



Improving the eel fishery through the incorporation of Indigenous Knowledge Systems into policy level decision making

A case study, Eskasoni First Nation

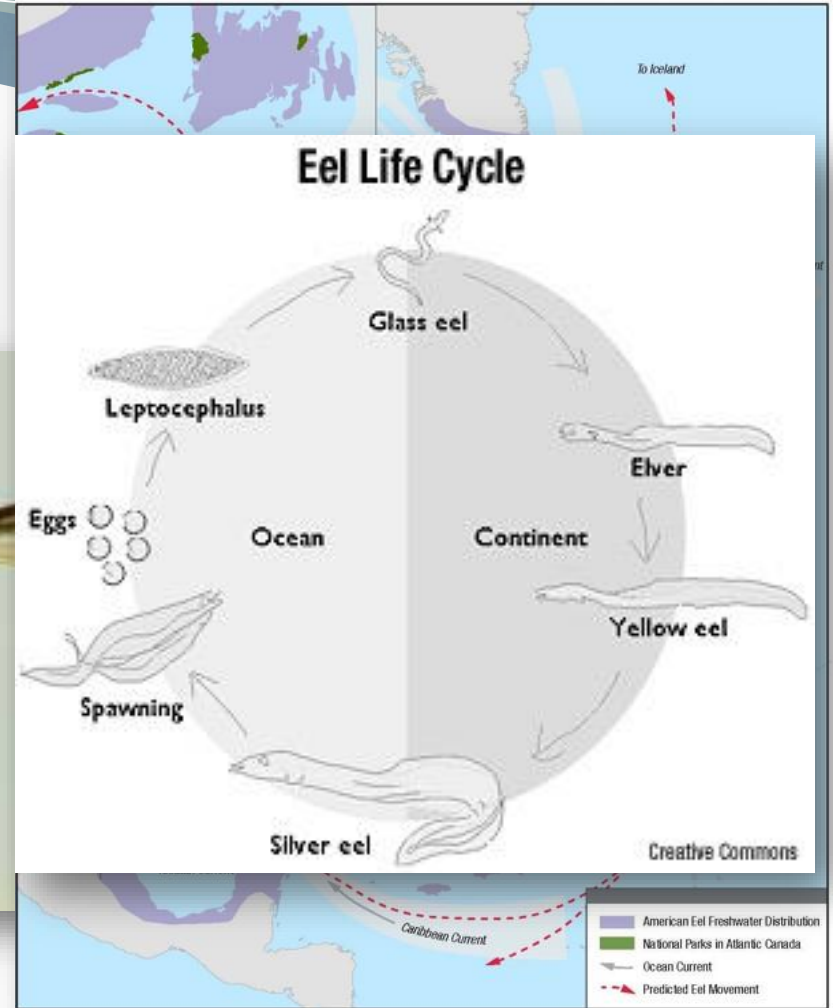
Amber Giles, Lucia Fanning, Shelley Denny and Tyson Paul
Marine Affairs Program, Dalhousie University, Halifax, Nova Scotia, Canada and
Unama'ki Institute of Natural Resources, Cape Breton, Nova Scotia, Canada

