



# ***Perceiving Ecological Change by Rebuilding Local Ecological Knowledge***

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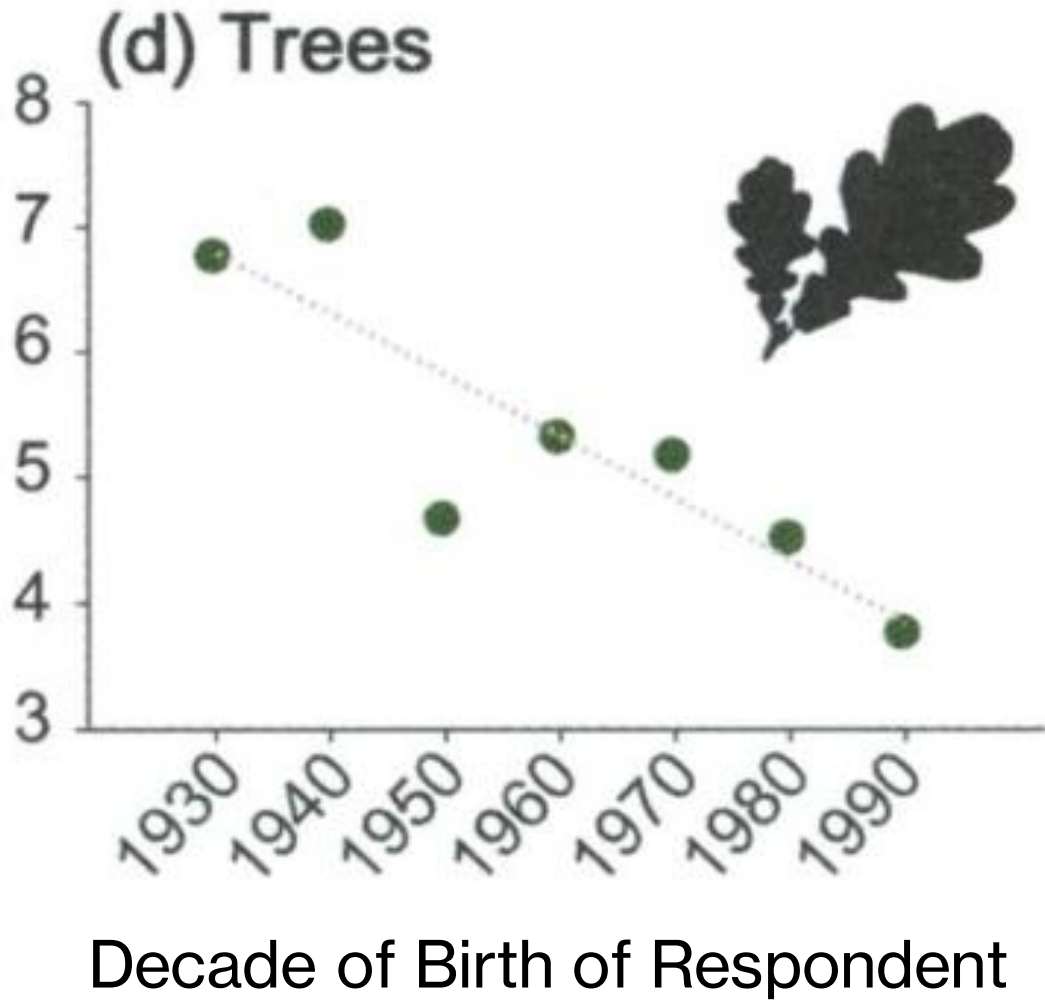
**We start  
with a  
story...**

2/17/2023

A persistent downgrading of perceived 'normal' environmental conditions with every sequential generation, leading to under-estimation of the true magnitude of long-term environmental change on a global scale.

