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

Charlie Nicholson

Gund Institute, University of Vermont Burlington, VT

Pollination shadows: Do perennial crops impact the reproductive success of a New England spring ephemeral?

Ecosystem service science focuses on the benefits that natural areas provide human enterprise. These natural and anthropogenic areas are linked by a reciprocal exchange of matter, energy and organisms. Few studies examine how movement of pollinators from crops to natural areas may affect the persistence of native flora. I will test whether mass flowering crops have a facilitative or competitive influence on native plant pollen receipt in adjacent natural areas. Managing agricultural landscapes to support native pollinators may maintain the production of economically important crops as well as the reproductive success of threatened native plants. The results from this study will advance our understanding of how ecosystem services provided by mobile organisms influence native plant reproductive success in agricultural landscapes.

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.