

The background of the slide is a wide-angle landscape photograph. It shows a vast valley filled with dense, green coniferous forests. In the distance, a range of blue mountains stretches across the horizon under a bright blue sky with scattered white clouds. The foreground is slightly out of focus, showing more greenery and a few trees.

The AKVEG Map: A Flexible Strategy for Developing Statewide Vegetation Map Products

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*On behalf of Alaska Geospatial Council
Vegetation Technical Working Group*

Alaska Geospatial Conference
November 14, 2022

Alaska Geospatial Council Vegetation Technical Working Group

History

Charter developed November 2017
(revised 2022)

Purpose

- Develop vegetation standards for field data collection and mapping
- Coordinate development of authoritative vegetation data products



How are vegetation inventory and mapping products used?



Landscape change



Restoration



Subsistence/Food



Fire Management



Wildlife & Habitat



Invasive Species

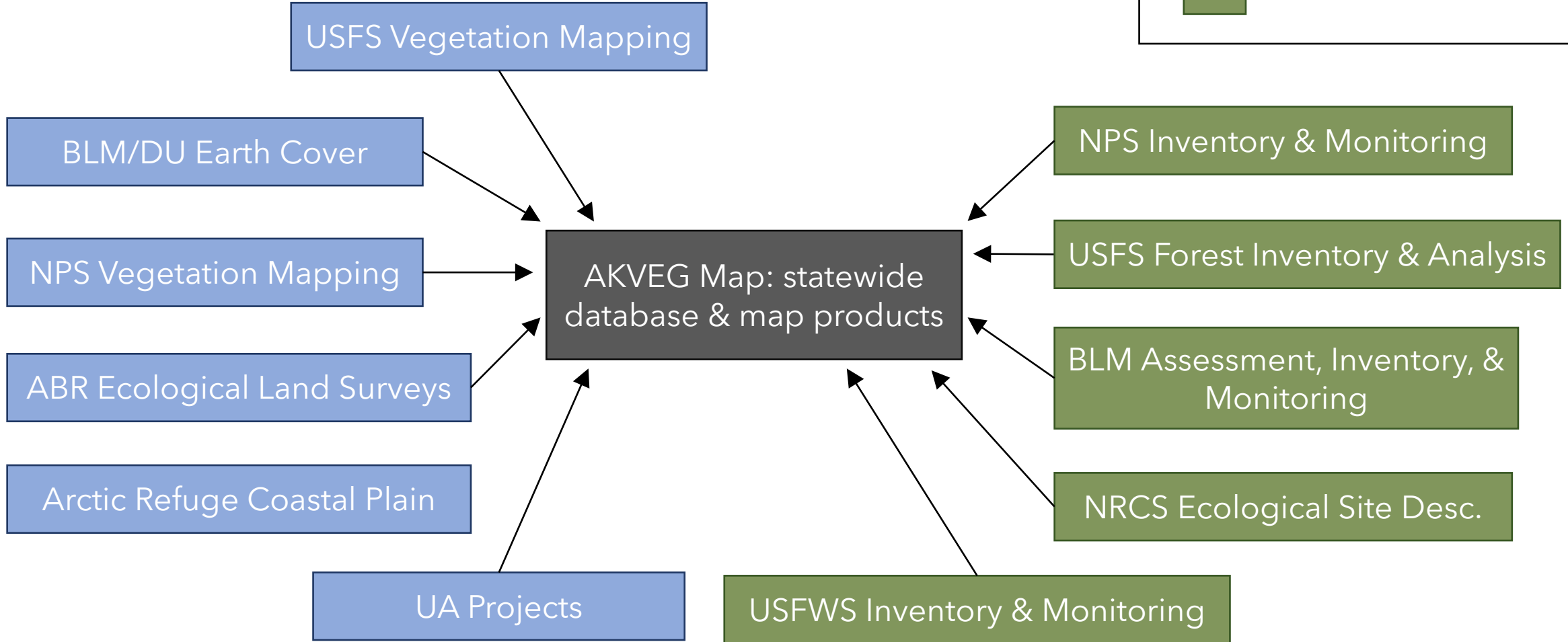
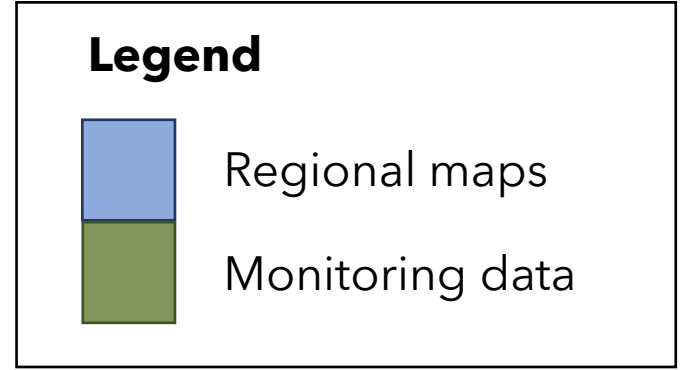


Land Use Planning

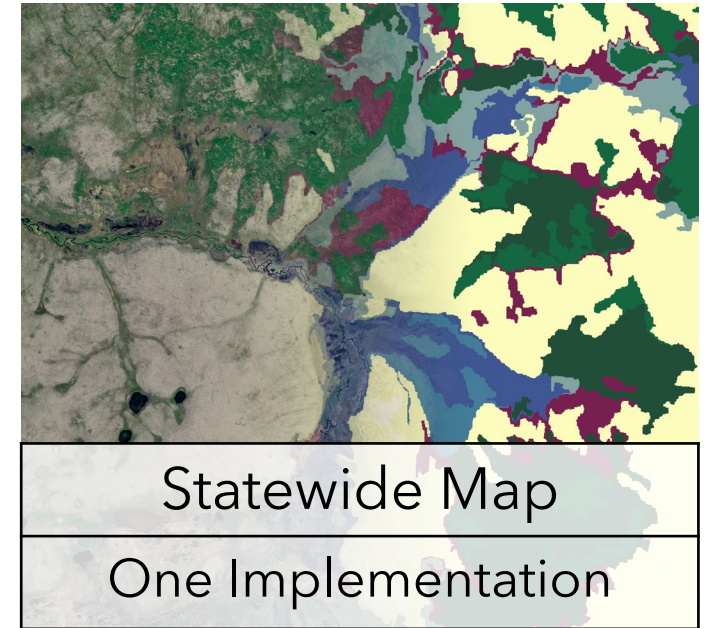
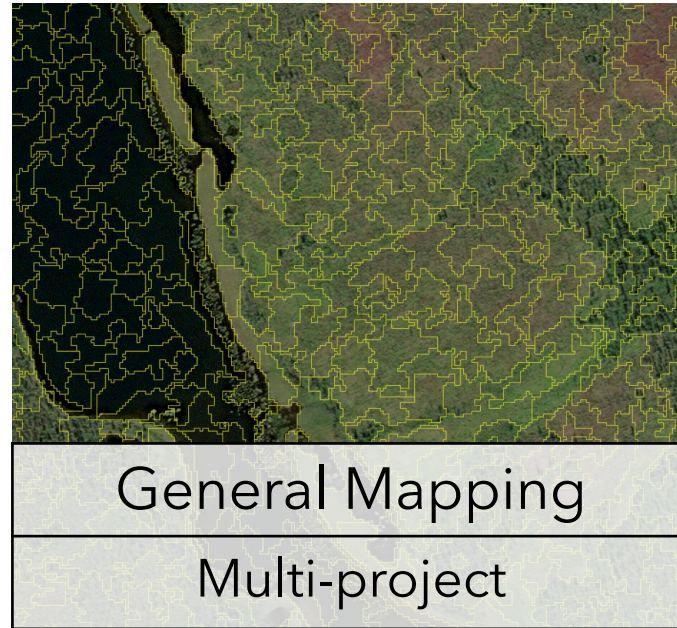


Natural Resource Development

Vegetation data collection efforts:



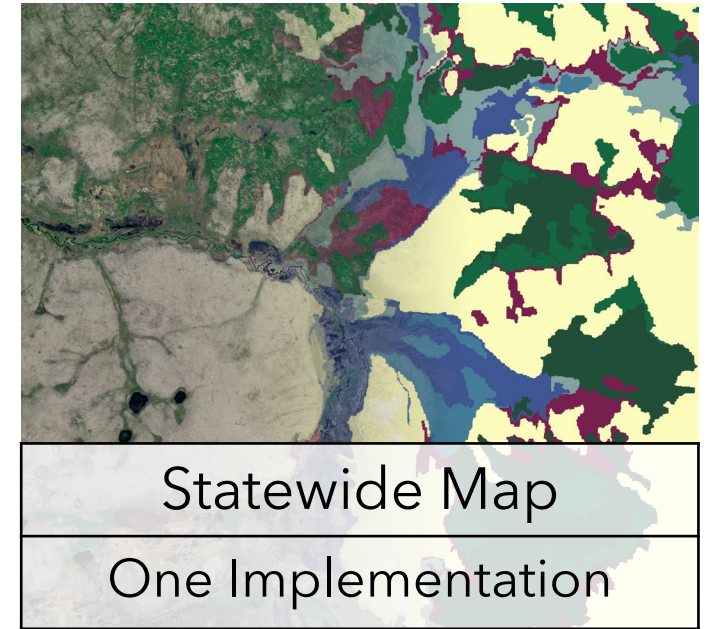
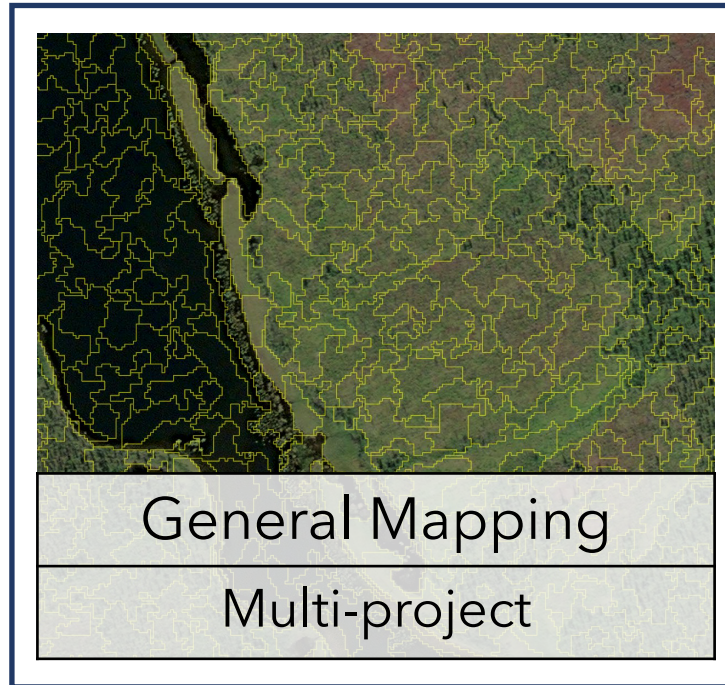
VTWVG Standards for Vegetation Data and Mapping



