

**American Bird Conservancy * Beyond Pesticides * Beyond Toxics
Californians for Alternatives to Toxics * Center for Biological Diversity
Center for Environmental Health * Center for Food Safety
Farmworker Association of Florida * Food & Water Watch * Friends of the Earth
Institute for Agriculture and Trade Policy * Island Watch Conservation Science
Natural Resources Defense Council * Pesticide Action Network North America
Pesticide Free Zone * Raptors Are The Solution
TEDX, The Endocrine Disruption Exchange * WildCare**

Jon Jarvis, Director
National Park Service
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September 30, 2014

Dear National Park Service Director Jon Jarvis:

Thank you for your efforts to promote the health and sustainability of our nation's bees, birds, bats and other pollinators as part of the White House Pollinator Health Task Force.

On June 20, 2014, President Obama issued the White House Memorandum, "Creating a Federal Strategy to Promote the Health of Honey Bees and Other Pollinators." This critical initiative acknowledges the urgency of taking action on pollinator declines.

Sec. 3(m) of the President's Memorandum states (in pertinent part):

"Executive departments and agencies shall, as appropriate, take immediate measures to support pollinators....These measures may include...avoiding the use of pesticides in sensitive pollinator habitats through integrated vegetation and pest management practices" [within 180 days].

The Memorandum recognizes that pollinator protection is critical for domesticated honey bees but also, more broadly, for all native pollinators. These include thousands of U.S. species ranging from bumblebees, wasps, moths, butterflies, flies and beetles, to hummingbirds, perching birds, bats and even several mammals such as possums. Ultimately, measures to protect pollinators will affect the very sustainability of the ecosystems on which all species rely.

In managing over 400 national parks in addition to national heritage and historic sites, the U.S. National Park Service has a critical role to play in the President's initiative, both in ensuring the viability of pollinator habitat and in protecting bees, birds, bats and other wildlife from toxic, persistent and systemic pesticides.

We are writing to call your attention to the dangers of an insidious new class of chemicals, neonicotinoids, which have the potential to derail U.S. efforts on behalf of pollinators. Hundreds of recent studies detail these chemicals' worrisome effects on bees, birds, and other wildlife. We ask you to suspend all use of neonicotinoids pending independent review of their effects on pollinators and on people. We understand that an exception may be needed for very limited, targeted applications that comply with integrated pest management – in particular to control the hemlock woolly adelgid. But other uses should be phased out, including any seed treatments on corn, soy and other crops cultivated on NPS lands to create the historic scene. Europe has enacted a two-year

moratorium on uses on neonicotinoids, and many U.S. companies as well as state and local legislatures are reining in their use. We believe that the U.S. National Park Service is well-positioned to promulgate an agency-wide suspension on the use of neonicotinoids in all but exceptional circumstances.

First introduced in the U.S. in 1994, the neonicotinoids have quickly become the most widely used insecticides in the nation. They are highly toxic to a broad range of invertebrates and to birds and other wildlife.¹ They persist in the soils--from months to years--and are prone to run-off and groundwater infiltration.

Scientists have found that neonicotinoid insecticides are the primary driver in the bee declines of the past decade. A single corn seed coated with the neonicotinoid “clothianidin” can kill over 80,000 bees.² The pesticides are acutely toxic even in minute amounts. Last June, for example, linden trees sprayed with the neonicotinoid chemical “dinotefuran” killed more than 50,000 bumblebees in a Wilsonville, Oregon parking lot outside a Target store. When these pesticides don’t kill bees outright, they weaken the bees making them more susceptible to other threats such as parasites, diseases and nutrition deficiencies from habitat loss. Sub-lethal effects include reduced memory and learning ability, developmental shortcomings, impaired foraging ability, diminished navigation and homing ability, and the vastly reduced production of queen bees.³

Birds are affected, as well. As little as a single corn kernel coated with a neonicotinoid insecticide can be deadly to a songbird. Just 1/10 of a coated seed per day during the egg-laying season is enough to impair reproduction.⁴ In addition to the direct harms, the elevated levels of these chemicals in many surface and ground waters are already high enough to kill the aquatic invertebrate life on which so many birds, bats, and other pollinators depend.⁵ Beneficial terrestrial invertebrates such as earthworms are also killed by the neonicotinoids at extremely low doses.⁶

Barely a month after the President issued his memorandum, your Department of the Interior conservation partners in the U.S. Fish and Wildlife Service announced a formal decision phasing out,

¹ Goulson, D. 2013. An Overview of the Environmental Risks Posed by Neonicotinoid Insecticides. *Journal of Applied Ecology*. Doi:10.1111/1365-2664.12111.