Supported by the Social Sciences and
Humanities Research Council



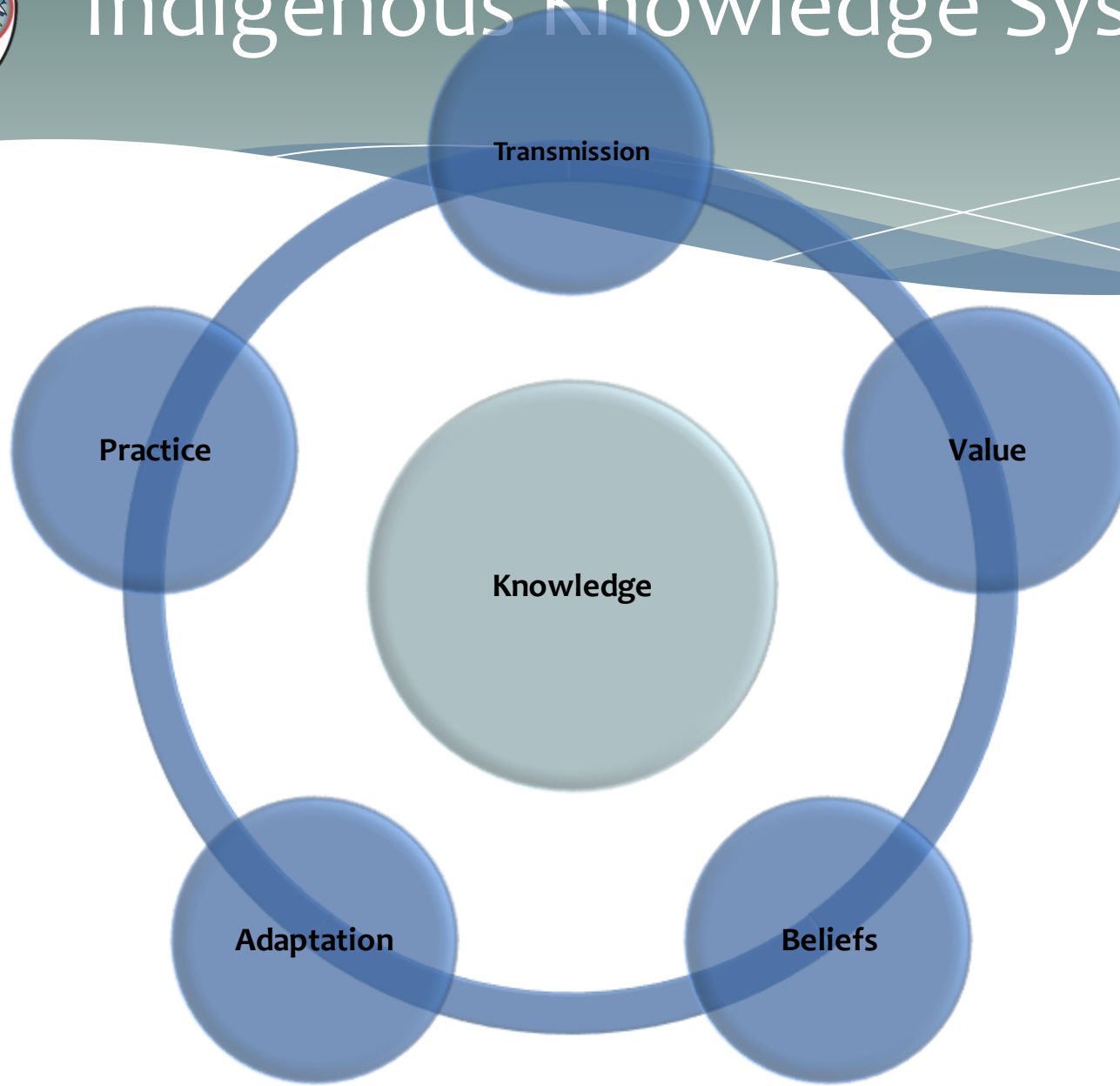
Background

- COSEWIC: Threatened
- SARA: No Status
- Large distribution, crossing international boundaries
- Panmictic population
- Complex life history
- Eels' social, economic, spiritual, medicinal, and cultural importance
- Implications for Aboriginal and Treaty fishing rights