Minimum standards for field observations

- Ensure data consistency to support multiple uses
- Recommendations for attributes collected in field

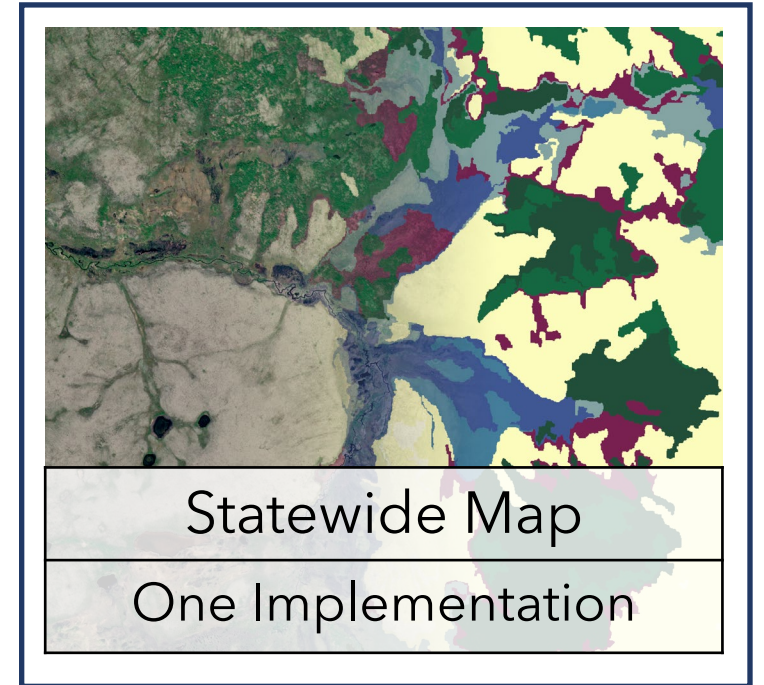
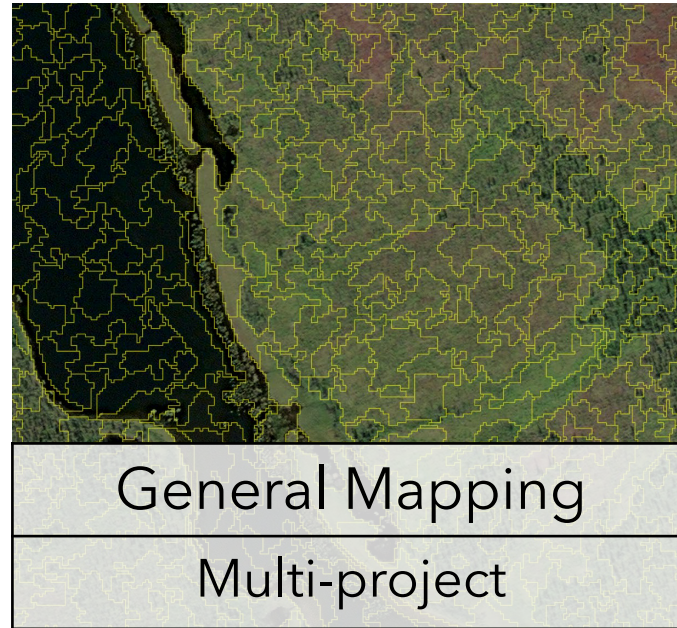
VTWVG Standards for Vegetation Data and Mapping



Standards for mapping vegetation

- Promote consistency and interpretability of local and regional maps
- Recommend the map schemas relate to USNVC

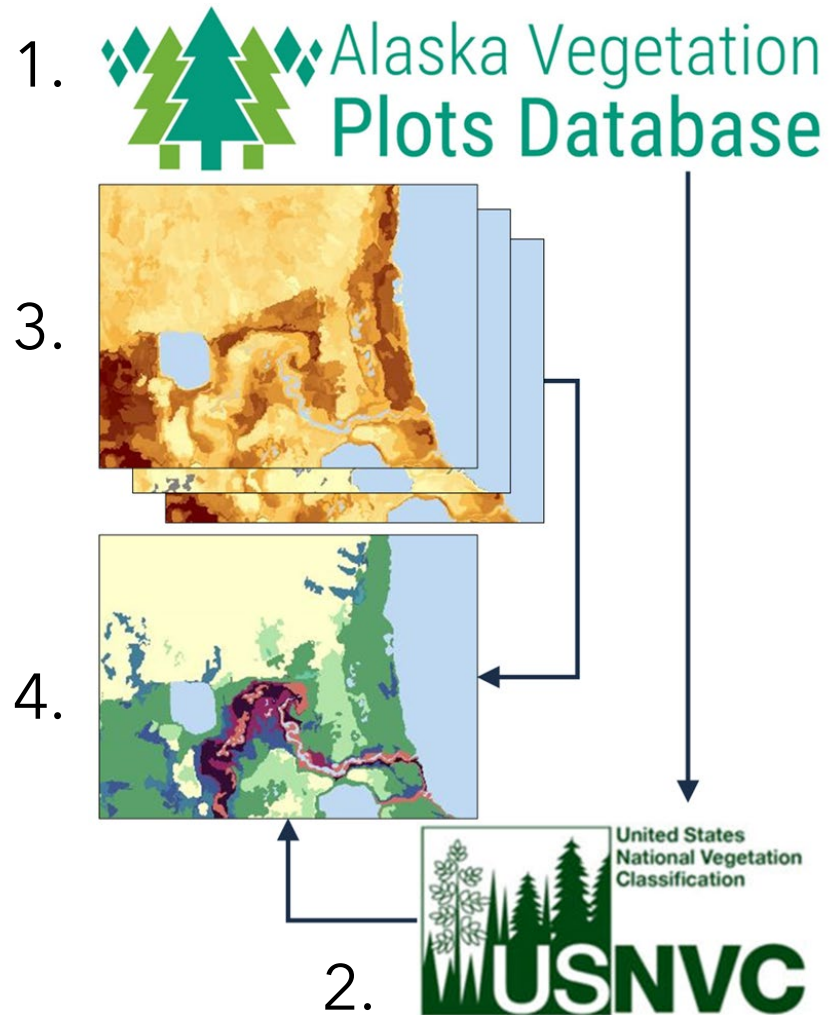
VTWVG Standards for Vegetation Data and Mapping



Standards for statewide map

- Technical goals for authoritative statewide vegetation dataset
- Recommends AKVEG as part of Alaska spatial data infrastructure

What is the AKVEG Map?



Community-driven collaboration
(alphabetical)

