

***Polystichum californicum*** (D.C. Eat.) Diels  
California swordfern  
Polypodiaceae (Fern Family)

**Status:** State Sensitive  
**Rank:** G4S1S2

**General Description:** An evergreen fern approximately 5 to 26 in. (12 to 26 cm) tall. There are approximately 20 to 45 leaflets on each side of the rachis, or main stem, of the leaf, or frond. The leaflets are 1½ to 4 in. (4 to 10 cm) long and ½ to 1¼ in. (1 to 3 cm) wide. The leaves, or fronds, appear to be made up of opposite leaflets, divided to the middle of the each leaflet. Each leaflet becomes spiny and toothed toward the base of each leaflet and becomes less toothed as you approach the tip of the leaflet. Its leaflets are somewhat stiff and opposite or slightly offset.

**Identification Tips:** *Polystichum californicum* is very similar to *P. munitum*, *P. scopulinum*, and *P. andersonii*. A technical key is recommended in order to tell the four species, as well as their hybrids, apart. *P. californicum* differs from *P. munitum* by having finely toothed leaflets rather than having prominently saw-toothed leaflets, or having sword-like leaflets. A distinguishing character between *P. scopulinum* and *P. californicum* is the teeth on each leaflet: *P. scopulinum* has long, coarse hairs on its teeth, whereas *P. californicum* has short, abruptly ending points on its teeth. *P. andersonii* grows a chaffy bud, or fiddlehead, for new growth, and has a conspicuously chaffy stalk, or rachis; whereas *P. californicum* lacks any such chaffy bud and has a rachis which is not as chaffy.

**Phenology:** This species is an evergreen fern and is identifiable year round; however, the existence of sori at the time of identification may be helpful in the identification process.

**Range:** *Polystichum californicum* is found from the coast to mid-mountain elevations. It is commonly found in the lowlands and is found from southern British Columbia south to California. It is more commonly found on the western side of the Cascade Mountain ranges. In Washington, the species has been documented in Thurston and Pierce counties.

***Polystichum californicum***  
California swordfern

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Known distribution  
of *Polystichum californicum*  
in Washington



● Current (1980+)  
○ Historic (older than 1980)

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Photo by Ed Alverson

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**Habitat:** This fern has been found on slopes, dry rocky terrain, by stream banks, vertical cliffs, rock crevices, and in partial shade or open areas. It is a versatile species, making use of almost any habitat. Washington populations occur at elevations ranging from 244 to 305 ft (800 to 1000 m).

**Ecology:** This fern can be found in almost any ecological niche. However, it may not grow in heavily saturated conditions or at sub-alpine or alpine elevations. This species has been documented in moist areas and shaded habitat.

**State Status Comments:** The species is known from five occurrences within or near the Cascades in Thurston and Pierce counties.

**Inventory Needs:** Further inventory of this species is needed in Chelan, Kittitas, Thurston, and Pierce counties.

**Threats and Management Concerns:** Threats to *P. californicum* include trampling and collection by hikers, timber harvest, herbicide use in inhabited areas. Hybridization with *P. munitum*, *P. scopulinum*, or *P. andersonii* could affect *P. californicum*.

### **References:**

Flora of North America Editorial Committee eds. 2002. *Flora of North America, Vol. 2 Pteridophytes and Gymnosperms*. Oxford University Press. 475 pp.

Hitchcock, C.L., A. Cronquist, M. Ownbey, and J.W. Thompson. 1969. *Vascular Plants of the Pacific Northwest, Part 1: Vascular Cryptogams, Gymnosperms, and Monocotyledons*. University of Washington Press, Seattle. 914 pp.

Washington Natural Heritage Program. 1981. *An Illustrated Guide to the Endangered, Threatened, and Sensitive Vascular Plants of Washington*. Distributed by the Washington Natural Heritage Program. 328 pp.