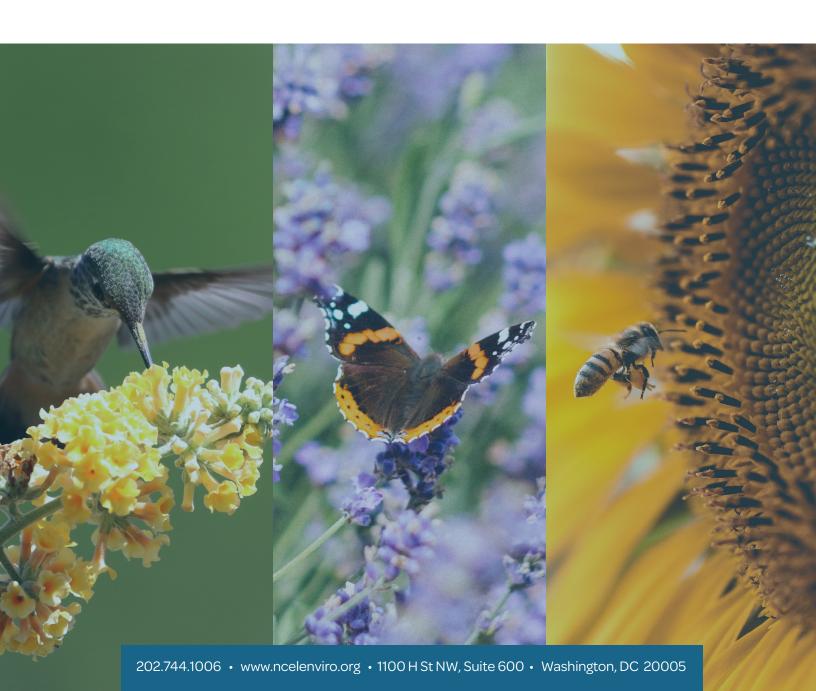
National Caucus of Environmental Legislators

Pollinator Protection Briefing Book







Overview

Pollinators are declining rapidly due to a number of factors, including loss of habitat, loss of forage and pesticides. Some pollinators such as bumblebees and Monarch butterflies may be on the verge of extinction. Many states have enacted or are considering legislation to acquire, restore and/or protect pollinator habitat, as well as to restrict the application of pesticides and other chemicals that are harmful to pollinators.

Legislation

States have taken several approaches to protect pollinators, including:

- Encouraging communities to use native pollinator flowering plants and habitat, such as NJ S 83
- Increasing public education through a Pollinator Week such as PA HR 385 and NY's K 1434, or Bee Aware Day (NM SM 103)
- Restricting or prohibiting specific pesticides, such as neonicotinoids (MD HB 211, NJ S 1016, and MD HB 0208)
- Establishing funding for pollinator protection, such as through state license plate fees (VA SB 434, NJ S 92, and CO HB 21-1145)

KEY POINTS

- Pollinators are essential to at least onethird of the crops grown for human consumption. (USDA)
- → In 2020-2021 alone, 45.5% of honeybee populations in the United States died in one season (Bee Informed Partnership).
- → Pollinators are responsible for \$24 billion in US crop production, and between \$235 and \$577 billion in crops produced worldwide (Obama Administration & Bayer).

Other Resources

- Study detailing all state policy protecting pollinators from 2000-2017 (<u>Environmental Science and Policy</u>).
- North American Pollinator Protection Campaign with research, education and project partnerships (NAPPC).
- Xerces Society's Pollinator Conservation Resource Center, with habitat conservation guides, regional plant lists and fact sheets (Xerces Society).
- NCSL's "Pollinator Health" page on more policy options for pollinator protection (NCSL).



Pollinators FREQUENTLY ASKED QUESTIONS

1. What are pollinators?

Pollinators are insects and animals that move pollen from one part of a plant to another, allowing fertilization of the plant so that fruit and seeds can be produced. Pollinators include bees, butterflies, moths, birds such as hummingbirds, several species of bat, ants, and some species of beetle and wasp. In the United States alone, there are over 4,000 species of native bees. Honey bees are not native to North America.

