

## Return of the Natives to Fort Ord

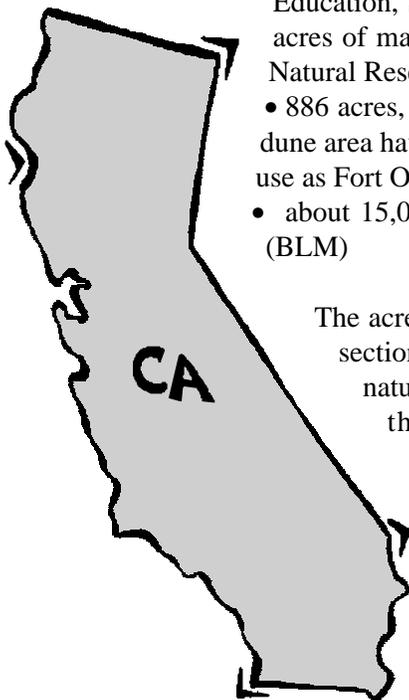
By Olivia Kwong

### Fort Ord Army Base

Fort Ord originally consisted of a total of 28,051 acres. The acreage included a four-mile stretch of beach and about 19,000 acres of undeveloped open space. The base was used as a US Army training facility whose activities included storage, transport, and use of weapons and munitions. Fort Ord was closed on September 30, 1994 and by March 1997, the Fort Ord Task Force had developed and finalized the Fort Ord Reuse Plan (FORP).

FORP allocated various parcels of land to use by public, state, and federal uses including:

- 1,340 acres for use as California State University's Monterey Bay Campus
  - 1,100 acres to be turned into UC Santa Cruz's Monterey Bay Education, Science and Technology Center, of which 600 acres of maritime chaparral have been named as Fort Ord Natural Reserve
    - 886 acres, including the 4 miles of beachline with a sand dune area have been turned over to the state park system for use as Fort Ord Dunes State Park
    - about 15,000 acres for the Bureau of Land Management (BLM)



The acreage to be received by BLM was split into two sections, one of 7,500 acres for immediate use as a nature preserve and 8,000 other acres to be added to the preserve after clearing of unexploded ordinance. Due to prior use in army training, the 8,000 acres contained unexploded/unused munitions (unexploded ordinance) which made remediation necessary before the lands were turned over to the BLM.

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### NPCI Restoration Working Group Welcomes New Chair

Last year, Wendell Hassell retired from the Natural Resources Conservation Service and his position as Chair for the NPCI Restoration Working Group (RWG). The position of RWG Chair has recently been accepted by Jennifer S. Haley who works for the National Park Service as the Vegetation Management Branch Chief at Lake Mead National Recreational Area in Nevada. She has been working in the fields of restoration and site assessment since 1976. Jennifer has also worked for the Bureau of Land Management, the Nevada Department of Transportation, the University of Nevada and been self-employed as a consulting biologist. From 1994 to 1998, she acted as co-chair for the Desert Lands Restoration Task Force and is currently co-chair for the Southern Nevada Interagency Restoration Team.

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### Restoration Directory

The Native Plant Conservation Initiative, in collaboration with the Environmental Protection Agency, the Society for Ecological Restoration, the University of Washington, and the Lady Bird Johnson Wildflower Center are developing a directory of restoration experts and commercial sources for native plant material. This directory will be keyed to Bailey's Ecoregions and will provide those experts in the field of restoration ecology and nurseries that sell natives from the particular ecoregion of the country where one has a restoration project. The directory will be available in print and CD format as well as being posted on the Native Plant Conservation Initiative's website. &

# Grand Canyon Habitat Restoration

By Chris Hester

With the help from NPCI through the NFWF grant program funding in both 1996 and 1997, the Habitat Restoration Program at Grand Canyon National Park has continued to thrive. Grand Canyon National Park designed and implemented a program that educates park visitors about the importance of native plant restoration, while providing them with an opportunity to gain hands on experience restoring disturbed areas. The focus of the program has been the manual removal of non-native plant species, and subsequent revegetation with native species. Grand Canyon's use of volunteer staff and sound restoration methods makes them a great example of a successful restoration program.

Their volunteers are as diverse as the vegetation they are restoring. They range from young school children to Elderhostel members. The Grand Canyon program has found great enthusiasm from many other groups such as Sierra Club, the Grand Canyon Field Institute, Grand Canyon School District, St.

