

A survey of spatial distribution and population size of feral cat colonies in RI

Summary of Findings

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How do we figure out how many feral cats we have in RI?

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Background

- The growth of feral cat populations continues to be of interest from animal welfare, public health and environmental/ecological perspectives.
- The number of outdoor cats in the U.S. is currently unknown, but estimates range from 70-100 million.
 - As with the U.S. as a whole, the number of feral cats in Rhode Island is unknown, but estimates range from **100,000 to 200,000 animals**.

Background (2)

- A number of strategies have been developed to manage feral cats.
 - Feed-only management, trap-neuter-release (both managed and unmanaged), and trap-remove.
- There is a lack of consensus among various groups in RI as to how to best manage feral cat colonies.
- A collaborative, cross-constituent group was established to examine the issue.

Background (3)

- **The Rhode Island Feral Cat Working Group (2010):**
 - The American Humane Society
 - Animal Control Officers from:
Cranston, Cumberland,
Providence and Westerly
 - The Conservation Agency
 - PawsWatch
 - The Potter League
 - Providence Animal Rescue
League
 - Rhode Island Department of
Fish and Wildlife
 - Rhode Island Department of
Public Health
 - Rhode Island Society for the
Prevention of Cruelty to Animals
 - Rhode Island State Veterinarian
 - Rhode Island Veterinary
Management Association
 - The Sanctuary Federation
 - Tufts University
 - University of Rhode Island
 - Volunteer Services for Animals

Objective of Study

- The end goal is to develop a humane, comprehensive science-based plan to manage feral cat colonies in Rhode Island.
- Specific objectives for this study:
 - Quantify the spatial distribution and size of **feral cat colonies** in Rhode Island and,
 - Categorize the colonies by their population management strategies.

NOT intended to be a comprehensive population survey!

Methods

- Colony and management strategy identification
 - Locations and management strategies of feral cat colonies were identified by individuals with documented knowledge.
 - For the purposes of this study, a “colony” was defined as a group of four or more feral cats.
 - Management practices were categorized as Control, Food Only, Unmanaged TNR, Managed TNR and Trap and Remove.

Methods (2)

- Colony location mapping
 - Feral cat colonies were mapped using a Trimble GeoXT handheld GPS unit.
 - The data were used to create a statewide map of the spatial distribution of the identified feral cat colonies.
 - Colonies were identified as being located in urban or rural areas based on US Census designations.

Methods (3)

■ Colony size estimates

- Population estimates were obtained from those most familiar with the individual colony demographics (ACOs, colony managers, rescue groups).
- Estimates were usually taken as a range.
- Where possible, two data points were taken in an effort to increase the accuracy of the estimates.

What we found

- 302 feral cat colonies were identified, but:
 - 8 identified colonies were found to not exist
 - 9 identified colonies had an average count of < 4 cats
 - 22 colonies did not have confirmed population counts
- Descriptive and statistical analyses were conducted on the remaining 263 colonies:

■ Managed TNR:	149
■ Food Only:	70
■ Unmanaged TNR:	23
■ Trap and Remove:	13
■ Control:	8

What we found (2)

- The remaining 263 colonies contained an estimated 2,846 cats (max estimate)
 - Min 2,114
 - Avg 2,480
- The average number of cats per colony ranged from 8.0 - 10.8 (midpoint 9.4 cats)
 - The range of cat populations in all identified colonies was 2-100.

What we found (3)

- Managed TNR represented the most common management approach (56.7%), followed by Food Only (26.6%)
- Unmanaged TNR had the largest mean (16.8) and median (11.0) colony size
 - Unmanaged TNR median colony size was significantly larger than Food Only (6.0) and Trap and Remove (5.0) ($p = 0.01$)
- 83% (253/263) of the analyzed feral cat colonies are located in urban areas

Data Limitations

- Definition of colonies as “4 or more cats”
- Lack of full participation
 - Time, effort, privacy concerns
- Fragmentation of information due to number of groups/ citizens involved
- Lack of sufficient true “control” groups

So, How Many Cats ARE There?

- There are more than **3,000 feral cats in RI!!**
- However, despite the data limitations, the findings suggest that the true number of feral cats in RI is less than 200,000:
 - $200,000 \text{ cats} / 11 \text{ cats per colony} = \sim 18,200 \text{ colonies}$
 - $18,000 \text{ colonies} / 39 \text{ communities} = \sim 460 \text{ colonies per community!}$
 - $460 \text{ colonies} * 11 \text{ cats/colony} = \sim \mathbf{5,100 \text{ cats per community}}$

How many?

