

# Assessing the Social Uses and Meanings of Green and Blue Spaces



Socio-Cultural Benefits of NNBF - Forum III  
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# NYC URBAN FIELD STATION



Seeks to improve the quality of life in urban areas by conducting, communicating, and supporting research about social-ecological systems and natural resource management.



# Research Question



What are the uses, functions, and values of green and blue spaces as conveyed through people's behaviors, descriptions, and narratives?

# Social assessment data: For planning, design and programming



**Natural Areas Conservancy, NYC:**  
Learning more about the specific use of natural areas



**Prospect Park, NYC:**  
Exploring to see if gentrification has caused a change in park use / meaning



**Coney Island Creek:**  
Engagement around proposed waterfront development

## DUNDEE ISLAND PARK PROPOSED PARK DESIGN PASSAIC, NJ



**Passaic River, New Jersey:**  
Engagement around new waterfront park design

# Social assessment data: Integration with biophysical datasets

**Natural / Nature-based Features, NYC:**  
Integrating social data with ecological monitoring data along the waterfront

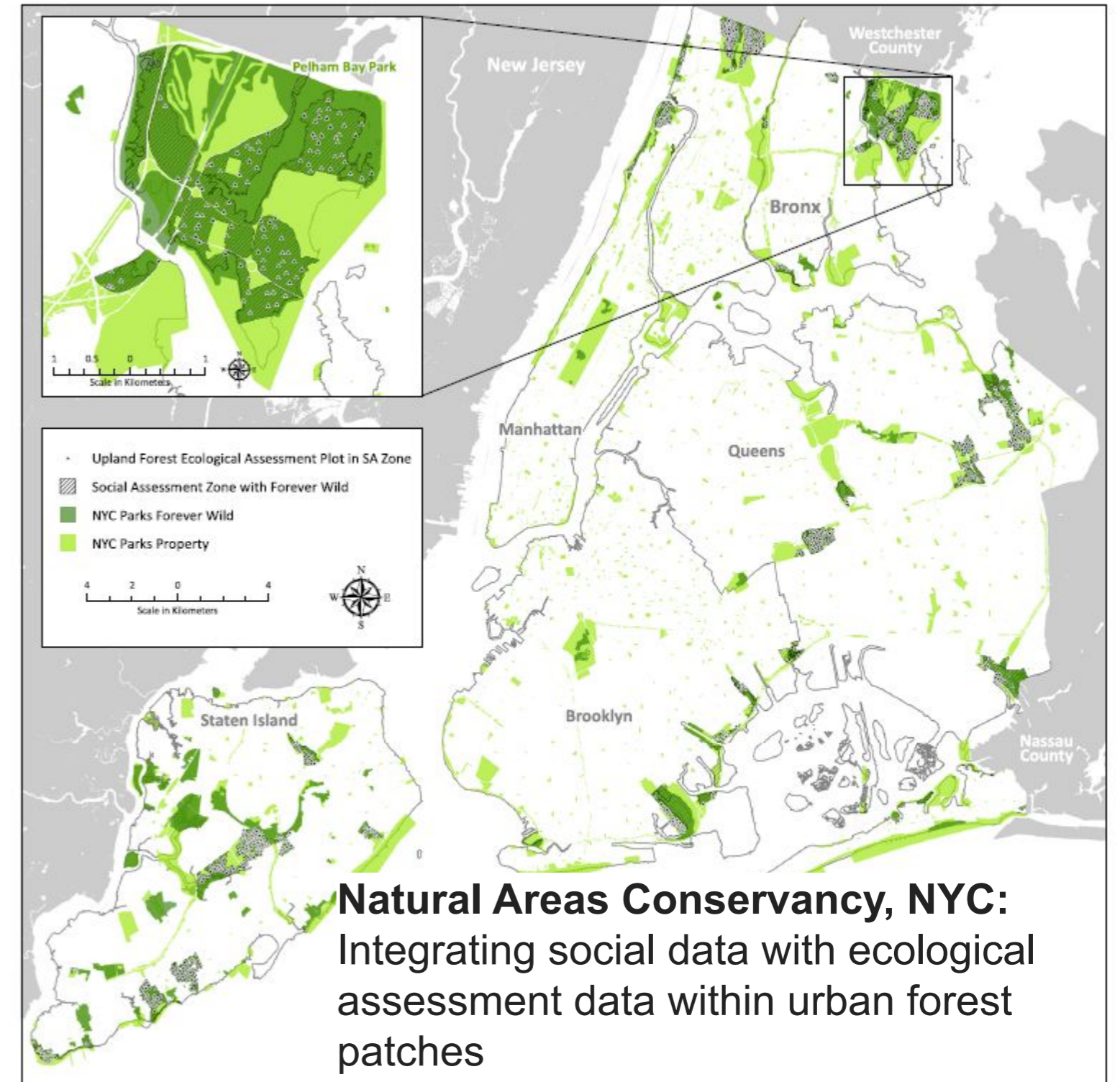


Fig. 1 Overlapping social assessment zones and ecological assessment plots in NYC parklands and natural areas

