# *Thank you for your commitment to green initiatives at the University of Illinois. One of the ongoing requirements listed in the terms of the funding agreement for your project is the submission of semesterly reports with key information about your project. In addition to this form, please provide additional financial documentation and/or progress photos if available.*

# *Please be as accurate as possible in describing the project (including possible setbacks or challenges in meeting the initial goals of the project). Not fully meeting your project's goals will not disqualify you from making future funding requests as long as your reports are as complete and accurate as possible. If you have any questions, please contact the Student Sustainability Committee, at* *sustainability-committee@illinois.edu**.*

**Project Name:** *A student-driven recensus of the TreleaseWoods Forest Dynamics plot*

**Date of Report Submission:** 4/8/2024

**Project Purpose:**

We are funded to complete the second full inventory mapping and measuring every tree >1 cm diameter in the 24 ha university property of Trelease Woods, 5 miles E of Urbana. The first census of Trelease Woods (with SSC support) involved >70 undergraduates and mapped, measured and identified 34,000 trees. The purposes of this second inventory are to:

*• Training an additional 50+ undergraduate students in forest ecology and measurement protocols.*

*• Provide the first measurement of Trelease forest growth and mortality*

*• Provide new undergraduate research opportunities tracking changing carbon storage patterns in forests*

*• Educate students on the critical importance of forests in mitigating and reducing carbon*

*emissions*

• *Complete a new soil carbon inventory of Trelease Woods*

**Detailed Accounting of Expenditures to Date:**

For this project we received $72,721.00

These funds are allocated to purchase supplies for the recensus ($1655)

Support for a graduate student Research Assistant (RA) recensus coordinator ($32,846.00)

Support for undergraduate summer workers ($6,370.00)

As of our most recent accounting period (May 2024) we have supported the RA for one semester and one summer period ($14,400 spent) and we have spent $290 on supplies. Over the summer we have purchased more supplies and supported 3 undergraduate student workers for six weeks.

**Project Progress to Date:**

Field activities at Trelease because of weather and deciduousness are limited to the Fall semester (up until Thanksgiving) and summer (when we employ paid student workers). In the Fall we were able to recruit 26 undergraduate students\* that were registered for either IB 300 or NRES 200 academic credit. We organized the students to work in teams of 3 students each afternoon (including weekends). Students were extensively trained at the beginning of the Fall semester and work was supervised by the RA who managed datasets and checked data quality daily.

Over the summer we recruited three current undergraduates (Tyler Sheridan, Nonie Conlon and Kaitlyn Aviles from NRES and SESE) to continue the census, each working 24 hours per week for 6 weeks. This allowed us to make faster progress. We have currently completed 35% of the census.

For the Fall semester we have recruited another full class of students (to date 32 students have signed up either for IB or NRES credit). We anticipate that we will complete approximately 50% of the census by the completion of the Fall semester. This progress is substantially slower than projected; it is a consequence of much greater recruitment of new individuals into the plot that expected. In particular, we have found many new individuals of pawpaw (*Asimina* *triloba*) that are recruiting into gaps formed by the death of ash trees caused by the emerald ash borer. This is a major change in the composition of the forest during the last 5 years.

\* Fall 2023 students: Ellen Schonken, Sophie Hartzheim, Sarah Meyer, Micah Ho, Jack Wenzel, Sasha Adams, Vic Henry, Jack O'Sullivan, Jared Jackson, Josh Ludolph, Jacqueline Reed, Geoff Rotherman, Jasmin Torres, Breanna Owens, Lilliana Romero, Gwen Madson, Iris Cazares, Olivia Marsden, Eduardo Terrazas, Deborah Hollenberg, Sasha Hirschberg, Ryan McAllister, Liz Witek, Joelle Busby, Ziyun (Kelly) Zhai, Natalie Monroe.

**Student Involvement and Outreach to Date:**

We have to date involved 29 students in this project directly working on the census. The dataset that has been generated by the project has also been used by 24 students registered in IB372 Ecology and Evolution and ~200 students registered in IB203 Ecology. In addition, we have recruited two undergraduate students, Quinn Ham and Nick Beronio, to collect high resolution GPS data on fallen trees in Trelease and to estimate fallen tree biomass in small census plot. Data collected by these students will be combined with a recent lidar overflight of Trelease to generate a high-resolution model of the carbon stock of woody debris in Trelease.

We have also recruited a graduate student, Jennifer Alvarez, who is compiling and analyzing data from the first SSC funded Trelease Census to complete the full carbon budget of Trelease.

**Marketing and Promotion Efforts to Date:**

We have a Trelease Woods website that highlights the contributions of students to the census:

<https://publish.illinois.edu/treleasewoods/>

We have made videos of the census that will be incorporated into SSC’s social media

For example:

<https://mediaspace.illinois.edu/media/1_2rw1gaiv>

Our first phase of the census was highlighted in the LAS newsletter with an accompanying video:

<https://sib.illinois.edu/plantbio/news/130>

In addition, the first census (and current recensus) of Trelease has allowed us to include the site in the global forest network FORESTGEO which oversees coordination of forest monitoring activities around the world. Trelease Woods is the 74th site to be included in this network. Information on the site, interviews and forest data are available to the public through the ForestGeo website:

https://forestgeo.si.edu/sites/north-america/trelease-woods

**Additional Comments:**

Thanks for your continuing support! We are really looking forward to bringing students back into the census and having the opportunity to use these data to organize class projects and research opportunities for undergraduates on the theme of carbon cycling.