SPECIES FACT SHEET

Common Name: Holzingers’ Orthotrichum
Scientific Name: Orthotrichum holzingeri Ren. & Card. 
Recent synonyms: none
Division: Bryophyta 
Class: Bryopsida 
Order: Orthotrichales 
Family: Orthotrichaceae 

Taxonomic Note: Substratum information and sporophytes are needed to determine this genus to the species level.

Technical Description: Plants brownish green to dark green forming loose flat mats up to 2 cm tall, stems branched; leaves ovate-lanceolate to oblong lanceolate, apex broadly acute to obtuse; margins revolute to just below the apex; upper median cells rounded-quadrate, 9–12 μm wide without papillae; costa ending in the apex; sporophyte exserted, broadly cylindric, 2.5–2.8 mm long, lightly 8 ribbed about ½ the length when dry, ribbing becoming stronger when older, stomates, superficial, abundant in the lower part of the urn; peristome single, smooth, and endostome is lacking, calpytra naked, plicate. 
Distinctive characters: (1) smooth leaf cells (2) smooth peristome teeth, and (3) superficial stomata. 
Similar species: The smooth leaf cells; lack of endostome, naked calyptrae; and broader more obtuse leaves separate this species from Orthotrichium laevigatum and Orthotrichum rupestre. Orthotrichum rivulare has immersed stomates.

Life History: Few details are known about O. holzingeri. Protonema, bud and shoot formation is typical for all moss development.


Oregon Natural Heritage Information Center reports it from Union County.

BLM: None documented, suspected on Vale District.
USFS: None documented, suspected on Umatilla and Wallowa-Whitman NFs.
Uncommon to rare, possibly under collected.

**Habitat Associations:** According to Vitt (1991) *Orthotrichum holzingeri* is found on vertical calcareous rock surfaces and at the bases of *Salix* bushes just above rock that is frequently inundated by seasonally high water in dry coniferous forests.

**Threats:** Quarrying, rock climbing, and trail and road construction could be threats to this species. Changes in water levels in seasonally high water zones may eliminate populations.

**Conservation Considerations:** Because this species depends on limestone in the substratum, areas with limestone deposits could be surveyed for new populations. Revisit known populations to determine the extent of the distribution.

**Conservation Rankings and Status:**
- Global: G3, Idaho (S1), Oregon (S1).
- Oregon: ORNHIC List 3
- Washington: Not ranked

BLM/USFS Strategic Species in Oregon

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Updated by Camille Duncan in February 2010 (Update added Attachment 1: Photos, to the Species Fact Sheet.)

**ATTACHMENTS:**

(1) Photos

**References**

http://www.natureserve.org/explorer/

Vitt, D. 1973. A revision of the genus *Orthotrichum* in North America,

Attachment 1: Photos
All photos by Dr. Judy Harpel, under contract with the Oregon/Washington Bureau of Land Management

Whole mount wet

Whole mount dry

Whole leaf
Leaf cross-section

Leaf cross-section
Alar cells

Alar and basal cells

Superficial stomata

Upper medial cells
Sporophyte close-up

Peristome teeth