Saving Species At Risk:
Continuing Local Action Through the Pandemic

Kevin C. R. Kerr, Ph.D.
Manager, Species Recovery and Program Assessment

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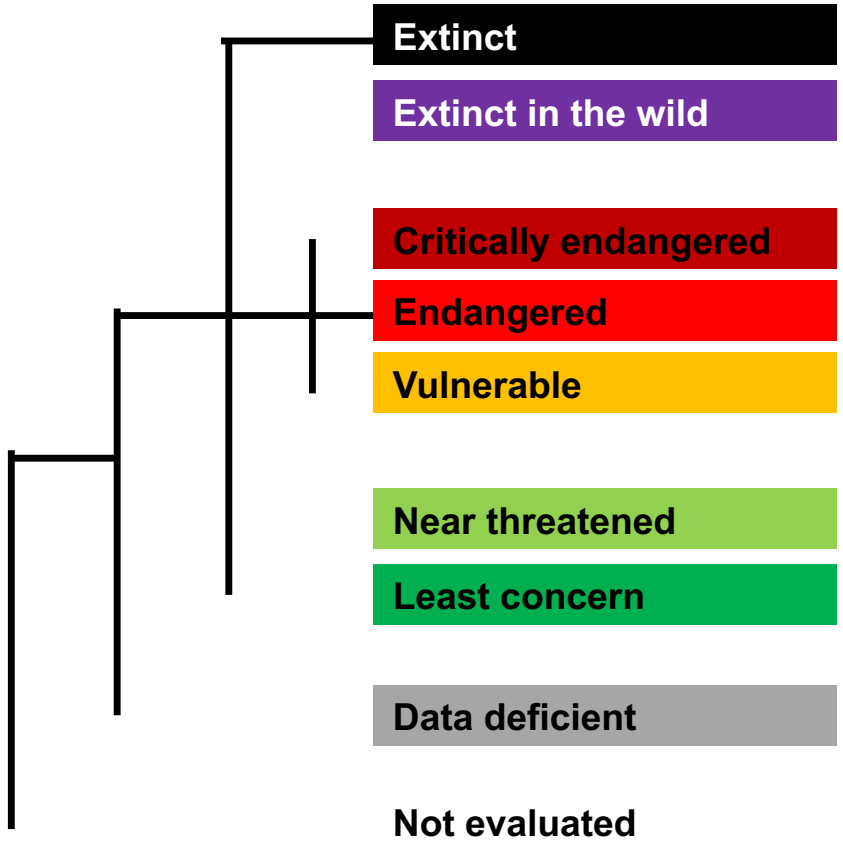
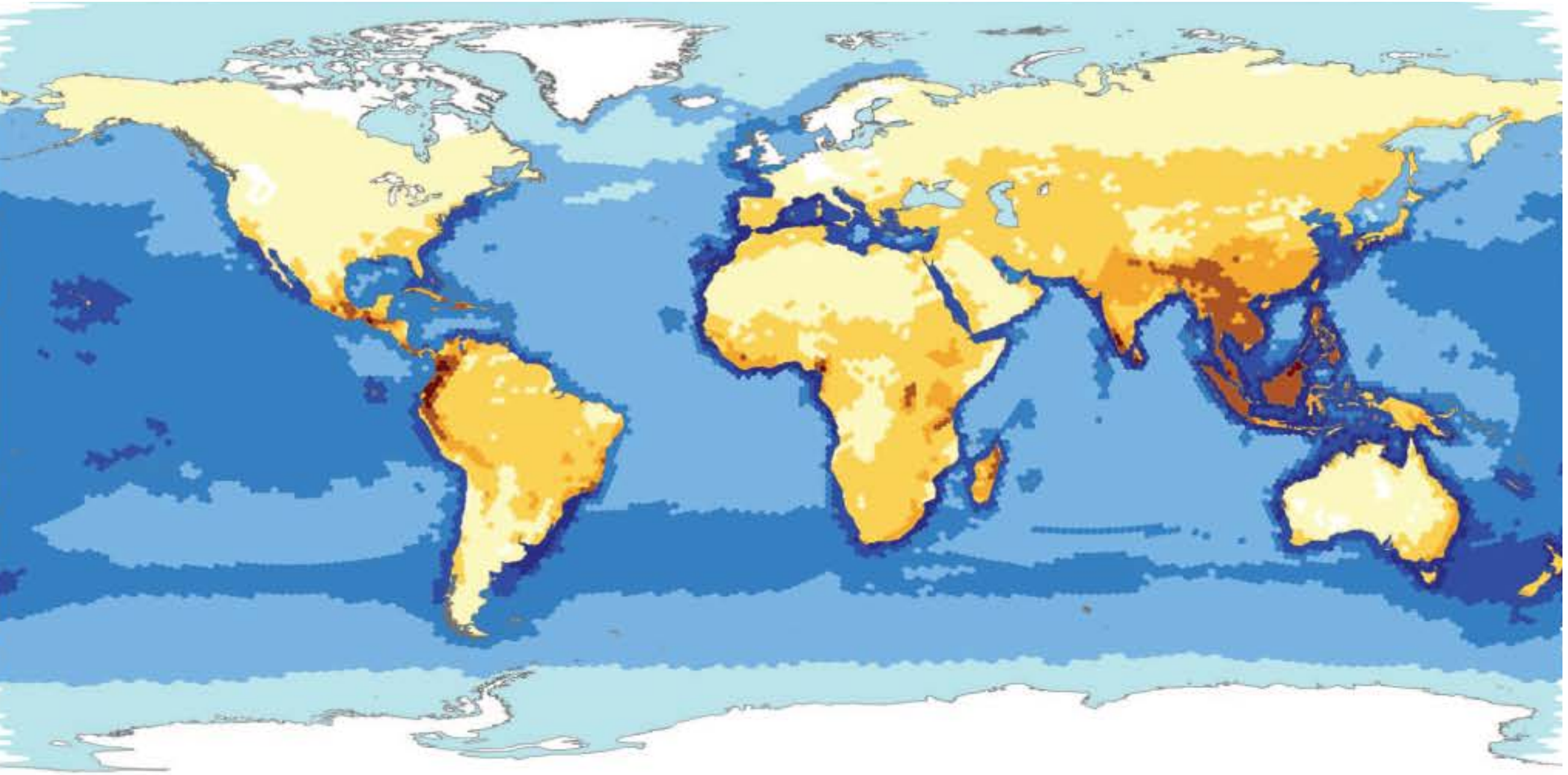
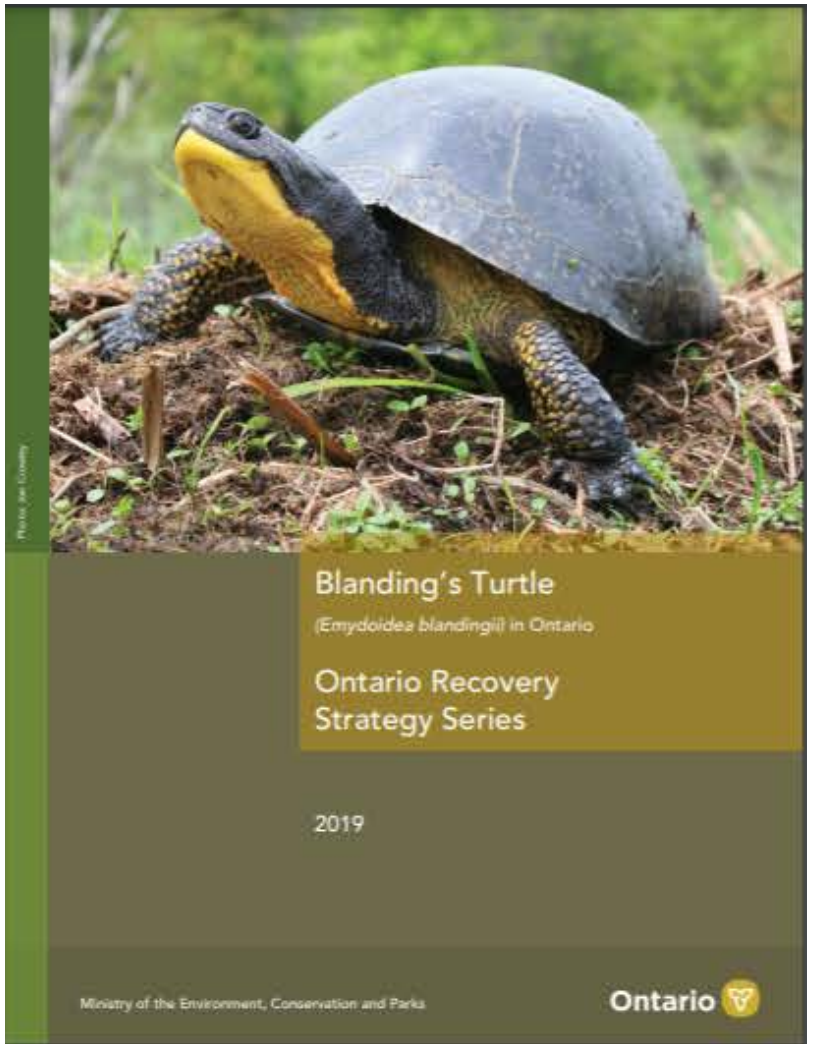
What are “Species At Risk”?



