



BACK FROM THE BRINK

Welcoming back Pink Sand-verbena to Pacific Rim National Park



Pink Sand-verbena flowers
© Ross Vennesland, Parks Canada

Pink Sand-verbena (*Abronia umbellata*) once took root along the shores of Vancouver Island. The sweet smelling annual herb, with its rounded clusters of blossoms on long trailing stems, is well adapted to salt spray beaches. It grows along the shores of California and Oregon – but its existence on Vancouver Island has always been tenuous at best. Wave tossed logs, swept along the coast from logging operations, come ashore all along the island, and during winter storms this debris regularly scours most plant life from the beach. Other threats to the species include damage from beach users, and invasive species such as introduced dune grasses. Sadly, Pink Sand-verbena was last seen in Canada in 2001.



Pacific Rim National Park Reserve of Canada

Fortunately, thanks to local naturalists and Parks Canada scientists, the species is now making a comeback at Pacific Rim National Park Reserve of Canada.

A recipe for recovery

The *Species at Risk Act* requires recovery strategies for all endangered species. Because Pink Sand-verbena was last seen on Parks Canada land, we are leading its recovery. The primary recovery objective is to re-establish the species where it most recently was found, at Clo-oose Bay in Pacific Rim. Parks Canada is also looking for other areas of suitable habitat so the plant can be established at more sites.

The first hurdle our scientists faced lay in propagating the plant to obtain a source of seeds and seedlings. Local naturalists and the Canadian Forest Service (CFS) came to Parks Canada's aid. In 2000 and 2001, when a few plants appeared at Clo-oose Bay, two naturalists fortunately collected seeds. CFS and the project's botanist then propagated them experimentally in greenhouses, working to produce seedlings from this local seed stock for replanting in the wild.

Initial propagation results in 2006 were disappointing, with only two of more than 150 seeds germinating. These precious plants grew slowly at first and suffered some early challenges (an aphid infestation for example). But to everyone's great relief they finally started to flower and seed profusely in 2007.



Ross Vennesland replanting Pink Sand-verbena © Kym Welstead, Parks Canada

Then, according to Parks Canada Species at Risk Recovery Specialist Ross Vennessland, they achieved success. "Once the propagation technique was perfected," he said, "it became very easy to produce plants...dune plants naturally produce a lot of seed as a strategy to deal with the harshness of their environment."

At Clo-oose Bay in 2008, project staff completed experimental planting trials. Although the plants originally found at Clo-oose Bay grew only on the beach, the species also grows on dune sites in Oregon. So some plants were placed on a dune area away from the effect of winter storms and log debris. "In general, plants on the beach did extremely well, producing copious amounts of seed, boding well for the persistence of the species in Canada," says Ross. The dune plants did not grow as well, but they did set seed and may better survive the perilous winter period than plants on the beach. Now Parks Canada is checking out some other promising sites to select areas for introducing the plant in coming years.

Do not disturb!

To help protect the young plants, Parks Canada has installed signs at Clo-oose Bay, advising park visitors not to disturb the site. People will be important to the species' recovery. At another potential planting site – busy Wickaninnish Beach – park staff are planning restoration work, and they intend to educate park visitors about this species' needs.

Not yet out of the woods

The successful propagation work is promising, but storms and logging debris at Clo-oose Bay are still a significant threat to the plants' survival. Although the Pink Sand-verbena grows on the upper sections of beach, winter storms produce surges that can reach their habitat. "The severity of the storms throws the logs around like giant bowling pins and can frequently destroy most or all plant life on the upper beach", says Ross Vennessland. This ever-present danger shows that, even with the best efforts, it can be quite a challenge to bring an endangered species back from the brink.



Sign denoting closed area for Pink Sand-verbena critical habitat at Clo-oose Bay © Ross Vennessland, Parks Canada



A wet but happy Pink Sand-verbena planting crew at Clo-oose Bay beach area © Ross Vennessland, Parks Canada

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