2. Why are pollinators important?

Pollinators are responsible for a full one-third of the crops that are grown for human consumption. Flowering crops cannot produce fruit and seeds without pollination. In fact, nearly 90% of all flowering plants on Earth require a pollinator to reproduce. Bees are also responsible for all the honey that is produced.

3. Why are pollinators in decline?

Pollinators are declining worldwide due to some of the factors that threaten all biodiversity. According to pollinators.org, pollinators are declining because of loss of habitat, improper use of pesticides/herbicides/fungicides, disease, parasites and invasive species. In 2015 alone, over 40% of honey bee colonies in the United States were lost. Bumblebees and Monarch butterflies may go extinct within a few years if their native flowering plants and habitats are not restored and protected.

4. Do neonicotinoids harm pollinators?

Neonicotinoids are a relatively new class of pesticide linked to pollinator decline. Research on specific types of neonicotinoids has been mixed, but many assessments show negative impact on bee navigation, reproduction, immune function and growth rates. Neonics sprayed on plants have been banned in Europe.

5. Who supports and who opposes pollinator bills?

Beekeepers, environmental and science groups, fruit-growing associations and gardeners are often strong supporters of pollinator protection bills; those in opposition sometimes include chemical companies, pest management agencies and groups, and agriculture groups such as the Farm Bureau.

6. What are the human health risks associated with pesticides?

Pesticides are linked to numerous health risks for humans. Short-term risks are the most common and can include stinging eyes, rashes, blisters, blindness, nausea, dizziness, diarrhea and death. However, they are also associated with chronic risks and are often more severe including cancers, birth defects, reproductive harm, immunotoxicity, neurological and developmental toxicity, and disruption of the endocrine system. These impacts disproportionately affect marginalized groups, such as farm workers, that are most exposed to pesticides in their daily work.

7. What is the difference between neonicotinoids and organophosphates?

Neonicotinoids and organophosphate are two of the most common pesticides used today. However, they belong to two different classes of pesticides and can have different uses. They are most often used to target different agricultural pests. Neonicotinoids are predominantly used to coat seeds and protect against secondary crop pests, which are those that are not the main cause of yield loss. Meanwhile, organophosphates are the most used pesticide today and target a wider range of agricultural pests.





Overview

State legislatures have implemented a variety of solutions to protect pollinator populations and increase public awareness. The following list includes some of the different and transferable policy approaches U.S. states have taken to protect pollinators and address the various threats to these species and their habitats.



Policy Strategies



Funding

- New Jersey S.92 (2021) & Colorado H.B.21-1145 (2021): Establishes pollinator license plates with the generated funds to go towards pollinator health protection projects.
- Minnesota S.F.550 (2017): Allocates money from the "Environment and Natural Resources Trust Fund" to fund pollinator studies, restore pollinator habitat, and improve pollinator roadside safety.
- New York 3004 (2017): Allocates money from the state capital projects fund to establish biodiversity stewardship and research for the support of pollinator diversity.
- Maryland HB 132 (2016): Funding for relevant state agencies to establish a pollinator habitat plan.



Community Education and Partnership

- <u>Virginia H.B.2030</u> (2021): Directs the Department of Agriculture and Consumer Services to study
 means of improving communications between beekeepers and applicators to reduce the threat of
 neonicotinoids. Published <u>study</u> released in 2021.
- Pennsylvania H.R.385 (2019) & Governor's Office Proclamation (2021): Declaring a week in June as Pollinator Week, with a Pollinator Week toolkit released in 2021.
- Rhode Island H.8183 (2018): Establish pollinator working groups and coordinate its actions with state agencies to make findings & recommendations for the improvement of pollinator health.
- California A.B.2421 (2018): Establishes a Monarch Butterfly and Pollinator Rescue Program which can give grants to private landowners and others for Monarch Butterfly and pollinator habitat.
- New Jersey A.R.216 (2017): Encourages homeowners to plant native plants that support bee populations and create habitat for all pollinators.