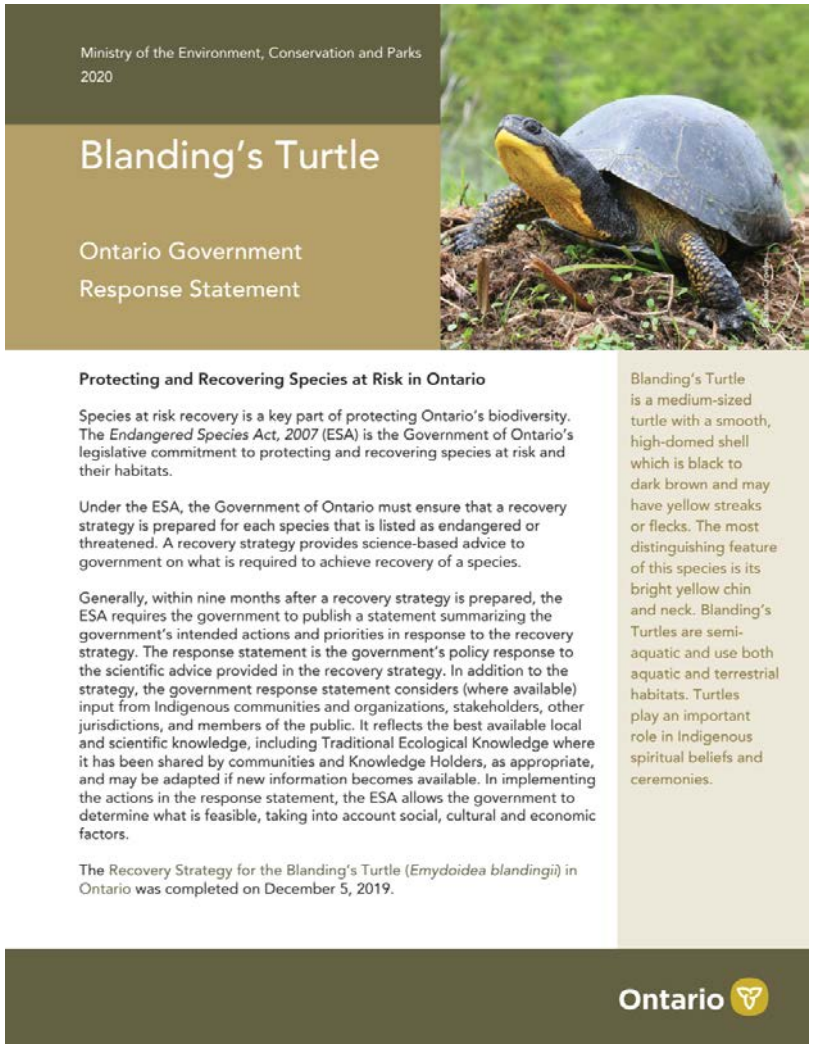


Source: Hoffmann et al. (2010) *Science* 330:1503-1509

Source: www.rom.on.ca



- Released within 1-2 years for Endangered/Threatened species



- Outlines government-led and government-supported recovery actions

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Species Recovery branch

ways of knowing partnership
TURTLE ISLAND conservation

Adopt-A-Pond
Wetland Conservation

NATIVE BAT CONSERVATION PROGRAM
toronto ZOO

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Great Lakes Program

Average annual grant revenue

= $260,000

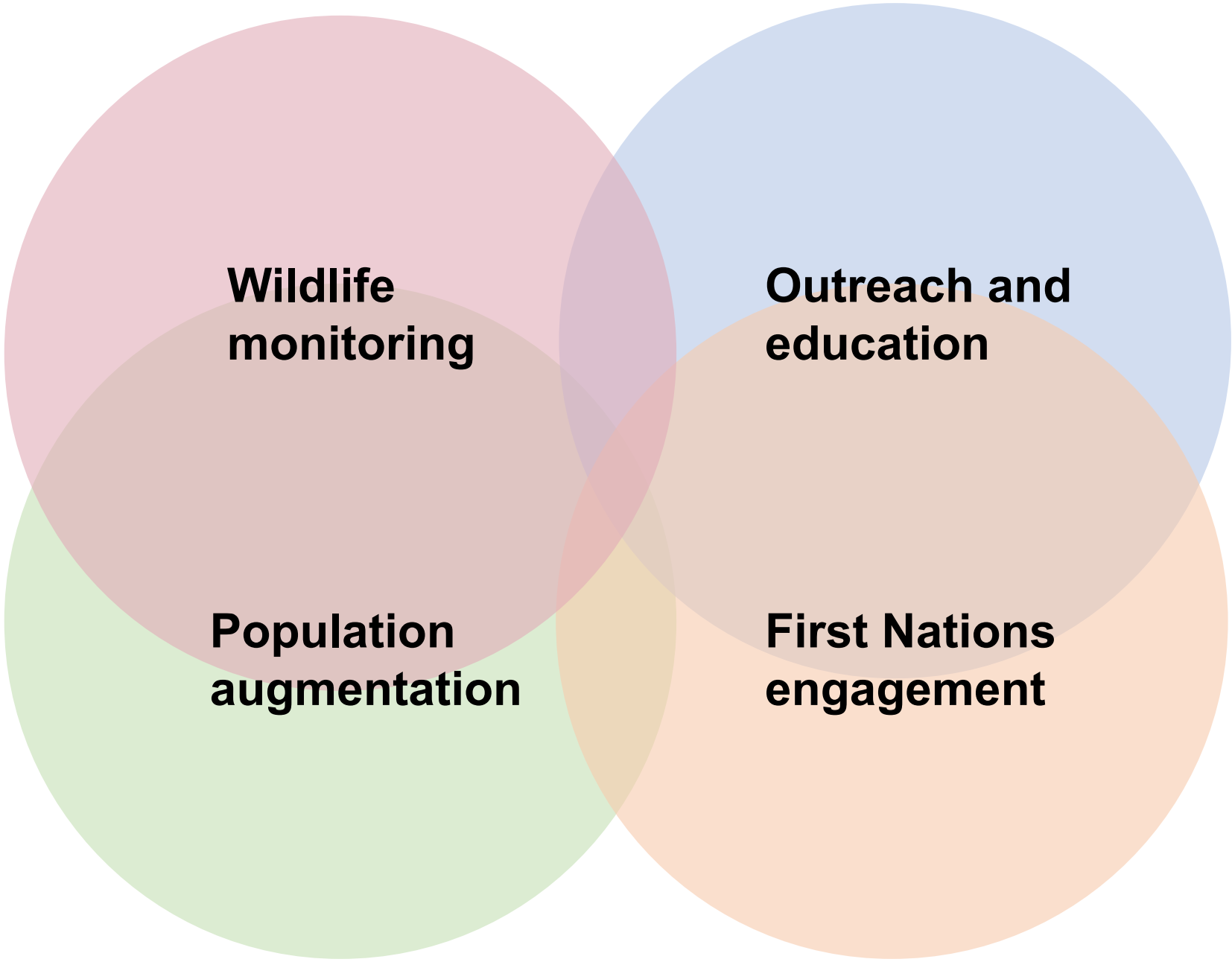
= $255,000

= $230,000

= $125,000

Grant-funded

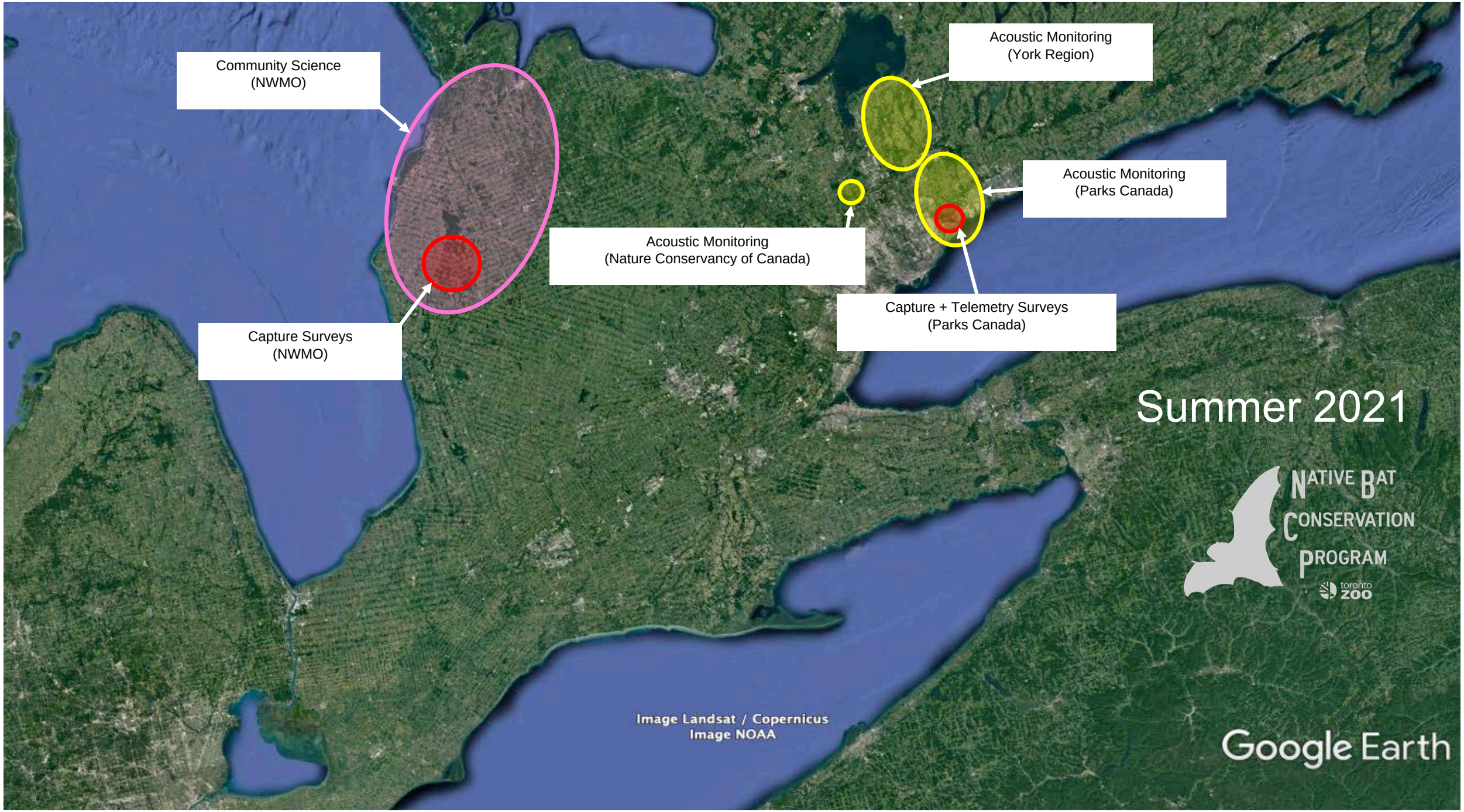
Total = $840k


Wildlife monitoring
Outreach and education
Population augmentation
First Nations engagement