K.C. Baer

L.A. Flagstad

G.V. Frost

H.A. Gravely

M.J. Macander

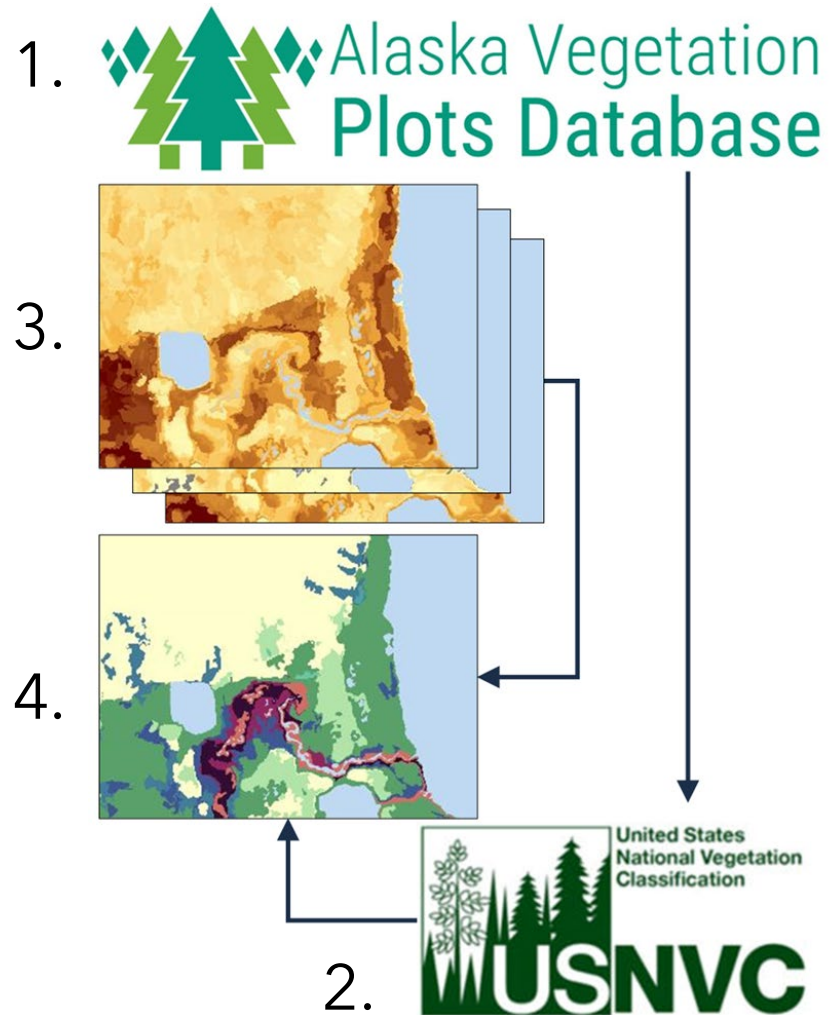
T.W. Nawrocki

E.M. Powers

M.A. Steer

A.F. Wells

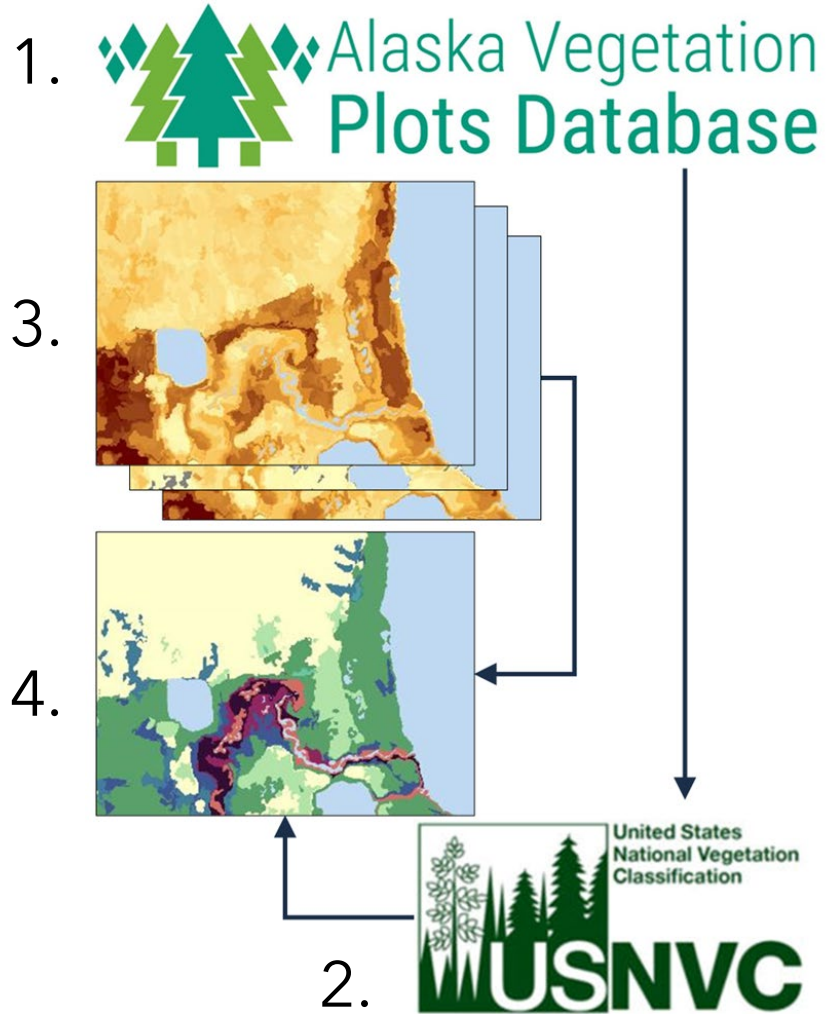
What is the AKVEG Map?



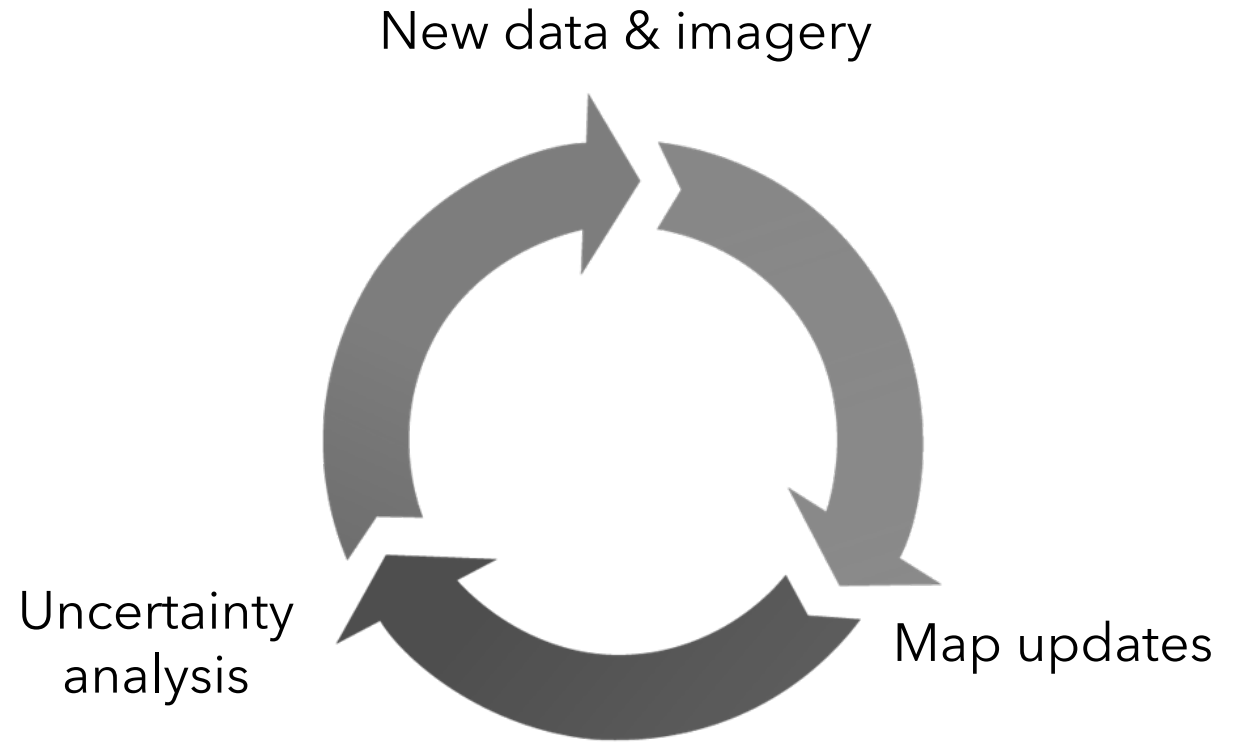
Components

1. Database of field observations
2. U.S. National Vegetation Classification
3. Continuous maps of characteristics
4. Categorical map of vegetation types

What is the AKVEG Map?



