

Marin Wildlife Index Project

Results from Baseline Study

(2014 – 2017)

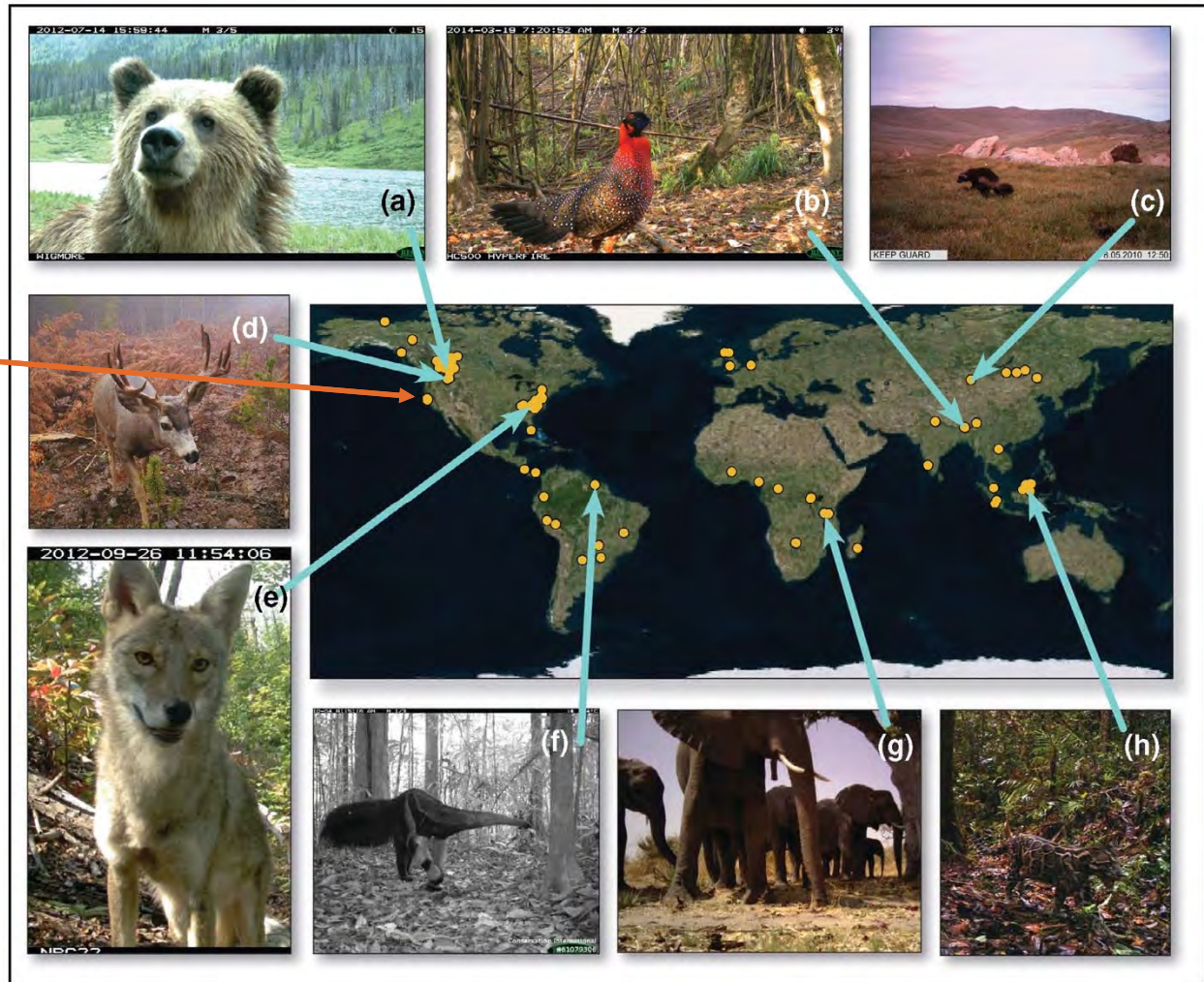


MAY 14, 2019



WPI IS USED ALL OVER THE WORLD

Marin County
Multi Agencies



R Steenweg *et al.* Monitoring biodiversity with remote cameras

MARIN WPIP PARTNERS



One Tam



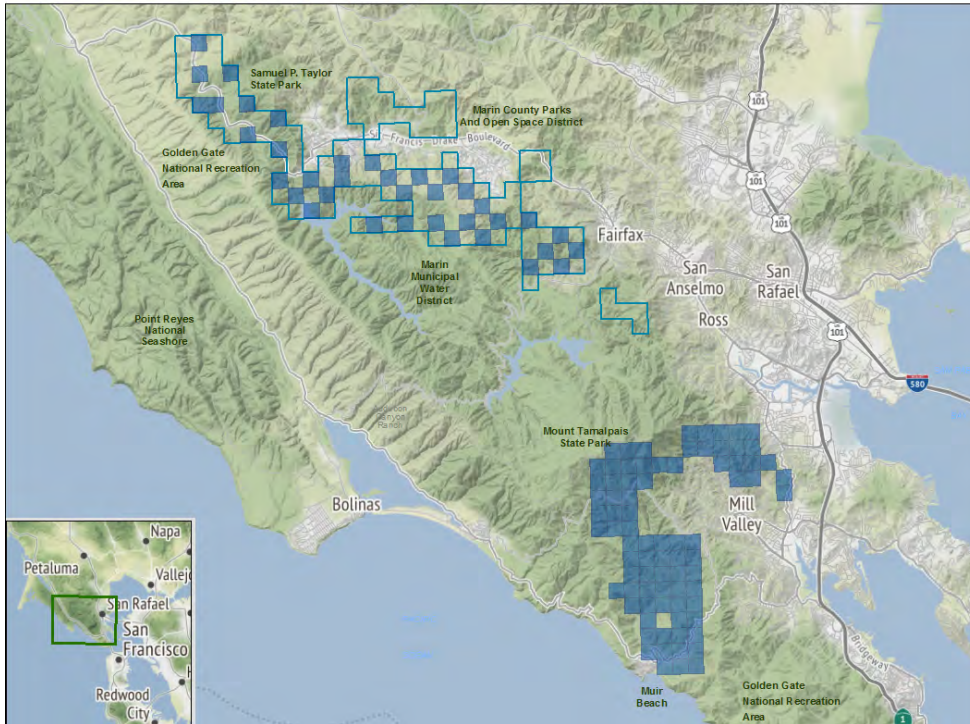
Dr. Susan E. Townsend



MAY 14, 2019

MWPIP STUDY DESIGN

Original grid outline with current cameras shaded in blue



- 5 Jurisdictions
- 100 cameras up currently
- ~10,800 acres in study area
- Northern Array taking photos since Sept 2014
- Southern Array launched in June 2017

DATA ABOUT DATA

- 110,000 trap nights
