HIDDEN PARTICIPANTS AND UNHEARD VOICES:

TEK and Climate Change Research in the North

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Introduction & Acknowledgements

- Introduction
 - Hi!

- Acknowledgements
 - Treaty 6 Territory and Homeland of the Métis
 - Funding from the Rural Policy Learning Commons

Research Questions

"Is everyone's knowledge represented as it should be in the Traditional Ecological Knowledge (TEK) literature?"

"What are the characteristics of the Traditional Ecological Knowledge (TEK) as presented in the literature?"

"Is there any relationship between author's gender and characteristics of the knowledge presented?"

Definitions

- * Traditional Ecological Knowledge (TEK)
 - * a.k.a. Local Knowledge, Indigenous Knowledge, Farmer's Knowledge ...
- * Everyone
 - * Women vs. Men, Youth vs. Elders
- * Author's Gender
- * Literature
 - * Peer-reviewed Journal Articles available through the UofS library
- * Represented or presented knowledge

METHODS

Methods

- Peer-reviewed journal articles
- Published between Jan. 1990 and Sep. 2017
- Presenting TEK relating to climate change or its effects
 - whether the project collected said TEK or not
- Systematically reviewed using Google Scholar

- Saturation: 3 pages with no new results
 - 10 pages were always reviewed

Search Terms

Traditional Ecological Knowledge

OR

Traditional Knowledge

OR

Indigenous Knowledge

OR

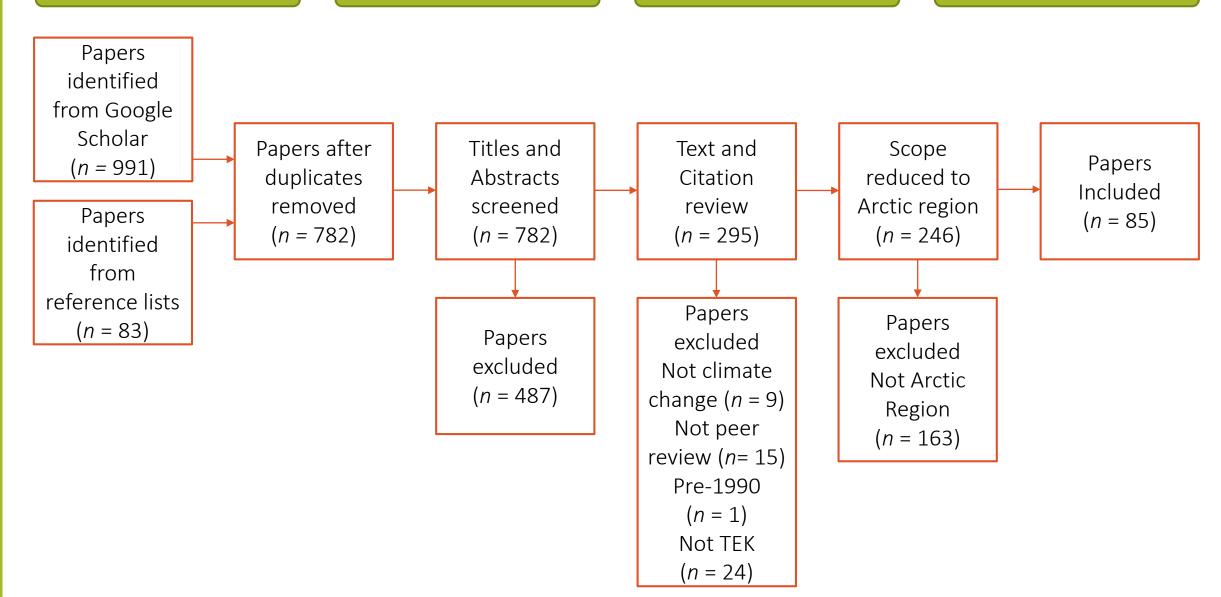
Local Knowledge

AND

Climate Change

OR

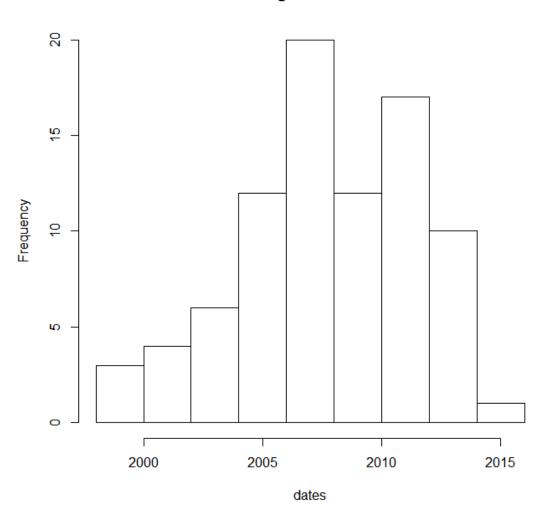
Environmental Change



RESULTS & DISCUSSION

Literature Characteristics

Histogram of dates



Literature Characteristics

- Male authors outnumber female roughly 2:1 (120:230:23)
- Lit. reviews are common (n = 18)
- Purposive sampling was the most common sampling method
- About half didn't describe sampling (n = 33)
- Interviews most common, followed by focus groups and participant observation