² Krupke, C, et al. 2012. Multiple Routes of Pesticide Exposure for Honey Bees Living Near Agricultural Fields. *PLoS ONE*. doi: 10.1371/journal.pone.0029268. Online at: <http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0029268>

³ See, e.g.: Pettis JS, Lichtenberg EM, Andree M, Stitzinger J, Rose R, vanEngelsdorp D. 2013. Crop Pollination Exposes Honey Bees to Pesticides Which Alters Their Susceptibility to the Gut Pathogen *Nosema ceranae*. *PLoS ONE* 8:e70182; doi:10.1371/journal.pone.0070182; Williamson SM, Wright GA. 2013. Exposure to multiple cholinergic pesticides impairs olfactory learning and memory in honeybees. *Journal of Experimental Biology* 216: 1799–1807; doi:10.1242/jeb.083931; Henry M, Beguin M, Requier F, Rollin O, Odoux J-F, Aupinel P, et al. 2012. A Common Pesticide Decreases Foraging Success and Survival in Honey Bees. *Science* 336: 348–350; doi:10.1126/science.1215039; Whitehorn PR, O’Connor S, Wackers FL, Goulson D. 2012. Neonicotinoid Pesticide Reduces Bumble Bee Colony Growth and Queen Production. *Science* 336: 351–352; doi:10.1126/science.1215025.

⁴ Mineau, P and C Palmer. 2013. *The Impact of the Nation’s Most Widely Used Insecticides on Birds*. Report by American Bird Conservancy. Online at: www.abcbirds.org/abcprograms/policy/toxins/Neonic_FINAL.pdf

⁵ Hallmann CA, et al. 2014. Declines in insectivorous birds are associated with high neonicotinoid concentrations. *Nature* doi:10.1038/nature13531. Hladik ML, et al. 2014. Widespread occurrence of neonicotinoid insecticides in streams in a high corn and soybean producing region, USA. *Env. Poll.* 193:189-196. <http://dx.doi.org/10.1016/j.envpol.2014.06.033>.

⁶ Van der Sluijs JP, et al. 2014. Conclusions of the Worldwide Integrated Assessment on the risks of neonicotinoids and fipronil to biodiversity and ecosystem functioning. *Environ Sci Pollut Res*. doi:10.1007/s11356-014-3229-5. Hopwood, J, SH Black, M Vaughn, and E Lee-Mader. 2013. *Beyond the Birds and the Bees: Effects of Neonicotinoid Insecticides on Agriculturally Important Beneficial Invertebrates*. Report by the Xerces Society. Online at: http://www.xerces.org/wp-content/uploads/2013/09/XercesSociety_CBCneonics_sep2013.pdf.

by 2016, all neonicotinoid use in agriculture on thousands of acres of National Wildlife Refuge lands. USFWS Chief Kurth stated (emphasis added):⁷

*We have determined that prophylactic use, such as seed treatment, of the neonicotinoid pesticides that can distribute systematically in a plant and **potentially affect a broad spectrum of non-target species** is not consistent with Service policy.*

Neonicotinoid use may also harm threatened and endangered species, and their designated critical habitat, on National Park Service lands. To avoid Endangered Species Act violations, your colleagues in region 1 of the Fish and Wildlife Service will now be engaging in Section 7 consultation if any neonicotinoids are used on their lands prior to their ban going into effect. The National Park Service must also engage in Section 7 consultation if neonicotinoid use is authorized on its lands.

The undersigned groups urge the U.S. National Park Service to adopt a service-wide plan to phase out the prophylactic use of neonicotinoid insecticides in all but exceptional circumstances, in accordance with integrated pest management practices. Hundreds of studies show that these pesticides are killing bees, earthworms, butterflies, other beneficial insects, birds and quite possibly bats and other wildlife as well.⁸

It's time to take a step back, suspend neonicotinoid use, and assess what impacts these chemicals are having on wildlife -- and on human health as well. We urge you to phase out the use of neonicotinoid insecticides on National Park Service lands.

Please do not hesitate to contact Cynthia Palmer, American Bird Conservancy (cpalmer@abcbirds.org, tel. 202-888-7475), if you would like more information.

Sincerely,

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⁷ July 17, 2014, Memorandum on "Use of Agricultural Practices in Wildlife Management in the National Wildlife Refuge System," issued by the Chief of the FWS NWR System, James W. Kurth, to all Regional Refuge Chiefs. Online at: http://www.centerforfoodsafety.com/files/agricultural-practices-in-wildlife-management_20849.pdf .

⁸ Van der Sluijs JP, et al. 2014, *supra*.