

NUI Galway All Ireland Pollinator Plan 2018 – 2020

Community and University Sustainability Project Action Plan



The NUI Galway Strategic Plan, Vision 2020, outlines a vision of ‘creating a sustainable campus where all resources are used efficiently and where facilities are managed, and services consolidated as efficiently as possible’. To develop and realise this vision, the Community & University Sustainability Project (CUSP) was established in 2015 under the direction of the Registrar and Deputy President to develop and implement a Sustainability Strategy for the university.

NUI Galway launched its Sustainability Strategy in November 2017. The strategy follows a Live-Learn-Lead model, divided into core themes including nature and ecosystems. An objective of this latter theme is to: ‘Explore the opportunities to be gained by signing up to All-Ireland Pollinator Plan (which includes guidance to maintain public manicured spaces and support biodiversity)’.

A Pollinator Plan workshop was organised by Michelle O’Dowd Lohan and Dr Caitriona Carlin in April 2018. The meeting was chaired by Dr Dara Stanley. Professor Pól O’ Dochartaigh, Registrar and Deputy President opened proceedings and stated his support for continued work towards the All Ireland Pollinator Plan on campus. Dr Úna Fitzpatrick, National Project co-coordinator for the All Ireland Plan outlined the plan itself and what actions can be taken to support pollinators by NUI Galway. Michelle O’Dowd Lohan and Dr Caitriona Carlin outlined how the plan fits into existing frameworks within the university, in particular the NUI Galway Sustainability Strategy and the An Taisce Green Flag Programme, and draws on previous cross-sectoral staff, students and community successes such as winning the InterVarsity BioBlitz in two consecutive years running. Kate Greaney, a then 4th yr Botany student presented her findings from a pollinator mapping study that had been carried out on campus. Dean Pearce from the Buildings and Estates Office and Diarmaid Mahon, Grounds and Landscape Supervisor presented an overview of the existing pollinator friendly management practises taking place on campus and where we can build on this work. A very productive round table discussion took place after the presentations and the outcome from this was agreement that an Action Plan for Pollinators on Campus would be compiled. Buildings and Estates took the lead on this, with contributions from the CUSP team, including Drs Dara Stanley and Caitriona Carlin.

The actions are laid out according to the [All Ireland Pollinator Plan](#). This draft was finalised in October 2018 and future actions will be implemented from 2018-2020. This document sets out actions that were successful, and will be continued, into the future. Some actions such as new plantings, weed control etc, will be initially trialled and reviewed for their success. It will be reviewed and updated on a quarterly basis. The team will report progress through CUSP.

A Identify and protect existing areas that are good for pollinators.

Action 1: Protect existing sources of food and shelter for pollinators.

The University implements pollinator friendly initiatives wherever possible. Figure 1 below, shows expansive areas inside the yellow borders which are excellent sources of food and shelter for pollinators. While recognising that unpredictable scenarios may arise, the University is committed to maximise opportunities for pollinators insofar as possible. For example, future plans (subject to planning decisions) include staff and student collaborative working (teaching and management) on species rich grassland and scrub. The University is also developing smaller pockets of pollinator friendly initiatives throughout the campus.



Figure 1 Campus Map of existing pollinator friendly planting (inside yellow margin)



Figure 2 Riverwalk path to Dangan with Corrib SAC to the east (RHS)

Figure 2 shows the pathway from student village to the sports fields at Dangan. This path runs along a Special Area of Conservation (SAC) which is located to the right on the picture and is protected by law. Willow species grow along the path, and provide pollen early in the year, with wildflowers that provide sources of food throughout the seasons.

Bumblebees nest in long grass, often at the base of a hedgerow. Long grasses and other flowers at the base of the hedgerows are left to grow as they also provide important places of shelter.

B Reduce the frequency of mowing grassy areas.

Action 2: Reduce mowing and aim to create a wildflower meadow.

Figures 3 and 4 show areas of grass that have been taken out of the regular cutting regime in the Central campus and allowed to become a meadow. These areas will be cut once, either in July or



August and clippings taken away. Future plans include adding yellow rattle to the mix of species here. Other locations included the Riverside Walk and O'Shaughnessy Bridge, Distillery Lane, Aras Moyola. Where meadow verges border buildings, the verges will be cut more frequently to reduce the presence of rodents.

Figure 3 Meadow SE of the Alice Perry Engineering building



Figure 4 Meadow to the east of the Alice Perry Engineering

Action 3: Create a short flowering '6 week meadow'.

This stretch of grass along a path in the North Campus was allowed to grow to encourage pollinator friendly native plants. White and Red clover are visible as well as wild daisies.



Figure 5 Short 6 week meadow in Central Campus



Figure 6 Short 6 week meadow in Central Campus

Action 4: Let the Dandelions bloom!

Along the pathway of the Corrib, Figure 7 shows an area of grass where Dandelions could bloom and provide food for pollinators from May through to October. Pesticides are not permitted in this area.



Future actions include cataloguing locations where dandelions and other plants for pollinators are left to bloom. Birds will also benefit from plants that are left to set seed.

Figure 7 Dandelions in bloom in April along the Riverwalk pathway

C Pollinator friendly planting.

Action 5: Permanent Clover lawn

Situated across from the Kingfisher Sports Centre, this lawn (Figure 8), is rich in white clover and buttercup. Buttercups not only attract pollinators, they are also good for many small beetles and flies.



Figure 8 Clover Lawn, Kingfisher Sports Centre

Action 6: Flowering trees and shrubs.

