

Local Native Plant Materials Collection – The Nature Conservancy

821 Southeast 14th Ave., Portland



The objective of this project was to develop a source of native plant materials for restoration projects in the Portland metropolitan area. The process included assessing plant material needs for restoration projects to determine the feasibility of establishing a native plant collection from local sources. A list of target species was developed from site information and interviews with local ecologists. Wetland meadow and upland meadow plant communities were chosen for several reasons. First, each was rapidly disappearing as a result human disturbance and development. Second, there were only remnants of the original plant communities left within the region. Third, several of the current projects in the area involved either wetland or upland meadow environment. In addition, many of the plant species found in these areas were minimally available from local growers.

Volunteers were recruited to assist with plant collection and cleaning, 17 volunteers spent almost 130 volunteer hours collecting seeds, more than half of that time was spent training volunteers in plant identification techniques, seed collection methods and data collection procedures. Maturity time for seeds was approximated and then daily visits to monitoring the appropriate time for

collection were made. Seeds were collected from 28 different plant species. At each site, collection was limited to 5-10 percent of the available seed in order to ensure that the communities from which seed was being collected were not detrimentally affected. Three different methods were used to collect seeds: clipping, shaking and stripping – each with advantages and disadvantages.

Benefits

The project was the first step in developing locally collected and grown native plant materials for natural area restoration projects in the Portland metropolitan area. It has provided information on the feasibility of collecting local native seeds, identified sites and species for future collections, and provided a limited source of native plant seeds for current restoration projects or production gardens. The project increased local greenspace managers' awareness of the importance of locally collected native plant materials for restoration projects. It educated project volunteers about the importance of native species and ethical seed collection methods.

The Nature Conservancy's long-term goal for this project was to initiate the establishment of a production garden within the metropolitan area to use as a local plant materials source for Greenspaces restoration projects. This ultimately would have improved the quality of restoration projects undertaken in the Portland metropolitan area by increasing greenspace managers' knowledge of genetically appropriate native plant materials and encouraging local growers and horticulture program educators to include more local native plant materials in their own production programs.

Budget

Proposed – \$14,002

Actual – \$17,293

Metro/US Fish and Wildlife grant award – \$6,075

Helpful hints – what worked, what didn't

- The creation of the list of appropriate species to collect was difficult to assemble. There was a limited focus on what should or needed to be collected. The species for which seed was collected may or may not be appropriate for a specific restoration site.
- Collection sites were chosen based on health of population and accessibility to the site. Plants of apparent lower quality vigor, growing in marginal quality environments may have better adaptability to the disturbed conditions at a restoration site. It would

have been better to know where the seeds were to be planted to best match site conditions.

- Timing for collection of seeds for germination begins in April and continues through October in the Pacific Northwest. We missed some of the early maturing species due to project timeline.
- Using volunteer labor, allowed us to collect more seeds, but also required a lot of staff time to organize and prepare for the work parties and to provide training in collection methods. The best situation would be to have a handful of well trained volunteers who could be available throughout the field season, who are also available on short notice.
- Cleaning seed took more time than we anticipated. One consequence of volunteer help to clean seed was that the job was done in a less thorough, conscientious manner than when staff worked on the task.
- Project managers should be aware of the original source of the plant materials they obtain for planting at restoration sites. They should request information on the seed source if the plants were grown in a nursery setting and how many generations the particular genetic strain has been out of its native habitat.
- In making selection of plant species for restoration, managers should select species that will survive at the restoration site with its present environmental conditions rather than those conditions that restoration effort is attempting to recreate in the future.



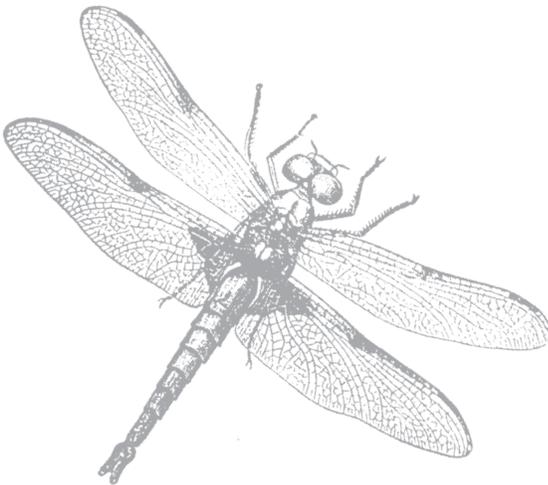
Timeline and tasks

- March - June 1994 Sent questionnaire to 37 Metro greenspace restoration grants project managers, determining their need or interest in native seeds for their restoration site
- May - July 1994 Collection sites were selected
- June 1994 Seven responses were received
- July 1994 Conferred with local native plant experts and ecologist regarding species to collect
- June - August 1994 Five seed collecting work parties were held
- August - September Five seeding cleaning work parties were held
- October - November Seeds were delivered to Berry Botanic Garden for long-term storage
- November - December Data collection was completed and the final report was written and submitted to Metro

- Managers need to decide what level of natural conditions the restoration effort will reach and be maintained. If the goal is to create open space for recreational use by local residents, the importance of the genetic issues is not critical. If the restoration effort is intended to permanently establish an ecosystem that has viable populations with the genetic adaptability to continue to evolve, then selection of the plant material with appropriate genetic makeup for the restoration site is a much more critical issue.

Partners

The Nature Conservancy staff
Berry Botanic Garden
Leach Garden
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Mark G. Wilson
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Oregon Department of Fish and Wildlife
Oregon State Parks
Peach Cove landowner
Portland Parks and Recreation
Washington Department of Fish and Wildlife



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