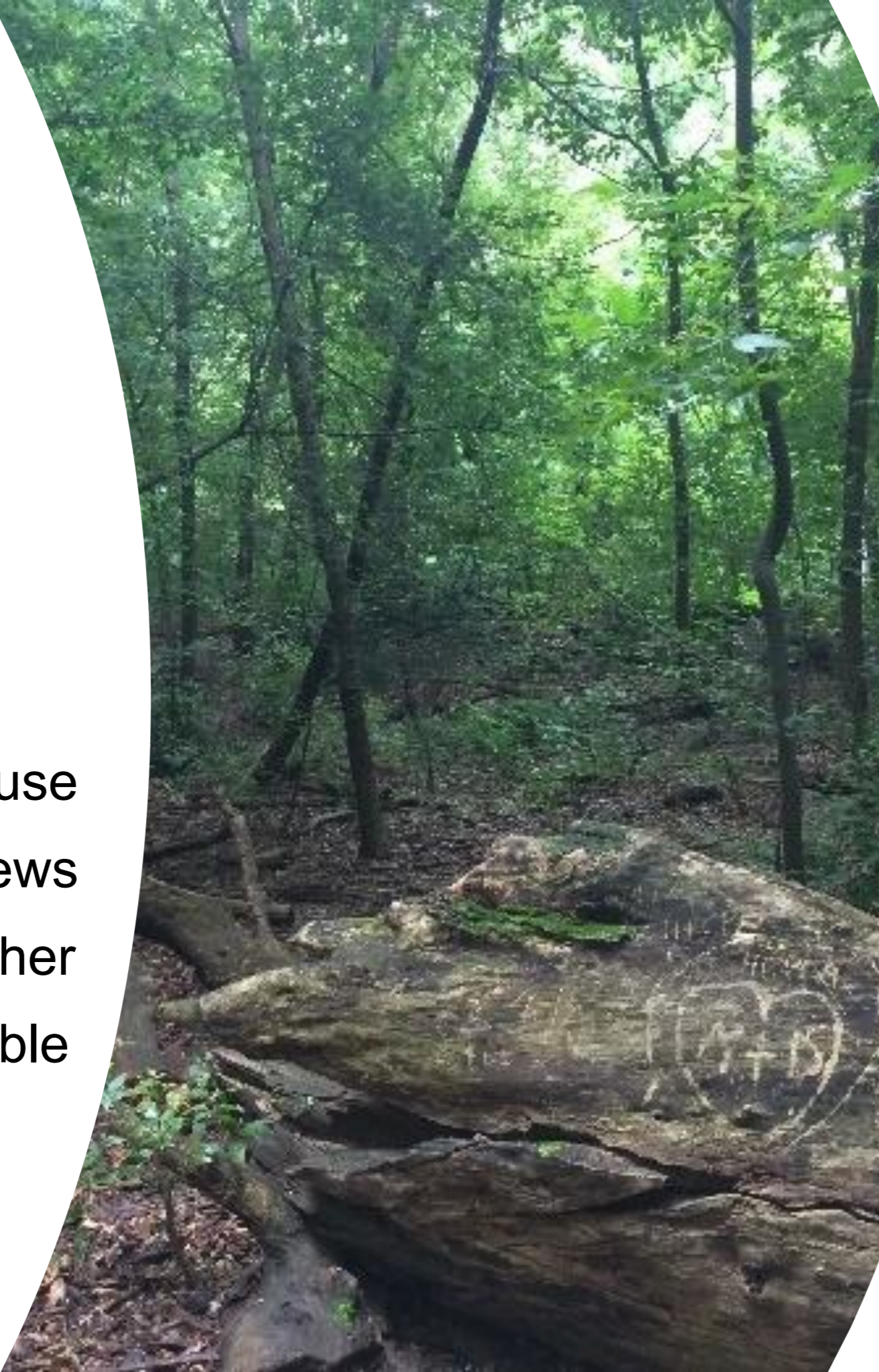
# Study Areas



- **NYC Parks surveyed**
  - 2013: 16
  - 2014: 22
  - 2016: 1 (Prospect Park)
- **People observed**
  - 37,000+
- **People interviewed**
  - 1600+
- **Acres surveyed**
  - 9,503
- **Waterfronts surveyed**
  - Passaic River
  - Coney Island Creek
  - Flushing Waterways (forthcoming 2024)
- **NYS DEC Forest preserves surveyed**
  - Catskills sites (2 in 2023 pilot)
  - Catskills & Adirondacks (forthcoming 2024)

# Methods

- Spatially explicit:
  - Interior zones
  - Edge
- Observations of:
  - Human activities
  - Signs of human use
- Randomized interviews
- Debrief with each other
- Twitter data, if possible



**DIRECT HUMAN OBSERVATION – 2014**

INTERIOR     EDGE     WEEKDAY     EVENING     WEEKEND

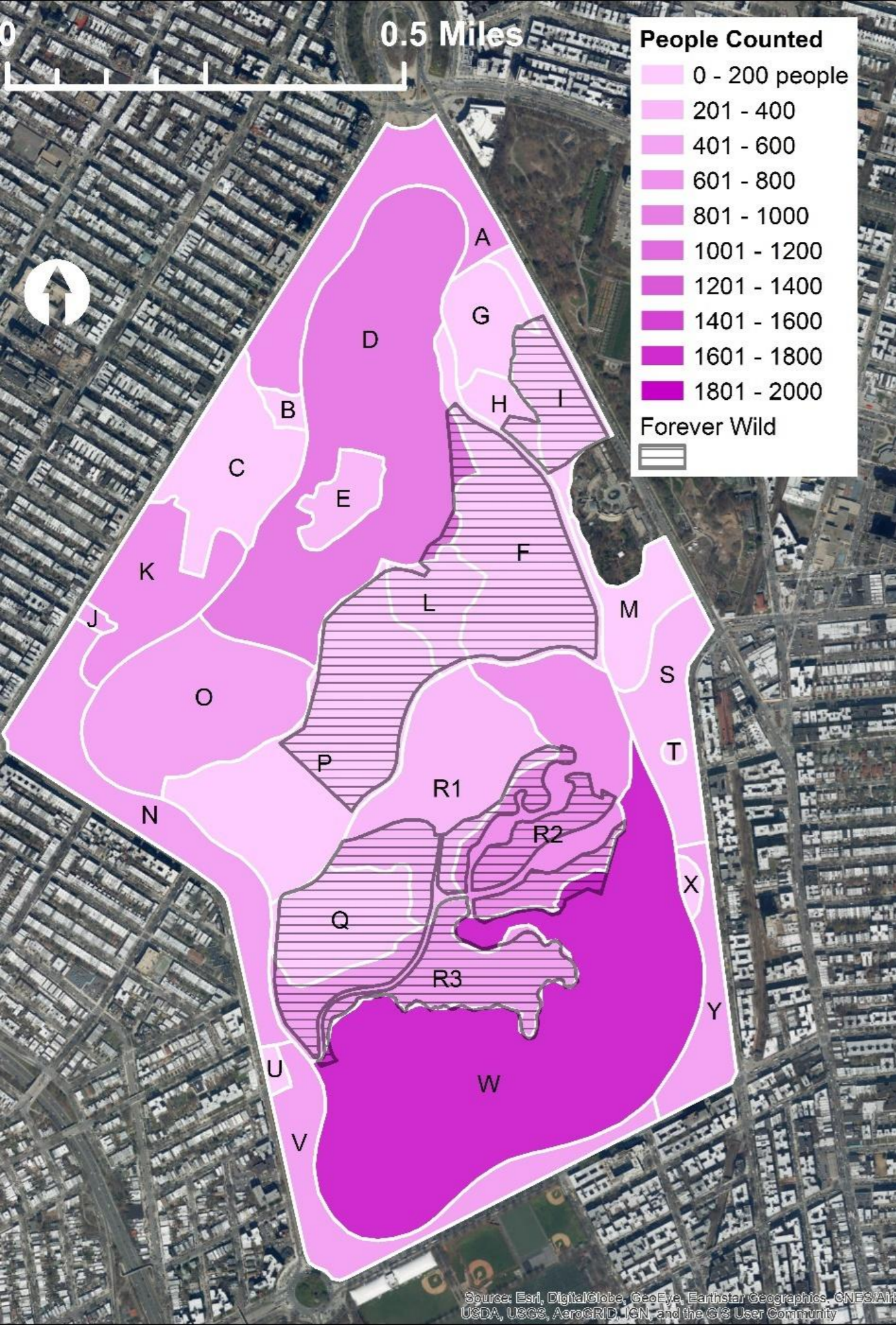
| Team Name:  | Park Name:   | Zone:            |                 |
|---|--------------|------------------|-----------------|
| Date (MM/DD/YYYY):  | Camera #     | First Photo #:   | Last Photo #:   |
| DIRECT HUMAN OBSERVATION  | # Kids (<18) | # Adults (18-65) | # Seniors (>65) |
| Cycling   |              |                  |                 |
| Walking / Running   |              |                  |                 |
| Strolling / Dog Walking   |              |                  |                 |
| Recreation<br>(tennis, cricket, baseball, volleyball, frisbee, playground use, tag, etc.) |              |                  |                 |
| Special Group / Tour<br>(primary purpose, note the intent of each individual)             |              |                  |                 |
| Recreation<br>(canoeing or landing boat, fishing, birdwatching, etc.)                     |              |                  |                 |
| Foraging / Foraging / Gathering   |              |                  |                 |
| Maintenance<br>(tree care, weeding, trash collecting, volunteers in parks)                |              |                  |                 |
| Standing / Standing / Waiting / Socializing   |              |                  |                 |
| Event in Place<br>(picnicking, barbecuing, party, children in free play)                  |              |                  |                 |
| Maintenance, vendor, utility, repair, etc.  |              |                  |                 |
| Activity<br>(person sleeping, musician performing or fixing car)                          |              |                  |                 |
| Interview with Resident: <u>positive</u><br>(number to record what they are doing)        |              |                  |                 |
| Interview with Resident: <u>negative</u><br>(number to record what they are doing)        |              |                  |                 |
| SOCIAL OBSERVATION  |              |                  |                 |
| Number of pairs   |              |                  |                 |
| Number of small groups (3-10)   |              |                  |                 |
| Number of large groups (10+)  |              |                  |                 |
| Number of dogs  |              |                  |                 |
| Field Notes:  |              |                  |                 |