## **Shifting Baseline Syndrome**

Perception of  
Number of Trees Locally Extinct

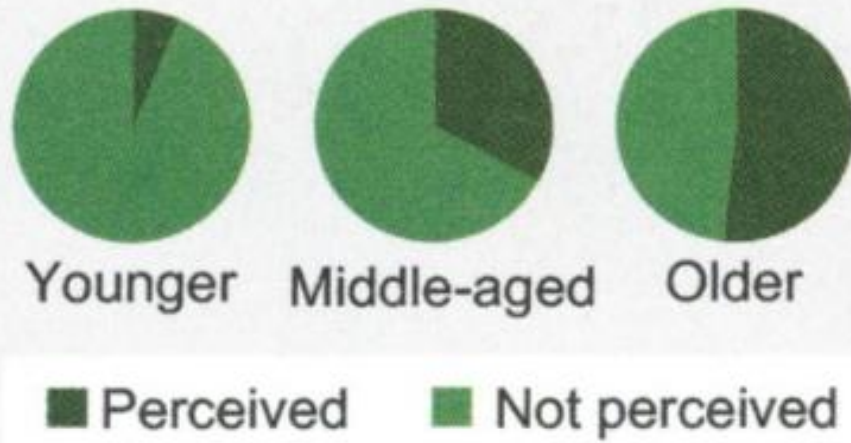


## Demonstrating Shifting Baseline Syndrome

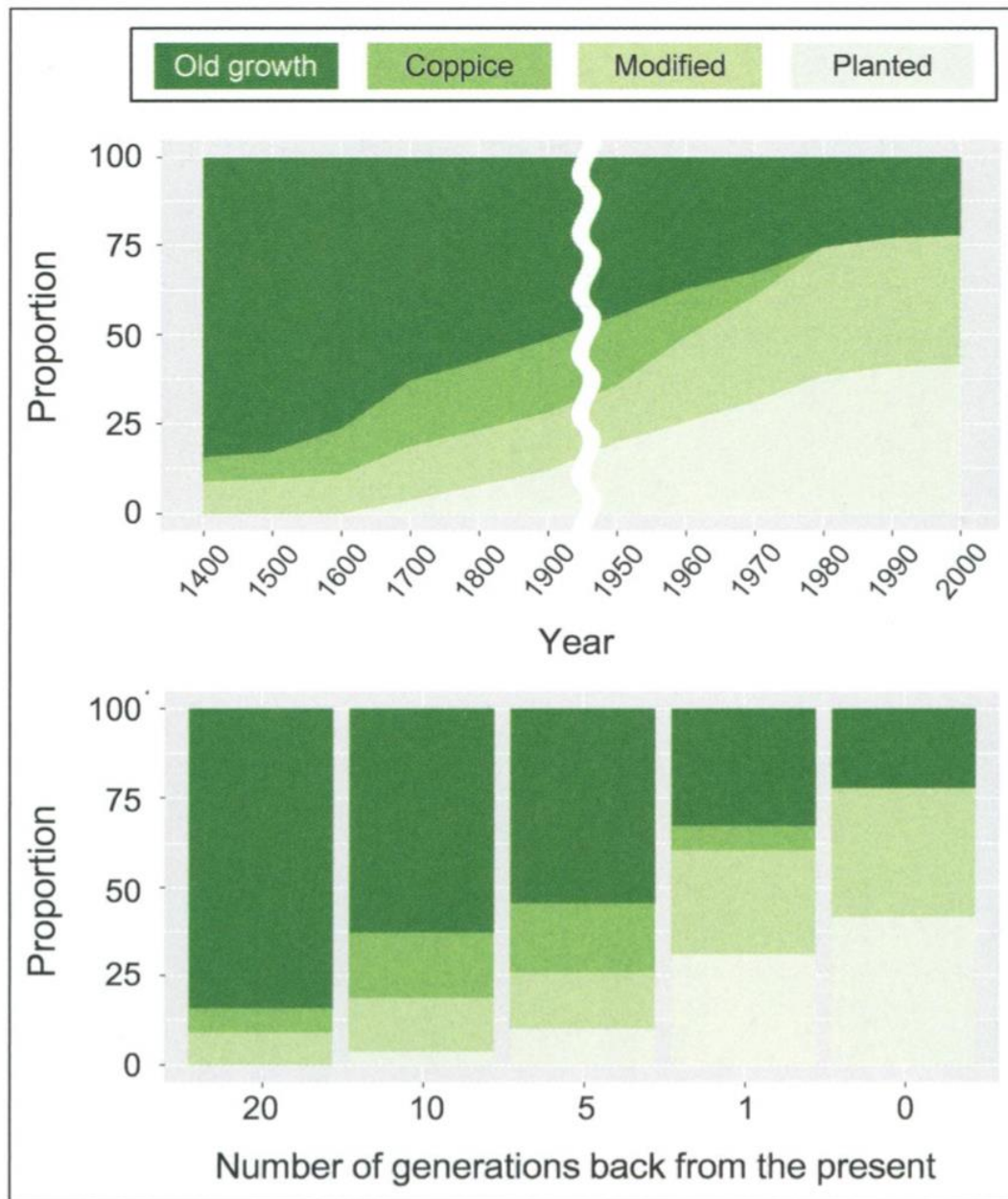
## Reduction of River Water Quality



## Reduction of River Water Quantity



# Demonstrating Shifting Baseline Syndrome



# Causes of SBS: 600 years of change in forests of Japan

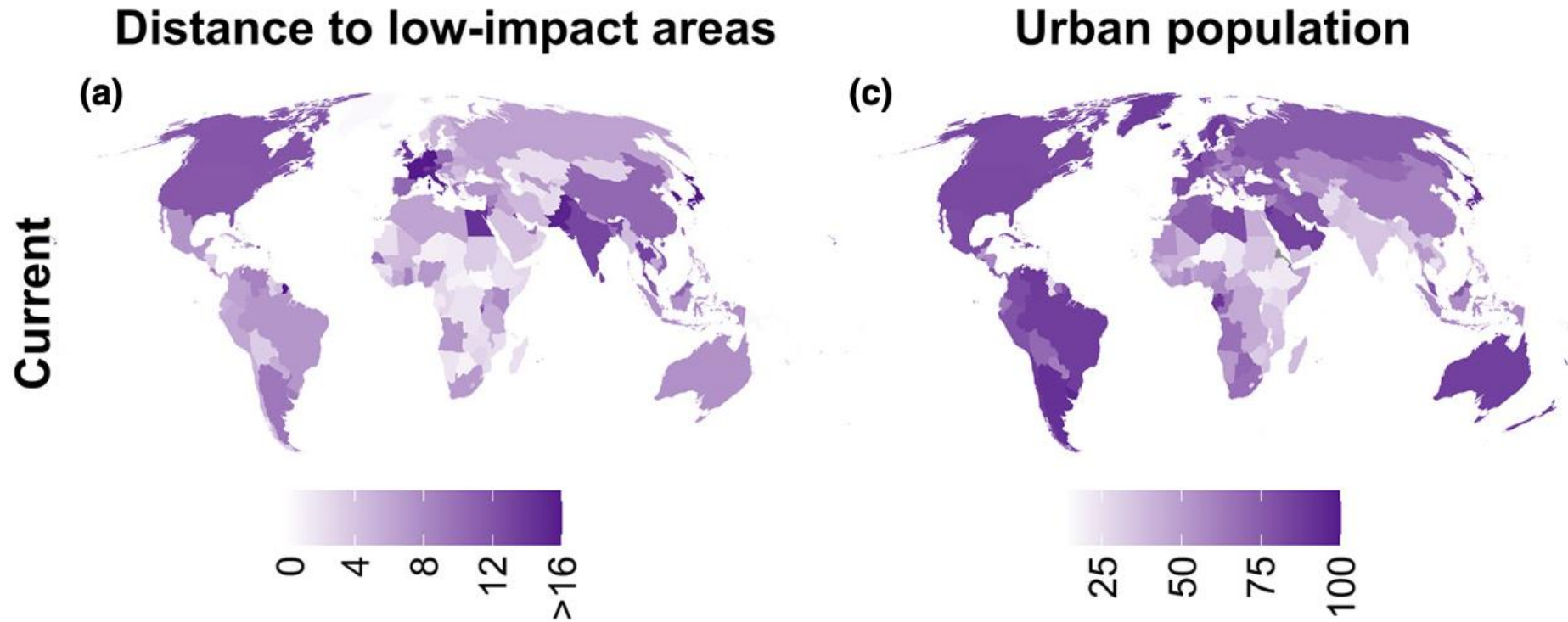
