



THE XERCES SOCIETY

FOR INVERTEBRATE CONSERVATION

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*An international
nonprofit organization
that protects wildlife
through the conservation of
invertebrates and their habitat*

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Pollinator Conservation Resources for the Eastern U.S.

Here are some web links for pollinator conservation. Please contact me if you have any questions or suggestions. Thank you for supporting pollinators!

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General Resources

Nearly all the resources listed (plus many others) can be found at the Xerces Society Pollinator Resource Center <http://www.xerces.org/pollinator-conservation/>

Attracting Native Pollinators <http://www.xerces.org/books/>

Farming for Bees <http://www.xerces.org/guidelines-farming-for-bees/>

Natural Resources Conservation Service (NRCS) pollinator resources

<http://plants.usda.gov/pollinators/NRCSdocuments.html>

<http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/plantsanimals/pollinate>

NRCS Using Farm Bill Programs for Pollinator Conservation <http://www.xerces.org/wp-content/uploads/2009/04/using-farbill-programs-for-pollinator-conservation.pdf>

Pollinator & beneficial insect webinars (in "Insects & Pollinators" category)

<http://www.conservationwebinars.net/>

NRCS WV Pollinator Handbook

<http://www.xerces.org/wp-content/uploads/2009/11/WVPH-SEC.pdf>

Pollinator Conservation Guide compiled by Debbie Roos, NC Cooperative Extension (links to beneficial insect habitat research, regional resources, fantastic photo gallery)

<http://chatham.ces.ncsu.edu/growingsmallfarms/pollinatorconservation.html>

Insect Pollination of Cultivated Crop Plants

<http://afsrweb.usda.gov/sp2userfiles/place/53420300/onlinepollinationhandbook.pdf>

Native Bee Benefits: How to Increase Native Bee Pollination on Your Farm in Several Simple Steps

<http://winfreelab.rutgers.edu/documents/NativeBeeBenefits2009.pdf>

Farming for Native Bees in Delaware

http://dda.delaware.gov/publications/plant_industries/Bee%20Guide_07.pdf

Meadows & Buffers for Bees: Creating Mid-Atlantic Pollinator Habitats

http://matthewsarver.com/downloads/Meadows_and_Buffers_for_Bees.pdf

Organic Farming for Bees toolkit <http://www.xerces.org/organic-farms/>

Wild Pollinators of Eastern Apple Orchards

http://www.fruit.cornell.edu/tree_fruit/resources/wild_pollinators.pdf

Farming for Beneficial Insects (Pollinators, Predators, & Parasitoids) slide show

<http://www.slideshare.net/NancyXerces/southern-sawg-farming-for-beneficial-insects-pollinators-predators-ssawg-15-to-18-jan-2014>

Conservation Biological Control & Minimizing Pesticide Risks

- Xerces Society pesticide-related publications <http://www.xerces.org/pesticides/>
 - *Beyond the Birds and the Bees: Effects of Neonicotinoid Insecticides on Agriculturally Important Beneficial Insects*
 - *Are Neonicotinoids Killing Bees?*
 - *Neonicotinoids in Your Garden*
 - *Organic-Approved Pesticides: Minimizing Risk to Pollinators*
 - *How to Reduce Bee Poisoning from Pesticides*
 - *Ecologically Sound Mosquito Management in Wetlands*
- Xerces Society conservation biological control resources: <http://www.xerces.org/conservationbiocontrol>
- *How to Protect Honeybees [read “and Other Bees”] from Pesticides* http://www.clemson.edu/public/regulatory/pesticide_regulation/bulletins/bulletin_5_protecting_honeybees.pdf
- *Pesticide Considerations for Native Bees In Agroforestry* <http://www.unl.edu/nac/agroforestrynotes/an35g09.pdf>
- *Biorationals: Ecological Pest Management Database* by Rex Dufour (ATTRA) <https://attra.ncat.org/attra-pub/biorationals/>
- USDA pest ID guides <http://blogs.usda.gov/2013/08/14/busting-bugs-usda-creates-online-tools-to-id-pests/>
- USDA Preventing or Mitigating Potential Negative Impacts of Pesticides on Pollinators Using Integrated Pest Management and Other Conservation Practices <http://directives.sc.egov.usda.gov/34828.wba>

