

Fiscal Year 2012 Appropriations
Department of Interior
Native Plants and Climate Change Adaptation
Federal Funding Recommendations

Background:

The Nature of the Threat to Plant Ecosystems.

The United States has inherited a rich legacy of biodiversity, with native plants delivering essential ecosystem services such as water purification, climate modulation and habitat for myriad wildlife and fish species across the United States. In addition, these treasured, iconic landscapes provide recreational opportunity and spiritual renewal for millions of Americans. One-third of U.S. lands are managed by the federal government (and 40% of that total by the Bureau of Land Management (BLM) alone).

We are losing our natural legacy. Native plant communities are threatened by unsustainable urban and rural development, expanding energy production, the spread of invasive species, and pollution. Climate change exacerbates these threats and further compromises the ecosystems that we depend upon. According to the Arbor Day Foundation, over half of the U.S. has warmed at least one hardiness zone since 1990. Garden plants once recommended for south of Cincinnati, OH can now grow north of Detroit, MI. Many spring-blooming species are blooming up to a month earlier than last century. Similar changes in natural ecosystems affect the health of plant communities and the well-being of all species that depend on them, including humans.

The Lack of Botanical Sciences Capacity and Key Conservation and Research Strategies.

The United States needs to ensure that native plant communities are protected and that future generations benefit from the same legacy that we have inherited. Key challenges facing ecosystem managers include climate change mitigation, land management and wildlife habitat restoration, management and control of invasive species, and conservation and recovery of rare native plant species. The botanical sector, responsible for effectively managing, studying and guiding the sustainable use of the nation's plant resources, plays a mission-critical role in strategic planning and action to address these issues. However, key components of capacity in the botanical sector are being allowed to erode, generating significant concern regarding our capacity to research and address the major challenges confronting the United States in preserving plant ecosystems. Severe shortages of botanists at government agencies are being amplified by a wave of upcoming retirements and an alarming decline in botanical degree programs and course offerings at the nation's universities. If botanical capacity continues to

decline at its current rate, the nation's science, sustainability and land management agenda will suffer, opportunities to economically and efficiently solve environmental challenges will be lost, and our public lands will continue to degrade.

Action must be taken now to reverse declines in the botanical sector in order to ensure pressing restoration priorities are met. Habitat restoration is essential to returning health to our public lands and ensuring that ecosystem services, such as free crop pollination, can continue to support American's growing resource needs and economic independence. Developing the right native plant materials to accomplish habitat restoration optimizes our efforts in controlling invasive species and associated financial costs.

Conservation strategies used to facilitate habitat restoration include seed banking, which stores and safeguards genetically diverse seeds for future use. Seed banks provide a hedge against extinction and material for landscape restoration and rare plant reintroduction. Climate change makes it particularly imperative to collect and store native seed stock for long term ecosystem restoration initiatives. The large-scale development of native seed stock is still severely underfunded - and federal agencies are often unable to acquire enough of these native plant materials to meet restoration demands. With adequate funding, seeds from native plants can be collected and housed, some for centuries, thereby ensuring healthy ecosystems today and for future generations.

Botanical and agricultural research priorities related to restoration include: (1) understanding appropriate seed transfer zones for native plants in a changing climate (and thereby improving the availability of native plant materials adapted to major biogeographical regions); (2) developing seed technology and agricultural practices required for seed increase of native forbs and grasses; (3) improving understanding of native plant seed biology and pollination ecology; (4) optimizing and improving understanding of restoration techniques; and (5) determining the plant species that are most vulnerable to climate change.

Current Funding and Funding Needs

Congress has directed the BLM to establish the ***Native Plant Materials Development Program (NPMDP)*** to ensure a stable and economical supply of native plant materials for restoration and rehabilitation efforts on public lands. This effort has already engaged over 500 partners through the Plant Conservation Alliance and the Seeds of Success network. The goal of the NPMDP is to increase capacity within the government and the private sector for ecologically appropriate native seed. Adequate and consistent funding is critical to the success of this long term endeavor. The BLM has been spending \$4.6 million annually from funding appropriated for Wildlife Management and since 2009 \$3 million from funding appropriated for Climate Change to support the NPMDP, but this should be moved into a dedicated Plant Restoration and

Conservation funding line. It is estimated that the annual funding need for the Native Plant Materials Development program is \$25 million per year, along with one-time construction funding of \$6 million for seed storage facilities.

Fiscal Year 2012 Recommendations:

Fund a Robust Plant Conservation and Restoration Program.

Congress should substantially increase funding for the NPMDP and for efforts aimed at the protection of rare plants. In addition, BLM needs to continue to develop the scientific knowledge base necessary for native plant restoration and plant protection. To address the need for a larger, multi-disciplinary botanical workforce, the BLM should prioritize efforts to hire new Botanists and Restoration Ecologists.

Consolidate BLM Plant-Related Funding Within a Single Appropriation.

Given the importance of BLM's plant-related activities, it has become increasingly apparent that a specific new budget activity or subactivity is warranted to consolidate funding for a plant conservation program that would encompass both ongoing efforts to conserve rare plants on BLM lands as well as a comprehensive NPMDP. Accordingly, Congress should instruct the BLM to create a new line item (sub-activity) within the Bureau's appropriation for Land Management for "Plant Conservation and Restoration Programs".

Recommended Report Language:

Bureau of Land Management

The Committee has provided additional funding for the Native Plant Materials Development Program. Within this funding, the Bureau should continue to include rare plants within the ambit of the program, should promote development of scientific knowledge around key issues such as appropriate seed transfer zones, and should prioritize the hiring of new botanists and restoration ecologists. The Committee also believes that, given the importance of BLM's plant-related activities, it has become increasingly apparent that a specific new budget subactivity is warranted to consolidate funding for a plant conservation program. This would encompass both ongoing efforts to conserve rare plants on BLM lands as well as a comprehensive NPMDP. Accordingly, the Bureau is instructed for fiscal year 2012 to create a new line item sub-activity within the appropriation for Land Management for "Plant Conservation and Restoration Programs".