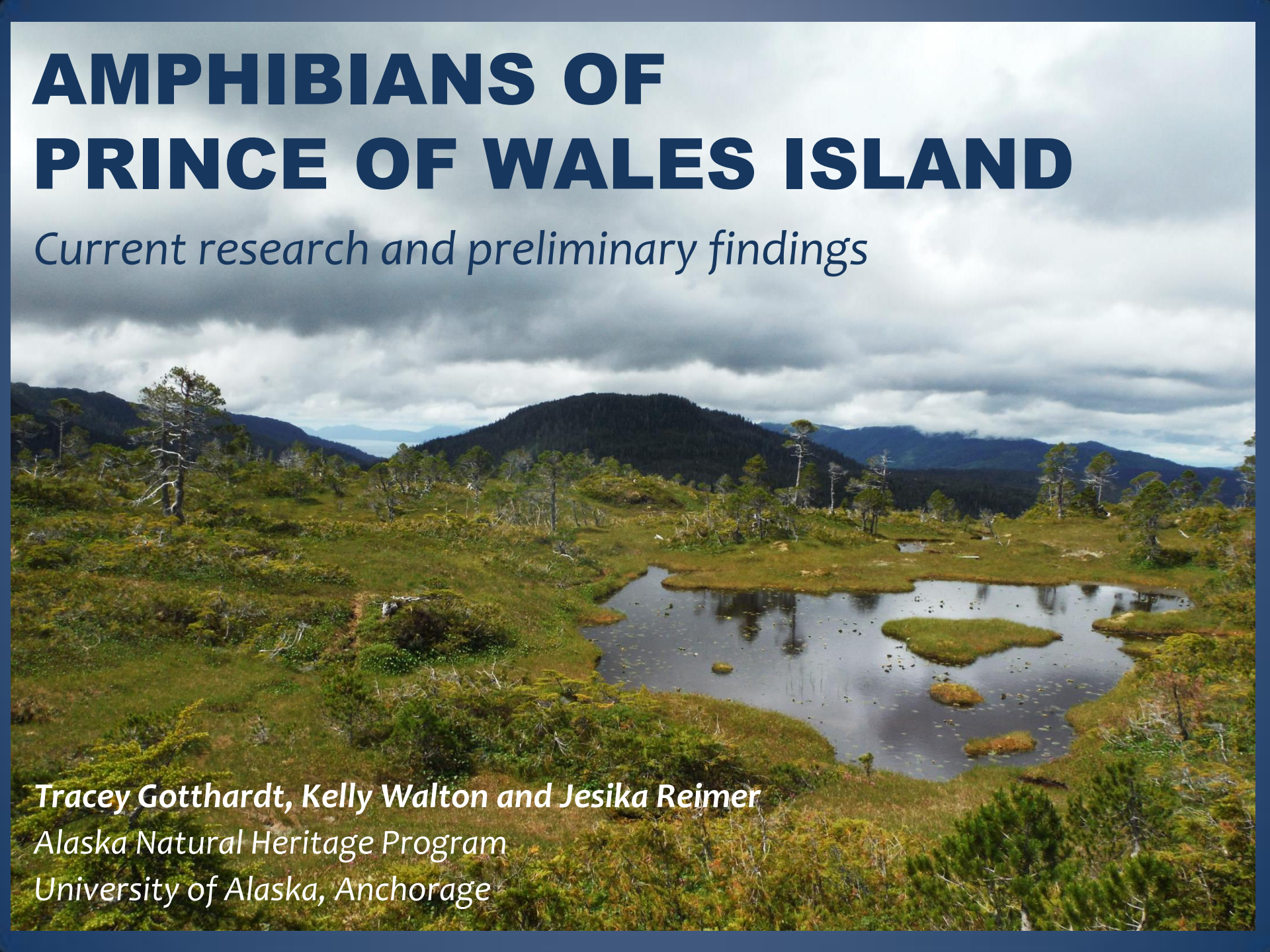


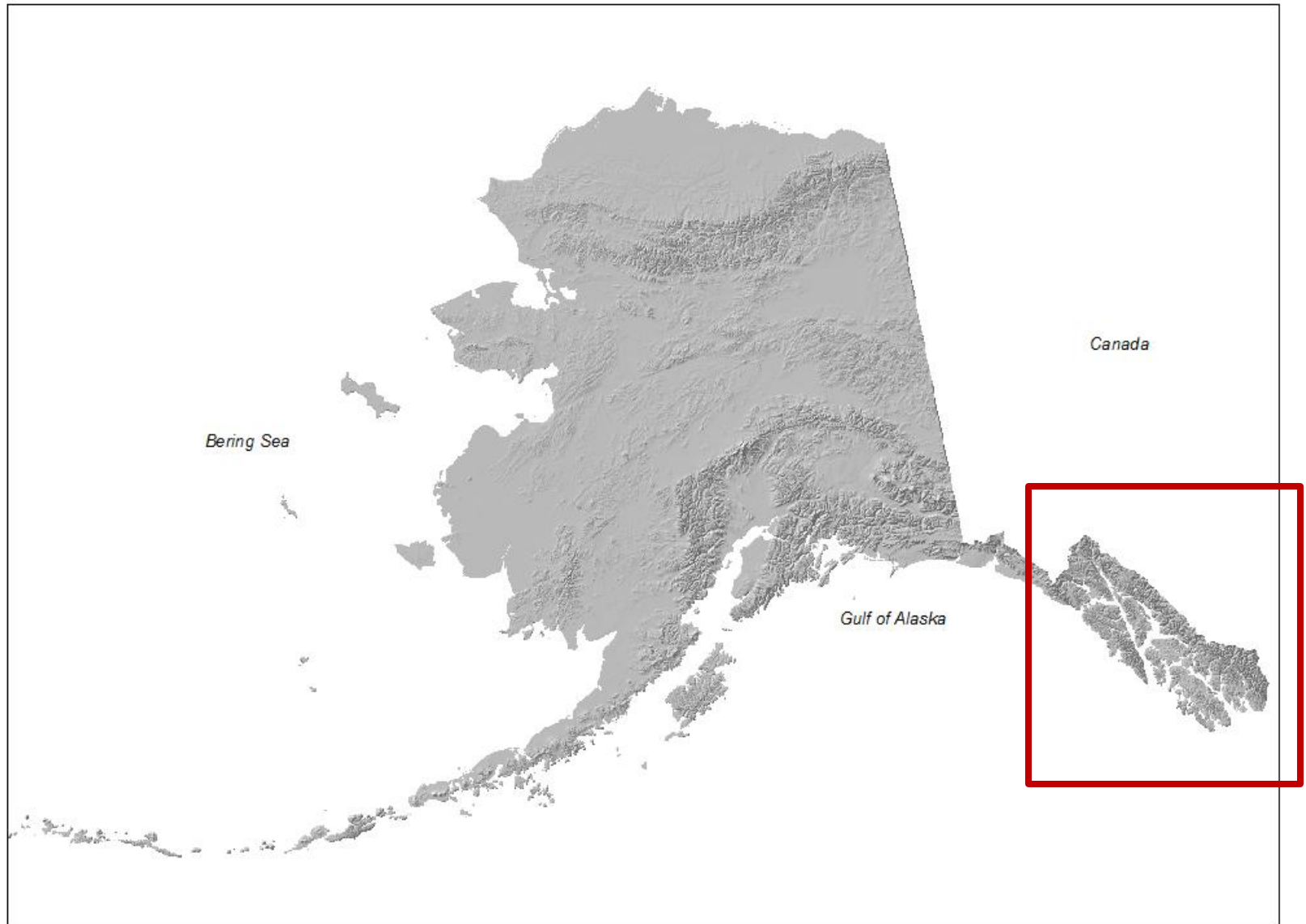
AMPHIBIANS OF PRINCE OF WALES ISLAND

Current research and preliminary findings

