

Biodiversity and nature enhancing measures for Glenmore, Co. Kilkenny

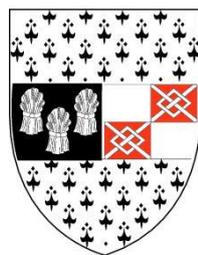


Commissioned by
Kilkenny County Council Heritage Office
for
Glenmore TidyTowns Committee

April 2019

By Dr. Fiona Mac Gowan B.Sc (Env. Biol.). Ph.D.,
Consultant Ecologist & Botanist
Email: flmacgowan@gmail.com

This project is an action of the Kilkenny County Council Cultural Strategy
(Arts, Heritage and Libraries) 2018-2022



Kilkenny
County Council

Comhairle Chontae
Chill Chainnigh



1. Introduction

The Heritage & Community Office of Kilkenny County Council commissioned this report and site visit for Glenmore Tidy Towns in order to help them with:

- (i) practical recommendations, projects and maintenance which could enhance biodiversity in the area;
- (ii) practical advice on how to address the “Nature & Biodiversity in your locality” category in the National Tidy Towns competition;
- (iii) practical actions to implement the “All Ireland Pollinator Plan 2015-2020, as outlined in “Local Communities: actions to help pollinators”.

The National Tidy Towns competition is all about making the most of your local surroundings where small enhancements can make a big difference and the volunteer work involved can help foster great community spirit which altogether increase the quality of life for all. After beginnings over 60 years ago which focussed on tidier, litter-free towns and villages, the competition has evolved hugely to encompass issues such as landscape, architecture, sustainable living and biodiversity. ‘Nature and biodiversity in your local area’ is a category in the national Tidy Towns competition where small changes (that often save time and money) can bring great improvements to a locality and your marks! In recent years, the Local Authority Heritage Officers and Biodiversity Officers, in partnership with the National Biodiversity Data Centre, developed a new special award for Tidy Towns groups in the national Tidy Towns competition called “Local Authority Pollinator Award”. The award encourages groups to take small actions to help support pollinators. See <http://pollinators.ie/communities/tidytowns-pollinator-award/enter-the-2019-pollinator-award/> Kilkenny County Council was the first local authority in Ireland to adopt the All Ireland Pollinator Plan in March 2019 and is working with Tidy Towns groups and others to support pollinators.

The Local Authority Pollinator Award highlights the All-Ireland Pollinator Plan which is a hugely important guidance document highlighting the importance of our wild pollinator species and the dire threats many of them face in Ireland today. Tidy Towns groups can play a really important role through a few changes many of which mean less work and cost into the future for our hard-working Tidy Towns volunteers.

This report includes guidelines that are suggestions made following a visit I made to Glenmore on 1st March 2019. They are hopefully practical and please note that they are not intended to be all carried out immediately! They can be phased in over a three or even a five year period depending on funds

and volunteer time available. Glenmore is a beautifully situated village nestled deep into the wooded Mill Race river valley with several winding country roads leading down into the centre of the village at the bottom of the valley. Its picturesque setting is enhanced by the woodland areas and hedgerow divided fields that provide the backdrop to the village. These characteristics mean that Glenmore has a 'headstart' in the nature and biodiversity stakes as it is blessed with trees and shrubs and wildflowers together with the biodiversity that comes with them such as songbirds, bats, moths, butterflies and bees. Acknowledging the value of the biodiversity of Glenmore and introducing a few measures to enhance it will only add to the quality of life for all residents and visitors to this lovely part of Co. Kilkenny.



Fig. 1: An example of a pollinator-friendly flower bed at Dunne's Garden Centre, Durrow, Co. Laois. It features tall *Verbena bonariensis* at the back with Lavender, *Rudebeckia* daisies and single-flowered Dahlias to the front. Note that it also features some shrubs to give good year-round structure.

2. Habitats and areas of biodiversity interest in Glenmore

Before enhancement measures are dealt with, it's important to highlight areas which already are of good biodiversity value in the Glenmore area. These areas don't need any extra work but an awareness of their biodiversity value and importance will help to ensure their conservation and retention. Glenmore has plenty of habitats of great biodiversity value including hedgerows, the Mill Race river, woodland, scrub, stone walls, grass verges and gardens as highlighted in the Habitat map of Glenmore in Appendix I.

