Human Dimensions of Climate Change—Communication and Decision Making

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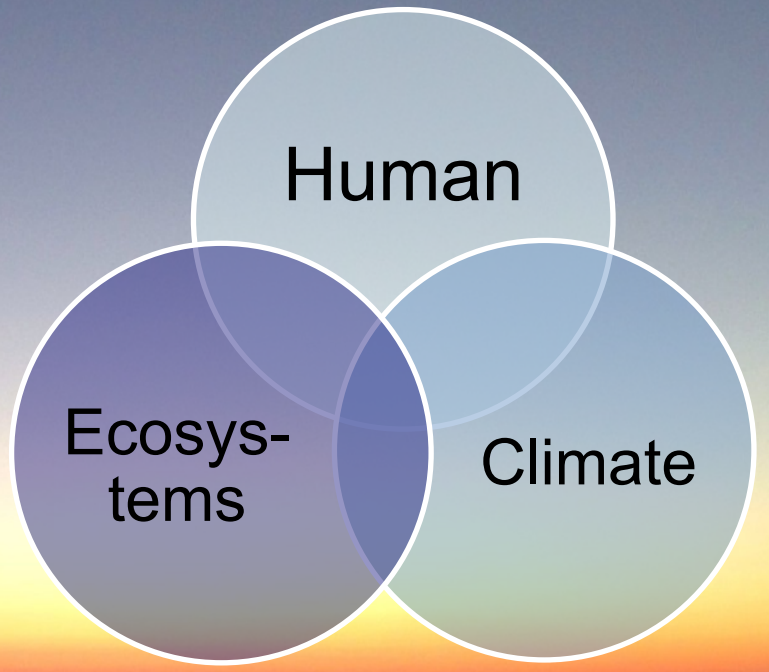
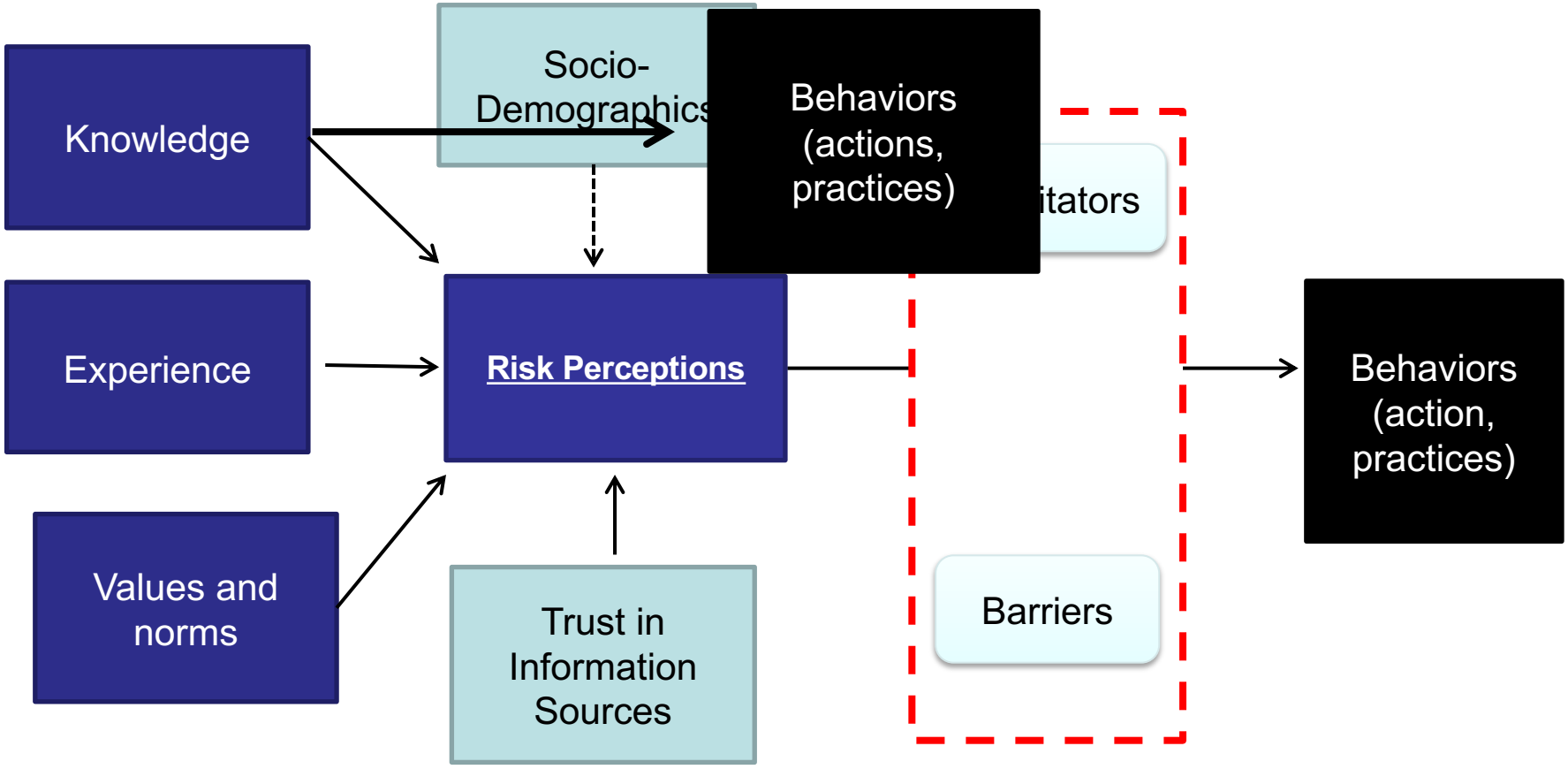
Work at UMaine

