Defending managed and native pollinators vital to an affordable and sustainable food supply from the adverse impact of pesticides.

Pesticides and Pollinators: A sociological synthesis

A recent paper by pollinator experts, Douglas B. Sponsler, Christina M. Grozinger, Claudia Hitaj, Maj Rundlof, Cristina Botías, Aimee Code, Eric V. Lonsdorf, Andoni P. Melathopoulos, Sainath Suryanarayanan, Wayne Thogmartin, Neal M. Williams, Minghua Zhank, and Margaret R. Douglas, encourages a new form of pesticide pollinator scholarship. "The relationship between pesticides and pollinators, while attracting no shortage of attention from scientists, regulators, and the public, has proven resistant to scientific synthesis and fractious in matters of policy and public opinion. This is in part because the issue has been approached in a compartmentalized and intradisciplinary way, such that evaluations of organismal pesticide effects remain largely disjoint from their upstream drivers and downstream consequences. Here, we present a socioecological framework designed to synthesize the pesticide-pollinator system and inform future scholarship and action. Our framework consists of three interlocking domains—pesticide use, pesticide exposure, and pesticide effects—each consisting of causally linked patterns, processes, and states. We elaborate each of these domains and their linkages, reviewing relevant literature and providing empirical case studies. We then propose guidelines for future pesticide-pollinator scholarship and action agenda aimed at strengthening knowledge in neglected domains and integrating knowledge across domains to provide decision support for stakeholders and policymakers. Specifically, we emphasize (1) stakeholder engagement, (2) mechanistic study of pesticide exposure, (3) understanding the propagation of pesticide effects across levels of organization, and (4) full-cost accounting of the externalities of pesticide use and regulation. Addressing these items will require transdisciplinary collaborations within and beyond the scientific community, including the expertise of farmers, agrochemical developers, and policymakers in an extended peer community. The science of pesticides and pollinators suffers from vast gaps, not just in data but in theory, communication, and practice. A new generation of pesticide-pollinator scholarship could provide both a synthesis and set of applications, informed by the structured relationships depicted in our framework."

READ MORE

https://www.sciencedirect.com/science/article/pii/S0048969719300166
Transforming Corporate Greenspaces for Pollinators

In an increasingly urbanized nation, greenspaces make a significant contribution to the vitality of employees, pollinators, and our community.

Corporations can learn How to Transform Greenspace for Employees, Pollinators, and Your Bottom Line at the June 17, 2019 Corporate Pollinator Habitat Symposium. This event is free for executives and facility/land managers of Ohio corporations, Ohio educational institutions, and similar Ohio companies with land holdings from their small retail landscaping to acreage surrounding corporate offices. Featured speakers include:

- Sabrena Schweyer, Certified Landscape Designer (FAPLD), Lawn Alternatives: The Landscapes of the Future
- Dave Riddell, OPN Seeds, Operations Manager, Large Scale Pollinator Habitat Development
- Stephanie Frischie, Agronomist / Native Plant Materials Specialist at Xerces, Pollinator–Friendly Corporate Landscaping
- Mary Gardiner, Ph.D., OSU Associate Professor, Insect Conservation in Urban Areas.

A study, published in the journal, Environmental Management, found that over 40 million acres of land in the continental US has some form of lawn on it. Grass is actually the biggest crop in the United States. It’s everywhere — on our lawns, peaking around the side of streets, blanketing golf courses. If all that is kept well-watered, it could use 60 million acre-feet of water a year (An acre-foot is the amount of water needed to cover an acre to a depth of one foot). Furthermore, if we replaced our lawns with plants naturally occurring where we live, or allowed them to go “wild,” we could significantly cut down on the amount of water we waste on grass. It could save you money, too; Americans spend about $30 billion on lawn care every year.

At the core of a healthy environment are pollinators, animals that move pollen among flowers, thus ensuring that the plants can form seeds and fruits. These beautiful animals not only keep plants healthy which in turn provide homes and food for other wildlife, but also benefit nearby natural areas and neighboring gardens or farms. Like all wildlife, pollinators are losing places to live and the essential service they provide is at risk. Conserving them is becoming an increasingly urgent concern.
RSVP today to attend this Ohio Pollinator Week event:
Monday June 17, 2019
8:30 a.m.-4 p.m.
Franklin Park Conservatory & Botanical Gardens
1777 East Broad St., Columbus, OH 43203
RSVP by May 20, 2019 at this link

Participants will receive a catered lunch, and information on how to transform their corporate landscape into a sustainable greenspace for employees, their community, and their bottom line. Join us and learn how you can create corporate pollinator habitat that saves you money, provides a place of respite for employees, contributes to your community sustainability focus for cleaner water, soil, and air, and supports the very pollinators pollinating one in three bites of your delicious, nutritious food.

