Coyote/Human Interactions in the City of Long Beach, CA

Hayley Hart, Nicole Infantino, Christopher Jaime; Dr. P. Auger, Dr. E. Strauss

Center For Urban Resilience | Loyola Marymount University | Spring 2017

LMU|LA
Frank R. Seaver College of Science and Engineering

Abstract

Coyotes (Canus latrans), while an integral part of a healthy ecosystem, have posed prominent problems across the United States in cities and residential areas, including the local neighborhoods of Westchester, Long Beach, and Playa Vista. The abundance of anthropogenic food sources in urban areas increases coyote density and causes more frequent coyote-human interactions. Our study aims to accurately assess the benefits coyote populations bring to an ecosystem as well as their interactions with these communities while also properly managing the threat to their residents and promoting coexistence. We plan to educate residents in these communities on how to interact safely with coyotes. Through community reporting and education, we hope to ensure that wildlife feeding regulations will be enforced and the feeding will cease, vastly limiting the anthropogenic food sources available to coyotes and reducing the impetus for interactions between coyotes and humans in these communities. We hope to apply our refined methodologies in the future so that they can be applied on a more general level to mitigate similar coyote management problems in other urban areas, allowing future research to further analyze the effects of the reduction of anthropogenic food sources on coyote abundance and distribution.

Introduction

- The objective of this experiment is to gather information on the current human-coyote relationship in Long Beach
- Promote the peaceful coexistence of humans and coyotes in this urban area

Methods

Coyote Behavior
- Existing data will be recovered from city wildlife management professionals and reviewed
- New data will be recovered from game cameras and scat samples retrieved from selected sites in order to analyze coyote behavior and diet
- Additional data will be gathered by pre-baiting coyotes for capture and installing radio collars for tracking
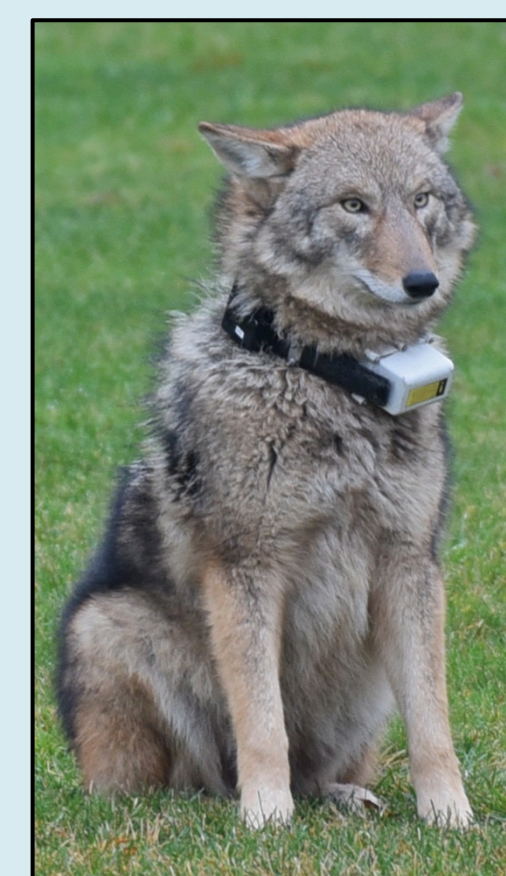
Current Human-Coyote Relationship in Long Beach
- Key informant interviews
- Initial neighborhood educational initiatives
- Identification and recruitment of key teachers working at community schools
- School curriculum development tasks

Figure 1. Coyote monitoring in Narrangansett Bay, Rhode Island.

Methods cont.

