

**The New England Botanical Club
Graduate Student Research Awards
2016 AWARD WINNER**

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**Investigating the environmental constraints on a threatened ecosystem:
Snowbed communities of Mt. Washington, New Hampshire**

Alpine snowbed communities are distinct alpine plant communities that are found in sheltered sites where snowpack lasts longer into the spring, insulating plants from late frost and providing a favorable microclimate for herbaceous species. In the Northeast, these communities are rare, diverse, and threatened by climate change. I will evaluate the effects of environmental factors, including snow depth/duration and temperature, on community variables (e.g., % cover, phenology, plant traits) within and adjacent to snowbed sites on Mt. Washington, NH. I will also perform a common garden experiment in which propagules of herbaceous species collected from alpine and sub-alpine sources will be grown under controlled conditions to evaluate the phenotypic/genetic uniqueness of alpine snowbed plant populations. As snowbed communities are highly sensitive to climatic conditions, it is my hope that this work will contribute to conservation efforts aimed at mitigating the effects of climate change on alpine plant communities in the Northeast.

The New England Botanical Club offers each year up to \$3,000 total in support of botanical research to be conducted by graduate students. The awards are made to stimulate and encourage botanical research on the New England flora, and to make possible visits to the New England region by those who would not otherwise be able to do so. It is anticipated that two awards will be given, although the actual number and amount of awards will depend on the proposals received. The awards are given to the graduate student(s) submitting the best research proposal dealing with systematic botany, biosystematics, plant ecology, or plant conservation biology.