- Department of Anthropology
- Department of Communication and Journalism
- School of Economics
- School of Forest Resources



Beyond Sharing Information…

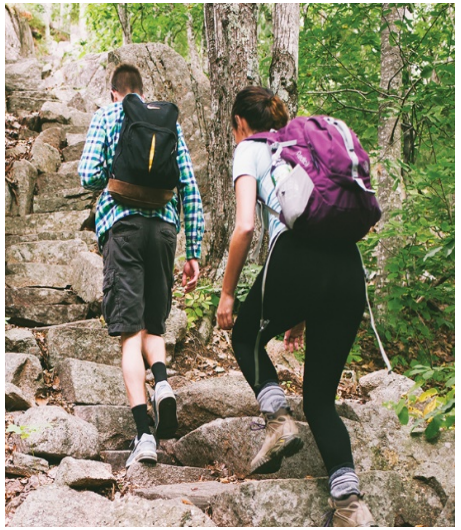


Perceived efficacy and control play a key role in decision making processes

Considerations…

Different people perceive and respond to risks and opportunities differently

- How to effectively predict **perceptions and behavior**?
- How is **information shared** with and is **understood** by potential users?
- How can information be **communicated** so it is used to inform **decision making**?



CC and Nature-based Tourism

WHY?

- 31.3 million visitors in summer 2018→ 60% nature-based (MOT, 2018)

WHO?

- Tourism businesses and visitors

HOW?

- Western Maine, Mount Desert Island, Machias
- Interviews, survey research, participatory workshops

WHAT ARE WE LEARNING?

- More information on local effects of CC (De Urioste-Stone et al. 2015; Horne et al. in review)
- Gender and age influence risk perceptions (De Urioste-Stone et al. 2015; Horne et al. in review)
- Different substitution strategies used depending on type of visitor
- Health & wellbeing more likely to drive behaviors (De Urioste-Stone et al. 2016; Horne et al. in review)

(Lydia Horne, PhD Candidate)

CC and Health

WHY?

- Climate impacts on tick prevalence and TBD (i.e., Lyme disease transmission)

HOW?

- Biophysical research (drag sampling, mammal trapping, climate modeling)
- Social science research: interviews, surveys, observations

WHAT ARE WE LEARNING?

- 98% **know** what ticks are
- Most common **preventative behaviors**: Tick-checks and use of insect repellent
- Concern with negative impacts to **outdoor recreation** economy and **cultural practices**

CC and Moose

WHY?

- Ecological, economic, sociocultural, recreation importance
- Climate change: habitat and moose health (winter ticks)

HOW?

- Biophysical: species distribution, forest composition and weather
- Social science: interviews, surveys, observations

WHAT ARE WE LEARNING?

- Calves affected by winter ticks
- Experience increased perceived risk

The New York Times

47,000 Ticks on a Moose, and That's Just Average. Blame Climate Change.

An adult moose with hair loss resulting from winter ticks.
Dan Bergeron/New Hampshire Fish and Game Department

CBC

Climate change driving 'ghost moose' calf mortality, say researchers

Tick infestations are killing off moose calves in northeastern U.S.

Rhiannon Johnson · CBC News · Posted: Nov 28, 2018 4:33 PM ET | Last Updated: November 28, 2

CC and Forest Products

WHY?

- Forest industry key economic driver
- Rural communities heavy reliant on forests products and services

HOW?

- Interviews, expert elicitation, survey, vulnerability assessment, workshops

(Alyssa Soucy, MS student)

CHANGES IMPACTING MAINE'S FOREST INDUSTRY

Results from Fall 2019 Survey

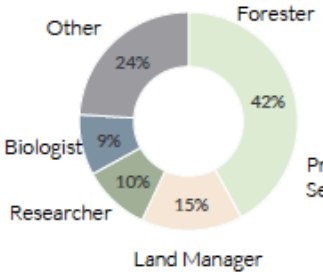
Compiled by: Alyssa Soucy, University of Maine

126 Survey Responses

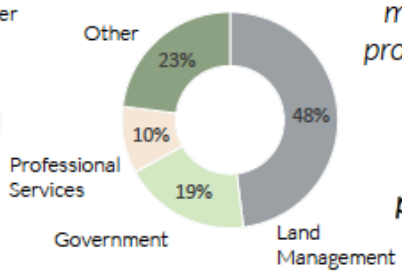
We recently surveyed CFRU members as part of an effort to understand perceptions of weather variability and management strategies that promote healthy forest systems in Maine.

