



Promoting research excellence in nature-based solutions for innovation, sustainable economic growth and human well-being in Malta.

Science and policy for pollinator protection: The All-Ireland Pollinator Plan

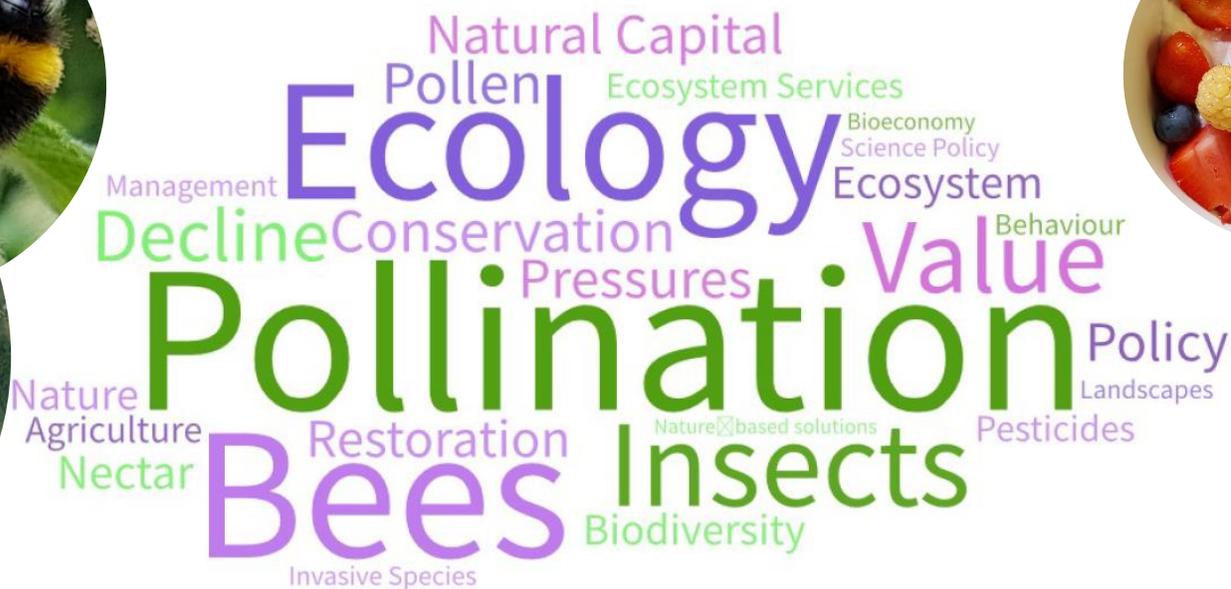
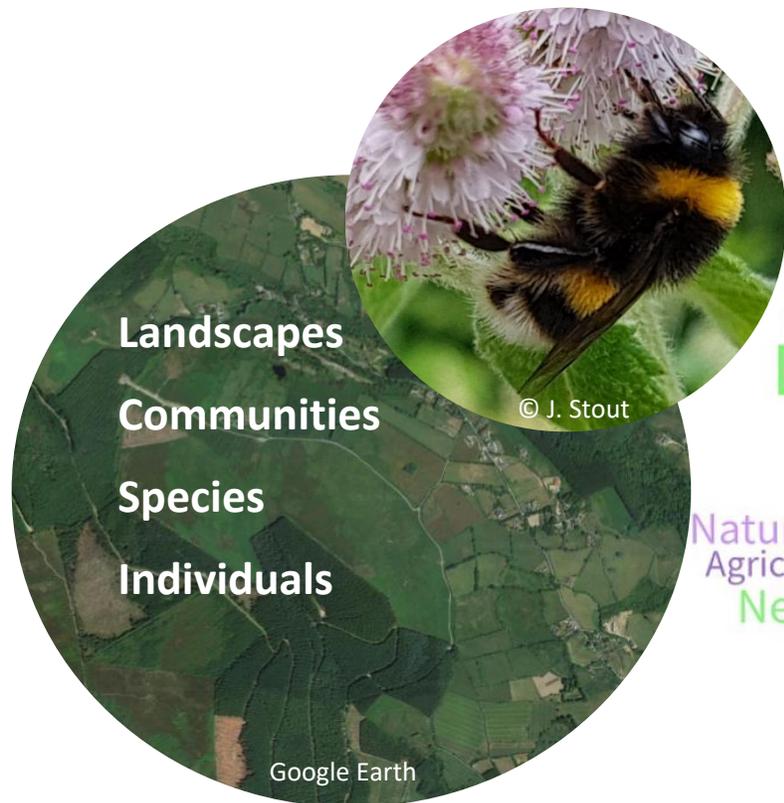
Prof Jane Stout
Trinity College Dublin

