



# Tufts University GREEN FUND

## Tufts University Green Fund Initial Idea Submission

### Applicant Information:

**Name:**

Tufts Pollinator Initiative (Nicholas Dorian & Jessie Thuma)

**Role at Tufts (e.g. Undergraduate Student, Graduate Student, Faculty, Staff):**

Biology graduate students

**Email and Phone # of Lead Submitter:**

[Nicholas.dorian@tufts.edu](mailto:Nicholas.dorian@tufts.edu), (203) 561-0280

**Campus:**

Medford-Somerville

**Project Title:**

Tufts Pollinator Initiative 2.0

**One Sentence Description** (*This is how your project will be described on the Green Fund website*):

Tufts Pollinator Initiative seeks to grow its impact as leaders of urban pollinator conservation by planting new demonstration gardens on campus, training undergraduates to be environmental educators, and bolstering its research mentorship program.

## General Application Questions:

### 1. What project would you like to fund with a grant from the Green Fund?

Insect pollinator declines threaten food security and ecosystem health. The Tufts Pollinator Initiative (TPI) is seeking support from the Green Fund to continue conserving urban pollinators through habitat creation, community education, and ecological research.

In 2019, the Green Fund helped TPI establish Tufts as a leader in urban pollinator conservation, education, and research in the Boston area. TPI has planted 2500 sq. ft. of native pollinator gardens on campus, taught thousands of Tufts students and community members through guest lectures and outreach events, and mentored 12 undergraduates through independent research projects. Beyond Tufts, TPI has received national recognition as a Bee Campus USA, advised students and faculty from Harvard University and Boston University how to start pollinator conservation programs of their own, and received millions of views on our Instagram posts (@PollinateTufts). With a new membership of young graduate students, TPI's impact is guaranteed for years to come.

**Now, TPI is seeking additional funding from Green Fund to grow our impact as a leader of urban pollinator conservation. Specifically, we propose to plant new gardens, add interpretive signage to campus, train undergraduates to be environmental educators, and bolster our research mentorship program.**

- 1) To increase pollinator habitat in the city, we are collaborating with Greg Arnpriester from Tufts Facilities to **add 500 sq feet of native gardens at the 574 Boston Avenue courtyard** and hosting a native plant sale in summer 2022 to **distribute 1500 hand-grown plants to community members**. In summer 2021, we received tremendous response from our first-ever plant sale, selling 850 plants in 90 minutes, and we are confident that interest in 2022 will be even greater.
- 2) To integrate new perspectives into our work, we are collaborating with Kate Davies from the Urban and Environmental Policy & Planning department to **add interpretive signage to campus** that recognizes the value of urban green spaces for people and pollinators.
- 3) To continue education and outreach activities, we propose the **“Pollinator Ambassadors” program to train Tufts students (undergraduates and graduates) to become environmental educators**. Since fall 2020, we received tremendous interest from undergraduates seeking to be involved with TPI. To accommodate this interest in a meaningful way, TPI leaders will provide ambassadors with close, hands-on instruction about pollinators, teach them how to use this knowledge to engage with the public, and oversee these ambassadors in fall 2022 when they present at community outreach events.
- 4) To continue research activities, we propose to **establish a mentorship program for undergraduate researchers**. In collaboration with Dr. Elizabeth Crone in the Biology Department, we are applying for a grant through the Henry David Thoreau Foundation (<https://www.thoreauscholar.org/>) to support a small number of Tufts undergraduates through structured, year-long pollinator conservation research fellowships in summer 2023. This Green Fund grant would not pay the fellows directly, but rather build the infrastructure necessary to support these student fellows.

2. **Who would you work with on this project? Who would need to be involved?** (*For example: are there departments you would need to reach out to for help implementing or facilitating your project? If you are hosting an event, you might need someone to help you set up and help clean up afterwards. Do you need permission from anyone to complete your project?* **Include their role (collaborator, advisor, vendor, resource) and whether they have been confirmed their involvement in the specified role. Undergraduate students must have a faculty/staff advisor submit a letter of support for their project which indicates their willingness to mentor the proposed project.**

Name and Title	Role	Status
Greg Arnpriester (Interim Head of Grounds)	Collaborator	Confirmed.
Kate Davies (UEP Professor)	Collaborator	Confirmed.
Elizabeth Crone (Biology Professor)	Collaborator/Advisor	Confirmed.
George Ellmore (Biology Professor)	Advisor	Confirmed.

