



# Lingua Botanica

The National Newsletter for FS Botanists & Plant Ecologists



Last night brought the year’s first layer of snow and it was glorious. We got eight inches of the white stuff overnight and it was still snowing while I was waiting for the 6:00 a.m. train. By the time we boarded my fleece jacket had a nice flocking of powder. The snow was immaculate, perfect in every way. But wouldn’t you know it, some of the people around me were grumbling about the weather being good for no one but Eskimos, and the inconvenience of having to get out of bed a little early in order to get to the station, and it was cold. Boo hoo. I had to remind myself that not everyone was whining. I looked around the platform and imagined that some of my fellow commuters were actually enjoying the beauty that was falling all around us; the downy blanket draped over the historic buildings around the station, the layer of frosting mounded on the naked branches of the silver maples that crowd the banks of the Potomac River, the whipped cream dollops bending nearly to the ground the tufted tops of dormant *Panicum* and *Solidago* along the nearby hiking trails. Yeah, I suppose this winter wonderland might be inconvenient in some ways, but I suppose that depends on how you tend to look at things. For me, and probably for you, events like today’s snow are, in a very real sense, unique opportunities. Sure its cold and my shoes got wet, but it also means I get hot potato soup for dinner tonight. Sure I have to ride the train more than an hour each way to work every day, but I also have more time than ever to read. Sure I have to finish the first draft of this editorial and run quickly off to another two-hour conference call, but that also gives me a chance to talk botany to non-botanists. Every odious, tedious, uncomfortable, boring, and irritating thing has some quality about it that is attractive, desirable, or at the very least funny. And if you are really lucky, you can turn those ugly situations into transformative or redemptive events. So grab your wool jacket and a hot cup of what-ever, and have the courage to step outside and see the possibilities in the world around you - the editor.

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## Useful URLs

**Lingua Botanica Archives:** Back Issues of this humble rag can be had at <http://www.fs.fed.us/biology/resources/pubs/plants/index.html>

**Botanical Electronic News:** Still my favorite botany newsletter. Back-issues of BEN are available at the BEN-Archive.

<http://www.ou.edu/cas/botany-micro/ben/>

To receive BEN, send an email to [majordomo@victoria.tc.ca](mailto:majordomo@victoria.tc.ca) with "subscribe BEN-L" in the subject line

**The Capital Holiday Tree:** This year, the Holiday tree standing in front of our nation's capital is a 70 foot Doug-fir from the Diamond Lake Ranger District, Umpqua National Forest. The lighting ceremony took place on 12 December. Visit the official Capital Holiday Tree site to learn about the history of the tradition, and this year's activities.

<http://www.capitolholidaytree2002.com/>

**Predicting Invasions of Nonindigenous Plants and Plant Pests:** Free Books? Yes, this is a free, online, academic quality text on invasiveness. It's a thought provoking read, and the text is fully searchable.

<http://www.nap.edu/books/0309082641/html/>

**Digital Representations of Tree Species Range Maps from "Atlas of United States Trees":** A big fat name for a handy little webpage. It provides just what it advertises, and in three different image formats. Excellent info for reports or browsing.

<http://climchange.cr.usgs.gov/data/atlas/little/>

**The Lichen Key Archive:** This new website is the offspring of a discussion on the lichen listserv. Part of the discussion revolved around the availability lichen identification resources on the internet.

<http://www.toyen.uio.no/botanisk/lav/LichenKey/>

**Smithsonian Department of Systematic Biology Plant of the Week Page:** Gorgeous!

<http://persoon.si.edu/plofweek/index.cfm>

**Plant Image Gallery:** A gallery of non-American galleries. A very useful resource.

<http://www.plant-pictures.com/>

**The Lichen Image Gallery:** A mongo image gallery full of excellent images.

[http://www.nhm.uio.no/botanisk/lav/Photo\\_Gallery/](http://www.nhm.uio.no/botanisk/lav/Photo_Gallery/)

**Pictures of Bryophytes:** Simply said, an outstanding archive of excellent images.

<http://homepages.compuserve.de/milueth/Moose/bvm.htm>

**The Moss Cam Project:** Continuing the LB tradition of highlighting the best in action-packed web-based entertainment for botanists, it is our pleasure to turn you on to - the Moss Cam, featuring *Tortula princeps*! This is a superior webcam site, full of techy details and natural history. Go today!

<http://www.jamesreserve.edu/mosscam/>

## The BIG BIG Botany Story Issue

An upcoming issue of *Lingua Botanica* will be dedicated to your stories about botany, about botanizing, about your motivation to become a botanist, and about the wonders you've encountered while doing your botany job. Stories are one of the most important ways that we transfer knowledge and understanding, and they are the best way to explain to others the pleasure and awe we share for plants.

I hope to have enough input from you, the readers of *Lingua Botanica* to make the Spring or Summer 2003 issue the Big Big Botany Story Issue.

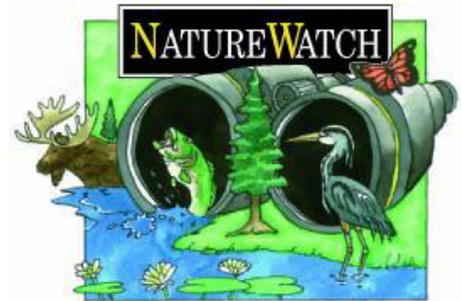
You need not be a Forest Service botanist to contribute. If you've had an enlightening or transformative or just funny experience related to botany, we want to hear about it. You don't have to be an eloquent writer to participate, just be honest.

Keep it clean (this is a family publication), pseudonyms are acceptable if you prefer, make sure anyone mentioned in your story is okay with what you say about them (don't slander or embarrass anyone), and your stories may be used in other FS publications. There is no minimum size, but try to keep your tales to less than two pages.

Submit your stories to the editor [wowen@fs.fed.us](mailto:wowen@fs.fed.us)

## Don Virgovic Named New NatureWatch Coordinator

Don Virgovic assumed the role of National Nature Watch Coordinator in mid-December and will be based in Portland, Oregon. He has worked as both a fisheries biologist and wildlife biologist in Regions 2 and 6. His master's degree in Public Administration focused on environmental ethics, and natural resources marketing in the Forest Service. Most of you know Don from the "Don's Toolbox CD-ROM." We are looking for more innovative and interesting products from him. Congratulations Don!



## Kimberly Anderson, Outgoing NatureWatch Coordinator, Says Thanks

Hey there!!! I just wanted to let you know that it's been an awesome several years that I've been lucky enough to work with you. You are the most incredibly fun, welcoming, energetic, fierce, pure, hard working, goofy crazed group! Botanists Rule!!!! And, you have exquisitely unique challenges; protection of healthy populations of genetically magical materials that have importance in every person's life every day. You're an awesome group! Thanks so much for having adopted me in! I'll always remember that of you all!!! Kimberly

## New National Invasive Species Coordinator Named

Michael Ielmini, the USFWS National Wildlife Refuge System Invasive Species Program Coordinator, has accepted the position of Forest Service National Invasive Species Coordinator, stationed in the Washington Office. Welcome Aboard Michael!

## Calls for Nominations for Two Important Awards

### **Karl Urban Celebrating Wildflowers Award**

We honor the memory of Karl Urban and acknowledge his past extraordinary contributions to the national Celebrating Wildflowers program through a joint USDA Forest Service and Bureau of Land Management *Karl Urban Celebrating Wildflowers Award*.



The Forest Service and Bureau of Land Management jointly awarded Karl Urban a posthumous Celebrating Wildflowers Award for his outstanding contribution of wildflower drawings and other materials while on the Umatilla National Forest. Chief Mike Dombeck, and Director Tom Fry, announced plans at the 1999 North American Conference for a new interagency Karl Urban Celebrating Wildflowers Award to be presented forthwith.

