

The Center for Plant Conservation

by Kathryn Kennedy

For the past 10 years of my work with imperiled plants, I have kept a talisman in my office: a big campaign-style button that says “Visualize Recovery.” Oddly enough, whenever I glance at it, the image that springs to mind is not robust populations of plants basking in the sunshine but intent groups of people in the field working their fingers to the bone! I visualize the process, and being able to get the work done—the monitoring, seed-banking, life history research, genetic analysis, range-wide planning, site-specific prescriptions, and restoration work for imperiled populations and their supporting communities.

As of May 1, 2002, there were 743 plant species or varieties in the United States federally listed as threatened or endangered. There are an additional 139

candidates believed to qualify for listing. Together, these numbers approach 5 percent of our flora (considered to include about 20,000 species). Recovery for so many is a big job. It will take time and resources. In my years of work with endangered species at the state and federal levels, the limiting factor was always the lack of focused, sustained assistance. Recovery work involves diverse and challenging issues, so an effective recovery program clearly required teamwork. Government budgets nearly always fell short of the support needed to put those professional teams together and get the work done.

After working in government conservation agencies, I was drawn to the work of the Center for Plant Conservation (CPC), not only because of its accom-



Kathryn Kennedy, Executive Director of the Center for Plant Conservation

Photo by Dave Kennedy



Plants like the Kodachrome bladderpod (*Lesquerella tumulosa*), an endangered species growing in the colorful Kodachrome Basin of Kane County, Utah, may be recovered with the assistance of the CPC and other partners.

Photo by James Reveal/Smithsonian Institution



San Antonio Botanical Garden botanist Paul Cox collects seeds of the endangered Texas poppy-mallow (*Callirhoe scabriuscula*).

Photo by Patty Leslie/San Antonio Botanical Garden

Seeds collected in the wild become the basis for ex situ populations of rare plants, such as this plant in the genus *Plantago*, grown at the Denver Botanic Gardens.

CPC photo

plishments but because it still has so much potential to help through focused, productive partnerships. The CPC, established in 1984, is an independent nonprofit organization whose mission is nothing less than to conserve and restore the rare native plants of the United States. It consists of a network of 33 participating institutions (arboreta, botanical gardens, university programs, and museums) that have made a long-term commitment to assist in this mission, usually in partnership with other agencies and groups. The CPC is supported by donations and grants.

Participating institutions must agree to follow CPC standards and protocols, which the CPC establishes in cooperation in academia and conservation agencies. We have convened technical

groups for advice on plant conservation issues, held symposia to investigate theoretical and applied issues that affect plant recovery, and produced two technical books.

The CPC has a small professional staff at our national office in St. Louis, hosted by the Missouri Botanical Garden. Our national office provides technical assistance within and outside the network, maintains a website and database with entries on over 8,000 taxa of conservation concern, coordinates the derivation and dissemination of best conservation practices, and provides assistance to the participating institutions in building their conservation programs. We also administer a plant sponsorship program and small endowment. The sponsorships and endowment support

modest annual payments to institutions working on sponsored species and help further the CPC's collective objectives. The national office works to promote action for plant conservation in the United States as a whole, and seeks to focus attention on biodiversity hotspots and regional needs as well.

Initially, CPC's emphasis was in conservation horticulture off site (*ex situ*). Fifteen founding botanical institutions that dedicated time from their professional horticultural staff initiated a coordinated campaign. *Ex situ* work continues today. Botanists with CPC institutions carefully collect genetically representative samples of imperiled plant species, and they secure and maintain these curated collections (usually as seed). They conduct horticultural

research to figure out the often unique germination requirements of these species, and they develop growth to maturity protocols so that plant material can be produced consistently for restoration work. In some species, small populations of plants were no longer reproducing in the wild, and CPC's *ex situ* work with hand pollination, cuttings, and tissue culture has resulted in restored reproductive material that makes reintroduction into the wild possible.

The collection of imperiled plant material held in our participating institutions, known as the National Collection of Rare and Endangered Plants, is regarded as one of the world's largest conservation collections. It now contains material representing nearly 600 plant taxa. Approximately 85 percent of plant recovery plans note that reintroduction or augmentation of existing populations will be necessary to achieve recovery. The CPC's *ex situ* work to preserve and learn to produce plant material is clearly an essential recovery tool and a unique accomplishment.

As the organization has matured, many CPC institutions have expanded their work to assist with critical recovery work in the wild (*in situ*) as well. CPC botanists are monitoring wild populations, restoring habitat, and reestablishing plants in the wild. In 2000, the CPC mission was revised expressly to encourage comprehensive, integrated recovery planning and hands-on restoration work. Currently, CPC institutions are involved in about 60 restoration projects. Many CPC institutions are involved in preserving and providing stewardship of natural areas as well.

The network is effective. We have no doubt that the CPC's work has forestalled extinction for many species. Because the botanists are staff members in existing institutions, it is also cost-effective and efficient. Participating institutions have access to committed, well-trained, and supervised volunteers and interns that serve as field and lab technicians and help stretch precious conservation funds.

Each CPC institution is based in an area where plant recovery work is needed. Perhaps as importantly, each is a community-based organization with a multi-service mission that includes education. Collectively, visitors number in the hundreds of thousands. Through institutional interpretation of their conservation work to visitors, we hope most Americans will better understand the importance and challenges of plant conservation. If we can convey this message, we will ensure support from communities for conservation of their local floras far into the future.

We know our imperiled plant species can be saved. Nevertheless, current needs are greater than the resources and action being brought to bear. The CPC works to assist in meeting those needs, and to help establish "circles of care" across the nation through effective local conservation partners, linked with agency efforts.

Kathryn Kennedy is the Executive Director of the Center for Plant Conservation. To learn more about the Center and its work, go to www.mobot.org/CPC or call (314) 577-9450. The mailing address is Missouri Botanical Garden, Center for Plant Conservation, P.O. Box 299, St. Louis, MO 63166-0299.

Botanists plant *Stephanomeria malheurensis*, an endangered plant, in the CPC's National Collection of Endangered Plants.

Photo by Cheryl McCaffrey/Bureau of Land Management