This event is sponsored by the Scotts Miracle-Gro Foundation with partners Pollinator Stewardship Council and Franklin Park Conservatory and Botanical Gardens. For more information contact Program Director, Michele Colopy at the Pollinator Stewardship Council 832-727-9492, progdirector@pollinatorstewardship.org

Our 2019 Pollinator Week Activities

June 17, 2019-Corp Pollinator Habitat Symposium at Franklin Park Conservatory in Columbus

June 18, 2019 – New Day Cleveland, Ch. 8 TV; and Keep the Hives Alive film at Cleveland Botanical Garden with Sierra Club and the City of Cleveland Lake Erie Biodiversity Plan (LEAP)

June 19, 2019 - Maumee Library, How You Can Help Pollinators

June 20, 2019 – Discovery Days at Stan Hywet Hall; and John McIntyre Library, How You Can Help pollinators

June 22, 2019 - Pollinator Palooza at Franklin Park Conservatory, Columbus

June 23, 2019- Preservation Parks, How You Can Help Pollinators, Delaware County

What are you doing for Pollinator Week?
June 17-23, 2019

Meet with your City Council member and educate them about honey bees and pollinator forage.
Healthy Soils = Healthy Plants = Healthy Bees

The things we can learn from the past, and wonder why it never impacted the present and the future, are evident in a 1948 speech, “The Influence of Honeybees on the Soil Conservation Program.” In 1948 Mr. Bennett, Chief of the U.S. Soil Conservation Service, met with the National Federation of Beekeepers’ Associations and exclaimed “the beekeeper is a soil conservationist by the very circumstance of his growing the same crops for bee pasturage that the soil conservationist so often recommends for erosion control on various kinds of land. The work continues, and beekeepers can learn and work for soil health to ensure bee health.

Farmers Are Leading the Way to Healthy Soils. Watch this presentation by Dr. Jonathan Lundgren of Blue Dasher Farm at the Conservation Tillage and Technology Conference. https://www.youtube.com/watch?v=Wclif5iRGJc

National Soil & Water Conservation Districts grew out of the Dust Bowl to serve rural and urban landowners, helping to plan land use, and teach conservation. Learn more at https://www.youtube.com/watch?v=LU-PdpT-2v4&feature=youtu.be

Mr. Bennett, Chief of the U.S. Soil Conservation Service in 1948, stated his call to action that still rings true today. “I believe you will agree that this is a job which is big enough to challenge the best efforts of everybody—and that you will also see the great potential benefits to your own particular industry of beekeeping when all this necessary work has been done. This soil conservation job is so big and urgent that no single agency or group can handle it alone. Safeguarding our productive lands is in the interest of everybody. Especially important is the concept of soil conservation into our national consciousness, through the schools from kindergarten to college, and through church, business, and other groups. It is a matter of direct concern to our entire society, or vital importance to national welfare and to world peace and security, . . . that never before has the preservation of every acre of productive land been so vital to the welfare of mankind. It is just as vital to every one of you beekeepers, who must depend on the continued bounty of the soil for every ounce of nectar and pollen which are the raw materials for your salable products.” (Read more on page 2-4 of this 2016 PSC Newsletter article at http://pollinatorstewardship.org/wp-content/uploads/2018/07/May-15-2016-Pollinator-News.pdf )

“The idea is to say to politicians 'help us to finance our cover crops rather than buying enormous machines that are useless’” — François Peaucellier, French Farmer

READ MORE at https://www.politico.eu/article/glyphosate-concerns-pass-from-human-health-to-soil/?fbclid=IwAR0cycssxwGXabVnr0LoKtspNOX2PJb7kWnL-Fvap9GpZBVWXcWV-uze6qE

Your donations make a difference for honey bees and native pollinators.

Make your tax deductible donation today!
The Pollinator Stewardship Council, Inc. Board of Directors is now calling for a moratorium on the use and registration of the neonic class of pesticides for the protection of pollinators, the food web, and the biodiversity of the ecosystem.

Together, we make a difference. I will support the Board of Directors fundraising campaign of 25¢ per hive to secure a staff scientist, and legal advisor to be the voice for our managed and native pollinators.

Enclosed please find my tax deductible support of $____________

Name______________________________________________________________
Address____________________________________________________________
City______________________________________   State ____  Zip___________
Email______________________________________________________________

Please include this information with your check and mail to:
Pollinator Stewardship Council, 1624 Idlewood Ave., Akron, OH 44313

Together, we make a difference! Thank you!
Beware Online “Filter Bubbles”

There is an invisible shift in how information is flowing and Eli Pariser wants us to be aware of it. The web now adapts depending on the specific user. Eli first noticed this automatic filtering in his own Facebook news feed. He is politically progressive and noticed that he was starting to see less and less of the conservative links posted by his Facebook friends. Facebook had worked out that Eli had been clicking more liberal links than conservative links and hid them. This invisible, algorithmic editing is used by nearly all major sources of news and information.

Google now uses 57 different signals to determine your search results. Ranging from your geographic location to your age and ethnicity. Yahoo News and Huffington Post have also begun to personalize their information. The information I get is no longer the information you get.

The problem with this, Eli says, is that while the Internet is showing what we want to see — its not necessarily what we need to see. A filter bubble is what he calls it. It’s a bubble of your own unique information, but you can’t see what doesn’t get into it. When the Internet was created it was seen as a release from the control of the people that were controlling and editing what information you saw. However, the reality is that these human gatekeepers have been just replaced with algorithmic ones.

These algorithms have been feeding us a steady diet of relevant information. But what we need is a balanced diet that also include information that is uncomfortable, challenging, and important. Eli wants this to change. He wants algorithms that have encoded in a sense of public life and a sense of civic responsibility. Algorithms that allow us to see what doesn’t get through. This is the key to unlock the full potential of the Internet. The Internet should be something that introduces us to new ideas, new people, and different perspectives. Listen to the TED Talk at https://tedsummaries.com/2014/02/01/eli-pariser-beware-online-filter-bubbles/

Concerns over glyphosate pass from human health to the soil

Experts say the weedkiller’s impact on soil health represents a serious threat to Europe’s long-term food security.