Locally, Karl led others through eastern Oregon's forests and meadows, sharing his passion -- peering through thickened glass at nature's secrets and the joy in recognizing familiar flower friends. To promote appreciation and understanding on a broader scale, Karl created a wildflower coloring book of 346 species of flowering trees, shrubs and herbs -- all available at an award-winning website. Through his drawings, Karl was successful in sharing with our nation's children the wonder and joy he saw in our native wildflower heritage. A perfectionist, Karl labored long hours in the company of his wife, Elaine, to capture the essence of a single species in a drawing. He cultivated passion, he sowed understanding, and he reaped respect. Karl Urban's wildflower drawings will continue to be enjoyed by school children and remain a tribute to a special person.

This award recognizes an individual or group of people within or without the agencies who exemplify dedication to the floral resources, creativity, community involvement, volunteer programs, and educational efforts through wildflower walks, talks, festivals or classes. Nominees must meet one or all of the following criteria:

1. Scope and significance of nominee contributions to native flora of North America are significant;
2. Nominee demonstrates creativity, perseverance, and commitment;
3. Nominee involves community and partners in a Celebrating Wildflowers effort;
4. Nominee integrates educational elements through a Celebrating Wildflowers program.

Application packages are **due not later than 15 January 2003** and should include:

1. Name of nominee
2. Current position
3. Address; email; phone
4. Accomplishments addressing one or more of the criteria

Please submit no more than one nomination for this award from your region. Please e-mail nominations to Bill Lorenz, Assistant Aquatic Program Leader at [blorenz@fs.fed.us](mailto:blorenz@fs.fed.us).

### **National Volunteer Awards**

Nominations are now open for the **2003 Volunteers Program National Awards**. These awards are the Chief's way to annually recognize, compliment, and support volunteers and volunteer related services by employees and local units nationally for their contributions towards our basic responsibility of "Caring for the Land and Serving People". There are several categories of Volunteer Awards and **nominations are due by 23 January 2003**. Volunteers are the heart of many of your special projects and programs. Volunteers give so much to us and it's a beautiful thing when we are able to recognize them for their selfless contributions. If you have any questions, please contact your Regional Office, or Don Hansen at 703-605-4851 or [dhansen01@fs.fed.us](mailto:dhansen01@fs.fed.us).

### **Hiawatha Seed Collectors Gather National Award**

From The Mining Journal, 28 September 2002

Simmie and Mike Taylor and Dorothy Dean have two things in common: grasses and seeds. They have another thing in common too: they were honored at an award ceremony Friday at the Marquette Interagency Conservation Center in Marquette, Michigan where they received the U.S.D.A. Forest Service National Volunteer of the Year Award and were also Chief's Honor Awards recipients in the Retired Volunteer Service category. The award was to thank the Taylors and Dean for volunteering their time collecting seeds and grasses for the Hiawatha National Forest. Dorothy Dean's husband Don died in February, so she also accepted his award. The Taylors, of Niles, MI and the Deans, of Middleville near Grand Rapids, collected locally native grass and forb seeds together for seven years. The Taylors have a summer home in Wetmore, MI and the Deans, in Christmas, MI (both in the Upper Peninsula). "Volunteering is great for seniors. It 's one of the perks of retirement," Dorothy Dean, 78, said. The seeds and grasses collected are used by the Hiawatha National Forest to restore areas and replace damaged acreage, said Jan Schultz, Forest Plant Ecologist. "They've been collecting native grasses, and wild flower seed for years," Schultz said. "They're out there (collecting) all the time. They're amazing." The annual award comes from the U.S. Forest Service and is presented at the Chief's Awards Ceremony in Washington, D.C. The Taylors and Dean were supposed to receive their awards at the ceremony in July, but due to health reasons, were unable to make it. Schultz decided to have an informal ceremony at the agency center. All three were excited to get the award, and all agreed it was an honor, but Mike Taylor said that it felt great to get an award for something they love to do. "Jan (Schultz) won't let us quit now that we got the awards," he laughed. Between the three friends (and Don), they collect about 40-50 grocery bags full of seeds and grasses every year. They figured that they've gathered hundreds of bags in the last seven years, plus numerous small envelopes filled with seeds that are too tiny to go into a grocery bag. "We travel all over the Hiawatha to collect seed," Mike Taylor said. Even at 81 years old, he diligently picks seed from wild flowers and grasses such blue stem and bottlebrush grass. They tie cardboard boxes around their waists while they are picking

seeds to make it easier for them to collect as much as they can while they're out in the fields or forests. Sometimes they spend all day outside gathering. "They know everything about seeds," Schultz said. "They can identify hundreds of species. They know how to collect them and clean them." Schultz said the Hiawatha benefits from what the Taylors and Dean contribute.

"There are a lot of native plant seeds that are sold by the ounce and we have hundreds of acres to restore every year. It gets very expensive and many native seeds aren't sold anywhere. They literally pick thousands of dollars worth of seeds," Schultz said. The Taylors and Dean love volunteering their time in native. "Instead of saying 'What to do today?' it's 'Where will we go?'" Simmie Taylor, 82 said.



L-R Jan Schultz (Hiawatha NF Botanist), Mark Jaunzems (East Unit Botanist, Hiawatha NF), and Award Winners Simmie Taylor, Mike Taylor, and Dorothy Dean (Don Dean not pictured)

## National Invasive Weed Awareness Week

24 - 28 February 2003, Washington, DC



Come and visit with fellow weed fighters, state and federal agency resource managers, and policy-makers who are dealing with harmful, invasive vegetation issues across the country.

The week will include meetings, hosted receptions, and opportunities to talk with key agency managers from the USDA and USDI about their National plans and priorities for helping in the war on weeds.

Meetings with key congressional members and their staff can also be scheduled so you can let your congressional representative know how important their help can be in this effort.

Watch for further information from your state Weed or Vegetation Management Association leadership.

Remember: You Can Make A Difference! National Invasive Weed Awareness Week (NIWAW) events are sponsored by the Invasive Weed Awareness Coalition (IWAC) and its many partners.

## **Invasive Species Overrun U.S. Wildlife Refuges**

Cat Lazaroff Environment News Service, 15 October 2002

WASHINGTON, DC – Invasive species are wreaking havoc on wildlife refuges across the country, warns a new report released in conjunction with National Wildlife Refuge week. Members of Congress joined the report's sponsors at the National Wildlife Refuge Association in calling for new efforts to stem the flow of nonnative species into U.S. ecosystems.

Invasive species - foreign insects, plants and animals that wreak havoc on native ecosystems - cause more than \$100 billion damage each year. Invasive plants alone have invaded more than 100 million acres of land nationwide, and almost eight million of those acres are in wildlife refuges, areas created to protect the most important examples of biological diversity across the country.

"America's wildlife is under siege by a relentless force that respects neither geographic nor political boundaries," said Evan Hirsche, president of the National Wildlife Refuge Association (NWRA). The NWRA report, "Silent Invasion," profiles 12 of the most damaging invasive species, including purple loosestrife, a nonnative plant which now infests about 400,000 acres of federally owned wetlands, marshes and meadows in every state except Florida. Florida has its own problems with another invasive plant: melaleuca, a fast growing tree that has begun to crowd out native plants in the Florida Everglades.

The report also documents how 12 diverse refuges in as many states are working to address this ecological crisis. For example, at Ellicott Slough National Wildlife Refuge (NWR) near Monterey Bay, California, refuge personnel and state officials are working to remove eucalyptus, pampas grass and other invasive species that are taking over the native habitat of one of the last remaining populations of Santa Cruz long-toed salamanders.

