

SPECIES FACT SHEET

Common Name: Arctic dactylina lichen (a.k.a. finger lichen)

Scientific Name: *Dactylina arctica* (Richardson) Nyl.

Division: Ascomycota

Class: Leucanoromycetes

Order: Leucanorales

Family: Parmeliaceae

Technical Description: **Thallus** stratified, fruticose, consisting of clusters of erect to semi-erect, fingerlike branches (podetia), these dull, yellowish green to pale brownish, more or less round in cross-section, occasionally more than 25 mm tall; branch tips not at all pruinose; main stems smooth, or at least lacking pointed-tipped outgrowths, hollow to at most weakly cobwebby within, usually strongly inflated; soredia, isidia and pseudocyphellae absent; attached to substrate by basal holdfasts; green algal photobiont. **Apothecia** rare, borne laterally or at tips of braches, disc brownish. **Spores** 1-celled, globose to broadly ellipsoid, 4-6 μ , colorless, eight per ascus. **Chemistry:** Cortex KC+ yellowish or pinkish; medulla C+ reddish, KC+ reddish. **Distinctive features:** Thallus primarily composed of upright, smooth, largely unbranched stems (podetia) that are hollow (largely lacking cobwebby medulla), appearing inflated, yellow to brownish yellow. **Similar species:** *Dactylina arctica* most closely resembles its two other congeneric species *D. ramulosa* and *D. madreporiformis*, neither of which is currently documented as far south as the Washington Cascades. Among the five genera of PNW fruticose lichens with hollow stalks (*Baeomyces*, *Cladina*, *Cladonia*, *Dactylina* and *Thamnolia*), *Dactylina* stands apart in having thalli wholly of stalks (thalli lack squamules) which are largely simple, unbranched, blunt and not tipped with cups.

Life History: Details for *Dactylina arctica* are not documented. Given the absence of soredia and isidia within the genus, it is reasonable to assume asexual reproduction by fragmentation of thalli plays some role in maintenance and spread of populations. Establishment of new thalli by sexual means is poorly understood in lichens, in general.

Range, Distribution, and Abundance: Circumpolar; widely distributed at arctic latitudes in North America, becoming markedly less documented to the south, with southern extent of distribution in Washington state. The Consortium of Pacific Northwest Herbaria (6/2015) lists a single Suksdorf collection (8/26/1895) from Skamania County, Washington, "Konisberg [Lemei Rock] in the Chisquash Range, east central part of county" and (2/2016) a Leshner (8/5/1980) collection from Okanogan Co. Hughes (2015), in examining the Washington Natural Heritage Program database, found records, themselves extracted from the Consortium of North American Lichen Herbaria in 1/2011, for a 8/17/1955 Imshaug collection from Okanogan Co. on the summit of

Windy Peak, 5 miles south of the Canadian border in the upper NE corner of the Pasayten National Wilderness. Direct query of the Consortium of North American Lichen Herbaria (2/2016) also retrieved record of a 1936 Wilson collection in Mt. Rainier National Park. Given this set of collection records, it seems reasonable to regard *Dactylina arctica* as documented on Okanogan-Wenatchee and Gifford Pinchot National Forests and that the species could potentially occur on Mt. Baker-Snoqualmie National Forest as well.

Habitat Associations: Goward (1999) notes that *Dactylina arctica* is found over open, acid heaths at alpine elevations. Reported elevations (3) at collection sites range from 7670-8999 feet.

Threats: Threats from local management actions such as prescribed fire, fire suppression, or livestock grazing would seem to be low at subalpine and alpine elevations. New road or trail construction could eliminate all or portions of small populations that were not detected prior to construction.

Conservation Considerations: Efforts to relocate the known sites in order to conduct local surveys to better understand extent of the local population would likely be very challenging (see Range, Distribution and Abundance, above). Consider surveys in appropriate habitats at subalpine and alpine elevations elsewhere in the Washington Cascades. Consider conducting pre-project surveys for any new trail or road construction at subalpine or alpine elevations on federal lands in the Washington Cascades.

Conservation rankings: G4G5; WANHP S1, proposed endangered; not listed by ORBIC.

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References

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Ways of Enlichenment Photo Gallery @ www.waysofenlichenment.net/lichens



Dactylina arctica (Richardson) Nyl. Photographed by Curtis Björk in Northwest Territories, Canada, near MacKay Lake, 8/8/2011, on ground in brushy tundra. Photo accessed at <http://www.waysofenlichenment.net>