Thank you to those who participated in the survey!

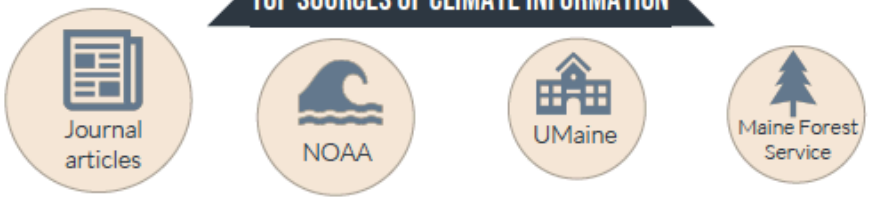
TOP PRIMARY POSITIONS



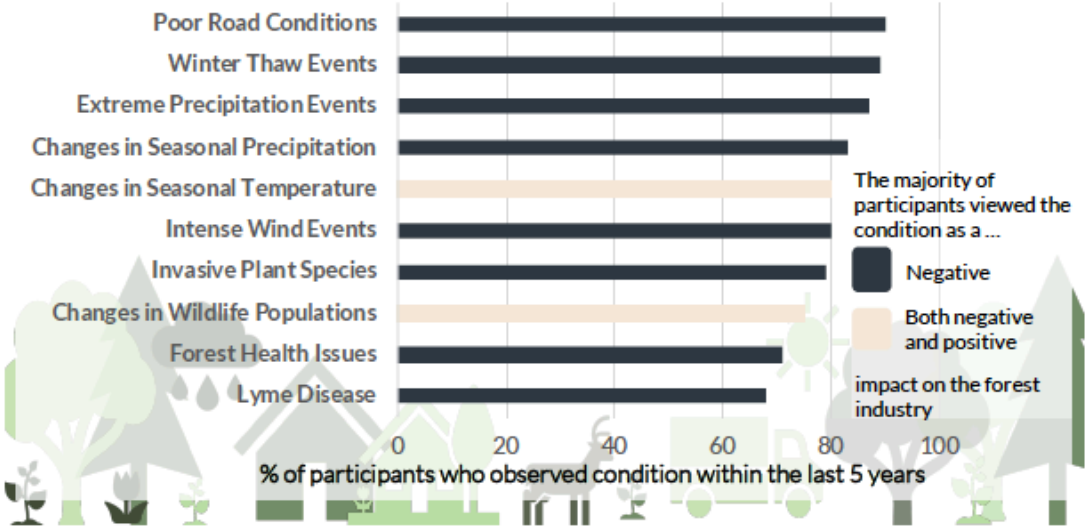
SUBSECTORS REPRESENTED



TOP SOURCES OF CLIMATE INFORMATION



TOP 10 MOST FREQUENTLY EXPERIENCED CONDITIONS IN MAINE



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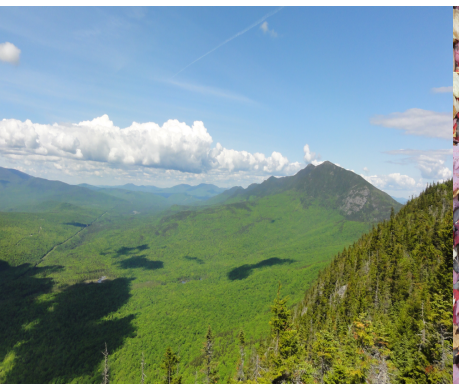
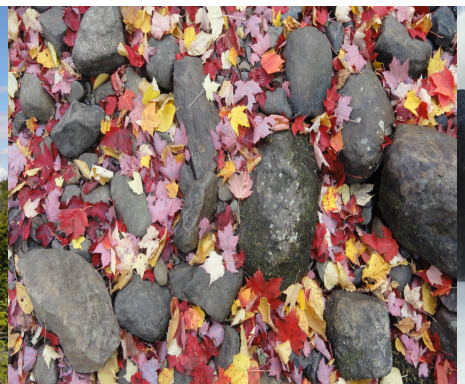
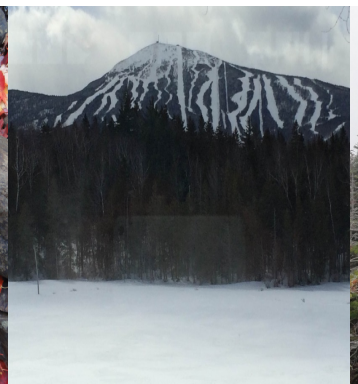
(Alyssa Soucy)

- Refine science communication tools and engagement processes
- Predicting behaviors in response to climate change is complex
- Multiple factors drive perceptions of risk
- Perceptions influence behaviors, but less precise under uncertainty
- Consider risk and opportunities in future planning

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