# Snapshot of Findings

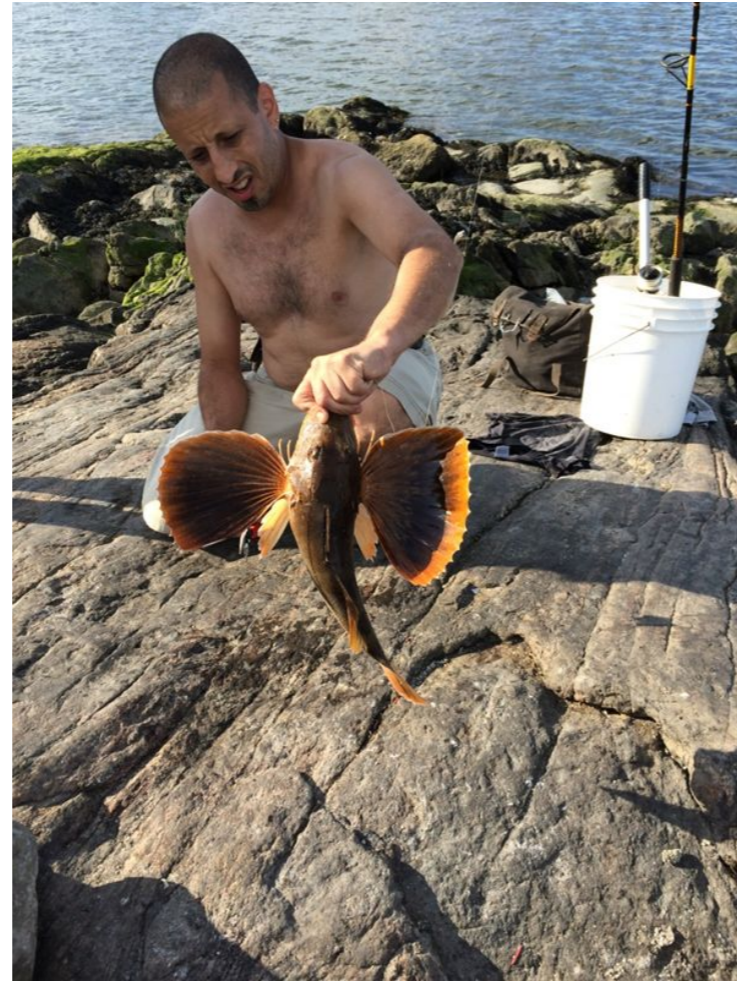
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Where are the people going within the park?

