

Pollinator Strategy for Scotland

2017–2027 Implementation Plan



Introduction

This implementation plan sets out what key activities projects and initiatives are needed in Scotland to help our pollinators. It was prepared by Scottish Natural Heritage in collaboration with Scottish Government and advice from an editorial board comprising Bee Farmers Association, Buglife, Bumblebee Conservation Trust, Centre for Ecology & Hydrology, LINK, National Farmers Union Scotland, and Scottish Lands & Estates. It contains actions to encourage every sector of Scotland's population to help – from school children, to universities, farmers and landowners, health boards, local authorities, gardeners (even window-box gardeners), beekeepers and consumers.

This plan will not be static; it will be reviewed at least every three years and updated with new priorities and actions as necessary. A timescale is proposed for the suggested actions: Short- (up to 5 years), medium- (5-10 years) or long-term (10 years or more).

The five objectives of the strategy are:

1. To make Scotland more pollinator-friendly, halting and reversing the decline in native pollinator populations.
2. To improve our understanding of pollinators and their pollination service.
3. To manage the commercial use of pollinators to benefit native pollinators.
4. To raise awareness and encourage action across sectors.
5. To monitor and evaluate whether pollinators are thriving.

The Strategy and this, its implementation plan, aim to ensure that by 2027:

- action to support pollinators will be firmly embedded in relevant strategies, policies and practices across Government and the public sector;
- our understanding of pollinator ecology, status and trends is improved to allow policies and practices to be informed by the best evidence;
- regulation of importation of honey bees and bumble bees will minimise the risks of introducing new pests and diseases;
- local bee-based industries will be better supported;
- we will have a wide understanding of the value of Scotland's pollinating insects and strong public support to restore populations and habitats, monitor populations and research pollinator biodiversity;
- there will be a strong network of good-quality pollinator habitats in place;
- it can be demonstrated that Scotland's pollinators are thriving.

Objective 1: Make Scotland more pollinator-friendly, halting and reversing the decline in pollinator populations

We need to draw on all Scotland's land management activities to ensure the protection of the flower-rich habitats that pollinators need.

What are we going to do	How we are going to do it	Timescale (Short, medium, or long-term)
Prevent further habitat loss and degradation by maintaining and improving the current diversity of semi-natural habitats.	Support mechanisms that increase the diversification of flower-rich, and other pollinator-friendly habitats across farmland, the countryside and urban areas. Identify and capitalise on opportunities to encourage pollinator-friendly habitat management and connectivity under existing policies including SRDP, Land Use Strategy, Scottish Forestry Strategy, Scottish Planning Policy and National Planning Framework 3.	Medium
	Develop demonstration sites on public land, including parkland, woodland and National Nature Reserves (NNRs), and contribute to the Scotland's Rural University College (SRUC) initiative Farming for a Better Climate.	Short
	Map the current extent of pollinator-friendly habitats through existing data sets and identify gaps between these areas. Identify whether these gaps are in data availability or habitats, and ways to address this.	Medium (ongoing)
	Work in partnership with road and transport industry to develop and implement pollinator-friendly management policies.	Short
	Support the management of flower-rich gardens and amenity areas to help sustain pollinators in urban areas, and boost pollinator numbers in areas adjacent to farmland.	Medium
Promote the restoration and creation of natural flower-rich habitats in the countryside and in urban areas, to support a national ecological network ¹ .	Encourage land managers to connect pollinator-friendly habitats at a landscape-scale by targeting land-use and management incentives in areas where there will be greatest benefit and minimal impacts on pollinator habitats. Support policy initiatives from Planning Authorities and developers that include pollinators in the planning system, e.g. development proposals, management of public land, road verges, railway embankments and power way-leaves.	Medium