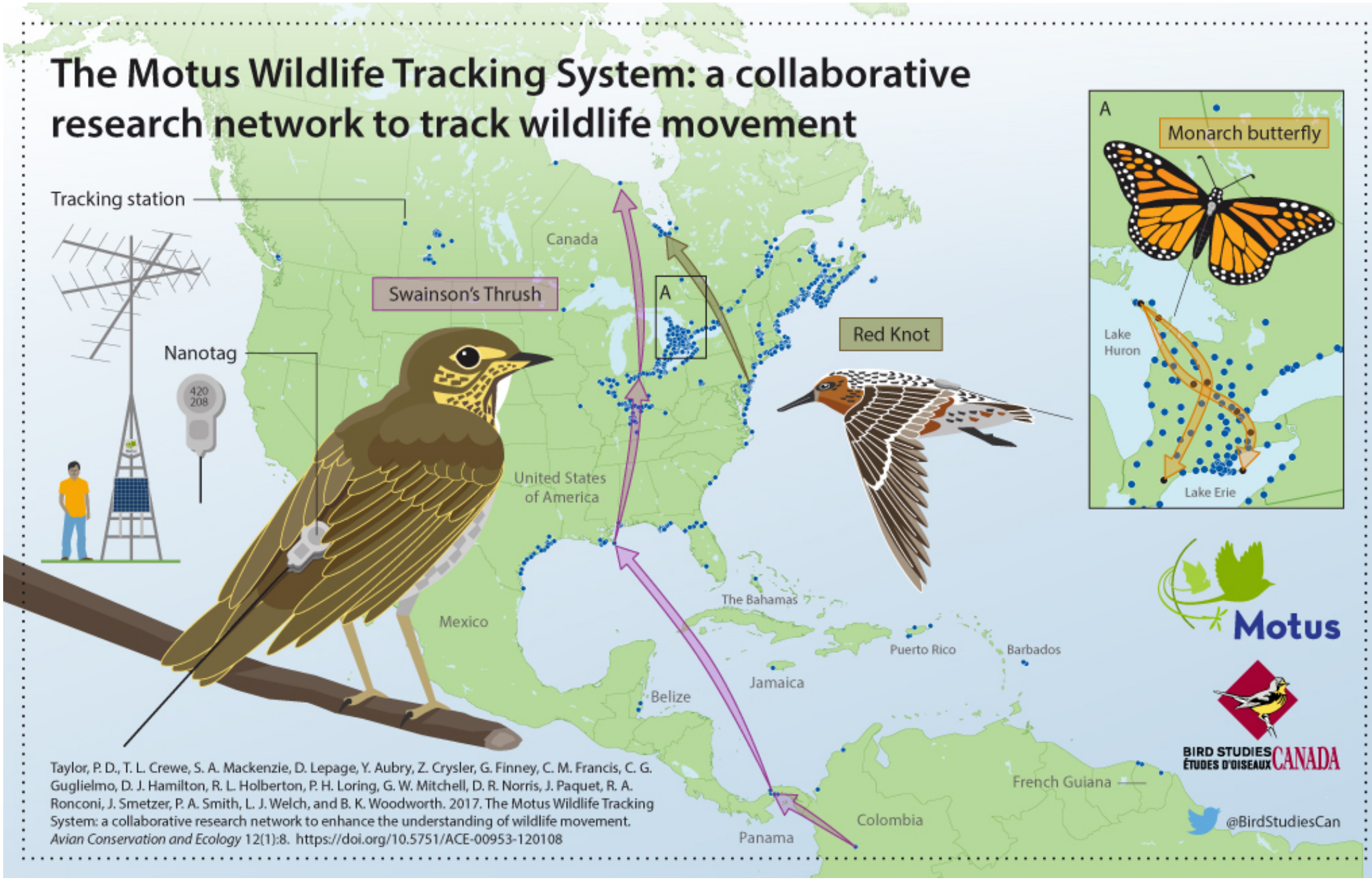
Overcoming pandemic-related challenges

- Delays in permits (office closures)
- Impacts on staffing levels
- Unanticipated costs (e.g. increased mileage)
- Equipment shortages (supply chain)
- Prohibitions on handling certain species

Wildlife monitoring


Community Science
(NWMO)
Capture Surveys
(NWMO)
Acoustic Monitoring
(Nature Conservancy of Canada)
Acoustic Monitoring
(York Region)
Acoustic Monitoring
(Parks Canada)
Capture + Telemetry Surveys
(Parks Canada)
Summer 2021
Native Bat Conservation Program
toronto zoo
Image Landsat / Copernicus
Image NOAA
Google Earth

The Motus Wildlife Tracking System: a collaborative research network to track wildlife movement