Habitat Protection and Improvement

- Colorado H.J.R12-2109 (2017): Designates a segment of Interstate Highway 76 as the "Colorado Pollinator Highway" and encourages the transportation department to implement integrated roadside management.
- Washington S.B.5253 (2021): Implements the Pollinator Health Task Force's recommendations to
 establish a program to promote and protect pollinator habitat and the health and sustainability of
 pollinator species.
- Minnesota S.F.20 (2021): Implements a variety of pollinator habitat protections measures such as identifying best pollinator habitats, enhancing roadside habitat, creating new habitat along the Mississippi River, replacing turf with native plants, and partnering with citizen science groups.
- Minnesota HF 776 (2019): Creates a "Lawns to Legumes" Program to allow citizens to apply for grants
 to develop pollinator habitat in their yards. State ecologists have created planting guides and tips online
 for interested homeowners. (Final language was in <u>S.F.7</u>, the omnibus appropriations bill, and contained
 \$902,000)
- South Carolina H.4875 (2018): Enacts the "South Carolina Solar Habitat Act" to establish voluntary solar best management practices for commercial solar energy generation sites
- Illinois S.B.3214 (2018): Creates the "Pollinator Friendly Solar Site Act" to provide grants to private landowners with solar energy generation to protect native pollinators.
- California A.B.2062 (2018): Requires planting projects undertaken or approved by the department to include CA native wildflowers and native and climate-appropriate vegetation as an integral and permanent part of the planting design.
- New York A.8083A (2018): Develops guidelines for vegetation management plans to be used by persons or corporations that make claims that they provide pollinator protection.
- Maryland H.B.83 (2017): Establishes a specified pollinator habitat plan to include specified best management practices for the designation of specified habitat areas.
- New Jersey S.83 (2022): Establishes the "New Jersey Native Plants Program" to encourage and promote
 the sale of native plants to increase consumer awareness about native plant's important role for pollinators
 through advertising and marketing campaigns.



Pesticide Restriction and Regulation

- New Jersey S.1016 (2022): Restricts the use of neonicotinoids pesticides designed for outdoor use.
- New York S.899 (2021): Prohibits the vast use of glyphosate pesticides on state property.
- Maryland S.B.0375 & H.B.0208 (2021): Restricts the sale of neonicotinoids pesticides only to certain certified applicators or farmers.





Pesticide Restriction and Regulation (continued)

- <u>Vermont H.205</u> (2019): Regulates the sale of neonicotinoid pesticides primarily through registrations.
- Hawaii S.R.136 (2019): Recognizes the threats that insecticides pose to pollinators and urges the
 Departments of Land & Natural Resources and Agriculture to limit pollinator exposure to neonicotinoid
 pesticides.
- Vermont H.626 (2022): Prohibits the use of neonicotinoid pesticides until the adoption of new rules of use. Prohibition becomes permanent if new rules are not created by 7/1/2024.
- Connecticut S.B.120 (2022): Prohibits the use of chlorpyrifos on golf courses and for nonagricultural use and to restrict the use of neonicotinoids for nonagricultural use.
- Rhode Island H.B.7129 & S.B.2299 (2022): Labels neonicotinoid pesticides as limited use pesticides and restricts their usage to certified applicators.



Advisory Boards and Research

- Washington SB 5552 (2019): The department of agriculture shall create and chair a pollinator health task force. This task force will study and find best ways to protect pollinators in the state.
- <u>Delaware SCR 50</u> (2019): Calls on Congress to take action to pollinator population by researching the causes of pollinator population losses and determining how to increase pollinator populations throughout the US and world.
- Colorado SB 22-199 (2022): Calling for a study regarding the protection of native pollinating insects in the state.