- Or let's take it from a different angle:
 - RI is ~1,034 sq miles
 - For reference, LA = 469 mi²; LA County = 4,083 mi²
 - 200,000 cats = ~ **200 cats/ sq mile**
 - Assuming “equal distribution” of cats in the state
 - FYI 1,018 ppl per sq mile as of 2010 Census
- So...Providence is 18.5 sq miles (of land)
 - 18.5 sq mi * 200 cats/ sq mi = **3,700 feral cats**
 - We identified 386 cats in 32 colonies = ~12 cats/colony
 - If there are actually 3,700 feral cats in Providence, we are missing ~3,300 cats (~275 colonies!)
 - In total, that would mean ~310 total colonies —almost 17 colonies in every square mile

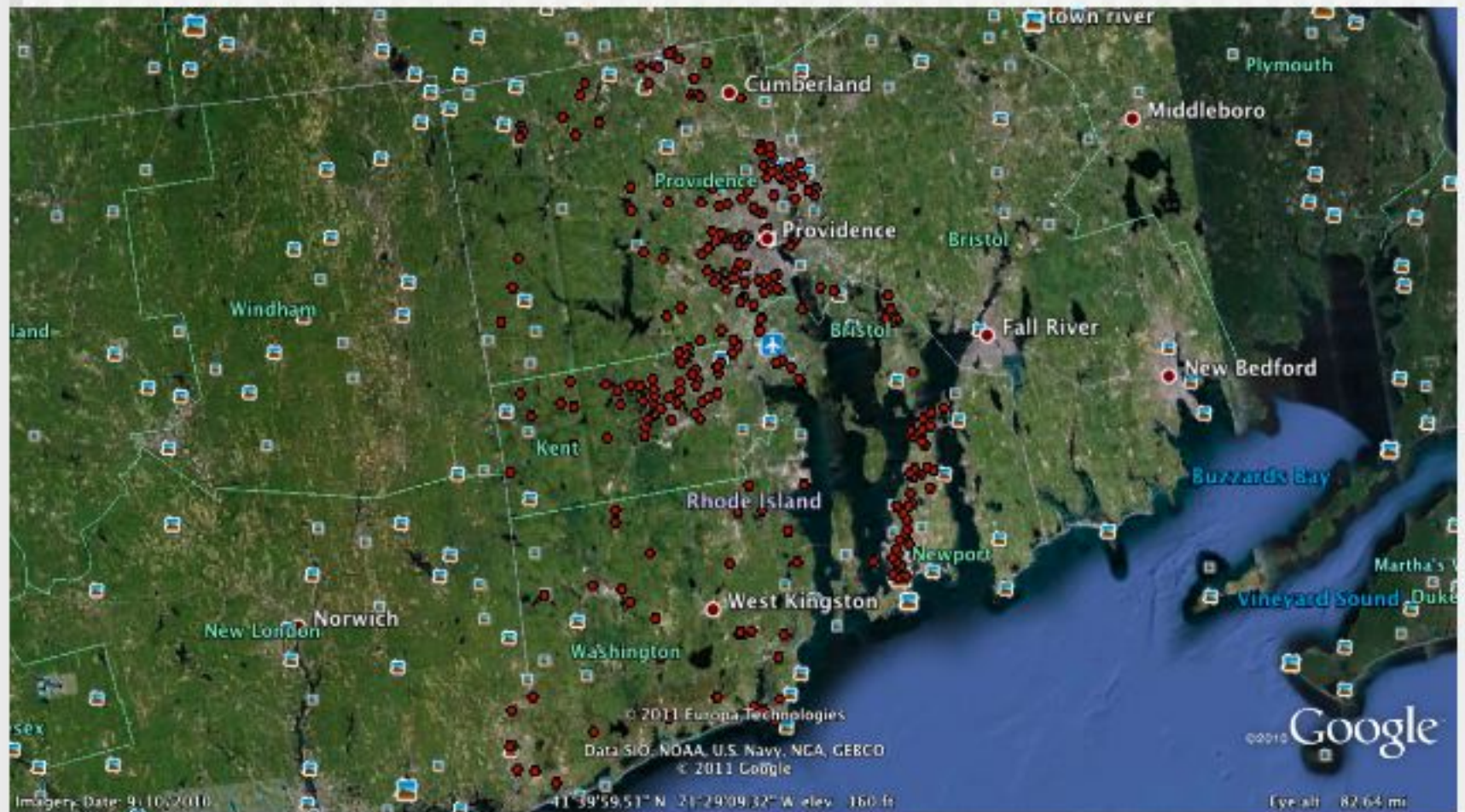
So what does this mean for RI?