Time Period
- Starts in March 2017 (coyote mating season)
- Will run for the next three years, longer if necessary

Locations
- Sites for this study are currently being scouted in the City of Long Beach, California and the Los Angeles neighborhoods of Playa Vista and Westchester
- Areas of interest within these cities will be determined through preliminary testing performed in Year 1

Data

Coyote Incident Reports

LOW LEVEL INCIDENT
MODERATE LEVEL INCIDENT
HIGH LEVEL INCIDENT
HIGHEST LEVEL INCIDENT
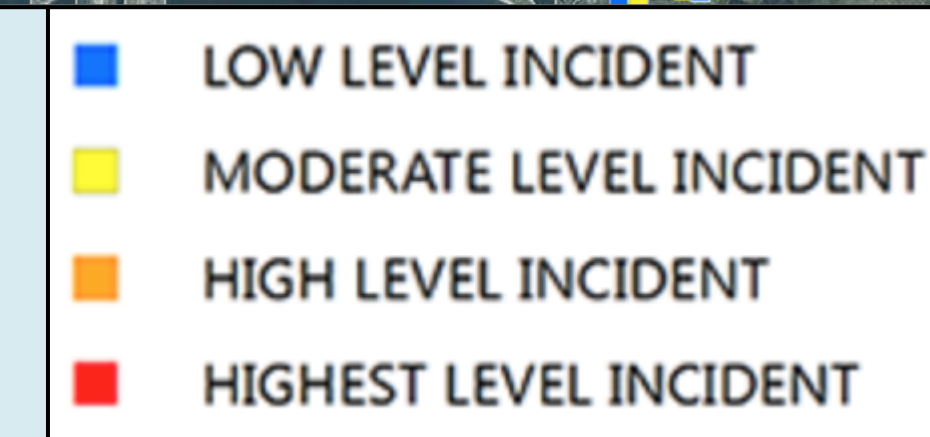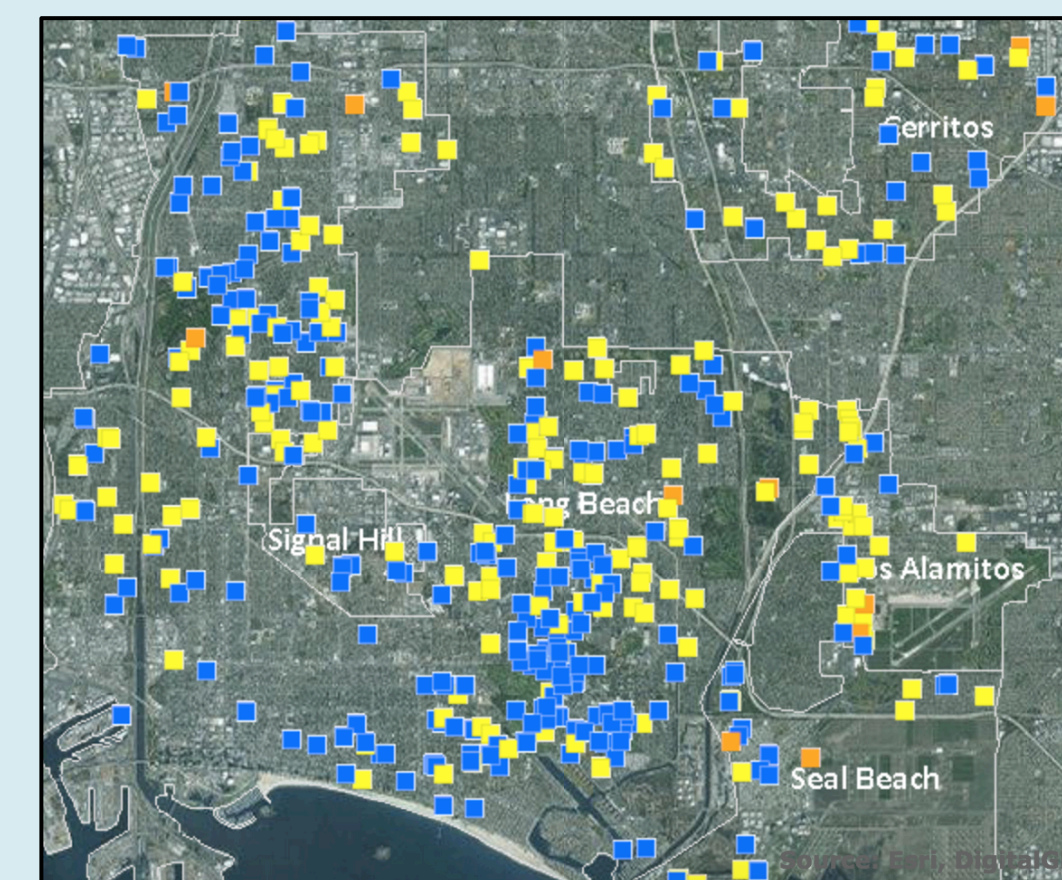
Pictured on the left is a map of coyote incident reports by citizens of Long Beach, spanning January 2016 through the end of January 2017. These data, coupled with data that will be collected from game cameras, scat samples, and coyote GPS tracking, will be used to create an accurate picture of urban coyote behavior, which will allow for the creation of a comprehensive plan of action to promote peaceful coexistence between humans and coyotes.