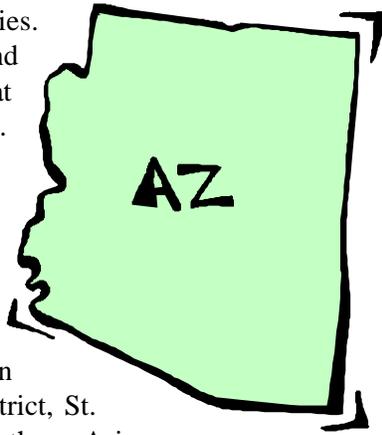
Michaels College, and the ROTC of Northern Arizona University. Volunteers are asked to take part in restoration planning and are taught of the importance of monitoring and accurate record keeping. Volunteers assist the restoration project in many ways from collecting native plant seeds to spreading topsoil and mulch to assisting in salvaging large trees from construction sites.

In exchange for their hours of work, the program provides an education in restoration. The education element consists of a 15-minute interpretive talk given to visitors about the importance of natural biodiversity and the threats caused by alien species. Also included are site bulletins, pamphlets, and signs describing the project. Perhaps one of the most exciting aspects of the educational objectives is the collaboration with local school districts. A School-to-Work program has been created to give students experience in planning, developing, and implementing a habitat restoration project.

Their revegetation program includes the use of direct competition in vegetation. In order to augment the manual removal of exotic plants, native plant species are interplanted in the areas in addition to and/or instead of manual removal. For example, thousands of plugs of *Poa fendleriana* (a native grass component of the understory in the plant communities on the Grand Canyon rim) were collected by volunteers and transplanted into project sites. Mulch is used at the project sites to aid in moisture retention and discourage the growth of various non-native species.

Another successful area is exotic plant eradication. All known populations (26 with several thousand plants) of Dalmatian toadflax (*Linaria dalmanica*) were eradicated from the South Rim. The single population of Houndstongue (*Cynoglossum officinale*) was eradicated from the North Rim. Monitoring actions have been implemented to insure that any further infestations of these

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As she steps into the position of RWG Chair, Jennifer would like to share with everyone the planned focus of the group:

“The purpose of the Restoration Working Group is to promote restoration of disturbed lands. It is my feeling that, although the agencies support the concept of restoration, the funding and skills required to do the work are not widely available. The working group needs to start by understanding the status of restoration programs in various agencies and organizations. Once national restoration program strengths and weaknesses have been identified, the working group can begin to look for partnerships that will assist us in moving these restoration programs forward. Partnerships could support restoration through grants, volunteer work programs, and training.

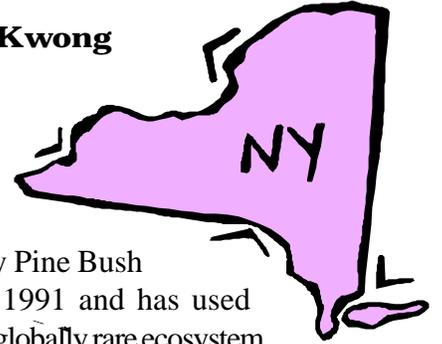
“Another purpose of the Restoration Working Group is to educate the public on the need for restoration. I don't think that the general public understands that significantly altered landscapes often do not heal themselves without our intervention. We will need the public to understand this and to support our efforts to turn damaged lands into functioning ecosystems. I hope that the Working Group can assist by regularly 'showcasing' examples of our many successful restoration efforts. These examples will not only inform the public but engage them in our work. Over the next few weeks, I'll be pulling together individuals interested in participating in the Restoration Working Group. Many of your organizations have already expressed interest in through a survey sent out earlier this month and will be contacted soon. Please feel free to contact me if you would like to participate or if you have any questions.”

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Jennifer Haley can be reached via e-mail to jennifer\_s\_haley@nps.gov or by phone at (702) 293-8951 or by postal mail to: Jennifer Haley, National Park Service, Lake Mead National RA, 601 Nevada Hwy., Boulder, NV 89005.

# Albany Pine Bush Restoration

By Olivia Kwong



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plants are eradicated. Most populations of ravenna from the Colorado River corridor have also been eradicated. In total, nearly 10,000 plants of 9 exotic species were eradicated by utilizing volunteer assistance.