Taylor, P. D., T. L. Crewe, S. A. Mackenzie, D. Lepage, Y. Aubry, Z. Crysler, G. Finney, C. M. Francis, C. G. Guglielmo, D. J. Hamilton, R. L. Holberton, P. H. Loring, G. W. Mitchell, D. R. Norris, J. Paquet, R. A. Ronconi, J. Smetzer, P. A. Smith, L. J. Welch, and B. K. Woodworth. 2017. The Motus Wildlife Tracking System: a collaborative research network to enhance the understanding of wildlife movement. *Avian Conservation and Ecology* 12(1):8. https://doi.org/10.5751/ACE-00953-120108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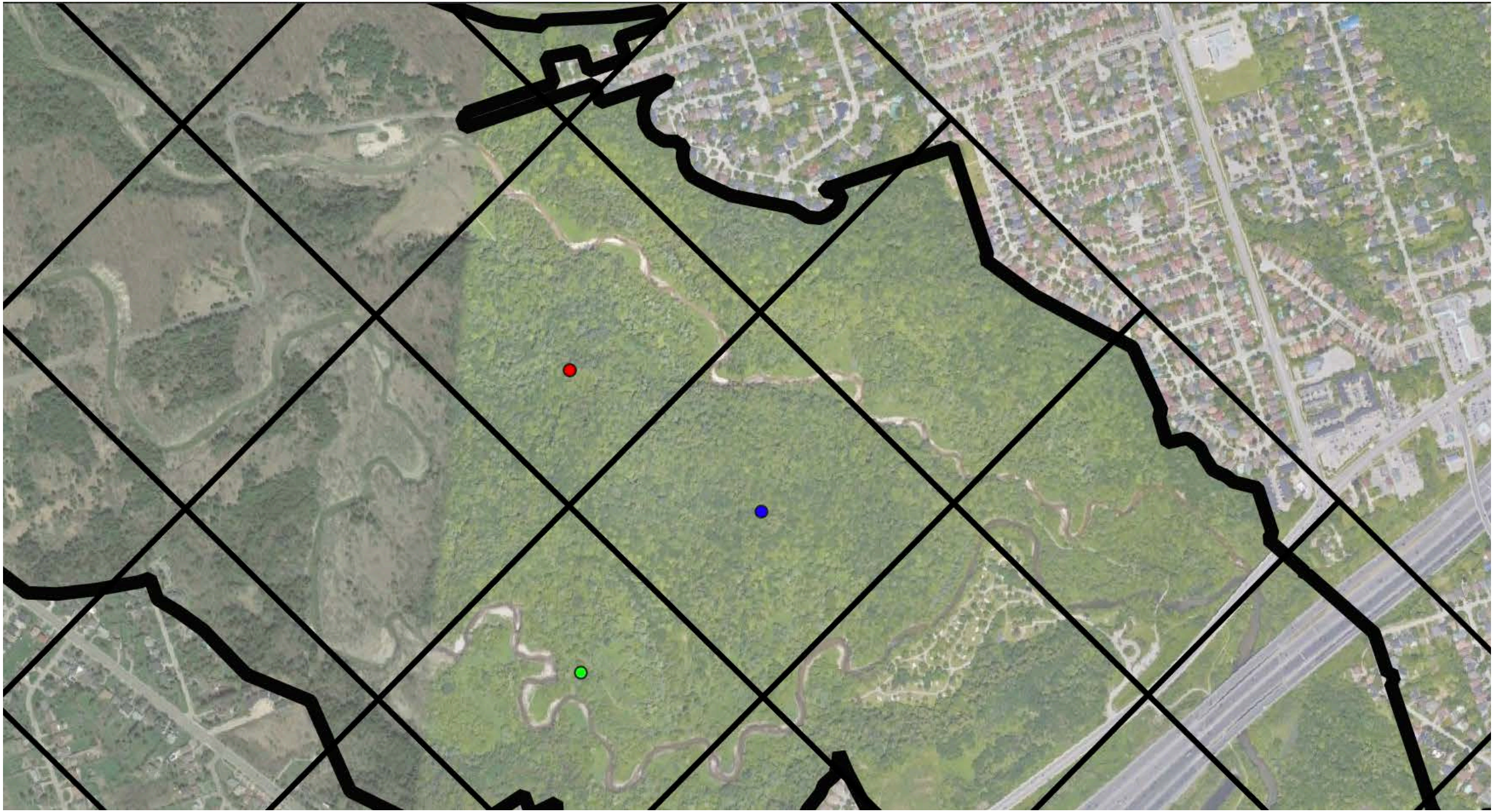
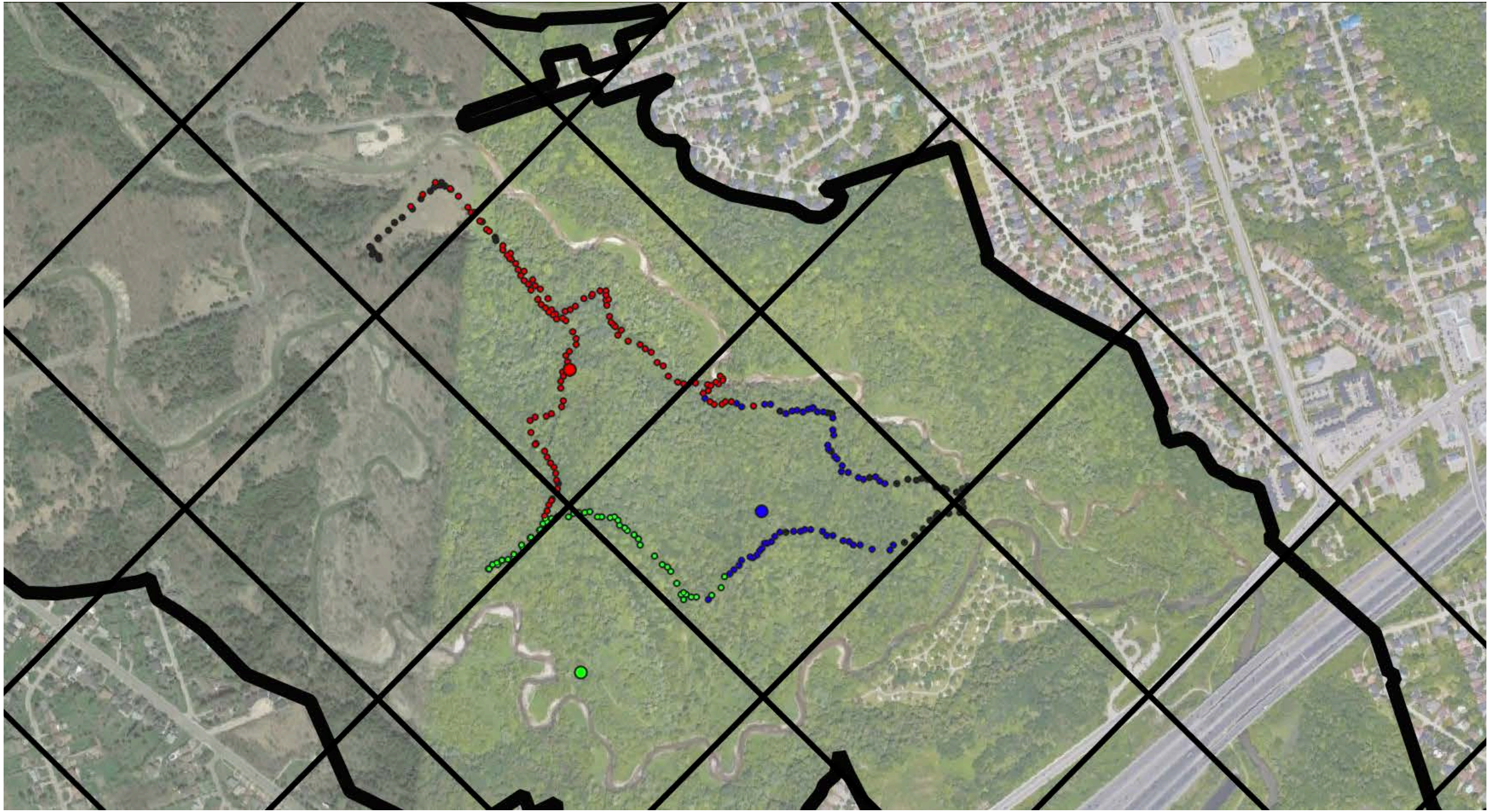
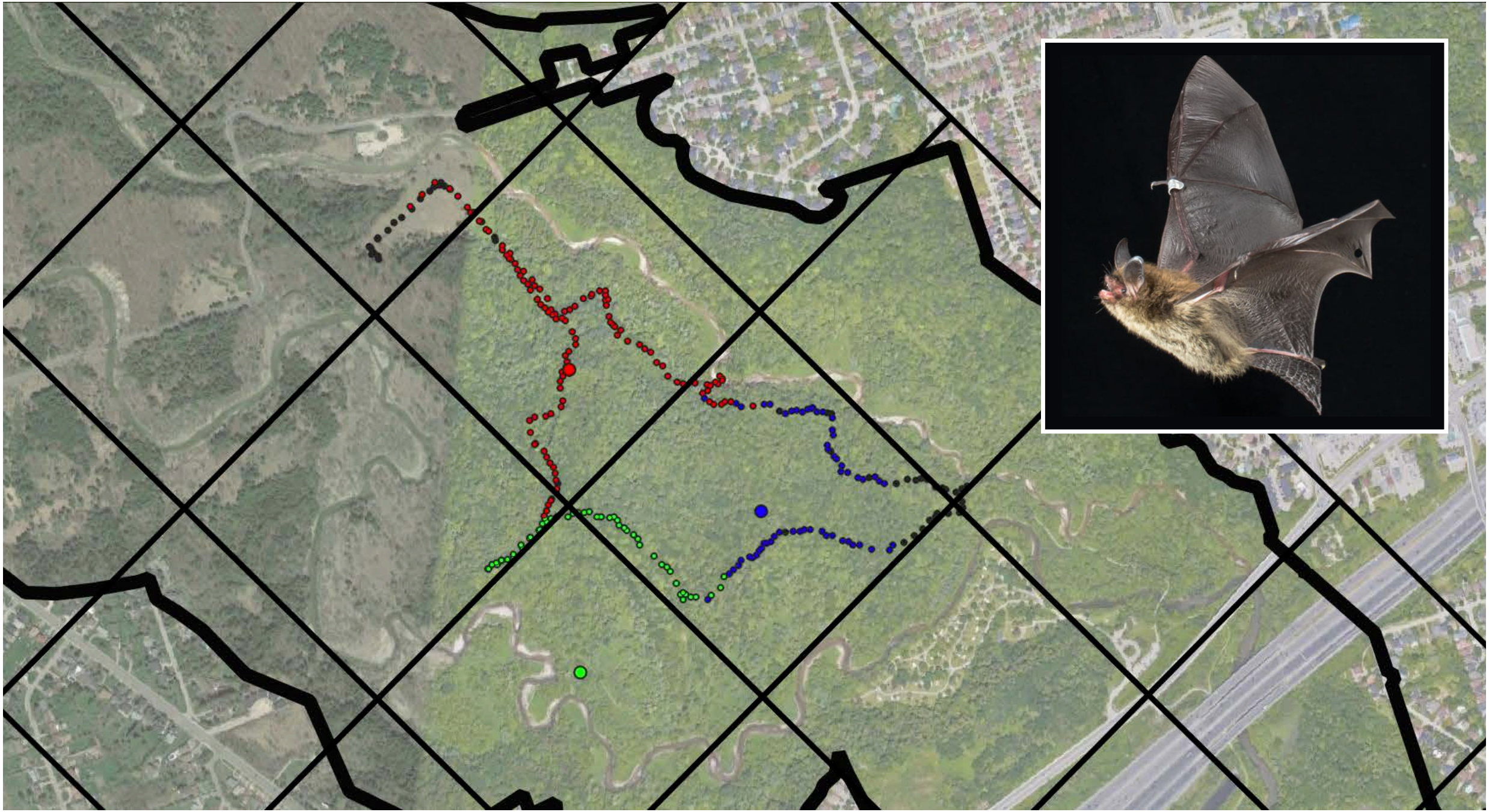






