

GRADUATE ASSISTANTSHIP

In 2010, NHF's graduate assistantship program generated the level of funding needed for its first graduate-student project. NHF's Board of Directors serves as an advisory committee and provides direction and supervision to each graduate student and faculty member involved.

Graduate Student Shea Keene continues to work towards her PH.D. She describes her work focus as follows: "Flowers have intrigued and enchanted humans throughout history and across cultures. Fragrant flowers in particular have inspired verses and songs of praise by poets and playwrights such as Shakespeare, Tennyson, and Byron. Moreover, modern consumer preference research has found that buyers prefer fragrant flowers. One of the flowers whose scent has been venerated throughout history is *Viola odorata*, also known as the Sweet Violet. This unassuming purple violet is said to have an intensely sweet fragrance, something nearly unheard of in modern viola and pansy hybrids. The sweet violet was especially popular during the late Victorian era. Perfumes and cosmetics were imbued with its scent, and it featured prominently in floriography the use of specific flowers to send coded messages between suitors.

While *Viola odorata* is said to possess a unique strong aroma, surprisingly its fragrance profile has not been fully elucidated through modern headspace analysis. As part of Shea's doctoral research, she will characterize the floral fragrance of *Viola odorata* (wild type species and cultivars) using a dynamic push-pull headspace collection system and gas chromatography-mass spectrometry. Additionally, she will analyze the headspace aroma of modern pansy and viola hybrids popularly used as bedding plants, as well as an assortment of other *Viola* species. The volatile characterization of a variety of violet species and hybrids will contribute to the body of research on floral fragrance, and it will set the stage for the breeding component of Shea's future doctoral work. This component will focus on the selection of fragrance traits in a breeding scheme with the objective to develop a fragrant *Viola* hybrid cultivar."

2020 was a year full of challenges because of the coronavirus. The pandemic slowed research at crucial times, delaying many experiments and data collections. All may delay Shea's graduation until Spring of 2022. She has passed her Ph.D. qualifying exams and officially became a Ph.D. candidate in Environmental Horticulture. Shea has completed all of her coursework and supervised teaching requirements. She is now solely focusing on research for the remainder of her graduate program.

Shea Keene is a Ph.D. student in the Environmental Horticulture Department at the University of Florida. She received her bachelor's degree in psychology from the University of South Florida. Originally planning on entering medical school, Shea followed a pre-medical track throughout her undergraduate career. During her final semester, however, she realized she was not happy in the medical field. She decided to scrap her medical school applications and instead applied for several horticultural internships, as she found a love for plants and gardening in preceding years.

During the fall of 2014, Shea lived on the island of Kaua'i and completed an internship at the National Tropical Botanical Garden. Upon her return to Florida, she gained employment at Bok Tower Gardens and worked full time as a gardener for all of 2015. While there, the Director of Horticulture introduced her to UF professor Kimberly Moore, Ph.D, who recommended graduate school and the Environmental Horticulture Department. Shea applied and was accepted as a graduate student by Thomas Colquhoun, Ph.D, and completed her master's degree in Environmental Horticulture in December of 2017. In January of 2018, Shea started her doctoral program focusing her research interests on floral volatile analysis and consumer preference studies.