Along the Riverwalk path to Dangan, Willow (Figure 9) and Hawthorn can be found in abundance giving one of the first vital food sources to bees in Spring.



Figure 9 Willow; *Salix caprea*

Action 7: Perennial flowers for pollinators.

These are just some examples around the campus of the existing pollinator friendly planting (Figures 10 and 11). New planting schemes on campus will focus heavily on both early and late varieties of perennial pollinator friendly planting (Figure 12 and 13). Future plans include compiling this in a table.



Figure 10 Erica carnea, Áras Orbsen (good early source of pollen)



Figure 11 Osteospermum "Blackthorn seedling", Áras Moyola



Figure 12 Lavandula angustifolia, Hardiman Library



Figure 13 Hebe albicans, Security office

Action 8: Annual flowers for pollinators.

As much as possible pollinator friendly plants are used in the seasonal annual bedding displays. An example of this is in Figure 13. Future actions include reviewing the list of annuals and perennials recommended by the All Ireland Pollinator Plan and reviewed by a recent Sustainability Intern. From a sustainability and climate action perspective, future actions include increasing the ratio of perennial to annual planting (Figure 14).



Figure 14 Bidens procera, Bailey Allen Plaza

Action 9: Increase the number of pollinator friendly planters.

Four herb planters were introduced into the courtyard of Áras Cairns in spring of 2018 (Figure 15). These planters contain pollinator friendly herbs such as Thyme and Rosemary. The herbs are then used by a catering facility located in the building. Staff also expressed pleasure at smelling and touching the herbs throughout the summer. There are plans to add more in the Aras Moyola courtyard.



Figure 15 Herb planters in Áras Cairns courtyard

D Provide wild pollinator nesting habitat: hedgerows, earth banks and hotels

Action 12: Hedgerows for pollinators

The hedgerows which run alongside Riverside path (Figure 16) is populated either side by willow, blackthorn and hawthorn. These hedgerows are trimmed back once a year outside of bird nesting season to stop vegetation encroaching on the pathway. Pesticides are eliminated from this pathway and a half meter strip is cut each side of the path. In the main, and aside from unpredictable scenarios arising from the N6 proposed route, which cuts through these areas, these habitats are maintained for nature in the long term.



Figure 16 Riverwalk path to Dangan with Corrib SAC on the RHS

Action 13: Earth banks and drystone walls for pollinators

In the North Campus, this earth bank (Figure 17) is left aside for pollinators and beetles, and no pesticides are being used. Opportunities will be taken as they arise to create these habitats throughout the campus.



Figure 17 Earth bank located in the North of the campus

Action 14: Holes in wood for pollinators

Birch logs were drilled and left along the Riverwalk path in spring 2108 creating an ideal location for nesting solitary bees (Figures 18 and 19). Future plans include reviewing other areas where this may be possible.



Figure 18 Drilling holes in logs



Figure 19 Holes in wood for pollinators

E Reduce the use of pesticides

Action 16 and 17: Reduce the use of pesticides and ensure best practice when using pesticides

Pesticides have been eliminated along most of this stretch of pathway by the River Corrib (Figure 20).

Japanese knotweed which is an invasive species is present in some parts of this walk and best practice is used when treating this twice a year. Injection treatment is used.

Biological control methods are used in cases of outbreaks of pests such as Vine weevil on campus. Microscopic nematodes are applied to the affected area.



Figure 20 Riverwalk pathway adjacent to Orbsen Building

F Raise public awareness of pollinators

Action 20: Put up signage

All Ireland Pollinator Plan signage to be erected at sites across campus by Summer 2019.

Action 21: Facilitate or deliver training and promote awareness of the action plan

SNS staff to increase teaching on pollinators, plants, plant-animal interactions, ecology and conservation. This will tie in with other CUSP actions to increase fieldbased teaching on campus. NUIG's Pollinator Plan will be promoted in undergraduate and postgraduate courses and also to Learning and Teaching committees, and training for teachers sessions.

It will be promoted at other opportunities such as conference walks, open days and public engagement festivals. In May 2018, pollinator walks and talks were one of the highlights of the GOWILD festival organised by NUI Galway, GMIT in conjunction with nature conservation organisations. Future GOWILD events are planned, including a walk and talk for Loving Galway's Green and Blue spaces in September 2018, the inaugural legacy event, from Galway's GreenLeaf award. Further actions are linked to the Sustainability Strategy including the development and implementation of a biodiversity action plan.

Research on pollinators currently takes place in the School of Natural Sciences. For example, in 2018, two 4th year botany students mapped areas that are important for pollinators. In summer 2018, a Sustainability intern looked at alternatives to using pesticides on campus and compiled a list of actions, including the top perennial plants for pollinators.

Additional research opportunities are connected to multidisciplinary projects such as NEAR Health. Based at NUI Galway and funded by the EPA and HSE, this project is about how nature and the environment can help us attain and restore health and wellbeing. In July 2018, the actions for pollinators on campus was highlighted in weekly nature walks organised by NEAR Health and Croi. A trial Nature walk was developed and implemented by NEAR Health and Croi staff using NUI Galway's Biodiversity trail (Figure 22). During the weekly walks, participants discussed actions they could take at home. Further actions could include promotion to walking groups and tourists who are now using the Biodiversity Trail.



Figure 21 Sample signage



Figure 22 NEAR Health and Croi Nature walks 2018

Action 22: Log your 'Actions for Pollinators' on the mapping system. Environmental Science students will collaborate with buildings staff to log all actions for pollinators at NUIG campus on the Actions for Pollinators website.