- 3 million images captured
 - 90% processed
 - 20% processed images with wildlife
- 21,667 hours spent processing images
- 993 volunteers
- 90 cataloguing parties
- 966,000 images processed by volunteers

Currently processing 2018 and 2019 images





M 71°F21°C



05-26-2015 15: 11: 24

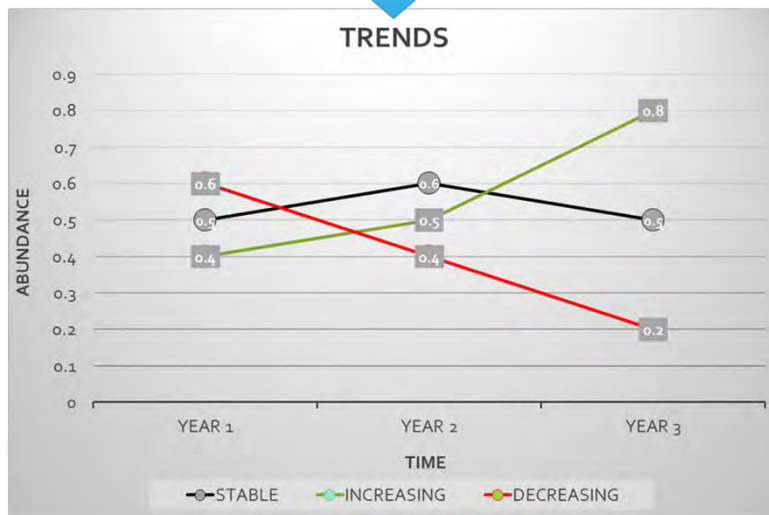


32°F 0°C



12-27-2014 10:34:26

PHOTOS TO STATISTICS



- Wildlife Picture Index (a statistical technique) that takes adorable photos from motion censored cameras into a metric.
- That metric lets us understand mammal TRENDS and ABUNDANCE

WILDLIFE HEALTH



As landscape changes, what happening to wildlife?