ReNature 5th Training Course: Nature-based solutions and the science-policy interface 16.09.20



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Ecological interactions ↔ Human society



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https://natureforlife.com/their-children-connect-with-nature



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Ireland's nature



31,500 species living within **117** habitats

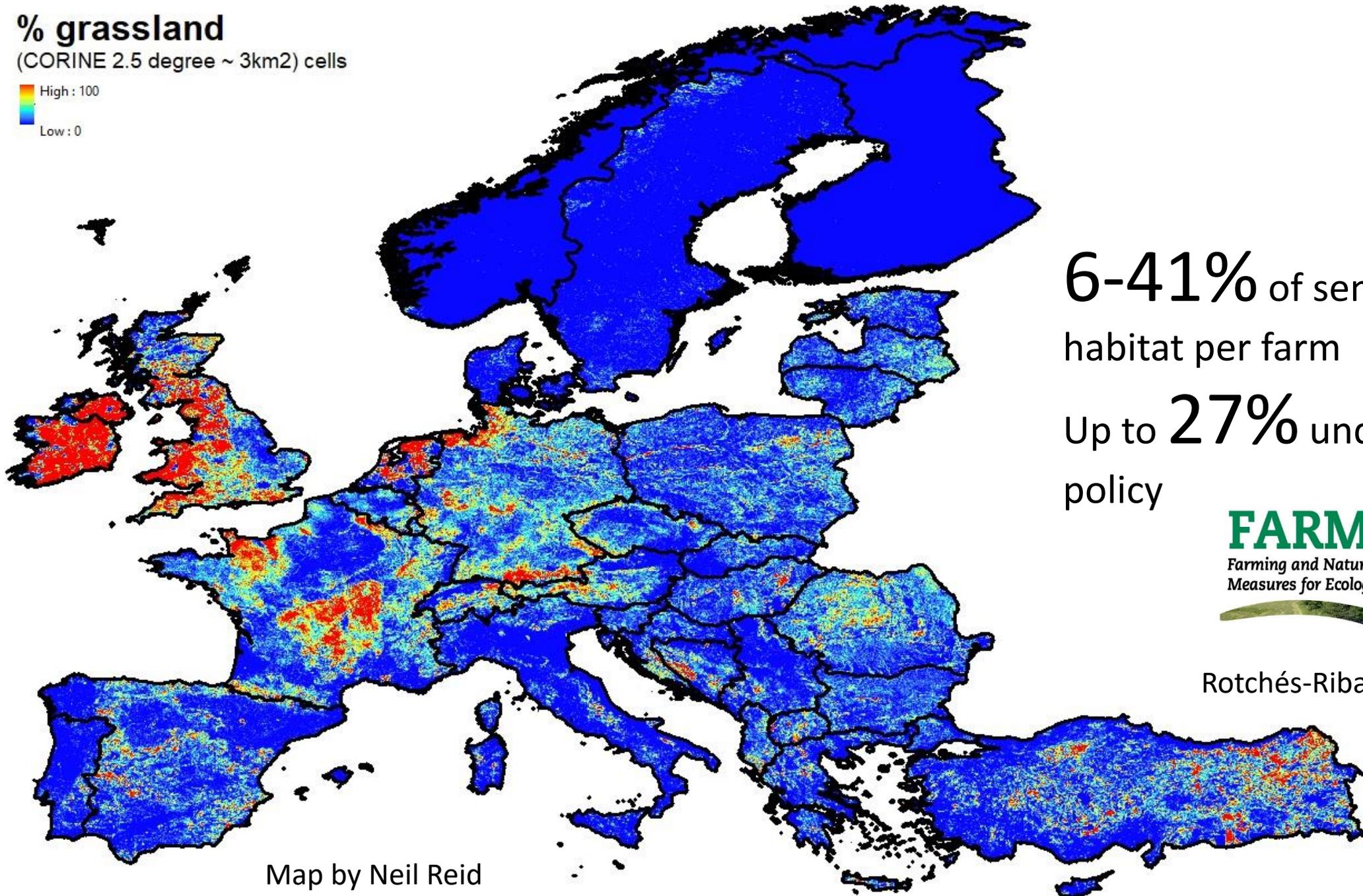


Protected habitats

85% in unfavourable condition

% grassland

(CORINE 2.5 degree ~ 3km²) cells