- Having a smaller population than originally expected is great news:
 - Opens discussion for consideration of long-term, realistic population control solutions
 - I.e., not “shoveling against the tide”
 - Reduced public health impact
 - Reduced environmental and wildlife impact
- This study serves as a baseline for a multi-year effort to evaluate feral cat population trends.

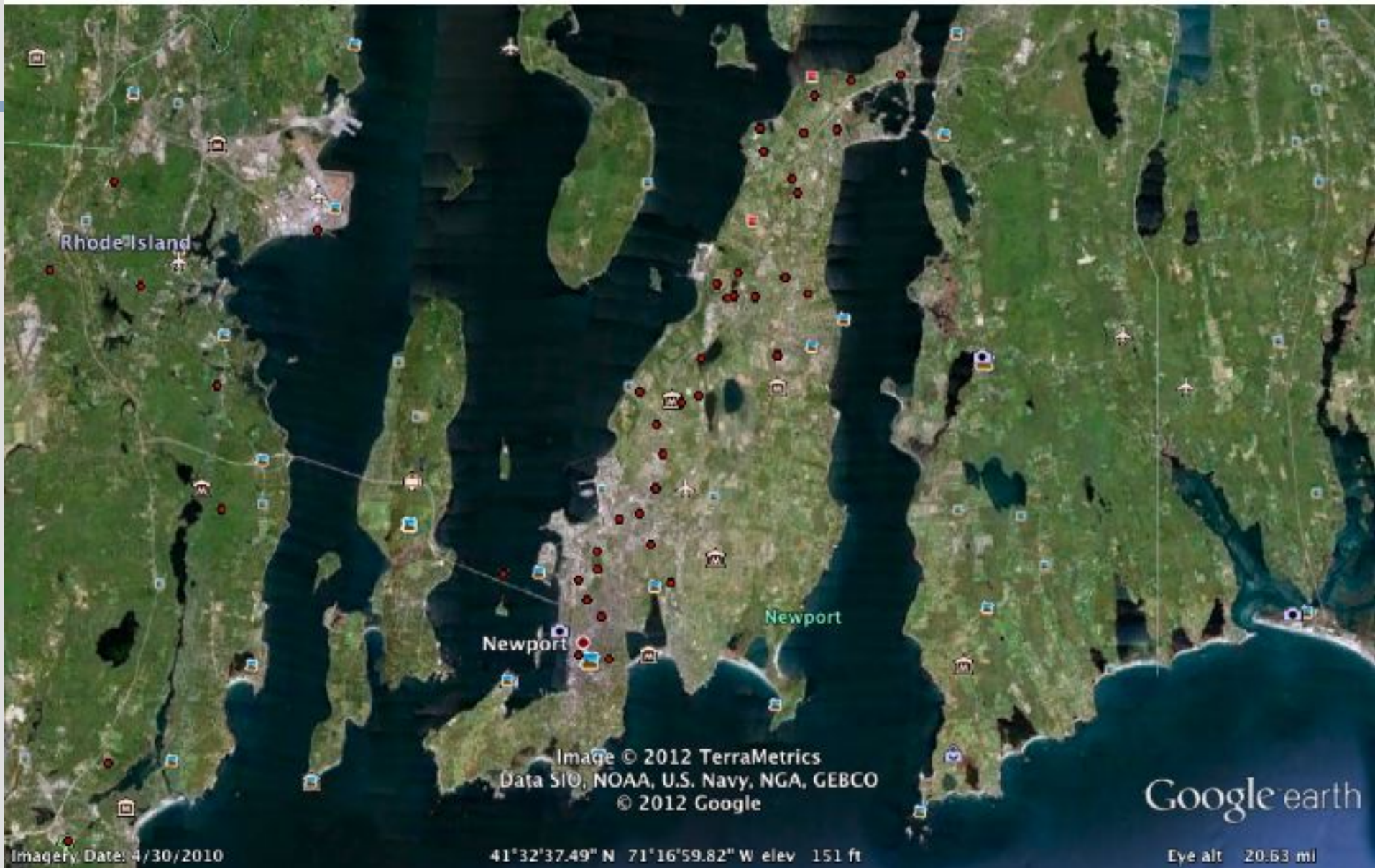
Unexpected benefit...

- Mapping provides colony data in a visual format that can be used to identify trends in size and health status.
 - Rescue/TNR organizations
 - Map health and TNR status of existing colonies
 - Document population changes over time as programs take effect
 - Quickly identify new colonies needing attention
 - Public health
 - Identify individual colonies that may pose human health risks
 - Wildlife management agencies
 - Identify colonies of concern near at risk species populations
 - Evaluate impact of colony and feeding stations on other wildlife behavior (e.g., coyotes)
 - Etc.

