668	Templeavally Graveyard, Tang, Co. Westmeath	27/04/2022		Treeline/Amenity Grassland/Headstones/Stone Walls		Catherine O'Connel
Catherine O'Connel	Arum maculatum	53.525534	-7.795959	Creggy Bridge, Tang, Co. Westmeath	27/04/2022				Catherine O'Connel
Catherine O'Connel	Arum maculatum	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	27/04/2022				Catherine O'Connel
Catherine O'Connel	Arum maculatum	53.534446	-7.792992	St Mary's National School, Tang, Co. Westmeath	27/04/2022				Catherine O'Connel
Catherine O'Connel	Arum maculatum	53.524352	-7.778571	Noughaval Graveyard, Tang, Co. Westmeath	27/04/2022				Catherine O'Connel
Catherine O'Connel	Arum maculatum	53.535861	-7.806668	Templeavally Graveyard, Tang, Co. Westmeath	27/04/2022		Treeline/Amenity Grassland/Headstones/Stone Walls		Catherine O'Connel
Catherine O'Connel	Asplenium ceterach	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	15/06/2022		Stone Wall BL1		Catherine O'Connel
Catherine O'Connel	Asplenium ruta-muraria	53.532361	-7.791421	Tang Community Centre, Tang, Co. Westmeath	15/06/2022		Stone Wall BL1		Catherine O'Connel
Catherine O'Connel	Asplenium ruta-muraria	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	15/06/2022		Stone Wall BL1		Catherine O'Connel
Catherine O'Connel	Bellis perennis	53.525534	-7.795959	Creggy Bridge, Tang, Co. Westmeath	27/04/2022				Catherine O'Connel
Catherine O'Connel	Bellis perennis	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	27/04/2022				Catherine O'Connel
Catherine O'Connel	Bellis perennis	53.536234	-7.792934	Tang Bridge Layby, Tang, Co. Westmeath	15/06/2022		Amenity Grassland (Improved) GA2		Catherine O'Connel
Catherine O'Connel	Bellis perennis	53.536636	-7.793234	Tang Bridge, Tang, Co. Westmeath	15/06/2022		Grassy Verge GS2		Catherine O'Connel
Catherine O'Connel	Bellis perennis	53.534446	-7.792992	St Mary's National School, Tang, Co. Westmeath	27/04/2022				Catherine O'Connel
Catherine O'Connel	Bellis perennis	53.524352	-7.778571	Noughaval Graveyard, Tang, Co. Westmeath	27/04/2022				Catherine O'Connel
Catherine O'Connel	Bellis perennis	53.536234	-7.792934	Tang Bridge Layby, Tang, Co. Westmeath	15/06/2022		Flower Bed BC4		Catherine O'Connel
Catherine O'Connel	Betula pubescens	53.535861	-7.806668	Templeavally Graveyard, Tang, Co. Westmeath	27/04/2022		Treeline/Amenity Grassland/Headstones/ Planted		Catherine O'Connel
Catherine O'Connel	Betula pubescens	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	15/06/2022		Treeline WL2		Catherine O'Connel
Catherine O'Connel	Buddleia davidii	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	15/06/2022		Ornamental Non-native Shrub Bed WS3		Catherine O'Connel
Catherine O'Connel	Calystegia sepium	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	15/06/2022		Hedgerow WL1		Catherine O'Connel
Catherine O'Connel	Capsella bursa-pastoris	53.532361	-7.791421	Tang Community Centre, Tang, Co. Westmeath	27/04/2022				Catherine O'Connel
Catherine O'Connel	Carpinus betulus	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	15/06/2022		Treeline WL2		Catherine O'Connel
Catherine O'Connel	Cedrus libani	53.536234	-7.792934	Tang Bridge Layby, Tang, Co. Westmeath	27/04/2022				Catherine O'Connel
Catherine O'Connel	Cerastium fontanum	53.536636	-7.793234	Tang Bridge, Tang, Co. Westmeath	15/06/2022		Grassy Verge GS2		Catherine O'Connel
Catherine O'Connel	Chelidonium majus	53.523938	-7.753578	Ardnacraney Cemetery, Tang, Co. Westmeath	27/04/2022				Catherine O'Connel
Catherine O'Connel	Cirsium arvense	53.535861	-7.806668	Templeavally Graveyard, Tang, Co. Westmeath	15/06/2022		Treeline/Amenity Grassland/Headstones/Stone Walls		Catherine O'Connel
Catherine O'Connel	Cirsium arvense	53.536234	-7.792934	Tang Bridge Layby, Tang, Co. Westmeath	15/06/2022		Amenity Grassland (Improved) GA2		Catherine O'Connel
Catherine O'Connel	Cirsium arvense	53.540474	-7.789754	Rathmore Layby, Tang, Co. Westmeath	27/04/2022		Hedgerow/Managed Grassland		Catherine O'Connel
Catherine O'Connel	Cirsium arvense	53.536234	-7.792934	Tang Bridge Layby, Tang, Co. Westmeath	15/06/2022		Flower Bed BC4		Catherine O'Connel
Catherine O'Connel	Cirsium vulgare	53.524352	-7.778571	Noughaval Graveyard, Tang, Co. Westmeath	15/06/2022		Amenity Grassland (Improved) GA2		Catherine O'Connel
Catherine O'Connel	Cirsium vulgare	53.536234	-7.792934	Tang Bridge Layby, Tang, Co. Westmeath	15/06/2022				Catherine O'Connel