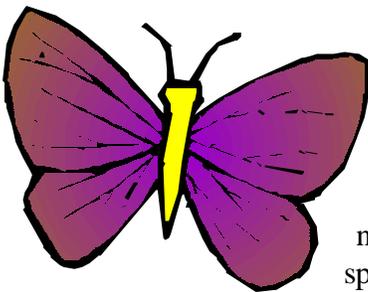
Overall, Grand Canyon National Park has had great returns on their investment of volunteer training and education through carefully planned use of volunteer hours. ♪

Located between Albany and Schenectady, New York, the Albany Pine Bush contains one of the most endangered ecosystems in the northeastern United States, inland pine barrens. The Albany Pine Bush Preserve Commission was created in 1991 and has used prescribed fires to maintain and restore this globally rare ecosystem. Although the prescribed fires have the ability to maintain habitat

which is already of good quality, they have limited success in restoring disturbed sites due to invasive species. In order to address the problem of increasing urbanization of the surrounding areas, the Albany Pine Bush Preserve Commission with The Nature Conservancy created the Albany Pine Bush Restoration and Landscape Program (APBRLP) in 1996 with a grant from the NPCI/NFWF grant program. The APBRLP also received grant funding in 1997.

Utilizing the help of the grants and other contributing partners, the APBRLP has three main goals:

- recruiting nurseries to begin propagating and supplying native plants
- educating the public on the ecological, aesthetic and financial benefits of landscaping with native species
- initiating a demonstration site to provide an existing example of how native pine barrens species can be used in the urban landscape



The Albany Pine Bush once consisted of over 25,000 acres of which only about 2,300 remain as protected area in the Albany Pine Bush Preserve (with an additional 1,700 acres planned to be protected). The habitat is especially useful in teaching about ecological interactions of species as it is home to the federally endangered Karner blue butterfly which occupies only one percent of its historic range, 18 state rare species and two rare natural communities. Karner blue butterfly caterpillars feed only on blue lupine, a plant species which grows only in open spaces such as those of the Albany Pine Bush. These open areas are kept open by periodic fires. Survival is even more difficult for the butterfly as much

of the Albany Pine Bush exists only in fragmented segments. The Albany Pine Bush Restoration Project is working toward creating buffer zones between those segments through native plant landscaping on adjacent lands.

As part of the recruitment of partnering nurseries in the propagation and supply goal, seed and cutting collection of thirty-six plant species were identified as high priority. Beyond being native, some of the species criteria included importance to the Karner blue butterfly habitat, characteristic species of pine barrens, traits sought after by land owners, and promotion of diversity in plant structure. The supervised collection is done with the help of seasonal employees and volunteers, including people from the local community, inner-city interns, and nearby school groups. Collection and propagation began about three years ago and continues to this day. In order to

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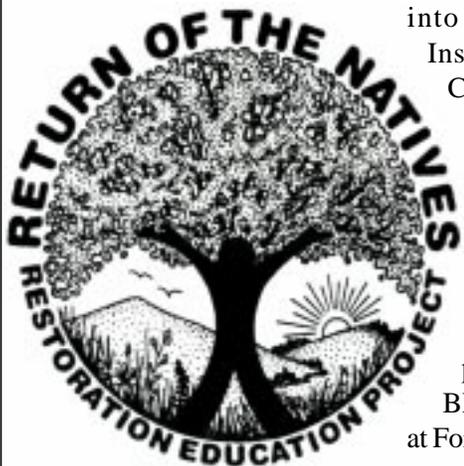


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## **Creative Environmental Conservation and Return of the Natives**

Creative Environmental Conservation (CEC) is a non-profit organization founded in 1969 in order to facilitate innovative environmental projects in and around the California park system. The Return of the Natives (RON) restoration education project was established in 1992 to enhance science and environmental education in area schools through the restoration of native habitats. The project initially established native plant gardens and nature areas on school grounds as a vehicle for environmental education, the focus of CEC. Since 1994, schools with RON have helped propagate and outplant native trees, shrubs and grasses for a number of sites throughout the Monterey Bay area.

When the RON office moved into the Watershed Institute on the new California State University Monterey Bay (CSUMB) campus in 1995, involvement of CSUMB students was fostered and a partnership with the BLM for a program at Fort Ord Public Lands was created.



### **Return of the Natives to Fort Ord**

Begun in September 1996, the Return of the Natives to Fort Ord (RoNFO) is a project devoted to restoring rare and degraded native plant habitats on the BLM's Fort Ord Public Lands (FOPL) through a partnership with CEC. The project has received funding from 1996 to 1998 from the Native Plant Conservation Initiative's grant program administered by the National Fish and Wildlife Foundation. The habitats contained in FOPL are recognized as special status by the Habitat Management Plan for the area, containing the best maritime chaparral, coast live oak woodlands, perennial grasslands, coastal scrub, and vernal pools in the state of California. The entire area encompasses a whole sub-watershed which ranges from foothills to sand dunes and intertidal habitat. The conservation priorities of the Fort Ord Multi-species Habitat Management Plan covering 35 special status and 9 threatened or endangered species of plants and animals which include black legless lizard, Toro manzanita, Hooker's

manzanita, Monterey ceanothus, Eastwood's ericameria, Seaside bird's beak, sand gilia, Monterey spineflower, coast wallflower, and Yadon's piperia.