By SIMON MARKS
4/3/19, 6:30 PM CET; Updated 4/4/19

When François Peaucellier talks about soil, he sounds like a sommelier. “It’s full of little leaves,” says the French farmer, holding up a clod from his field. “The earth is supple and beautiful. There is a surface life that is superb.” Peaucellier, who grows cereals and vegetables on a 200-hectare farm in the Hauts-de-France region north of Paris, is part of small but growing movement of farmers who are cutting back on pesticides not so much out of concerns for human health — but because they worry about what it does to the soil. . .

But farmers like Peaucellier say the weedkiller’s impact on soil health has been overlooked, and represents a serious threat to Europe’s long-term food security. Soil experts, academics and scientific studies are also establishing clear links between the use of substances such as glyphosate with drops in soil fertility and the collapse of microbe ecosystems essential to healthy soil. With more than a third of the world’s land already degraded by erosion, compaction and chemical pollution, according to the U.N.’s Food and Agricultural Organization, thousands of farmers in countries like France are starting to embrace new methods.

Peaucellier, 30, no longer measures success just by the bounty of his crops, he says, but by the number of worms he finds living in the soil beneath them. “Look at the rapeseed plants. Normally the plants should be twice as high as that,” he says, gazing at his neighbor’s fields. He pierces his own land with a yellow spade. The soil is marbled with healthy decomposing roots, crawling lice and squirming earthworms. “These animals do so much more work than any fertilizer will do,” he says. “But you need one, two, three years to bring back the life.”

READ MORE
https://www.politico.eu/article/glyphosate-concerns-pass-from-human-health-to-soil/?fbclid=IwAR0cycssxwGXabjVnr0LoKtspNOX2PJbj7kWnLFyap9GpZBVWxCyW-uz6qE
Research

Gauging the Effect of Honey Bee Pollen Collection on Native Bee Communities

Abstract

Experimental demonstration of direct exploitative competition between foraging honey bees and native bees in wildlands has proven elusive, due to problems of experimental design, scale, and context-dependence. We propose a different approach that translates floral resources collected by a honey bee colony into progeny equivalents of an average solitary bee. Such a metric is needed by public land managers confronting migratory beekeeper demands for insecticide-free, convenient, resource-rich habitats for summering. We calculate that, from June–August, a strong colony gathers as much pollen as could produce 100,000 progeny of an average solitary bee. Analogous to the animal unit month (AUM) for livestock, a hive unit month (HUM) is therefore 33,000 native bee progeny. By this calculation, a 40-hive apiary residing on wildlands for 3 months collects the pollen equivalent of four million wild bees. We introduce a rapid assessment metric to gauge stocking of honey bees, and briefly highlight alternative strategies to provide quality pasture for honey bees with minimal impact on native bees. READ MORE


Impact of managed honey bee viruses on wild bees

Evidence is mounting that viruses originally detected in the managed Western honey bee are widely distributed across wild bee species. For DWV, data support the idea that virus spills over from Western honey bees to wild bee species, where it potentially reduces individual wild bee host fitness [31]. Yet viral prevalence varies considerably across wild bee species [21], and some viruses have higher prevalence in wild bees, suggesting spill-over to managed Western honey bees. A key future aim is to determine the epidemiology and transmission dynamics of these viruses in the field. Do they show source-sink dynamics, or active back-and-forth transmission? Understanding this will give us tools to manipulate transmission in the field, for the benefit of both wild bee species and managed Western honey bees. From the direct perspective of impact, an interesting question is whether some wild bee species, particularly those that are rare or declining, are less tolerant of viral pathogens than others; analysis of their anti-viral innate immune defence mechanisms [54], whose complements vary among Dipteran species [55], may be one productive means of investigation. Similarly, genetic analyses of population size and bottlenecks in coupled wild bee-virus systems might elucidate past impacts. Whether viral emergence in managed Western honey bees leads to host switching through the mass action principle [56,57], that is, through increasing density of infective virions in the environment, versus viral adaptation is another question that would benefit from greater attention, not only in understanding the threat posed to wild bee species by managed Western honey bee viruses but also as a model of EID impacts on wildlife. The impact of viruses may also vary with co-infection by two or more viruses [58] and through inter-actions with other so-called ‘stressors’ of wild bee species such as pesticide exposure [8], as has been demonstrated at the molecular level for the Western honey bee [59]. With such information to hand, we may be able to understand how pathogen spill-over from Western honey bees impacts communities of wild bee species, their populations, and the ecosystem service of pollination, from which terrestrial life and human well-being benefit.

Neonics, misogyny, and the status quo

A Ph.D. in biochemistry, and a leader in a beekeeping association contacted Pollinator Stewardship Council, stating he, and therefore his association, would not support “my” “misguided plans to ban neonics.”

The Pollinator Stewardship Council is following the research showing neonics have “run their course” and should not have their registration renewed, calling for a moratorium on the use of this class of pesticide. He further stated, “In fact, some of the studies have shown that neonics are actually better for pollinators since they are systemic rather than broadcast insecticides.” The research is quite clear. Due to the systemic nature of this class of pesticide is exactly the main problem with neonics. The systemic nature of this class of pesticides kills chewing and sucking insects on the plant, and honey bees are chewing and sucking insects. You can find a plethora of peer-reviewed research across the scientific spectrum concerning this class of pesticide that has been applied to the ecosystem for more than fifteen years.