Catherine O'Connel	Cirsium vulgare	53.532361	-7.791421	Tang Community Centre, Tang, Co. Westmeath	15/06/2022		Treeline/Amenity Grassland/Headstones/Stone Walls		Catherine O'Connel
Catherine O'Connel	Cotoneaster horizontalis	53.535861	-7.806668	Templeavally Graveyard, Tang, Co. Westmeath	15/06/2022		Treeline WL2		Catherine O'Connel
Catherine O'Connel	Corylus avellana	53.536234	-7.792934	Tang Bridge Layby, Tang, Co. Westmeath	15/06/2022				Catherine O'Connel
Catherine O'Connel	Crataegus monogyna	53.525534	-7.795959	Creggy Bridge, Tang, Co. Westmeath	27/04/2022				Catherine O'Connel
Catherine O'Connel	Crataegus monogyna	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	15/06/2022		Hedgerow WL1		Catherine O'Connel
Catherine O'Connel	Crataegus monogyna	53.536234	-7.792934	Tang Bridge Layby, Tang, Co. Westmeath	15/06/2022		Hedgerow WL1		Catherine O'Connel
Catherine O'Connel	Crataegus monogyna	53.540474	-7.789754	Rathmore Layby, Tang, Co. Westmeath	27/04/2022				Catherine O'Connel
Catherine O'Connel	Crataegus monogyna	53.532361	-7.791421	Tang Community Centre, Tang, Co. Westmeath	27/04/2022				Catherine O'Connel

Recorder	Species	Latitude	Longitude	Location	Date	Habitat	Notes	Recorder
Catherine O'Connell	Crataegus monogyna	53.524352	-7.778571	Noughaval Graveyard, Tang, Co. Westmeath	27/04/2022			Catherine O'Connell
Catherine O'Connell	Crataegus monogyna	53.535861	-7.806668	Templeavally Graveyard, Tang, Co. Westmeath	27/04/2022	Treeline/Amenity Grassland/Headstones/Stone Walls	Planted as a treeline	Catherine O'Connell
Catherine O'Connell	Crataegus monogyna	53.534446	-7.792992	St Mary's National School, Tang, Co. Westmeath	27/04/2022		Planted as a treeline	Catherine O'Connell
Catherine O'Connell	Cupressus x leylandii	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	27/04/2022		Managed as a hedge	Catherine O'Connell
Catherine O'Connell	Cymbalaria muralis	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	15/06/2022	Stone Wall BL1		Catherine O'Connell
Catherine O'Connell	Cynosurus cristatus	53.536636	-7.793234	Tang Bridge, Tang, Co. Westmeath	15/06/2022	Grassy Verge GS2		Catherine O'Connell
Catherine O'Connell	Dactylus glomerata	53.540474	-7.789754	Rathmore Layby, Tang, Co. Westmeath	27/04/2022	Hedgerow/Managed Grassland		Catherine O'Connell
Catherine O'Connell	Dactylus glomerata	53.536636	-7.793234	Tang Bridge, Tang, Co. Westmeath	15/06/2022	Grassy Verge GS2		Catherine O'Connell
Catherine O'Connell	Dactylus glomerata	53.536234	-7.792934	Tang Bridge Layby, Tang, Co. Westmeath	15/06/2022	Amenity Grassland (Improved) GA2		Catherine O'Connell
Catherine O'Connell	Dactylus glomerata	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	15/06/2022	Hedgerow/Managed Grassland		Catherine O'Connell
Catherine O'Connell	Dactylus glomerata	53.524352	-7.778571	Noughaval Graveyard, Tang, Co. Westmeath	15/06/2022	Amenity Grassland (Improved) GA2		Catherine O'Connell
Catherine O'Connell	Dactylus glomerata	53.535861	-7.806668	Templeavally Graveyard, Tang, Co. Westmeath	15/06/2022	Amenity Grassland (Improved) GA2		Catherine O'Connell
Catherine O'Connell	Epilobium hirsutum	53.534446	-7.792992	Templeavally Graveyard, Tang, Co. Westmeath	27/04/2022	Treeline/Amenity Grassland/Headstones/Stone Walls		Catherine O'Connell
Catherine O'Connell	Epilobium hirsutum	53.536234	-7.792934	Tang Bridge Layby, Tang, Co. Westmeath	15/06/2022	Flower Bed BC4		Catherine O'Connell
Catherine O'Connell	Epilobium hirsutum	53.524352	-7.778571	Noughaval Graveyard, Tang, Co. Westmeath	15/06/2022	Amenity Grassland (Improved) GA2		Catherine O'Connell
Catherine O'Connell	Epilobium parviflorum	53.523938	-7.753578	Ardnacraney Cemetery, Tang, Co. Westmeath	15/06/2022			Catherine O'Connell
Catherine O'Connell	Epilobium parviflorum	53.535861	-7.806668	Templeavally Graveyard, Tang, Co. Westmeath	27/04/2022	Amenity Grassland (Improved) GA2		Catherine O'Connell
Catherine O'Connell	Epilobium parviflorum	53.536234	-7.792934	Tang Bridge Layby, Tang, Co. Westmeath	15/06/2022	Amenity Grassland (Improved) GA2		Catherine O'Connell
Catherine O'Connell	Epilobium parviflorum	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	15/06/2022			Catherine O'Connell
Catherine O'Connell	Fagus sylvatica	53.525534	-7.795959	Creggy Bridge, Tang, Co. Westmeath	27/04/2022			Catherine O'Connell