Population augmentation

Source: natureguelphtracking.wordpress.com/

Adopt-A-Pond
Wetland Conservation

“Head-starting”

- Eggs hatched under human care
- May be raised for a few days or a few years
- Turtles released to original location or populate new location

Blanding's turtle (*Emydoidea blandingii*)

- 119 eggs collected (117 hatched)
- 57 hatchlings released
- 60 hatchlings retained
- 57 two-year olds released

Wood turtle (*Glyptemys insculpta*)

- 33 new hatchlings retained
- 68 juveniles released

Blanding’s turtle release in Rouge National Urban Park (2020)

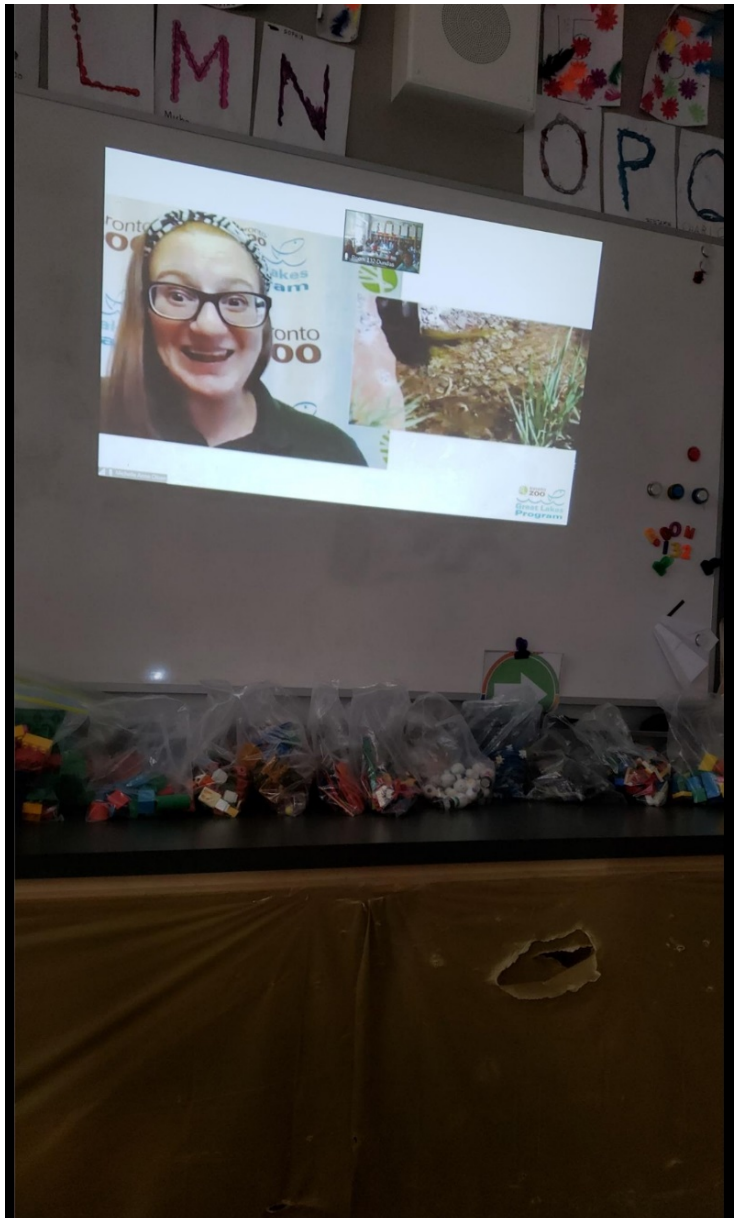
Outreach and education

Great Lakes Program

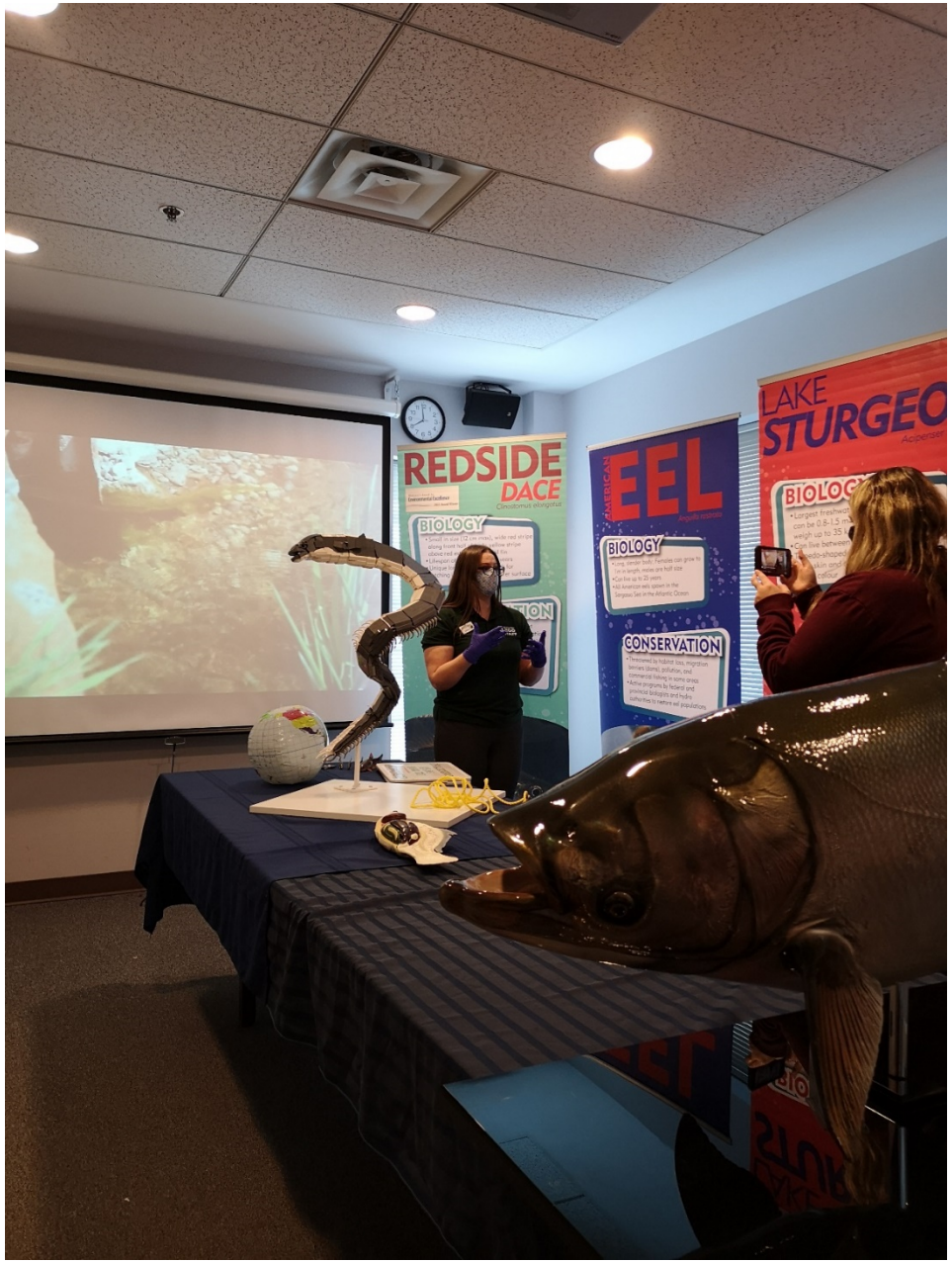
toronto zoo

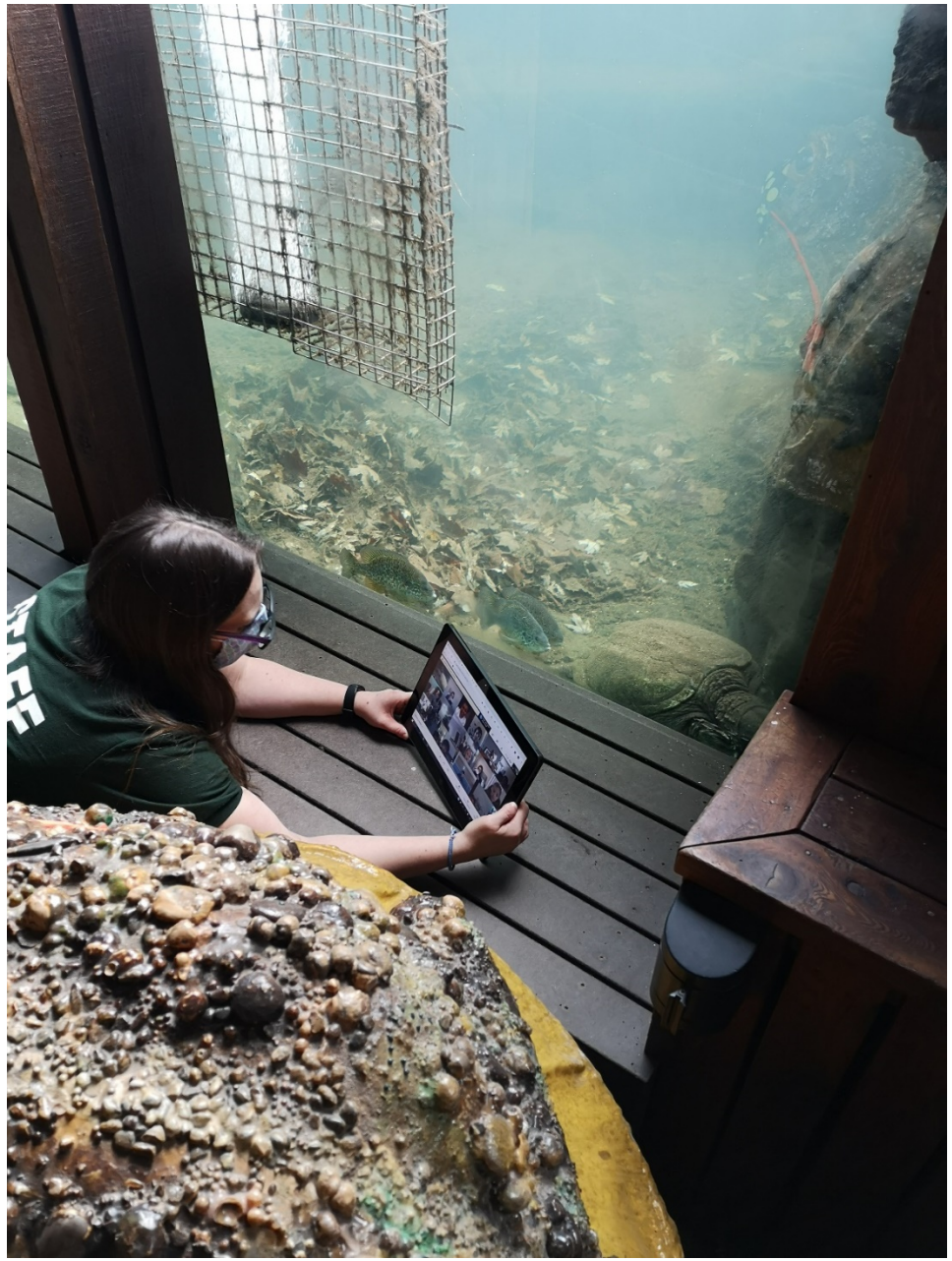
Great Lakes Program

- Curriculum-based, education program
- Offered free of charge
- Grades K-12, English or French
- Focuses on aquatic Species At Risk:
  - **American eel**
  - **Atlantic salmon**
  - Channel darter
  - Eastern sand darter
  - Freshwater mussels
  - Lake sturgeon
  - Pugnose minnow
  - Pugnose shiner
  - **Redside dace**
  - Silver shiner
  - Spotted gar