The ten areas targeted for restoration were threatened by badly eroded dirt road beds left by the US Army. The roads divided rare habitats and threatened them with erosion, sedimentation, introduction of invasive weeds, and further damage through unauthorized access by off road vehicles. Off road vehicles damage vulnerable habitats, specifically vernal pools and unstable sandy substrates in chaparral and dunes. Restoration of the habitats require active management through not only stabilization of eroded areas, but replanting with native species as well. In the past, members of the BLM Americorps team assisted with site preparation, propagation, planting and small group leadership throughout the project. However, the loss of the Fort Ord Americorps satellite makes increased utilization of interns and volunteers essential to the project.

### **Public Involvement**

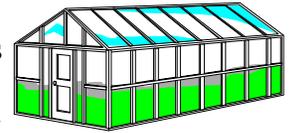
Especially vital to the project has been the involvement of the general public, teachers, and students through the Return of the Natives Restoration Education Project. The RoNFO educational segment has involved more than 2000 pre-college students and 500 community volunteers a year in restoration activities. Scientists from California State University Monterey Bay (CSUMB) and Moss Landing Marine Laboratories assisted the BLM botanist with planning and implementation of propagation, restoration, and monitoring activities. The implementation of those activities by groups of varying ages has resulted in the enhancement of oak woodlands, coastal scrub and maritime chaparral habitat.

Over one thousand school children have participated in propagating native plants from seeds and cutting for the project in school site greenhouses (built by the program), and more than 50 teachers have attended training workshops. High school students have been trained in restoration techniques and environmental leadership to serve as group leaders at volunteer planting days. About 15,000 native trees, shrubs and grasses were planted during two community planting days and two school planting days in 1997. The hands-on experience the students receive through these activities help them learn about importance of both science and community service. The combination of those aspects helps to address the needs of teenagers, allowing them to grow personally and become positive role models for younger children and their peers. The students especially

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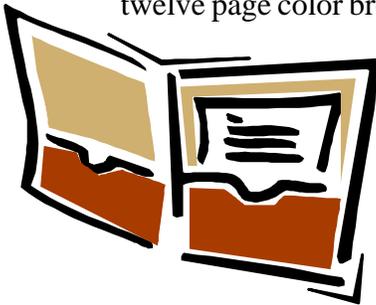
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provide the plants demanded by the public, nurseries require several years of seeds and/or cuttings to establish a long-term supply. Just recently some of the first plants and pitch pine seedlings were ready for transplanting. However, most tree species such as scrub oak, gray birch, and black cherry will not be ready until spring of 2000. Twelve nurseries are currently partnered, including local, regional, wholesale, and retail oriented sales. The list includes an NPCI Cooperator, Ernst Conservation Seed Company in Pennsylvania which specializes in native plants for erosion control and beautification of roadsides, mines, and other commercial areas.



Public education is promoted through the collection program and a variety of educational materials which have been developed by the program. Brochures and an exhibit at the Native Plants in the Landscape Conference (Millersville, Pennsylvania) help encourage landowners to make the landscaping of residential and commercial areas more compatible with the ecologically sensitive inland pine barrens of the Albany Pine Bush Preserve. Educational publications include a

twelve page color brochure called "Landscaping with Native Albany Pine Bush Plants: Protecting a Rare



Ecosystem" with illustrations donated by Noriko Meada through a donation from Environmental Design and Research, an article in the Albany Times Union At Home section June 15, 1997 edition, and an article in the New York State Conservationist June 1998 issue. These educational materials encourage homeowners and other landscapers to use native plants because of their ability to flourish in the natural conditions, allowing them to require less maintenance than non-natives which are not adapted to the local environmental conditions.

The native plantings attract more than just the Karner blue butterfly, birds and other wildlife are attracted to the native plant habitat of the Albany Pine Bush.

The Teresian House Center for the Elderly worked with the Albany Pine Bush Commission to establish a demonstration garden with lupine, horsemint, bush clover, butterfly milkweed, scrub oaks, Pennsylvania sedge, and little blue stem grass. The garden was designed with the help of Leslie Wiedman-Herd of River Road Garden in Niskayuna, NY and Holly Emmons and her students from the State University of New York at Cobleskill. A list of species of 100% native Pine Bush plants and a landscape design for the 1.5 acres surrounding the demonstration site were donated by Susan Rasmussen, a Ph.D. candidate in landscape design at Cornell University.

