

Olympic Revegetation Efforts Continue to Evolve

By Edward Schreiner and Ruth Scott

Revegetation in the backcountry of Olympic National Park (OLYM) began in 1975 as a strictly seat-of-the-pants operation. We would judge which campsites and trails had unacceptable levels of human impact, close them, and move plants into the sites from nearby. The learning curve was steep—we had spectacular failures and moderate successes. We learned, among other things, that survival of transplants from nearby locations was variable, depending on plant size (i.e. neither too big nor too small) and weather conditions at the time of transplanting (i.e. best when cool and rainy).

Our early efforts, while well-meaning, have evolved into a more organized program. We now use native plants propagated in a greenhouse from seeds and cuttings. Most revegetation work is conducted in the fall, resulting in higher survival rates. Revegetation priorities are based on parkwide surveys of human impact, visitor use levels, and wilderness classification. We use transplanted vegetation (that which is not produced in the greenhouse) only under limited circumstances such as small-scale fire line restoration projects (i.e. not on the scale of Yellowstone fire lines).

The OLYM revegetation program has improved from the early days, but new issues require resolution. Raising plants in a green-

house has increased plant survival in restoration sites and also allows us to obtain materials for propagation from more locations, but the latter carries the risk that, however unintentionally, we could alter the genetic makeup of park ecosystems. Most debate seems to center around setting a maximum distance away from revegetation sites for collection of propagating materials.

We recognize that maintaining the genetic integrity of park ecosystems is an important and worthy goal. We also believe common sense needs to be part of the decision-making process. This means considering reproductive mechanisms, wind patterns, and the relative abundance of species selected for revegetation. For example, it makes sense to collect the seeds of common wind-pollinated conifers from sites with similar elevation in the same river valley as the revegetation site. Equally, seeds of plants pollinated by insects with limited flight distances should be collected from very close to the revegetation site. We feel that setting an arbitrary maximum distance away from revegetation sites for collection of propagating materials makes no sense.

We realize this view is not shared by everyone and that it is time to engage in serious dialogue to resolve the issue. However, we do not believe this complex problem has a simple answer. The entire matter raises questions that need intensive, informed thought:

(1) Should we be attempting to restore sites to look like the surrounding vegetation, or should we restore early successional (but native) species and let nature take over from there?

(2) Are non-native, sterile species (like sterile wheat) appropriate to help stabilize slopes prior to native species taking over?

(3) Is it appropriate to restore the soil profile, and if so, how many soil amendments are appropriate (fertilizer, peat moss, steer manure, etc.)?

(4) What should we use when fill material is required but only soil of different parent material and characteristics is available?

Ultimately, we would like to see revegetation develop in direction of restoration using the equivalent of silvicultural prescriptions. This could involve assessing expected mortality rates (by species) in advance. Thus, compensating measures such as planting at extra-high density could be taken. We feel that we and other parks have made significant progress, but we realize that much remains to be learned. The questions listed here might serve as a useful beginning.

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