Another point to be aware of in establishing areas of biodiversity value is to go to the website for the State body in charge of biodiversity protection and conservation: The National Parks & Wildlife Service (NPWS): www.npws.ie This website features maps of the protected sites and it turns out that Glenmore

village centre features a site of such biodiversity value that it is protected under the European Habitats Directive – the Mill Race river.

2.1 The Mill Race

This small river which flows through the centre of Glenmore village is a tributary of the lower reaches of the River Barrow which it joins just 1.7km to the east of the village. It features some woodland and flood meadows along its banks which are included in the River Barrow and River Nore Special Area of Conservation (SAC 002162). This designation means that the river and its associated habitats are of international biodiversity value for the habitats and species they host. More information can be obtained from www.npws.ie It would be worth contacting your local NPWS Conservation Ranger in order to learn more about the value of the river and how the Glenmore TidyTowns group and residents can ensure its protection.



Fig. 2: The Mill Race running through the centre of Glenmore

2.2 Hedgerows

Native hedgerows are of great biodiversity value in the Irish landscape. In many places they are the relicts of the native Oak and Ash woodlands that once covered much of our island. They can host a wide variety of plant, bird, mammal and insect species acting as a biodiversity reservoir in the otherwise biodiversity-poor areas which modern agricultural fields are today. When you look at a map or aerial photograph of an area, the hugely important role of hedgerows as wildlife/biodiversity corridors in the landscape becomes very clear. They are used by several species of Irish bats as 'bat highways' along which they travel as they navigate the landscape and feed on a few midges

and moths along the way! Apart from the obvious use of hedgerows by our nesting songbirds they also provide food in the form of fruit such as haws and blackberries for many mammals and pollen and nectar for countless pollinator species of bumble bees, solitary bees, hoverflies, moths and butterflies. Glenmore village features many such good hedgerow examples with lots of different species. The hedgerows along the Robinstown road out past the school are particularly good featuring Ash (*Fraxinus excelsior*), Elder (*Sambucus nigra*), Hawthorn (*Crataegus monogyna*), Blackthorn (*Prunus spinosa*), Holly (*Ilex aquifolium*), Hazel (*Corylus avellana*), Brambles (*Rubus fruticosus* agg.), Honeysuckle (*Lonicera periclymenum*) and Ivy (*Hedera helix*).



Fig. 3: Diverse hedgerow with woodland behind on the Robinstown road

2.3 Ivy

Ivy is a much-maligned plant in Ireland and in many cases it is 'fake news'! There are certain cases where it can take over an old stone wall or building and cause damage to the stone work but generally ivy is important for the biodiversity of an area. Ivy is a plant native to Irish woodlands and hedgerows and it is one of the very few plants to carry its berries in the wintertime. This makes it a hugely important source of food for birds and mammals in the winter. Its flowers in late autumn and early winter can be a very important source of nectar and pollen for our pollinator species at a time when little else is out. Also it is evergreen and thus provides important hibernation areas for our overwintering butterflies and moths. So if you are thinking of clearing ivy from an area – have a read of this paragraph and think again – does it really need to be cleared?

2.4 Old stone walls

Sometimes old stone walls can be great areas of biodiversity value in towns and villages. Many different species of plants and invertebrates (insects, spiders etc.) can make their homes in the nooks and crannies of the old stonework. Importantly several species of Solitary bees make their homes in the cracks of stone walls. These are our most important group of pollinator species in Ireland. There is no need to clear plants from walls as they all add to the biodiversity value of the wall habitat as well as adding a bit of colour and providing food in the form of pollen and nectar for pollinator species. Sometimes ivy can be problematic and can threaten the integrity of a stone structure but as detailed in the previous section, it is of great importance for biodiversity so its management is critical. The following guidelines for the management of ivy on stone walls will sort any problems:

- Regular light trimming is the best way to manage ivy where there is concern about it growing on a stone wall
- Advice should be sought as the removal can sometimes destabilise a wall especially if it is growing into or through the wall
- Often clipping it back and thereby reducing the potential wind blow is sufficient
- Cutting the base or main stem is not advised as it drives the ivy further into and along the wall

