Learning For And With Nature: Civic Engagement For The Sustainability Of Urban Trees And Parks

Irene J. Dabrowski, Ph.D.

St. John's University, Staten Island and Queens, NY

INTRODUCTION

This research entails a plan of action to fulfill a SENCER post-institute implementation grant awarded in 2014 to the following SENCER team members of St. John's University : Drs. Roberta L. Hayes (Coordinator), Marilyn Dono-Koulouris, Irene J. Dabrowski, and M. Amanda Moulder. It is a transdisciplinary effort connecting larger ecological concerns to local green initiatives for tree and park conservation in New York City.

OBJECTIVES

This project enters into a growing body of research addressing how human/natural restoration contributes to livable cities. Taken into consideration are

1. **Larger Ecological Issues**
- Urban sustainability: an issue of biodiversity
- Simultaneous global deforestation and urbanization leading to a declining urban forest
- Ecological necessity of trees in urban area

2. **The Quest For Green Knowledge**
- Urban tree protocols
- Long-term archival urban forest data
- Mapping toxic waste sites
- Developing nature consciousness
- Human benefits of trees and parks

3. **Think Globally, Act Locally**
- Partnership: SENCER team and New York City Department of Parks and Recreation (NYCDPR)
- TreesCount! 2015 is a NYC Parks Program to map and catalogue every tree in NYC

Problem-Solving Strategy For Saving NYC Urban Forest
- One tree at a time, one block at a time, in every borough through the efforts of "voluntreers"

4. **SENCER Team Joining the Ranks of "Voluntreers"** attending "Train the Trainer Workshop"

MATERIALS AND METHODS

1. **Stewardship:** Expanding the circle of "voluntreers"
- The SENCER team plans to host a TreesCount! 2015 events for the SJU community and Staten Island residents in August and September 2015
- These "Citizen Science" events will include training and a live tree count within a 100 block radius of the SJU Staten Island campus

2. **TreesCount 2015! Mapping Technology**: TreeKIT Mapping Method
- Mobile app and GPS generates a representative map of the urban forest placing the tree in exact location alongside the curb
- See handout for TreeKIT mapping survey