Nutria, aquatic mammals introduced into North America for fur farming, now live wild in fresh and salt water ponds and swamps throughout the mid-Atlantic, southeast, Great Lakes, and northwest states, where they disrupt irrigation and destroy native aquatic ecosystems. (Photo courtesy U.S. Geological Survey) The project replaces the invaders with live oak and other native seedlings grown by volunteers in the refuge nursery. At the Alaska Maritime NWR, native species are falling prey to invading populations of fox, ground squirrel, reindeer, cattle and other nonnative mammals. While refuge staff and other federal personnel are slowly attempting to remove the invaders, they are also working to prevent new invasions by monitoring ship traffic and preventing rats from shipwrecks from reaching pristine island habitats.

"We consider a rat spill worse than an oil spill," refuge biologist Vernon Byrd states in the report.

The NWRA is urging Congress and the Bush administration to provide \$150 million over five years to protect the national wildlife refuge system against the advancement of invasive species. "'Silent Invasion' makes it crystal clear that we have to act now before it is too late. To stop the Refuge invaders, we need a three part strategy – educating and mobilizing volunteers, deploying rapid response strike teams across the nation and implementing the strategic management plan of the National Invasive Species Council, a Presidentially mandated commission," said Hirsche. "The approach outlined in

'Silent Invasion' is already receiving bipartisan support and we urge the U.S. Congress and Bush Administration to fund our national campaign to protect our national wildlife refuges from certain destruction."

Among the report's recommendations is the training and deployment of 5,000 volunteers - about 10 per refuge - that could help spot invaders before they gain a foothold. The report also calls for the formation of 50 rapid response teams that could quickly fight early infestations before they begin to dominate native landscapes.

Acting fast is generally cheaper than waiting, the report argues. At the Willapa NWR on Washington's Pacific Coast, a non-native cordgrass called *Spartina alterniflora* is making the mudflats and saltmarsh inhospitable to birds. Two years ago, the refuge staff prepared a plan to eliminate *Spartina*, but a lack of funding has prevented the plan's implementation, and the cordgrass continues to spread. "Utilizing volunteers and mobile strike teams is a practical and affordable use of taxpayer funds to solve a problem that could effect 37 million refuge visitors annually," added Hirsche. "Recognizing the problem early on and responding rapidly are a crucial elements to this campaign. We need to catch the invasives and work to eradicate them before they swell to uncontrollable proportions."

Representative Wayne Gilchrest, a Maryland Republican, spoke in support of the NWRA's recommendations. Gilchrest has introduced legislation to reauthorize, strengthen and expand the National Invasive Species Act, and establish a screening process for detecting new invaders.

"Blackwater National Wildlife Refuge, which is located in my district on the eastern shore of Maryland, is home to one of the most notorious invaders in the nation - nutria," Gilchrest noted. "I am here to say we must do a better job controlling invasive species on our refuges." Senator Jim Jeffords, the Vermont Independent who chairs the Senate Environment and Public Works committee, noted that refuges in the northeast face a number of invaders, including an aquatic weed known as the water chestnut.

"Prevention is the key word in this battle to protect our national refuges," Jeffords said. "Educating and mobilizing of a nationwide network of volunteers is a cost effective and practical solution."

"Invasive species are a leading threat to our wildlife and economy," Jeffords added. "Congress needs to ensure that the funding and resources are available to effectively combat this threat to America's wildlife heritage." The "Silent Invasion" report was released in conjunction with National Wildlife Refuge Week, October 13 - 19. The annual event will be celebrated in a variety of ways at the U.S. Fish and Wildlife Service's (USFWS) 95 million acres of refuges, wetlands and special management areas across the nation.

This year's refuge week also kicks off the celebrations of the national wildlife refuge system's centennial anniversary. The first national wildlife refuge was established in Pelican Island, Florida on March 14, 1903, and there are now 540 wildlife refuges located in all 50 states.

"I invite Americans to explore our national wildlife refuges during National Wildlife Refuge Week," said Interior Secretary Gale Norton. "The refuges are great places to reconnect with nature, escape from our everyday surroundings and enjoy outdoor activities such as hunting, fishing and wildlife observation." More than 400 national wildlife refuges are open to the public, offering a variety of outdoor activities

including fishing, hunting, environmental education, wildlife observation and photography. Many refuges offer additional opportunities for nature hikes, bird tours, wildlife drives and other activities.

Many events this year will focus on the threat posed by invasive species. On Wednesday, for example, Lynn Scarlett, assistant secretary of Interior, will be at Ding Darling NWR on Sanibel Island, Florida, for an event highlighting invasive species. On Friday, the Heinz Invasives Species Event will be held at the Tinicum NWR in Philadelphia, Pennsylvania with guests from the Interior Department and the USFWS.

And on Saturday, invasive species events will be held at the Minnesota Valley NWR in Bloomington, Minnesota and at Loxahatchee NWR in Boynton Beach, Florida, where Fran Mainella, Director of the National Park Service, is expected to attend. For more information on National Wildlife Refuge Week, including a list of events near you, visit: <http://refuges.fws.gov/>

To read the NWRA report "Silent Invasion," visit: <http://www.refugenet.org/>

## **A Weed Meets its Match**

Debra Shore, Chicago Wilderness Magazine, Spring 2002

The sentinels at eBay, overseeing approximately five million eager entrepreneurs listing items for sale, don't look kindly on someone trying to sell contraband. But, as Martha Carver of Hebron, Illinois, discovered last summer, the only illegal weed they had heard of was cannabis. Mention purple loosestrife and they knew not a thing. Thanks to Martha, now they do.

We're talking about Martha Carver, kindergarten teacher, wife and mother of two. She's also a recently appointed trustee of the McHenry County Conservation District and a budding seller of collectibles and native seeds on eBay.

Our story begins last summer, when Martha Carver took a class to learn how to sell successfully on eBay. Martha and her husband, Andrew — he's a co-steward at Alden Sedge Meadow — live on 26 acres, which they are restoring. "We have extra seed that we harvest," Martha explained. Some they sell retail, but the excess inventory Martha decided to sell on eBay.

Like any diligent entrepreneur, she went to check out the competition, accessing the eBay site, heading to the section on plants and seeds, and then clicking on "wildflowers." There, amidst the listings for red monkey flower and wild bergamot, Martha saw an auction for purple loosestrife. "I couldn't believe it!" she said.

From her experience as a longtime restoration volunteer, Martha knew that purple loosestrife — *Lythrum salicaria* — is an exotic weed that is devastating wetlands across the Midwest. If agriculture and natural resource



departments had a 10 Most Wanted poster of bad actors, loosestrife would be on it. Its sale is prohibited in many states, including Illinois, Indiana and Wisconsin. Violators prosecuted in Illinois could spend one to six months in jail and pay a \$500 fine.

Ever the teacher, Martha first thought, "perhaps the seller doesn't know what she's doing." Indeed, some species of loosestrife are noninvasive and completely legal. Perhaps, Martha thought, this is a teachable moment.

"She had the Latin name listed and even indicated that some people find the plant obnoxious," Martha said, recalling the item listing, "but the seller also said it has beautiful purple flowers, does well in wet areas, is very sturdy and hardy and is great for landscaping!" So Martha sent the seller an e-mail, inquiring if she knew what, in fact, she was selling. "I was very careful not to sound pushy," Martha later noted. The seller replied that because she was only selling purple loosestrife seeds, she considered her actions to be completely above-board.

Martha tried again. "Do you realize the damage this plant can cause?" she e-mailed back. "Do you know that agencies are spending millions of dollars to try to eradicate this plant? Do you know that one plant can produce millions of seeds? Could you please not sell it?"