2.5 Wooded areas

Glenmore's beautiful situation nestled into a deep valley means that it is surrounded by slopes on several sides. In many places these slopes have been too difficult to tame and they are covered in natural scrub and woodland. This gives Glenmore an atmospheric wooded backdrop which only adds to the character of the whole area. As well as adding to the character these woodlands also add to the biodiversity of the general area as they host an array of plants, birds, insects, mammals and fungi. Hazel and Ash appear to be the dominant tree types with the woodland floor dominated by Ivy and Brambles. Also plenty of Honeysuckle (Woodbine) was noted growing up the trees. Several woodland herbs were noted starting to reappear in the early spring: Primroses (*Primula vulgaris*); Wood anemones (*Anemone nemorosa*); Tufted vetch (*Vicia cracca*); Dandelions (*Taraxacum officinale*); Lesser celandines (*Ficaria verna*) and ferns such as Polypody (*Polypodium vulgare*) (which is epiphytic, meaning it grows on other plants such as tree trunks) and Soft shield fern (*Polystichum setiferum*).



Fig. 4: View of Glenmore village from the surrounding woodland.

A stream runs in to the Millrace river in the village centre from the Robinstown townland through a small glen to the west of the village. Where this stream is crossed by a road in front of the Glanbia building there is a lovely old stone bridge and scrub and woodland has naturally developed along the south side of the stream here. Local people know this to be a great area for bats flying around on a summer's evening and this is no surprise as they have both trees and running water here providing them with their favourite habitats. Further exploration of the bat populations in Glenmore is definitely warranted as it is highly likely that the village hosts at least three different species.

3 Suggested actions to enhance biodiversity and conditions for pollinators in particular

3.1 Robinstown road along by the National School

As pointed out above, the hedgerows along this road are diverse and in good condition. It's important to allow the shrubs to flower and set fruit and a height of at least 2m is the ideal for nesting birds. The best management is either to trim the hedges once every three years or to trim different sections on a three-year rotation. Also the grass verge along the road here has more pollinator-friendly potential if just the roadside 0.5m is mowed. Leave the hedge-side margin unmown in order to allow wildflowers to develop. If people are wondering about this new management regime then erect the pollinators.ie sign (Fig. 5) which shows the thought going into the work! Some of these signs have been provided to Glenmore Tidy Towns already by the Kilkenny Heritage Office. If you need more please email heritage@kilkennycoco.ie



Figs 4 & 5: Example of a roadside verge managed for wildlife in Ballon, Co. Carlow and the Pollinator Plan sign recommended for use.

3.2 Recommended planting for tubs and boxes around Glenmore

The beautiful old Robinstown schoolhouse is an example of a privately-owned building out of the control of Glenmore Tidy Towns but a bit of pollinator-friendly 'beautifying' is possible through the use of planters and flowerpots. The wall outside the building could be cheered up a bit with some window box-type planter displays possibly? The walls don't seem to be flat-topped so a hanging system for the boxes might need to be used or putting a few colourful boxes at the base of the wall would distract the eye from the dereliction while helping the pollinators! Planting suggestions for such boxes would be Crocus and Grape hyacinth (*Muscari*) bulbs which will give early spring colour and pollinator food and then planted with some perennials such as small *Salvia* species (Sages) and *Erigeron* daisies which will tumble out of the pots. If placing pots at the base of the wall, then some slightly taller perennials could be planted too such as: Yarrows (*Achillea*); *Agyranthemum* daisies and Tussock bellflower (*Campanula carpatica*). Other good plants are Nasturtiums – they are not annuals and do need to be sown annually but they are pollinator-friendly and are very cheap to plant from seed with colourful blooms that flower for several months. Another nice plant for trailing over the edges of tubs is the Garden strawberry (*Fragraria x ananassa*) which comes in various forms and colours now.