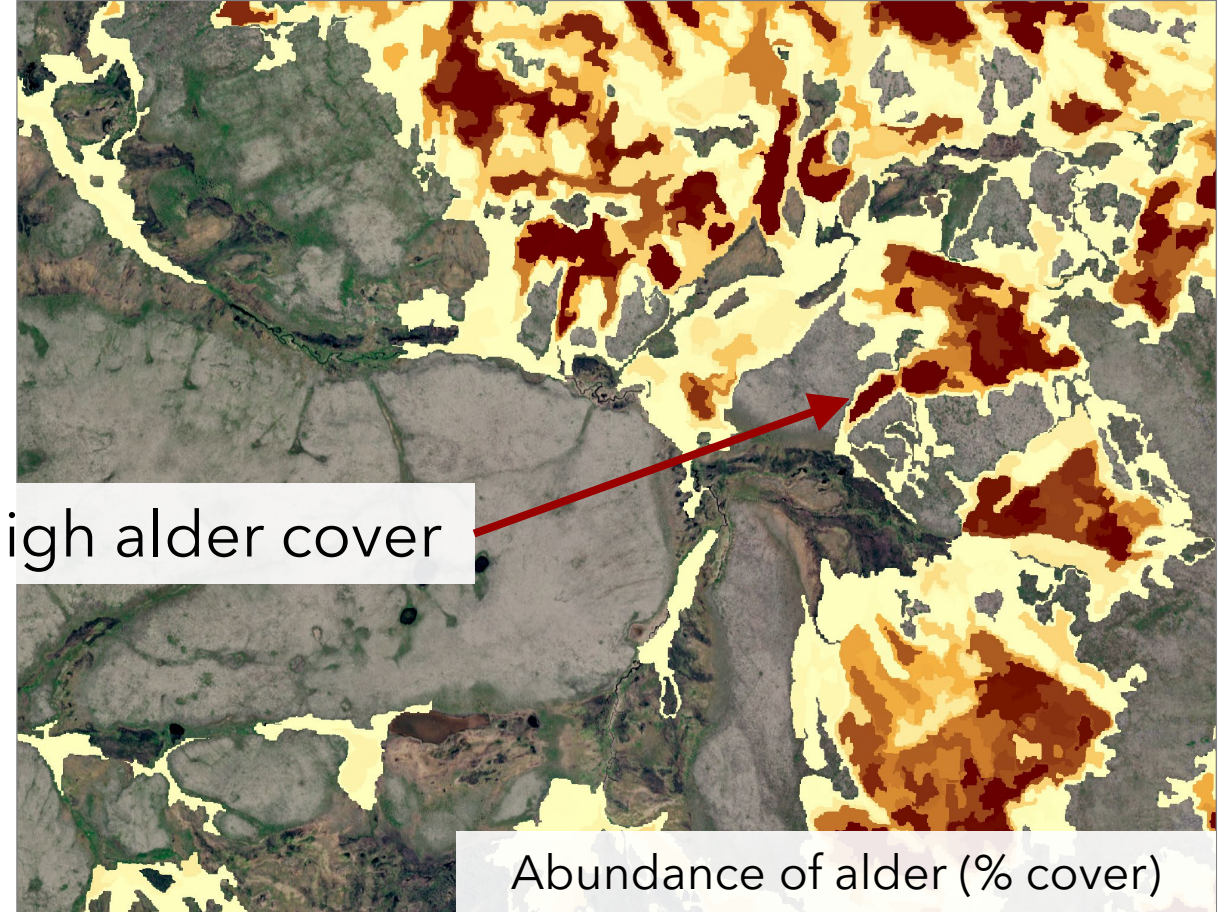
Scripted repeatable framework



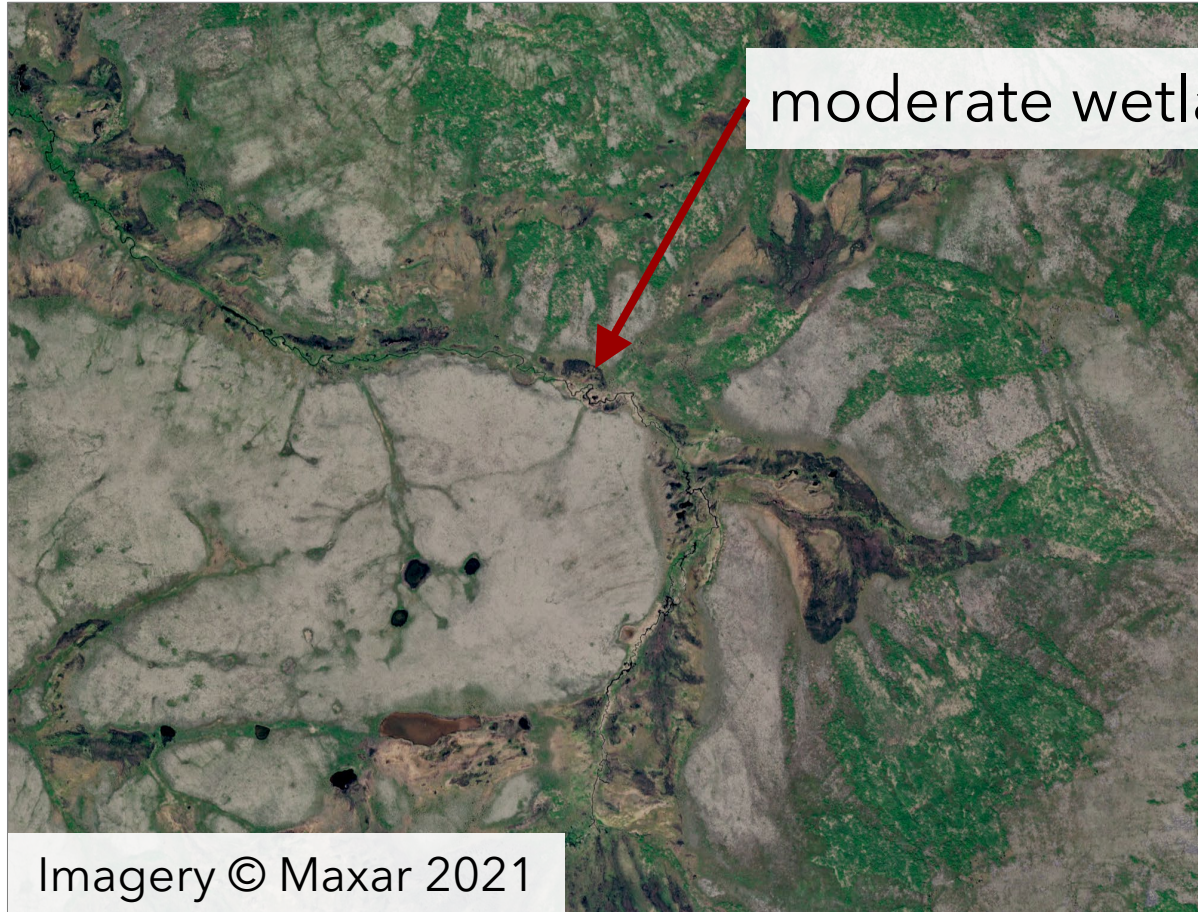
Vegetation characteristics show “what is present” in numbers



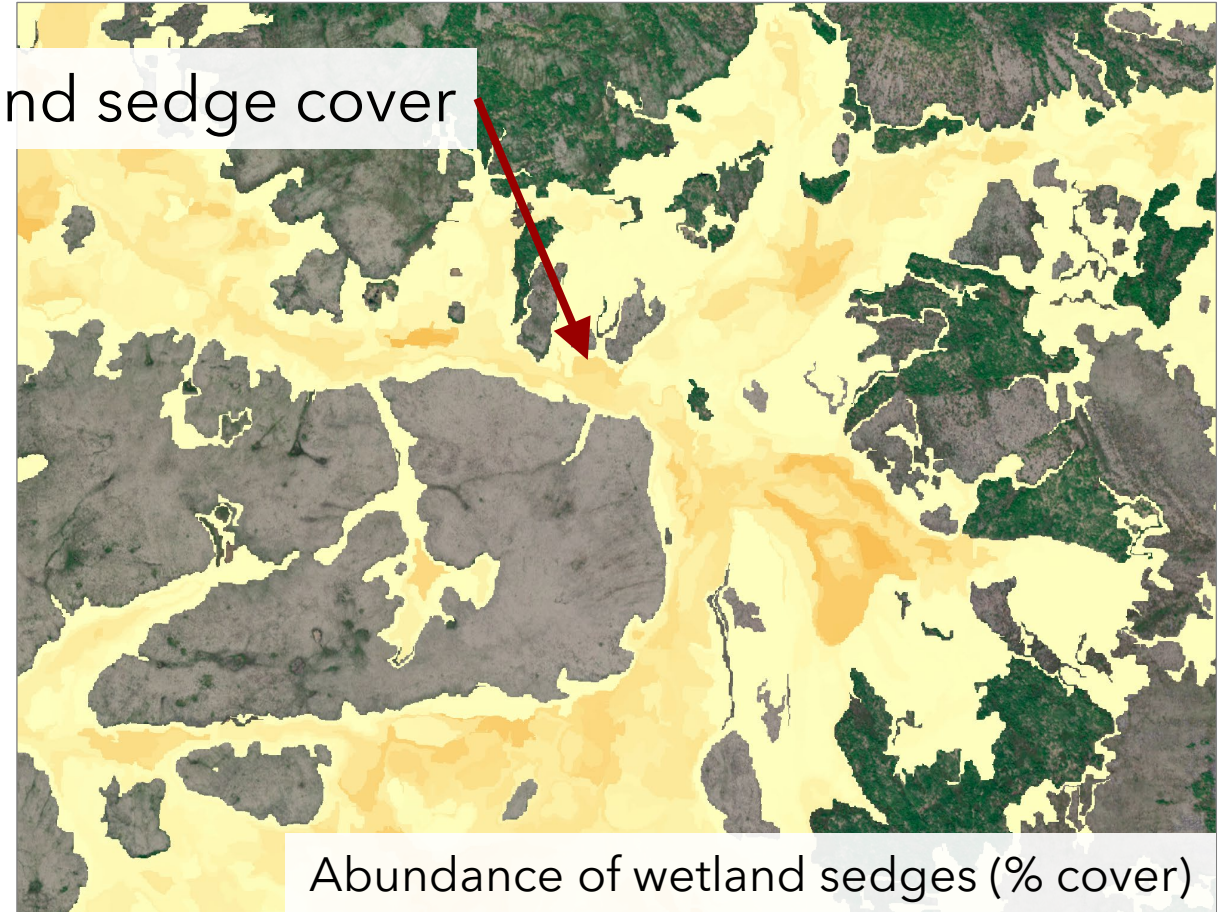
high alder cover



Vegetation characteristics show "what is present" in numbers



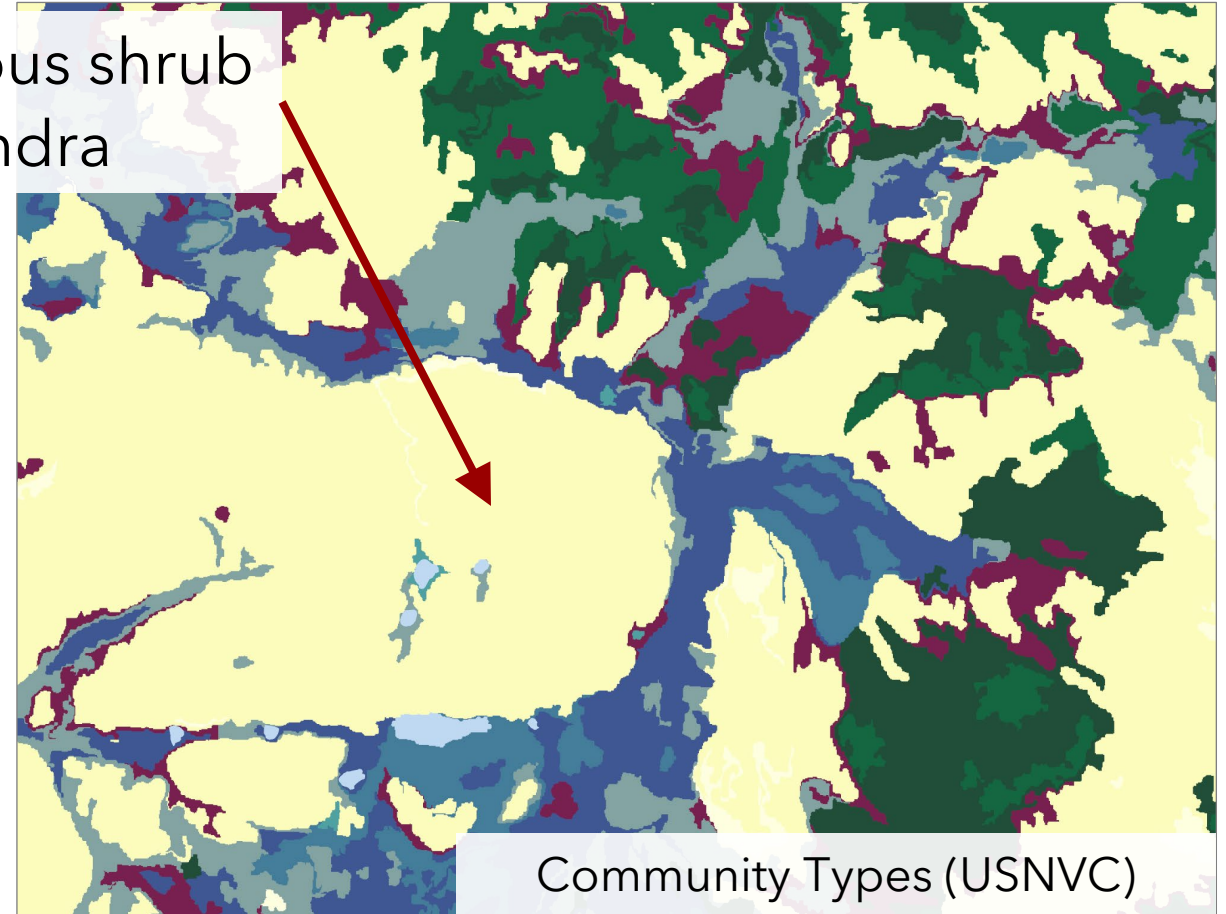
moderate wetland sedge cover



Vegetation types describe “what the vegetation looks like”