6-41% of semi-natural habitat per farm

Up to 27% undervalued by policy

FARM ECOS

Farming and Natural Resources:
Measures for Ecological Sustainability

Rotchés-Ribalta et al. (2020)

Map by Neil Reid



of **31,500** species
10% assessed for conservation status
1/5 at risk of extinction

Ireland's bees



1 honey bee
21 bumble bees
77 solitary bees



1/3 at risk of extinction

Fitzpatrick et al. (2006)

Protected species

Euphydryas aurinia Marsh fritillary



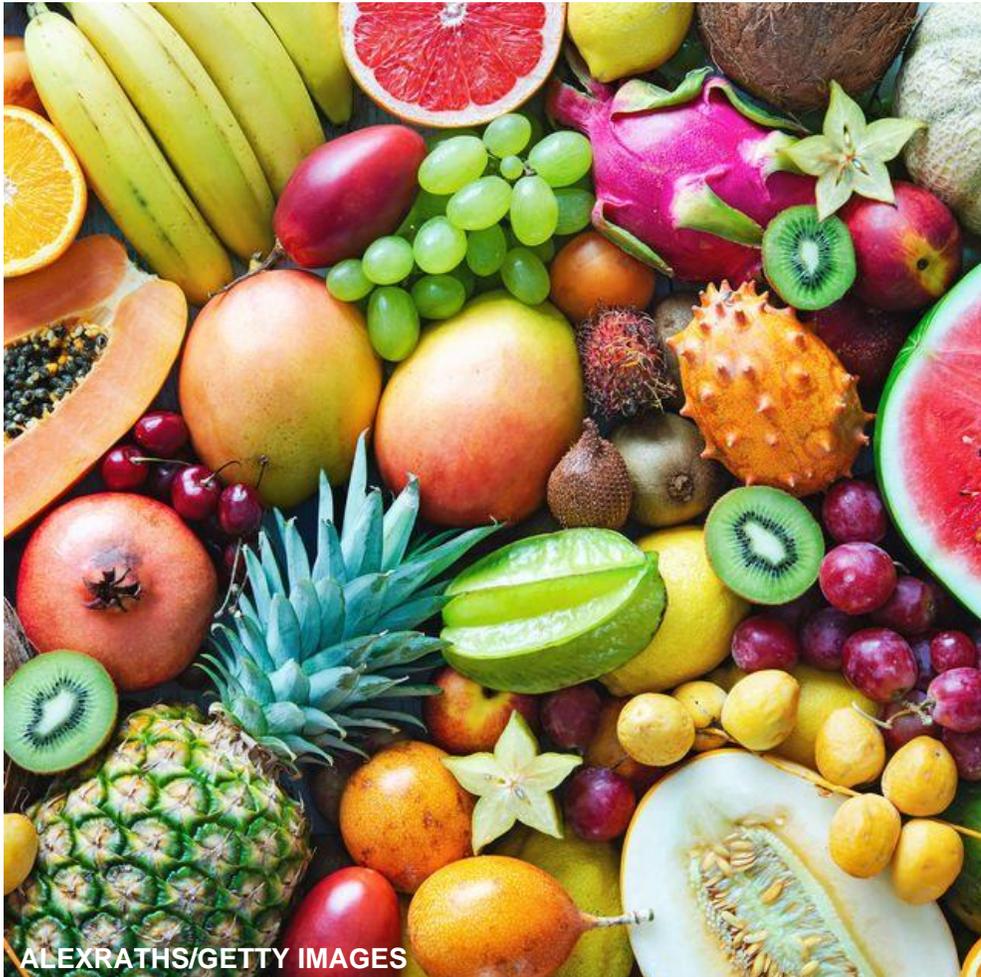
<https://butterfly-conservation.org/butterflies/marsh-fritillary>

