## Adiantum pedatum IN NOVA SCOTIA

Adiantum pedatum Linneus, endemic to North America is the northernmost element of the genus Adiantum, a large diverse group of tropical ferns. Plants of this complex are distinguished from other north temperate members of the genus by their pedate leaf architecture (Paris and Windham, 1988). There are four North American subspecies of *A. pedatum*: calderi Cody; subpumilum W.H. Wagner; aleuticum; and pedatum (Paris and Windham, 1988; Cody and Britton, 1989). The woodland maidenhair fern, subspecies pedatum, is a diploid taxon morphologically and isoenzymically distinct from the diploid eastern serpentine subspecies calderi and other western subspecies (Paris and Windham, 1988).

The earliest record of *Adiantum pedatum* in Nova Scotia is that of Ball (1876), who reported that it had been found in Newport, Hants county and could be seen growing in gardens as an ornamental plant. Lawson (1889) reported an additional wild location at Upper Musquodoboit, and Robinson (1904) another from Cape Breton. Roland (1941) gives five locations in addition to those at Newport and Upper Musquodoboit - Yarmouth county, Canaan, Kings county, Clarkesville and Scotch Village, Hants county and East Mountain, Colchester county. von Aderkas (1987) gives the locations of four specimens in the collection held at Acadia University and there are two specimens in the Nova Scotia museum (not reported by von Aderkas, 1987).

All of these authors emphasise the beauty and rarity of *A. pedatum*. It is described as rare in the Flora of Nova Scotia (Roland and Smith 1969) and it is found in the catalogue of rare vascular plants of Nova Scotia (Maher et al., 1978).

Adiantum pedatum was found on June 14, 1989 during a study of the plant community of the Meander river intervale, near Brooklyn, Nova Scotia (45° 01' 13" N, 64° 03' 40" W). This site is a small remnant of old hardwood forest dominated by species of the Alleghenian floral element maintained on an alkaline soil (von Aderkas and Bird, 1983). The plant was found in one location growing vigorously from forked horizontal rhizomes and possibly represents a single genetic individual. Close associated plants at the site included *Onoclea sensibilis* L., *Matteuccia strutheropsis* (L.) Todaro, *Sanguinaria canadensis* L. and *Acer saccharum* Marsh. The forest is generally open in the vicinity, the nearest tree was an ironwood (*Ostrya virginiana* (Mill.) K. Koch and the canopy comprised of *Quercus borealis* Michx., *Populus balsamifera* L. and *Acer saccharum*.

Voucher specimens have been deposited in the Herbaria of Acadia University, Wolfville (ACAD ECS 014277) and the Nova Scotia museum (No accession number)

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## References

Ball, E.H. 1876. The indigenous ferns of Nova Scotia. Proc. N.S. Inst. Sci. 4(2): 146-147.

Cody, W.J. and Britton, D.M. 1989. *Ferns and fern allies of Canada*. Agriculture Canada Publication 1829/E, Ottawa

## PORTER

- Lawson, G. 1889. School fern flora of Canada. In How plants grow, a simple introduction to structural botany, Ed. A. Gray, A. & W. MacKinley, Halifax.
- Maher, R.V., White, D.J., Argus, G.W. and Keddy, P.A. 1978. *The rare vascular plants of Nova Scotia*. Syllogeus No. 18, The National Museum of Natural Sciences, Ottawa, 38 pp.
- Paris, C.A. and Windham, M.D. 1988. A biosystematic investigation of the *Adiantum pedatum* complex in eastern North America. *Syst. Bot.* 13: 240-245.
- Roland, A.E. 1941. The ferns of Nova Scotia. Proc. N.S. Inst. Sci. 20: 76.
- Roland, A.E. and Smith, E.C. 1963. The flora of Nova Scotia. Part I. The Pteridophytes, Gymnosperms, and Monocotyledons. *Proc. N.S. Inst. Sci.* 26: 39.
- von Aderkas, P. 1987. Collection of fern and fern allies in Nova Scotia. *Proc. N.S. Inst. Sci.* 37: 93-148.
- von Aderkas, P. and Bird, C.J. 1983. The habitat of the ostrich fern (*Matteucia struthiopteris*) in Nova Scotia and Prince Edward Island. *Proc. N.S. Inst. Sci.* 33:131-144.

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