Scientists make fresh call for policy makers to protect pollinators

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Pollinating insects could thrive if improvements are made to agri-environment schemes across Europe, according to a new collaborative study involving scientists from Trinity.

More than 20 pollinator experts from 18 different countries looked at a range of wildlife habitats on farmland– named Ecological Focus Areas (EFAs) – to determine how well they support insect pollinators such as bumblebees, solitary bees and hoverflies.

Despite significant investment in EFAs the study—just published in the *Journal of Applied Ecology*– found they are failing to provide all the resources insect pollinators require.

With over 70% of crops worldwide relying on insect pollinators, it highlights the need to create a variety of interconnected, well-managed habitats that complement each other in the resources they offer.

A decline in the number of insect pollinators has been attributed to intensive farming and the associated loss of flower-rich habitats, which provide food, nesting, and breeding sites.

In a bid to decrease the environmental impact of agriculture, the 2014 EU Common Agricultural Policy (CAP) defined a set of habitat and landscape features that farmers needed to incorporate in order to receive basic farm payments.

The researchers involved in the new study came together from across Europe to evaluate how different EFA options varied in their potential to support insect pollinators—under both standard and pollinator-friendly management, as well as the extent of farmer uptake.

They identified substantial opportunities to improve the quality of agri-environmental habitats by implementing pollinator-friendly management practices. These would not only increase the abundance of resources in a habitat, but also the range of resources.

The findings of the study, which was funded under the Cost Action

Super-B– Sustainable Pollination in Europe program, will be used to inform the CAP post-2020.

Jane Stout, Professor in Botany at Trinity and a co-author of the study, said:

"This analysis confirms that it's not just enough to protect areas for wildlife in farmland, but these areas also need to be managed appropriately to maximize the benefits for pollinating insects. That means making sure there is a diversity of resources for bees and other pollinators to feed on right through the year, and places for wild pollinators to nest or lay their eggs. Of our 99 Irish bee species, most of them nest in the ground and we are currently investigating what influences their nesting, and how we can create appropriate agri-environment measures to promote this."

"Guidelines for appropriate management of Irish farm habitats are available via the All-Ireland Pollinator Plan at www.pollinators.ie/farmlandand we are working with the Department of Agriculture, Food and the Marine to ensure that future measures in Ireland are as beneficial as possible for bees and other elements of Irish biodiversity."

Dr. Lorna Cole, lead researcher and an agricultural ecologist at Scotland's Rural College (SRUC), said:

"With the CAP post-2020 fast approaching our study highlights that to effectively conserve pollinators we need to improve habitat quality. With different habitats offering different resources we also need to focus on increasing habitat diversity to ensure that our countryside provides the range of resources that pollinators require."

More information: Lorna J. Cole et al. A critical analysis of the

potential for EU Common Agricultural Policy measures to support wild pollinators on farmland, *Journal of Applied Ecology* (2020). DOI: 10.1111/1365-2664.13572

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