Literature Characteristics

- Studies mainly of the North American Arctic
 - Due to language?
 - Due to Russian skepticism of climate change? (Stammler)

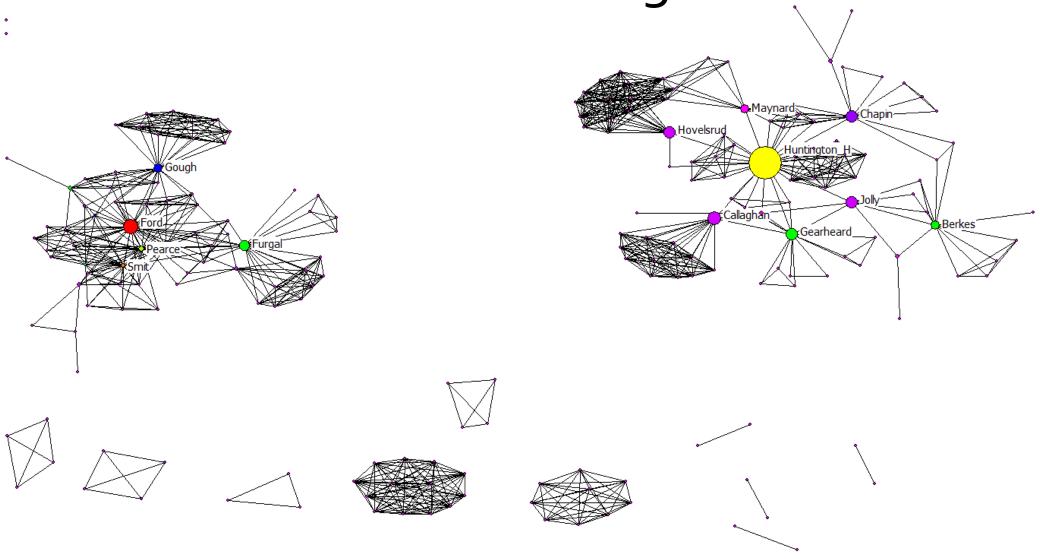
Piecemeal publications were very common

- Case studies failed to locate the knowledge at all
- Literature reviews were sometimes circular

Invisible Colleges

- Group of authors who collaborate, support, and cite each other's work
- Influential due to citations, collaboration, and connections
- Can influence entire fields of study (positively or negatively)
- One, possibly two invisible colleges appear to exist (Ford and Huntington)

Invisible Colleges



Knowledge Representation

Q: Is everyone's knowledge represented as it should be in the Traditional Ecological Knowledge (TEK) literature?

A: I don't know...

No?

Knowledge Representation

- 3 reported both gender and age data
- 13 reported some demographic information
- 69 reported no demographics at all

Only 23 reported clear participant numbers

- 166 Women to 317 Men
- Mostly 55+ (1 youth); Usually "elders" and "hunters"

Q: "What are the characteristics of the Traditional Ecological Knowledge (TEK) as presented in the literature?"

A: Vulnerability Framework

 Focused on observations of climate change or vulnerabilities to climate change

 Knowledge was collected primarily for elders and animal resources users (i.e., hunters and trappers)

In Europe & Asia, knowledge collected from herders

 Knowledge tended to focus on the largest hunted mammal (i.e., whale, caribou, seal, moose)

 Knowledge of harvesters, small game hunters, and fishers are largely absent

 Developing community-based research skills and facilitating community knowledge collection and archival practice was commonly mentioned

 The results of this are unclear, however, as no peerreviewed publications were found resulting from these efforts

Gender's Impact

Q: "Is there any relationship between author's gender and characteristics of the knowledge presented?"

A: Seems so.

Gender's Impact

 Large collaborative projects were more disproportionate than average

 Women-led projects appeared more likely to list individual community-based guides/partners as authors

 Women-led projects didn't appear to do any better at collecting data from or recruiting women

RESEARCH CONTEXT

Research Context

- Outside perspective
- Circumpolar Arctic

- Articles only identified through Google Scholar
- Peer-reviewed articles only (No books, no reports)
- Considerable adjacent literature
 - Resource management, co-management, law
 - Anthropology, Ethnobiology, Ethnobotany, Ethnoecology, Environmental Engineering, Law

DISCUSSION

Expertise and Voices

- How are experts defined?
 - By Whom?
- Is there a balance among community sovereignty with our mandate to elevate marginalized voices and issues?
 - i.e., to define expertise and identify experts while not indirectly silence
 - Focus on prioritized species might limit how we understand ecosystem change
- If this research is building capacity to bring TEK into science, why are we not seeing it?

REFERENCES

References

- Ansara, Y. G., & Hegarty, P. (2012). Cisgenderism in psychology: Pathologising and misgendering children from 1999 to 2008. *Psychology & Sexuality*, *3*(2), 137-160. https://doi.org/10.1080/19419899.2011.576696
- De Solla Price, D. J., & Beaver, D. (1966). Collaboration in an invisible college [Abstract]. *American Psychologist*, 21(11), 1011-1018. http://dx.doi.org/10.1037/h0024051
- Huntington, H. P. (2000). Using traditional ecological knowledge in science: methods and applications. *Ecological applications*, 10(5), 1270-1274. doi: 10.1890/1051-0761(2000)010[1270:UTEKIS]2.0.CO;2

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