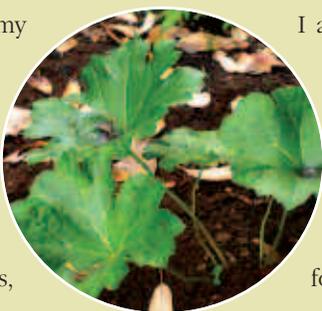


Hanging Out at the New Bog Garden

TEXT AND PHOTOGRAPHS BY NIALL DUNNE



I'm a bit of a bogman. In my homeland of Ireland (a place of many bogs), "bogman" is a derogatory term for a country person, similar to "hillbilly" or "redneck" in the U.S., but I've come to embrace it, because I'm not only proud of my rural roots,



I also recognize the value and beauty of these precious wetlands. Needless to say, when I heard that the Arboretum was creating a new bog garden in the Cascadia Forest section of the Pacific Connections Garden, I celebrated with a wild, foot-stompin' Irish jig.

ABOVE: Coast boykinia (in flower), Indian rhubarb, and western sword fern in the seepage slope section of the new Cascadia bog garden.

The new bog garden is located at the south side of Cascadia Forest, on the trail that leads up the hill from the Gateway to Chile garden. It was installed by the Berger Partnership (the Seattle-based firm hired by the Arboretum to design Phase 2 of Pacific Connections) during the construction of the Gateway to Chile last summer. Berger worked closely with plantsman and Arboretum Foundation board member Dan Hinkley on the plans for the new display, which consists of two distinct wetland sections: a circular depression—not much bigger than a large Jacuzzi—on a bend in the trail, and a linear seepage slope adjacent to a stone stairway nearby.

“The garden is intended to represent a hanging bog in the Siskiyou Mountains,” says Jason Henry, a principal at Berger. “These wetland habitats are often perched on open slopes, and generally feature very soggy, low-nutrient, low-oxygen soils. The bog garden in the Arboretum is a vignette of these unique systems and contains many more species of bog-dwelling plants than you would find in a comparable amount of space in the wild.”

Wetlands of the Klamath-Siskiyou Mountains occur near hillside springs and seepages, alongside streams, and in localized depressions. Rain-fed, low-pH bogs are found, but ground-water-fed fens are more common. Fens are similar to true bogs, but because they receive water from adjacent streams and seepages, their pH reflects the chemistry of the surrounding soil—and in the serpentine areas of the Klamath-Siskiyou, the soil water is alkaline rather than acidic. This leads to variation between the plant communities of fens and bogs, but there is also quite a bit of overlap. The bog garden in the Arboretum is an evocation of this complex of wetland environments.

The designers have created a plant palette of more than a dozen species, including such beauties as coast boykinia (*Boykinia occidentalis*), western Labrador tea (*Rhododendron neoglandulosum*), western azalea (*Rhododendron occidentale*), maidenhair fern (*Adiantum aleuticum*), and Indian rhubarb (*Darmera*

peltata). Some of these have been planted already while others will be phased in as the plant material becomes available. In keeping with the conservation theme of Pacific Connections, all the plants in the bog garden will eventually have a wild-sourced pedigree.

“The *Ledum*, *Boykinia*, and western azaleas that you see here today have all been propagated from seed gathered by our collections manager Randall Hitchin on his trips to the Siskiyou back in 2008,” says Pacific Connections gardener Kyle Henegar, who has been working hard with her UW Botanic Gardens colleagues on the installation and maintenance of the new wetland exhibit. “But we are also using quite a few nursery-grown plants, as well as some species like huckleberry that are not in the design plan, as placeholders to stabilize the slopes and the soil, and fill in the display. These will gradually be swapped out for bog-dwelling species grown exclusively from wild-collected seed.”

The star attractions of the garden right now are two clumps of cobra lily (*Darlingtonia californica*) that were donated by Doug Ewing, manager at the UW Botany Greenhouse. This stunning pitcher plant resembles—in its tubular and forked leaves—the rearing head of a king cobra, hence the common name. It’s adapted to survive in both the acidic bogs and alkaline fens of the Siskiyou. In these low-nutrient environments, the cobra lily—like other pitchers—supplements its nitrogen diet through carnivory.

Dan Hinkley, who helped originate the idea for the bog garden, is a big fan of this species, as I found out when I asked him what’s so great about our native hanging bogs. Here was his reply:

“It is rather easy to become jaded while observing the flora of our planet, with locales around the globe seemingly possessing more exotic flamboyance than our own backyard. Yet in the southern Cascades, most notably in the Klamath Knot, a fen or bog at its summer’s zenith will hold its own against any more far-reaching ecosystem. In the midst of steep, rocky



and arid terrain, one can find lines of moist yet infertile soils sporting, amongst other gems, sweeps of the endemic *Darlingtonia* passively capturing and digesting insects for sustenance. It is a true marvel of the Pacific Northwest”

To recreate wetland conditions in the Cascadia Forest, Berger installed an irrigation system, which will keep the soil sufficiently moist in the dry summer months. Also, when Berger’s contractor excavated the lower section of the bog garden (which I’m unofficially calling the Jacuzzi section), they found that it had a clay subsoil bottom. Though a natural hardpan is usually bad news for growing garden plants, in this case it was a fortuitous turn of events—because the clay layer will help retain rain and irrigation water in the garden and sustain the wetland flora.

The creation of the bog garden hasn’t been all smooth sailing. In the first iteration of the lower, circular section, compost was used as the

planting medium. But this didn’t work out too well—after heavy rains, the compost would turn to slurry, and the garden looked more like a water hazard (or an actual Jacuzzi) than a bog. Also, compost didn’t provide the ideal pH conditions for the acid-loving plants in that section of the bog garden. Doug Ewing recommended using peat instead. Though admittedly not the most sustainable solution (peat being a non-renewable resource), it worked a charm. Kyle and fellow gardener Roy Farrow filled in the depression with 18 bales of peat, and replanted the display—and most of the plants are now responding very well.

Kyle and Roy have also borrowed a page from Richie Steffen of the Miller Botanical Garden and added snags to the bog garden for architectural and wildlife appeal. “Richie taught Roy and me about the beauty of downed wood,” says Kyle. “We dragged several snags from deep in the Arboretum and placed them in the bog

ABOVE A clump of cobra lily adjacent to some downed wood in the lower, circular section of the bog garden.



garden, to give the garden structure—but also, we hope, to attract animals such as salamanders.”

Initially, though, the main fauna that have been attracted to the garden are dogs! Apparently, like me, they love to muck about in the soft boggy earth and spin a merry dance. But Kyle is being forced to rake out the paw prints at the start of each day. And it’s also not good for the plants! So please, if you’re walking your dogs through Cascadia Forest, keep them on the path and out of the bog garden. If you’re planning a trip to the Arboretum—with dog or without—do stop



by and check out the new display. It has beautiful, unusual flora to admire. And as it matures and develops over the years, it will allow visitors to experience some of the awe and wonder of a true encounter with a hanging bog in the wilds of the Siskiyou. ∞

NIALL DUNNE is the communications director for the Arboretum and serves as a member of the “Bulletin” Editorial Board. He has written and edited numerous publications for the Brooklyn Botanic Garden.

ABOVE: Sword fern, western coltsfoot, and other plants stabilizing the seepage slope.