

ORTHOTRICHUM OBTUSIFOLIUM AND TORTULA PAPILLOSA
IN WESTERN NEW YORK STATE

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Ketchledge's checklist of the mosses of New York State was first issued in 1957, with a second, expanded edition in 1980. The following is a report of Orthotrichum obtusifolium Brid. and Tortula papillosa Wils. ex Spruce, which are new to the eight western New York counties according to this publication.

This report of Orthotrichum obtusifolium was initially based on a collection I made in Wyoming County. Additional records were noted from collections already at BUF made by Ann Glowny, an amateur bryologist actively associated with the herbarium until 1975, and by Richard Zander, current curator at BUF. The distribution map (Fig. 1) displays the distribution of O. obtusifolium in western New York from collections at BUF, and supports the generalization that this species is common in rather northern temperate regions of the United States and Canada.

The following specimens are in BUF:

Orthotrichum obtusifolium Brid.--U.S.A.: New York: Cattaraugus Co.: Dayton Twp., village of South Dayton, trunk of maple, 13 Oct 1975, Zander 4310; Red House Twp., on Park Rt. 1, Allegany State Park, Stone Tower, 1 mi N of Red House Lake, 2202 ft elev., on lee side of tower, vertical wall, some reaction with HCl, 22 Sep 1984, Eckel 192284e. Chautauqua Co.: Cherry Creek Twp.; town of Cherry Creek, trunk of Acer saccharum, 16 Jul 1972, Zander s.n. Erie Co.: City of Buffalo, Delaware Park, on vertical stone wall, lakeside, 7 Feb 1976, Zander 4294. Genesee Co.: Byron Twp., Byron, hedgerow by Hessenthaler Rd., near Swamp Rd., on weathered, falling, zig-zag rail fence, 2 Apr 1968, Glowny s.n.; Darien Twp., woods on Alley Rd. in southwesternmost corner of the county, on branches from crotch of large dead tree (oak?), 19 Mar 1969, Glowny s.n.; Alabama Twp., Iroquois National Wildlife Refuge, "Swallow Hollow" in the Alabama Swamps, on bark of dead hardwood tree, in swamp, N-facing, 15 Mar 1984, Eckel IWS84.

Two additional reports for this taxon were made by Randall (1973) for Wyoming County on the Genesee River.

Tortula papillosa Wils. ex Spruce--U.S.A.: New York: Cattaraugus Co.: Red House Twp., on Park Rt. 1, Allegany State Park, Stone Tower, 1 mi N of Red House Lake, 2202 ft elev., on lee side of tower, vertical wall, some reaction with HCl, 22 Sep 1984, Eckel 192284n.

Randall (1973) and Ketchledge (1980) report only two other Tortula species from western New York: T. ruralis and T. mucronifolia.

Although this species generally frequents the bases of trees, this report from southwestern New York State is from the mortared wall of a stone tower. Ketchledge (1980) reports T. papillosa as occurring in the southeastern portion of the state. Its presence at this site may be related to the fact that this area is part of the unglaciated region of the state and may indicate a naturally disjunctive relationship between two bryophyte floras as they occur in the southern part of the state, as distinct from an artificial disjunction due to absence of collecting activity.

Steere (1939) suggested this species is "apparently most common in the northeastern states" in terms of abundance, but its known range has been extended throughout southern latitudes in the United States, into Mexico, Columbia, Equador, etc. (Crum & Anderson 1981), since publication of the Grout flora.

Mosses growing in association with Tortula papillosa at this station were: Orthotrichum obtusifolium, O. anomalum, Amblystegium varium, Bryum argenteum, B. capillare var. flaccidum, B. lisae var. cuspidatum, Ceratodon purpureus, Grimmia apocarpa var. apocarpa, Brachythecium salebrosum, Leskea polycarpa, Entodon seductrix and Platygyrium repens. The number of propaguliferous species occurring in this association on the vertical face of the wall is noteworthy, as is the number of species, all representing populations of limited wall area. All propaguliferous species were richly covered with diaspores, Ceratodon purpureus was currently producing archegonia and antheridia, and had capsules of a previous season, as did Bryum argenteum and B. lisae var. cuspidatum, Grimmia apocarpa and Platygyrium repens. Such an apparently exposed situation supported a surprisingly high species diversity, perhaps due to exposure to wind-dispersed diaspores, and brought forth consistent demonstrations of reproductive activity, perhaps due to a regime of stressful environmental conditions.

Crum, H. A. & L. E. Anderson. 1981. Mosses of Eastern North America. In two volumes. Columbia University Press, New York.

Ketchledge, E. H. 1957. Checklist of the mosses of New York State. New York State Mus. Bull. 363: 1-55.

_____. 1980. Revised checklist of the mosses of New York State. New York State Mus. Bull. 440: i-viii, 1-19.

Randall, E. A. 1973. A Taxonomic and Distributional Study on the Mosses of Western New York State. Dissertation, Pennsylvania State University.

Steere, W. C. 1939. Tortula. In: A. J. Grout, Moss Flora of North America 1(4): 228-246, pls. CXI-CXVIII.

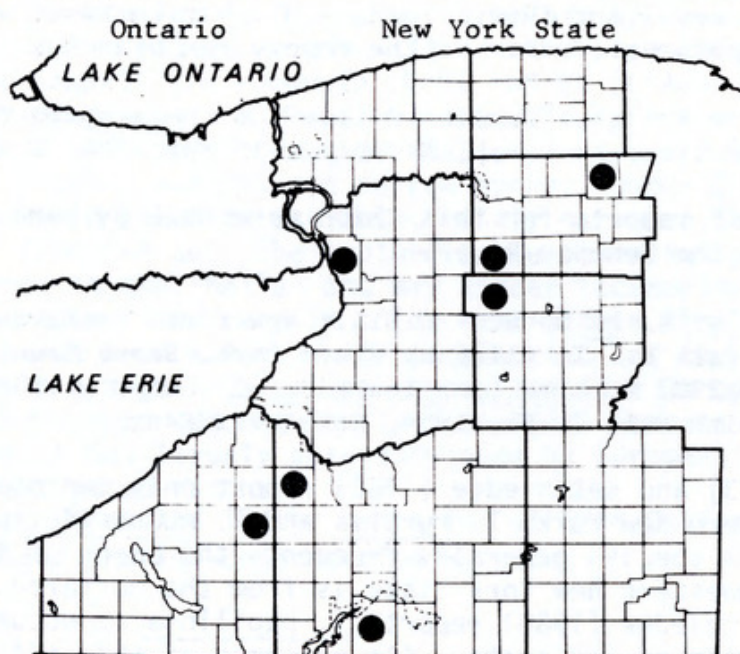


Figure 1; The distribution of Orthotrichum obtusifolium Brid. in western New York State corresponding with specimens in the Clinton Herbarium (BUF).



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