# Causes of SBS: Experience of Nature

Time in Nature  
Over the Past Year

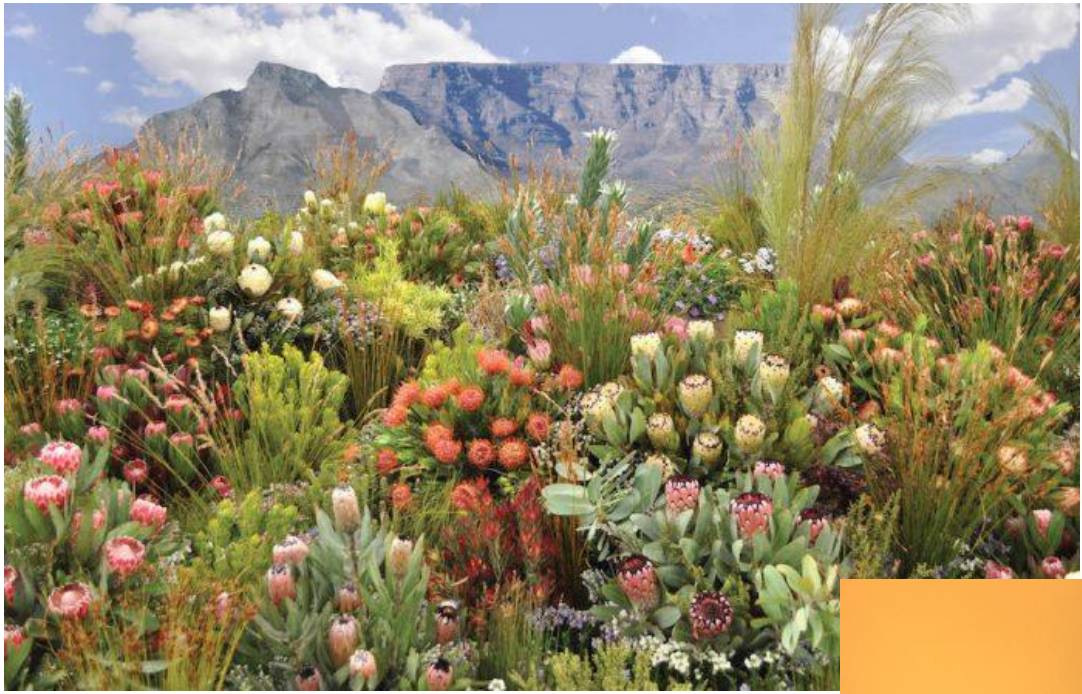


Data from 1036 adults (18+), Victoria, Australia

# Causes of SBS: Experience of Nature





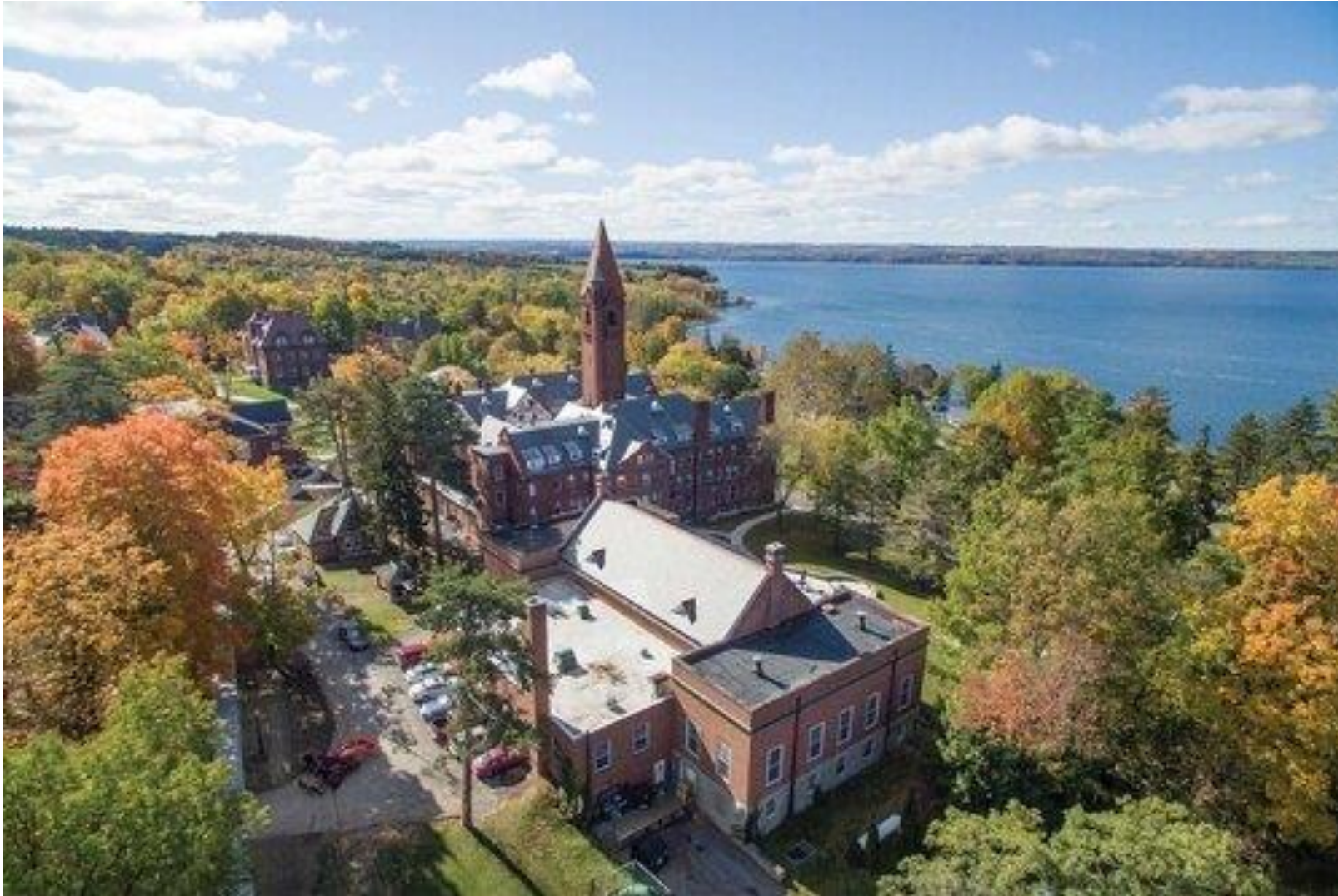


# The Tourist Test

South African Fynbos



# The Tourist Test



# The Tourist Test

Wells College

# TEKS to LEKS





# Visceral Experience

Autumn Olive  
(*Elaeagnus umbellate*)