Housecat GPS Data

This experiment analyzes the movement patterns of domestic housecats in order to estimate coyote territory size and interactions between coyotes and cats in these urban areas. Six housecats are currently being monitored with GPS trackers and collar cameras.

Figure 2. Smokey, one of the cats being monitored in Westchester, pictured with his collar camera/ GPS device.
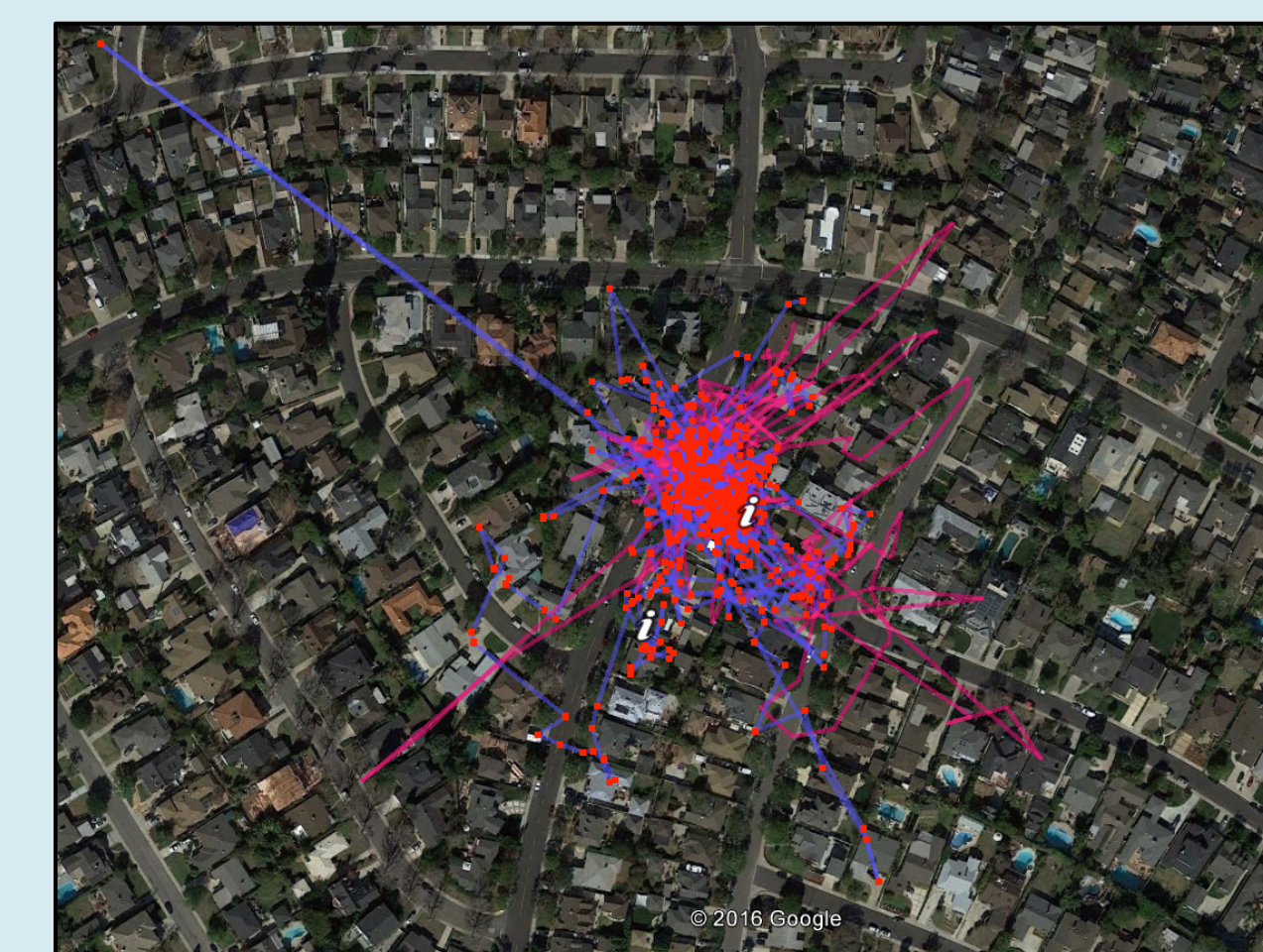
Figure 3. Data points collected from Smokey's GPS on February 19, 2017.