Fig. 6: Wall outside the old Robinstown school could be brightened up with a few boxes

3.3 Supplementary planting of existing flower beds

There are several flower beds dotted around Glenmore that will benefit from some supplementary planting. Several of the shrubs present can be cleared as they are of little value to pollinators with little or no flowers or fruit. Lots of different herbaceous perennial plants could be added. It is important to note that many of these plants can be obtained for free as cuttings or splittings from some of Glenmore's green-fingered residents own gardens. Pollinator-friendly plants that will spread to fill spaces include: Perennial Geraniums; Astrantias; Salvias; Penstemons; Shasta daisies; Geum species; Lavender; Ladies mantle (*Alchemilla mollis*); *Osteospermum* daisies; *Rudbeckia* daisies; *Sedum* and Japanese anemones. The two latter plants provide great autumn colour and Lenten roses (Hellebores) provide great colour from January to April. Also as for other flower beds and planters I always recommend planting bulbs for spring interest when the perennials have died back as well as providing vital late winter-early spring food for hungry pollinators. The best bulbs are: Snowdrops; Crocus and Muscari. Please note that unfortunately Daffodils and Tulips are of little to no value to pollinators - by all means plant them for their cheer in spring but try not to let them dominate.



Fig.7: Perennial geranium



Fig.8: Lenten rose (*Hellebore*)



Fig. 9: Japanese anemones



Fig. 10: Example of a (pollinator-friendly) herbaceous perennial flower bed in the Butler House walled garden, Kilkenny.

3.4 Millennium monument

The Millennium monument at the entrance to the Community Centre carpark is a beautiful and thought-provoking monument but it can be easily overlooked. It would benefit from a few small, colourful planted pots to catch the attention of both humans and pollinators! Keep it to only two or three pots and none of them too big as you don't want them to take away from the monument itself.

3.5 St James Graveyard

If possible, the grass mowing regime in the Graveyard could be changed in order to encourage wildflowers. This would involve not having the first annual mowing until late April. This is to allow the flowers time to set seeds. After that ideally it shouldn't be mowed again until September but this can be impractical in a graveyard setting. Even if the gap between mowings is left to every 3 or 4 weeks it will help. Another approach might be to mow paths through the long grass for visitors whilst allowing the rest to grow on. The

Pollinator Plan signs could be erected around the graveyard to explain. Graveyards can often be the most biodiverse places in our towns and villages so changing the mowing regime will reap rewards. There are some really useful hints and tips for managing pollinators in graveyards in "Faith Communities; Actions to help pollinators". See http://pollinators.ie/wordpress/wp-content/uploads/2018/08/Faith-Communities_actions-to-help-pollinators-2018-WEB.pdf

3.6 Create a Community Herb Garden at the Village Stream

A small area beside the Mill Race river in the centre of the village is being looked after by Glenmore TidyTowns. It struck me as having great potential for a Community Herb garden with it's safe, central location. Many perennial herb plants are pollinator-friendly as well as tasting nice to humans! They can have some lovely flowers too that will add a splash of colour to the village centre. Recommended plants are: Chives, Rosemary, Various types of Thyme, Fennel (tall yellow flowers so place at back of flowerbed), Borage, Sage (various colourful purple-leaved varieties). The bed could also be given a bit of structure by also planting a few small fruit bushes such as Blackcurrants, Raspberries and Gooseberries – all good for pollinators too.



Fig. 11: Flowerbed at the Village Stream



Fig. 12: Example of a herb flowerbed in the Delta Gardens, Carlow.

3.7 Spiderman flowerbed!

This flowerbed needs plants on the slope where the bark mulch is – am afraid there'll be soil slippage here with no plant roots to hold it together. The slope could be planted with ferns – there are lots on the surrounding road banks. Simply transplant a few and they will naturally spread.



Fig. 13: 'Spiderman' flowerbed

3.8 Woodland walk (old footpath)

This lovely path – marked as a Foot Path on the old Ordnance Survey maps has recently been opened up again. It provides a beautiful, peaceful viewing spot of Glenmore village that is crying out for a bench. It is surrounded by natural woodland with lots of the native trees and herbs that you would expect. All that is needed here is to put in a bench and keep the path clear of briars and branches, however, don't be tempted to manicure it too much as its wildness is a big part of its charm.



Fig. 14: Misty view of Glenmore from the viewing spot on the recently cleared Woodland path off the eastern road out of the village up to the N25.