Catherine O'Connell	Fagus sylvatica	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	27/04/2022			Catherine O'Connell
Catherine O'Connell	Fagus sylvatica	53.535861	-7.806668	Templeavally Graveyard, Tang, Co. Westmeath	27/04/2022	Treeline/Amenity Grassland/Headstones/Stone Walls		Catherine O'Connell
Catherine O'Connell	Ficaria verna ssp verna	53.525534	-7.795959	Creggy Bridge, Tang, Co. Westmeath	27/04/2022			Catherine O'Connell
Catherine O'Connell	Ficaria verna ssp verna	53.535861	-7.806668	Templeavally Graveyard, Tang, Co. Westmeath	27/04/2022	Treeline/Amenity Grassland/Headstones/Stone Walls		Catherine O'Connell
Catherine O'Connell	Filipendula ulmaria	53.525534	-7.795959	Creggy Bridge, Tang, Co. Westmeath	27/04/2022			Catherine O'Connell
Catherine O'Connell	Filipendula ulmaria	53.540474	-7.789754	Rathmore Layby, Tang, Co. Westmeath	27/04/2022	Hedgerow/Managed Grassland		Catherine O'Connell
Catherine O'Connell	Fraxinus excelsior	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	27/04/2022			Catherine O'Connell
Catherine O'Connell	Fraxinus excelsior	53.535861	-7.806668	Templeavally Graveyard, Tang, Co. Westmeath	27/04/2022	Treeline/Amenity Grassland/Headstones/Stone Walls		Catherine O'Connell
Catherine O'Connell	Galium aparine	53.525534	-7.795959	Creggy Bridge, Tang, Co. Westmeath	27/04/2022			Catherine O'Connell
Catherine O'Connell	Galium aparine	53.532361	-7.791421	Tang Community Centre, Tang, Co. Westmeath	27/04/2022			Catherine O'Connell
Catherine O'Connell	Galium aparine	53.534446	-7.792992	St Mary's National School, Tang, Co. Westmeath	27/04/2022			Catherine O'Connell
Catherine O'Connell	Galium aparine	53.535861	-7.806668	Templeavally Graveyard, Tang, Co. Westmeath	27/04/2022			Catherine O'Connell
Catherine O'Connell	Geranium dissectum	53.536234	-7.792934	Tang Bridge Layby, Tang, Co. Westmeath	27/04/2022			Catherine O'Connell
Catherine O'Connell	Geranium robertianum	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	27/04/2022			Catherine O'Connell
Catherine O'Connell	Geranium robertianum	53.532361	-7.791421	Tang Community Centre, Tang, Co. Westmeath	27/04/2022			Catherine O'Connell
Catherine O'Connell	Geranium robertianum	53.524352	-7.778571	Noughaval Graveyard, Tang, Co. Westmeath	27/04/2022			Catherine O'Connell
Catherine O'Connell	Geranium robertianum	53.535861	-7.806668	Templeavally Graveyard, Tang, Co. Westmeath	27/04/2022	Treeline/Amenity Grassland/Headstones/Stone Walls		Catherine O'Connell
Catherine O'Connell	Geranium robertianum	53.523938	-7.753578	Ardnacraney Cemetery, Tang, Co. Westmeath	27/04/2022			Catherine O'Connell
Catherine O'Connell	Glechoma hederacea	53.534446	-7.792992	St Mary's National School, Tang, Co. Westmeath	27/04/2022			Catherine O'Connell
Catherine O'Connell	Glechoma hederacea	53.525534	-7.795959	Creggy Bridge, Tang, Co. Westmeath	27/04/2022			Catherine O'Connell
Catherine O'Connell	Glechoma hederacea	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	27/04/2022			Catherine O'Connell
Catherine O'Connell	Hedera helix	53.524352	-7.778571	Noughaval Graveyard, Tang, Co. Westmeath	27/04/2022			Catherine O'Connell
Catherine O'Connell	Hedera helix	53.535861	-7.806668	Templeavally Graveyard, Tang, Co. Westmeath	27/04/2022	Treeline/Amenity Grassland/Headstones/Stone Walls		Catherine O'Connell
Catherine O'Connell	Hedera helix	53.532361	-7.791421	Tang Community Centre, Tang, Co. Westmeath	15/06/2022	Hedgerow WL1		Catherine O'Connell
Catherine O'Connell	Hedera helix	53.534446	-7.792992	St Mary's National School, Tang, Co. Westmeath	15/06/2022	Hedgerow WL1		Catherine O'Connell
Catherine O'Connell	Hedera helix	53.525534	-7.795959	Creggy Bridge, Tang, Co. Westmeath	15/06/2022	Flower Bed BC4		Catherine O'Connell
Catherine O'Connell	Hedera helix	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	27/04/2022			Catherine O'Connell
Catherine O'Connell	Heracleum spondylium	53.523938	-7.753578	Ardnacraney Cemetery, Tang, Co. Westmeath	27/04/2022	Treeline/Amenity Grassland/Headstones/Stone Walls		Catherine O'Connell
Catherine O'Connell	Heracleum spondylium	53.523938	-7.753578	Ardnacraney Cemetery, Tang, Co. Westmeath	15/06/2022			Catherine O'Connell
Catherine O'Connell	Heracleum spondylium	53.534446	-7.792992	St Mary's National School, Tang, Co. Westmeath	27/04/2022			Catherine O'Connell
Catherine O'Connell	Heracleum spondylium	53.525534	-7.795959	Creggy Bridge, Tang, Co. Westmeath	27/04/2022			Catherine O'Connell