# LEK: Visceral Experience



# Medical Herbalism

# LEK: Applied Natural History

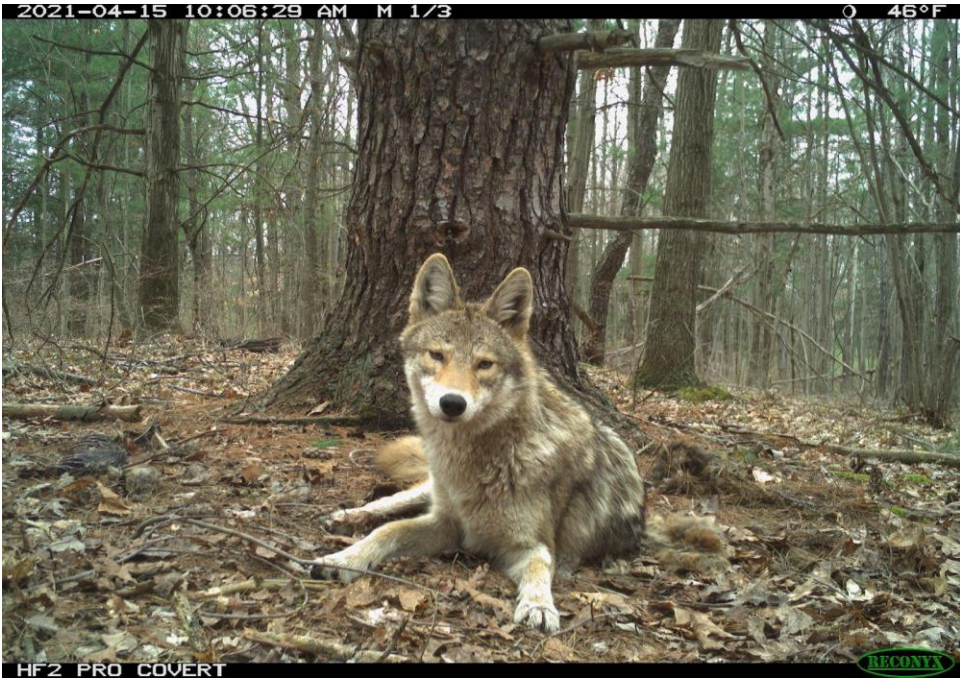


Wild Foraging



Maple Syrup

# Camera Trapping



# LEK: Applied Natural History



# Wildlife Tracking



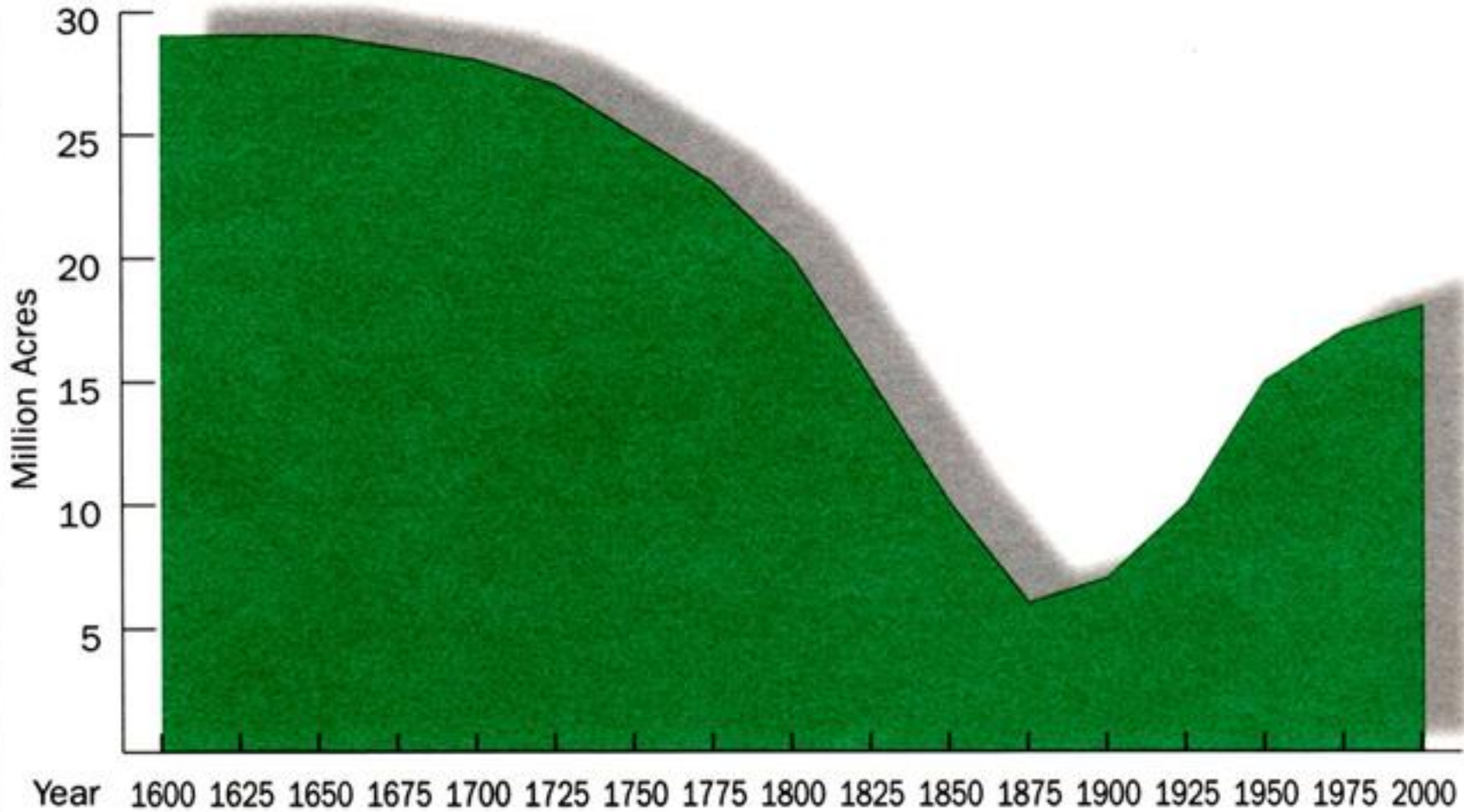