Neonicotinoid Research References

- See the Research section of the Pollinator News http://pollinatorstewardship.org/index.php/pollinator-news/
- Research: Neonicotinoids http://pollinatorstewardship.org/index.php/research-neonicotinoids/
- The Task Force on Systemic Pesticides http://www.tfsp.info/findings/

After fifteen years of use a pesticide comes up for review and/or re-registration with the EPA, to review for effectiveness, resistance, and harm to the environment. Beekeepers, farmers, pesticide applicators, farm workers, advocates, researchers, and policy makers all review the lexicon of data across the pesticides’ use, and examine the impact of its use upon the ecosystem.

Beekeepers, confronted by the impact of weather/climate change, pests, pathogens, pesticides, and lack of forage (due to pesticides destroying or contaminating forage), are struggling to keep their bees alive. The “filter bubble” of “one very poorly done paper on the negative effects of neonics on bees” showed what one person “wanted to see” based on their internet use algorithm created when any of us use the internet. We all need a “balanced diet that also includes information that is uncomfortable, challenging, and important.” (https://tedsummaries.com/2014/02/01/eli-pariser-beware-online-filter-bubbles/)

“Due to the number and variety of factors to be taken into account when determining the environmental impact of a concrete undertaking, it is essential to give researchers their due role, to facilitate their interaction, and to ensure broad academic freedom.”

The Worldwide Integrated Assessment (WIA) synthesized “the state of knowledge on the risks to biodiversity and ecosystem functioning posed by the widespread global use of neonicotinoids and fipronil. The WIA is based on the results of over 800 peer-reviewed journal articles published over the past two decades. We assessed respectively the trends, uses, mode of action and metabolites (Simon-Delso et al. 2014); the environmental fate and exposure (Bonmatin et al. 2014); effects on non-target invertebrates (Pisa et al. 2014); direct and indirect effects on vertebrate wildlife (Gibbons et al. 2014); and risks to ecosystem functioning and services (Chagnon et al. 2014) and finally explored sustainable pest management practices that can serve as alternatives to the use of neonicotinoids and fipronil (Furlan and Kreutzweiser 2014).”

(https://link.springer.com/article/10.1007/s11356-014-3229-5)

Eight hundred peer-reviewed papers outweigh one “poorly done paper.” The sublethal levels of pesticides accumulating in the hive matrices (wax, pollen, nectar, bee bread, bees) create a tank mix within the hive that contributes to end of summer losses, and increased winter losses. End of summer losses are now being included in the surveys by the Bee Informed Partnership, finally validating the years of experiences of beekeepers. Boxes full of honey and no bees represents the “dead canary in the cage in the coal mine.”

Updates to the Worldwide Integrated Assessment stated:

- “Conclusions of the previous WIA in 2015 are reinforced; neonicotinoids and fipronil represent a major threat worldwide for biodiversity, ecosystems, and all the services the latter provide.” (https://link.springer.com/article/10.1007/s11356-017-0394-3)
- “The chronic lethality of neonicotinoids to insects and crustaceans, and the strengthened evidence that these chemicals also impair the immune system and reproduction, highlights the dangers of this particular insecticidal class (neonicotinoids and fipronil), with the potential to greatly decrease populations of arthropods in both terrestrial and aquatic environments. Sublethal effects on fish, reptiles, frogs, birds, and mammals are also reported, showing a better understanding of the mechanisms of toxicity of these insecticides in vertebrates and their deleterious impacts on growth, reproduction, and neurobehaviour of most of the species tested.” (https://link.springer.com/article/10.1007/s11356-017-0341-3)
- We need “a new framework for a truly sustainable agriculture that relies mainly on natural ecosystem services instead of chemicals.” (https://link.springer.com/article/10.1007/s11356-017-1052-5)

“Concern for the environment thus needs to be joined to a sincere love for our fellow human beings and an unwavering commitment to resolving the problems of society.”


When The Pollinator Stewardship Council presented their position on bee toxic pesticides based on peer-reviewed scientific research, “I” personally have been lambasted in misogynistic terms such as: “misguided,” “emotional,” “hysterical,” “uneducated,” and “too young to understand.” “I” do not make policy decisions for the Pollinator Stewardship Council, “I” did not even create the mission of this nonprofit (to defend managed and native pollinators vital to a sustainable and affordable food supply from the adverse impact of pesticides). The Board of Directors developed the mission, a Board comprised of members from the American Beekeeping Federation and the American Honey Producers Association.

As a twenty year nonprofit leader educating, advocating, and providing services in the arts, community development, health and wellness, advocacy, and affordable housing and homelessness, the recipient of two Master’s degrees, a beekeeper in the city (whose father was also a beekeeper with a small orchard), at age sixty, I have experienced the misogyny that comes with espousing peer-reviewed science, of challenging the status-quo, and working for a healthy community and environment for all. As a nonprofit leader for more than twenty years, “I” speak for the organization’s policy developed by the Board of Directors and members. “My” work for the nonprofit is guided by the organization’s policies.
When individuals ignore the printed pesticide label statements that products kill bees; when they present singular research about the impact of pesticides upon pollinators ignorant of the myriad of peer-reviewed research, in obvious misogynist language it shows the status quo is feeling challenged. If you feel this article has been insulting to you, that your sensibilities have been offended, that “I insulted you,” or “took your words out of context,” welcome to the world of women beekeepers and women farmers.