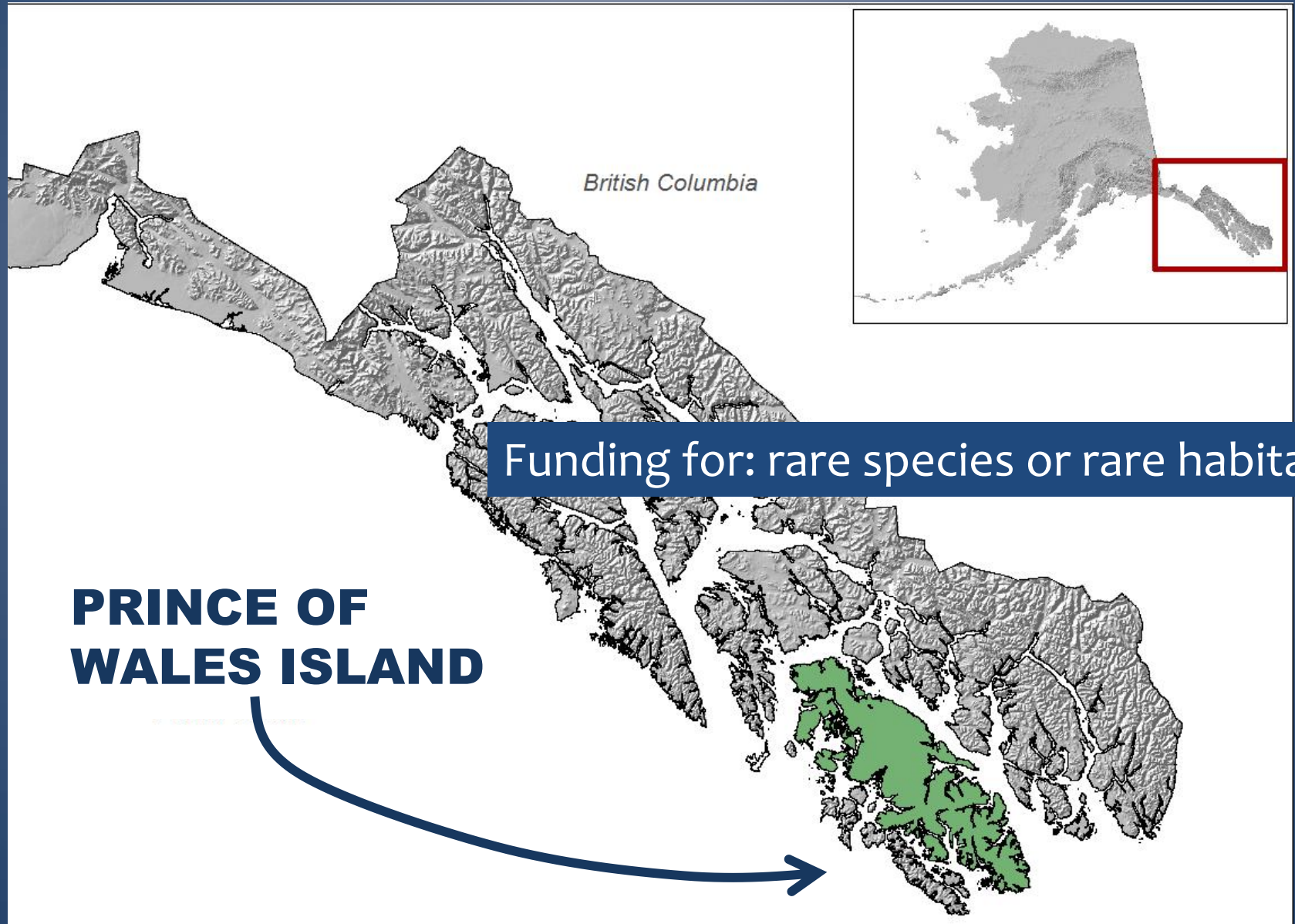
*Tracey Gotthardt, Kelly Walton and Jesika Reimer
Alaska Natural Heritage Program
University of Alaska, Anchorage*