## Beekeeping



# LEK: Applied Natural History



## Changes in New York's Forest Land Area



# Perceiving Ecological Change



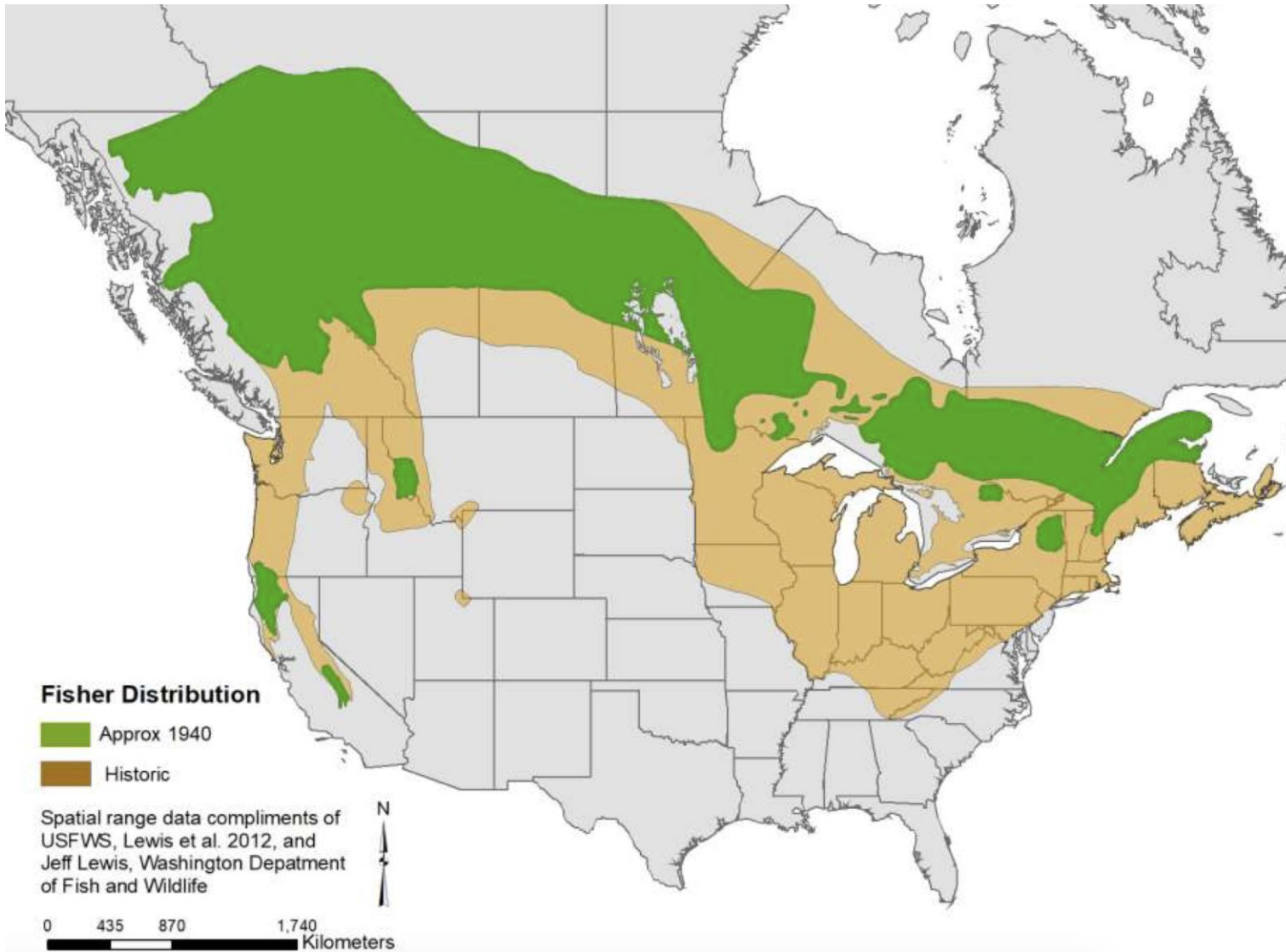
# ***Perceiving Ecological Change by Rebuilding Local Ecological Knowledge***