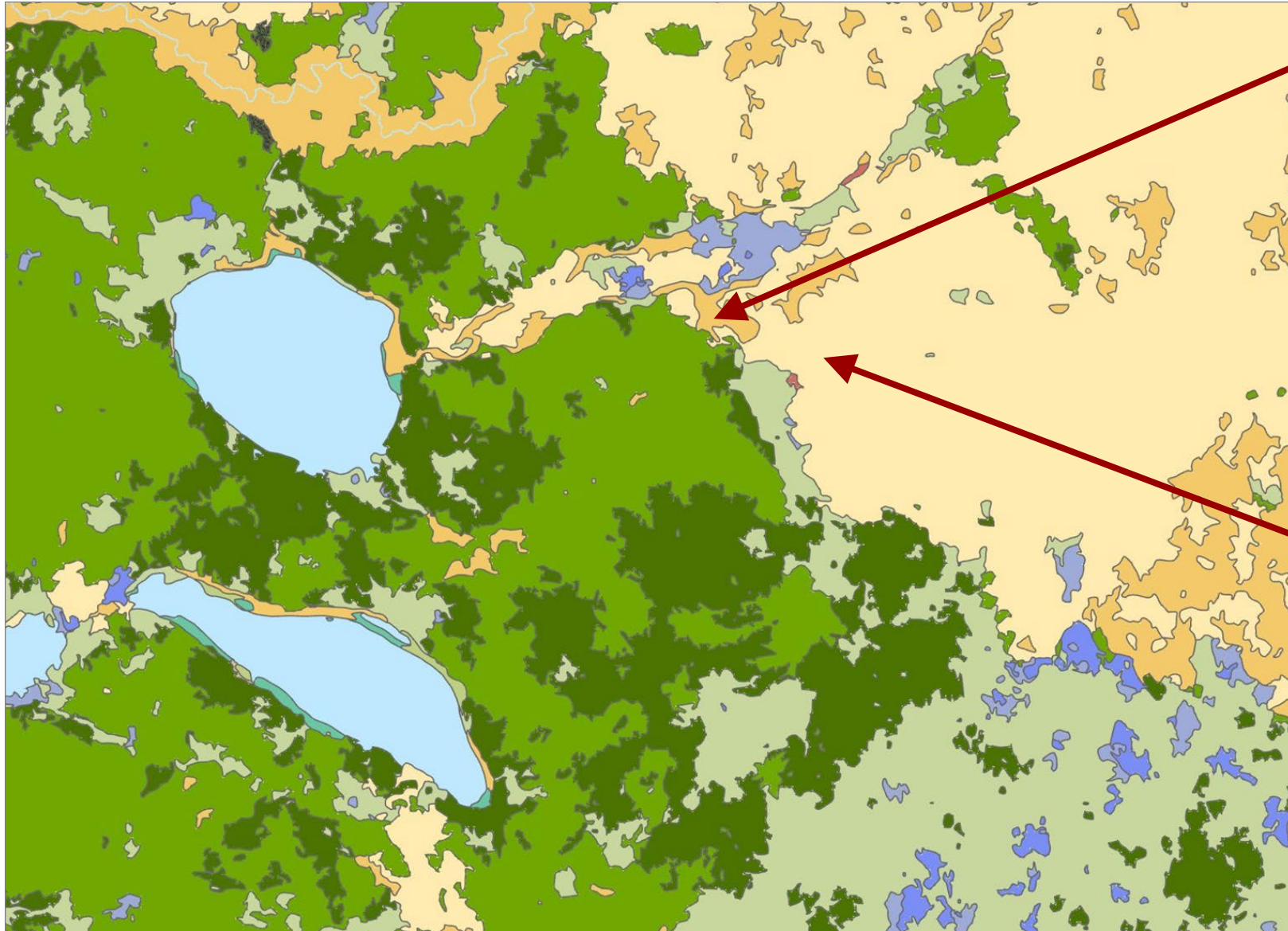


birch-ericaceous shrub
lichen tundra



Targets 1:24,000 scale and covers Alaska consistently

Example: Land-use planning (fire)



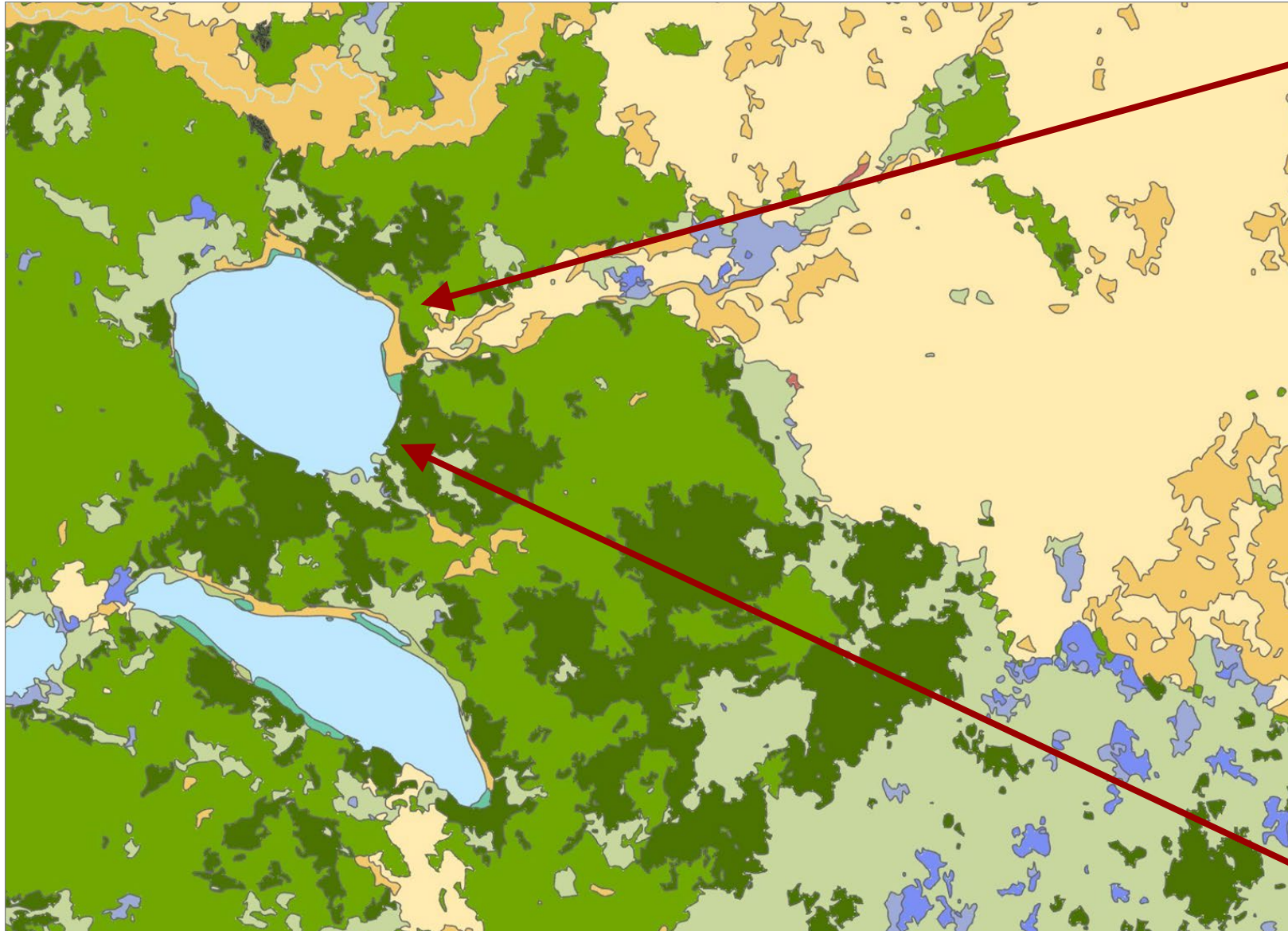
Burned 2006 (birch-willow) & wet soil



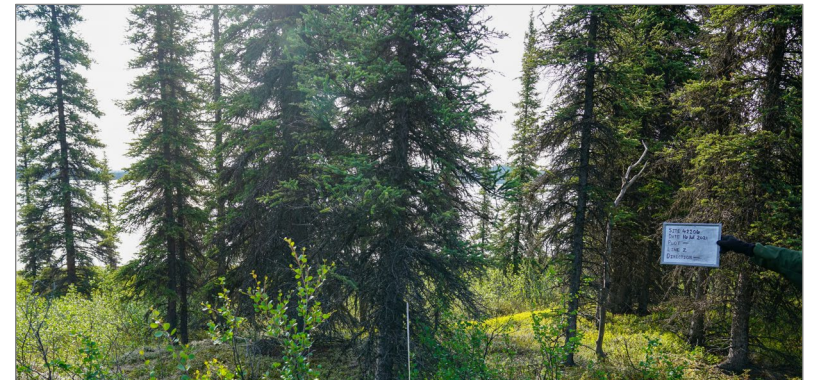
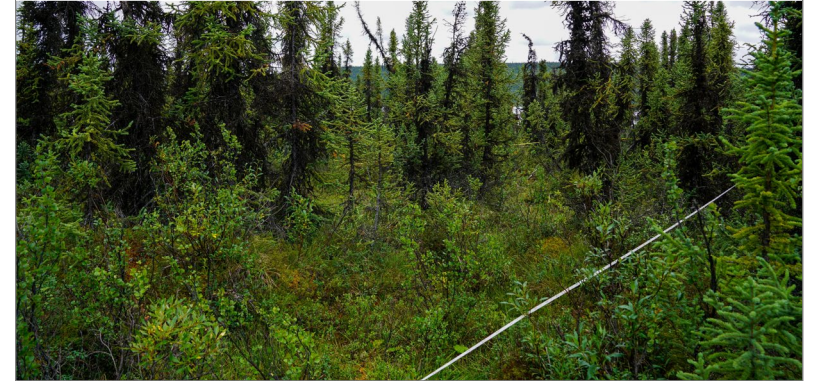
Burned 2006 (birch-willow) & moist soil