Discussion, questions, personal experience, peer-reviewed research is important as beekeepers work to protect their bees, read and understand pesticide labels, and value the knowledge of other beekeepers, advocates for beekeepers, and especially those not within the “status quo.”

The Pollinator Stewardship Council encourages readers to review the research links provided. Step out of your “filter bubble,” and listen to your fellow beekeepers whose bees have suffered acute and/or sublethal exposure to pesticides.

The Board of Directors will continue to work to fulfill our mission. We will continue to educate beekeepers, members, and the public about the impact of pesticides, whose very labels and research caution and warn users of the products’ harm to beneficial, non-target organisms. We will continue to provide links to academic research, by male and female scientists from the United States and around the world who educate us all about the hazards of synthetic chemical insecticides, fungicides, and herbicides to our managed and native pollinators.

Center for Food Safety Launches App to Save Pollinators: Wild Bee ID

The Center for Food Safety (CFS) launched the Wild Bee ID website and app to help anyone identify the wild bees—and the plants those bees pollinate—native to their own backyards. Several species of wild bees, like the Patagonia and rusty patched bumblebees, have gone extinct in the last few years in part due to the decreasing diversity of our agricultural landscape and increased use of pesticides. CFS built the Wild Bee ID app to make it easy for anyone to identify the bees buzzing outside their homes and to choose their favorite flowers.

“If bees go extinct, so will we,” said Rebecca Spector, West Coast director of CFS. “Seventy percent of the plants we eat need pollinators to survive, so we built the Wild Bee ID app to help people support these threatened pollinators by identifying which plants will best provide different types of bees with the pollen, nectar, and habitat that those bees need to survive.” Wild Bee ID identifies North American wild bees with striking photographs, both the scientific and common names of the bee, where they’re typically found, what behaviors they exhibit, and which floral resources will best allow different bee genera to thrive. Available on both iPhone and Android, the app also features guides on how to start a wild bee garden, bee nesting habits, and bee anatomy.

“As the owner of a sustainable honey business that’s spanned three generations, I will definitely be using the Wild Bee ID app to identify more plants and resources I can use to save our bees.” said John Wright, owner of the Bee Wild in Smyrna, Georgia. “And now everyone can do their part in their backyards or balconies too!” The fact that many bee species are facing extinction has become increasingly well known, but most of the attention has been focused on the honey bee, which is not a native bee to North America. Unlike the honey bee, wild bee species native to North America are uniquely qualified to pollinate the plants from the same region because the interactions between flowering plants and their regional pollinators have led to increasingly sophisticated and mutually beneficial partnerships. The collective characteristics exhibited in a plant’s flower—including its color, size, shape, scent, and bloom period—are designed to attract the most effective pollinators of the region. Variations which have occurred in body size and shape, tongue length, mode of pollen collection, and foraging habit have enabled native bees to glean the greatest possible pollen and nectar rewards from their botanic partners.
“Wild bee populations have been declining at alarming rates due to pesticide poisoning and habitat loss,” said Wild Bee ID author Celeste Ets-Hokin. “As natural areas are steadily diminished, our residential gardens can provide valuable habitat for many bees. It’s not often that the average citizen can play such an important role in the conservation of a critical species, but in the case of native bees we can all make a real difference by learning to create habitat in our backyards and community gardens. It’s our hope that gardeners across the country will use the Wild Bee ID app to actively participate in the conservation of these vital pollinators.”

For bee enthusiasts who also want to protect wild bees in Congress and from the food industry, Wild Bee ID offers pollinator-related actions to write your legislators or companies, urging them to improve policies and practices. Wild Bee ID currently features an opportunity for users to urge their representatives to support the Save America’s Pollinators Act, which would require the Environmental Protection Agency (EPA) to take immediate action to protect bees from neonicotinoid insecticides.

CFS is one of the leading organizations fighting to preserve managed and native pollinator species and protect human health by stopping the prolific use of neonicotinoid pesticides. This includes receiving a victorious decision from the U.S. District Court for the Northern District of California when the judge ruled that the EPA systematically violated the Endangered Species Act (ESA) when it approved bee-killing insecticides known as neonicotinoids. As a result, EPA will be required to address the impacts of the dangerous pesticides clothianidin and thiamethoxam on endangered species and the industry will also withdraw 12 different neonic pesticides from the market and their pesticide registrations will be revoked. CFS also filed a lawsuit against the U.S. Fish and Wildlife Service (FWS) demanding the agency list monarch butterflies as an endangered species. As a result of a settlement, the agency must now propose protection for the monarch, deny protection, or assign it to the “candidate” waiting list for protection by June 2019.

**State Court Upholds the Right of Local Governments in Maryland to Restrict Pesticides on All Lawns in Their Jurisdiction**

A Maryland Court of Special Appeals ruled that Montgomery County, Maryland has the right to restrict pesticides, under a 2015 landmark law, on all land in its jurisdiction more stringently than the state. This decision reverses a lower Circuit Court decision and upholds local democratic decision making in the face of a challenge by the industry groups representing lawn care companies and chemical manufacturers. Nine organizations, including Beyond Pesticides, filed an Amicus brief in support of the county law.

The chemical industry has fought for nearly three decades to suppress the right of local governments in the U.S. to protect public health and safety with pesticide law, having successfully lobbied 43 states to preempt their local political subdivisions’ authority. Seven states uphold local authority, including the state of Maryland, which has affirmed in its legislature the rights of localities by rejecting preemption legislation on numerous occasions.