The seller, not entirely civil in her response, demurred.

So Martha asked Ed Collins, restoration ecologist with the McHenry County Conservation District, to step in and use his scientific clout to continue the lesson. When Ed received no reply, his wife, Denise, sent an e-mail to the obdurate seller. "Buzz off," was the response, in even less charitable terms.

"Martha's very nice and she's a swell lady," Ed Collins commented, "but she's a preschool teacher, so she doesn't put up with a lot of garbage."

The teacher contacted customer service at eBay. They, at least, were responsive and nice, but knew nothing about illegal weeds other than pot. "Get us documentation," they replied to Martha, "and then maybe we can do something."

"That night I couldn't sleep," Martha said. "I got on the computer and I contacted all the departments of natural resources in the Midwest. I contacted the U.S. Department of Agriculture (USDA) — they have a group that deals with noxious weeds — and I even contacted Canada!" She wrote to The Nature Conservancy, Sierra Club, Audubon, Ducks Unlimited, Michigan State University, and the Vermont Purple Loosestrife Project.

Martha figured, at best, she would hear from a handful of them. Instead, they all replied with offers to help. The Nature Conservancy put their invasive species guru onto the case. Agency officials e-mailed eBay, which then asked for documentation.

An attorney for the Illinois Department of Natural Resources sent eBay a letter along with the state statute outlawing sale of purple loosestrife. The USDA said this was a new frontier — they hadn't yet encountered internet sales of noxious plants.

Soon, Martha was cautioned not to attempt to purchase anything from the suspect vendor. Several agencies wanted to attempt a sting operation. By the end of September, the listings of loosestrife seeds for sale had stopped. "Everybody was doing their part," Martha said.

At the beginning of November, with no fanfare, eBay changed its policy regarding sale of plants and weeds. Now in a list of prohibited items, nestled between Mailing Lists and Postage Meters, is Plants and Seeds (<http://pages.ebay.com/help/community/png-plantsandseeds.html>). eBay has posted the

relevant laws and advises all sellers and buyers to review them prior to listing items. Now, if someone like Martha happens across a sale of an illegal weed, eBay will warn the seller and then boot them on second offense.

"We had just gone through an education program with the conservation district about the beetles they're raising and releasing to try to reduce the loosestrife," Martha recounted. "That's what got my ire up — seeing the loosestrife spread in areas where we've been working so hard on restoration."

Though Martha has since crashed her hard drive, she's still conducting online patrols. "It was probably one of the most satisfying things I've done in a long time," she said of her campaign with eBay, "because it involved so many people I've never met. They jumped at the chance to help and there were so many people involved because of the internet. Even the federal government," Martha added in amazement. "I only expected them to contact me at tax time!"

Still, Martha warns, eBay relies on buyers and sellers to police themselves. So, in a word, it's up to us.

## Los Angeles Sunflower Not Extinct

Biologists working for a developer have discovered "fewer than a dozen" Los Angeles sunflowers (*Helianthus nuttallii* ssp. *parishii*) a species thought to have gone extinct in 1937, says an Associated Press report on September 23<sup>rd</sup>. Approximately a dozen plants were found on a boggy bank of the Santa Clara River near a proposed (21,700 unit) housing development. This once common sunflower was pushed to the brink of extinction by urbanization. Over 95% of the wetlands in Southern California have been lost to development. The species currently lacks formal protection, but the California Department of Fish and Game is reviewing its proposed addition to the state's endangered species list. NatureServe currently ranks this species as G5TH, but it will probably be revised to G5T1 this spring.



Type specimen of Los Angeles sunflower

## **Endangered Plants and Butterflies at Antioch Dunes**

Erin Hallissy, San Francisco Chronicle, 10 September 2002

Tucked along Antioch's shoreline, three endangered species are being nurtured on native sand dunes that seem almost out of place, despite being more authentic than the industries that have dominated the area for decades.

In the Antioch Dunes Wildlife Refuge -- a 55-acre haven of native grasses and shifting sands -- a pretty little butterfly called the Lange's metalmark is now enjoying its brief life, just as the last flowers of the Antioch Dunes evening primrose are blooming and the Contra Costa wallflower have faded. The butterfly has a wingspan of less than an inch, but it's packed with color and detail -- a deep orange with white polka dots. It's plainly visible as it rests on the naked-stem buckwheat that provides nectar and shelter and a place for the butterfly's cocoons. The insect -- found only in the Antioch Dunes refuge -- lives for just nine days in August or September, breeding and laying eggs before dying.

Few people have been able to see it, but that will change next year. Under a management plan just released by the U.S. Fish and Wildlife Service, the refuge will be open for the first time since 1986, when crowds trying to see Humphrey the humpback whale on his journey into the Sacramento-San Joaquin River Delta trampled the endangered plants and the butterfly habitat. "It's a good thing to be able to have the public out here," said Chris Bandy, the refuge manager. "There are very few places out here that have been kept as natural."

The area is unique: Created in 1980, it was purchased by the Fish and Wildlife Service for \$2.1 million as the first and only wildlife refuge established solely to protect endangered plants and insects. Part of what used to be a large dune system at the mouth of the delta, it is being gradually restored through efforts to plant and nurture more of the native wallflowers and Evening primroses and to maximize the butterfly's habitat.

It hasn't always been easy, even with the area off-limits to visitors. In July, a trespasser apparently started a fire that burned about 21 acres of buckwheat that probably had hundreds of butterfly cocoons.

"From the butterfly point of view, it was devastating," Bandy said, looking out over the blackened sand. He estimates the refuge lost about one-third of this year's Lange's metalmark population to the flames. Last week, two biologists, an environmental intern and a volunteer surveyed the butterfly population, walking carefully among the remaining stand of buckwheat and clicking hand counters each time they saw the small insect clinging to plants or flying about.

The peak count has been close to 500, said Rachel Hurt, the biologist for the dunes refuge. Last year, the peak count was 737. Although the dunes may seem out of place along the river, it is a remnant of a much larger dune ecosystem that thrived before industrialization along the southern bank of the San Joaquin River.

A century ago, human development and sand mining destroyed the dunes, which were once 120 feet high. Much of the sand was taken out to make bricks used in the rebuilding of San Francisco after the 1906 earthquake. By 1915, three brickmaking companies were operating in the dunes.

By mid-century, two paper mills had been built over other sections of the dunes, even though its unique plant and butterfly species had gotten notice from biologists. In

1955, Life magazine had a feature on the dunes, and in 1979, the Contra Costa wallflower and Antioch Dunes evening primrose appeared on U.S. postage stamps.

Since it was purchased as a refuge, the wildlife service has worked to restore the sand dunes and increase the flower and butterfly population. PG&E, which owns 12 acres adjacent to the refuge, has donated more than 7,000 cubic yards of sand to the dunes.

Bandy and Hurt collect seeds from the primrose and wallflower and plant them to increase the number of flowers, and do occasional prescribed burns to rid the area of nonnative species such as star thistle. This winter, they will try to replant some of the buckwheat that was burned.

Bandy said the refuge won't be open at all times, but that the public will be allowed into the dunes when different plants, including the wallflower and evening primrose, are at their peaks. There are even times when plants that aren't endangered make a showy display.

"It's beautiful in the spring when the lupine blooms," Bandy said. Trails through the area, including the buckwheat stands where the Lange's metalmark lives, will allow the public to view the endangered species up close in an area that Bandy and others have been working hard to preserve. "Technically, it's everybody's refuge," he said.