STUDY AREA



STUDY AREA



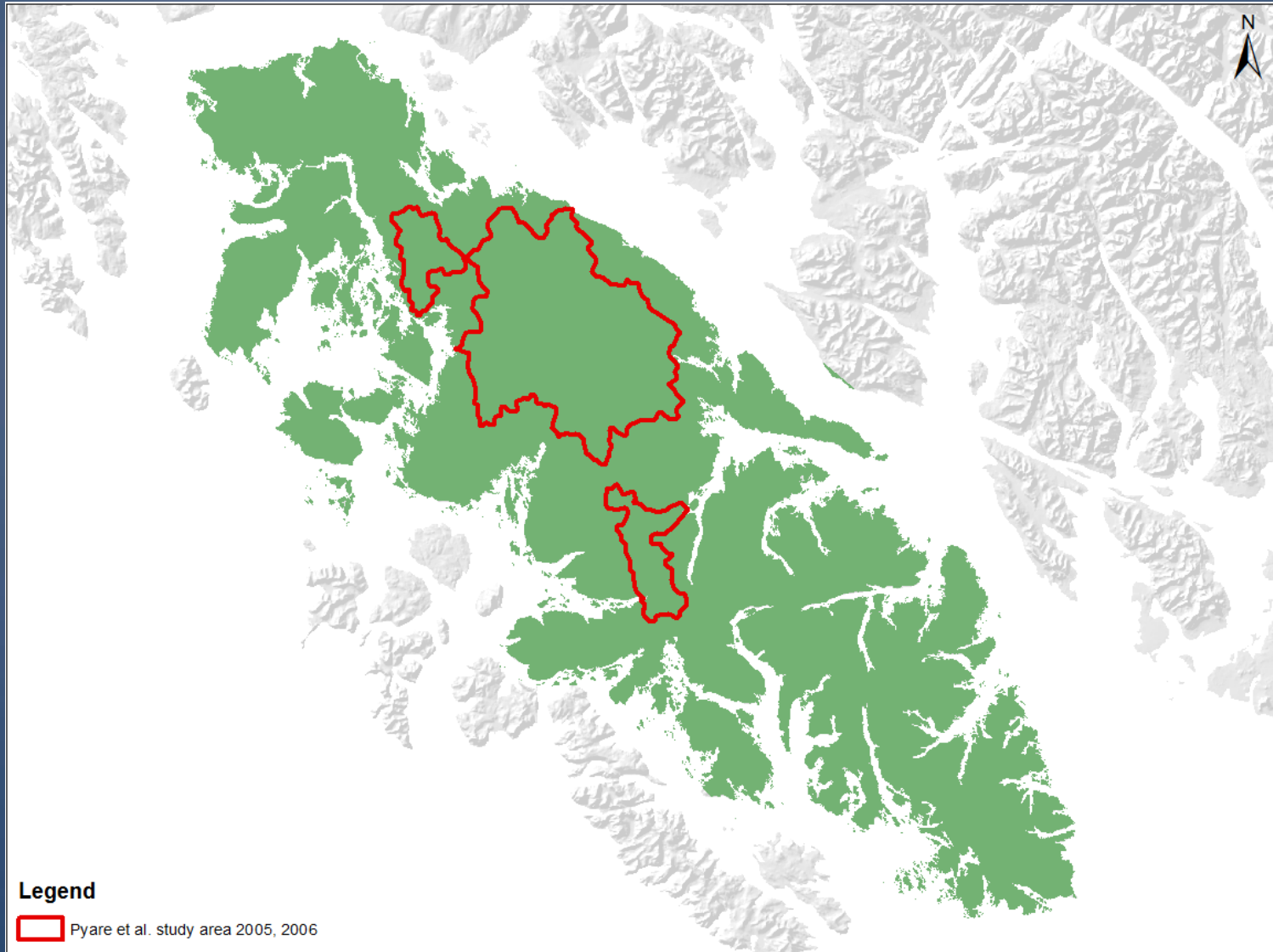
British Columbia

Funding for: rare species or rare habitats

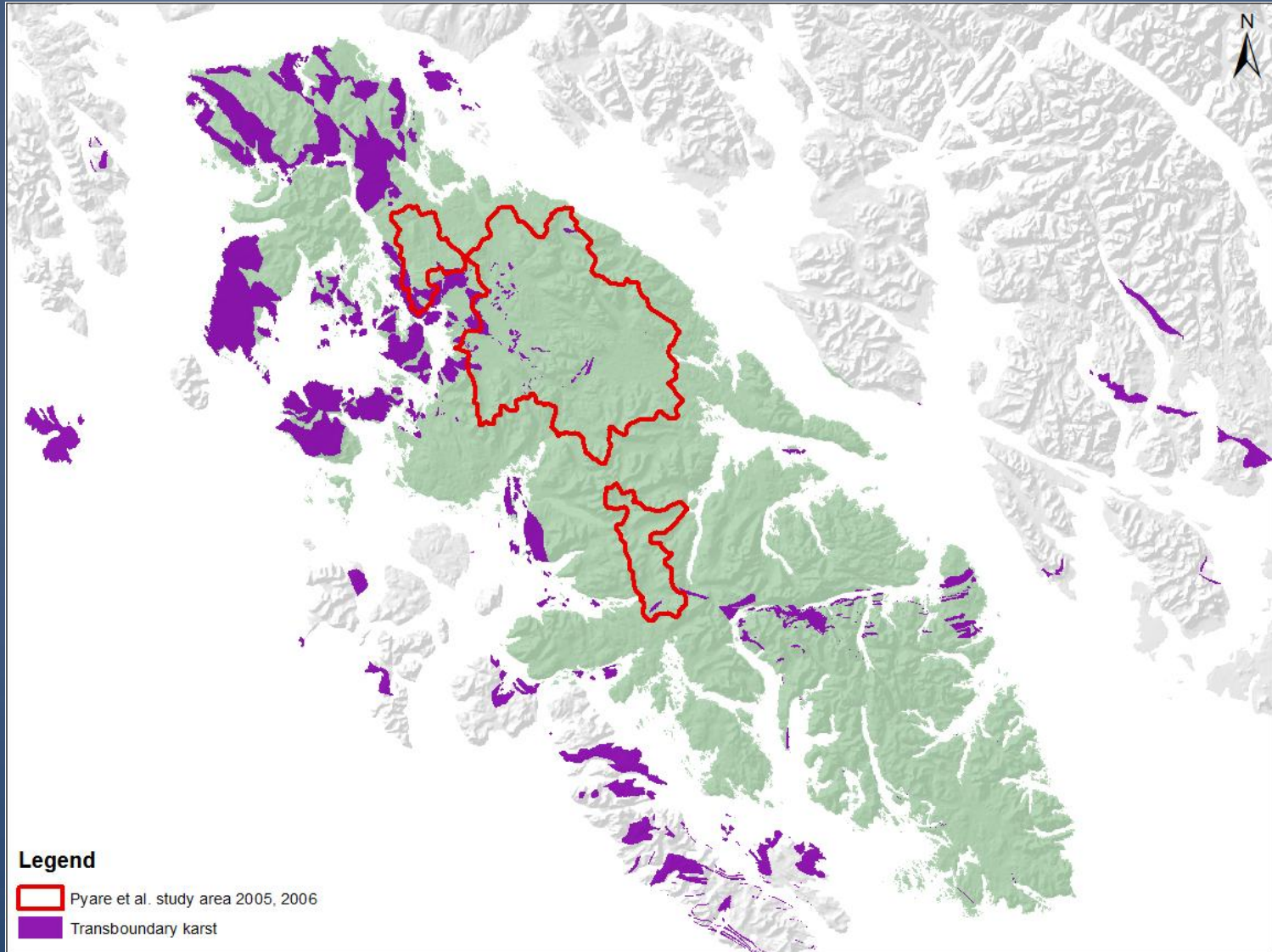
PRINCE OF WALES ISLAND

PREVIOUS WORK

Pyare et al. 2013 – focused on central part of island (2005, 2006)



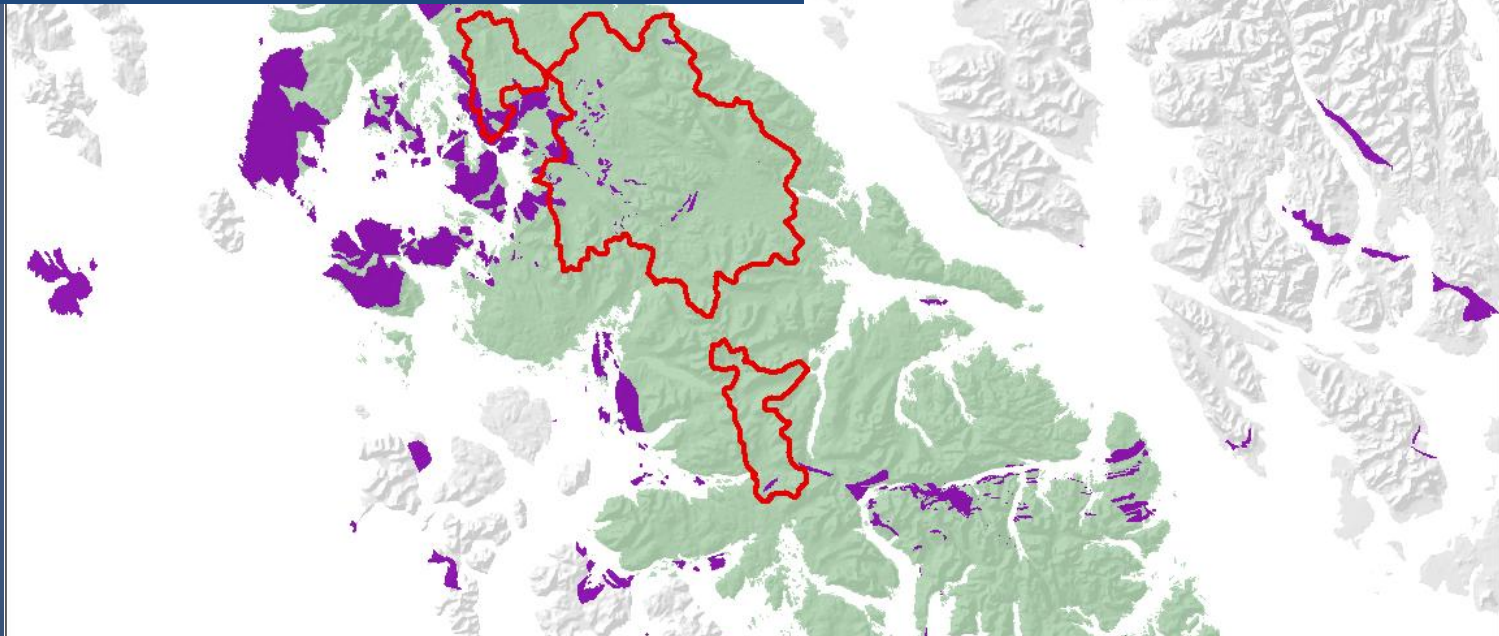
KARST TOPOGRAPHY



KARST TOPOGRAPHY



Karst topography is a landscape formed from the dissolution of soluble rocks such as limestone, dolomite, and gypsum. It is characterized by underground drainage systems with sinkholes, dolines, and caves.