Figure 4. Rough estimate of Smokey's path on February 19, 2017.

Data cont.

Additional preliminary domestic cat GPS data have since been collected in the Long Beach residential area. The data pictured to the left were collected on March 20-21, 2017.

Discussion

- This study has the potential to
  - Offer results that will allow for a comprehensive coyote management system to be created, contributing to the vast improvement of the coexistence between coyotes and humans in these regions
  - Change the public view of coyotes as pests to one of respectful tolerance
  - Show how coyotes act in a west coast urban setting as opposed to that of coyotes on the east coast (Narragansett Bay) and other more rural settings to determine how environment affects animal behavior
  - Extend results beyond Southern California to other urban communities with coyote problems, helping them implement effective coyote management programs
  - Provide data that can be used to analyze urban coyote ecology and urban animal ecology as a whole.

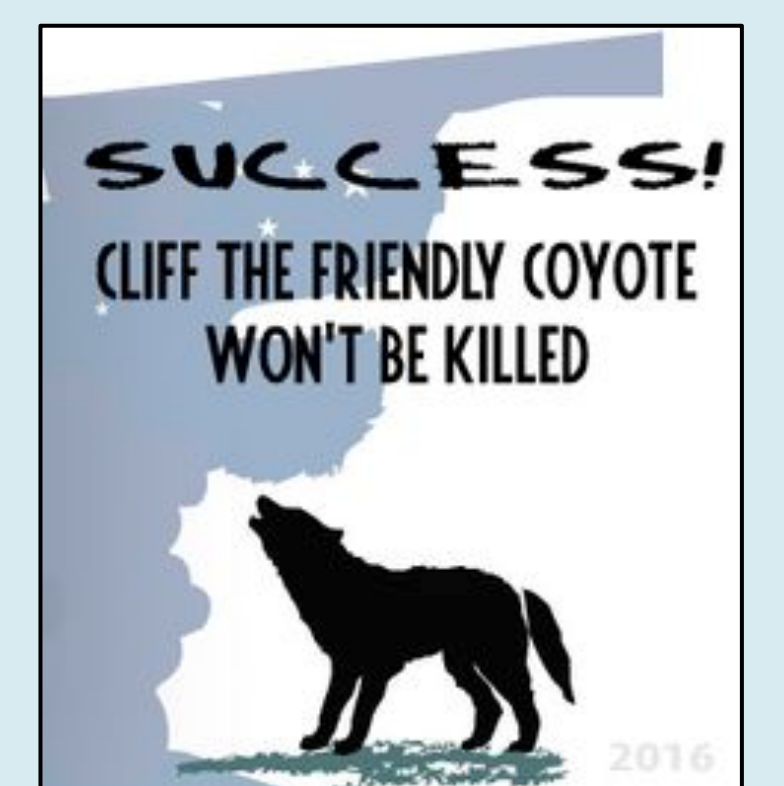Figure 5. Coyote capturing in Narragansett Bay, Rhode Island

SUCCESS!
CLIFF THE FRIENDLY COYOTE WON'T BE KILLED

Figure 6. Poster propaganda used in Middletown, Rhode Island to promote peaceful coexistence with coyotes.

Literature Cited

Long Beach Animal Control Services
Narragansett Bay Coyote Study

Acknowledgements