# What are they doing there?



Pelham Bay Park

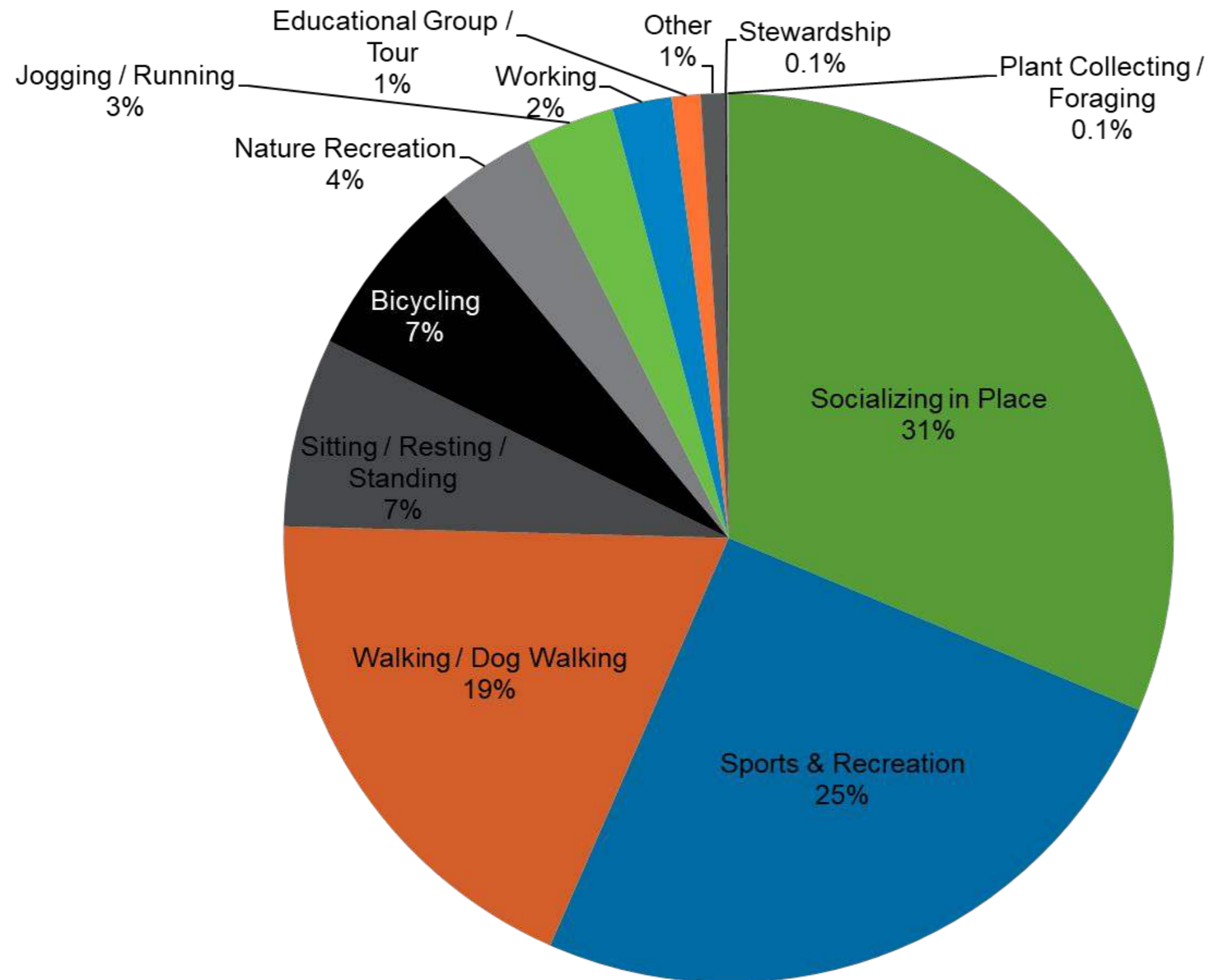


Van Cortlandt Park

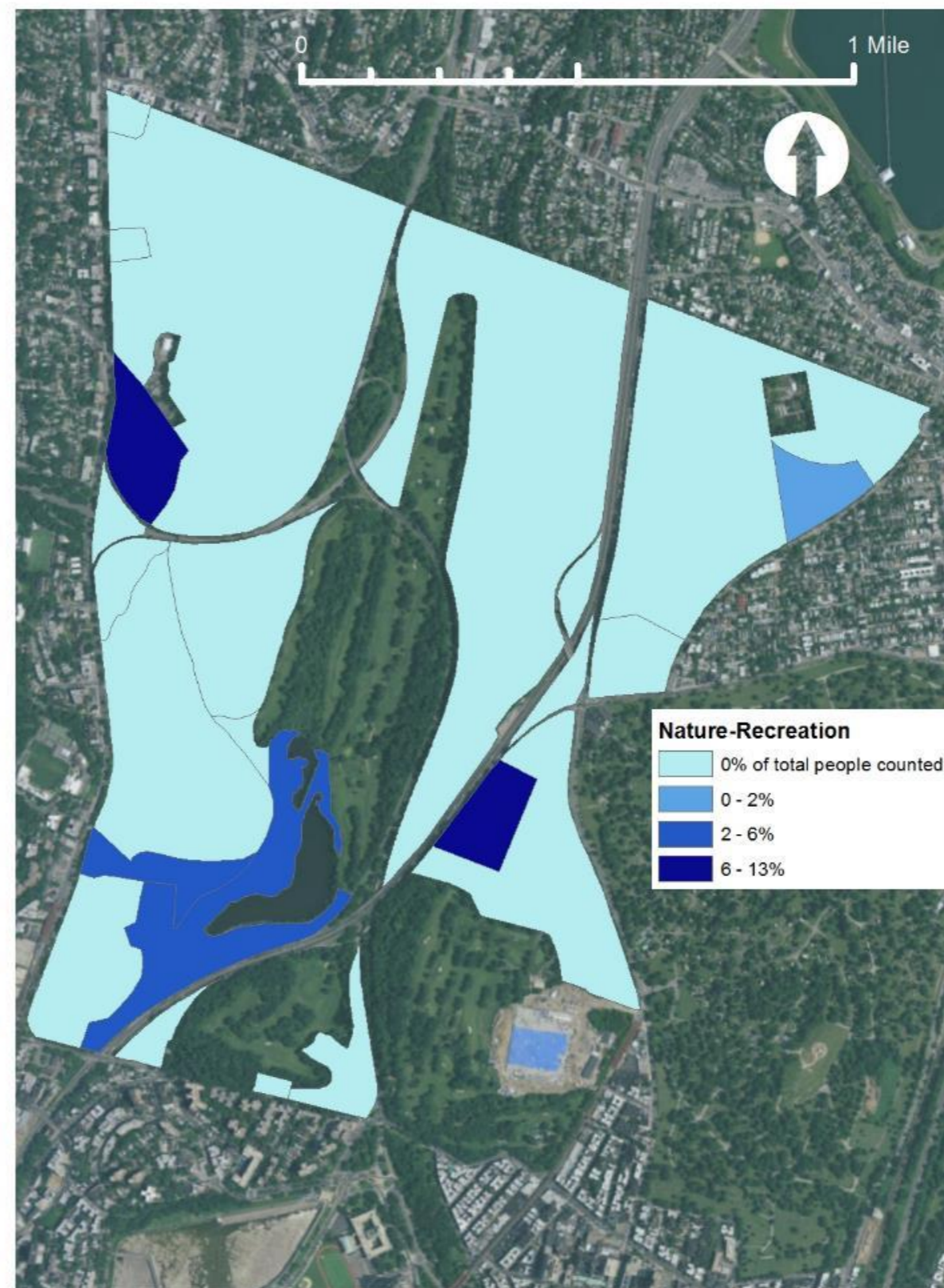
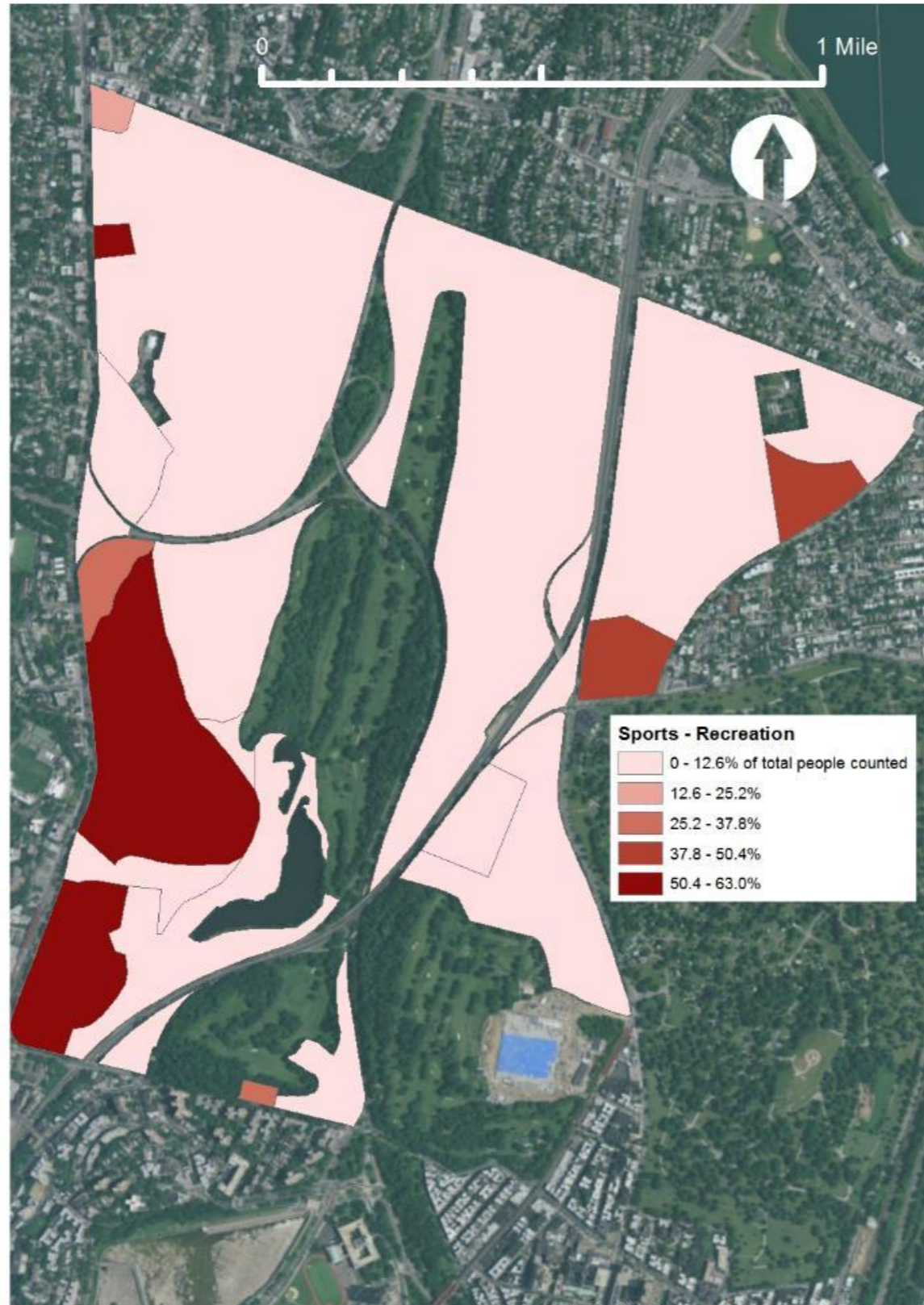


Flushing Meadows Park

# Human activities observed (n= 37,392)



# Activities vary by zone



# Signs of human use



# Symbols

Clockwise from top left

- Nature Assemblage:  
Art piece
- Shrine/Offering: Orisha  
figurine
- Nature Assemblage:  
Fire pit
- Community Memorial:  
Tree planting



# Interviews

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# Nature's Benefits: Reasons for Visiting Parks and Natural Areas

- Local
- Amenities
- Nature-Outdoors
- Refuge
- Enjoyment
- Activity
- Place Attachment
- Sociability
- Social Ties

Cultural Service (MEA 2005)