Study #1: The Fisher



# The Fisher

*Pekania pennanti*



# The Fisher

*Pekania pennanti* –  
extirpated from CNY in  
early 1900s



# The fisher returns to CNY

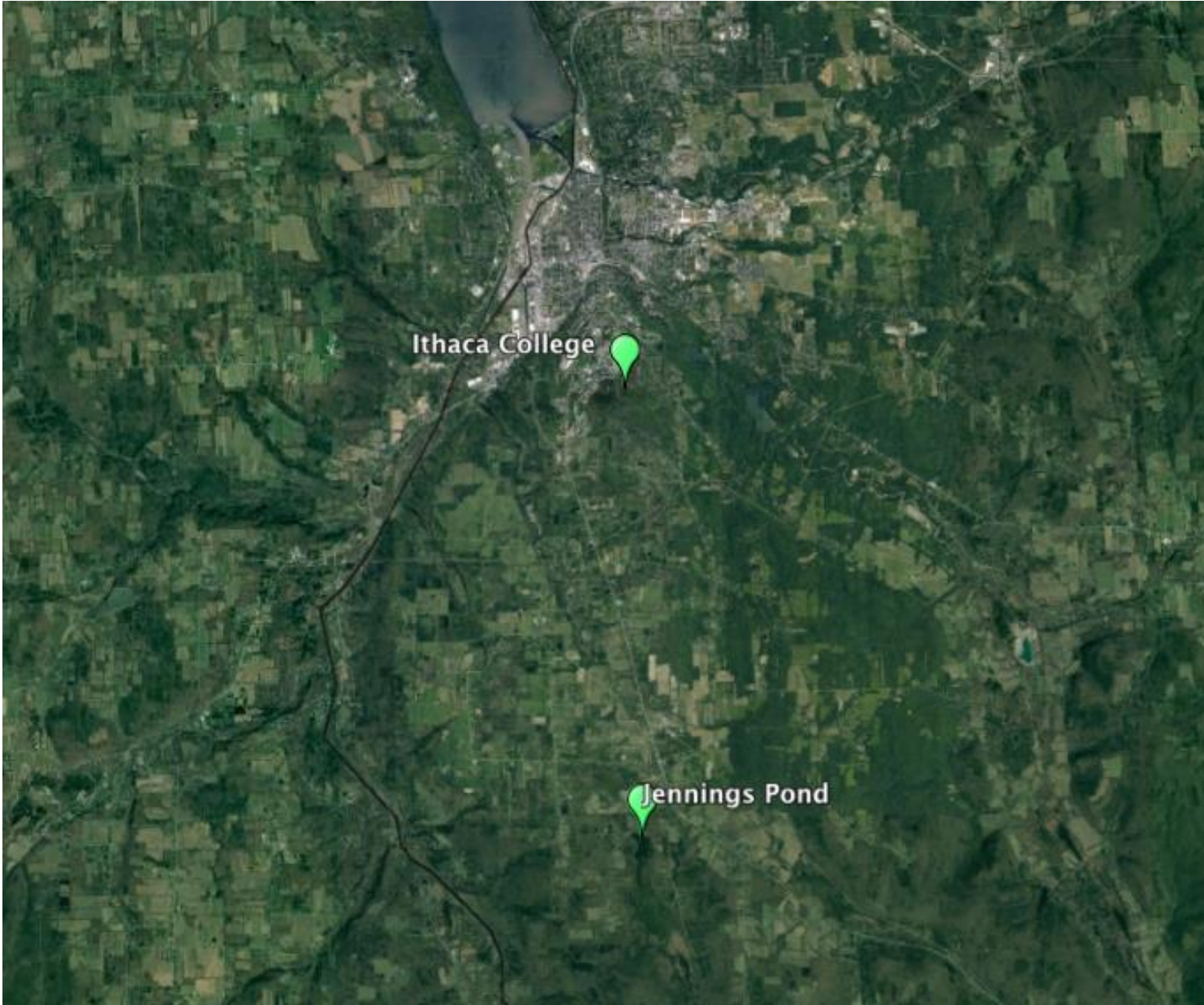
# The fisher returns to IC



# The fisher returns to IC







# The fisher returns in the region



28.55 inHg ↑ 🌡️ -10°C 🌙 04/03/2022 08:19AM OPRH



## The old + the new

Tracks were first sign at  
Jennings Pond



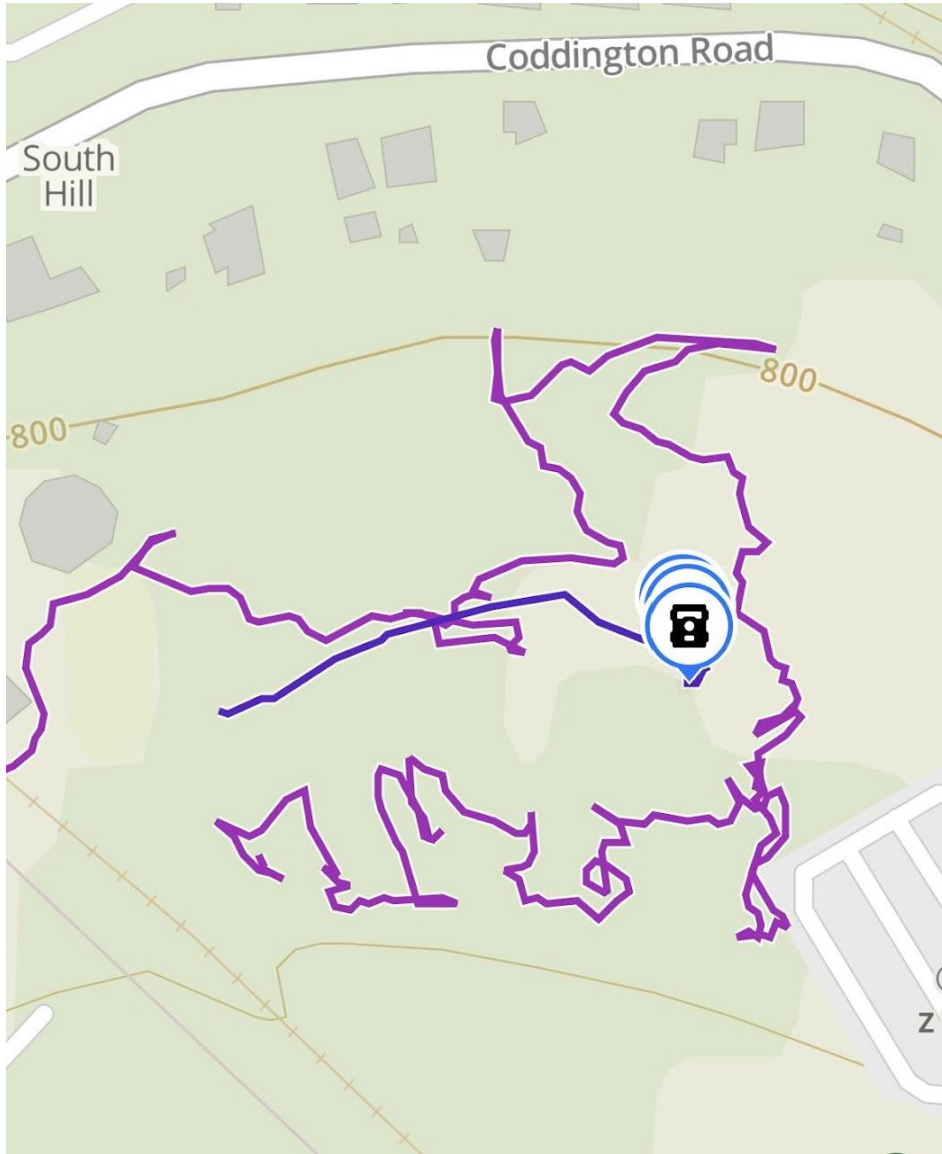
# The old + the new

Leading us to the marking posts and telling us where to put the cameras



