The Selection of Appropriate Native Plant Material for Rehabilitation Efforts

2005 Accomplishments

This project used genetic data to verify:

- which populations should be used as sources for seed collections,
- how many seed per plant, and how many plants per population should be collected,
- the collection of the correct species or subspecies,
- the extent of hybridization among restoration material and indigenous populations,
- the maintenance of adequate levels of genetic variation in native plant collections and in reestablished populations,
- that material coming out of commercial nurseries is the same material that was originally collected or requested.

Specific laboratory project reports detailing accomplishments can be obtained from the Project Contact or at

www.fs.fed.us/psw/programs/nfgel/. Project reports include:

- Identifying offsite ponderosa pine plantations.
- Genetic monitoring for the successful restoration of Tahoe Yellow Cress.
- How to best manage seed collection and outplanting in *Bromus carinatus*.
- Taxonomic identification of fawn-lily samples from the Olympic Peninsula, Washington.
- Verification of pine seed purchased through a commercial grower: shortleaf or virginia pine?
- The establishment of native grass seed zones and a seed bank system for the eastern Sierra and Great Basin.
- Genetic evidence of hybridization between Wolf's Evening Primrose and *Oenothera glazioviana*, a garden escape.
- Whitebark pine restoration: assessment of genetic diversity and regeneration.
- Developing sources of butternut seed for the NE US.



Maintaining adequate and appropriate levels of genetic diversity within plant collections can influence their long-term chances of survival and growth.



Robert Saich measuring genetic variation to ensure appropriate plant material is used for restoration and rehabilitation.

Year Awarded: initial award in 2005.

Projected Completion: 2005.

Report Number: 1 of 1.

Expenditures:

• Total funding \$62,000, total expenditures to date \$62,000, total remaining funds \$0.

Partners/Contractors/Coop: National Forests in Regions 6, 5, 3, 2, 8, and 9; PSW Research Station; Bureau of Land Management; US Fish and Wildlife Service; National Park Service

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