

Darlingtonia californica: A) habit; B) cut-away view of flower; C) capsule; D) seed; and E) longitudinal section through a leaf, showing the interior of the pitcher

Darlingtonia

By FRANK LANG

This year's featured plant is one of our endemic plant marvels, the insectivorous *Darlingtonia californica*. The California pitcher plant, or hooded cobra lily is found in sphagnum bogs along the Oregon coast near Florence, inland to southwestern Oregon, and northern California to the Sierra Nevada and the Trinity Alps. In the interior, the plants are usually found along streams or in seepages on steep slopes in areas with serpentine soils.

The plants trap insects, attracted by sight and smell, in their upright tubular leaves. Small nectar glands cover the surface of the pitcher-like leaf, especially on the "mustache" that hangs down in front of the mouth and around the thickened "lips" of the opening. Once inside, flying insects are attracted to light entering the hood through transparent "windows" in the ceiling. After buzzing around inside, insects land on the smooth, waxy interior surface where they slide toward the pool of fluid at the slender base of the pitcher. On the way down, they pass over stiff downward pointing hairs that will prevent their upward escape. In the bottom of the tube they drown.

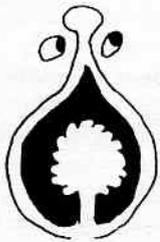
Insect carcasses break down by bacterial activity in the soup, and the plant absorbs the released nutrients. According to traditional wisdom, insectivory allows *Darlingtonia* to occupy low-nitrogen sites, such as these bogs and seepages, by obtaining nitrogen from insect proteins.

Attractive down-turned flowers with large yellow-green sepals and smaller maroon petals are produced in late spring, a single flower per stalk. After pollination, the flower turns upright as the fruit matures. Frequently, last year's upright capsules can be seen scattered among the new blossoms.

There is an hypothesis that the insects and pitcher plants have a mutualistic relationship; that is, both partners benefit. How? Not all insects may fall prey to the pitcher, and more might benefit from nectar than die in the soup. The pitcher plant profits from the supply of nitrogen.

To find pitcher plants, visit the *Darlingtonia* Wayside near Florence on the coast or go to the Illinois Valley. There are nice bogs along the Eight Dollar Mountain Road west of Highway 199 near Selma and where the old Oregon Mountain Road crosses Whiskey Creek southwest of O'Brien. Please leave these wonderful creations in the wild where they belong. Their growth requirements are difficult to duplicate, and cultivation almost always fails.

The botanical illustrator, Andy Sudcamp, Grants Pass, was a student of Dr. Linda Vorobik, principle illustrator for the Jepson Manual (see Book Review page 24). The text was originally broadcast as a Nature Note over the facilities of Jefferson Public Radio, Ashland, Oregon.



New, Used and Rare Books on
BOTANY, FLORAS, BOTANICALS
at
FLORA and FAUNA BOOKS



121 First Ave. So. • Seattle, WA 98104 • (206) 623-4727

Open Monday-Saturday: 10 a.m.-6 p.m.

We stock and ship.



**Hitchcock and Cronquist, The Jepson Manual,
Hortus III, Herbariums, Handmade Presses
Happiness!**