Catherine O'Connell	Holcus lanatus	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	15/06/2022	Treeline WL2		Catherine O'Connell
Catherine O'Connell	Holcus lanatus	53.540474	-7.789754	Rathmore Layby, Tang, Co. Westmeath	15/06/2022	Hedgerow/Managed Grassland		Catherine O'Connell
Catherine O'Connell	Hypochaeris radicata	53.536636	-7.793234	Tang Bridge, Tang, Co. Westmeath	15/06/2022	Grassy Verge GS2		Catherine O'Connell
Catherine O'Connell	Hypochaeris radicata	53.536636	-7.793234	Tang Bridge, Tang, Co. Westmeath	15/06/2022	Grassy Verge GS2		Catherine O'Connell
Catherine O'Connell	Hypochaeris radicata	53.532361	-7.791421	Tang Community Centre, Tang, Co. Westmeath	15/06/2022			Catherine O'Connell
Catherine O'Connell	Ilex aquifolium	53.534446	-7.792992	St Mary's National School, Tang, Co. Westmeath	27/04/2022			Catherine O'Connell

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Recorder	Species	Latitude	Longitude	Location	Habitat	Note	Date	Recorder
Catherine O'Connell	Iris pseudacorus	53.524352	-7.778571	Noughaval Graveyard, Tang, Co. Westmeath			27/04/2022	Catherine O'Connell
Catherine O'Connell	Iris pseudacorus	53.535861	-7.806668	Templeavally Graveyard, Tang, Co. Westmeath			27/04/2022	Catherine O'Connell
Catherine O'Connell	Jacobaea vulgaris	53.534446	-7.792992	St Mary's National School, Tang, Co. Westmeath			27/04/2022	Catherine O'Connell
Catherine O'Connell	Jacobaea vulgaris	53.536636	-7.793234	Tang Bridge, Tang, Co. Westmeath	Grassy Verge GS2		15/06/2022	Catherine O'Connell
Catherine O'Connell	Jacobaea vulgaris	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	Amenity Grassland (Improved) GA2		15/06/2022	Catherine O'Connell
Catherine O'Connell	Lapsana communis	53.523938	-7.753578	Ardnacraney Cemetery, Tang, Co. Westmeath			15/06/2022	Catherine O'Connell
Catherine O'Connell	Lapsana communis	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	Amenity Grassland (Improved) GA2		15/06/2022	Catherine O'Connell
Catherine O'Connell	Lapsana communis	53.524352	-7.778571	Noughaval Graveyard, Tang, Co. Westmeath	Amenity Grassland (Improved) GA2		15/06/2022	Catherine O'Connell
Catherine O'Connell	Larix decidua	53.534446	-7.792992	St Mary's National School, Tang, Co. Westmeath			27/04/2022	Catherine O'Connell
Catherine O'Connell	Laurus nobilis	53.525534	-7.795959	Creggy Bridge, Tang, Co. Westmeath			27/04/2022	Catherine O'Connell
Catherine O'Connell	Leucanthemum vulgare	53.536636	-7.793234	Tang Bridge, Tang, Co. Westmeath	Grassy Verge GS2		15/06/2022	Catherine O'Connell
Catherine O'Connell	Leucanthemum vulgare	53.536234	-7.792934	Tang Bridge Layby, Tang, Co. Westmeath	Amenity Grassland (Improved) GA2		15/06/2022	Catherine O'Connell
Catherine O'Connell	Liriodendron tulipifera	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	Treeline WL2		15/06/2022	Catherine O'Connell
Catherine O'Connell	Lolium perenne	53.536234	-7.792934	Tang Bridge Layby, Tang, Co. Westmeath	Amenity Grassland (Improved) GA2		15/06/2022	Catherine O'Connell
Catherine O'Connell	Lolium perenne	53.536636	-7.793234	Tang Bridge, Tang, Co. Westmeath	Grassy Verge GS2		15/06/2022	Catherine O'Connell
Catherine O'Connell	Lolium perenne	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	Amenity Grassland (Improved) GA2		15/06/2022	Catherine O'Connell
Catherine O'Connell	Lonicera periclymenum	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	Treeline WL2		27/04/2022	Catherine O'Connell
Catherine O'Connell	Lotus corniculatus	53.524352	-7.778571	Noughaval Graveyard, Tang, Co. Westmeath	Amenity Grassland (Improved) GA2		15/06/2022	Catherine O'Connell
Catherine O'Connell	Lysimachia nummularia	53.536234	-7.792934	Tang Bridge Layby, Tang, Co. Westmeath	Flower Bed BC4		15/06/2022	Catherine O'Connell
Catherine O'Connell	Malus sylvestris	53.534446	-7.792992	St Mary's National School, Tang, Co. Westmeath			27/04/2022	Catherine O'Connell
Catherine O'Connell	Malus sylvestris	53.536234	-7.792934	Tang Bridge Layby, Tang, Co. Westmeath	Flower Bed BC4		15/06/2022	Catherine O'Connell
Catherine O'Connell	Malus sylvestris	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	Treeline WL2		15/06/2022	Catherine O'Connell
Catherine O'Connell	Medicago lupulina	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	Amenity Grassland (Improved) GA2		15/06/2022	Catherine O'Connell