According to Jay Feldman, executive director of Beyond Pesticides, “This is an important win for the local organic land management movement sweeping the country, as local elected officials embrace practices that protect the health of people and the environment.” The attorneys for the county expect that industry groups will file a petition for a writ of certiorari (judicial review) and request a stay of enforcement with the Court of Appeals.

“This important state court decision affirms local democratic decision making to protect health and the environment, upholding the first U.S. county law to ban toxic pesticides used on lawns on both private and public property,” said Mr. Feldman. READ MORE AT https://beyondpesticides.org/dailynewsblog/2019/05/state-court-upholds-the-right-of-local-governments-in-maryland-to-restrict-pesticides-on-all-lawns-in-their-jurisdiction/
NACD Awarded Grant To Further Pollinator Conservation Education

On Monday, Apr. 8, NACD announced it was selected as the recipient of the David Rockefeller Fund Pollinator Education Initiative Grant through an agreement with the Pollinator Partnership.

Through the agreement, NACD will develop a guide to conduct pollinator conservation field days, as well as create online resources, lessons plans and materials for classrooms to engage students in interactive, habitat-focused outdoor activities related to pollinator conservation.

“Conservation districts have a unique role in educating their communities, regularly emphasizing the significance of our hard-working pollinators,” NACD President Tim Palmer said. “Expanding pollinator-related conservation education will further strengthen on-the-ground work to enhance our country’s natural resources.” Learn more about NACD at https://www.nacdnet.org/about-nacd/

Feed the Pollinators; Plant Today

Videos to inspire you to plant pesticide-free forage for pollinators

Improve ecosystem health by creating habitat for pollinators and beneficial insects. You’ll learn about the importance of native plants and get inspired to create some healthy habitat of your own. https://www.youtube.com/watch?v=WoeibckEnX4&feature=youtu.be

See a yard transformed into pollinator habitat
https://www.youtube.com/watch?v=BR5OsP6bKbl

Listen to the Pollinator Habitat on 30 acres at Fairborn Cement's reclaimed mining land https://www.youtube.com/watch?v=VZFYchhadik and https://www.youtube.com/watch?v=6-aig0b04TY

Our Corporate, Grant-Funded Project Featured on Pollinator Conservation webinar

Presenters

Michele Colopy
Program Director
Pollinator Stewardship Council
Akron, Ohio

Laura Taylor
Conservationist and Education Coordinator
West Multnomah SWCD
Portland, Oregon

www.nacdnet.org/general-resources/webinars/ (click on FY2019, and then on the April 18 topic title for the recording and/or presenters’ name for the PDFs)
Four Things Your Nonprofit’s Board of Directors Should Do to Start Out the New Year by Embracing Best Practices

by Amy Coates Madsen, Guidestar Blog

The board of directors in any nonprofit serves as a crucial player for demonstrating the values the nonprofit espouses and lives. As the Standards for Excellence: An Ethics and Accountability Code for the Nonprofit Sector states, “Nonprofits depend upon effective leadership to successfully enact their missions. ... Board members are in a position of trust to ensure that resources are used to carry out the mission of the organization.”

1. Review your bylaws:
   - Do the bylaws describe standing committees or positions that no longer exist?
   - Do they address modes of communication that you rarely employ?
   - Have you moved away from some of the statements in the bylaws in a way that encourages you to rethink the clauses in the bylaws or does the organization need to resume past practices to avoid “mission creep”?

2. Review the position description for board members and officers:
   - Do the roles and responsibilities adequately describe what is really needed for an individual to succeed in helping to advance your organization’s mission?
   - Are the roles and responsibilities consistent (or in opposition to) the clauses of your organization’s governing documents, such as your bylaws?
   - Do you find that your list of expectations for board members is helpful in the board recruitment, selection, and orientation process? Hopefully, this document is shared with board members BEFORE they accept a nomination to serve on the board. There is nothing worse than investing a lot of time recruiting a board member only to find out that he/she is unable or unwilling to carry out the expected responsibilities.

3. Take care in completing your annual conflict of interest statements.
   - Each nonprofit organization should have a board-approved conflict of interest statement that, as the Standards for Excellence code states, “is applicable to board members and staff, as well as volunteers who have significant, independent decision-making authority regarding the resources of the organization.”
   - The annual conflict of interest policy should “identify the types of conduct or transactions that raise conflict of interest concerns, should set forth procedures for disclosure of actual or potential conflicts and should provide for review of individuals transactions by uninvolved members of the board of directors.”

4. Review the performance of your current board members and board as a whole.
   - Don’t wait until the board presents its slate of new members to assess the strengths and weaknesses of your current board. Undertaking an assessment now can help your nonprofit know what talent and experience should be targeted in your next round of board member recruitment.
   - Are your current board members fulfilling their responsibilities (fiduciary, fundraising, governance, attendance, etc.)?
   - Do your current board members complete an annual or bi-annual self-assessment of their service as a board member and the board’s service as a whole? 2019 would be a great year to start this practice.