# The old + the new

And... *Voila*



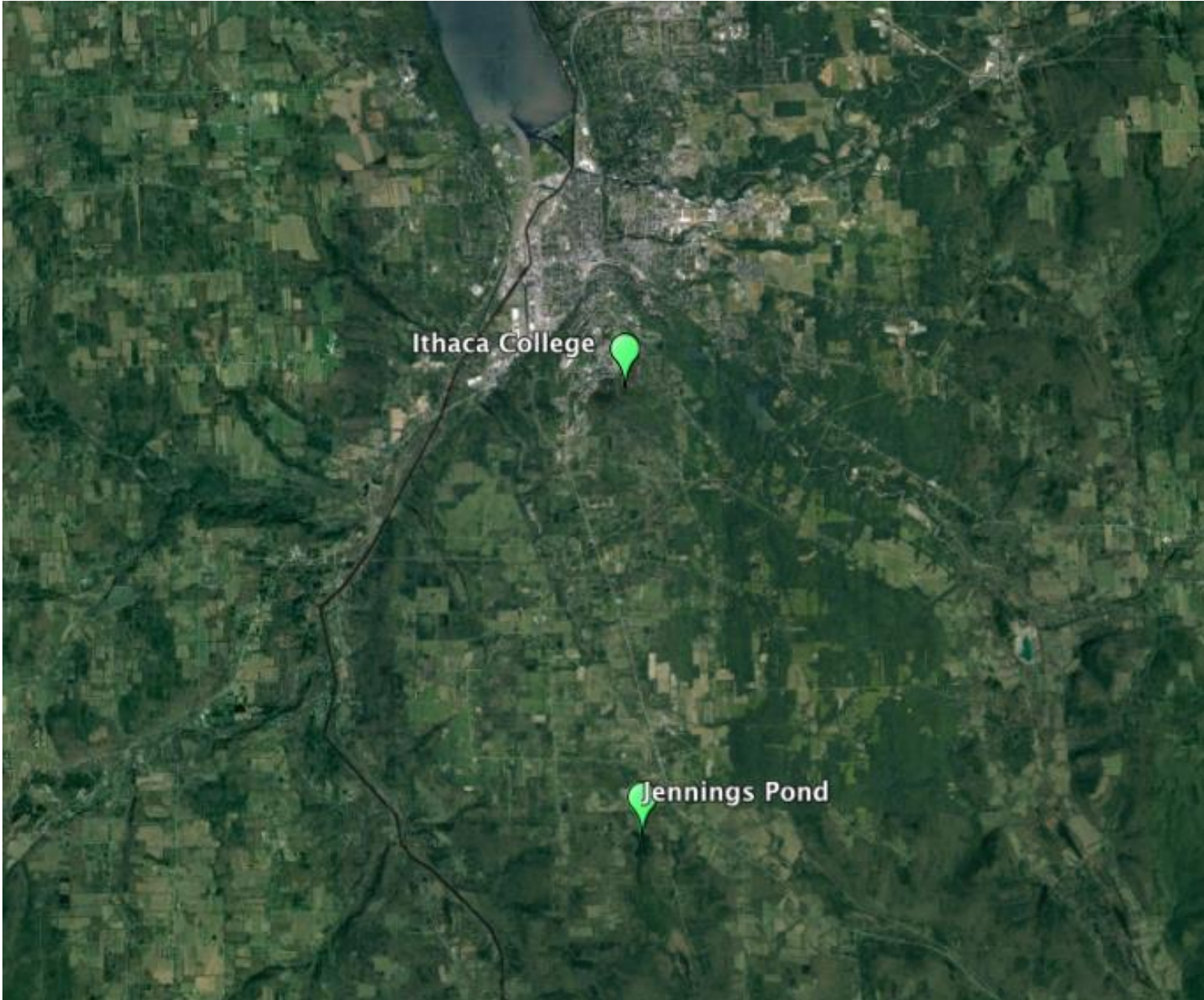
## The old + the new

Synergies: Multiple fisher trails (purple) actually passed through camera trap areas without detection.



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Study #2: North American  
River Otters



# Jennings Pond - Buttermilk State Park





# River Otters Return to Jennings Pond - Buttermilk State Park



# River Otters Return to Buttermilk State Park

But where did they go.....?