## Moonworts Over the Plumas

Linnea Hanson, Forest Botanist, 11 December 2002

Botrychiums have been of interest on the Plumas National Forest since the early 1990's. The Plumas National Forest botanists visited the botrychiums along Willow Creek on the Lassen National Forest in 1994 to find out what they looked like and to see how hard they were to find. In 1985 and 1986, Tim Devine from California State University, Chico, collected moonworts along Jones and Willow Creeks on the Lassen National Forest and sent them to W.H. Wagner at the University of Michigan, Ann Arbor. He identified five different species in the collection; *Botrychium ascendens* (upsweep moonwort), *Botrychium crenulatum* (scalloped moonwort), *Botrychium manganense* (Mongan moonwort), *Botrychium montanum* (western goblin) and *Botrychium simplex* var. *compositum* (Yosemite moonwort). We only saw a few botrychiums on Willow Creek in 1994 and found just one occurrence of *Botrychium simplex* var. *compositum* north of Little Grass Valley Reservoir that year.

Botrychiums have recently gained our interest again. At the U. S. Forest Service Pacific Southwest Regional botany meeting in 2000, Don Farrar from Iowa State University in Ames Iowa, came to talk about the botrychiums. He talked about the interesting biology of the moonworts which was very interesting. For instance, about 30% of the moonwort plants don't produce above ground fertile and sterile fronds each year.



Also, they easily hybridize and the hybrids then combine. So, there are diploid and tetraploid species which helps explain why the group is rather confusing. Don has used isozymes to differentiate between the different species and has figured out which diploid species have combined to make the tetraploid species.

In the summer of 2001 botanists on the Plumas again visited Willow Creek with botanists from the Lassen National Forest to get a good idea of what they looked like and how hard they are to find. We visited the *Botrychium simplex* occurrence north of Little Grass Valley Reservoir. We sent 10 samples of the plants at that site to Don Farrar who said that it is an unusual *Botrychium simplex* (Hanson, C. Bishop, J. Bishop, Nielsen 465). It looks like these plants more easily fit the description of *Botrychium simplex* var. *compositum*. While conducting a botany survey for the Humbug Defensible Fuel Profile Zone under contract John Dittes and Josephine Guardino found a single botrychium plant in a meadow near Smith Peak. John called this plant *Botrychium crenulatum*.

As part of the implementation of the Sierra Nevada Forest Plan Amendment Environmental Impact Statement, the U.S. Forest Service Pacific Southwest Region is emphasizing several regionally significant groups of plants. These include *Botrychium* species, Sierran fens and *Cypripedium* species. Don Farrar and Cindy Johnson-Groh from Gustavus Adolphus College in St. Peters, Minnesota planned to visit the botrychiums at Willow Creek this past summer and we planned a regional field workshop to visit this site. John Dittes, conducting a botany survey with Josephine Guardino for the Watdog Defensible Fuel Profile Zone under contract, informed me that he and Lowell Ahart, a legendary local botanist, found botrychiums in meadows near Tamarack Flat. Lowell said it was a botanical miracle! There were more moonworts in these meadows than we had ever seen! At the time we thought we had numerous species of botrychiums in these meadows.

It was decided to move the regional workshop to the Plumas NF from the Lassen NF to visit these meadows. On the first day of the workshop, both Don and Cindy talked about their work on botrychiums. Don talked about the taxonomy of the group and Cindy talked about the life history. We were able to key many of the different species that they had collected during their trips in the west this summer. This was invaluable to use fresh specimens.



On the second day of the workshop, we visited the meadows around Tamarack Flat and everyone was able to see the abundant number of botrychium plants. However, Don decided these were all *Botrychium simplex* var. *compositum* rather than numerous species of botrychiums as we thought. We also visited the meadow north of Little Grass Valley Reservoir and Don was amazed at the number and size of the plants in that meadow, too. He collected specimens at both sites to take back to Iowa State to study.

A smaller group of botanists along with Don and Cindy visited Willow Creek the following day and found several species of botrychiums. There aren't as many plants as years ago along Willow Creek when

Tim Devine collected all of the specimens he sent to W.H. Wagner. Don thinks that the undercutting of the creek has changed the habitat along the creek so not as many botrychium plants can grow in that area. Don and Cindy also visited the botrychiums in the Smith Peak area that day and decided that these are *Botrychium minganense* instead of *Botrychium crenulatum*. More botrychium plants were found in the meadow near Smith Peak this past summer by the botanists on the Plumas NF. Many of us helped in finding these plants including Jerry Hustafa, Jim Belsher-Howe, Kristy Schultz, Justin Davilla, and myself.

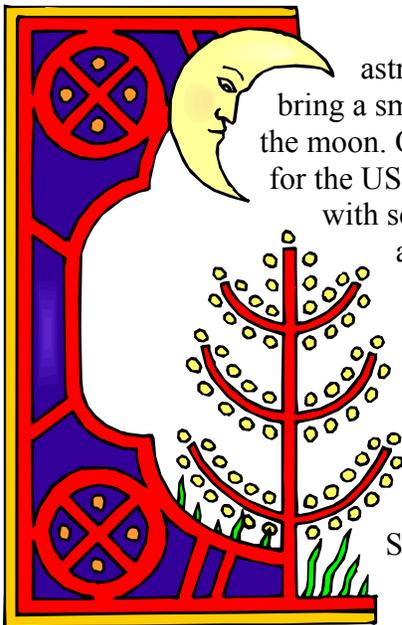
There are four other known botrychium occurrences on the Plumas NF that Don and Cindy weren't able to visit. Brian Elliontt, botanist on the Plumas NF, found several botrychium plants in a small meadow south of Lake Almanor. We believe these are *Botrychium crenulatum* but they will need to be revisited next field season when they're more mature. Lowell Ahart also found botrychiums in a meadow in the Granite Basin area south of Bucks Lake. These will also need further identification. Catie and Jim Bishop, botanists on the Plumas NF, also found two new occurrences of *Botrychium simplex* var. *compositum*; one south of Little Grass Valley Reservoir and the other near Howland Flat.

To add to the diversity of the botrychium species on the Lassen National Forest, Allison Sanger, botanist on the Lassen National Forest, found an occurrence of *Botrychium pinnatum* near Domingo Lake on the Lassen National Forest just south of Lassen Volcanic National Park.

Moonworts are a very interesting group of plants. They are very small, and are hard to find and identify. It is a group of plants that many botanists are interested in learning to better understand, identify, and conserve.

## NASA Website Lists Whereabouts of Moon Trees

The Forestry Source, October 2002



Along with their tools and instruments, each of the three astronauts aboard the Apollo 14 spacecraft were allowed to bring a small number of personal items on their trip to the surface of the moon. One of those astronauts, Stuart Roosa, an ex-smokejumper for the USDA Forest Service, carried a 6-inch metal cylinder filled with seeds from redwood, loblolly pine, sycamore, Douglas-fir, and sweetgum trees.

Forest Service scientists were curious to know whether tree seeds that traveled to the moon would develop into healthy, normal-looking trees when planted here on Earth.

They almost never found out. During decontamination procedures, the canister containing the seeds burst when it was exposed to a vacuum, and Forest Service scientists figured the seeds were irreparably damaged.

Yet, the scientists went ahead with their experiment

and sent the seeds to a Forest Service station in Gulfport, Mississippi, and to another in Placerville, California, to attempt germination. Much to their surprise, nearly all the seeds germinated successfully, and the Forest Service had approximately 420-450 seedlings after a few years (some of these were from cuttings). After germination, some of trees were planted along with their earth-bound counterparts to help the scientists identify any discernible differences between the two.

"As would be expected, there was no discernable difference," says David Williams, curator at the National Space Science Data Center at the Goddard Space Flight Center in Greenbelt, Maryland.