¹ <http://www.gov.scot/Publications/2014/06/3539/downloads>

<p>Retain connected habitat networks for wild pollinators and extend pollinator habitats to adjacent areas.</p> <p>Implement measures required to protect and enhance pollinator habitats.</p>	<p>Develop demonstration sites on public land, including parkland, woodland and NNRs, and support the SRUC initiative Farming for a Better Climate.</p>	Short
	<p>Encourage the production and implementation of local pollinator plans, such as the plan prepared by Aberdeenshire Council.</p>	Medium (ongoing)
<p>Recognise the importance of brownfield sites and manage these to benefit pollinators and other species.</p> <p>Encourage the inclusion of pollinators' needs in land management, and development planning and management.</p> <p>Incorporate green infrastructure in developments, such as green roofs and rain gardens to provide additional pollinator habitat.</p>	<p>Improve targeting of land-use and management actions to ensure that they are directed to the areas where there will be greatest benefit and there will be minimal impact on pollinator habitats.</p>	Medium
	<p>Consider a product-labelling scheme to promote pesticide-free plants in the retail sector.</p>	Medium
	<p>Review and signpost, or if necessary develop, habitat management advice packages for farmers, local authorities, schools, health and private land holdings, gardeners and developers.</p>	Short
	<p>Raise awareness of the benefits to pollinators of many wild plants considered to be weeds such as dandelions, thistles, common hogweed, ragwort and rosebay willowherb.</p>	Short
<p>Support the use and development of pollinator-friendly pest control measures, including IPM, in agricultural and urban areas; building on the principles set out in the EU Directive on the Sustainable Use of Pesticides.</p>	<p>Raise awareness of the benefits to pollinators of many wild plants considered to be weeds such as dandelions, thistles, common hogweed, ragwort and rosebay willowherb.</p>	Short
	<p>Support and promote IPM and targeted use of pesticides in agricultural and urban areas.</p> <p>Encourage Scottish growers to complete an IPM plan and encourage local authorities to apply the principles of IPM in ground maintenance and management.</p>	Medium

Objective 2 : Improve our understanding of pollinators and their pollination service

There is still much to learn about pollinators and pollination. What we do know needs to be turned into practical advice for pollinator-friendly management.

What are we going to do	How we are going to do it	Timescale (Short, medium, or long-term)
<p>Improve our knowledge of plant-pollinator interactions, including the relationship between wild pollinators and habitat size, quality, type and connectedness to other areas of habitat.</p> <p>Better understand, through spatial mapping, the resources available to pollinators at a landscape scale.</p>	<p>Identify the optimum plant assemblages and habitat patch size for wild pollinators in different management situations to better understand the link between pollinators and ecosystem function.</p>	<p>Long</p>
	<p>Support research on plant protection products that raise productivity and enhance sustainability whilst ensuring the maintenance of the nutrition benefits of wildflower abundance for both wild and managed pollinators.</p>	<p>Short</p>
	<p>Encourage research to evaluate climate-associated shifts in the phenology of plant-pollinator systems. Identify actions to support habitat and pollinator species adaptation to climate change.</p>	<p>Medium</p>
	<p>Evaluate methods of management that benefit pollinator and habitat diversity at farm- and landscape-scales, identifying those that provide multiple benefits, e.g. both pest control and pollination.</p>	<p>Short</p>
	<p>Investigate crop compositions to benefit pollinators, increasing farm-scale habitat heterogeneity, for pollinators and other species in need of conservation action.</p>	<p>Medium</p>

Objective 3: Manage commercial use of pollinators to benefit native pollinators

We need to find out more about the potential impact of commercially managed bees that are used to pollinate crops and make sure they do not harm wild populations.

What are we going to do	How we are going to do it	Timescale (Short, medium, or long-term)
Ensure the process of screening commercial honey bees, and imported/managed bumble bees, for pests and diseases, continuing to safeguard our wild pollinators.	Support and sustain a healthy honey bee population and beekeeping industry in Scotland through continued implementation of the measures set out until 2020 in the Honey Bee Health Strategy for Scotland.	Short
Review biosecurity measures for imported bees, particularly bumble bees, aiming at supporting healthy populations of pollinators in the wild.	Identify actions required to minimise the risks of managed bees (imported and locally-produced) to native pollinator species. Review the pathways by which commercially produced pollinators enter Scotland to determine the current scale and biosecurity risks.	Short
Ensure that practical advice is available to reduce the potential for pest and pathogen transfer, and disease impacts on wild pollinators.	Identify actions required to minimise the risks of managed bees (imported and locally-produced) to native pollinator species. Review the pathways by which commercially produced pollinators enter Scotland to determine the current scale and biosecurity risks.	Medium
Reduced reliance on imported bees for commercial pollination service. Encourage and support ways to enhance the use of naturally-occurring pollinators.	Encourage the enhancement of local populations of honey bees, bumble bees and solitary bees, so that Scotland can become less reliant on imports and so reduce the risk of introducing pests, pathogens and invasive species. Raise awareness of the Asian hornet (http://www.nonnativespecies.org/alerts/index.cfm?id=4), through the Asian hornet contingency plan (http://www.nonnativespecies.org/index.cfm?pageid=294), and associated guidance on BeeBase (http://www.nationalbeeunit.com/index.cfm?pageld=208).	Long

