

Vaccinium angustifolium

This summer I studied the effect of pollination on lowbush blueberry fruit quality. More specifically, I was interested in exploring the differences between diurnal and nocturnal pollination by comparing the resulting ripened blueberry fruit. Insect-driven pollination is a critical component to lowbush blueberry reproduction as these flowers are largely self-incompatible, meaning single flowers do not tend to pollinate themselves and yield healthy fruit. The bell-shaped flowers along with their heavy, sticky pollen further resist wind pollination, which increases blueberry's reliance on insect pollinators (Fig. 1).

Lowbush blueberry, native to Eastern Canada and the Northeastern United States, are prized for their intense blueberry flavor over commercial highbush species. Although not as agriculturally dominant as highbush varieties, lowbush blueberry have been extensively researched. My study sought to better understand lowbush blueberry by studying the influences of island dynamics on pollination success and fruit quality. Islands tend to have lower pollinator densities than mainland environments, increased exposure to ocean winds, and greater fluctuations in temperature changes