USDA Agroforestry Guidelines for Supporting Pollinators

Sustaining Native Bee Habitat For Crop Pollination <http://www.unl.edu/nac/agroforestrynotes/an32g06.pdf>

Improving Forage For Native Bee Crop Pollinators <http://www.unl.edu/nac/agroforestrynotes/an33g07.pdf>

Enhancing Nest Sites For Native Bee Crop Pollinators <http://www.unl.edu/nac/agroforestrynotes/an34g08.pdf>

Windbreaks (read hedgerows) for pollinators (p 8-10) <http://www.unl.edu/nac/insideagroforestry/vol20issue1.pdf>

Removal of invasive shrub helps restore native bee populations in Georgia forests

Article by foresters Scott Horn and James Hanula on resurgence of native been populations following removal of invasive Chinese privet from forest understory http://www.srs.fs.usda.gov/pubs/ja/2011/ja_2011_hanula_003.pdf

Habitat Assessment, Plants, & Nest Management for Pollinators

- *Pollinator Habitat Assessment Form and Guide* http://www.xerces.org/wp-content/uploads/2009/11/PollHabAssess_june11_1v3-Web.pdf
- *Southeast Plants for Native Bees* http://www.xerces.org/wp-content/uploads/2010/06/plants-fact-sheet_southeast.pdf
- *Native Plants for Wildlife Habitat and Conservation* <http://www.nps.gov/plants/pubs/chesapeake/>
- *Farmscaping with Native Plants* by Josh Fodor <http://www.ecolandscaping.org/09/native-plants/farmscaping-with-native-plants/>
- The Lady Bird Johnson Wildflower Center Xerces' recommended pollinator and conservation biocontrol plants. View "Value to Beneficial Insects" <http://www.wildflower.org/collections/>
- *Delaware Native Plants for Native Bees* <http://dda.delaware.gov/plantind/forms/publications/Delaware%20Native%20Plants%20for%20Native%20Bees.pdf>
- Pollinator planting guides <http://pollinator.org/guides.htm>
- *Wildflower meadows for wildlife and pollinators (plant list p 5)* http://plants.usda.gov/pollinators/Conservation_Cover_Wildflower_Meadow_for_Wildlife_and_Pollinators_327a.pdf
- *USDA-NRCS Seedling ID Guide for Native Prairie Plants* www.plant-materials.nrcs.usda.gov/pubs/mopmcpu6313.pdf
- *Managing Alternative Pollinators* <http://www.sare.org/Learning-Center/Books/Managing-Alternative-Pollinators>
- *Pollinator Management for Organic Seed Producers* <http://www.xerces.org/wp-content/uploads/2013/06/PollinatorManagementForOrganicSeedProducers.pdf>

Pollinator Conservation in Urban Areas/Communities

- *Pollinator Friendly Parks* http://www.xerces.org/wp-content/uploads/2009/05/pollinator_friendly_parks_21ed_xerces_society.pdf
- *Bee City USA* <http://www.beecityusa.org> (has wide variety of resources regarding sustaining pollinators in urban/suburban areas and local list of native plants showing which local nurseries carry them)
- *Wild Ones* <http://www.wildones.org/>
- *Going Native: Urban Landscaping for Wildlife With Native Plants* <http://www.ncsu.edu/goingnative/>

