The Herbivory Network

Arctic Biodiversity Congress
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Trondheim, Norway

HERBIVORY NETWORK

STUDYING HERBIVORY IN ARCTIC AND ALPINE ECOSYSTEMS

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ARCTIC CHANGE 2014

8-12 DECEMBER - OTTAWA CONVENTION CENTRE - OTTAWA, CANADA

International Tundra Experiment

ITEX

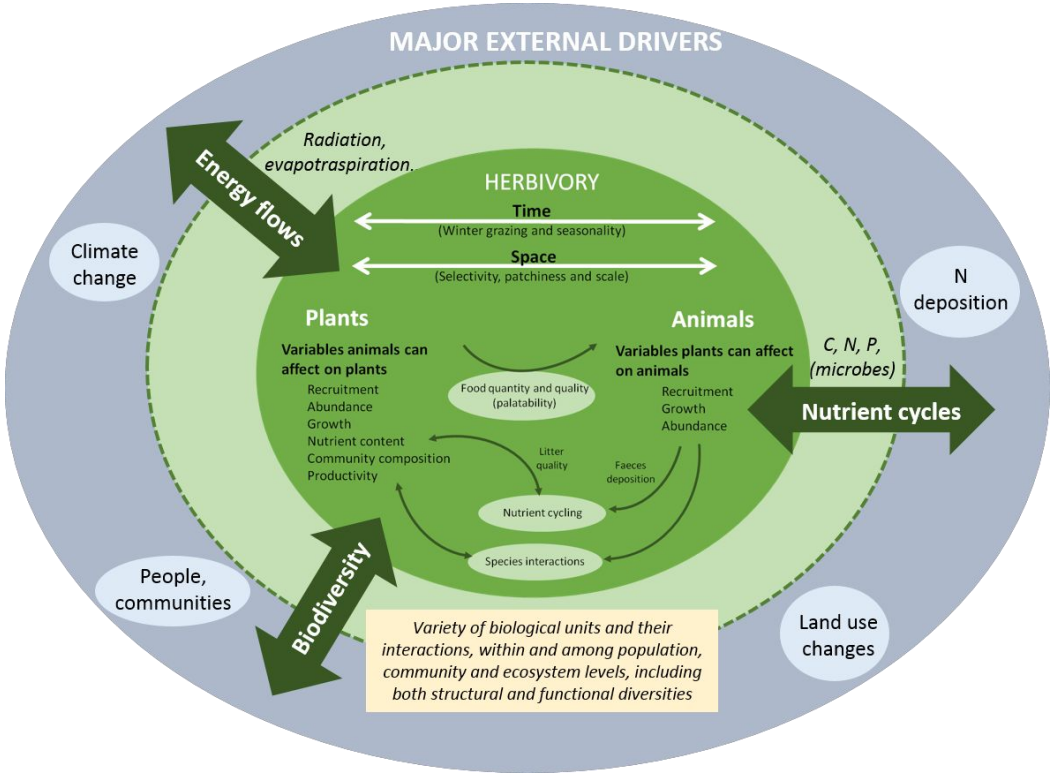
2014 Arctic Science Summit Week

5-11 April 2014
Helsinki, Finland
Third Circular

www.assw2014.fi
www.arcticobservingsummit.org

September 2013 → **April 2014** → **December 2014**

Conceptual model…



...and research questions

- How do herbivores modulate the responses of tundra environments to rapid environmental change?
- How does the (temporal and spatial) variability in plants and herbivores affect each other?

Ongoing projects…

Protocols for measuring herbivory

- ITEX protocol – trial version summer 2014
- "General tundra herbivory protocol"

Herbivores in the Arctic – herbivore hotspots analysis

CBMP Vegetation Expert Group

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International Tundra Experiment