Agri-environmental scheme:
Solitary bee hotels and sand piles



Saorla Kavanagh

Why does pollinator decline matter?



75% crop species worldwide are animal pollinated

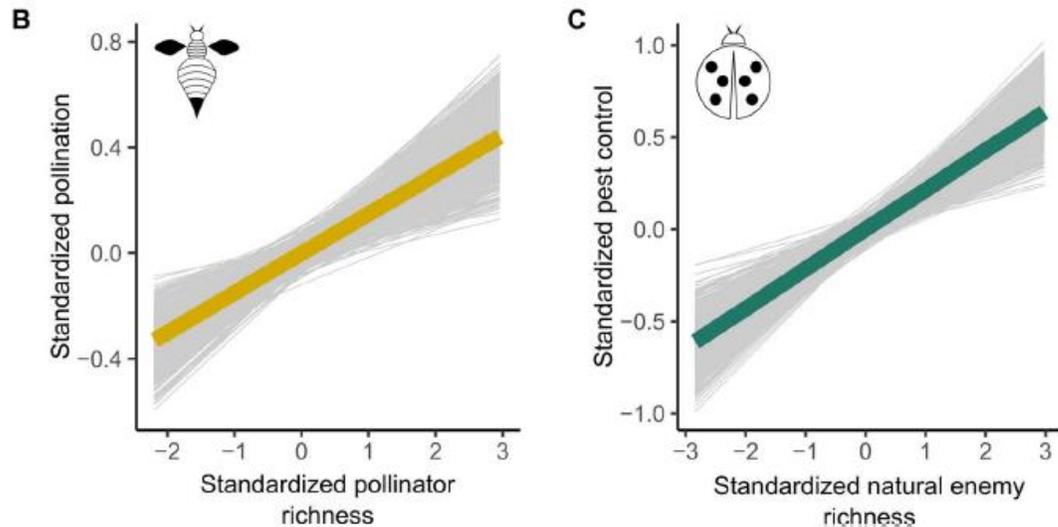
- In Ireland – apples, strawberries, blackcurrants, raspberries
- Irish food crops up to **€59M** per year (2005-2014)

Stout et al. (2019)

http://www.epa.ie/pubs/reports/research/biodiversity/Research_Report_291.pdf

Why does pollinator diversity matter?

More species => more pollination and pest control in farmland



Dainese et al. 2019 Science Advances

Different types of pollinators have different traits – this can maximise yield across crops



Woodcock et al. 2019 Nature Comms

Why does pollinator decline matter?



