

Vegetable garden

The vegetable garden has been in continuous production since the early 1900s and helped to feed the early gold miners. Decades of adding organic matter to the soil has made this section of rocky uplift beach one of the most productive areas of the Arboretum. Carrots, beets, parsnips, strawberries, potatoes and garlic thrive in the rich soil. Surplus produce is donated to local food banks.



Primroses

Caroline Jensen's passion was gardening, and primroses were her favorite plants. Welcome drifts of primrose color blanket the flower beds in early spring after a long, dark winter. The drumstick and Juliana hybrids steal the show in late April and May. The Candelabra group (*Primula japonica*, *P. florindae*, *P. alpicola* and *P. sikkimensis*) bloom from early June into August. Southeast Alaska's cool, moist climate is ideal for growing primroses. In 2002, primrose was adopted as the official Capital City flower.



Alpine and subalpine garden

Some of the species native to our mountain habitats that you might catch in bloom:

Top row: *Silene acaulis*, moss campion; *Cassiope stellariana*, Alaska moss heather; *Dodecatheon pulchellum*, shooting star; *Fauria crista-galli*, deer cabbage. **Row 2:** *Ranunculus cooleyae*, Cooley buttercup; *Primula cuneifolia*, wedge-leaf primrose; *Sedum rosea*, roseroot; *Sibbaldia procumbens*, sibbaldia. **Row 3:** *Anemone narcissiflora*, narcissus-flowered anemone; *Geum calthifolium*, caltha-leaved avens; *Lloydia serotina*, alp lily; *Aconitum delphinifolium*, monkshood. **Row 4:** *Pedicularis verticillata*, whorled lousewort; *Gentiana platypetala*, broad-petaled gentian; *Castilleja parviflora*, small-flowered paintbrush; *Lycopodium alpinum*, alpine clubmoss; *Artemisia arctica*, mountain sagewort.



This trail guide is part of a series of interpretive products created in 2010 for trails on CBJ lands by Discovery Southeast. Other creations include natural history signs, a summary guide to CBJ trails and free web products.

Discovery Southeast

Founded in 1989, DSE is a nonprofit organization promoting direct, hands-on learning from nature through natural science and outdoor education for youth, adults, and teachers. Discovery naturalists deepen the bonds between people & nature. • 463-1500 • www.discoverysoutheast.org