Catherine O'Connell	Medicago lupulina	53.535861	-7.806668	Templeavally Graveyard, Tang, Co. Westmeath	Amenity Grassland (Improved) GA2		15/06/2022	Catherine O'Connell
Catherine O'Connell	Medicago lupulina	53.534446	-7.792992	St Mary's National School, Tang, Co. Westmeath			27/04/2022	Catherine O'Connell
Catherine O'Connell	Medicago lupulina	53.536234	-7.792934	Tang Bridge Layby, Tang, Co. Westmeath	Flower Bed BC4		15/06/2022	Catherine O'Connell
Catherine O'Connell	Myosotis arvensis	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	Amenity Grassland (Improved) GA2		15/06/2022	Catherine O'Connell
Catherine O'Connell	Papaver rhoeas	53.524352	-7.778571	Noughaval Graveyard, Tang, Co. Westmeath	Buildings and artificial surfaces BL3		27/04/2022	Catherine O'Connell
Catherine O'Connell	Pellia epiphylla	53.535861	-7.806668	Templeavally Graveyard, Tang, Co. Westmeath			27/04/2022	Catherine O'Connell
Catherine O'Connell	Petasites pyrenaicus	53.524352	-7.778571	Noughaval Graveyard, Tang, Co. Westmeath	Amenity Grassland (Improved) GA2	Invasive	15/06/2022	Catherine O'Connell
Catherine O'Connell	Picea sitchensis	53.534446	-7.792992	St Mary's National School, Tang, Co. Westmeath			27/04/2022	Catherine O'Connell
Catherine O'Connell	Plantago lanceolata	53.536636	-7.793234	Tang Bridge, Tang, Co. Westmeath	Grassy Verge GS2		15/06/2022	Catherine O'Connell
Catherine O'Connell	Plantago lanceolata	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	Amenity Grassland (Improved) GA2		15/06/2022	Catherine O'Connell
Catherine O'Connell	Plantago major	53.524352	-7.778571	Noughaval Graveyard, Tang, Co. Westmeath			27/04/2022	Catherine O'Connell
Catherine O'Connell	Plantago major	53.536234	-7.792934	Tang Bridge Layby, Tang, Co. Westmeath	Amenity Grassland (Improved) GA2		15/06/2022	Catherine O'Connell
Catherine O'Connell	Poa annua	53.536636	-7.793234	Tang Bridge, Tang, Co. Westmeath	Grassy Verge GS2		15/06/2022	Catherine O'Connell
Catherine O'Connell	Poa annua	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	Amenity Grassland (Improved) GA2		15/06/2022	Catherine O'Connell
Catherine O'Connell	Potentilla reptans	53.536636	-7.793234	Tang Bridge, Tang, Co. Westmeath	Grassy Verge GS2		15/06/2022	Catherine O'Connell
Catherine O'Connell	Populus tremula	53.524352	-7.778571	Noughaval Graveyard, Tang, Co. Westmeath	Immature Woodland WS2		15/06/2022	Catherine O'Connell
Catherine O'Connell	Potentilla anserina	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	Amenity Grassland (Improved) GA2		15/06/2022	Catherine O'Connell
Catherine O'Connell	Potentilla reptans	53.536234	-7.792934	Tang Bridge Layby, Tang, Co. Westmeath	Flower Bed BC4		15/06/2022	Catherine O'Connell
Catherine O'Connell	Primula veris	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	Ornamental Non-native Shrub Bed WS3		15/06/2022	Catherine O'Connell
Catherine O'Connell	Primula veris	53.536636	-7.793234	Tang Bridge, Tang, Co. Westmeath	Grassy Verge GS2		15/06/2022	Catherine O'Connell
Catherine O'Connell	Primula veris	53.525534	-7.795959	Creggy Bridge, Tang, Co. Westmeath			27/04/2022	Catherine O'Connell
Catherine O'Connell	Primula veris	53.534446	-7.792992	St Mary's National School, Tang, Co. Westmeath			27/04/2022	Catherine O'Connell
Catherine O'Connell	Primula vulgaris	53.525534	-7.795959	Creggy Bridge, Tang, Co. Westmeath			27/04/2022	Catherine O'Connell
Catherine O'Connell	Prunella vulgaris	53.536234	-7.792934	Tang Bridge Layby, Tang, Co. Westmeath	Amenity Grassland (Improved) GA2		15/06/2022	Catherine O'Connell
Catherine O'Connell	Prunus serrulata	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath			27/04/2022	Catherine O'Connell
Catherine O'Connell	Prunus serrulata	53.532361	-7.791421	Tang Community Centre, Tang, Co. Westmeath	Treeline WL2		27/04/2022	Catherine O'Connell
Catherine O'Connell	Prunus serrulata	53.535861	-7.806668	Templeavally Graveyard, Tang, Co. Westmeath	Treeline WL2		27/04/2022	Catherine O'Connell
Catherine O'Connell	Prunus laurocerasus	53.524352	-7.778571	Noughaval Graveyard, Tang, Co. Westmeath	Treeline/Amenity Grassland/Headstones/S	Invasive	27/04/2022	Catherine O'Connell
Catherine O'Connell	Prunus laurocerasus	53.535861	-7.806668	Templeavally Graveyard, Tang, Co. Westmeath	Treeline/Amenity Grassland/Headstones/S	Invasive	27/04/2022	Catherine O'Connell