Cultural diversity

Spiritual and religious values\*

Knowledge systems

Educational values

Inspiration

Aesthetic values\*

Social relations

Sense of place

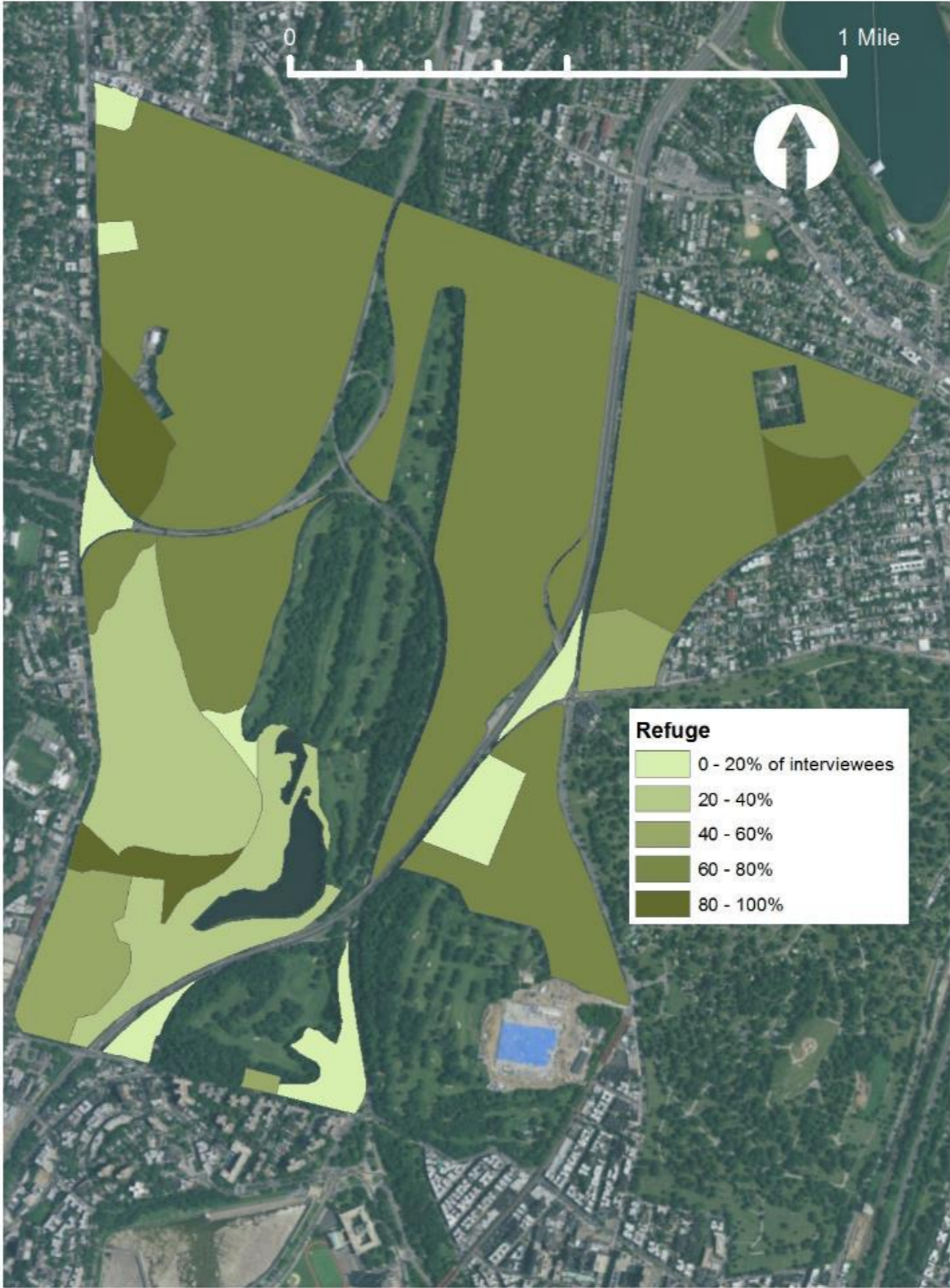
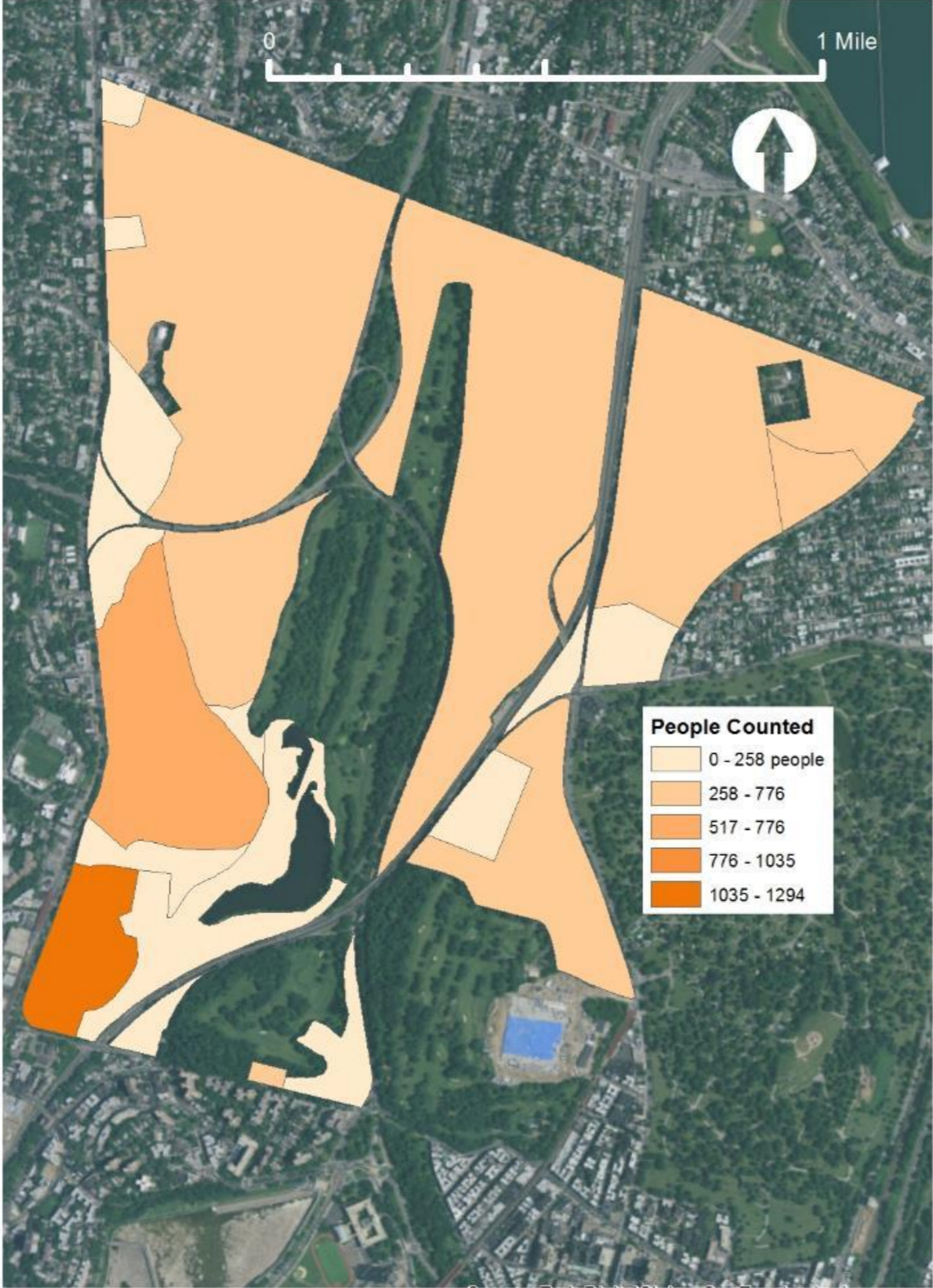
Cultural heritage values

