

# INCORPORATING FIRST NATION PERSPECTIVES IN EEL SCIENCE, SPECIES AT RISK AND MANAGEMENT



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# OVERVIEW



- Worldview
- Significance of Eels
- Eel fisheries
- IKS and Science
- Management
- Species at Risk
- Moving Forward



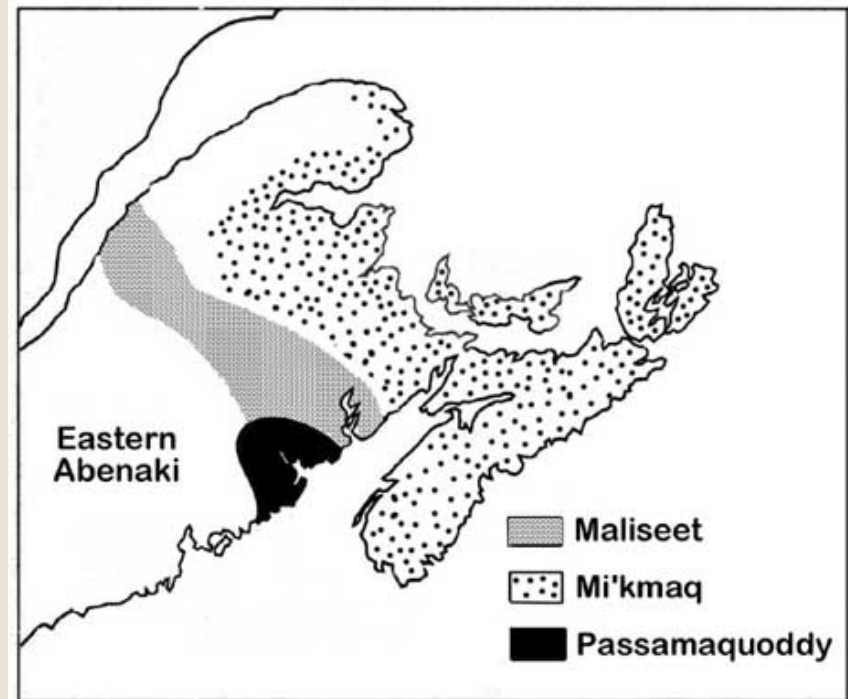
Guides on the Tobique River, c. 1862. Tobique River, Taylor, G.T., Provincial Archives of New Brunswick.



# MI'KMAQ AND WOLASTOQQ NATIONS



- Two separate nations
- Both part of the **Wabanaki Confederacy**
- Knowledge is place-based
- Wabanaki= **People of the Dawn**
- Wolastoqiyik= **People of the beautiful river**



[http://www.bofep.org/native\\_resource.htm](http://www.bofep.org/native_resource.htm)



