

# SPECIES FACT SHEET

**Common Name:** Pacific stickpin

**Scientific Name:** *Stenocybe clavata* Tibell

Division: Ascomycota

Class: Eurotiomycetes

Order: Mycocaliciales

Family: Mycocaliciaceae

**Technical Description:** Minute saprophytic or parasitic fungus, not lichenized (no symbiotic alga or cyanobacteria). Basal hyphae are within substrate, no thallus visible on substrate surface. Spore-producing structure (ascoma) pin-like, comprised of a narrow, cup-shaped head (capitulum), 0.2-0.7 mm diameter, on a slender stalk, unbranched or rarely branched, the stalk 1.1-2.1 mm tall and 0.07-0.10 mm diameter; black and shiny with no powder (pruina) on the surface. The cup-shaped capitulum has a slightly incurved rim, and inside contains a compact black surface of spores (not a loose mass of spores as in a mazaedium). Spore sacs (asci) cylindrical, 235-315 x 12-17  $\mu\text{m}$ ; spores shaped like a grain of rice, arranged in one line in the ascus (uniseriate), 42-55 x 10-15  $\mu\text{m}$ , 6- to 8-celled, walls and cross-walls evenly thickened, dark brown, pale in a small area just at apices, developing an ornamentation of minute warts. Spore walls can develop late; in some ascomata the spores have only 3 cross walls for a long time.

**Chemistry:** all spot tests negative.

**Other descriptions and illustrations:** Goward 1991, Nordic Lichen Flora 1999, Peterson 2002, Tibell 1991, USDA Forest Service (no date).

**Distinctive Characters:** (1) Non-lichenized, pin-shaped spore-producing structure, (2) large, 6- to 8-celled spores.

**Similar species:**

*Stenocybe pullatula* is found on *Alnus* bark and twigs. It has smaller, 2- to 4-celled spores.

*Stenocybe major* is found on *Abies* spp. It has smaller, 4-celled spores.

*Mycocalicium* and *Chaenothecopsis* species also have tiny, black ascomata, but the spores are one-celled.

**Habitat:** on bark of old conifers in humid, sheltered forests at low elevations, although it has been found up to 1150 m. Frequent in mature *Picea sitchensis* and *Tsuga heterophylla* forests in the Coast Range. Hypermaritime habitats in British Columbia, endemic to western North America. Often grows on conifer bark that is covered with *Ochrolechia* sp. (Rikkinen 2003)

**Life History:** Details for *Stenocybe* species are not documented. The stalked apothecia may facilitate spore dispersal by wind or contact with passing arthropods and birds. Growth and dispersal rates of *Stenocybe* are probably very slow.

**Range, Distribution, and Abundance:** Frequent in the Pacific Northwest, known from southeast Alaska, British Columbia, Washington, Oregon and California. Currently known sites are in western WA and OR from the coast into the Cascades Range in OR and in the Cascades Range in WA.

National Forests: Documented in WA: Mt. Baker-Snoqualmie, Okanogan-Wenatchee. OR: Siuslaw, Willamette, Mt. Hood. Suspected on: Columbia River Gorge National Scenic Area, Umpqua, Rogue River-Siskiyou. (Federal records, WTU: Burnett collections)

BLM Districts: Known on Salem, Eugene, Coos Bay. Suspected on Roseburg. (Federal records, Ponzetti 1996)

Other known sites: WA: Larrabee State Park. OR: Cape Lookout State Park, Mike Miller Educational Forest, Humbug Mountain State Park, Cape Sebastian State Park, Nestucca River ACEC, McDonald Research Forest, Elliott State Forest. (Rikkinen 2003, Ponzetti 1996, WTU: Burnett collections).

**Threats:** Management of fuels by burning could destroy lower bole populations. Pockets of unburned forest act as refugia. Removal of old growth trees removes habitat; increase in distance between old growth stands limits dispersal.

**Conservation Considerations:** Pervasive logging of old-growth forests in the Pacific Northwest has diminished habitat and opportunities for dispersal of *Stenocybe clavata*. Altered fire frequency and intensity resulting from fire suppression and fuel buildup may threaten remaining populations. The best opportunities to protect *Stenocybe clavata* are on federal lands, because most stands of old trees on private lands will be logged. Manage understory in known sites to maintain open conditions. Search in areas of OR and WA where it has not yet been found to determine accurate range in the PNW.

**Conservation rankings:** Global: G3; National: no rank; ORNHIC: no rank; WNHP: no rank.

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**Edited by:** Rob Huff, FS/BLM, Portland OR; May 2012

## **References**

Goward, T. 1999. The Lichens of British Columbia Part 2 - Fruticose Species. British Columbia Ministry of Forests, Victoria, BC.

Nordic Lichen Flora. Ahti, T., P. M. Jørgensen, H. Kristinsson, R. Moberg, U. Söchting and G. Thor, Eds. 1999. Volume 1, Introductory parts and Calicioid lichens and fungi. Uddevalla, Sweden.

Peterson, E. B. 2002. A preliminary Key to Calicioid Lichens and Fungi in the Pacific Northwest., Draft, unpublished.

Peterson, E. and J. Rikkinen. 1999. Range extensions for selected pin-lichens and allied fungi in the Pacific Northwest. *Bryologist* 102: 370-376.

Ponzetti, J. 1996. Caliciales in managed and unmanaged Oregon Coast Range forests. Oregon State University, unpublished. (location of sites visited: pers. comm. Eric Peterson)

Rikkinen, J. 2003. Calicioid lichens and fungi in the forests and woodlands of western Oregon. *Acta Botanica Fennica* 175: 1-41.