3. **Campus Tree Archival Data**
- For 3 semesters since fall 2012, students in the Scientific Inquiry class used selected mobile apps on cell phones and other electronic devices to classify and evaluate trees on the Staten Island campus in a Biodiversity Project
- Biodiversity Project Student Submissions
  - Engagement with nature in outdoor classroom
  - Place-based, experiential, and self-exploratory learning with the living laboratory of campus grounds (see PROCEDURE handout for details)
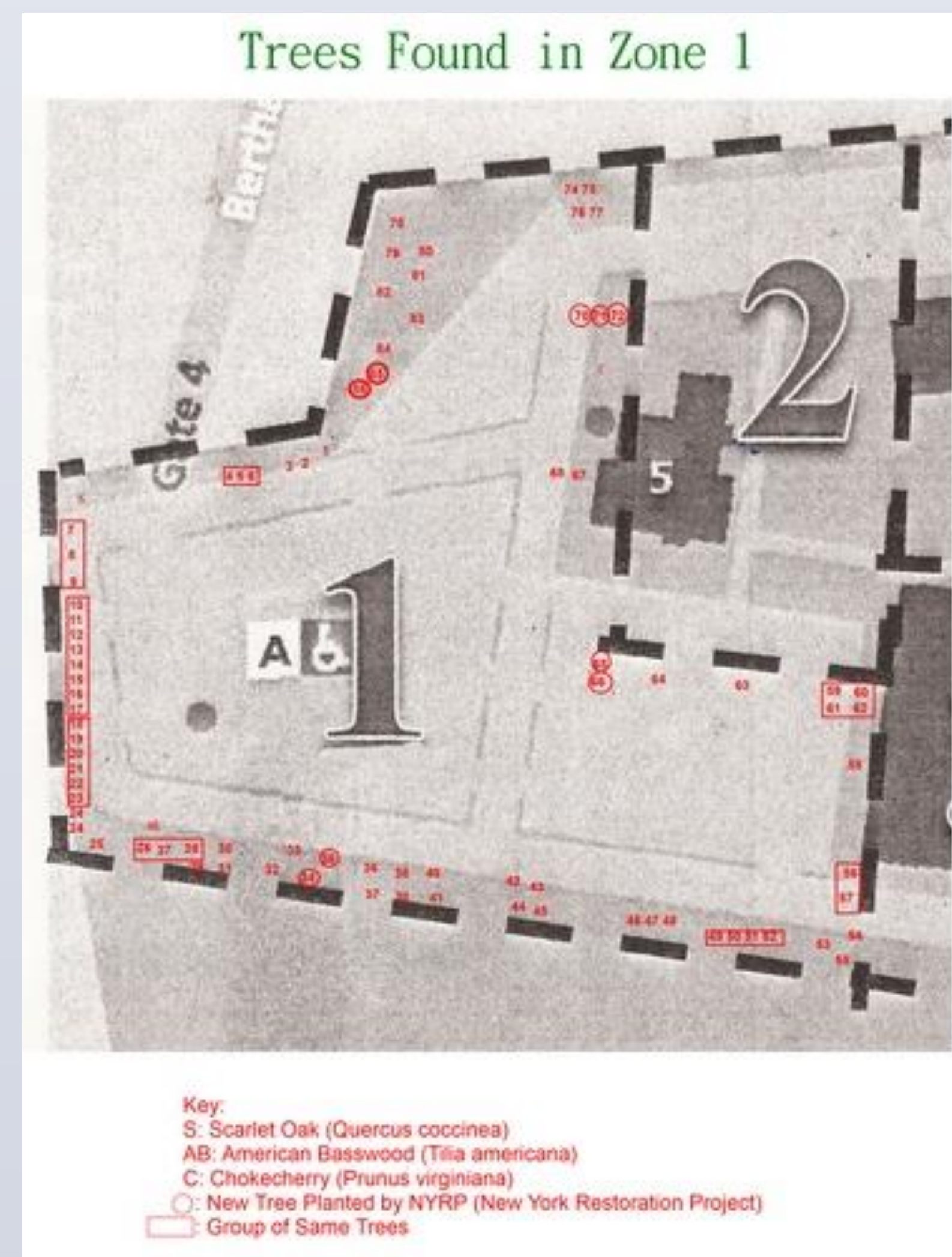
RESULTS

The Trees Count! 2015 is in progress. To this date:
- Over 18, 000 blocks surveyed
- The census is 14% complete
- Over 86, 000 trees counted
- Nearly 5, 000 "voluntreers"

RESULTS (con.)

There were 2 prior NYC street tree censuses.

1. **1995-1996 census generated:**
- A baseline inventory of the city's street trees
- Improved tree maintenance programs

2. **2005-2006 census generated:**
- A "Million Trees NYC" initiative to plant and care for new trees across the 5 boroughs within the next 10 years
- New Programs in management, education, research, and landscape planning

DISCUSSION

1. **The Bigger Picture**
- TreesCount! 2015 takes place within a SENCER Learning Community
- Four courses :Scientific Inquiry, Discover New York, Introduction to Sociology, First Year Writing

2. **Evolution In Learning And Research**
- A 2 course learning community transformed into a 4 course SENCER learning community
- The Biodiversity Project continues to build a green campus archival data base

3. **The Future**
- A campus "Nature Walk" is planned with placement of tree plaques
- Related mapping in fall 2015: Staten Island toxic waste sites and environmentally-induced illnesses

REFERENCES

ChivIan, E., & Bernstein, A. (Eds.). (2008). *Sustaining life: How human health depends on biodiversity.* New York, NY: Oxford University Press.

Portney, K. (2013). *Taking sustainable cities seriously.* Cambridge, MA: MIT Press.

Wolf, K. (2013, December). Stewardship mapping: Understanding the groups that work for urban greening. *Arborist News* 22(6), 54-58.