Example: Land-use planning (fire)

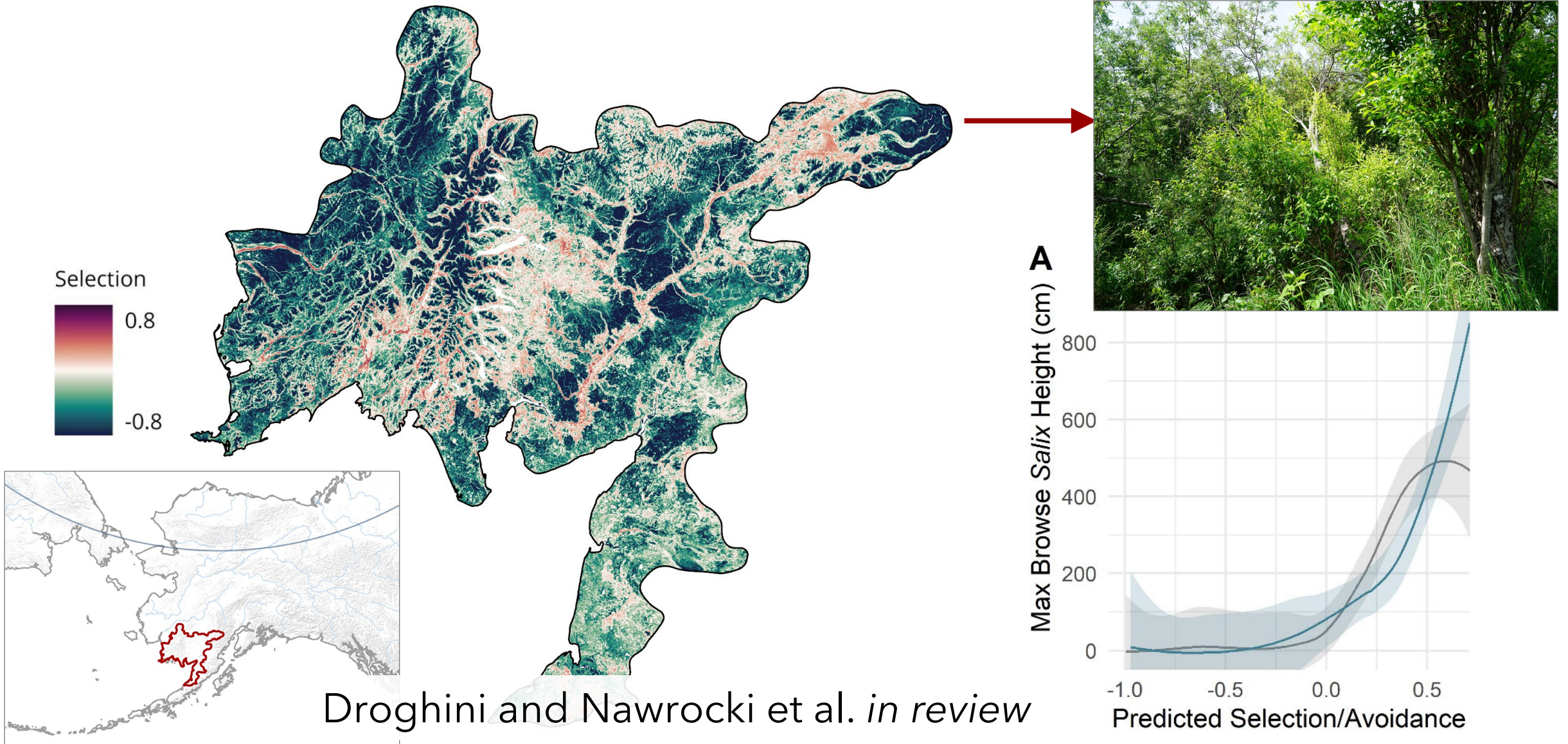


Unburned (black spruce) & wet soil



Unburned (black spruce) & moist soil

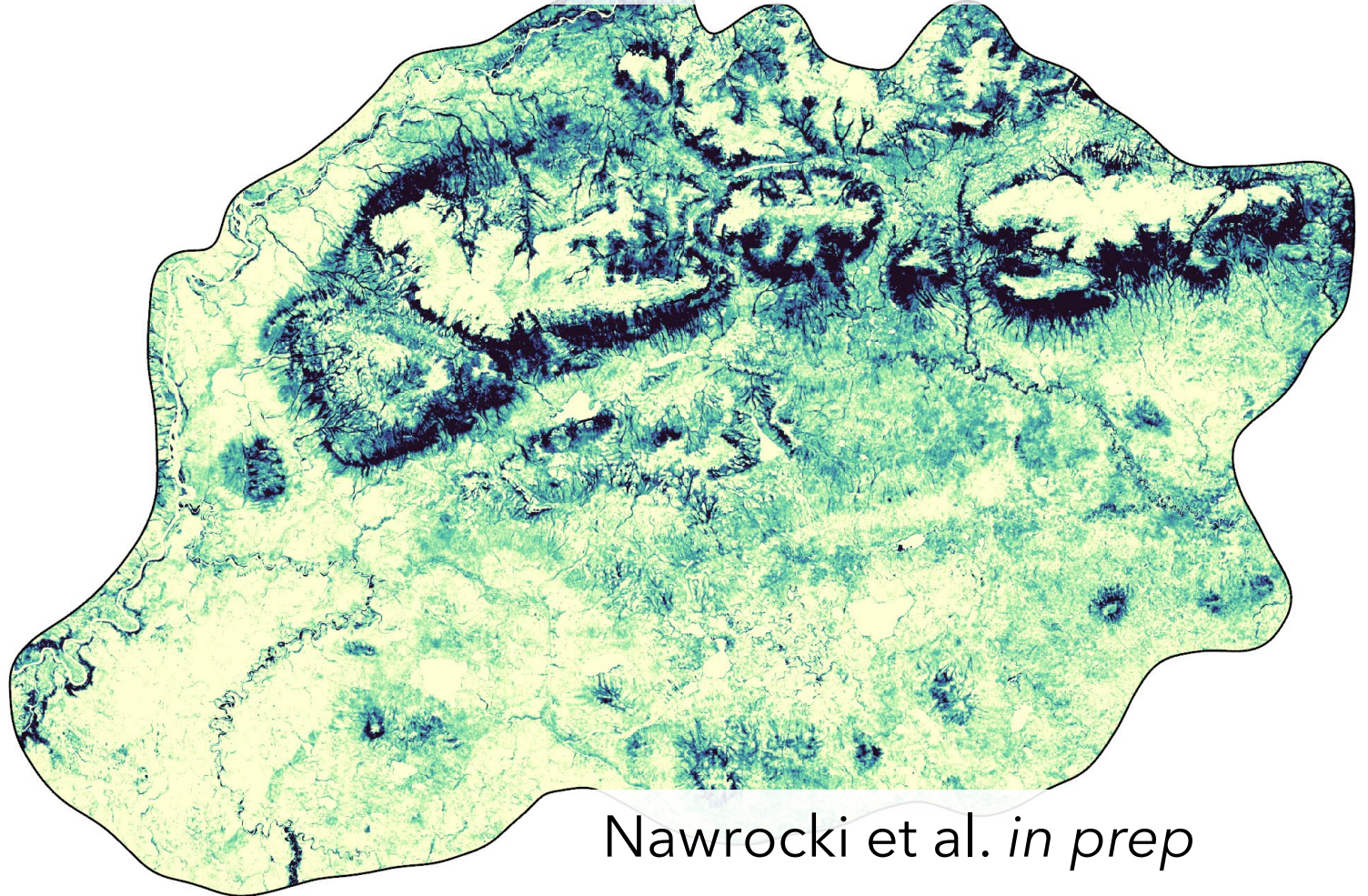
Example: Wildlife Habitat & Movement



Example: Wildlife Nutrition & Demography



Available forage (g per m²) *Salix pulchra*



