

Native Plant Conservation Campaign

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Save Plants, Save The Planet, Save Ourselves –
Native Plants and Nature Based Solutions to Climate Change And Other Threats to Humanity
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June 14, 2019

Sea level rise, record breaking heat waves, floods, pollution, mass extinction – 2019 is frightening! What if there were one simple thing individuals, businesses and communities could do to address these problems? There is! Plant native plants!

Native wildflowers and trees are beautiful. They remind us of what is special, even unique about the places we live. However, as ecological threats to people and the planet intensify, we must recognize another characteristic of native plants. They support our ecosystems and the essential ecosystem services they deliver in ways introduced plants cannot. Why is this so?

Ecosystems are run by plants and animals. The key is that, through eons of coevolution, only native plants can sustain the abundance and diversity of the animals we need to run our ecosystems: the 4000 species of native bees in North America, the hundreds of species of insectivorous birds, bats, lizards, bears, and foxes. Above all, only natives can support the insects that provide essential protein for these creatures. Those birds whose morning songs brighten your day rear their young on insects. A world without native plants and insects is a world without biological diversity, and a world without biological diversity is a world without humans!

The good news is that by saving wildlife with native plants, we also battle climate change and other environmental woes. Let's compare native grasses with lawn grass. Our native grasses have deep roots that make them drought resistant, reduce soil erosion and flooding, filter pollutants from ground water and increase rainwater infiltration. Best of all, these plants remove tons of carbon from the atmosphere and pump it into the soil and out of harm's way. Lawn grass, in contrast, increases storm water runoff, and adds countless tons of polluting chemicals to our watersheds, and is the worst plant choice for carbon sequestration.

Nothing sequesters carbon and manages watersheds as well as native forests. New York City's celebrated tap water quality does not depend on expensive filtration. Instead, the city <u>invests in conserving and restoring watersheds in the Catskills</u> to purify water for its 9 million residents. Philadelphia is creating a <u>"green mosaic" of gardens</u>, green roofs and wetlands that reduces flooding, water pollution and sewage spills during severe storms. These cities save taxpayers at least \$15 billion that would otherwise be spent to update grey infrastructure (storm drains, filtration plants, etc.) to address these problems. Other cities are adopting parallel strategies.

Leaves and shoots act similarly, absorbing air pollutants, including greenhouse gases, while simultaneously releasing the oxygen we breathe. According to the <u>U.S. Forest Service</u>, urban trees in the United States remove 784,000 tons of air pollution annually. Planting more native trees, shrubs,

perennials and annuals would provide even more pollution control. Restoring native plant communities could absorb enough carbon to compensate for more than 20% of U.S. greenhouse emissions.

Native plants also moderate local climates. <u>The water that a single tree releases daily into its surroundings has a cooling effect equivalent to two domestic air conditioners</u>. Trees also create shade, lowering local temperatures and reducing energy use and emissions from building cooling.

Naturally dense native plant communities can also buffer severe storms. Roots and shoots absorb energy from wind and water, lessening storm strength and damage. Salt marshes, wetlands and other native plant communities <u>prevented more than \$600 million in property damage during Hurricane Sandy</u>. Native plants can provide coastal storm protection at <u>substantially lower cost</u> than concrete breakwaters and flood barriers.

Collectively these processes are called Nature-Based Solutions. The <u>United Nations</u>, <u>World Bank</u>, and <u>European Union</u> are among those promoting Nature Based Solutions to confront climate change, natural disasters and other perils. Nature-Based Solutions protect us at a lower cost, and require fewer chemicals, less water, and less maintenance than nonnative plants or grey infrastructure.

So let's fill our parks, gardens, roadsides and open spaces with natives, and then sit back, count our savings and enjoy the rewards. You can do it in your garden or on your farm. Cities can do it along roadways, in parks and public spaces. Our gardens and communities will become more ecologically resilient, comfortable, safe, and low maintenance.

Plant natives to help save people and the planet. Do it for the wildflowers, birds and butterflies; do it for your children; do it for fun. Do it for cleaner air and water. Do it to lower your taxes and cut your power and water bills. Contact your local native plant society or botanic garden to find out more and get started!

For more information on Nature Based Solutions, see the Ecosystem Services section of our website.

Native Plant Conservation Campaign Affiliate Organizations

Alabama Wildflower Society * Albuquerque Bio Park * Arizona Native Plant Society * Arizona-Sonora Desert Museum * Arkansas Native Plant Society * Botanic Gardens Conservation International * Botanical Society of Washington (DC) * California Native Plant Society * Colorado Native Plant Society * Florida Native Plant Society * Georgia Native Plant Society * Grand Prairie Friends of Illinois * Herb Society of America * Idaho Native Plant Society * Illinois Native Plant Society * Indiana Native Plant Society. * Insitute of Applied Ecology * Iowa Native Plant Society * Kansas Native Plant Society * Kauai Native Plant Society * Kentucky Native Plant Society * Kinnikinnick Native Plant Society (N IDAHO) * Lady Bird Johnson Wildflower Center * Laukahi (Hawaii) * Louisiana Native Plant Society * Maryland Native Plant Society * Missouri Native Plant Society * Montana Native Plant Society * Native Plant Society * Native Plant Society * Native Plant Society of New jersey * Native Plant Society of New Mexico * Native Plant Society of Northeastern Ohio * Native Plant Society of Oregon * Native Plant Society of Staten Island * Native Plant Society of Texas * Native Prairies Association of Texas * Nevada Native Plant Society * Plant Trust/New England Wild Flower Society * New Mexico Rare Plant Technical Council * New York Botanic Garden * North Carolina Botanical Garden * North Carolina Native Plant Society * Pinelands Preservation Alliance (NJ) * Rhode Island Wild Plant Society * Santa Barbara Botanic Garden * South Carolina Native Plant Society * Wild Ones * Wyoming Native Plant Society