Objective 4: Raise awareness and encourage action across sectors

People in Scotland have a lot to lose if our pollinators are not healthy. Here we set out how we plan to get people involved in helping to look after and monitoring pollinators.

What are we going to do	How we are going to do it	Timescale (Short, medium, or long-term)
<p>Ensure that the value and vulnerability of plants and their pollinators is widely recognised.</p> <p>Increase awareness within key sectors and amongst the public of opportunities to help pollinators and their habitats.</p>	Develop regionally based species advice to assist public action for pollinators in both urban and rural areas.	Short
	Develop guidance, tailored for a range of audiences, on practical action to help pollinators.	Short
	Work with partners, including policy makers and those with practical skills in the management of habitats, to raise public awareness and understanding of the needs and status of pollinator populations.	Short
<p>Support and raise awareness of schemes and organisations that encourage people to identify and record pollinating species.</p>	Develop regionally based and relevant species advice to assist public support of pollinators in both urban and rural areas.	Short
	Develop tailored guidance on helping pollinators for different audiences.	Short
	Work with partners, including policy makers and those with practical skills in the management of habitats, to raise public awareness and understanding of the needs and status of pollinator populations.	Short
	Review options, possibly through use of Scotland's Environment Web (SEWeb), to make information readily accessible through a 'one-stop-shop' for pollinator information, capitalising where possible on the current information available.	Short

<p>Support initiatives by local and national environmental groups that increase the diversification and connectivity of flower-rich habitats in the countryside and urban areas.</p> <p>Encourage and support land managers to restore or create native flower-rich habitats to enhance pollinator abundance and diversity. Work together to carry out management at a landscape scale, including urban green space and urban fringe areas.</p>	<p>Develop regionally based and relevant species advice to assist public support of pollinators in both urban and rural areas.</p>	<p>Short</p>
	<p>Develop tailored guidance on helping pollinators for different audiences.</p>	<p>Short</p>
	<p>Work with partners, including policy makers and those with practical skills in the management of habitats, to raise public awareness and understanding of the needs and status of pollinator populations.</p>	<p>Short</p>
	<p>Investigate using Scotland's Environment Web (SEWeb) to provide a 'one-stop-shop' of pollinator information</p>	<p>Short</p>

Objective 5: Monitor and evaluate whether Scotland's pollinators are thriving

Only by seeing how the numbers and distribution of our pollinators change over time can we work out whether the strategy needs to be adapted.

What are we going to do	How we are going to do it	Timescale (Short, medium, or long-term)
Gather and analyse data to better understand pollinator population trends, habitat availability and connectivity, to ensure the correct actions are being taken for pollinators and habitats.	<p>Publish regular updates on the status of pollinators and their habitats to support wider common understanding of the need for action.</p> <p>Use the Pollinator Implementation Plan to monitor achievements and direct future effort.</p> <p>Ensure action is reviewed regularly and information on trends is incorporated.</p> <p>Explore new statistical techniques that draw the most information out of available records.</p>	Medium
Support monitoring and recording schemes for key species, notably bees, hoverflies, moths, butterflies and wild plants.	Continue to support recording schemes involving volunteers and 'citizen scientists'.	Short
Encourage citizen science and other volunteer projects that add value to existing monitoring initiatives to help deliver the National Pollinator Monitoring Scheme.	Implement the national pollinator monitoring scheme in Scotland.	Short

Photography:

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