- Rare habitat form
- Highly productive
- High logging pressure
- Old growth forest



Funding for: rare species or rare habitats – went with amphibians in karst

Legend

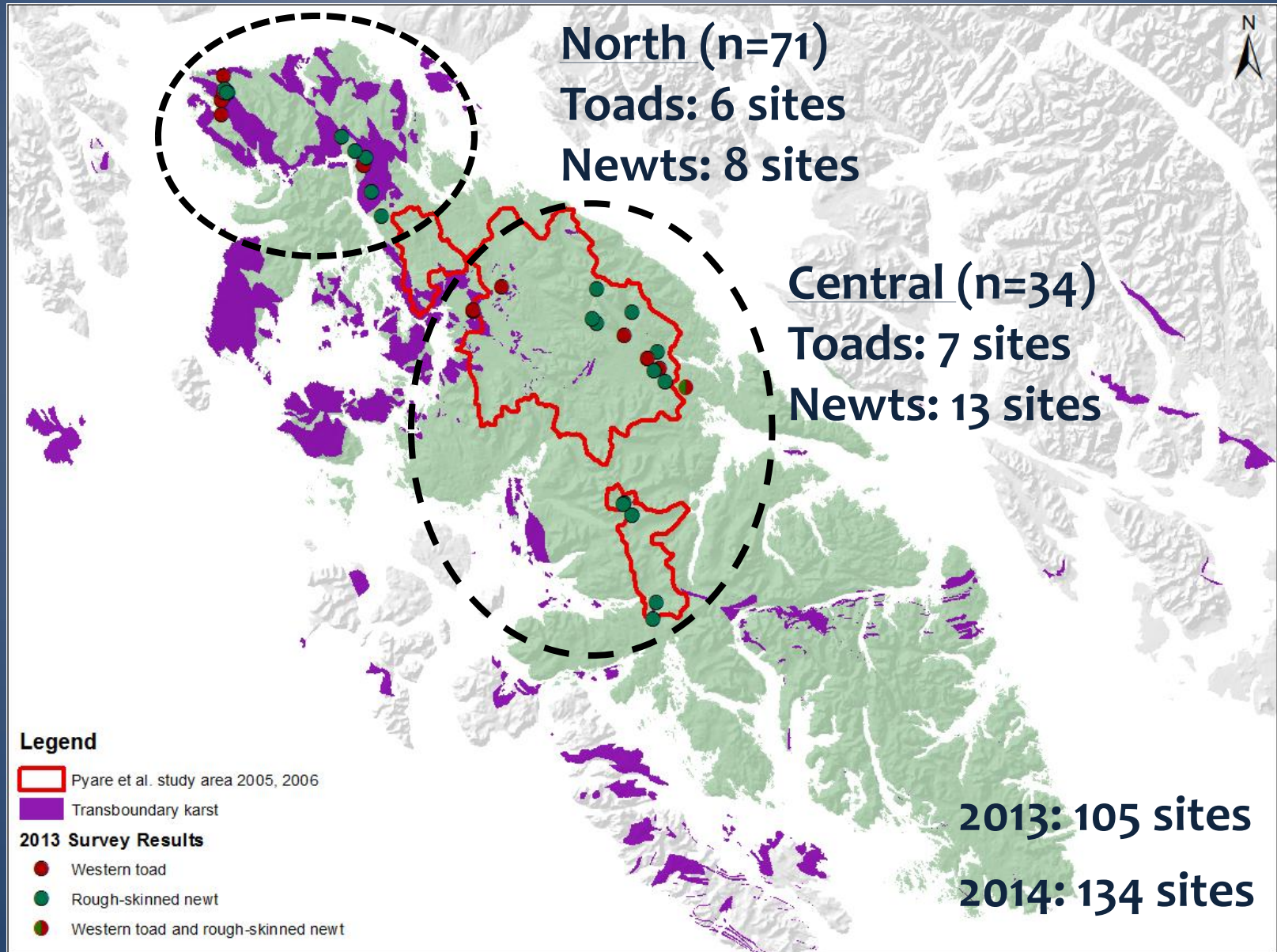
-  Pyare et al. study area 2005, 2006
-  Transboundary karst

OBJECTIVES

1. *Gather baseline data for: amphibian distribution, species composition, and habitat use on POW*
2. *Document continued presence or absence of amphibians in non-karst habitats – re-survey Pyare et al sites.*
3. *Compare amphibian presence in karst vs. non-karst habitats*



OBJECTIVE 1: GATHER BASELINE DATA

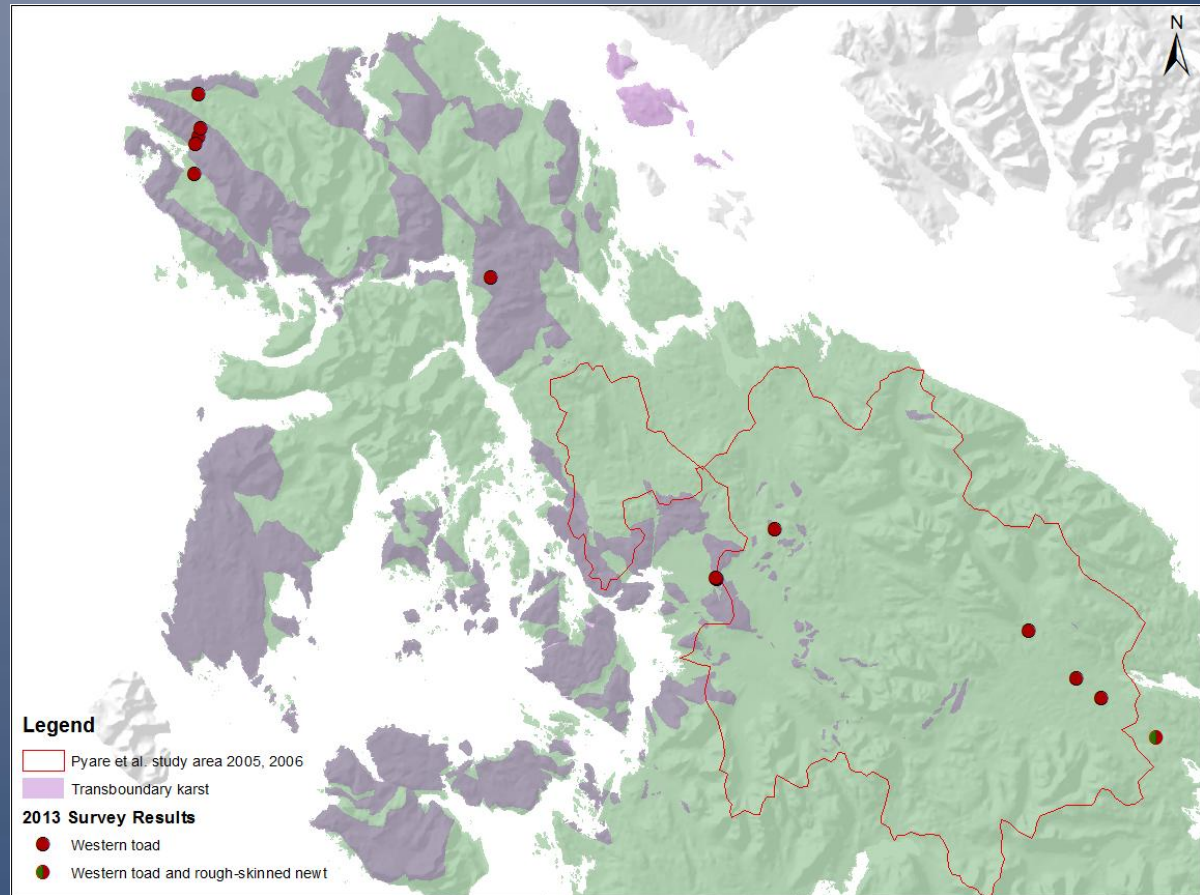


OBJECTIVE 1: GATHER BASELINE DATA

13 sites with western boreal toads – 12%

Tadpoles = 2 sites

Metamorphs = 1 site



OBJECTIVE 1: GATHER BASELINE DATA

Habitat types:

lacustrine littoral (emergent – aquatic bed)