Smith, C. W., A. Aptroot, B. J. Coppins, A. Fletcher, O. L. Gilbert, P. W. James and P. A. Wolseley, Eds. 2009. *The Lichens of Great Britain and Ireland*. The British Lichen Society, London.

Tibell, L. 1975. The Caliciales of boreal North America. *Symb. Bot. Upsaliensis* 21 (2):1-128.

Tibell, L. 1991. A new species of *Stenocybe* from western North America. *Bryologist* 94:413-415.

USDA Forest Service. National Lichens and Air Quality Database and Clearinghouse. no date. Photograph of *Stenocybe clavata* by Eric Peterson.

<http://gis.nacse.org/lichenair/index.php?page=photos&viewphoto=139&pg=8> Site last visited 22 February 2012.

USDA Forest Service. National Lichens and Air Quality Database and Clearinghouse. no date. Drawing of *Stenocybe clavata* by Alexander Mikulin.

<http://gis.nacse.org/lichenair/index.php?page=illustrations&image=stecla.gif&name=Stenocybe+clavata> Site last visited 22 February 2012.



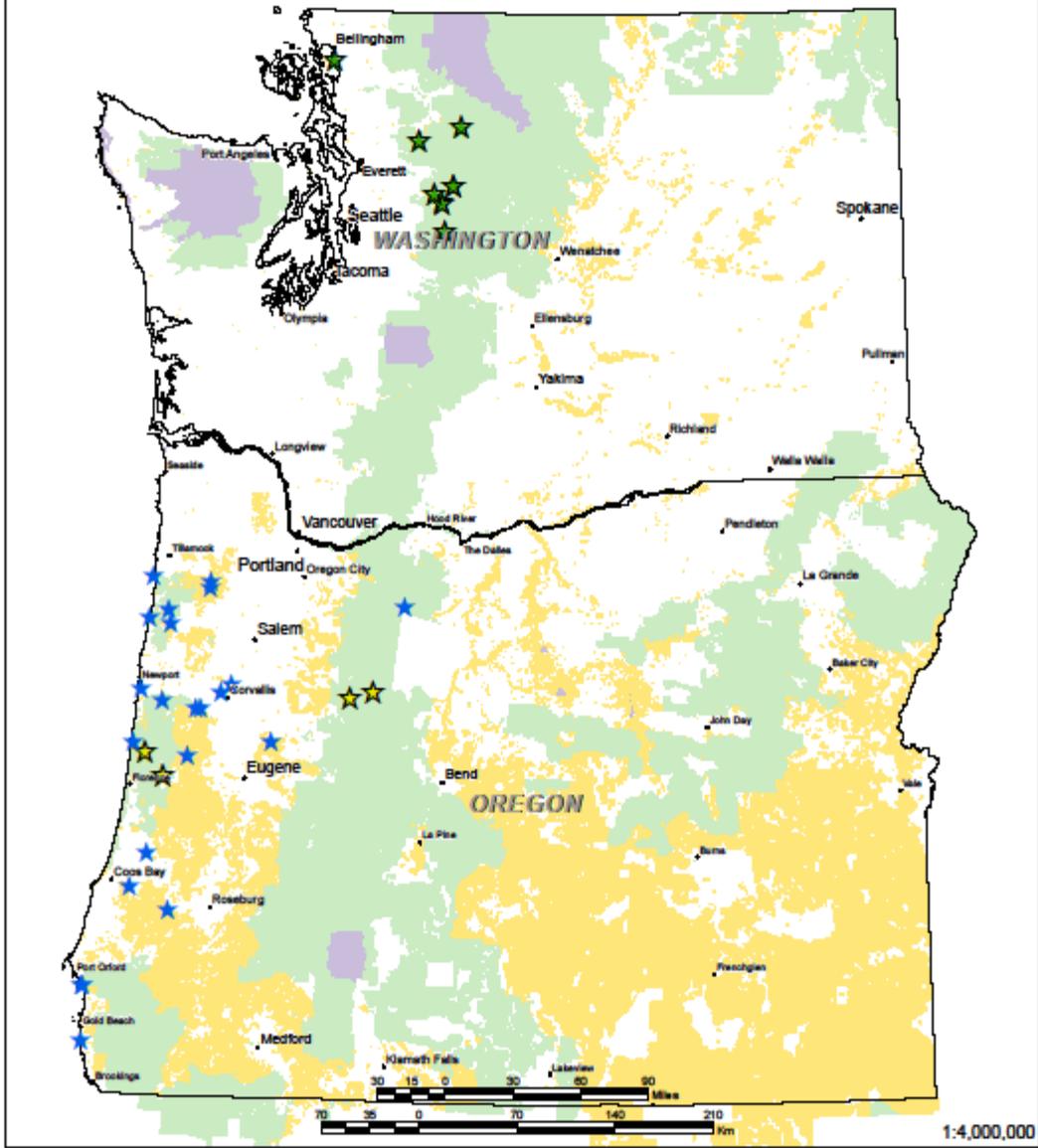
above: habit

below: spores. 1 tic = approx.  $2.5\mu$



Photos by Daphne Stone

# Stenocybe clavata STCL6



## Legend

- |   |   |   |   |   |
|---|---|---|---|---|
|  |  |  |  WTU Burnett collections |  State Boundary            |
|   |   |   |  Other Source STCL6      |  Bureau of Land Management |
|   |   |   |  FS STCL6                |  U.S. Forest Service       |
|   |   |   |  Cities of Interest      |  National Park Service     |

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