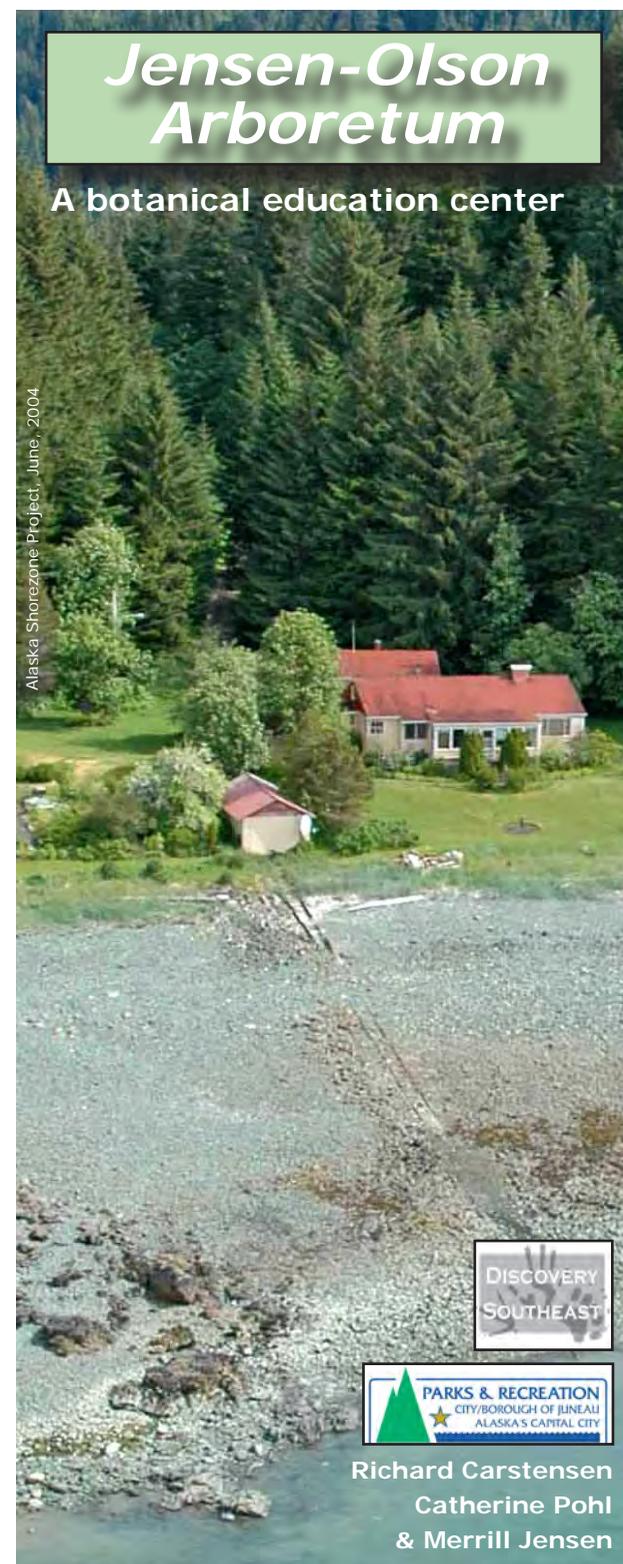
CBJ Parks & Recreation

The City and Borough of Juneau/Parks & Recreation welcomes you. Parks & Recreation manages 50 miles of trails and fosters innovative stewardship of its diverse resources. Collectively, along with our partners Alaska State Parks, the U.S. Forest Service, Trail Mix and SAGA, 135 miles of trails are managed, connecting our community with Juneau's magnificent landscape. We hope you have a great experience on your trails. Take only memories, leave only footprints. Call Parks & Recreation at 586-5226. • www.juneau.org/parksrec

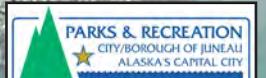
Jensen-Olson Arboretum

A botanical education center

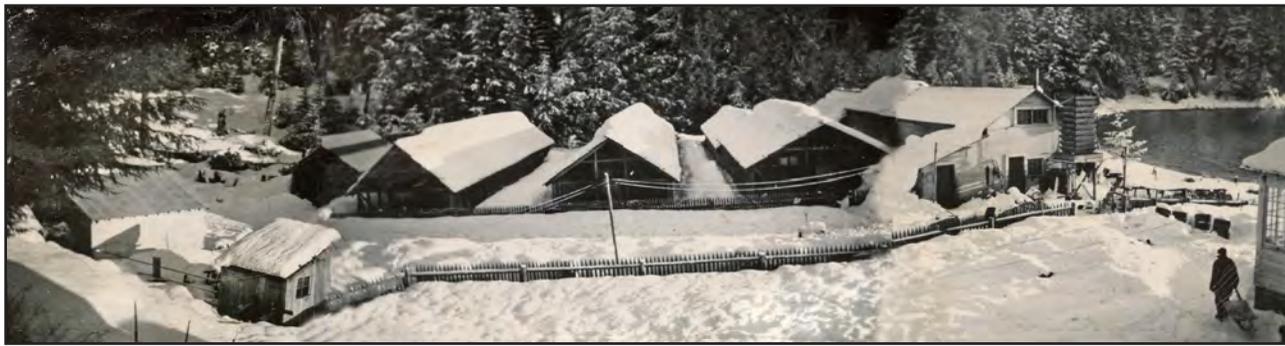
Alaska Shorezone Project, June, 2004



DISCOVERY
SOUTHEAST



Richard Carstensen
Catherine Pohl
& Merrill Jensen



Above: Panorama of the homestead, probably in the 1930s. The 3 central buildings contain mink pens.