riverine lower perennial (emergent – aquatic bed)

palustrine (emergent – aquatic bed)

needleleaf forest peatland

Water temperature: 13.3 – 18.5°C

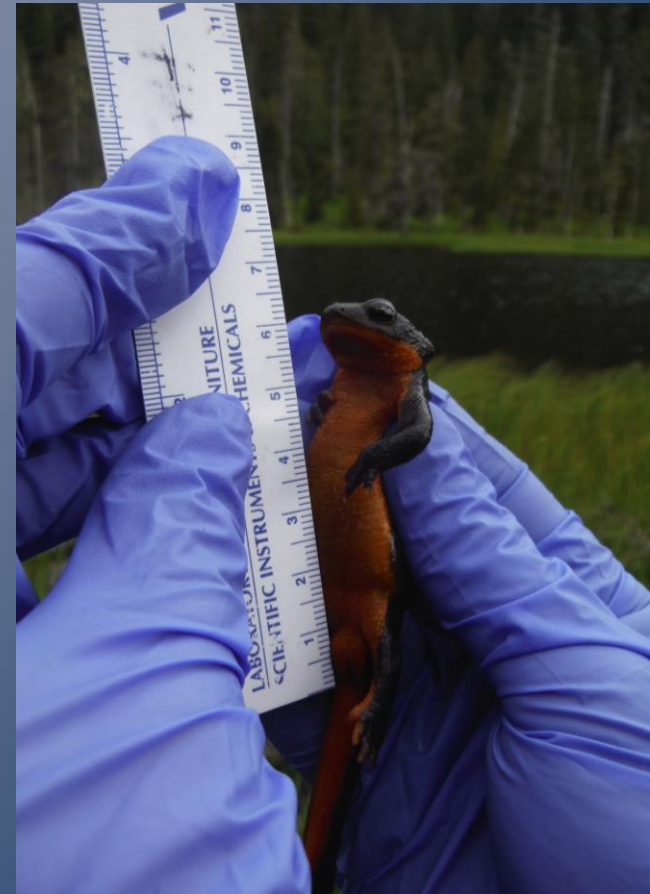
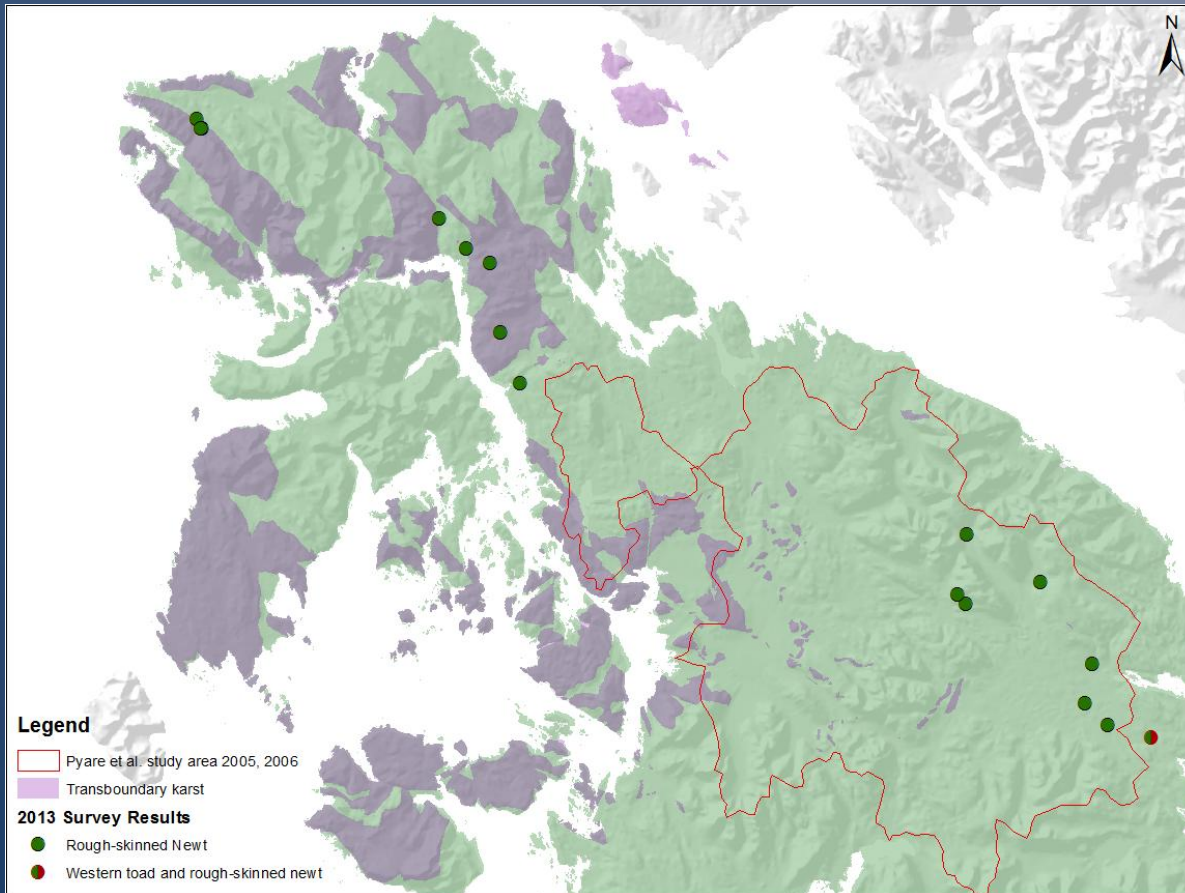
pH: 5.4 – 7.3



chara spp.

OBJECTIVE 1: GATHER BASELINE DATA

14 sites with rough-skinned newts – 20%



OBJECTIVE 1: GATHER BASELINE DATA

Habitat types:

beaver ponds and sloughs

lacustrine littoral (emergent – aquatic bed)

palustrine (emergent – aquatic bed)