READ MORE

https://trust.guidestar.org/four-things-your-nonprofits-board-of-directors-should-do-to-start-out-the-new-year-by-embracing-best-practices?utm_campaign=GuideStar%20Newsletters%20-%20Individuals&utm_source=hs_email&utm_medium=email&utm_content=69894475&_hsenc=p2ANqtz-EvP5M0nQwISuH4xYmgRlFkGD16qopH2EnHqhYRyl7pkuCJAT2hikH1VvycL-hIEgtdDMnaelc42GQqVdViGgmpGTqQcriMWef_MsAxcZcLiQCBal&_hsml=69895006
When mutualism goes bad: density-dependent impacts of introduced bees on plant reproduction

Invasive, alien plants and pollinators have varying effects on their interaction partners, ranging from highly beneficial to strongly detrimental. To understand these contrasting impacts, we review the benefits and costs associated with plant–pollinator interactions and enquire as to how the presence of abundant invaders affects the benefit–cost balance. We provide a conceptual framework that predicts that mutualism shifts to antagonism when invaders increase disproportionally in abundance relative to their interaction partners. This outcome is illustrated by an empirical example of a crop in which flower damage and an associated reduction in fruit quality represent interaction costs of intense visitation by invasive bees. More generally, the extremely high density of invasive flower visitors, such as Apis mellifera and Bombus terrestris, might have population- and community-level consequences by hampering reproduction of native plants while promoting reproduction of alien plants. Furthermore, modification of the structure of pollination networks resulting from intense visitation of native plants by superabundant alien flower visitors in highly invaded communities could predict accentuated interaction costs for many native plants. Owing to their high density and the exclusion of native pollinators, invasive bees, originally introduced for honey production and crop pollination, may negatively impact both the native biota and agriculture. READ MORE https://nph.onlinelibrary.wiley.com/doi/full/10.1111/nph.12924

Video of honey bee taking the opportunity to steal pollen from a sweat bee https://www.youtube.com/watch?v=ke2vAAri3-E&feature=youtu.be

Pollinator Week: How will you educate & advocate in your community

- Have your Mayor pronounce National Pollinator Week in your community
- Meet with your mosquito control board to protect public health & pollinators

What are you doing for Pollinator Week? June 17-23, 2019

Plan to Expand Your Beekeeping & Pollinator Education

July 8-10, 2019 Heartland Apicultural Society Conference http://www.heartlandbees.org/


Sept. 20, 2019 – Cleveland Pollinator & Native Plant Symposium https://www.clevelandpollinatorsymposium.org/


2020

Jan. 8-11, 2020 – American Honey Producers Association Conference https://www.ahpanet.com/


October 9 and 10, 2020-- Tennessee Beekeepers Association Annual Conference http://www.tnbeekeepers.org
April 30, 2019 legislators approved Senate bill S5343 and Assembly bill A2477B, which ban chlorpyrifos in New York. This is a major victory for children’s health and puts New York on track to become by 2021 the first state in the country to end the use of chlorpyrifos. Hawaii enacted a ban in 2018, though it does not take full effect until the end of 2022.

Dozens of studies show that exposure to chlorpyrifos is associated with lower birth weight, reduced IQ, attention disorders, and delayed motor development in infants and children. The Environmental Protection Agency (EPA) concluded in 2016 that all uses of chlorpyrifos are unsafe, but Trump’s EPA refuses to ban the pesticide despite the science. Chlorpyrifos, an organophosphate that comes from the same chemical family as sarin nerve gas, is used on foods like apples, citrus, broccoli, corn, and more.

The following statement is from Tyler Smith, Earthjustice staff scientist:

“Today, the New York Legislature decided not to wait on Donald Trump to protect children from a brain-damaging pesticide. We thank Assemblyman Englebright and Senator Kaminsky for their essential leadership.”


Pesticides are all over the St. Lawrence River — many at levels that hurt fish and invertebrates

Scientists tested the river system and found nearly one-third of the samples had neonicotinoid pesticides at levels higher than the threshold to protect aquatic creatures. Glyphosate and atrazine were in more than 80% of samples.

By Brian Bienkowski of Environmental Health News, May 1, 2019  https://www.ehn.org/pesticides-are-all-over-the-st-lawrence-river-many-at-levels-that-hurt-fish-and-invertebrates-2635826209.html?rebelltitem=1#rebelltitem1

Harmful pesticides such as glyphosate, atrazine and neonicotinoids were found in nearly all samples of water from the St. Lawrence River and its tributaries, with many samples containing levels higher than the guideline to protect aquatic life, according to new research.

The St. Lawrence River is one of North America’s major water systems—draining a 500,000 square mile watershed that contains the Great Lakes. “The freshwater inputs of the St. Lawrence provide a source of drinking water production for more than half of the population of the province of Quebec,” the authors wrote. The study, published in Environmental Pollution, found that 99 percent of 68 water samples collected from the large water system contained at least one of the 10 pesticides researchers tested for and 31 percent of the samples contained neonicotinoids at levels higher than Canada allows.

“I wasn’t that surprised to find that [the pesticides] are ubiquitous, it’s difficult to find water not covered with them,” Sébastien Sauvé, senior author of the study, researcher and Vice Dean at the Faculty of Arts and Science at the Université de Montréal, told EHN. “What did surprise me was the number of times the environmental guidelines were exceeded.” Neonicotinoids—insecticides made from nicotine widely used on corn, cotton, sorghum, soybeans and on some other fruits and vegetables—are thought to be at least partially
behind bee declines in recent years and also have been linked to widespread impacts on aquatic insects and invertebrates.

**Scientists in 2016 concluded** “the decline of many populations of invertebrates, due mostly to the widespread presence of waterborne residues and the extreme chronic toxicity of neonicotinoids, is affecting the structure and function of aquatic ecosystems.” The chemicals are “really taxing the biodiversity in those rivers and waterways,” Sauvé said.

