

Report: Les Mehrhoff Botanical Research Fund

A targeted search for new, rare and historically known bryophyte species in Vermont: ephemeral wetlands, alpine summits and acidic cliffs

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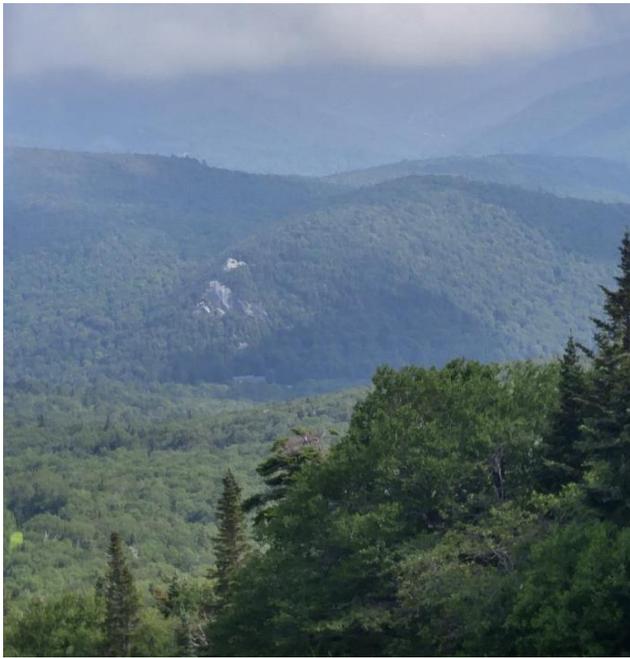
In the last 15 years or so, the inventory of bryophytes in Vermont has focused on intensive collecting in small geographic areas, including the Crum Bryology Workshops held in 2005 in the Craftsbury area and in 2008 in Averill and other towns in northeastern Vermont, and the Andrews Forays held in 2000 and 2013 in the Mt. Mansfield area. More dispersed collecting has been conducted by Allard, White, and Hagerman to fill in gaps in distribution. A study of historical data from collections, combined with data from these recent inventories, has indicated a need for a targeted inventory of specific habitats that are under-collected or have not been inventoried for an extensive period of time, in order to better document the distribution of a number of rare species that occupy these habitats.

The Les Mehrhoff Botanical Research Fund is supporting a group of avid bryologists who are collaborating for a three-year study to look at ephemeral wetlands, alpine summits and acidic cliffs. These habitats were selected because their bryoflora needs additional documentation and they hold the promise of enhancing our knowledge of the distribution and abundance of some of the rare species that occur in Vermont.

In this, the first year of the study, we conducted bryophyte inventories on Killington Mountain and Pico Peak (representing alpine summits), Deer Leap Rock and Thundering Falls (representing acidic cliffs) in

Killington, and Pine Island Farm oxbow pond (representing ephemeral wetlands) in Colchester. A few additional areas were searched for ephemeral species.

Bob Popp of the Vermont Natural Heritage Inventory accompanied us on the Killington trip. Micki Colbeck, a student at Antioch New England



who is writing a bryophyte-related thesis, also came along for the Killington work. The Pine Island oxbow survey was conducted by Allard with Liz Thompson and Allard's bryology class from the University of Vermont.

Altogether, thirteen UVM students and six other botanists participated in the field work.

Deer Leap Rock, Killington from the trail to Pico Peak.

Currently, we are working on specimen identification. About 300 specimens were collected from the visited sites. While most of the identification work remains to be done over the winter, the following work has been completed:

- Four species of *Sphagnum* have been identified from the summit of Pico Peak, all common.
- We looked for, but did not find *Andreaea rothii* (S1) at Deer Leap Rock. This species was collected there by D. L. Dutton in 1910. *Andreaea* specimens collected there by Peters and Allard were both *A. rupestris* (S5).

- We found *Dicranodontium denudatum* at Deer Leap Rock, another rare (S1) species collected there by Dutton in 1910.
- *Dicranella schreberiana* (S1) was documented for the first time from Killington Mountain and may also have been found on Pico Peak (determination pending)
- *Phaeoceros laevis* (S3) and *Notothylas orbicularis* (S1), two hornworts, were noted from Pine Island Farm oxbow pond in Colchester and from disturbed open soil in a farm field in the town of Franklin in Franklin County; *Phaeoceros laevis* was also found in Marshfield. Although sterile, a specimen taken from a seepage area on the ski slopes of Killington is probably also *Phaeoceros laevis*.
- *Trematodon longicollis* (SH), a moss that inhabits early successional habitats, was found in Huntington by Wally Jenkins. This is an important find, since it perhaps represents a northern extension of the range of this species, and makes its presence in Vermont extant instead of historic. Wally plans to join us on future field trips.
Members of the group will be working on specimen identification over the winter, and on planning our field work for next summer. By this time next year we will have more information to share.



Micki Colbeck searches for bryophytes at Thundering Falls, Killington