needleleaf forest peatland

herbaceous peatland

Water temperature: 14.4 – 24.9°C > 13.3 – 18.5°C

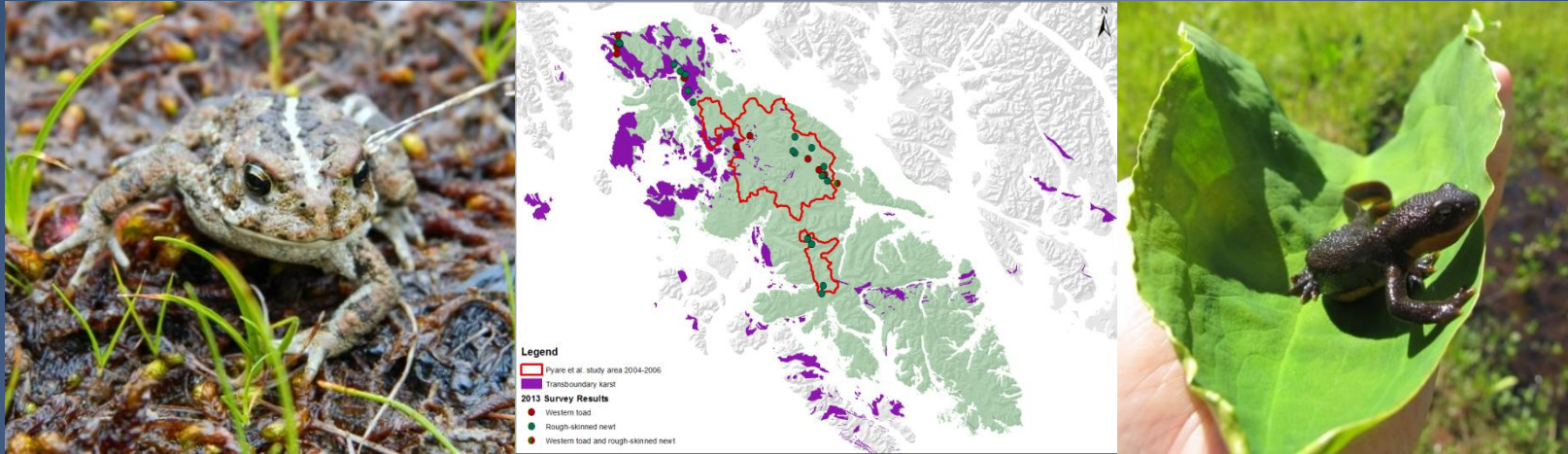
pH: 5.4 – 7.3



OBJECTIVE 1: GATHER BASELINE DATA



BASELINE CONCLUSIONS



Amphibians present across the island

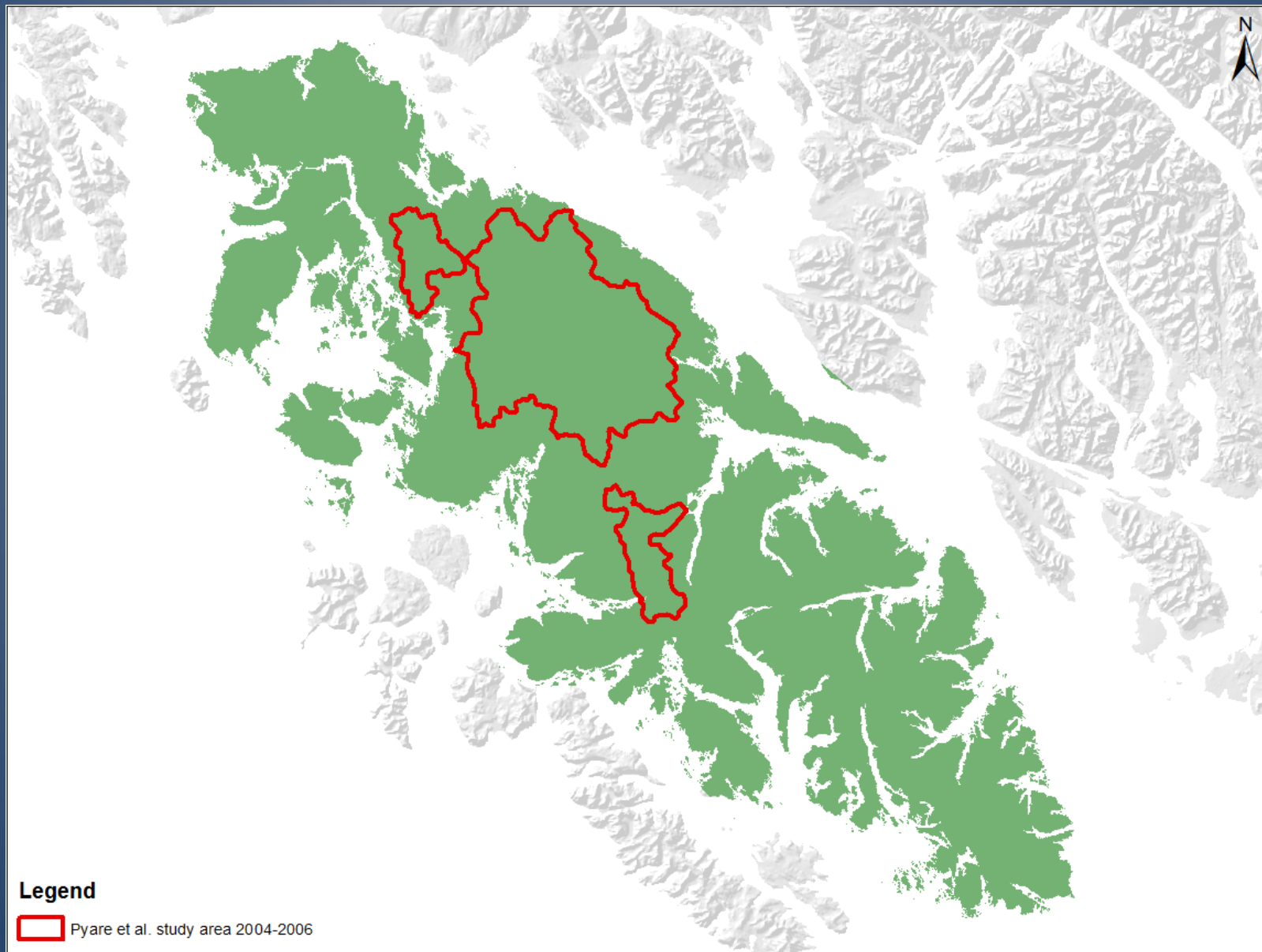
Habitat preferences:

Western Toads – emergent aquatic beds

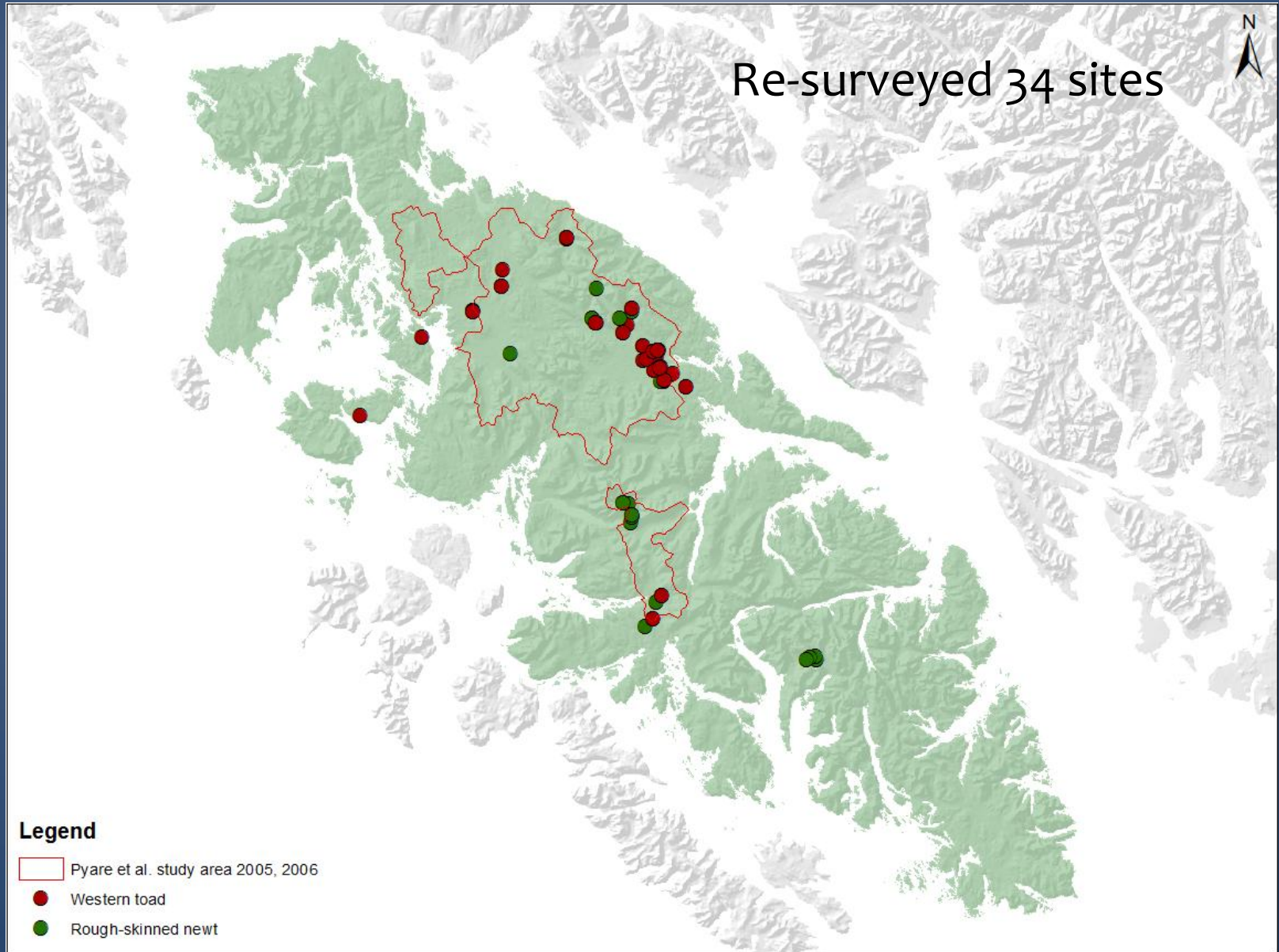
Rough-skinned newts – peatlands



OBJECTIVE 2: RE-SURVEY SITES



OBJECTIVE 2: RE-SURVEY SITES



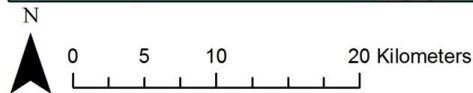
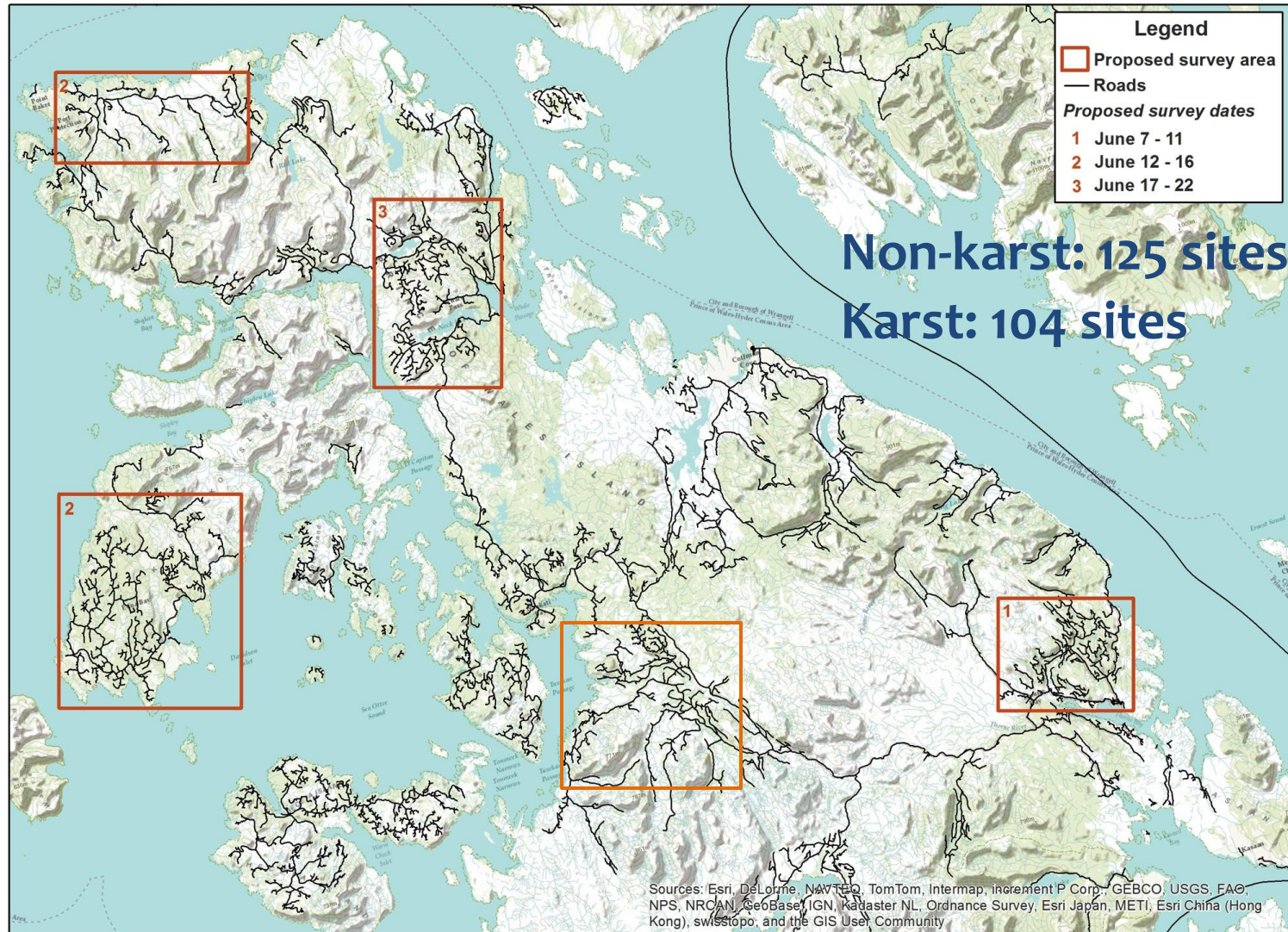
OBJECTIVE 2: RE-SURVEY SITES