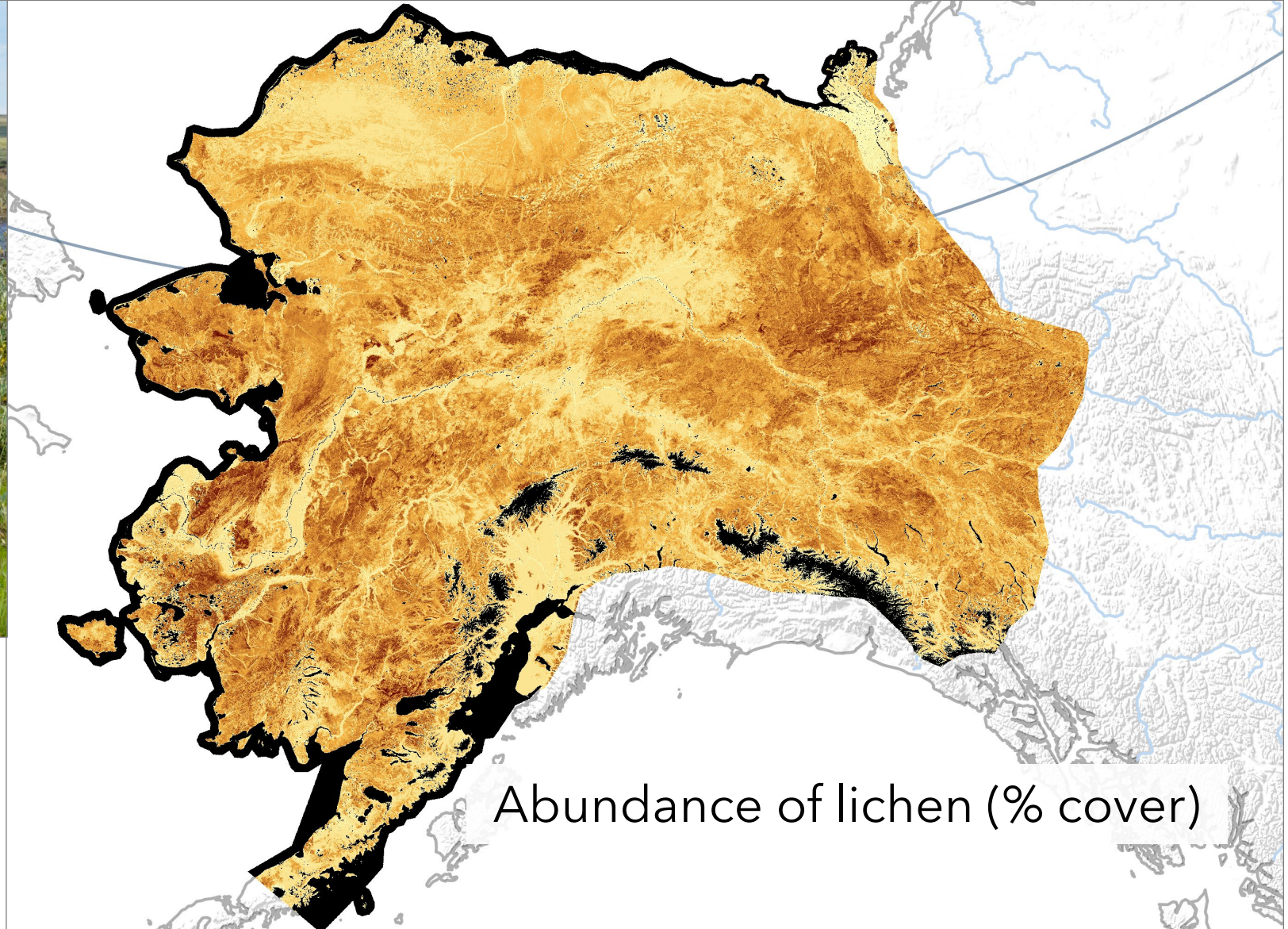
Nawrocki et al. *in prep*

Example: Wildlife Nutrition & Demography



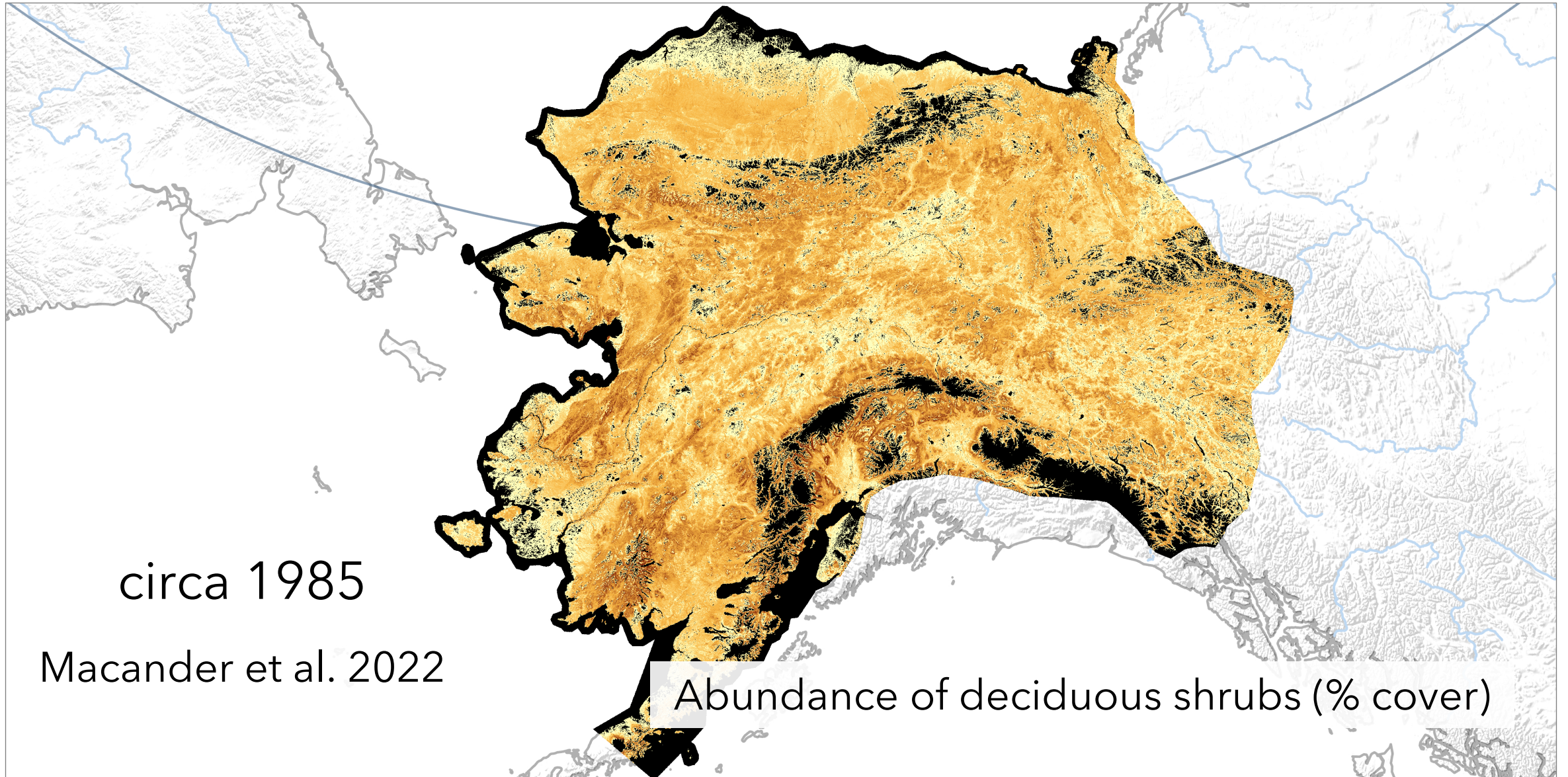
circa 2020

Macander et al. 2022



Abundance of lichen (% cover)

Example: Landscape Change

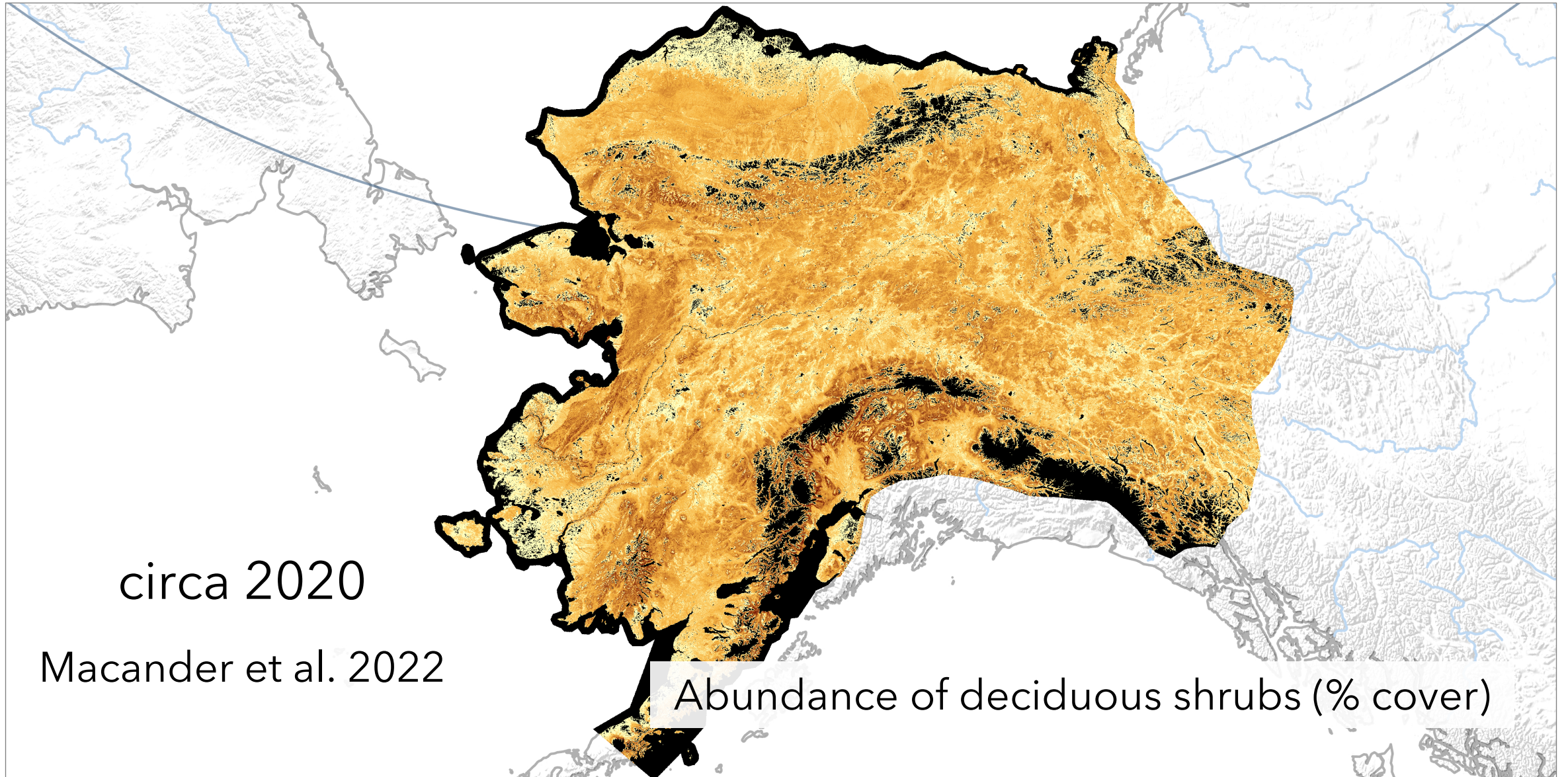


circa 1985

Macander et al. 2022

Abundance of deciduous shrubs (% cover)