Recreation and ecotourism\*

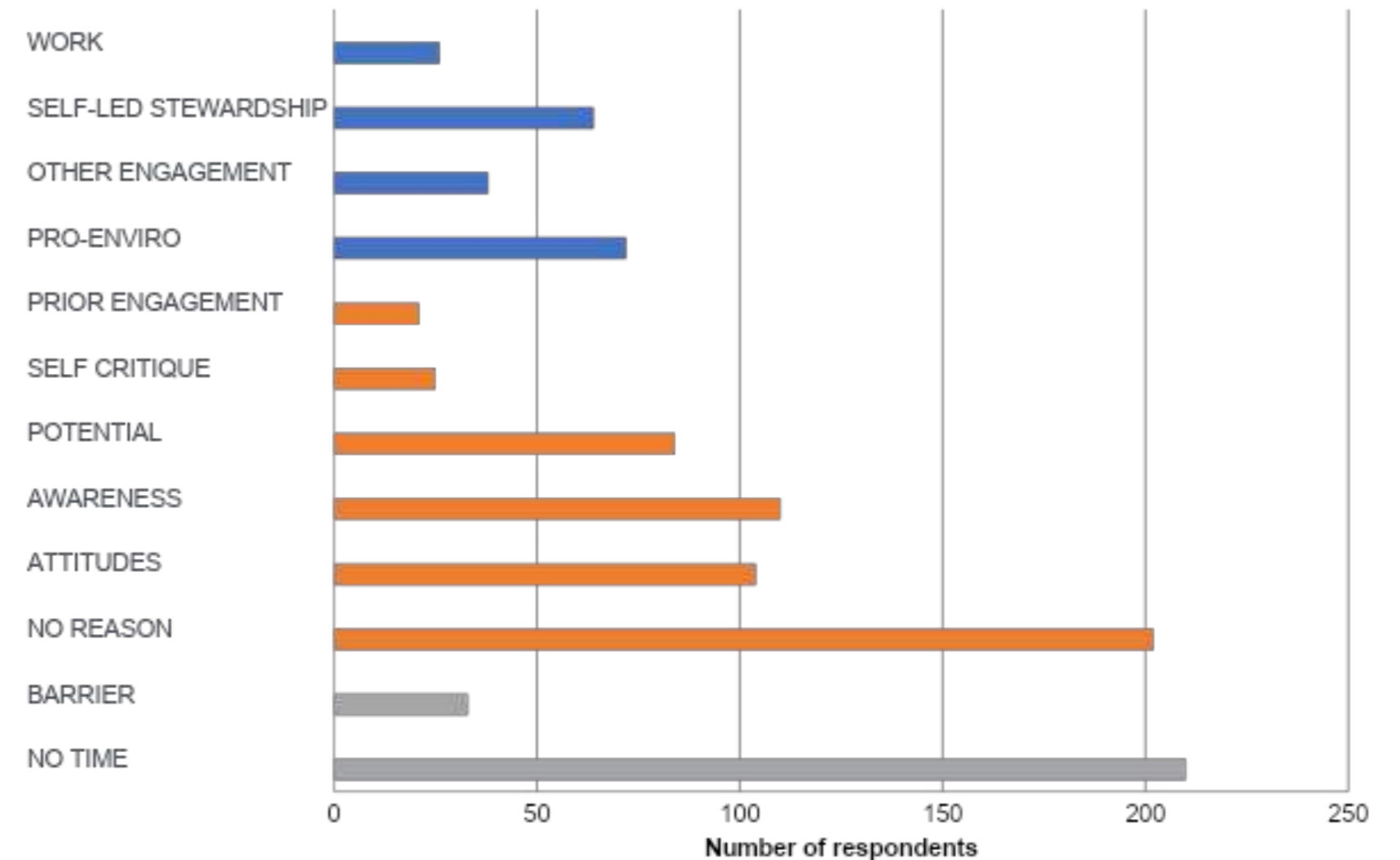
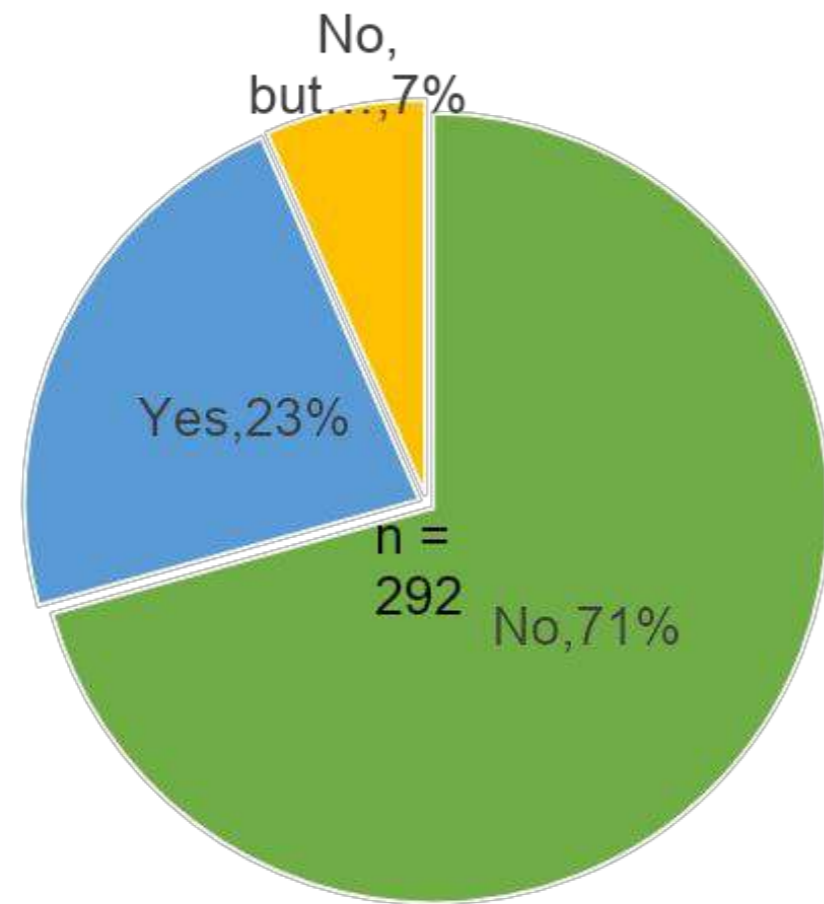
(Campbell et al. 2016)



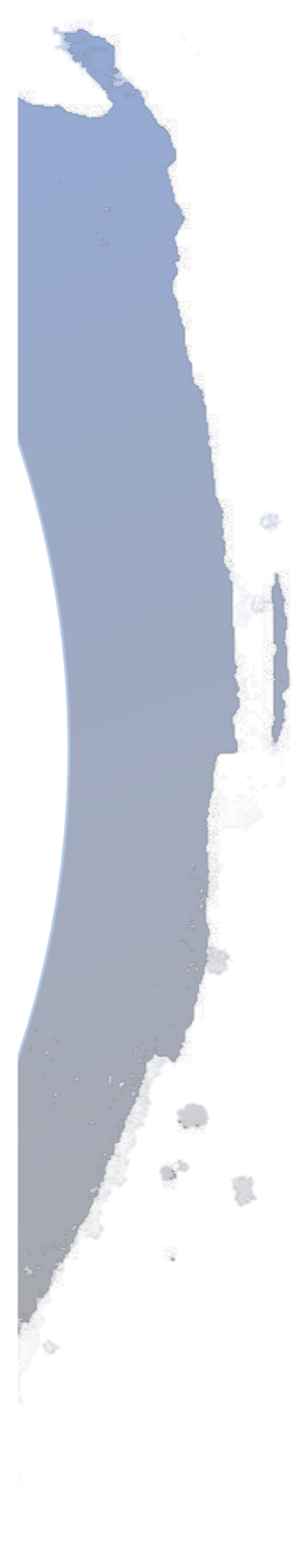
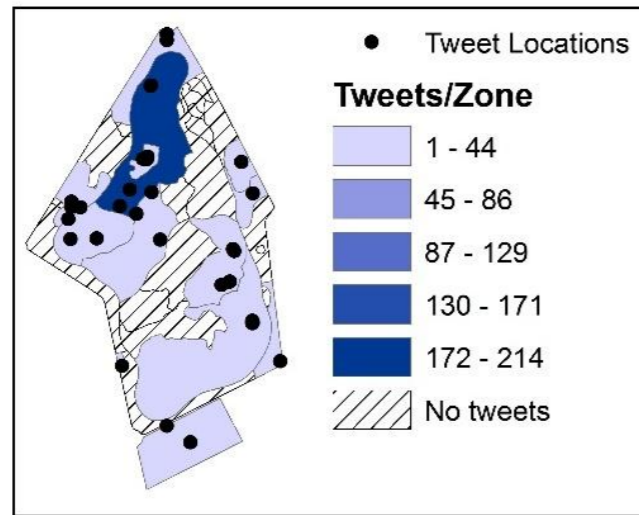
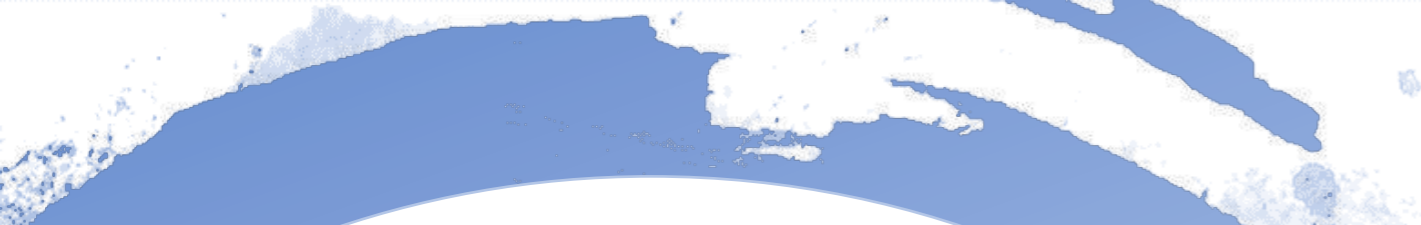
# Social meaning has a spatial pattern