The majority were given away in 1975 and 1976 to many state forestry organizations to be planted as part of the nation's bicentennial celebration. Trees were sent to the White House, to Independence Square in Philadelphia, to Valley Forge, and even to the Emperor of Japan. Trees have also been planted in Brazil and Switzerland; in the International Forest of Friendship in Kansas; and at various universities and NASA centers.

Yet, according to Williams, no one kept any detailed records of where the trees were sent. As a result, the whereabouts of the trees today is largely unknown.

To remedy this situation, Williams has created a website ([http://nssdc.gsfc.nasa.gov/planetary/lunar/moon\\_tree.html](http://nssdc.gsfc.nasa.gov/planetary/lunar/moon_tree.html)) that lists the locations of all the known moon trees--a project he started after a third-grade teacher from Indiana contacted him about the trees after she discovered one at a nearby Girl Scout camp. Williams didn't know anything about them.

Shortly thereafter, Williams began to compile press clippings and assorted other bits of information about the trees. He even stumbled across a tree himself--right near his office on the grounds of the NASA Goddard Flight Center.

The trees are often found by accident, Williams says.

Williams says interest in the trees is purely historical and that no one has planned any investigations--genetic or otherwise--to see if the moon trees differ from their earth-bound relatives.

If you think you might know the whereabouts of a moon tree, Williams asks that you contact him so that he can investigate the find and, if it's authentic, add it to the list.

## **Inventory Project Finds New Life in Smokies**

Associated Press, 2 December 2002

GATLINBURG, Tenn. - After five years of field work, the massive inventory of all living creatures in the Great Smoky Mountains is bringing results.

More than 300 organisms new to science and more than 2,500 species new to the 520,000-acre national park have been found since the All Taxa Biodiversity Inventory began in 1997.

"This is a huge project for the Smokies," said Jeannie Hilten, administrative officer for the nonprofit support group Discover Life in America. "Really, it would be a huge project in your back yard."

Researchers and volunteers will gather here this week for an annual conference to take stock of what has been achieved and assess what lies ahead.

Scientists say the ATBI - the most ambitious scientific survey ever undertaken - could take another 10 years, but much already has been accomplished.

At one time, scientists said at least 90 percent of the estimated 100,000 species in the Smokies, the nation's most- visited park on the Tennessee-North Carolina border, were unknown.

The knowledge gap is narrowing, particularly among the lesser life forms - insects, spiders, worms and slime molds.

Though only one new mammal has been found - an evening bat - 50 new kinds of micro-mosses have been discovered.

"There's always a flurry of new discoveries when you're looking at a family or group of organisms that hasn't received much study," Hilten said.

"This has been the case with fungi. About 2,200 fungi species have been found in the park so far, and we know we will continue to find hundreds more over the next few years."

Data from the inventory will be used as a baseline from which park officials can manage the Smokies against such threats as air pollution and non-native pests.

The project also has educational benefits - both for students in the classroom and those who volunteer in the field and for researchers pursuing new medicines or pest controls.

The park's three-year vertebrate study - a category including mammals, fish, reptiles, amphibians and birds - is nearly finished and soon will be posted on Discover Life in America's Web site.

Meantime, computer-generated maps of the park are expected to result from companion studies by the Natural Resources Conservation Service on vegetation and geology.

This year, volunteers donated more than 7,000 hours to collecting and identifying creatures. Discover Life in America estimates that was worth at least \$100,000.

The Friends of the Smokies and the Great Smoky Mountains Natural History Association continue to help pay the project's \$300,000 annual cost.

But Frank Harris, an associate director of the Oak Ridge National Laboratory and chairman of Discover Life in America, said the project is at a funding crossroads.

"Our biggest hurdle now is to secure a sound funding base," Harris said. "We're benefiting from support from the Natural History and Friends groups. But at some point, we're going to have to develop a strategy to take us forward."

Discover Life In America <http://www.discoverlife.org/>

## **Economy vs. Environment - Fact or Fiction?**

Executive Summary of a Native Plant Conservation Campaign White Paper

<http://cnps.org/NPCC/> November, 2002

There is a widely held theory that resource management practices and policies that protect the environment must necessarily harm the economy and reduce employment. However, empirical data supporting this theory are scarce. In recent years, economists and ecologists have increasingly begun to use quantitative methods to test this theory.

## **Testing the Environment vs. Economy Hypothesis**

This report presents an overview of some widely used methods in the emerging field of ecological economics, and summarizes representative examples of results that are obtained.

In the correlation method, quantitative indices of economic strength are compared with indices of environmental health and environmental policy strength across regions, states or nations. If strong environmental policies harm economies, these studies should show a negative correlation in which economic strength decreases as policy strength increases.

Studies examining factory emissions, endangered species, air quality and other issues have found no evidence that economies suffer as environmental policy strength increases. On the contrary, numerous researchers have reported slight positive correlations between environmental and economic indices, suggesting that environmental health may help fortify economies.

The "policy impact" method measures the impact of a change in environmental policy, such as a species listing under the endangered species act or a tightening of air or water quality regulations, on economic strength. In these studies too, evidence that increased environmental regulation damages economies or reduces employment is scarce.

This report also reviews indirect estimates of the economic impact environmental policy or health. In the travel cost method, researchers estimate the economic value of rivers or wilderness by measuring how much visitors are willing to pay to travel to the area. In the contingent value method, surveys are used to determine how much people would be willing to pay for incremental increases in acreage in wilderness or in miles of clean river. The property value method measures differences between the value of real estate adjacent to clean water bodies, open space or in areas of high air quality, and similar real estate elsewhere. This provides an estimate the impact of ecosystem health on property values.

These methods increasingly are being used to measure the value of clean water and air, and healthy wildlands throughout the United States and around the world. Estimated values vary widely, but studies agree that clean, fishable and swimmable waterways, clean air, diverse and vigorous native plant and wildlife populations, and open space are highly valued by the public and that the public is willing to pay to preserve and enjoy these resources. For example, homes within 300 feet of clean waterbodies have been found to be worth up to 28% more than similar homes.

## **Ecosystem Services**

Another rapidly expanding field of study involves the valuation of so-called "ecosystem services". Ecosystem services are the processes by which the environment produces resources that we often take for granted such as clean water, timber, and habitat for fisheries, and pollination of native and agricultural plants.

This report reviews some of the many recent studies estimating the values of ecosystem services for forests, wetlands, grasslands, and other ecosystems. One of the most widely cited analyses estimated the average aggregate global annual value of wildland ecosystem services at \$33 trillion. Examples of values for individual services include a value of \$4-7 billion per year for pollination in the United States and values of

\$1-2 billion per year for the 42 million roadless acres on National Forests in the lower 48 states.

### **Environmental Protection Produces Jobs**

Finally, economic analysis of the environment vs. economy hypothesis often ignore the fact that pollution control and other "green" industries are rapidly growing and are strengthening economies and producing new jobs every day. A recent report by the Environmental Protection Agency estimated that 1.3 million Americans are employed in "environmental technology". That figure does not include the hundreds of thousands of jobs nationwide in wildland ecosystem restoration and management.

### **Conclusion**

There is little evidence to support the fear that strong environmental protection policies will harm the economy or destroy jobs. The increase in meticulous quantitative studies of this issue should help to replace the anecdote and hyperbole which frequently dominate environmental policy debates with dispassionate fact-based analysis, leading to improved policymaking.

Standard cost-benefit analyses for polices such as clean water laws or for land use projects such as dam construction, logging, or housing development tend to ignore the value of ecosystem services that may be forgone if an ecosystem is damaged or destroyed. The growing body of scientific research in this area is making it steadily easier for project and policy analyses to quantify the economic effects of changes in ecosystem services flows.