- Saved mileage costs
- Invested in digital broadcasting equipment:
  - Rocket hubs
  - Webcams, microphones, lighting
  - Backdrops


REDSIDE
DACE
BIOLOGY
EEL
BIOLOGY
CONSERVATION
LAKE
STURGEO
BIOLOG



Great Lakes Program

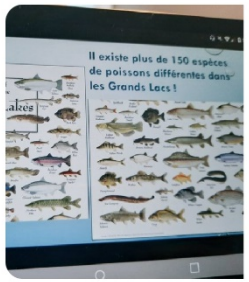
September 2020 to date:

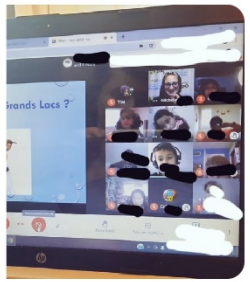
- **~380 presentations**
- 452 classes reach (vs 447 in previous year)
- 9,367 students reached in-class (vs 11,543 in previous year)
- 19% of presentations in French (vs 16% in previous year)

- Total reach including Facebook Lives and Nature Groups = 48,294 people
  (vs Total reach including public events = 18,234 people in previous year)

Mme Gicala
@jgicala1

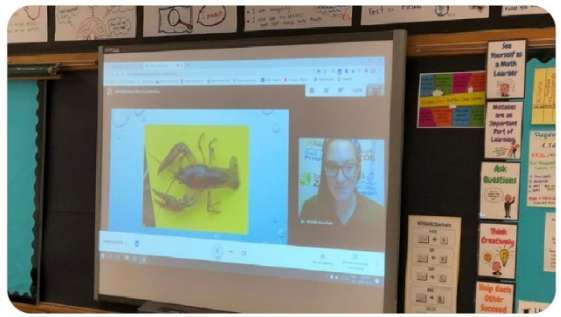
We are so lucky to have had a Science Educator from the Toronto Zoo @greatlakesprgm come to teach us about the Great Lakes, the fish and other wildlife around us! So many great questions!!! @louisearbourfi





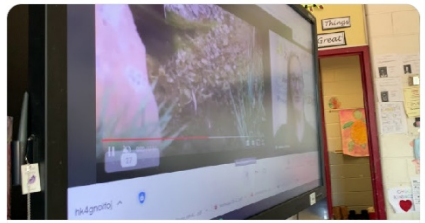
Princess Margaret JS @PMJS... · 4h

Thank you to @greatlakesprgm for dropping in virtually and sharing your expertise about biotic and abiotic things found in the various habitats that surround the Great Lakes. Our grade 4/5 and 4 students were definitely engaged. @TDSB_Lorraine @DanMacLean12 @tdsb



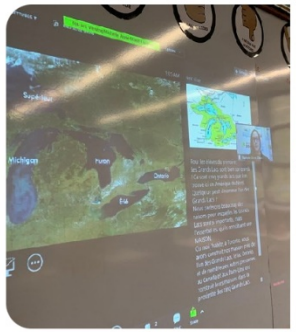
Franca Genco
@FrancaGenco

TY Michelle Olsen @greatlakesprgm who encouraged students to "Keep our Great Lakes Great" while learning about the unique local endangered "Redside Dace" minnow & developed student action & solutions for their protection @JpsTdsb @EcoSchoolsTDSB @LC3_TDSB



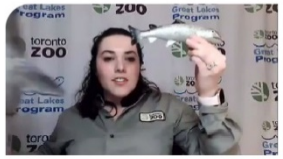
Mme Loares @MmeLoares · 7h

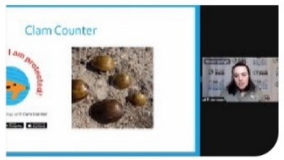
Thank you @greatlakesprgm for a great presentation this morning! Grade 3/4 students in Salle 223 learned about the Great Lakes and the importance of protecting aquatic ecosystems! 🚰🚤🛶🐟



Ellen van Wageningen @El... · 14h

Super informative presentation tonight by Kat Lucas of @greatlakesprgm to the @ECFNC about the threats to our Great Lakes and what we can do to reduce them. Watch for the video on Essex County Nature's YouTube channel. #mussels #fish





Ms. G
@MsG_VirtualDSBN

Today we were joined by the Toronto Zoo for a presentation about our Great Lakes. We learned about some of the amazing aquatic species living right here in the watersheds and how to "keep our great lakes great". @DSBNVirtual @dsbn @greatlakesprgm

"The program was amazing! Thank you so very much... inquiry-based learning in a 45-minute presentation is almost impossible... The presenter did an incredible job. [...]Thank you again for a wonderful visit! Absolutely what we were looking for. I passed along our high praise for your program to administration and other teachers."

First Nations engagement

NEWS RELEASE

Ontario Taking Action to Protect and Restore the Great Lakes

Province investing in projects to improve the health of the world's largest lake system

September 4, 2020

Environment, Conservation and Parks

First Nations partner activities: Shoreline clean-up events

$15,622.40

Chippewas of RAMA First Nation

Magnetawan First Nation

GEORGINA ISLAND

Alderville First Nation

SIX NATIONS OF THE GRAND RIVER


Ontarí:yo A'nowara'shón:'a Kayenterítston
Turtles Of Ontario Identifier
Mohawk writing system
toronto zoo
361A Old Finch Ave.
Toronto, ON, Canada M1B 5K7
www.torontozoo.com
TURTLE ISLAND conservation
www.turtleislandconservation.com
Ka'nowákeras A'nó:wara
Stinkpot (Musk)
Sternotherus odoratus
Yotsistohkawarónnyon A'nó:wara
Spotted
Clemmys guttata
Yo'nowská:rote A'nó:wara
Wood
Glyptemys insculpta
Yohwentsyaráhston A'nó:wara
Northern Map
Graptemys geographica
Blanding Ra'nó:wara
Blanding's
Emydoidea blandingii

Ontarí:yo A'nowara'shón:'a Kayenterítston
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Mohawk writing system
Ka'nowákeras A'nó:wara
Stinkpot (Musk)
Sternotherus odoratus
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táhnon yah tyekayé:ri tsi nikon
wathsinarhó:roka; Kekwényes
neenwate'nowahnhóʌton tsi o'noyóʌkon,
ne k-ti enwé:ton enwatenontsistó:roke
• Tetsyarónhkwen nonkwá:ti tékeni teyotihatényon
ne kanyaráʌke ne a'nó:wara
• Yohnakwá:ronte karhyohsá:ke táhnon kanyaráʌka
• Ka'nowarákeras a'nó:wara ratina'tónhkwa né:'e tsi
enwakerásten tóka' enhsyé:na
• 2-5 karáʌken táhnon yohní:ron o'nhónhas enwanhnhonha-yen
•Yah é:so teskontinákere (COSEWIC); Yah é:so teskontinákere. (OMNR)


A'NÓ:WARA
TEKONTIHAHÍ:YAKS
CROSSING


M'SHEEKEHN
TAHKAAMOJEEGEWIN
CROSSING

Questions?