Metrics we looked at:

- Inventory (species list)
- Community Structure (predators:prey)
- Richness (# of different species in an area)
- Temporal Analysis (daily, seasonal, yearly)
- Rare species presence/absence

WHAT HAVE WE LEARNED?

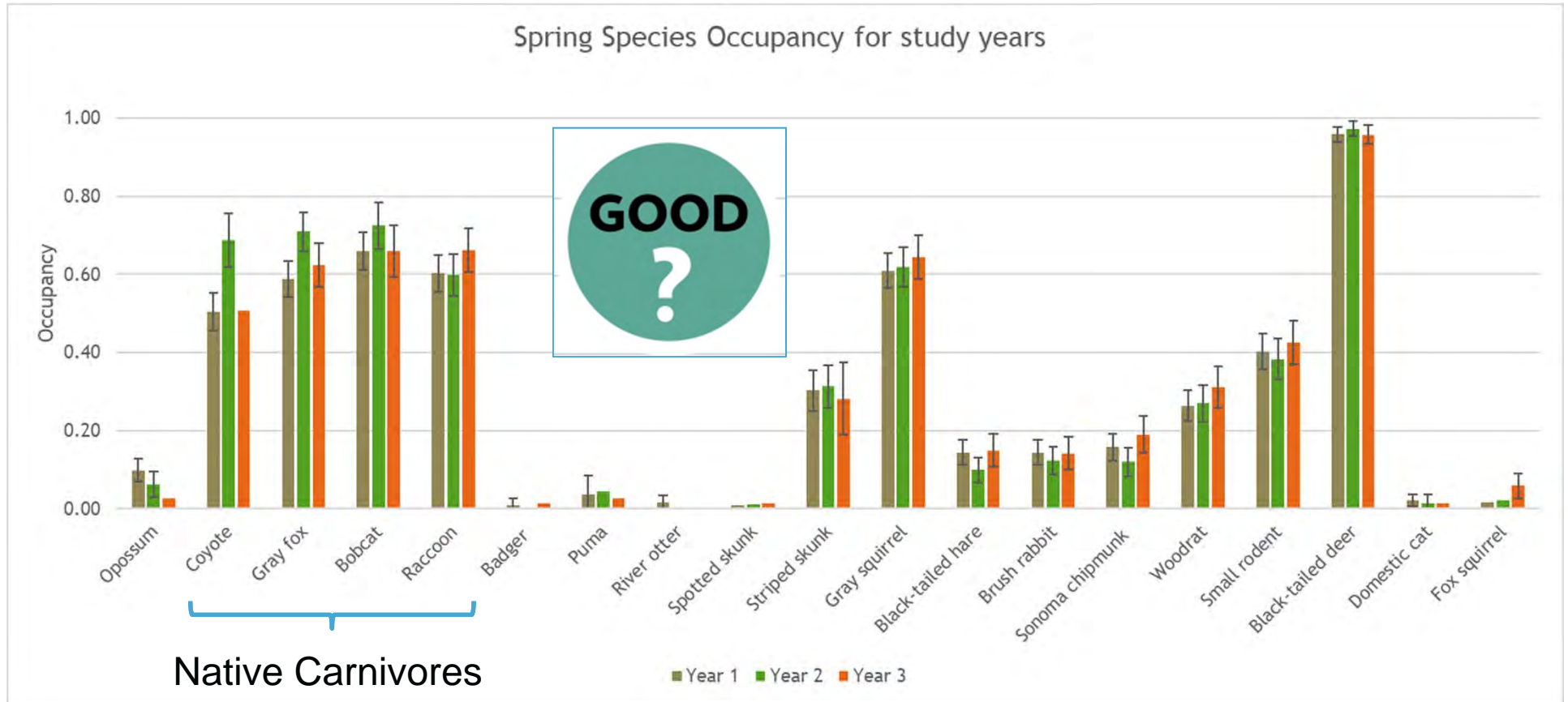


CameraName

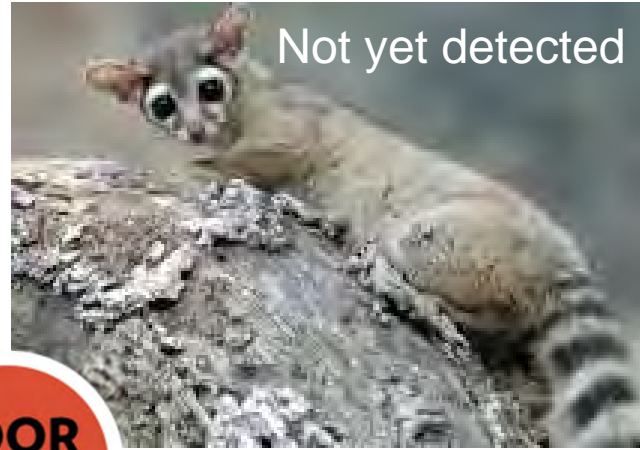
42°F 5°C

11-17-2017 08:06:20

WHO'S HERE?