# River Otters Return to Buttermilk State Park

Michigan Hollow





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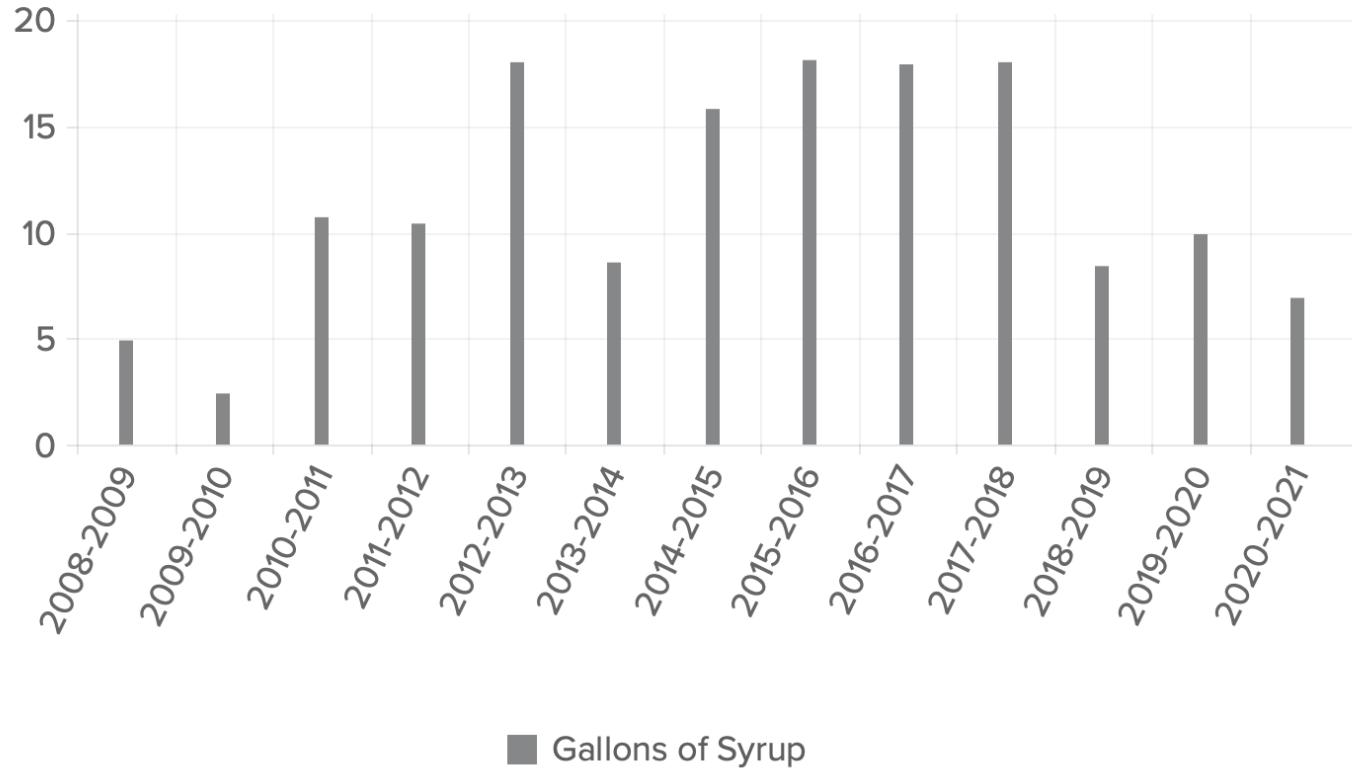
Study #3: Reasons to watch  
the weather



# LEK – maple syruping

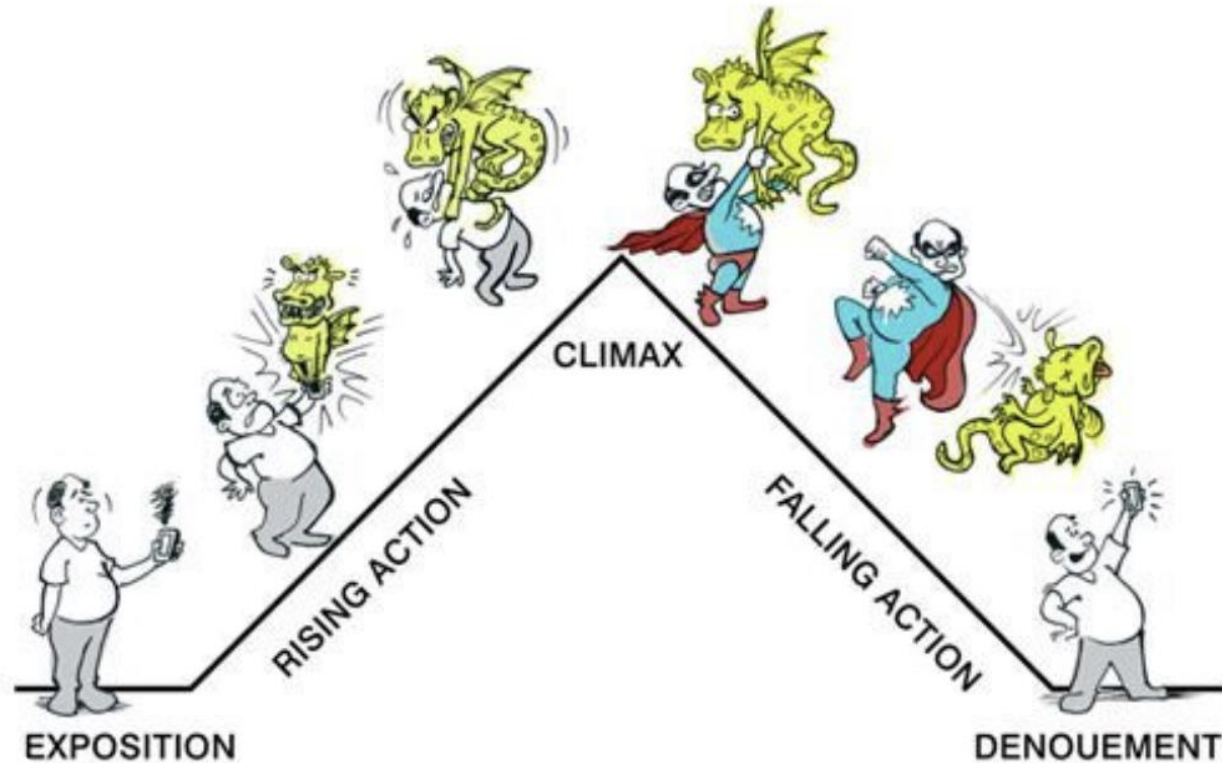
Taken this morning at 3:39 AM

## GALLONS OF MAPLE SYRUP MADE



# LEK - maple syruping

Reasons to watch the weather



## ***Perceiving Ecological Change by Rebuilding Local Ecological Knowledge***

*We come to the end of today's story . . .*