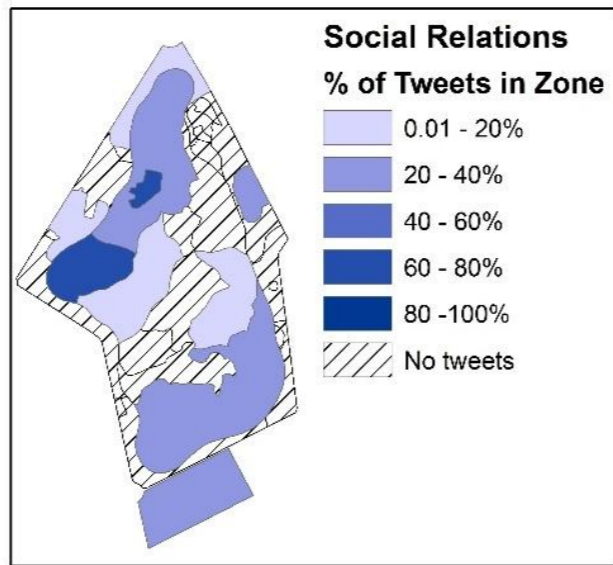
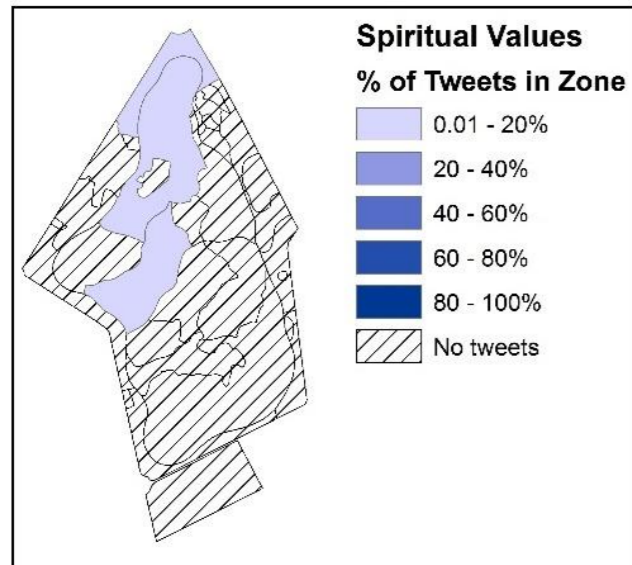
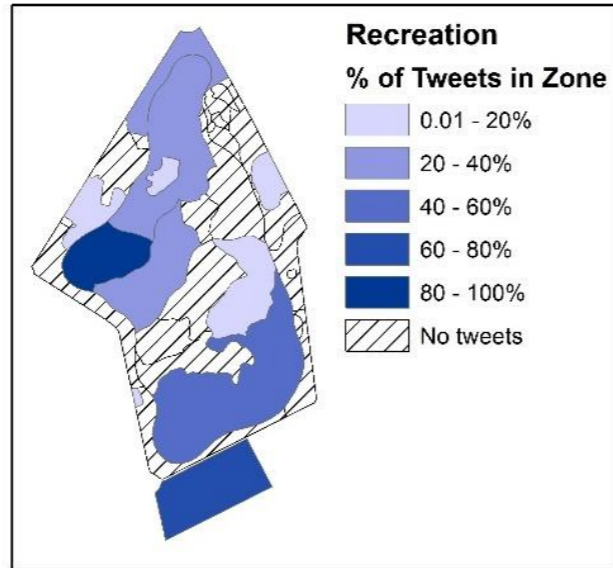
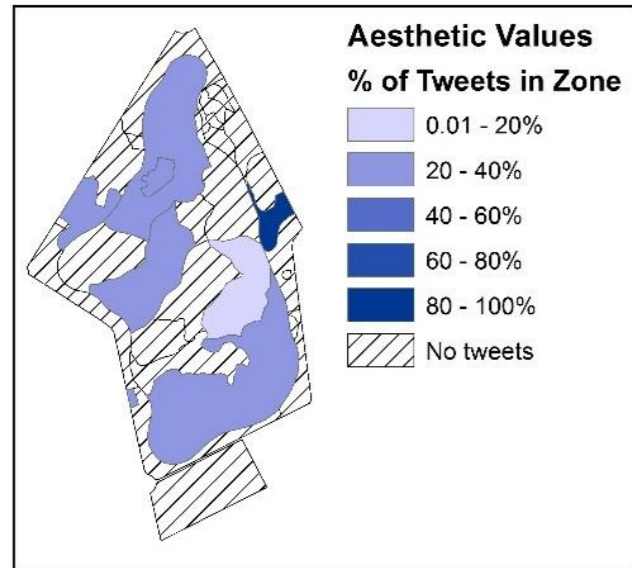
# Are you involved in any stewardship groups that take care of the environment?



