

***ORTHOTHECIUM DIMINUTIVUM* DISCOVERED AT SCOTT'S FALLS IN ALGER COUNTY, MICHIGAN**

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Scott's Falls is already a famous bryophyte site, with the intriguing *Schistostega pennata* (Hedw.) Web. & Mohr adorning the ceiling of the cave behind the falls and on adjacent ledges (Crum 1976). Now another interesting find—the first occurrence east of the Rockies for *Orthothecium diminutivum*, a relatively rare moss even in its native western distribution of Colorado, Utah, Oregon, and Washington.

Orthothecium diminutivum (Grout) Crum, Steere, & Anderson (Plagiotheciaceae; Crum et al. 1964), formerly known as *Holmgrenia diminutiva* Grout, was discovered 23 March 2001 at Scott's Falls adjacent to M28 and Lake Superior in Alger County, Michigan (46°26'N, 86°48'W, T47N, R20W, Sec 28). Scott's Falls is a small waterfall over very porous basalt and granite approximately 3 m wide with about a 5 m drop. The area is heavily shaded, very damp, and somewhat covered with and protected by larger trees of the surrounding northern hardwoods stand, including yellow birch (*Betula allegheniensis*), sugar and red maple (*Acer saccharum*, *Acer rubrum*), aspen (*Populus tremuloides*), white spruce (*Picea glauca*), and northern white cedar (*Thuja occidentalis*). The dominant ground vegetation includes the ferns *Onoclea sensibilis*, *Dryopteris spinulosa*, *Gymnocarpium dryopteris*, and *Phegopteris hexagonoptera*. *Orthothecium diminutivum* was growing in one of the more shaded and moist areas on organic matter between rocks and roots. Dominant bryophytes growing with it include *Polytrichum* sp. and *Conocephalum conicum*.

The population of *Orthothecium diminutivum* exhibited many capsules and numerous perichaetia but no perigonia. Crum commented when he studied the specimens that perhaps Lawton (1971) was correct, that it is indeed dioicous, whereas Flowers (1936) considered it to be monoicous. On the other hand, Crum added that the numerous capsules would suggest that it is more likely to be monoicous.

The voucher specimens of *Orthothecium diminutivum* from Scott's Falls are deposited in the Herbarium at Michigan Technological University (accession number MCTC #11883) and at the University of Michigan (MICH). The type specimen is located in the herbarium at Duke University, where Grout's private herbarium is now housed.

Comment from Janice Glime: I have never had the privilege of sharing authorship with Howard Crum, for he always politely declined after graciously

sharing his time and knowledge in verifying my doubtful specimens. Only a few months before his death, he once again came to my rescue in identifying this troublesome species. And once again, he declined, before I could even ask, saying "If you should ask, I have enough unfinished business that I would rather not be an author." Contrary to his request, I have taken the liberty of including him as a co-author, posthumously, for without his kind identification and thoughtful comments, this publication might never have existed.

LITERATURE CITED

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- Lawton, E. 1971. Moss Flora of the Pacific Northwest. Hattori Botanical Laboratory. Nichinan, Miyazaki, Japan, 584 pages.