# FIRST NATIONS WORLDVIEW



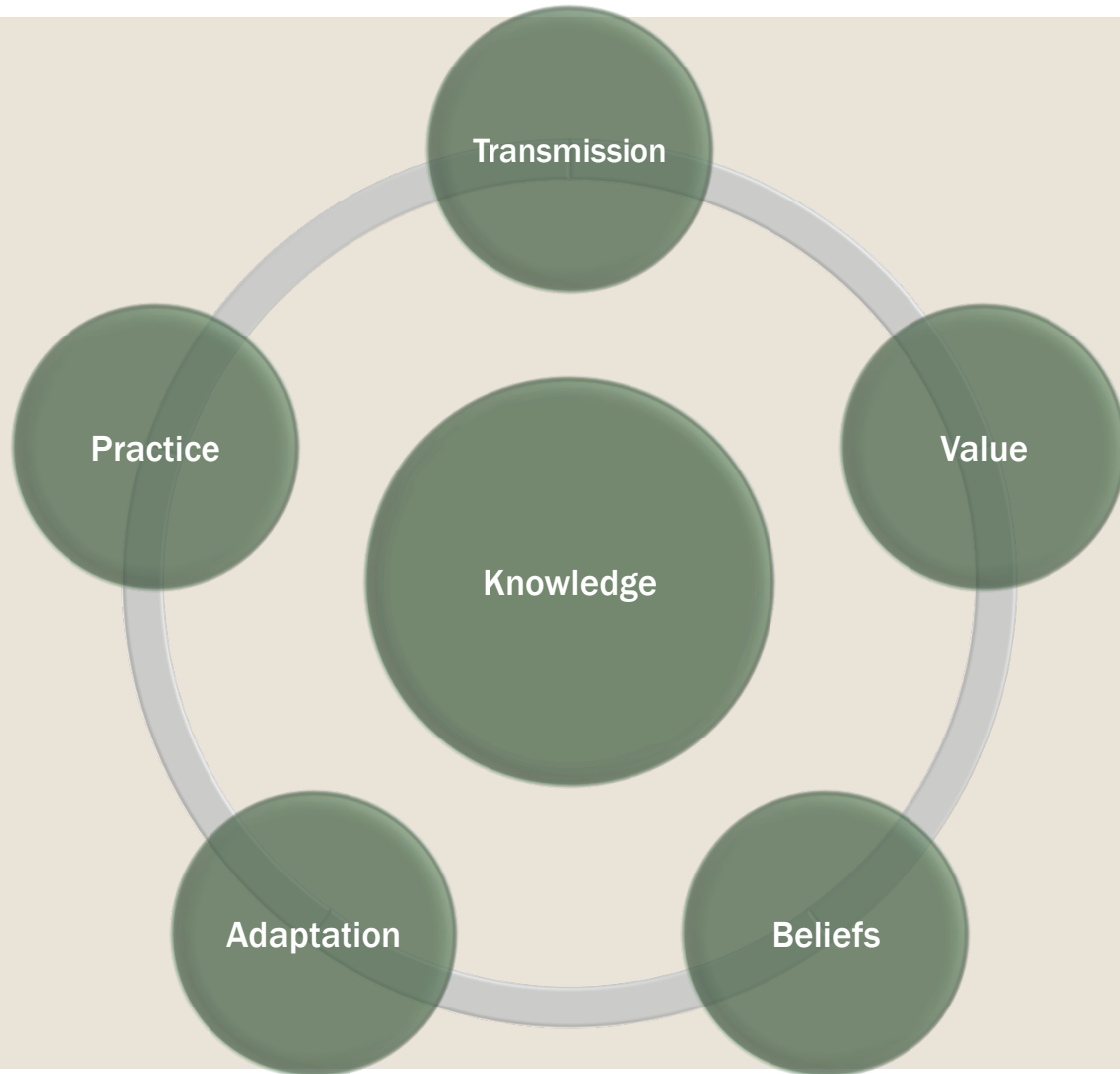
- Multiple ways of knowing
- Mother Earth is borrowed from future generations
- Respect, relationship, reciprocity and responsibility
- Equality of life; humans are one part of the ecosystem



# INDIGENOUS KNOWLEDGE SYSTEMS



- **M'sit no'komaq**
  - all my relations
- **Netukulimk**
  - “avoid not having enough”
  - “take what you need”







# SIGNIFICANCE OF EEL



## Uses

- Food
- Ceremony
  - Feats, offering, pow-wows, transitioning to spirit world
- Medicinal
  - Sprains, ear aches, 'good fat', nutritional
- Art
  - Ties, wraps for bow



# SIGNIFICANCE OF EEL



## Opportunities

- Enables us to carry out cultural obligations
- Transmission of Knowledge
- Generosity
- Kinship
- Language
- Relationship with the eel
- **CULTURAL IDENTITY**



# FN EEL FISHERIES



## Nova Scotia

- Food, social and ceremonial
- Commercial eel licenses – *not utilized*
- Elver license

## New Brunswick

- Food, social and ceremonial
- Floating commercial eel license – *sometimes utilized*
- No elver license





# SCIENCE AND IKS



- Our knowledge is ‘qualitative’
  - Observation
  - interaction
  - Intergenerational
- We know:
  - Where to find eels and not where to find eels
  - When to catch eels and when we won’t get any
  - Where they feed and on what
  - How eel movements coincide with natural cues
  - How to co-existence with eels
  - More time to get food on our table
  - Commercial fishing impacts food fishing





**Is it RELEVANT and PRACTICAL?**



# “MANAGEMENT”



## Overview

- Manage ourselves
- Integration of belief-knowledge-action
- Recap
  - Shared resource
  - Netukulimk
  - Respect
  - Relationship
  - Reciprocity
  - Responsibility