3.9 Invasive species

Invasive plant and animal species are a threat to local biodiversity all over Ireland and it is incumbent upon local communities to familiarise themselves with species which could cause problems for local biodiversity if they were to arrive in your locality. Animal species such as Mink and Grey squirrels and plant species such as Japanese knotweed and Rhododendron have gained notoriety in Ireland for the problems they cause. With Glenmore featuring several streams then there is a need to be aware of Japanese knotweed and Himalayan balsam in particular as they can spread along waterways with the former species in soil dumped from other areas. The National Biodiversity Data Centre features very helpful information at this website:

<http://www.biodiversityireland.ie/projects/invasive-species/species-lists/>

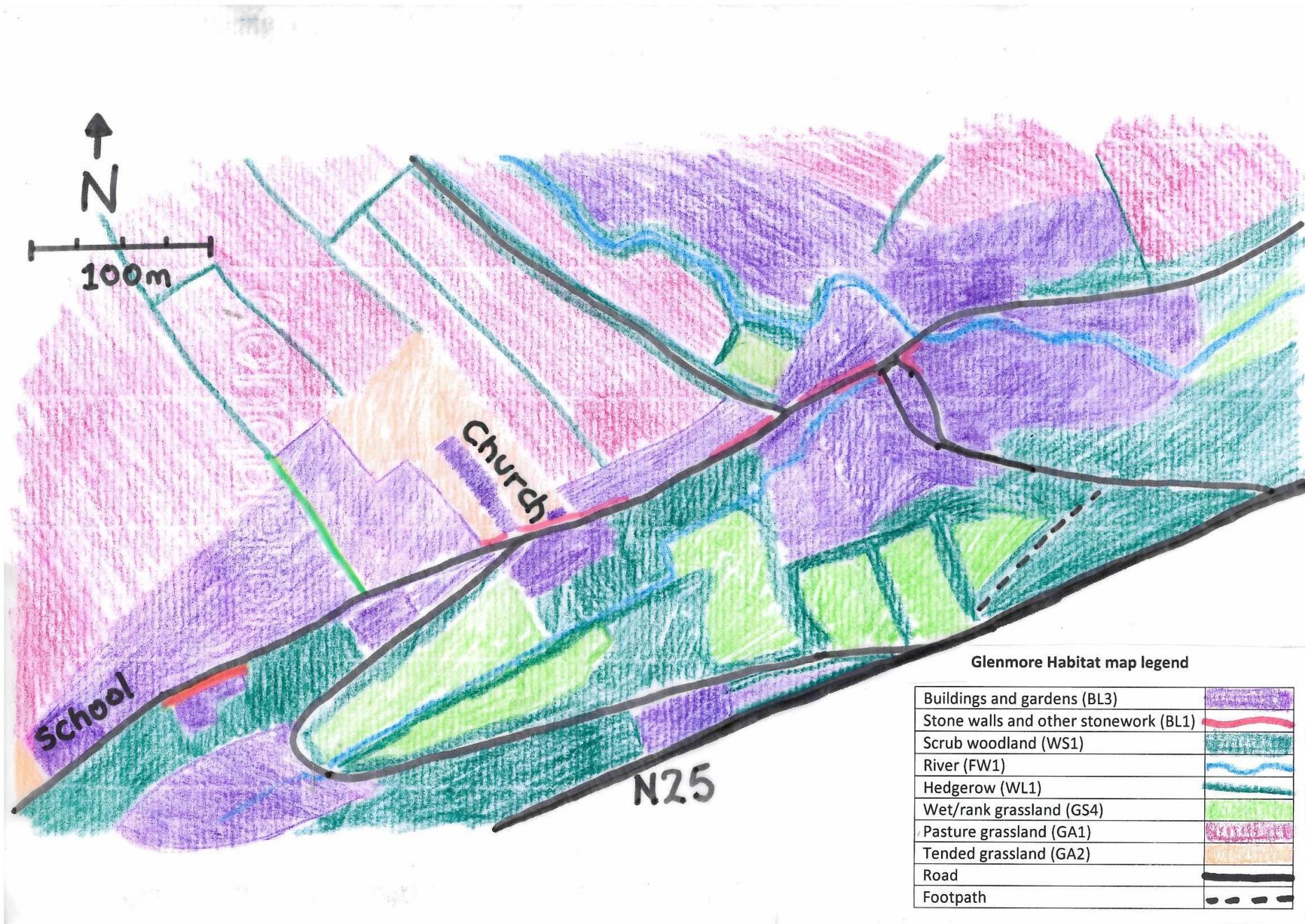
and if at any stage in the future you do identify invasive species as listed on this website then don't attempt to control them yourselves but seek professional guidance from the Environmental Awareness Office of Kilkenny County Council.