Bee Identification & Monitoring

- Fantastic 68 page field guide for observing bees http://eol.org/info/disc_observer
- [Bugguide.net](http://bugguide.net) and DiscoverLife.org
- Sam Droege of USGS video on how to use DiscoverLife bee ID guide <http://www.youtube.com/watch?v=75klhCa2vEM>
- *Common Bees and Best Bee Plants of the East* webinar <http://www.conservationwebinars.net/webinars/common-bees-and-best-bee-plants-of-the-east/>
- Sam Droege & colleagues slideshows on bee families and genera <http://www.slideshare.net/sdroege>
- Sam has also posted YouTube videos on monitoring techniques <http://www.youtube.com/user/swdroege>
- Sam has also posted stunning (identified to species) close-ups of bees at <http://www.flickr.com/photos/usgsbiml/sets/>
- Great Sunflower Project (monitoring) <http://www.greatsunflower.org/>
- Native Buzz (nest monitoring) <http://entomology.ifas.ufl.edu/ellis/nativebuzz/default.aspx>
- Pennsylvania Citizen Science Bee Monitoring Guide and Pocket Guide http://www.xerces.org/download/pdf/PA_Xerces%20Guide.pdf
http://www.xerces.org/download/pdf/PA_Pocket_Guide.pdf
- Eastern bumble bees http://www.xerces.org/wp-content/uploads/2008/09/Eastern_Bumble_Bee.pdf
- North American bumble bees <http://www.bumblebee.org/NorthAmerica.htm>
- Ohio bee identification guide http://www.oardc.ohio-state.edu/ale/images/Bee_ID_guide.pdf
- Key for bee genera of Eastern Canada http://www.biology.ualberta.ca/bsc/ejournal/pgs_03/pgs_03_key.html

Bumble Bee & Butterfly Conservation

<http://www.xerces.org/bumblebees/> and <http://bumblebeewatch.org/>
Join Bumble Bee Watch <http://www.youtube.com/watch?v=vTLKMAtXGnA>
Conserving Bumble Bees http://www.xerces.org/wp-content/uploads/2012/06/conserving_bb.pdf
Butterfly conservation <http://www.xerces.org/butterfly-conservation/>
Butterfly habitat http://www.nababutterfly.com/guide_index.html
Monarch Watch & Monarch Joint Venture <http://monarchwatch.org/> and <http://monarchjointventure.org/>

Native Bee Posters

<http://www.fs.fed.us/wildflowers/features/posters.shtml>
<http://www.dmnh.us/>
<http://nrcspad.sc.egov.usda.gov/DistributionCenter/search.aspx?Keywords=pollinator> (NRCS may be out of pollinator posters, but check back periodically. New posters are developed annually.)
Native bees by Alex Surciã <https://www.facebook.com/Digital.Museum.of.Natural.History> (look in photos)

Video Clips

Marla Spivak's TED Talk http://www.ted.com/talks/marla_spivak_why_bees_are_disappearing.html
Native plants visited by various native bees <http://www.youtube.com/watch?v=nisyGsfoYVk>
Various crop related video clips http://www.youtube.com/user/MelittologyNancy?ob=0&feature=results_main
Leaf-cutter bee <http://www.arkive.org/megachile-leaf-cutter-bee/megachile-centuncularis/video-00.html>
Hibiscus bee <http://www.youtube.com/watch?v=JxBMRuMp35o>
Mining bees <http://www.youtube.com/watch?v=Bwzz9tNKUE8>

Fire

Good fires <http://www.goodfires.org/>

Xerces Society on Facebook

Xerces' Facebook page highlights current news and events related to invertebrate conservation (pollinators and much more) <https://www.facebook.com/pages/The-Xerces-Society/193182577358618?ref=stream>

Additional Resources from Asheville Pollinator Course & Organic Growers School participants

Buncombe Fruit and Nut Club <http://buncombefruitnuts.blogspot.com/>
Nematodes for small hive beetle <http://www.biocontrol.entomology.cornell.edu/pathogens/nematodes.html>
Center for Honey Bee Research in Asheville <http://www.honeybeeresearch.org/>
Monarch Watch's southeast representative, Ina Warren, lives in Brevard <http://www.monarchwatch.org/cs/>

Books on native plants and pollinators:

- *Wildflowers and Plant Communities of the Southern Appalachian Mountains and Piedmont: A Naturalist's Guide to the Carolinas, Virginia, Tennessee, and Georgia* by Timothy Spira (includes pollinator info)
- *Pollinators of Native Plants* by Heather Holm