As the public and policymakers begin to incorporate this research into resource management laws and practices, the quality and sustainability of our lives and economies will improve.

### **To thin or not to thin**

USGS-funded research weighs benefits of forest thinning on plants and animals

Ruth Jacobs, USGS, 21 November 2002

Recent studies show that thinning of young forests can benefit the development of old-growth characteristics and the diversity of plants and animals, but only if methods are used that protect and promote the development of shrubs, hardwoods, and large or old trees.

The findings, which were made by researchers from the U.S. Geological Survey (USGS) and Oregon State University (OSU), hold special significance for the management of many young forests, with trees less than about 60 years old, which cover vast portions of the Pacific Northwest.

The conclusions are based on a number of related studies funded in recent years by the USGS.

According to John Tappeiner, a professor at OSU and retired USGS forest scientist, the forests in the Pacific Northwest that were clearcut in past decades were densely replanted with uniformly spaced tree seedlings. The original management goal of most plantations was to produce high yields of timber and associated wood products.

This management goal dramatically shifted for millions of acres of young forests on federal lands with the adoption of the Northwest Forest Plan in 1994. Many dense, young forests were incorporated into a network of large conservation reserves intended to provide habitat for plants and animals typically associated with older forests.

Although researchers and land managers had assumed that these dense, young forests would, in time, grow to resemble the old-growth forests they replaced, a group of researchers have accumulated a wide range of evidence suggesting that this may not occur unless the young forests are selectively thinned to allow the remaining, uncut trees to grow under less-dense conditions.

Crowded young trees develop differently from more open-grown individuals, the scientists found. Widely spaced trees have larger crowns and diameters than closely spaced trees of the same species and age. Dense young forests typically have over 200 trees per acre at 50 years of age, but studies of 90 old-growth forests revealed an average of just 6-8 large trees (over 40 inches in diameter) per acre.

Other findings of the research include:

- Studies of the relationship between a tree's diameter at age 200 years and its diameter and growth at age 50 show that trees that were large at age 200 years were generally large and fast growing when young.
- Studies of lichens and mosses, which are collectively known as epiphytes, showed that thinning of dense, young-growth stands may increase the diversity and abundance of some lichens, particularly those that are important as forage for wildlife.
- Thinning may lead to increased similarity of some lichen communities on shrubs between young and old-growth stands. But in some cases, thinning apparently led to the loss of old shrub stems, resulting in these thinned stands supporting fewer shrub epiphytes than did comparable unthinned stands.
- Hardwood trees and old remnant conifers in young stands hosted diverse and abundant epiphyte communities and are likely to provide refuges for epiphytes if they are retained in stands during thinning.
- The abundance of forest songbirds was greater in thinned young stands and old-growth stands than in young unthinned stands, and the number of different species of birds was positively linked with the presence of hardwood trees.
- There are more caterpillars and other insects, which are important foods for several types of birds living in the forest understory, in thinned stands that encourage more hardwood shrubs.
- There were few differences in the number of species of moths, including their caterpillar stage, in thinned stands compared to unthinned stands, but the hardwoods more prevalent in thinned stands contributed to a greater richness of moth populations.
- "Taken together, these studies suggest that thinning may have positive results for plants and animals if the methods used protect shrubs, hardwoods, large trees, and old trees," Tappeiner said.

Pat Muir, a professor of botany at OSU, said it also important to consider that the sites studied were thinned only 15 to 20 years ago, with a primary objective of commercial tree harvest.

"As a group we found indications of positive benefits for some plants and animals less than two decades after thinning, even though the thinning was conducted without bearing in mind the effect on these organisms, and some benefits of thinning may not be seen for many decades," Muir said. "I suspect even greater benefits would be evident if thinning were conducted with a long-term goal of enhancing forest biodiversity."

In these research projects, the USGS and OSU scientists contrasted the responses of plants and animals in three types of forest stands in Western Oregon: young stands thinned by commercial techniques 15-20 years ago, young unthinned stands, and old-growth stands.

The organisms selected for study have complex interdependencies that are only partially understood, the scientists say, such as providing food, nesting material, habitat, or pollination.

Other contributors to this research included Joan Hagar, a doctoral candidate at OSU who studied forest songbirds; Bruce McCune, an OSU professor of botany and plant pathology; Nathan Poage, previously a doctoral candidate at OSU and currently a contractor for the USGS who studied tree growth; Jeff Miller, an OSU professor of entomology, and Eric Peterson, previously a doctoral candidate at OSU who studied lichens and mosses.

## Changes to CITES Treaty Affects Three American Plants

This year's international Conference of the Parties on revisions to the Convention on International Trade in Endangered Species (CITES) in Santiago, Chile has made three significant changes to the status of three plants native to the western United States. For more on CITES, see <http://www.cites.org/>



***Lewisia maguirei*** – Deleted from Appendix II

*Lewisia maguirei*, endemic to the state of Nevada, is known only from 8 sites, all within an 8-km radius. The species is found on high elevation (7,500 to 8,500 feet) limestone slopes of the Quinn Canyon Range and Grant Range, Nevada. All documented populations of *L. maguirei* occur on U.S. Forest Service lands. International trade in specimens of Appendix-II species may be authorized by the granting an export permit or re-export certificate; no import permit is necessary. This change removes any restriction on the trade of *L. maguirei*.

***Dudleya traskiae*** - Transferred from Appendix I to Appendix II

Santa Barbara Island dudleya had been listed in Appendix I of CITES since 1983. *Dudleya traskiae* is a small, rosette-forming succulent plant with attractive flowers that is endemic to Santa Barbara Island, which is part of the Channel Islands National Park managed by the National Park Service of the U.S. Department of the Interior. Appendix I species are threatened with extinction and CITES generally prohibits commercial international trade in specimens of these species. However, trade may be allowed under

exceptional circumstances, e.g. for scientific research. In these cases, trade may be authorized by the granting of both an export permit (or re-export certificate) and an import permit.

**Sclerocactus nyensis** - Transferred from Appendix II to Appendix I

*S. nyensis* is endemic to Nevada and is known only to occur in Nye and Esmerelda counties, with known occurrences on lands managed by BLM. *S. nyensis* was first listed in CITES Appendix II in 1975. The species is listed on the State of Nevada Rare Species List and as a Special Status Sensitive Species by BLM.

## **Congressional Committee Chairs Move South**

William McCall, Associated Press, 21 November 2002

Some key federal land-use committees in Congress will be chaired next year by congressmen from the South rather than the West because of shifts following this month's election, says the presidential appointee who oversees the U.S. Forest Service.

Undersecretary of Agriculture Mark Rey said the lawmakers expected to chair three key committees or subcommittees in the House all hail from districts that converge in southern Appalachia, which has plenty of federal land but faces very different issues than the West.

"The South will rise in relative importance to the West on natural resources issues and public-lands issues," Rey told the Association of Oregon Counties on Wednesday.

Rey said the incoming chairman of the House Agriculture Committee would be Rep. Bob Goodlatte, R-Va., who represents the southwestern portion of that state. Its chairman now is Rep. Larry Combest, R-Texas, who won re-election but has since announced plans to retire mid-term next year.

The incoming chairman of the House Appropriations subcommittee on the interior is expected to be Rep. Charles Taylor, R-N.C., who represents the westernmost district in that state. Its chairman now is Rep. Joe Skeen, R-N.M., who is retiring.

The chairmanship of the House Resources Committee - now Rep. James Hansen, R-Utah, who also is retiring - is contested. "But if I had to bet," Rey said, he would expect it to be Rep. John Duncan, a Republican who represents the easternmost district of Tennessee.