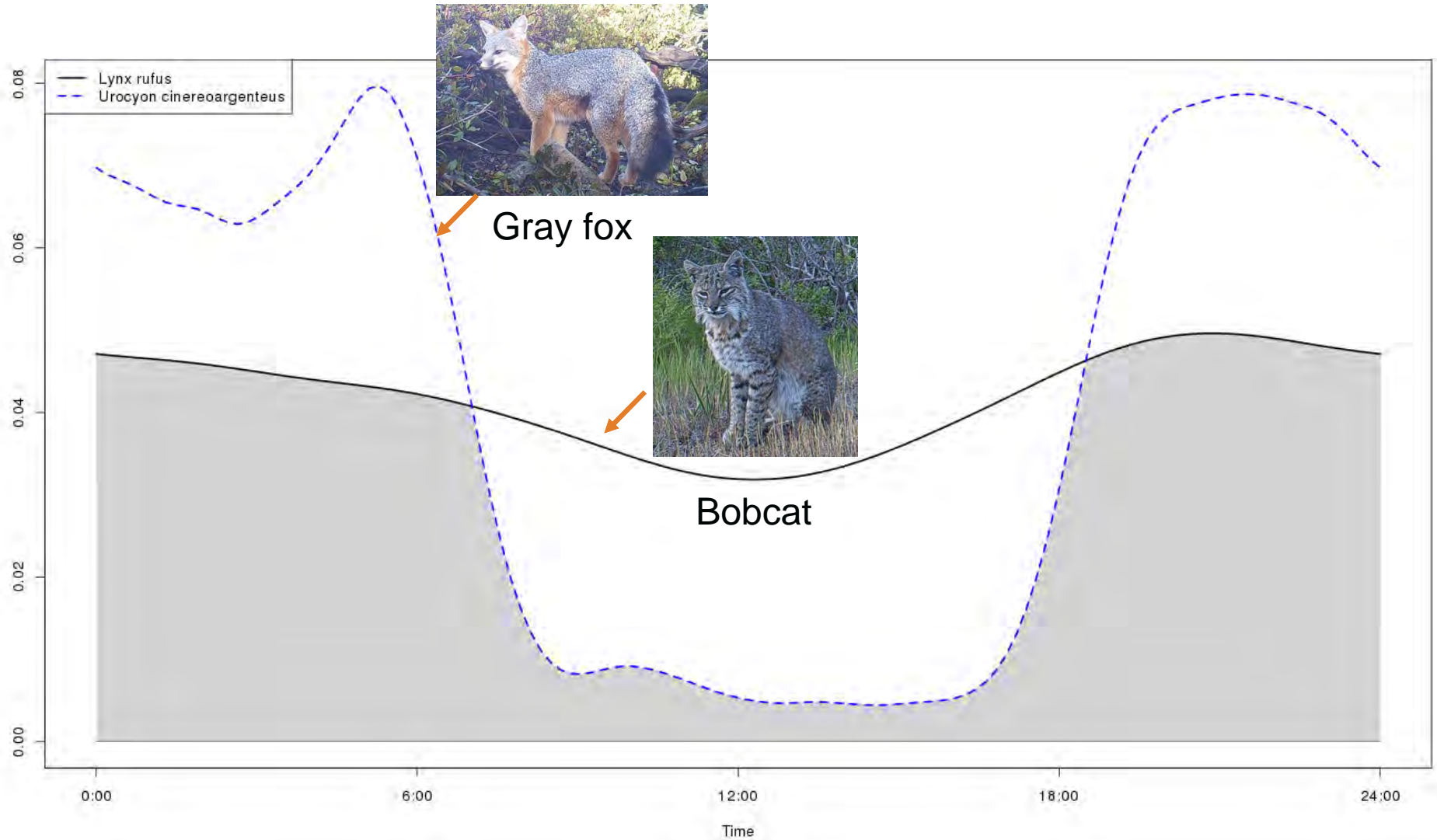
RARE SPECIES



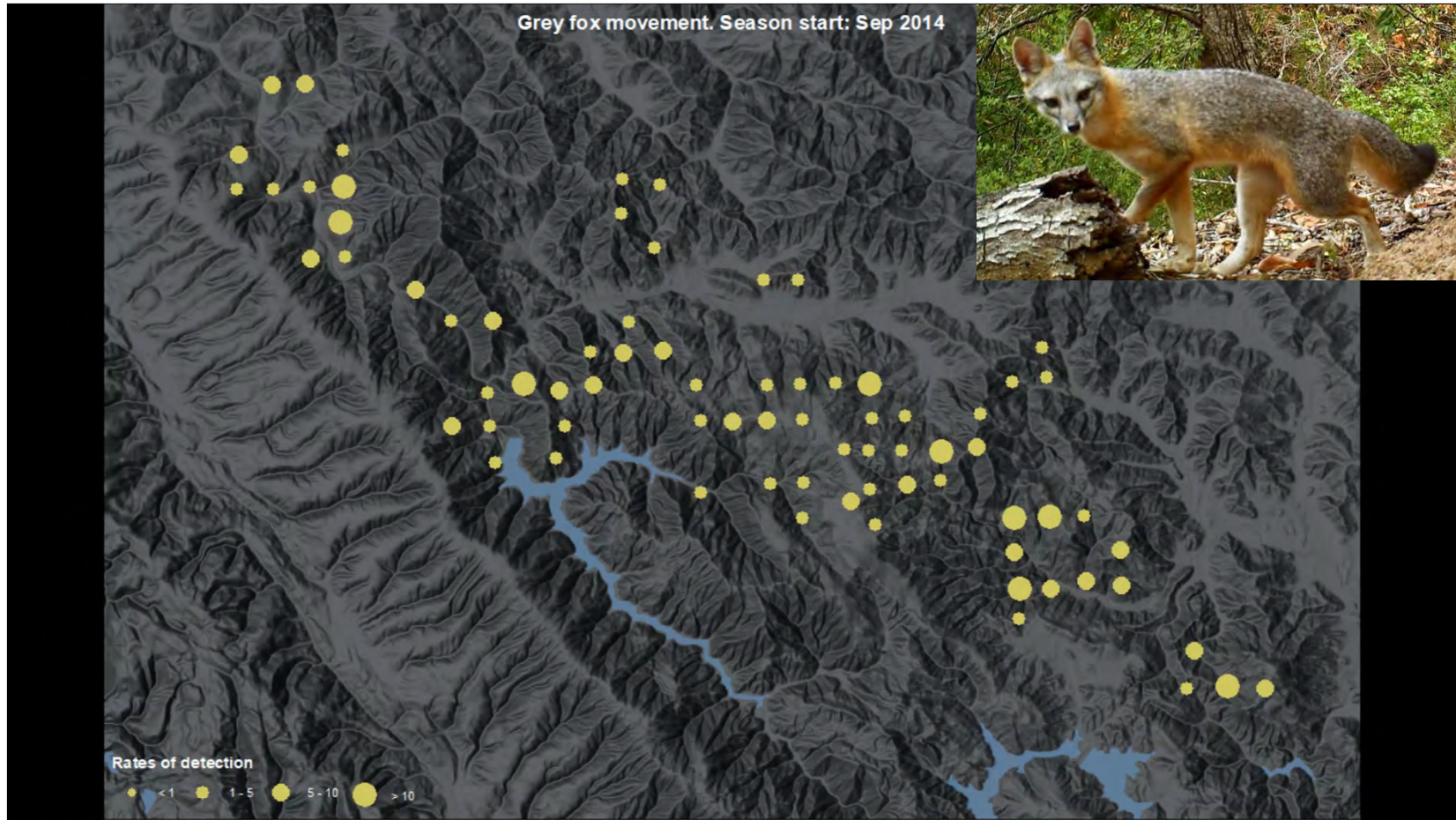
**POOR
?**



TEMPORAL ANALYSIS - DAILY



TEMPORAL ANALYSIS - SEASONS



TEMPORAL ANALYSIS - YEAR