Example: Landscape Change

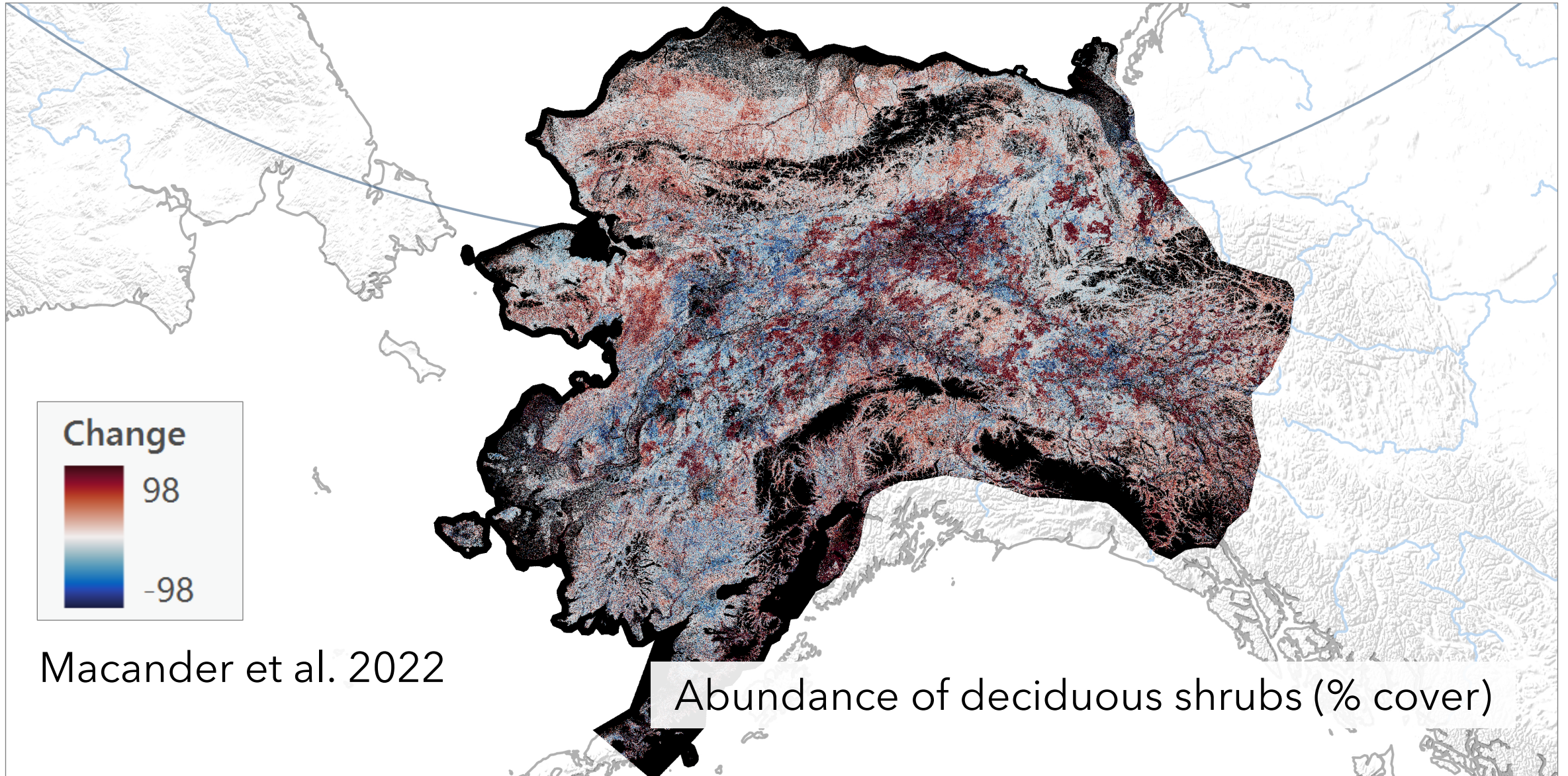


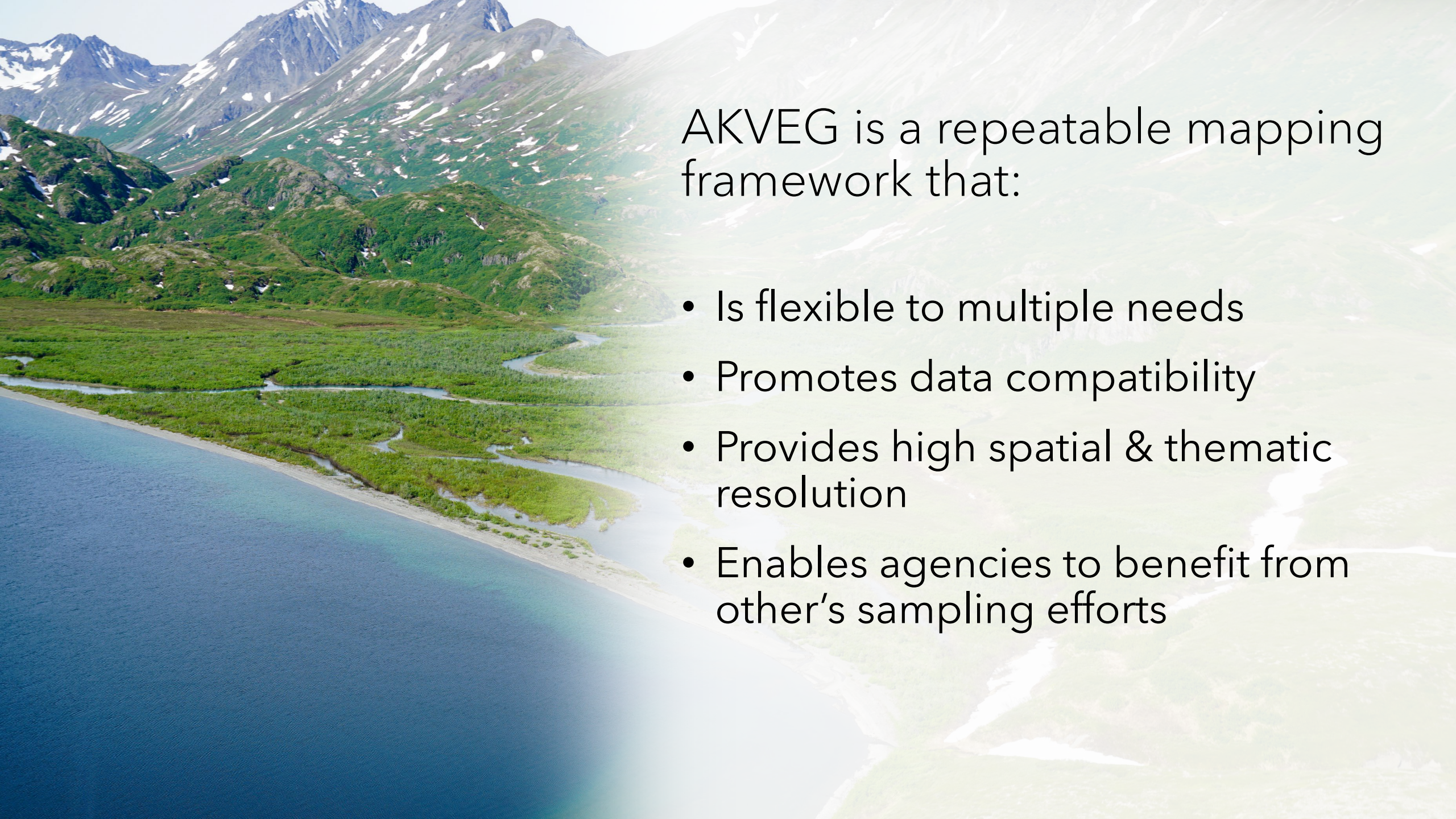
circa 2020

Macander et al. 2022

Abundance of deciduous shrubs (% cover)

Example: Landscape Change



An aerial photograph of a coastal landscape. In the foreground, a large body of blue water (a bay or fjord) meets a sandy beach. A river with a winding, meandering course flows through a lush green valley towards the mountains. The mountains in the background are rugged and covered in patches of snow and green vegetation. The sky is clear and blue.

AKVEG is a repeatable mapping framework that:

- Is flexible to multiple needs
- Promotes data compatibility
- Provides high spatial & thematic resolution
- Enables agencies to benefit from other's sampling efforts

Data Availability

1. Alaska Vegetation Standards: <https://agc.dnr.alaska.gov>
2. Field Data: <https://database.akveg.org>

Currently Available Geospatial Data for AKVEG Map:

3. Foliar Cover of Species & Groups v1.0: [Nawrocki et al. 2021](#)
4. Time-series of PFT Foliar Cover v1.1: [Macander et al. 2022](#)

Alaska Geospatial Council Vegetation Technical Working Group

Next Steps

- Identify federal agency to coordinate development & maintenance of AKVEG
- Develop implementation plan
- Develop long-term funding strategy to support repeat mapping