E.g. fruit and seeds for farmland animals & maintenance of plant communities



E.g. nitrogen fixing legumes

Value of pollination services

75% crop species worldwide are animal pollinated

87.5% flowering plant species are animal pollinated



Drivers of decline

Habitat loss – homelessness
Decline in wildflowers – hunger
Pests and diseases – sickness
Pesticides – poisoning
Climate change – changing environment



All-Ireland Pollinator Plan



Úna FitzPatrick



www.pollinators.ie



1. Making Ireland pollinator friendly
 - Farmland, public and private land
2. Raising awareness of pollinators and how to protect them
3. Managed bees - supporting beekeepers and growers
4. Expanding our knowledge on pollinators and pollination services
5. Tracking change – collecting evidence to track change and measure success

AIPP: the approach



Collaboration: Republic of Ireland and Northern Ireland are working together to share knowledge, experience and resources to address the problem

100+ partners fund their own actions

The Plan is supported by **68** organisations



Integrate existing networks/partnerships



AIPP: the approach



Clear guidance on how to help



- ✓ Pollinator-friendly actions, each very clearly explained
- ✓ Lots of **options**
- ✓ All actions are pragmatic & low cost
- ✓ Free on website



AIPP: the approach

Positive messaging



- ✓ Celebrate what we have
- ✓ Bees as a vehicle for wider biodiversity
- ✓ Celebrate best practice
- ✓ It is important that people feel they are part of something – **together we can make a difference**



10 ways to help pollinators

- 1 Let Dandelions bloom**
Dandelions provide vital food for hungry bees in spring.
- 2 Reduce mowing**
Mow every 6 weeks from mid-April to allow flowers like clover to grow and provide food.
- 3 Pollinator friendly bulbs**
Plant Crocus, Allium or Snow-drop bulbs. They provide better food than Daffodils and Tulips.
- 4 Pollinator friendly bedding**
Begonias, Petunias and Busy Lizzies don't provide food for pollinators. See our website for alternatives e.g. *Calamintha nepeta*.
- 5 Plant native flowering trees**
Willow, Hawthorn and Blackthorn flowers provide important food for pollinators.
- 6 Don't spray**
The overuse of herbicides is making it difficult for pollinators to find enough flowers to feed from.
- 7 Bare soil for nesting**
Most of our bees need bare soil to nest. Create a small south-facing earth bank to provide shelter.
- 8 Put up signage**
Inform the public where land is being managed for pollinators. See our website for templates.
- 9 Junior Pollinator Plan**
Download the Junior Plan from our website and help educate the next generation.
- 10 Record your actions**
Log your actions on our website to help us track the increase in pollinator resources in the landscape!

The All-Ireland Pollinator Plan 2015-2020 is a strategy addressing pollinator declines and protecting pollination services on the island of Ireland. See the website to find out what other actions you can take to help.

National Biodiversity Data Centre
Assessing Ireland's Wildlife
As Chartered Officers of The Heritage Council

www.pollinators.ie

AIPP: the approach



Simple messages and branding, range of comms approaches

The screenshot shows the website's header with the National Biodiversity Data Centre logo and navigation links. The main content area features the title 'All-Ireland Pollinator Plan' and a brief introduction. Below this are four category buttons: Farmland, Councils, Communities, and Businesses, each with a representative image.

The tweet shows a collection of promotional materials including booklets for 'Councils', 'Gardens', 'Businesses', and 'Local Communities', along with a 'How-to-guide'. The tweet includes the website URL www.pollinators.ie and indicates 605 tweets.

www.pollinators.ie

The thumbnail features a large, stylized bee with a red play button in the center, set against a dark background with a globe icon.

<https://youtu.be/BXHAHHHki E>

The photograph shows a group of people at an event. A prominent sign in the background reads 'Help Ireland's Bees' and 'All-Ireland Pollinator Plan', featuring a grid of various bee species.