# “MANAGEMENT”



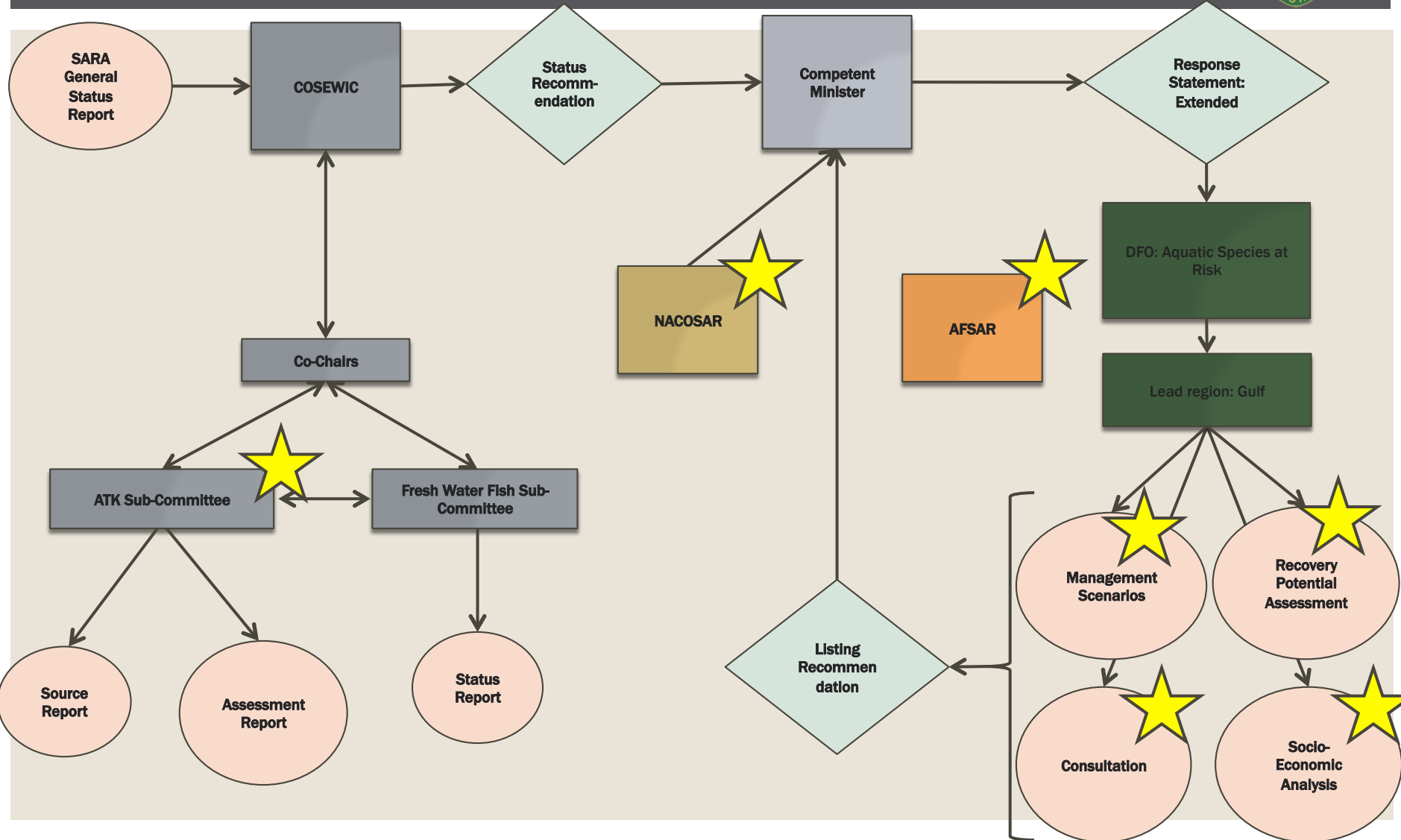
## Specifics

- Rotate fishing areas
- Keep what you catch when spearing
- Limit catch
- Reduce waste





# SPECIES AT RISK







# TENSIONS



- In NS, min legal length is 35 cm; Mi'kmaq fish for 45 cm and above (unless winter spearing)
  - Access to eels via traditional methods AFTER commercial and recreational harvest
- Who decides that eel science is more important than cultural sustainability?
  - How can scientists/student have access to eels when other FN do not because of conservation limits?



# MOVING FORWARD



- Value IKS with wider application to management
- Work collaboratively with FN; scientist, management and policy to develop relevant and applicable knowledge for improved management
- Develop policy for collaboration
- Framework for inclusion of Indigenous people
- Funding opportunities for interdisciplinary studies
- Natural and social sciences as a tool for evaluating management



**Thank you!  
Wela'liog!  
Woliwon!**

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