Those shifts are important because chairmen control the flow of legislation through their committees. And the bills going through those committees dictate both federal-land policies in the West and how much money is available to implement those policies.

Although Republicans will control both House and Senate when the 108th Congress convenes, Rey cautioned that "there are no operational majorities in any sense of the word, so anybody expecting a quantum shift is setting themselves up for disappointment."

But within those limitations, he said, policy on federal land management already has begun to shift toward goals emphasized by the president.

The four main goals, Rey said, are to increase the effectiveness of land management agencies and their employees; make state and local governments true

partners in management projects, such as land restoration projects following a near-record 2002 wildfire season; increasing the role of Congress in setting federal land-management policy; and sustained stewardship of federal lands.

"The question is, can we do better and are we committed to succeeding? And the answer is, absolutely," Rey said.

He joked that he has been undersecretary for only a year, long enough to already become a contender for the Bush administration official named most often in environmental lawsuits.

"The real issue with environmental groups is trust - I'll accept that," Rey said.

"Despite the fact that they've spent tens of millions of dollars demonizing the administration, and despite the fact that they've spent large amounts of money on grassroots efforts to demonize some of us individually, I still trust them," he said. "Maybe I shouldn't, but I'm that kind of guy."

Josh Karden, chief aide to Sen. Ron Wyden, an Oregon Democrat, also addressed the meeting of county managers and praised Rey for his work to build coalitions to manage federal lands.

"It makes it much more difficult for your adversaries to paint you into a corner if you accomplish coalitions like that," Karden said.

Rey also noted that 90 percent of the top Forest Service managers are within five years of retiring, and about 30 percent of employees are in that range. The same numbers apply to the Natural Resources Conservation Service, which he also oversees.

Both agencies will focus on recruiting young people and renewing contacts with universities that have languished "for the last 15 years," Rey said. Of 30,500 Forest Service employees, he said, only 400 are age 26 or younger.

## **National Botany Program Highlights**

What's going on with botany in the Washington Office?

- ☀ Robin Roecker, Botanist/Ecologist for the Francis Marion – Sumter National Forest spent a month in the Washington Office on detail. She will continue working for us for a few more weeks from her home unit.
- ☀ Still fighting for a TES Plants protocol in NRIS.
- ☀ Attended the Functional Assistance Trip to the Southern Research Station's Special Forest Products Lab in Blacksburg, VA.
- ☀ Attended Plant Conservation Alliance Meetings in Arlington, VA.
- ☀ Contributed to the proposed revision of FSM MIS language.
- ☀ Met with partners from CPC, Center for Native Ecosystems, and the Native Seed Trade Association
- ☀ Reviewed Native Plant Conservation Initiative Grant Proposals
- ☀ Assisted the National Lewis and Clark Bicentennial Celebration team.
- ☀ The 2003 Celebrating Wildflowers poster is going to be the best ever.
- ☀ Next year's wildflower seed packets have been purchased. We'll be giving away California poppies (*Eschscholzia californica*) this year.

## Federal Botany Jobs

Check for these and other jobs of interest to botanists at <http://usajobs.opm.gov/>.

Remember, botanists make excellent leaders!

As of 19 December 2002, there are eighteen open Forest Service line officer positions

**Position:** [BOTANIST](#)

**Salary:** \$45,285 - 58,867

**Series:** GS-0430-11/11

**Closing Date:** May 26, 2003

**Location:** NAVY FIELD OFFICES Southwestern States, US; WESTERN & PACIFIC ST, US

**Announcement Number:** SW-INV-0430

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**Position:** [BOTANIST](#)

**Salary:** \$24,701 - 30,597

**Series:** GS-0430-05/07

**Closing Date:** Sep 30, 2003

**Location:** US ARMY CORPS OF ENGINEERS, NEW ORLEANS, L A

**Announcement Number:** NC-DEU-03-626

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**Position:** [BOTANIST](#)

**Salary:** \$24,701 - 30,597

**Series:** GS-0430-05/07

**Closing Date:** Sep 30, 2003

**Location:** US ARMY CORPS OF ENGINEERS NEW ORLEANS, LA; MEMPHIS, TN

**Announcement Number:** NC-DEU-03-627

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**Position:** [BOTANIST](#)

**Salary:** \$55,694 - 86,095

**Series:** GS-0430-12/13

**Closing Date:** Jan 17, 2003

**Location:** FOREST SERVICE, WASHINGTON, DC

**Announcement Number:** WO-0042-03G (TK)

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**Position:** [BOTANIST](#)

**Salary:** \$24,701 - 39,779

**Series:** GS-0430-05/07

**Closing Date:** Dec 30, 2002

**Location:** USDA, FOREST SERVICE YAMPA, CO; DOUGLAS, WY

**Announcement Number:** R206-M07-03G REL1

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**Position:** [BOTANIST](#)

**Salary:** \$30,597 - 45,285

**Series:** GS-0430-07/11

**Closing Date:** Jan 13, 2003

**Location:** INTERIOR, U.S. FISH AND WILDLIFE SERVICE STOCKTON, CA

**Announcement Number:** FWS1-02-307

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**Position:** [BOTANIST](#)

**Salary:** \$37,428 - 58,867

**Series:** GS-0430-09/11

**Closing Date:** Jan 10, 2003  
**Location:** BUREAU OF LAND MANAGEMENT BAKERSFIELD, CA  
**Announcement Number:** CA-02-219MP-SM

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**Position:** [BOTANIST](#)  
**Salary:** \$37,428 - 58,867  
**Series:** GS-0430-09/11  
**Closing Date:** Jan 10, 2003  
**Location:** BUREAU OF LAND MANAGEMENT Bakersfield, CA  
**Announcement Number:** CA-02-220DEU-SM

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**Position:** [BOTANIST](#)  
**Salary:** \$39,698 - 69,939  
**Series:** GS-0430-09/12  
**Closing Date:** Jan 17, 2003  
**Location:** U.S. Army Corps of Engineers New York, NY  
**Announcement Number:** FSU300374

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**Position:** [BOTANIST - INTERDISCIPLINARY](#)  
**Salary:** \$54,275 - 70,555  
**Series:** GS-0430-12/  
**Closing Date:** Jan 8, 2003  
**Location:** USDA, FOREST SERVICE KAMIAH, ID  
**Announcement Number:** R105-021-03FS

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**Position:** [RANGELAND MANAGEMENT SPECIALIST BOTANIST](#)  
**Salary:** \$25,467 - 31,936  
**Series:** GS-0430-05/07  
**Closing Date:** Jan 6, 2003  
**Location:** FOREST SERVICE Yampa, CO; DOUGLAS, WY  
**Announcement Number:** R206-D07-03

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### **Banner Plant: *Cryptothecia rubrocincta* (Christmas Lichen)**

Each month, a different plant graces the banner of *Lingua Botanica*.  
This month's image courtesy of the Lichens of North America.

Found in tropical to subtropical woodlands, this unmistakable red and green lichen looks like a Christmas wreath. It is fairly common on trees in some sandy oak/pine woodlands on the National Forests in Florida. This lichen is not known to be fertile (sexually) and reproduces exclusively by asexual means. It commonly over-grows other lichens and mosses. In Brazil, this lichen is used to produce a textile dye.

### **Afterword: A Salute to American Flowers!**

In the photo below, women representing the 13 original states snap a celebratory salute at the 150th anniversary of the ratification of the U.S. Constitution (1938). Behind them red, white, and blue flowers form the flag, touted at the time as “the largest floral flag ever built in America.” Photo courtesy of International News Photographs, the National Geographic Society [www.nationalgeographic.com](http://www.nationalgeographic.com) and was submitted by Teresa Prendusi



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Be the change you want to see in the world – Mahatma Gandhi

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