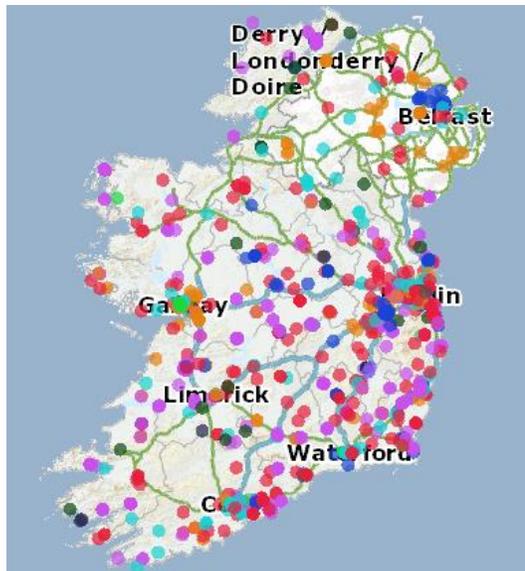
The blog section displays two articles. The first, 'Life on the edge', dated 21st January 2019, discusses a project in Northern Ireland to protect roadside wildflower verges. The second, 'The fight to save the bees', dated 26th November 2018, reflects on the achievements and challenges of the plan.



AIPP: the successes

Since 2015...

Actions for pollinators across Ireland, across sectors
~4,000 actions over >3,000km²



www.pollinators.ie

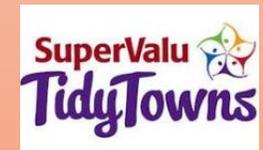
Reached all 3,200 primary schools in RoI



50% of **Councils** have already formally partnered & agreed to take actions



162 **local communities** have become pollinator-friendly



The number of **business** supporters now stands at >260



Policy National Biodiversity Action Plan 4.1.8.
“Implement the All-Ireland Pollinator Plan”



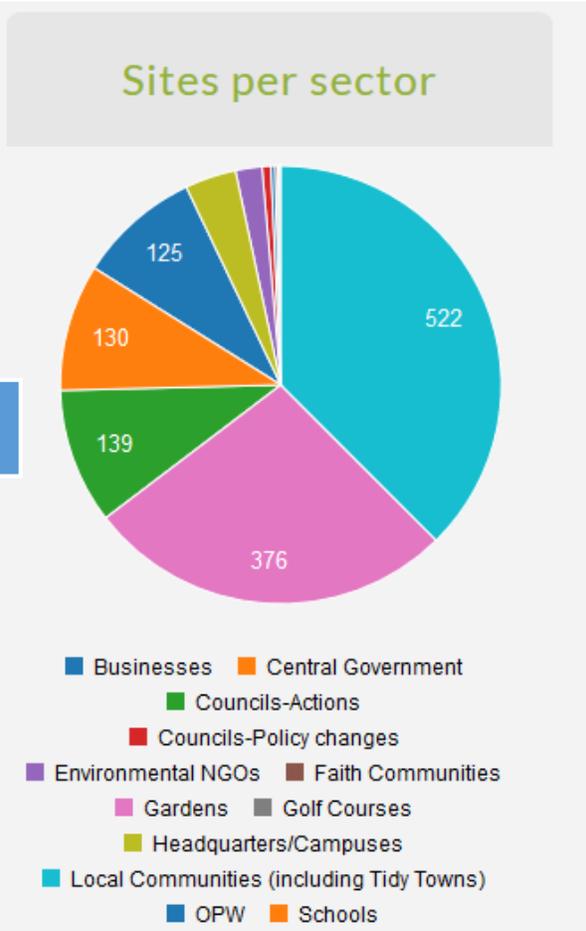
Joined global efforts via **Promote Pollinators**



AIPP: the successes



Short-term



Medium-term



Returning food and shelter to the landscape

Long-term



??

'Actions for Pollinators'
pollinators.biodiversityireland.ie

Science and policy for pollinator protection:

Summary:

- Science underpins understanding of pollinator decline and how to tackle it
- Helps to make the case for action
- Policy gaps filled with voluntary, bottom-up Plan
 - Participatory approach
 - Cross sectoral
 - Clear evidence-based guidance
 - Simple positive messaging



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www.pollinators.ie



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Juanita Browne



Erin Jo Tiedeken



Gemma Hughes



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