Catherine O'Connell	Prunus laurocerasus	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	Hedgerow WL1	Invasive	15/06/2022	Catherine O'Connell
Catherine O'Connell	Prunus spinosa	53.525534	-7.795959	Creggy Bridge, Tang, Co. Westmeath			27/04/2022	Catherine O'Connell
Catherine O'Connell	Prunus spinosa	53.540474	-7.789754	Rathmore Layby, Tang, Co. Westmeath	Hedgerow/Managed Grassland		27/04/2022	Catherine O'Connell
Catherine O'Connell	Pseudotsuga menziesii	53.534446	-7.792992	St Mary's National School, Tang, Co. Westmeath			27/04/2022	Catherine O'Connell
Catherine O'Connell	Quercus petraea	53.525534	-7.795959	Creggy Bridge, Tang, Co. Westmeath			27/04/2022	Catherine O'Connell
Catherine O'Connell	Quercus petraea	53.540474	-7.789754	Rathmore Layby, Tang, Co. Westmeath	Hedgerow/Managed Grassland		27/04/2022	Catherine O'Connell

Recorder	Species	Lat	Long	Location	Date	Habitat	Recorder
Catherine O'Connell	Quercus petraea	53.535861	-7.806668	Templeavally Graveyard, Tang, Co. Westmeath	27/04/2022	Treeline/Amenity Grassland/Headstones/Stone Walls	Catherine O'Connell
Catherine O'Connell	Ranunculus repens	53.535861	-7.806668	Templeavally Graveyard, Tang, Co. Westmeath	27/04/2022	Treeline/Amenity Grassland/Headstones/Stone Walls	Catherine O'Connell
Catherine O'Connell	Ranunculus repens	53.540474	-7.789754	Rathmore Layby, Tang, Co. Westmeath	27/04/2022	Hedgerow/Managed Grassland	Catherine O'Connell
Catherine O'Connell	Ranunculus repens	53.536636	-7.793234	Tang Bridge, Tang, Co. Westmeath	15/06/2022	Grassy Verge GS2	Catherine O'Connell
Catherine O'Connell	Ranunculus repens	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	27/04/2022	Amenity Grassland (Improved) GA2	Catherine O'Connell
Catherine O'Connell	Ranunculus repens	53.534446	-7.792992	St Mary's National School, Tang, Co. Westmeath	15/06/2022		Catherine O'Connell
Catherine O'Connell	Ranunculus repens	53.524352	-7.778571	Noughaval Graveyard, Tang, Co. Westmeath	15/06/2022	Amenity Grassland (Improved) GA2	Catherine O'Connell
Catherine O'Connell	Rosa canina	53.524352	-7.778571	Noughaval Graveyard, Tang, Co. Westmeath	27/04/2022		Catherine O'Connell
Catherine O'Connell	Rosa canina	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	27/04/2022	Ornamental Non-native Shrub Bed WS3	Catherine O'Connell
Catherine O'Connell	Rosa rugosa	53.536234	-7.792934	Tang Bridge Layby, Tang, Co. Westmeath	15/06/2022	Amenity Grassland (Improved) GA2	Catherine O'Connell
Catherine O'Connell	Rubus fruticosus agg	53.535861	-7.806668	Templeavally Graveyard, Tang, Co. Westmeath	27/04/2022	Treeline/Amenity Grassland/Headstones/Stone Walls	Catherine O'Connell
Catherine O'Connell	Rubus fruticosus agg	53.540474	-7.789754	Rathmore Layby, Tang, Co. Westmeath	27/04/2022	Hedgerow/Managed Grassland	Catherine O'Connell
Catherine O'Connell	Rubus fruticosus agg	53.534446	-7.792992	St Mary's National School, Tang, Co. Westmeath	27/04/2022		Catherine O'Connell
Catherine O'Connell	Rubus fruticosus agg	53.525534	-7.795959	Creggy Bridge, Tang, Co. Westmeath	27/04/2022		Catherine O'Connell
Catherine O'Connell	Rubus fruticosus agg	53.532361	-7.791421	Tang Community Centre, Tang, Co. Westmeath	27/04/2022		Catherine O'Connell
Catherine O'Connell	Rubus fruticosus agg	53.524352	-7.778571	Noughaval Graveyard, Tang, Co. Westmeath	27/04/2022		Catherine O'Connell
Catherine O'Connell	Rubus fruticosus agg	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	15/06/2022	Hedgerow WL1	Catherine O'Connell
Catherine O'Connell	Rumex acetosa	53.536636	-7.793234	Tang Bridge, Tang, Co. Westmeath	15/06/2022	Grassy Verge GS2	Catherine O'Connell
Catherine O'Connell	Rumex acetosa	53.536234	-7.792934	Tang Bridge Layby, Tang, Co. Westmeath	15/06/2022	Flower Bed BC4	Catherine O'Connell
Catherine O'Connell	Rumex obstusifolius	53.525534	-7.795959	Creggy Bridge, Tang, Co. Westmeath	27/04/2022		Catherine O'Connell
Catherine O'Connell	Rumex obstusifolius	53.540474	-7.789754	Rathmore Layby, Tang, Co. Westmeath	27/04/2022	Hedgerow/Managed Grassland	Catherine O'Connell
Catherine O'Connell	Rumex obstusifolius	53.534446	-7.792992	St Mary's National School, Tang, Co. Westmeath	27/04/2022		Catherine O'Connell
Catherine O'Connell	Salix caprea	53.525534	-7.795959	Creggy Bridge, Tang, Co. Westmeath	27/04/2022		Catherine O'Connell
Catherine O'Connell	Sambucus nigra	53.525534	-7.795959	Creggy Bridge, Tang, Co. Westmeath	27/04/2022		Catherine O'Connell