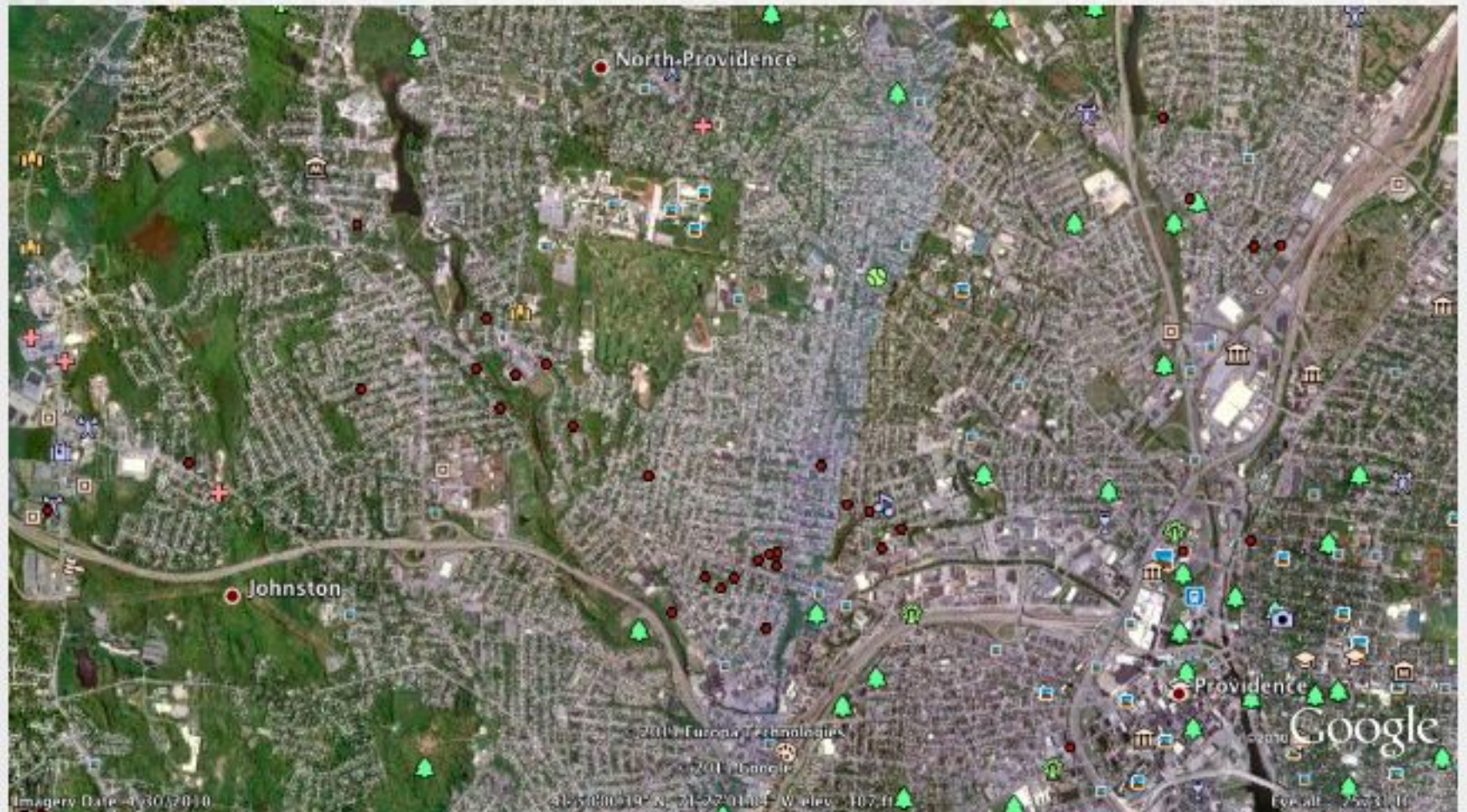
Google Map Images



Newport, RI



Google Map Images



JOHNSTON

FID	123
Town	JOHNSTON
NewID	JOHN4
Location	339 Simonsville Ave
Identified by	ACO
# Cats Low	20
# Cats High	30
Source_of est	ACO
Mgt_Approach	Unmgd TNR
Urban/Rural?	Urban
Lat	41.802008
Lon	-71.494398
Notes	Residents report seeing birds, skunks eating food (feeding locations at bldg #341 and #349)



Thank you!