ITEX

ITEX protocol − trial version summer 2014

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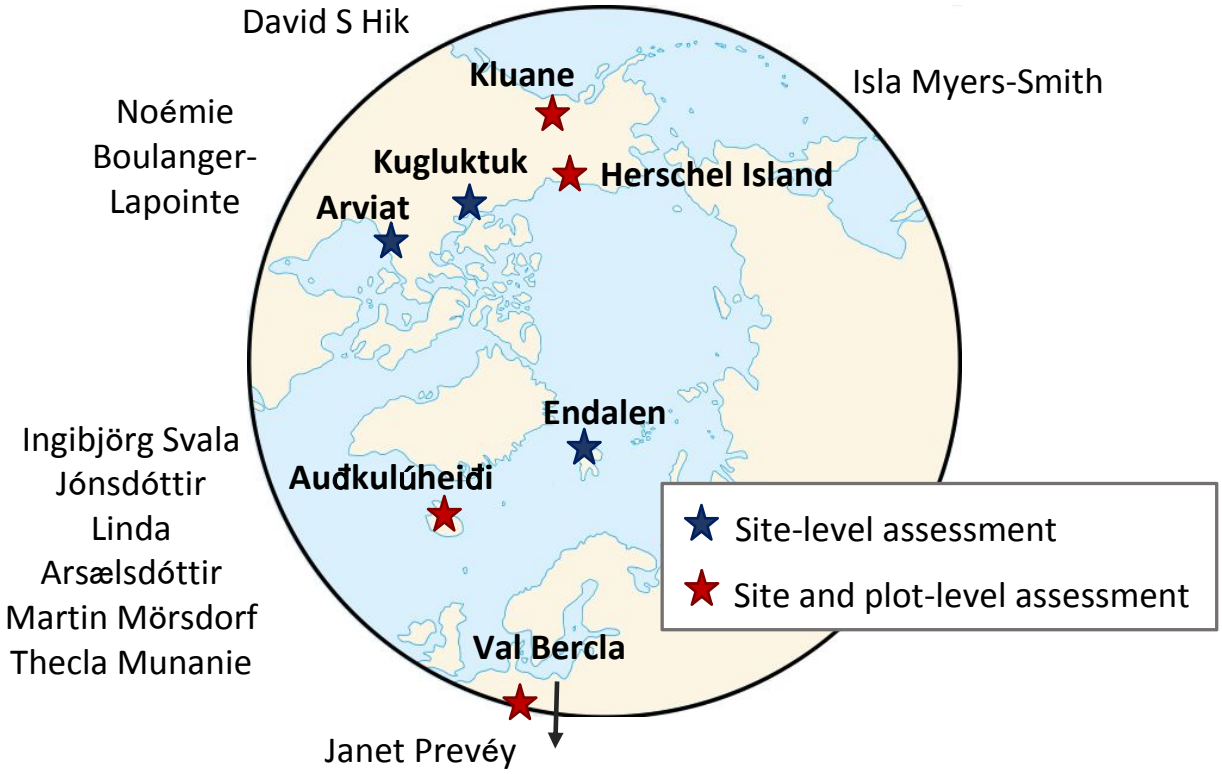
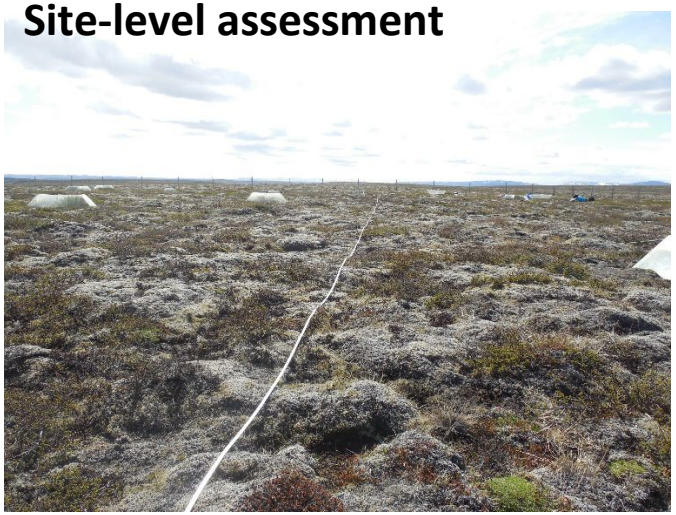