3. **What costs would be involved in your proposal? Please provide a rough budget.**

- **New interpretive signage** (\$2500, includes graphic design for two signs, printing, and installation)
- **New gardens** (\$2000, includes plants, materials, and labor to prepare the site)
- **Plant sale** (\$1500, for pots, trays, soil, and labels to grow plants)
- **Pollinator Ambassadors program** (\$3000 for training materials and stipend for TPI trainers to teach students)
- **Research supplies** (\$1000 for materials like nets and vials to support undergraduate research and teaching in Tufts gardens)
- **Bee campus USA recertification** (\$600, \$300 annually for two years)

Total = \$10,600

#### **4. What steps would you take to accomplish this project?**

TPI is registered as a Graduate Student Organization, with 11 committed members, including six graduate students. Our organization is run by a President, Treasurer, and Secretary, in addition to 4 other graduate students and 3 undergraduates who are on committees for outreach events, gardening, and social media upkeep. We meet weekly during the semesters. We have an additional two faculty/staff members that provide guidance where needed and collaborate on projects (Dr. Elizabeth Crone, Dr. George Ellmore).

TPI members are experienced gardeners, and we have demonstrated the ability to create and maintain campus gardens. We work closely with Greg Arnpriester and his campus maintenance team to ensure our gardens receive upkeep, and we are working with social scientist Dr. Kate Davies (UEP) and her students to design signage for our green spaces to incorporate a human element to our work.

To launch Pollinator Ambassadors, TPI will create new concise materials to train undergraduates in spring 2022. The TPI team consists of several members with extensive teaching experience, one of whom is teaching an ex-college class to undergraduates in fall 2021, so we are fully prepared to take on this task. Once trained, ambassadors will become part of the outreach wing of TPI and work directly under our outreach coordinators.

With Green Funding, TPI will also be able to continue its community-wide education. We have demonstrated the capacity to host two large-scale events each year (e.g. plant sales, trivia, movie screening) that reach hundreds of people each, participate in local events put on by environmental groups and farms, and run smaller events of our own each month like seed sales and pollinator safaris. We also post free handouts on our website ([sites.tufts.edu/pollinators](https://sites.tufts.edu/pollinators)) which are popular among people that cannot attend our events in person.

#### **5. How would your project help or benefit the Tufts community?**

Our project will ensure that TPI's impact in the community continues to grow. We plan to add 500 sq. ft of native gardens to campus, which will serve as a haven for humans and insects in the Tufts community. In 2021, TPI taught hundreds of learners in our pollinator gardens, and recorded the presence of over 100 species of insect pollinators. When TPI is not actively teaching, interpretive signage offers a way for community members to recognize that gardens can play both an aesthetic and ecological role in cities.

Our project will also increase environmental literacy among Tufts undergraduates. Through our Pollinator Ambassadors program, TPI will train undergraduates how to interact with the general public in a meaningful way about pollinators. This program will have an added benefit for the community by facilitating TPI's involvement in more community and educational events than we can currently commit. We are unaware of another program at Tufts that focuses on training undergraduates to be environmental educators.

Our project will also maintain the existing activities of TPI which include, but are not limited to, maintaining 2500 sq. ft of native pollinator habitat on campus, annually teaching courses to Tufts undergraduates in the Biology and Ex-College departments, training undergraduate research mentees to be environmental scientists, and hosting educational events for community members. Keeping these activities running is vital to Tufts' annual

recertification as a Bee Campus USA and starting an undergraduate research fellowship program (following receipt of grant from Thoreau Foundation).

### **What can I expect next?**

The Green Fund committee will meet in early October and decide which projects will advance to the next round. These projects will be asked clarifying questions about details specified in this application. The committee will meet again and review the responses to its questions and vote to advance proposals based on those answers. Projects that advance past the clarifying questions stage will then be asked to fill out a more complete application (which can be found at [go.tufts.edu/GreenFund](http://go.tufts.edu/GreenFund)) including a budget and a Gantt chart with accompanying letters of support from necessary collaborating entities at Tufts.

*When finished with this initial idea submission, please save as a PDF and email to [GreenFund@tufts.edu](mailto:GreenFund@tufts.edu). Thank you!*