The new research adds to evidence that neonicotinoids, along with glyphosate and atrazine, are increasingly contaminating freshwater—and people’s drinking water—in farming regions. In the new study, researchers tested for glyphosate, atrazine and a suite of neonicotinoids. Glyphosate was found in 84 percent of the samples and atrazine was found in 82 percent.

However, concentrations of both compounds were “well below the Canadian water quality guidelines for the protection of aquatic life,” the authors wrote.

In a **companion paper to the new study**, the scientists found atrazine and one of its metabolites in all 450 water samples taken from 2015 to 2018 from drinking water in Quebec. “This signals the potential exposure of a large portion of the population of Quebec to low yet chronic levels of these herbicides in drinking water produced from the river,” the authors wrote.

Sauvé said they saw two spikes in the pesticides—one in early summer and another in fall.

In the U.S., atrazine, another widely used herbicide most often found in Midwest water, contaminates an estimated 7.6 million Americans’ tap water, **according to a 2017 report** from the environmental nonprofit Environmental Working Group.
It’s not just atrazine showing up in people’s water: In recent years, scientists have reported neonicotinoids in multiple sites in the Great Lakes region including: southern Ontario, Canada, drinking water, New York and Pennsylvania streams, and central Wisconsin groundwater.

Another U.S. study found glyphosate in about 60 percent of surface waters sampled, though most were lower than U.S. and Canadian human health and aquatic life thresholds. Glyphosate is the main ingredient in Monsanto’s Roundup herbicide. Monsanto is now a unit of Bayer AG, which suffered one of its worst losses in 16 years after a court ruled Roundup caused a man’s cancer. The herbicide, which is one of the most widely used in history, is the current focus of more than ten thousand lawsuits from people alleging Roundup and other glyphosate products caused them to develop non-Hodgkin lymphoma. Glyphosate, though long touted as safe for wildlife, has been linked to changes in metabolism, growth, behavior and reproduction of certain fishes, mollusks and insects.

Atrazine is also classified as a possible carcinogen to humans by Health Canada, and has been associated with impacts to the human endocrine system as well. An assessment last year by the U.S. EPA last year found atrazine was unlikely to cause cancer, a determination widely skewed by health researchers and advocates as the assessment relied heavily on industry studies.

It’s not clear what consistent exposure to these chemicals through drinking water might be doing to people. Sauvé said that they did not find any pesticides at levels higher than what is allowed in drinking water. “But are the guidelines for drinking water protective enough? That’s another conversation,” he said.

As countries increasingly scrutinize, ban or limit neonicotinoids, Sauvé and colleagues are currently examining some of the proposed alternatives. He said there needs to be more independent research on the alternatives—when they did a literature review, they found most of the studies so far are tied to industry.

Administration Continues to Strong-Arm Relocation of Core Research Agencies

National Sustainable Agriculture Coalition urges Congress to protect family farmers, stop proposed moves

May 3, 2019 – The U.S. Department of Agriculture (USDA) announced its list of finalists for the proposed relocation of core research agencies, the Economic Research Service (ERS) and National Institute of Food and Agriculture (NIFA)."

“U.S. Secretary of Agriculture Sonny Perdue today announced the finalists of 136 Expressions of Interest received from parties in 35 states vying to become the new homes of the U.S. Department of Agriculture’s (USDA) Economic Research Service (ERS) and National Institute of Food and Agriculture (NIFA) . . . The top Expressions of Interest were reviewed in detail, and USDA selected a short list of locations offering existing buildings with sufficient space to meet ERS and NIFA requirements.”

Indiana, Kansas/Missouri, and North Carolina are at the top of the short list. “The National Sustainable Agriculture Coalition (NSAC), in partnership with allied organizations, researchers, and policymakers across the country, has resoundingly opposed the proposed move, citing the inevitable loss of skilled staff, potential for politicization of the nonpartisan research agencies, and the lack of cost benefit or other documentation from USDA showing that the moves are warranted.” READ MORE http://sustainableagriculture.net/blog/release-administration-continues-to-strong-arm-relocation-of-core-research-agencies%EF%BB%BF/ and https://www.usda.gov/media/press-releases/2019/05/03/perdue-announces-top-sites-ers-and-nifa-relocations
At the recent spring National Organic Standards Board (NOSB) meeting in Seattle, Washington, organic stakeholders shared their incredulity and frustration regarding disturbing statements made by National Organic Program (NOP) Deputy Administrator Jennifer Tucker, brought to light in April by the Real Organic Project, about the use of prohibited substances in “organic” hydroponic production.

Tucker, along with other NOP officials and staff, faced multiple questions about the use of glyphosate by hydroponic operations during public comments to the NOSB. Emotions ran high on all sides as Tucker claimed her prior statements were taken out of context. READ MORE
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Susan Rhodes, Janel Rogers, Wayne Ross, Susan Rudnicki, Kim Schneider, Jacob Troyer, Tom Theobald,
The Pollinator Stewardship Council, Inc. Board of Directors is now calling for a moratorium on the use and registration of the neonic class of pesticides for the protection of pollinators, the food web, and the biodiversity of the ecosystem.

Together, we make a difference. I will support the Board of Directors fundraising campaign of 25¢ per hive to secure a staff scientist, and legal advisor to be the voice for our managed and native pollinators.

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