Left: Retake from treetop in 2009.

Below: Arboretum trees. The left column shows native species and the right shows planted non-natives.

fied with labels. Some, such as Marie's apple tree near the vegetable garden, are nearly a century old. The European mountain ash trees also date back to the original homesteaders, but they are badly damaged by climbing black bears, and will gradually be replaced by other species. (The ashes are also becoming problematic as invasives.)



Pearl Harbor color

Left to right: *Paeonia* (peonies); *Dahlia* (dahlia); *Rosa* (rose); *Delphinium* (delphinium), *Pulsatilla vulgaris* (pasqueflower), *Spiraea* (spiraea).



Most of the Arboretum was tidal at the peak of the Little Ice Age only 250 years ago. Soil pits reveal about 3 inches of organics over wave-sorted beach gravels and cobbles that increase in size with depth. This creates optimum drainage for growth of trees and vegetables.

Arboretum trees

The grounds have a mix of native and introduced trees, many identi-



Surroundings

On this aerial photo you can distinguish spruce from hemlock by its starry branching structure. The pale green border of Caroline's planted cottonwoods shows clearly in the lower right. The Point Caroline Trail leads 0.2 miles to a cliff-top bench. It begins in tall, closed-canopy hemlocks with sparse understory, then transitions to a smaller, gap-pier forest with dense rusty menziesia (*Menziesia ferruginea*) and blueberries (*Vaccinium* spp.).

Pollination

As you walk the grounds in summer, watch the flowers for hummingbirds and insects. The rufous hummingbird's northern range limit coincides with that of native plants such as red columbine (*Aquilegia formosa*) that depend upon this bird for pollination. Our northern hummers also visit the planted fuschias that coevolved with a great diversity of these birds in Central and South America.

With our relatively cool, wet summers, hardy insects such as bumblebees (*Bombus mixtus*) and bee-mimics known as flower flies (Syrphidae), have an advantage over the more fragile, sun-loving butterflies that are so important to pollination elsewhere.



Invasive species

Many non-native plants considered pests today in gardens and natural communities were originally introduced as food, medicinals or ornamentals. Some were "well-behaved" for decades before becoming problematic. Any site with long human occupancy is likely to have diverse weedy plants, especially where livestock were kept and gardening has been intensive.

Pearl Harbor is a good place to study the propensity of several non-native plants to "go wild." For example, dames rocket and creeping bellflower have jumped the lawn into the beach fringe, requiring eradication efforts.

The US Forest Service, National Park Service, and Alaska Natural Heritage Program collaborate to monitor invasive species throughout Alaska. Their "AKEPIC" website is: <http://akweeds.uaa.alaska.edu/>



Clockwise: herb robert, creeping bellflower, oxeye daisy, dames rocket.

Aggressiveness ratings from AKEPIC: 0 = least threat; 100 = highest threat; NR = not rated, because these plants are currently rare in the state.

widespread		
reed canarygrass	<i>Phalaris arundinacea</i>	83
orange hawkweed	<i>Hieracium aurantiacum</i>	79
foxtail barley	<i>Hordeum jubatum</i>	63
oxeye daisy	<i>Leucanthemum vulgare</i>	61
european mtn ash	<i>Sorbus aucuparia</i>	59
creeping buttercup	<i>Ranunculus repens</i>	54
purple foxglove	<i>Digitalis purpurea</i>	51
dames rocket	<i>Hesperis matronalis</i>	41
limited extent		
creeping bellflower	<i>Campanula rapunculoides</i>	64
bigleaf lupine	<i>Lupinus polyphylus</i>	55
herb robert	<i>Geranium robertianum</i>	NR
lady's mantle	<i>Alchemilla mollis</i>	NR
comfrey	<i>Symphyllum officinale</i>	NR