



Havens for Endangered Plants

by Elizabeth Garcia-Dominguez

FOR HER WORK in native plant conservation, Kayri Havens, director of the Institute for Plant Conservation at the Chicago Botanic Garden, has been called botany's Wonder Woman. Yet, in person, Havens' serenity and easy laughter belie the stereotype of the passionate, hard-driving research botanist.

"Kay is a quiet visionary," says co-worker Pati Vitt, conservation scientist at the Institute. "She's not one of those intense, talkative, out-there kinds of people." However quietly, Havens has worked tirelessly to prevent the extinction and achieve the recovery of vulnerable native plant species. "What she's managed to do in terms of implementing and growing a conservation program here at the Chicago Botanic Garden in such a short time," says Vitt, "has been spectacular."

When Havens joined the conservation team at Chicago Botanic Garden (CBG) seven years ago, her work with imperiled native plants was just one part of a large research department. But by 2002, Havens and her team had launched the Institute for Plant Conservation at CBG, formalizing a partnership with Loyola University through which CBG offers university-accredited courses in plant conservation.

"It's so important to reach the next generation of applied plant conservation biologists by getting involved in teaching

and outreach at a variety of levels," says Havens. "In the federal agencies there's a well-documented shortage of plant conservation biologists, so we're helping them bring in people who have that applied conservation background."

With only 12 full-time staff, 10 students and interns on site, and 40 interns housed at Bureau of Land Management field offices around the country, the Institute still manages to play a major role in the preservation of native American flora, especially the plants of the tallgrass prairie. Havens and her team take a two-pronged



Whether in the laboratory or in the field, Kayri Havens' focus is on saving endangered plants.

approach, contributing to restoration projects in the wild but also solving botanical mysteries off site through greenhouse and laboratory experiments.

PRESERVING GENETIC DIVERSITY


One current project is helping map the genetic diversity in *Cirsium pitcheri*, a threatened dune thistle native to the Great Lakes region. "With the Morton Arboretum, we've been looking both at DNA variation and quantitative trait variation of the *Cirsium* at Illinois Beach

State Park," says Havens. "Growing lots of individuals from several populations and comparing traits like leaf length and stem height helps us determine how far away we should go to collect seeds—and from how many populations—in order to assure genetic diversity in the restored population."

Havens' lab is also helping botanists at Fairchild Tropical Botanic Garden in Florida and the National Tropical Botanic Garden in Hawaii study genetic diversity in *Brighamia insignis*, a Hawaiian endemic of which only 15 or 20 individual plants remain in the wild.

Havens and her colleagues analyzed samples of *B. insignis* taken from plants in the collections of botanic gardens and found "a surprising amount of genetic diversity." Now she plans to compare the DNA in those samples with that found in wild populations. If the diversity in the wild samples is not as high, she says, it might be possible to augment wild populations with plants propagated from those in the botanic gardens.

Havens' insight and hard work have made her a sought-after expert in plant conservation. She makes frequent presentations to both professional groups and the general public. Along with Ed Guerrant of Berry Botanic Garden and Michael Maunier of Fairchild, Havens co-edited and wrote *Ex Situ Plant Conservation*, the latest technical volume from the Center for Plant Conservation (for more on this publication, visit the CPC at www.centerforplantconservation.org/Publications.html.)

So where does Havens get the energy to continue her work? "I find my inspiration by going out and seeing intact natural areas whenever I can," she says, "and by hoping that we can maintain areas like that for future generations." 

Elizabeth Garcia-Dominguez is the communications coordinator for the CPC.

The non-profit Center for Plant Conservation relies on grass-roots support to preserve America's endangered plants. To learn how you can help, call (314) 577-9450 or visit the CPC's Web site at www.centerforplantconservation.org.