Western toad: present in 32% of re-surveyed sites

Rough-skinned newt: present in 71% of re-surveyed sites

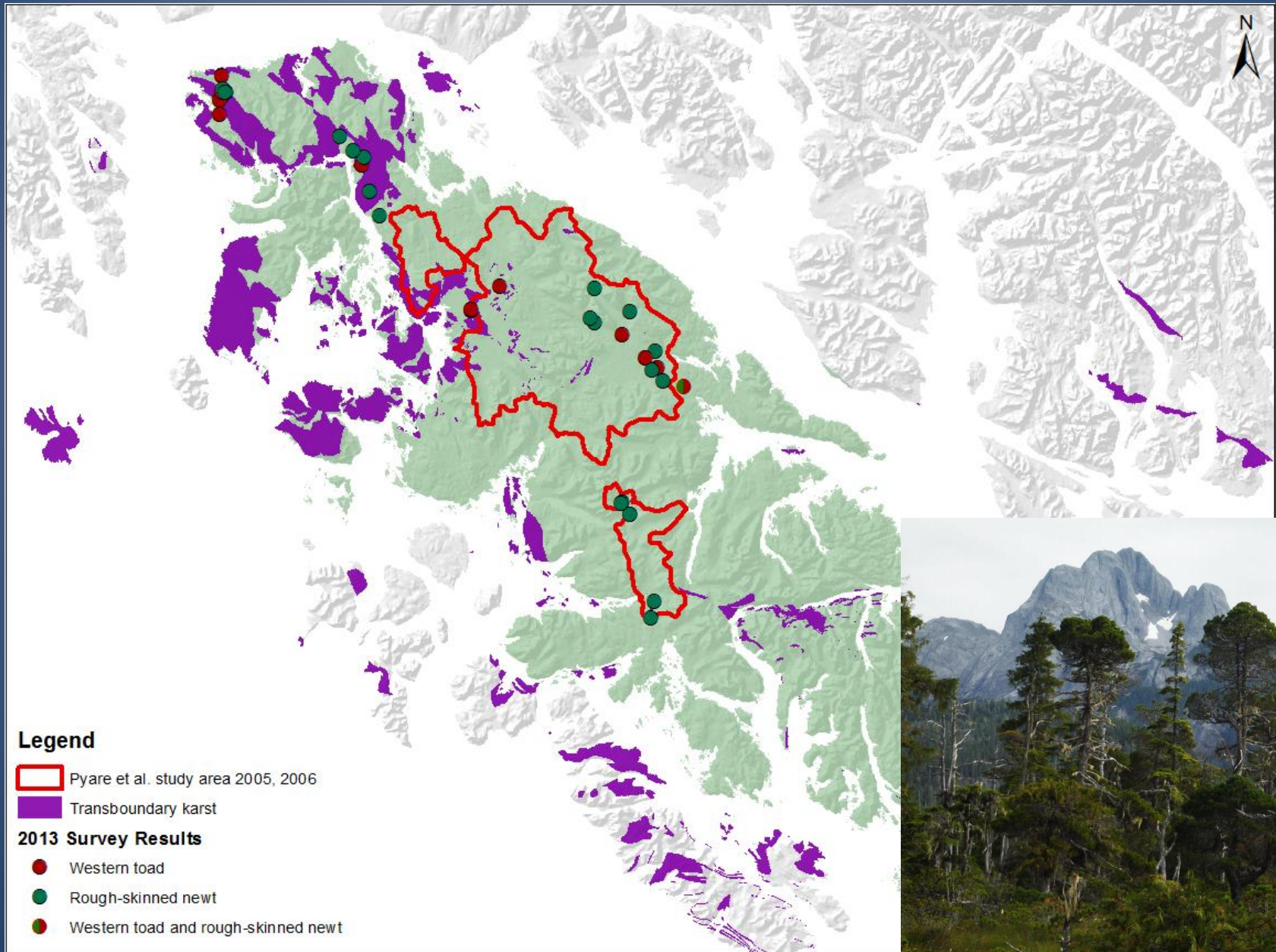


OBJECTIVE 3: KARST VS. NON-KARST



Amphibian Surveys, June 7th - 30th, 2014
Alaska Natural Heritage Program, University of Alaska

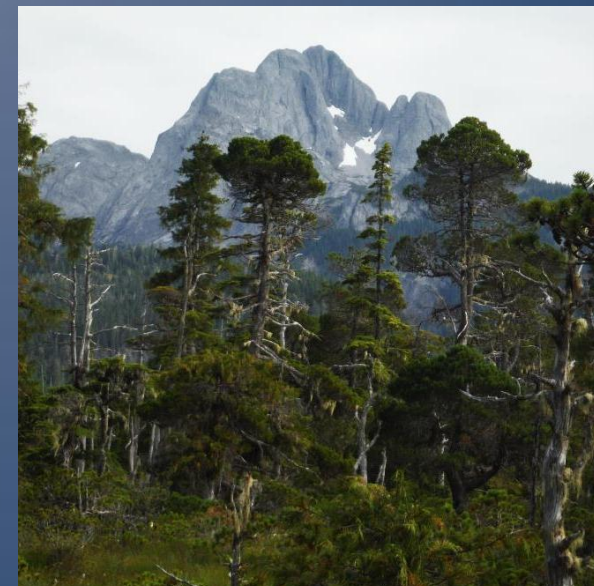
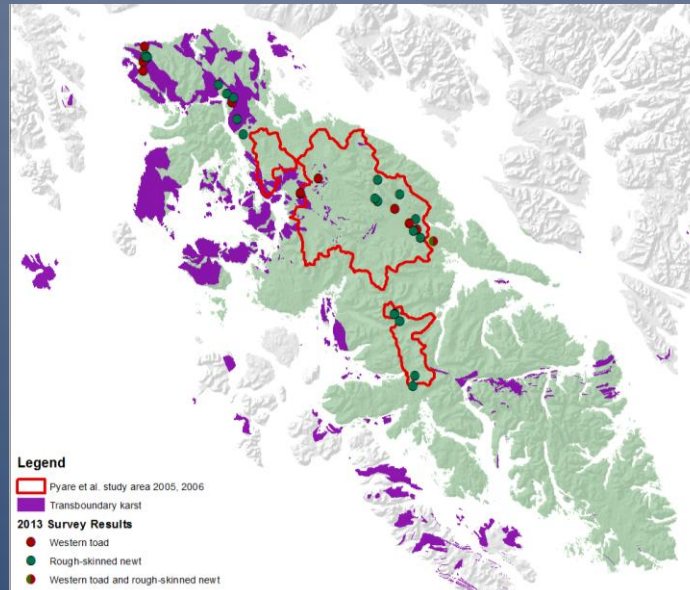
OBJECTIVE 3: KARST VS. NON-KARST



OBJECTIVE 3: KARST VS. NON-KARST

Next Steps:

1. Analyze presence/occupancy data – 2013, 2014
2. Compare pH, conductivity and salinity across sites
3. Describe habitats: karst vs. non-karst



GENERAL CONCLUSIONS

Amphibians widespread across Prince of Wales Island

Amphibian presence at sites varies across years

Amphibians are present in karst-influenced habitats



FUTURE STEPS: SERVING THESE DATA

The screenshot shows a web browser window displaying the Alaska Amphibian Database website. The browser's address bar shows the URL aknhp.uaa.alaska.edu/zoology/alaska-amphibian-database/. The website has a navigation menu with links for Home, Programs, Staff, and Contact us. A large banner image of a mallard duck is featured at the top. Below the banner, the word "Zoology" is displayed. The main content area is titled "The Alaska Amphibian Database" and includes a welcome message, a list of species information, and a section for map distributions. The left sidebar contains a menu with categories like Zoology, Data, Species Information, Animal Data Portal, Projects, Publications, and Partners. The right sidebar features three map distribution portals: Animal Data Portal, Rare Plants, and AKEPIC Data Portal. The bottom of the screenshot shows the Windows taskbar with various application icons and the system clock indicating 2:47 PM on 10/3/2014.

Home Programs Staff Contact us

Zoology

Zoology

Data

Request Data

Species Information

Species Lists

- Mammals
- Birds
- Amphibians & Reptiles
- All Lists

Animal Data Portal

Projects

- The Alaska Amphibian Database
- Alaska Gap Analysis Project
- Alaska Herps Handbook
- Historic Bird Checklists
- Citizen Science
- Non-Native and Invasive Animals in Alaska
- Wildlife Diversity Program
- Alaska Species Ranking System

Publications

Partners

Home » Zoology

The Alaska Amphibian Database

Welcome to the Alaska Amphibian Database. The Alaska Amphibian Database Project is a cooperative project of the Alaska Natural Heritage Program, the Alaska Department of Fish and Game, and the University of Alaska Southeast. The Alaska Amphibian Database is a comprehensive, statewide database of historical amphibian occurrence records for the six amphibian species native to Alaska as well as for two introduced species.

Information sources include specimen records, location information from published and gray literature, researchers field notes and other available databases, with contributions from state and federal agencies, NGO's, museum collections, and results of numerous individual research efforts.

Map Distributions

[Animal Data Portal](#)
Explore the ranges and occurrences of animal species in Alaska

[Rare Plants](#)
Explore the occurrences of rare plant species in Alaska

[AKEPIC Data Portal](#)
Explore distributions of non-native plant species in Alaska

INTERACTIVE MAPPING

Biotics Settings ⚙️ UAA Alaska Natural Heritage Program UNIVERSITY of ALASKA ANCHORAGE

Chukchi Sea

Alaska

Yukon

Gulf of Alaska

Legend

BIOTICS

Species Filters Ecoregions Polygon tool

Active layers

Remove	Map records	Map range	Species
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	HOARY MARMOT <i>Marmota caligata</i>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Sitka Root Vole <i>Microtus</i>

Showing 1 to 3 of 3 entries

Species

Search

Map records	Map range	Species	Global rank	State rank
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	HOARY MARMOT <i>Marmota caligata</i>	5	5
<input type="checkbox"/>	<input type="checkbox"/>	RED SQUIRREL <i>Tamiasciurus hudsonicus</i>	5	5
<input type="checkbox"/>	<input type="checkbox"/>	NORTHERN RED-BACKED VOLE <i>Myodes rutilus</i>	5	5

Showing 1 to 783 of 783 entries Download

<http://aknhp.uaa.alaska.edu/maps-js/integrated-map/biotics.php>

ACKNOWLEDGEMENTS

U.S. Forest Service – Tongass Ranger District

Wildlife Diversity Program – Alaska Department of Fish and Game

*Field technicians: Timm Nawrocki, Keaton Tremble,
Casey Greenstein, Leah Kenney*