3.10 Suggestions for future plans & projects

- i. Consider entering the Local Authority Pollinator Award in the TidyTowns competition. Contact the Kilkenny Heritage Officer for further information
- ii. Draw up a 3 year plan for the National TidyTowns competition, identifying the biodiversity actions which you propose to undertake. You can use the Habitat map in Appendix I of this report to highlight the pollinator-friendly areas in the village, and the work you have undertaken.
- iii. Liaise with the Heritage Officer and Environmental Awareness Officer in Kilkenny County Council for help with sourcing funding to support your habitat and biodiversity work.
- iv. Encourage Glenmore residents to manage their gardens with pollinators in mind. For information on simple actions see <http://pollinators.ie/resources/> for many helpful ideas and suggestions.
- v. Record your actions to help pollinators on the following map. This helps us to build up a picture of all the great work that groups like yourselves are doing to help pollinators in County Kilkenny <http://pollinators.ie/record-your-actions/>
- vi. Consider holding a bat walk and talk during Heritage Week. Contact the Heritage Officer for more information. A great community event could be worked around this – what about a barbeque after the bat walk?!

For further information on actions that communities and TidyTowns groups can take to support pollinators see http://pollinators.ie/wordpress/wp-content/uploads/2018/04/Local-Communities_actions-to-help-pollinators-2018-WEB.pdf

Appendix I: Glenmore Habitat Map



Glenmore Habitat map legend

Buildings and gardens (BL3)	
Stone walls and other stonework (BL1)	
Scrub woodland (WS1)	
River (FW1)	
Hedgerow (WL1)	
Wet/rank grassland (GS4)	
Pasture grassland (GA1)	
Tended grassland (GA2)	
Road	
Footpath	

Appendix II: A selection of pollinator-friendly Herbaceous Perennials (see: <http://pollinators.ie/app/uploads/2018/04/Planting-Code-2018-WEB.pdf> for a more extensive list)

Tall perennials (for the back of beds):

Japanese anemones (*Anemone x hybrid*) – pink and white (Autumn);

Verbena bonariensis (late Summer);

Foxgloves (*Digitalis spp*) (early Summer) – both pink and white varieties;

Mullein (*Verbascum spp*) (Summer);

Fennel (*Foeniculum vulgare*);

Teasel (*Dipsacus sp.*).

Some ***Rudbeckia*** daisies will add bold colour too.

Shorter perennials:

***Sedum* ‘Autumn Joy’ (Autumn)**;

Masterworts (*Astrantia major*) (long flowering from Summer into Autumn);

Penstemons and Salvias (also long flowering from Summer into Autumn);

Yarrow (*Achillea spp*) (Summer);

Avens (*Geum sp.*) – brightly coloured with long-lasting flowers;

Columbine/Granny’s bonnet (*Aquilegia sp*) (early summer)

Macedonian scabious (*Knautia macedonica*).

Hardy Geraniums/Cranesbills (*Geranium spp*) in a mix of colours, blue, pink and white. These plants (particularly blue varieties such as ‘Johnson’s blue’) partner well with **Lady’s mantle (*Alchemilla mollis*)** which are particularly lovely planted along the edges of beds.

Lenten Hellebores (*Helleborus orientalis*) will give winter and spring interest.

