

## ORTHOTRICHUM RUPESTRE, A MOSS CONFIRMED IN EASTERN NORTH AMERICA

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The genus *Orthotrichum* is represented in Michigan by twelve species and one variety. Six of these taxa, i.e. *O. ohioense* Sull. & Lesq. ex Aust., *O. pusillum* Mitt., *O. sordidum* Sull. & Lesq. ex Aust., *O. speciosum* var. *elegans* (Schwaegr. ex Hook. & Grev.) Warnst., *O. stellatum* Brid., and *O. strangulatum* f. *lescurii* (Aust.) Vitt, are restricted to or have the major portion of their ranges in eastern North America. *Orthotrichum anomalum* Hedw., *O. obtusifolium* Brid., *O. pumilum* Sw., and *O. speciosum* Nees ex Sturm are widely distributed in the western cordillera and extend into eastern North America only north of the line of maximum glaciation (a few have isolated stations farther south). *Orthotrichum pallens* Bruch ex Brid. occurs sporadically in the western cordillera with disjunct populations in northern Michigan, northern Minnesota, the Bruce Peninsula, and the Gaspé Peninsula. *Orthotrichum alpestre* occurs from the Black Hills, South Dakota, westward, with a disjunct occurrence on the Keweenaw Peninsula of Upper Michigan.

While examining material of the Orthotrichaceae from the herbarium of the University of Minnesota, I found two specimens of *Orthotrichum rupestre* Schleich. ex Schwaegr. from eastern North America. One of these was collected on Isle Royale, Michigan, while the second was from Grand Portage, Minnesota. *Orthotrichum rupestre* is distinguished by superficial stomates; nodose, elongate basal leaf cells; smooth or lightly 8-ribbed, oblong capsules which are emergent; and a peristome of 16 erect exostome teeth. This species along with *O. sordidum* are the only representatives of the section *Rupestria* Schimp. found south of the Gaspé Peninsula in eastern North America.

*Orthotrichum rupestre* is known in western North America from southern Alaska and the Yukon Territory, east to northeastern Alberta, and south in the western mountains to southern California and northeastern New Mexico. Its continuous range extends east to the Black Hills, South Dakota. It is found on non-calcareous boulders and cliff faces in xerophytic to mesophytic coniferous forests. The Cook Co., Minnesota, and Isle Royale, Michigan, populations are decidedly disjunct and confirm the presence of this species in eastern North America. Grout (Moss Flora of North America North of Mexico, II(2):110. 1935.) did not record *O. rupestre* from eastern North America. As far as I know, the present report is the first published record of the species in this region. However, in a recent revision of the genus (Vitt, A Revision of the Genus *Orthotrichum* in North America, North of Mexico, Bryophyt. Biblioth. 1:90. 1973.) three collections were reported as *O. rupestre*, but were considered dubious until further collections could document the species' presence in eastern North America. These records [Exploits,

Newfoundland, *Waghorne* (NY); White Mountains, New Hampshire, *Oakes* (MICH); and Clyde Inlet, Baffin Island, *Steere* (NY)] now seem supported as probable disjunct stations by the additional collections presented here from disjunct localities in Minnesota and Michigan.

Specimens Examined: MICHIGAN—Isle Royale: On island above Raspberry Island, *Cooper 106*, July 23, 1910 (MIN). MINNESOTA—Cook Co.: Hat Point, on peninsula projecting southward from Mt. Josephine, into Lake Superior, near Grand Portage at latitude 48°N, *Holzinger*, Aug. 15, 1902 (MIN).

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