Because the habitat is located in Albany, New York's capital city, the project is a highly visible site. By using an innovative approach to address short and long term goals that encourage both the supply of and demand for native plants to eventually become a self-sustaining program, the APBRLP serves as an excellent model for other projects of this kind. &

For more information, contact:

Albany Pine Bush Preserve Commission  
108 Wade Rd.  
Latham, NY 12110  
Phone: (518) 785-1800

## NPCI WEB CORNER

Current stats for the NPCI Website :

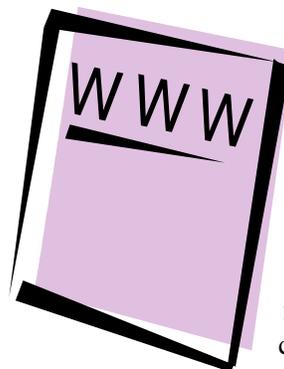
- NPCI Website - 16,819 visits since opening
- EPWG Section - 1,054 visits since 6/29/98
- Celebrating Wildflowers Events - 1,285 since 6/5/98
- CW Coloring Book - 15,788 since 2/3/98

There is now an easier to remember URL for the NPCI Website (<http://www.nature.nps.gov/npci/>). The older address with [www.aqd.nps.gov](http://www.aqd.nps.gov) will still work and take you to the same page as the new address.

The Exotic Plant Working Group Section now has a new "What's New Page" so that you can keep track of new additions to the fact sheets more easily. There are now a total of 31 fact sheets to view on the site.

If your officially Cooperating organization has a website, make sure to notify us so we can add a link to your site.

We are planning a major redesign of the NPCI site to be released in January 1999, so if you have any suggestions for additional content or graphics donations for the site, please e-mail Olivia Kwong at [native\\_plant@nps.gov](mailto:native_plant@nps.gov). &



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benefit from learning about the positive effects their direct actions can have on the world around them, a lesson which helps to boost their enthusiasm and energy for the project. The lessons learned are also shared by the students with their families while the teachers are given the opportunity and means to incorporate restoration activities into the science curricula during subsequent years.

Service learning students from CSUMB have assisted with propagation in schools and at the Watershed Institute, serving as mentors for younger students, have worked as small group leaders during planting days, and have assisted with GIS mapping and monitoring. The college students are especially helpful because the younger students use them as role models. Teams of developmentally disabled adults with Gateway assisted with propagation and planting throughout the project.

Building on previous years' successes and lessons, the program has propagated more than twice as many plants and succeeded in planting more natives in one month of 1997 than in the previous year. The use of public involvement and media coverage has resulted in enhanced public awareness of the need for habitat management and ecological approaches to conservation, and the boosting of BLM's role in the process of land stewardship. The combination of education and restoration allows the BLM to foster partnerships with the public which are beneficial to all parties. RoNFO is providing a positive model for future projects using public involvement in the conversion of military bases and the enhancement of other public lands. ♪

### **For More Information**

Please contact the Return of the Natives Restoration Education Project at:

Creative Environmental Conservation at the Watershed Institute  
California State University Monterey Bay  
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Seaside, CA 93955  
Phone: (408) 582-3686  
Fax: (408) 582-3691

## **PLANTING FOUNDATIONS VOLUME II, ISSUE 2 CREDITS**

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*Planting Foundations* is a bi-monthly publication of the Native Plant Conservation Initiative. The goal of this newsletter is to help promote the information sharing and national communication which is needed to create the basis, or foundation, for further effective native plant conservation efforts. Reproduction of the information contained in this newsletter is authorized without prior written permission for educational and other non-commercial purposes. Electronic copies of *Planting Foundations* may be requested by e-mail or postal mail or may be found on the NPCI website at <http://www.nature.nps.gov/npci> both in PDF and HTML format.

*Planting Foundations* is looking for news items, announcements, articles, short editorials, letters, and black & white art. Contributions, comments, and suggestions may be sent via postal mail, fax or electronic mail to:

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## **W A N T E D !**

The next issue of the newsletter will be centered on the topic of the Exotic Plant Working Group and related topics. We're looking for articles and short news items dealing with exotic plant issues which are directly related to native plant conservation issues. Submissions may include either photographs or other graphics. Please include a short two or three sentence biography with your article. If you have any questions about article style, length, coverage or anything else, feel free to contact us.

Other news items, announcements, editorials, and contributions are welcome as well.

Submissions for the October/November newsletter are due by *November 13, 1998* at the postal address, fax number or e-mail address given above.

We are always looking for suggestions for future newsletter themes, so please share your ideas with us!