

Polystichum lemmonii, a Rock Shield-fern New to British Columbia and Canada

WILLIAM J. CODY¹ and DONALD M. BRITTON²

¹Biosystematics Research Institute, Agriculture Canada, Central Experimental Farm, Ottawa, Ontario K1A 0C6

²Department of Botany and Genetics, University of Guelph, Guelph, Ontario N1G 2W1

Cody, William J., and Donald M. Britton. 1984. *Polystichum lemmonii*, a Rock Shield-fern new to British Columbia and Canada. *Canadian Field-Naturalist* 98(3): 375.

Polystichum lemmonii is reported as new to the flora of British Columbia and Canada. Its peculiar affinity to serpentine rocks is pointed out, its overall range is given, and the plant is described briefly.

Key Words: *Polystichum lemmonii*, Rock Shield-fern, British Columbia, Canada

Kruckeberg (1964) pointed out the highly predictable occurrence on and restriction to ultramafic soils of two fern species in the Pacific Northwest, *Polystichum mohrioides* (Bory) C. Presl var. *lemmonii* (Underw.) Fern. (Rock Shield-fern) and *Cheilanthes siliquosa* (Indian's Dream), and stated that *Adiantum pedatum* var. *aleuticum* (Northern Maidenhair), showed a strong preference for the same substrates. Again Kruckeberg (1969) made detailed studies of plant life, including the above mentioned ferns, on serpentinite and other ferromagnesian rocks in northwestern North America.

Because of the affinity of *Polystichum lemmonii* Underw. to serpentine rock formations, it was not surprising that this species was found on such rocks in the Okanagan Divide in southern interior British Columbia. The plant is both new to the flora of British Columbia and Canada. Data are as follows: BRITISH COLUMBIA: 6000 ft., westward of Westbridge, Okanagan Divide, F. Tusko & W. Arlidge, 26 July 1961 (DAO).

More exact locality data have kindly been provided by J. W. C. Arlidge, Victoria, B. C. (personal communication): West Kettle Valley Area, 18 km west of Westbridge, 49°11'N, 119°13.5'W. Okanagan Highland, mountain ridge 3 km northeast of Baldy Mt., at head of Rock Creek, 6000 ft. a.s.l., close to timberline.

Polystichum lemmonii is now known to occur from the Okanagan Divide in southern British Columbia,

south through the northern Cascades in Washington to Placer County, California, and is apparently isolated in the southern Blue Mountains of eastern Oregon (Wagner 1979). A map of the previously known distribution is given by Wagner (1979). The species is found in crevices of rock outcrops and cavities under boulders of talus slopes in subalpine or occasionally midmontane sites.

Polystichum lemmonii can be recognized by the densely clustered, 15 to 35 cm long, linear to lance-oblong fronds; the crowded pinnae are deeply pinnatifid, or the lower pinnate, the ultimate segments oval, obtuse, crenate or crenately lobed and not at all spinulose; the sori are situated towards the base of the pinnules of the middle and upper pinnae, and the indusia, which are large and tend to overlap, are entire or but obscurely erose-toothed.

Literature Cited

- Kruckeberg, A. R. 1964. Ferns associated with ultramafic rocks in the Pacific Northwest. *American Fern Journal* 54: 113-126.
Kruckeberg, A. R. 1969. Plant life on serpentinite and other ferromagnesian rocks in northwestern North America. *Syesis* 2: 15-114.
Wagner, D. 1979. Systematics of *Polystichum* in western North America north of Mexico. *Pteridologia* 1: 1-64.

Received 2 August 1983

Accepted 4 November 1983



Cody, William J. and Britton, Donald M. 1984. "Polystichum lemmonii, a Rock Shield-fern new to British Columbia and Canada." *The Canadian field-naturalist* 98(3), 375–375. <https://doi.org/10.5962/p.355170>.

View This Item Online: <https://www.biodiversitylibrary.org/item/89187>

DOI: <https://doi.org/10.5962/p.355170>

Permalink: <https://www.biodiversitylibrary.org/partpdf/355170>

Holding Institution

Harvard University, Museum of Comparative Zoology, Ernst Mayr Library

Sponsored by

Harvard University, Museum of Comparative Zoology, Ernst Mayr Library

Copyright & Reuse

Copyright Status: In copyright. Digitized with the permission of the rights holder.

Rights Holder: Ottawa Field-Naturalists' Club

License: <http://creativecommons.org/licenses/by-nc-sa/3.0/>

Rights: <https://biodiversitylibrary.org/permissions>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.