



*The Nature Conservancy is committed to conservation within the South Sound region and the Willamette Valley /Puget Trough/Georgia Basin ecoregion. The Conservancy will continue to perform outstanding stewardship, protect key conservation parcels and promote a conservation community of cooperative partners.*

### **GOLDEN PAINTBRUSH OUTPLANTING**

The Nature Conservancy and its partners have been identifying suitable sites for establishing viable populations of golden paintbrush (*Castilleja levisecta*) throughout Puget Sound as part of the Federal Recovery Plan for this species. In the last several years, thousands of plants have been outplanted at multiple locations in a coordinated project funded by the US Fish & Wildlife Service to evaluate whether nursery-grown plugs of this rare species can establish, survive, and reproduce.

Preliminary results of outplanting efforts have been promising at many of the experimental sites. The most successful of these outplantings were associated with slightly more fertile soils.

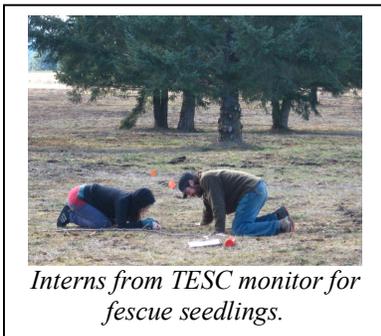
Establishing 20 new self-sustaining populations is a primary strategy necessary to reach the recovery of this species, listed as threatened under the US Endangered Species Act. These results provide an indication many prairie sites within the historic range of this species may be suitable for restoring paintbrush populations, eventually helping get it removed from the Endangered Species List. The golden paintbrush recovery team expects to learn more as the existing outplantings are further monitored and new plants are established. Peter Dunwiddie's full reports can be read at: [www.southsoundprairies.org/documents.htm](http://www.southsoundprairies.org/documents.htm).



*Golden paintbrush (Castilleja levisecta).*

### **ROEMER'S FESCUE DIRECT SEEDING RESULTS**

Re-establishing Roemer's fescue (*Festuca roemerii*), a key prairie matrix species, is a primary ecological objective in restoring areas of prairie that have been degraded by the invasion of Scotch broom and other invasives. Prior work suggests that direct-seeding of Roemer's fescue is much more efficient and economical than planting plugs for large-scale fescue establishment. To determine the best



*Interns from TESC monitor for fescue seedlings.*

direct-seeding approach, we are testing different seeding methods (broadcast vs. seed drill) and application rates (2lbs/acre vs. 4lbs/acre). Preliminary germination data suggest that fescue germination is over 2x higher in seed-drilled sites (25 seedlings/m<sup>2</sup>) than in broadcast seeded sites (11 seedlings/m<sup>2</sup>). The seeding method differentially influenced the effect of application rate on germination: there was no difference between 2 and 4lbs/acre in seed-drilled sites, but broadcast seeded sites had twice as many germinants in the higher application rate (16 seedlings/m<sup>2</sup>) than in the lower rate (7 seedlings/m<sup>2</sup>). We are continuing to track the seedlings throughout the spring to determine treatment effects on fescue establishment.

## PRAIRIE CONSERVATION

**Pollinator Survey** In an effort to learn more about the role of pollinators and the ecosystem service they provide in the South Sound, TNC and the Department of Defense are teaming up to survey pollinators on Fort Lewis prairies this spring and summer. Using a variety of standard survey techniques that target bees and other flower-visiting insects, we will compare pollinator communities on prairies with different levels of native resources. This survey should increase our understanding of the value of our prairie restoration efforts to a very important functional guild - the pollinator community. This effort will also constitute the first large scale, systematic survey of native bee fauna in western Washington, and the results will be incorporated into bee inventory databases being launched for U.S. and Canadian bee biodiversity initiatives.



## BLACK RIVER OUTREACH

**New Buildings at Shotwell's Landing Nursery** There are two new structures at Shotwell's Landing Native Plant Nursery, a much needed propagation work building and a viewing platform with a swift tower. The work building will allow volunteers to process seeds in an enclosed area and provide critical regional seed storage. The volunteer work center will be complete with resources for volunteers and interns, while doubling as a learning center. To compliment the carbon sequestration achieved through use of salvaged lumber, local economies were bolstered through this project with the intentional use of a local mill, local contractors, and local hardware stores. The viewing platform, or kiosk, provides a covered area for the

public to observe the Black River Preserve and a sign will offer information about the natural history of the area.

## COOPERATIVE CONSERVATION

**On the Ground Benefits of Cooperative Conservation** The most productive nesting areas for streaked horned larks are the dredge material deposition islands along the lower Columbia River. Of course this is only true if the dredge deposition activities do not interfere with breeding. When the US Army Corps of Engineers participated in a Conservancy led workshop on lark conservation, they learned of the significance of the islands, the larks and their actions. They joined the newly formed range-wide streaked horned lark working group. As a consequence of that partnership, this spring Hannah Anderson, with assistance from Heather Ostle, has helped the Corps of Engineers restore habitat specifically for larks on several critical islands. Getting a bulldozer out to the islands to help remove the thick moss to create lark habitat was sometimes more logistically difficult and more exciting than anticipated - having the captain of the boat end up in the river was not planned. The Conservancy is using funding from the US Fish and Wildlife Service to document the restoration efforts, and to measure their effectiveness. This will include several trips back to the islands to measure the response of the larks to the restoration. In the long run, it is hoped that these efforts will not only boost the population of larks along the Columbia River, but will provide a source of young birds to supplement other populations throughout western Washington and Oregon.