Catherine O'Connell	Sambucus nigra	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	27/04/2022		Catherine O'Connell
Catherine O'Connell	Sambucus nigra	53.532361	-7.791421	Tang Community Centre, Tang, Co. Westmeath	27/04/2022		Catherine O'Connell
Catherine O'Connell	Sambucus nigra	53.524352	-7.778571	Noughaval Graveyard, Tang, Co. Westmeath	27/04/2022		Catherine O'Connell
Catherine O'Connell	Sambucus nigra	53.523938	-7.753578	Ardhacraney Cemetery, Tang, Co. Westmeath	15/06/2022		Catherine O'Connell
Catherine O'Connell	Sedum rupestre	53.536234	-7.792934	Tang Bridge Layby, Tang, Co. Westmeath	15/06/2022	Flower Bed BC4	Catherine O'Connell
Catherine O'Connell	Sedum album	53.535861	-7.806668	Templeavally Graveyard, Tang, Co. Westmeath	27/04/2022	Treeline/Amenity Grassland/Headstones/Stone Walls	Catherine O'Connell
Catherine O'Connell	Senecio vulgaris	53.532361	-7.791421	Tang Community Centre, Tang, Co. Westmeath	27/04/2022		Catherine O'Connell
Catherine O'Connell	Senecio vulgaris	53.534446	-7.792992	St Mary's National School, Tang, Co. Westmeath	27/04/2022		Catherine O'Connell
Catherine O'Connell	Sonchus oleraceus	53.532361	-7.791421	Tang Community Centre, Tang, Co. Westmeath	27/04/2022		Catherine O'Connell
Catherine O'Connell	Sonchus oleraceus	53.536636	-7.793234	Tang Bridge, Tang, Co. Westmeath	15/06/2022	Grassy Verge GS2	Catherine O'Connell
Catherine O'Connell	Sorbus aucuparia	53.525534	-7.795959	Creggy Bridge, Tang, Co. Westmeath	27/04/2022		Catherine O'Connell
Catherine O'Connell	Sorbus aucuparia	53.536234	-7.792934	Tang Bridge Layby, Tang, Co. Westmeath	27/04/2022	Amenity Grassland (Improved) GA2	Catherine O'Connell
Catherine O'Connell	Sorbus aucuparia	53.535861	-7.806668	Templeavally Graveyard, Tang, Co. Westmeath	27/04/2022	Treeline/Amenity Grassland/Headstones/Stone Walls	Catherine O'Connell
Catherine O'Connell	Sorbus aucuparia	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	15/06/2022	Treeline WL2	Catherine O'Connell
Catherine O'Connell	Sorbus hibernica	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	27/04/2022		Catherine O'Connell
Catherine O'Connell	Stellaria graminea	53.525534	-7.795959	Creggy Bridge, Tang, Co. Westmeath	27/04/2022		Catherine O'Connell
Catherine O'Connell	Stellaria media	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	27/04/2022		Catherine O'Connell
Catherine O'Connell	Stellaria media	53.532361	-7.791421	Tang Community Centre, Tang, Co. Westmeath	27/04/2022		Catherine O'Connell
Catherine O'Connell	Symphoricarpos albus	53.524352	-7.778571	Noughaval Graveyard, Tang, Co. Westmeath	27/04/2022	Invasive	Catherine O'Connell
Catherine O'Connell	Symphoricarpos albus	53.540474	-7.789754	Rathmore Layby, Tang, Co. Westmeath	27/04/2022	Hedgerow/Managed Grassland / Invasive	Catherine O'Connell
Catherine O'Connell	Taraxacum officinale	53.524352	-7.778571	Noughaval Graveyard, Tang, Co. Westmeath	27/04/2022		Catherine O'Connell
Catherine O'Connell	Taraxacum officinale	53.535861	-7.806668	Templeavally Graveyard, Tang, Co. Westmeath	27/04/2022	Treeline/Amenity Grassland/Headstones/Stone Walls	Catherine O'Connell
Catherine O'Connell	Taraxacum officinale	53.534446	-7.792992	St Mary's National School, Tang, Co. Westmeath	27/04/2022		Catherine O'Connell
Catherine O'Connell	Taraxacum officinale	53.525534	-7.795959	Creggy Bridge, Tang, Co. Westmeath	27/04/2022		Catherine O'Connell
Catherine O'Connell	Taraxacum officinale	53.540474	-7.789754	Rathmore Layby, Tang, Co. Westmeath	27/04/2022	Hedgerow/Managed Grassland	Catherine O'Connell
Catherine O'Connell	Taraxacum officinale	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	27/04/2022		Catherine O'Connell
Catherine O'Connell	Taxus baccata	53.524352	-7.778571	Noughaval Graveyard, Tang, Co. Westmeath	27/04/2022		Catherine O'Connell
Catherine O'Connell	Taxus baccata	53.535861	-7.806668	Templeavally Graveyard, Tang, Co. Westmeath	27/04/2022	Treeline/Amenity Grassland/Headstones/Stone Walls	Catherine O'Connell
Catherine O'Connell	Taxus baccata	53.523938	-7.753578	Ardhacraney Cemetery, Tang, Co. Westmeath	15/06/2022		Catherine O'Connell
Catherine O'Connell	Trifolium pratense	53.536636	-7.793234	Tang Bridge, Tang, Co. Westmeath	15/06/2022	Grassy Verge GS2	Catherine O'Connell
Catherine O'Connell	Trifolium repens	53.536636	-7.793234	Tang Bridge, Tang, Co. Westmeath	15/06/2022	Grassy Verge GS2	Catherine O'Connell