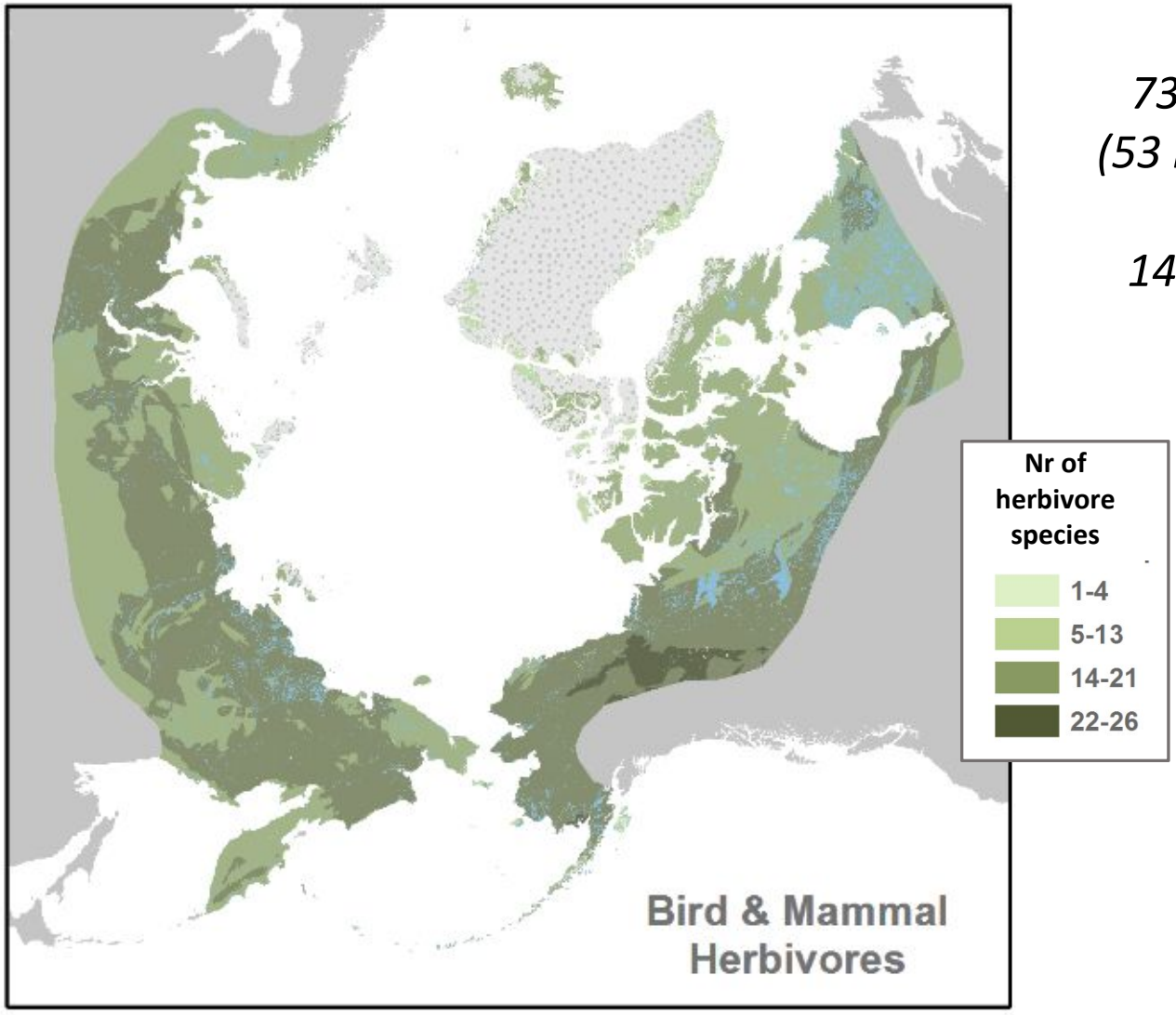
Janet Prevéy

Site-level assessment



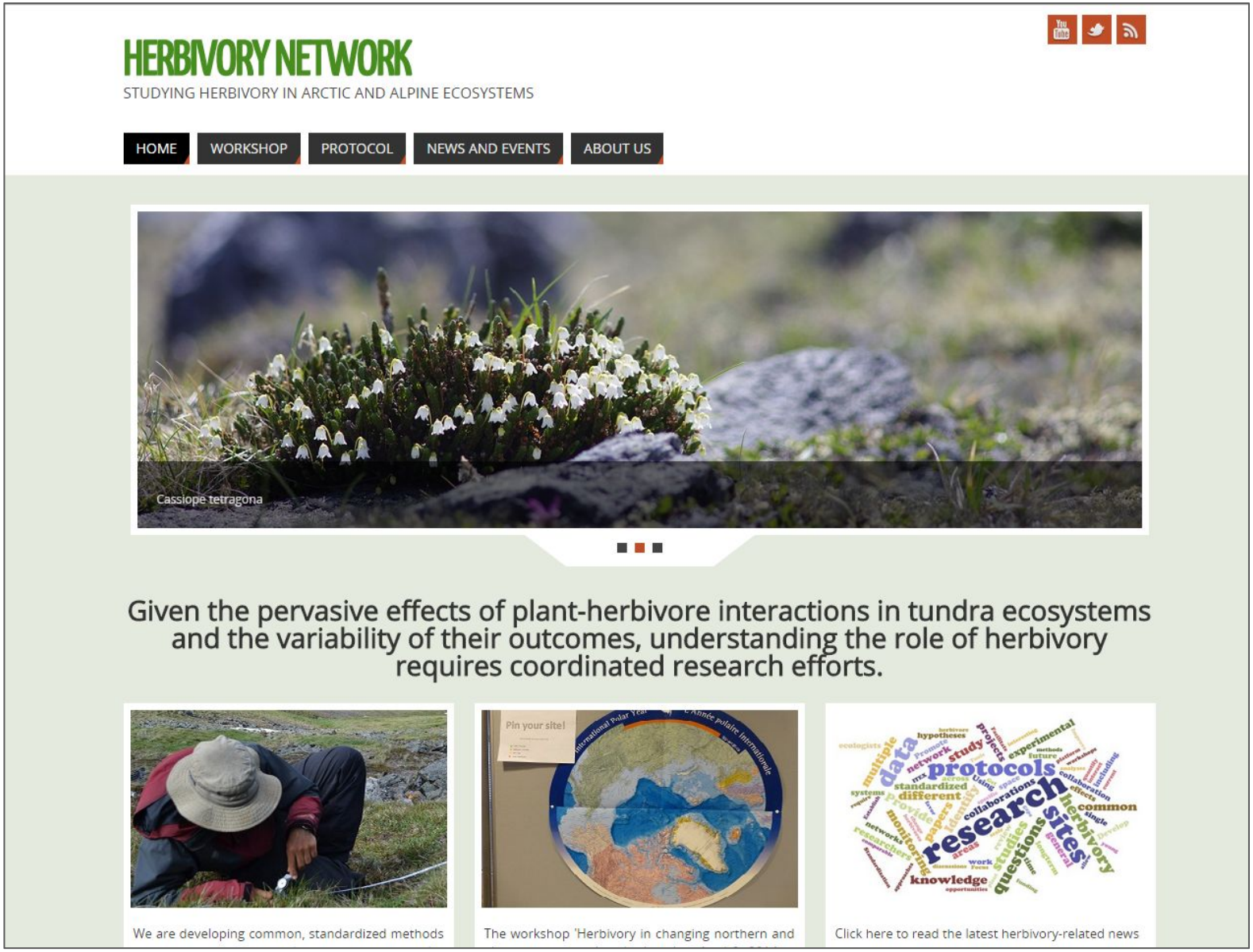
Plot-level assessment

Herbivores in the Arctic – herbivore hotspots analysis



73 herbivore species
(53 mammals, 20 birds)

14 functional groups



http://herbivory.biology.ualberta.ca

Collaborations, herbivory, and the why, what and how

Why: herbivory is important, and shows great variability in the tundra.

What: resolve this heterogeneity; cross-site comparisons. Recent network, and for instance at Woods Hole for + 20 years ago, Jefferies et al wrote:

"...For the large herbivores and for avian herbivores this involves the coordination of studies at the landscape, regional and continental scales. Given the logistic and financial difficulties involved in the research, without close cooperation between the different research agencies there is little hope that these research priorities will be met."

Collaborations, herbivory, and the why, what and how

How:

From Herbivory Network: A suggestion to focus collaborative research on: “those questions that have the potential to i) vary among the tundra regions and ii) are relevant for major structural or functional ecosystem change”.

Is this a useful suggestion? Other overall question suggestions?

Collaborations, herbivory, and the why, what and how

How do we address the question (networks, syntheses, collaborative research projects, design)?

Is it feasible to develop common protocols / monitoring programs? Coordinate different networks?

What can be the role of individual researchers, “grass-root” initiatives such Herbivory Network, and big international groups like IASC and CBMP for facilitating database management and data integration?

How to better integrate plant and herbivore data – what kind of data do we need to collect, and how?