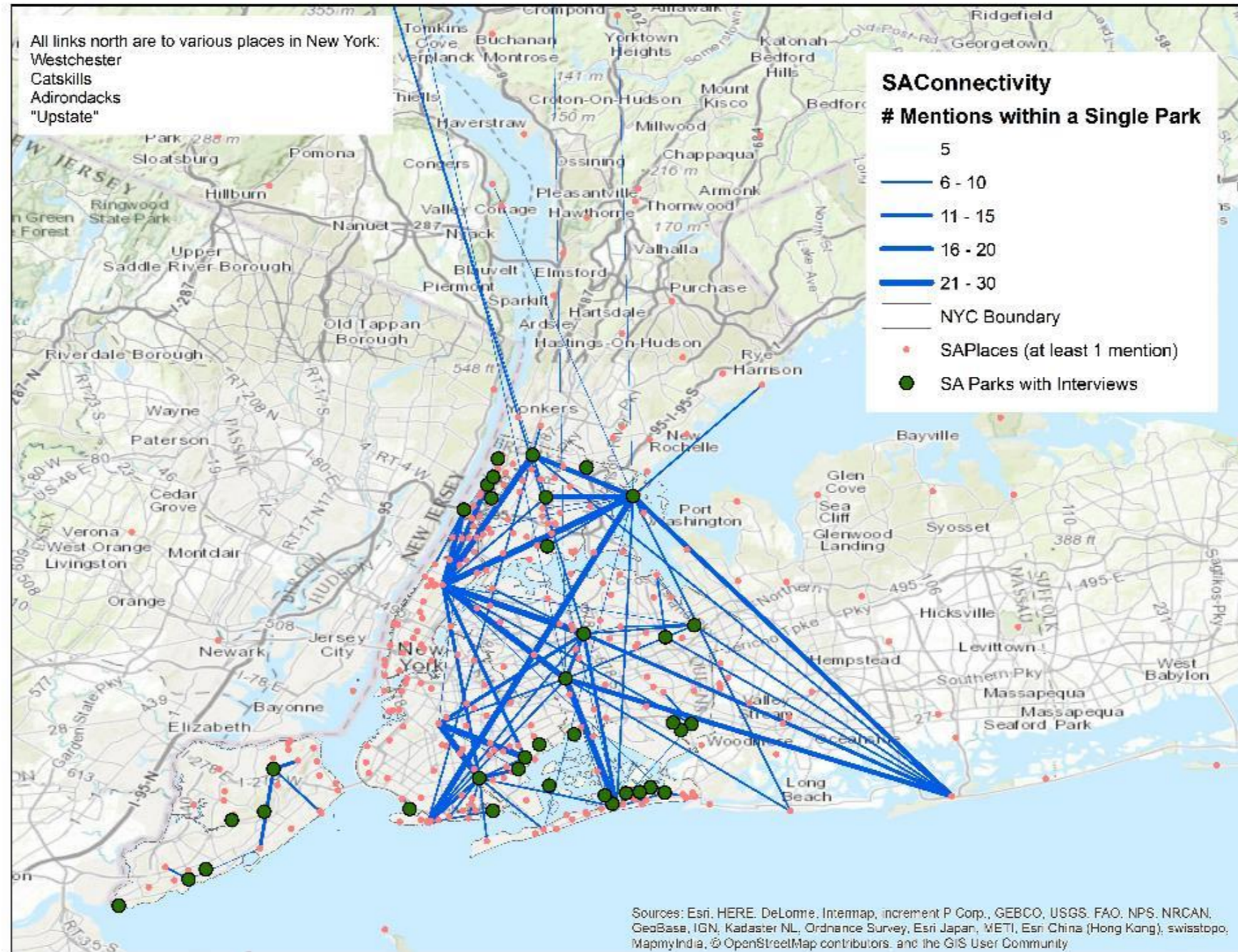
Participating in a local stewardship group indicates a high level of environmental and civic engagement. In Prospect Park, the percentage of park users engaged in stewardship is higher than the city-wide social assessment sample.

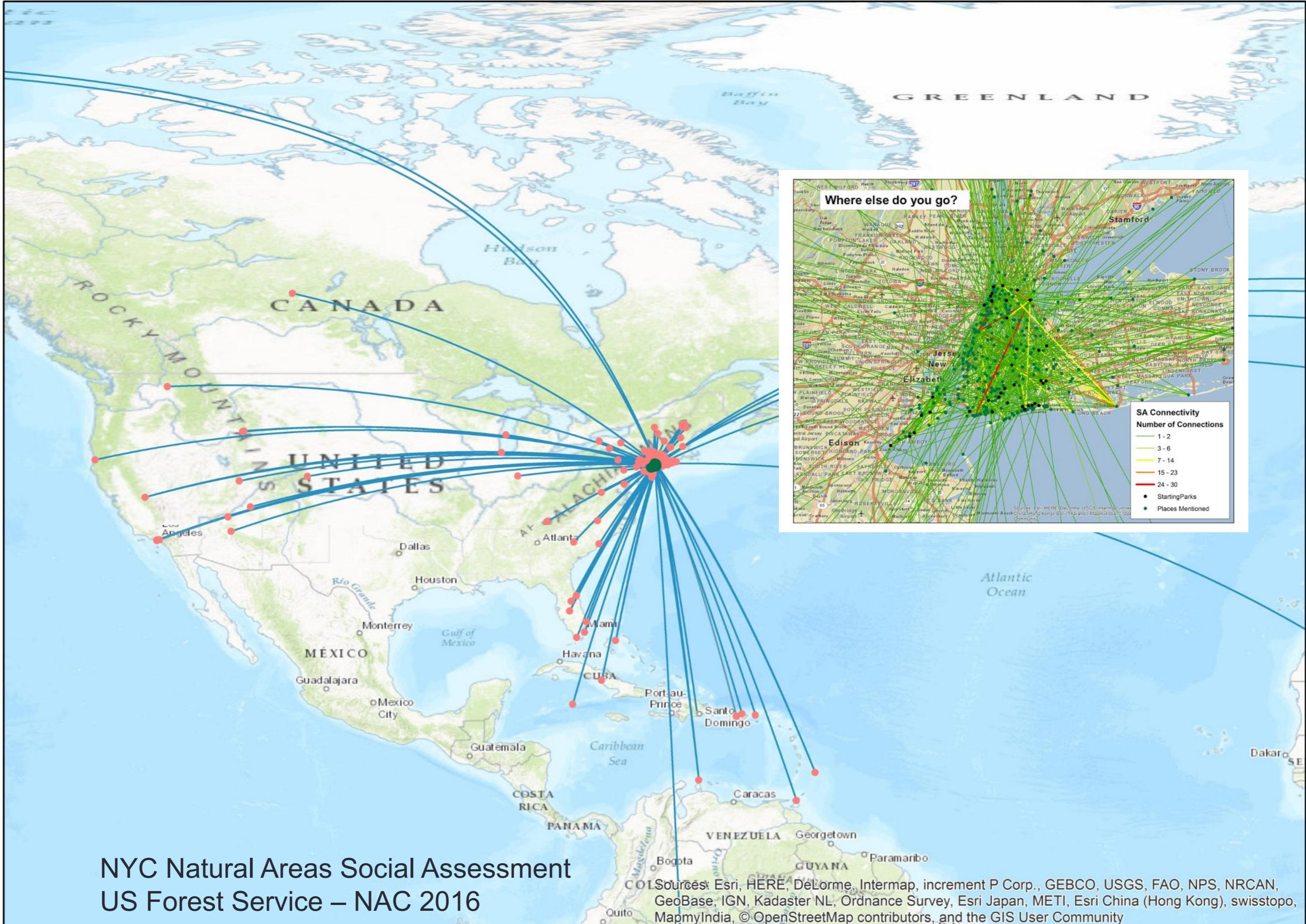


# Twitter Data



# Where Else Do You Go? – Interconnectivity of NYC Parks and Beyond





NYC Natural Areas Social Assessment  
 US Forest Service – NAC 2016

COI Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

# Psycho-social-spiritual benefits of parkland and natural areas

- Connect with **self**
  - Refuge
  - Self-expression
- Connect with **others**
  - Social ties
  - Social cohesion
- Connect with **a larger reality**
  - Spirituality
  - Religion
  - Memorialization



(Svendsen et al. 2016)

# Reading the landscape: Training in a new way of seeing

- Research assistants (8)
- Job Corps participants (12)
- Undergraduate students (75)
- TNC LEAF interns (20)
- High school intern (1)
  
- NYC Parks employees (ongoing)
- NYS DEC employees and backcountry stewards (ongoing)
  
- NYC STEM educators (upcoming)
- Guardians of Flushing Bay (upcoming)



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## Social Assessment: Waterfront-focused

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- Strehlau-Howay, Lindsey; Manzolillo, Brielle; Graham, Tatyana; Thomas, Christina; Campbell, Lindsay; Johnson, Michelle; Toomey, Anne. 2019. [“The NYC Social Assessment: Understanding Waterfront Users Coney Island Creek Waterfront Profile”](#) (White paper). New York, NY. 48 p.



# Questions?

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