Appendix III: General list of shrub and tree species recommended for biodiversity enhancement:

(a). Hedges

Using the local hedgerows as the cue for which species to plant, the following are recommended:

- Hawthorn/Whitethorn (*Crataegus monogyna*)
- Elder (*Sambucus nigra*) (the purple variety (purple leaves & pink blossoms) is slightly more ornate while still having the same good biodiversity value as the wild variety with green leaves and cream flowers)
- Blackthorn (*Prunus spinosa*)
- Hazel (*Corylus avellana*)
- Crab apple (*Malus sylvestris*)
- Holly (*Ilex aquifolium*)
- Privet (*Ligustrum vulgare*)
- Spindle (*Euonymus europaeus*)
- Guelder rose (*Viburnum opulus*)

Several Oak (*Quercus robur*) trees should also be planted along the hedges as mature trees every so often along the length of a hedge greatly add to its biodiversity value.

It is very important that all the plants are sourced in Ireland and locally if at all possible as this ensures the plants will be adapted to the local conditions and the genetic make-up of local native plants will not be disturbed. One method of ensuring this would be to collect seed from local plants and grow them for planting. This is not always practical as it would mean the hedge could not be planted for several years. However, this method could be used particularly in the collection of local Ash and Oak seed and it would make an ideal project for local schoolchildren to become involved in. A point to note here is that if you do source your trees and shrubs from a nursery always make sure to ask if the plants are sourced in Ireland – in addition to helping you find an Irish supply it will also raise awareness amongst nurseries of the importance of this factor.

(b) Wildlife-friendly tree species

Trees recommended for planting are:

- Pedunculate Oak (*Quercus robur*) – prefers neutral/limestone soils
- Sessile Oak (*Quercus petraea*) – prefers slightly acid soils
- Willow (*Salix* spp) – good for damp/ waterside conditions
- Hazel (*Corylus avellana*) – likes neutral to limey soils
- Alder (*Alnus glutinosa*)– good for damp/ waterside conditions
- Aspen (*Populus tremula*)
- Silver birch (*Betula pendula*)
- Downy birch (*Betula pubescens*) - good for damp/ waterside conditions
- Yew (*Taxus baccata*) – note that '*fastigiata*' is the upright form (Irish Yew)
- Holly (*Ilex aquifolium*)
- Rowan/Mountain ash (*Sorbus aucuparia*) – flowers and fruit for spring and autumn interest
- Whitebeam (*Sorbus aria*) – flowers and fruit for spring and autumn interest
- Crab apple (*Malus sylvestris*) – flowers and fruit for spring and autumn interest
- Wild cherry (*Prunus avium*) – flowers in spring and colourful fruit and leaves in autumn

(c) Wildlife-friendly shrub species

- Fruit bushes e.g. the native Raspberry (*Rubus idaeus*) and Blackberry (*Rubus fruticosus*). Also Currants and Gooseberries (*Ribes* spp.).
- Ling heather (*Calluna vulgaris*) - prefers acid/peaty soil conditions
- Bell heather (*Erica cinerea*) - prefers acid/peaty soil conditions
- Broom (*Cytisus scoparius*) terrific colour, blooming through April & May.
- Cotoneaster (*Cotoneaster horizontalis*)* - good ground cover, particularly on sloped beds
- Firethorn (*Pyracantha*)* - a very thorny climber, good for wall cover with creamy blossoms in summer and colourful berries in autumn. Different

species have different coloured berries ranging from yellow through orange to scarlet red.

- Honeysuckle/Woodbine (*Lonicera periclymenum*) – a climber with beautifully scented flowers, particularly in the evening when they attract nectar-seeking moths.
- Dog rose (*Rosa canina*) – a climber with beautiful flowers in June and red rosehips in autumn.
- Elder (*Sambucus nigra*) – creamy flowers (most important ingredient in a very tasty cordial!) in June and black berries in autumn.
- Spindle tree (*Euonymus europaeus*) – strikingly beautiful orange seeds carried in bright pink capsules called 'cardinals' hats'
- Blackthorn (*Prunus spinosa*) – featuring sloe berries in autumn
- Purging Buckthorn (*Rhamnus catharticus*) – an uncommon shrub – the favourite food plant of the Brimstone butterfly
- Alder-buckthorn (*Frangula alnus*)
- Privet (*Ligustrum vulgare*)
- Guelder rose (*Viburnum opulus*) – beautiful flowers and berries
- Gorse (*Ulex europaeus*) – the heady, coconut aroma of its bright yellow flowers is the smell of an Irish summer's day.

*indicates a species not native to Ireland but non-invasive and wildlife friendly.