Catherine O'Connell	Trifolium repens	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	15/06/2022	Amenity Grassland (Improved) GA2	Catherine O'Connell
Catherine O'Connell	Trifolium repens	53.532361	-7.791421	Tang Community Centre, Tang, Co. Westmeath	15/06/2022		Catherine O'Connell

Recorder	Species	Latitude	Longitude	Location	Habitat	Date	Recorder
Catherine O'Connell	Trifolium repens	53.535861	-7.806668	Templeavally Graveyard, Tang, Co. Westmeath	Amenity Grassland (Improved) GA2	15/06/2022	Catherine O'Connell
Catherine O'Connell	Tussilago farfara	53.524352	-7.778571	Noughaval Graveyard, Tang, Co. Westmeath		27/04/2022	Catherine O'Connell
Catherine O'Connell	Urtica dioica	53.525534	-7.795959	Creggy Bridge, Tang, Co. Westmeath		27/04/2022	Catherine O'Connell
Catherine O'Connell	Urtica dioica	53.523938	-7.753578	Ardnacraney Cemetery, Tang, Co. Westmeath		27/04/2022	Catherine O'Connell
Catherine O'Connell	Urtica dioica	53.540474	-7.789754	Rathmore Layby, Tang, Co. Westmeath	Hedgerow/Managed Grassland	15/06/2022	Catherine O'Connell
Catherine O'Connell	Urtica dioica	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath		27/04/2022	Catherine O'Connell
Catherine O'Connell	Urtica dioica	53.534446	-7.792992	St Mary's National School, Tang, Co. Westmeath		27/04/2022	Catherine O'Connell
Catherine O'Connell	Urtica dioica	53.524352	-7.778571	Noughaval Graveyard, Tang, Co. Westmeath		27/04/2022	Catherine O'Connell
Catherine O'Connell	Urtica dioica	53.535861	-7.806668	Templeavally Graveyard, Tang, Co. Westmeath	Treeline/Amenity Grassland/Headstones/Stone Walls	15/06/2022	Catherine O'Connell
Catherine O'Connell	Veronica chamaedrys	53.540474	-7.789754	Rathmore Layby, Tang, Co. Westmeath	Amenity Grassland (Improved) GA2	27/04/2022	Catherine O'Connell
Catherine O'Connell	Veronica chamaedrys	53.535861	-7.806668	Templeavally Graveyard, Tang, Co. Westmeath	Treeline/Amenity Grassland/Headstones/Stone Walls	27/04/2022	Catherine O'Connell
Catherine O'Connell	Veronica chamaedrys	53.536234	-7.792934	Tang Bridge Layby, Tang, Co. Westmeath	Amenity Grassland (Improved) GA2	15/06/2022	Catherine O'Connell
Catherine O'Connell	Veronica chamaedrys	53.524352	-7.778571	Noughaval Graveyard, Tang, Co. Westmeath	Amenity Grassland (Improved) GA2	15/06/2022	Catherine O'Connell
Catherine O'Connell	Viburnum opulus	53.524352	-7.778571	Noughaval Graveyard, Tang, Co. Westmeath	Scrub WS1	15/06/2022	Catherine O'Connell
Catherine O'Connell	Vicia sepium	53.524352	-7.778571	Noughaval Graveyard, Tang, Co. Westmeath		27/04/2022	Catherine O'Connell
Catherine O'Connell	Vicia sepium	53.535861	-7.806668	Templeavally Graveyard, Tang, Co. Westmeath	Treeline/Amenity Grassland/Headstones/Stone Walls	27/04/2022	Catherine O'Connell
Catherine O'Connell	Vicia sepium	53.540474	-7.789754	Rathmore Layby, Tang, Co. Westmeath		15/06/2022	Catherine O'Connell
Catherine O'Connell	Vicia sepium	53.523938	-7.753578	Ardnacraney Cemetery, Tang, Co. Westmeath		27/04/2022	Catherine O'Connell
Catherine O'Connell	Vicia sepium	53.532361	-7.791421	Tang Community Centre, Tang, Co. Westmeath		27/04/2022	Catherine O'Connell
Catherine O'Connell	Vicia sepium	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	Ornamental Non-native Shrub Bed WS3	15/06/2022	Catherine O'Connell
Catherine O'Connell	Vicia sepium	53.525534	-7.795959	Creggy Bridge, Tang, Co. Westmeath		27/04/2022	Catherine O'Connell
Catherine O'Connell	Vicia sepium	53.536234	-7.792934	Tang Bridge Layby, Tang, Co. Westmeath	Amenity Grassland (Improved) GA2	15/06/2022	Catherine O'Connell
Catherine O'Connell	Vicia sepium	53.536636	-7.793234	Tang Bridge, Tang, Co. Westmeath	Grassy Verge GS2	15/06/2022	Catherine O'Connell
Catherine O'Connell	Vinca major	53.534446	-7.792992	St Mary's National School, Tang, Co. Westmeath		27/04/2022	Catherine O'Connell
Catherine O'Connell	Xanthoria parietina	53.536234	-7.792934	Tang Bridge Layby, Tang, Co. Westmeath	Treeline WL2	15/06/2022	Catherine O'Connell
Catherine O'Connell	Xanthoria parietina	53.529084	-7.793017	St Mary's Church, Tang, Co. Westmeath	Treeline WL2	15/06/2022	Catherine O'Connell
Catherine O'Connell	Xanthoria parietina	53.532361	-7.791421	Tang Community Centre, Tang, Co. Westmeath	Treeline WL2	15/06/2022	Catherine O'Connell
Catherine O'Connell	Xanthoria parietina	53.534446	-7.792992	St Mary's National School, Tang, Co. Westmeath	Treeline WL2	15/06/2022	Catherine O'Connell