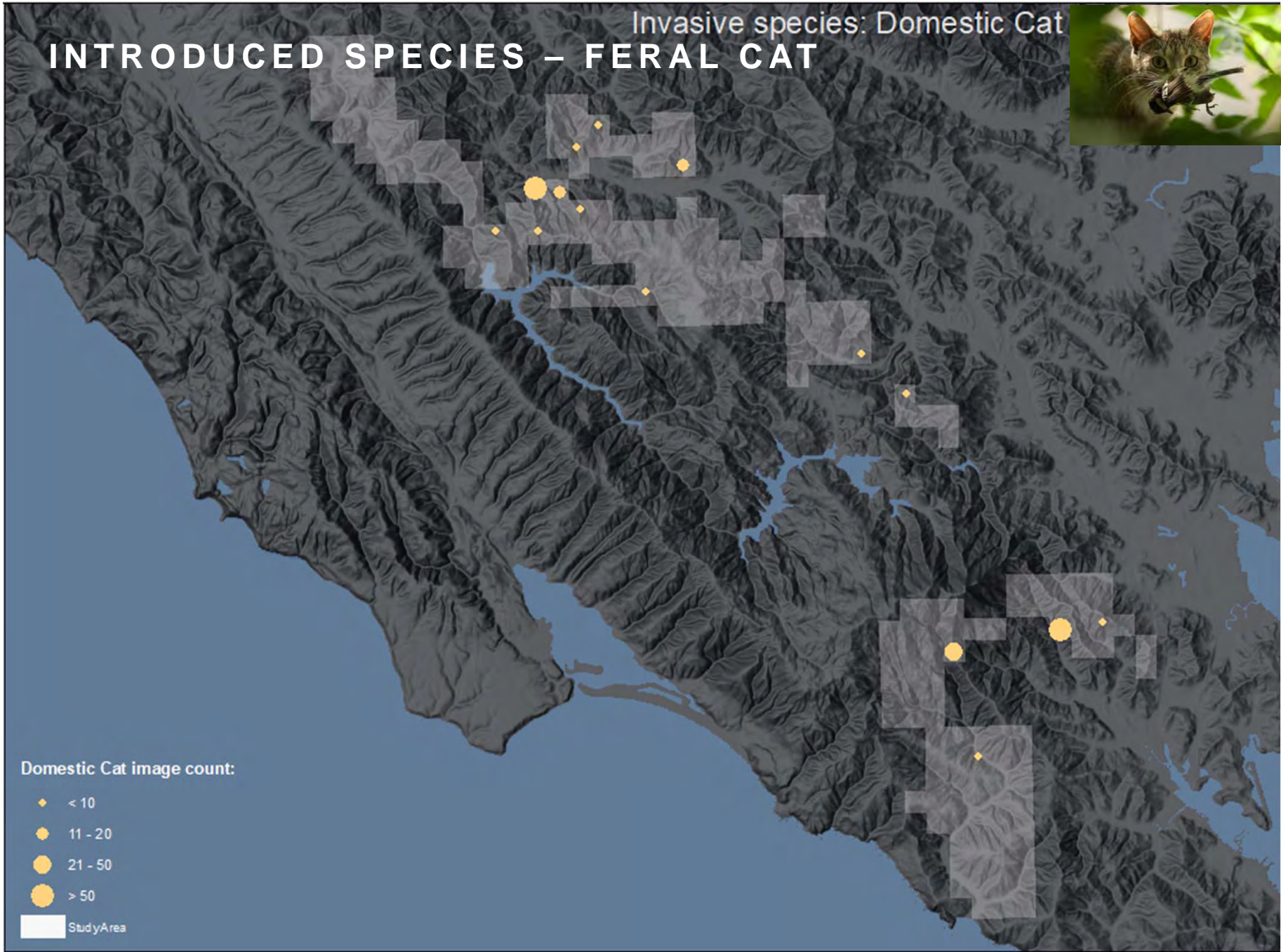


INTRODUCED SPECIES

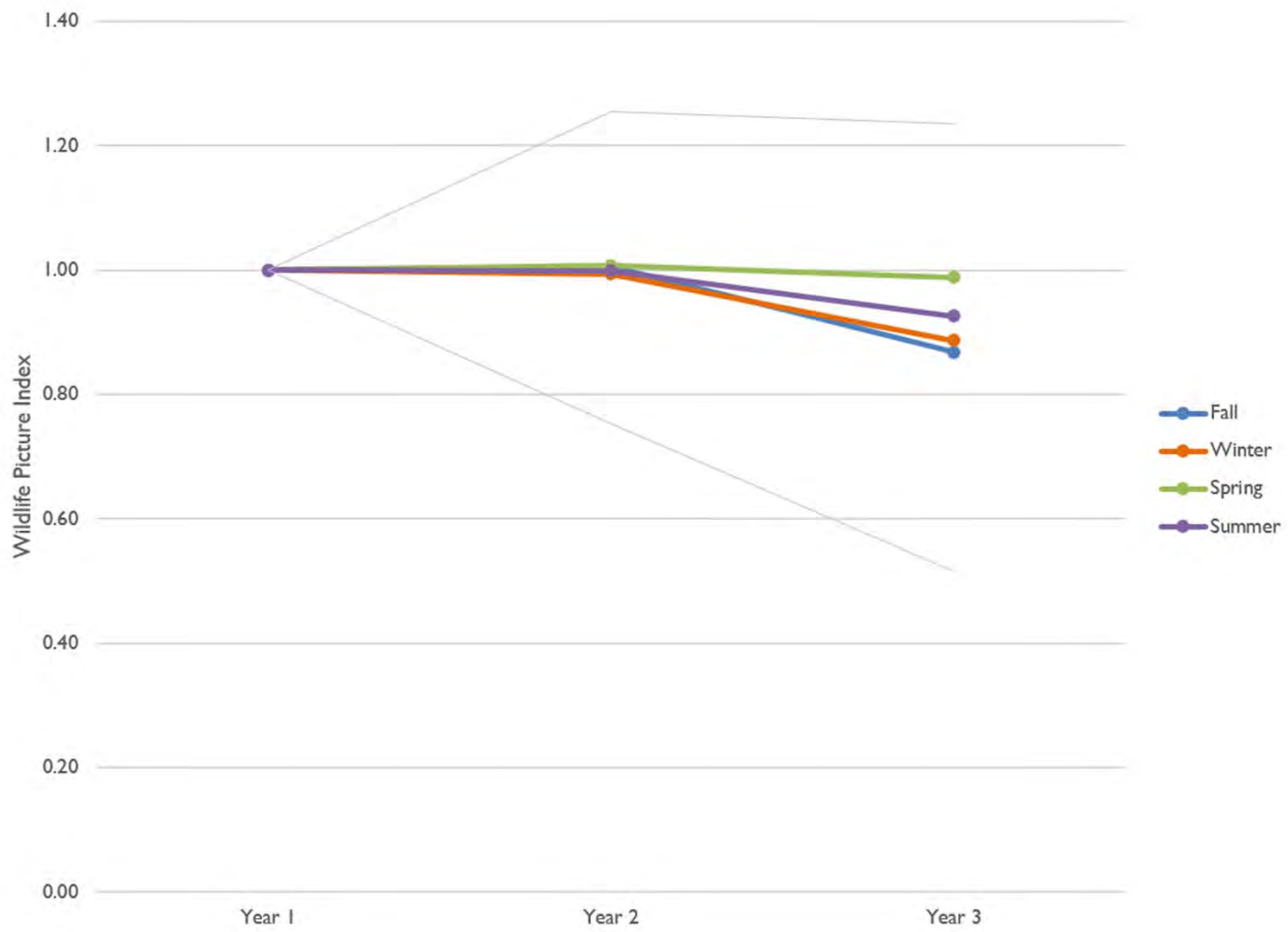


INTRODUCED SPECIES – FERAL CAT

Invasive species: Domestic Cat

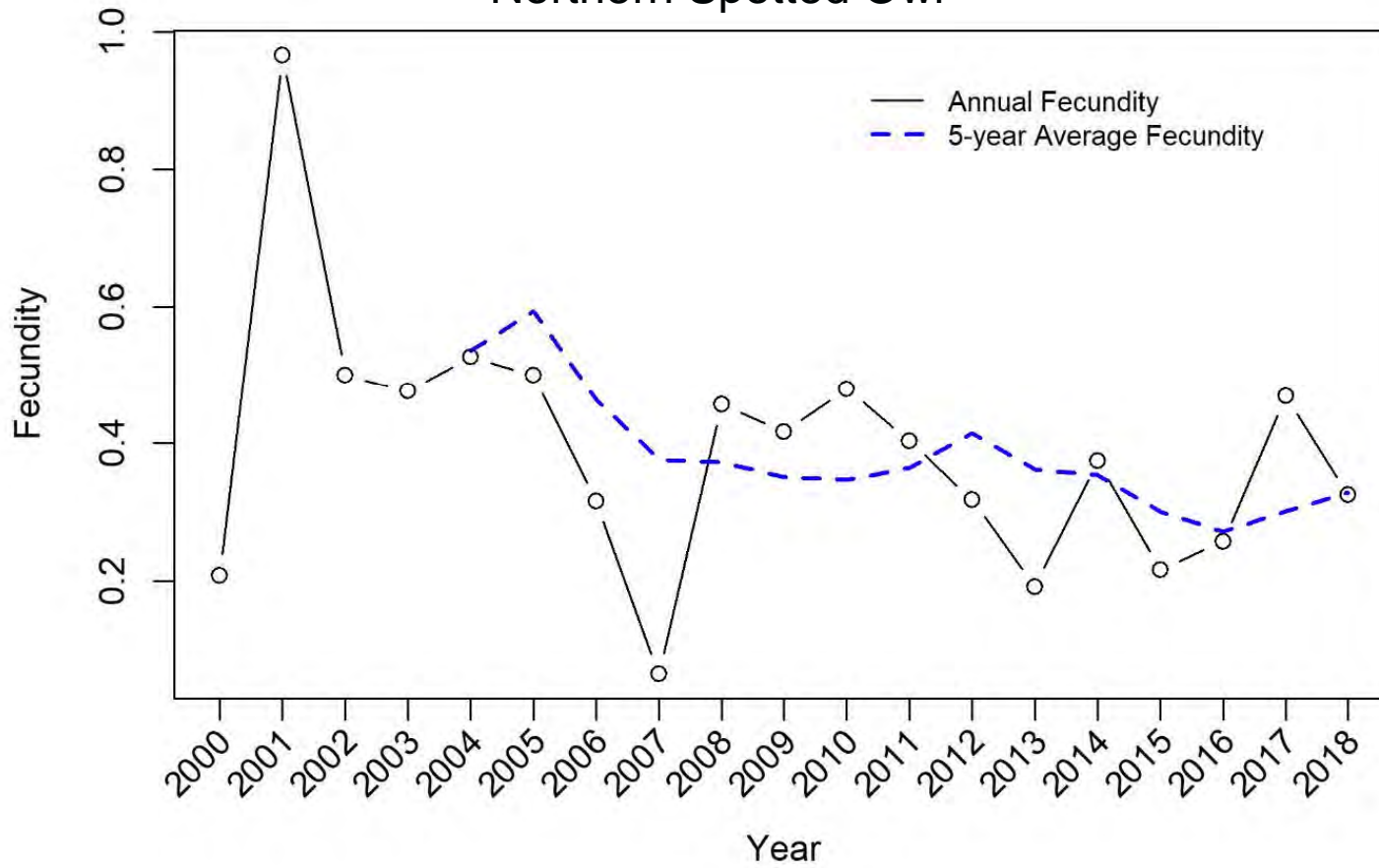


WILDLIFE PICTURE INDEX



LONG TERM DATA

Northern Spotted Owl



WHAT'S ON THE HORIZON?

- Improved data management system
- More volunteer opportunities
- Analysis of data from southern Marin
- Formation of regional consortium of WPI projects



50°F 10°C



02-23-2015 17:54:52

QUESTIONS?



CameraName

50°F 10°C

09-22-2017 02:17:44

To learn more or volunteer:

<https://www.onetam.org/our-work/wildlife-picture-index>

<https://www.marincountyparks.org/projectsplans/land-and-habitat-restoration/wildlife-picture-index>



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MARIN COUNTY
PARKS

PRESERVATION • RECREATION