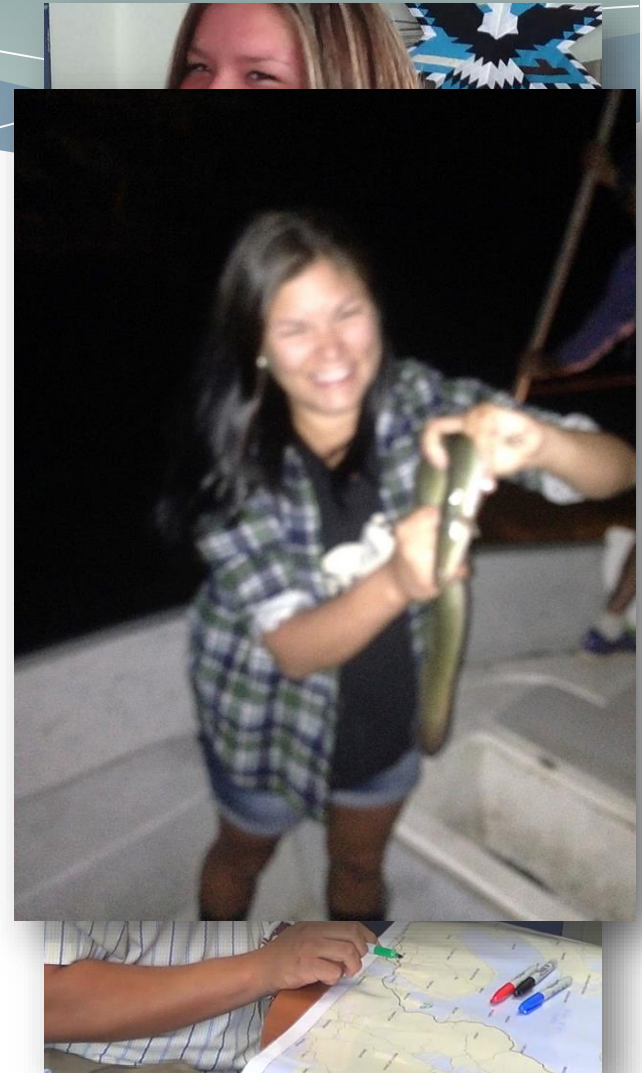
Indigenous Knowledge Systems





Methods

- Took place in Eskasoni First Nation
- Semi-structured in person interviews with eelers in Eskasoni
- Mapping with eelers in Eskasoni
- Semi-structured in person and over the phone, interviews with those involved in COSEWIC and SARA





SARA
General
Status
Report

COSEWIC

Status
Recommendation

Competent
Minister

Response
Statement
Extended

Co-Chairs

ATK Sub-Committee

Fresh Water Fish
Sub-Committee

Source
Report

Assessment
Report

Status
Report

Listing
Recommendation

Lead Region: Gulf

Management
Scenarios

Recovery
Potential
Assessment

Consultation

Socio-
Economic
Analysis

Eeling Practice

Community Beliefs

Values Expressed

Sharing eels with elders, family, and community members

- Share with those who can not eel for themselves
- Showing respect for Elders

- Kinship
- Reciprocity
- Generosity

Undertaking a period of observation before eelers begin to eel

- Proper skills are needed so eels will not get harmed
- Learning how to identify habitat
- Patience

- Respect for the eel
- Oral tradition
- M`sit No`kamaq

Deciding to leave the commercial eel fishery

- Commercial fishery is hurting eel populations

- 7 Generations
- Netukulimk

Using spears over nets

- Nets catch too many eels
- Only take what you need

- Respect for the eel
- Netukulimk

Keeping all eels caught during winter spearing

- Eels will die if you put them back, it is wasteful

- Respect for the eel
- M`sit No`kamaq

Not fishing or only taking enough for the elders during years of low populations

- Not right to eel when population are low
- Still want to respect elders

- 7 Generations

Visiting eeling sites only once in a cycle

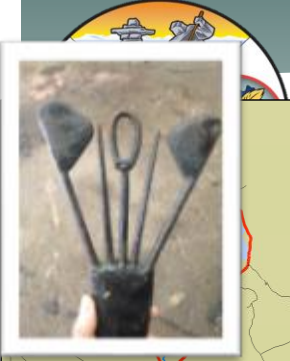
- Avoid overexploitation
- Avoid too much pressure on the eels

- Netukulimk
- Relationship with territory
- Respect for place

Being extremely selective during summer fishing, only taking the “good sized ones”

- Leave the smaller eels to have a chance to grow and reproduce

- Netukulimk
- Respect for the eel

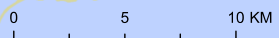


ATK Study - Eeling
Bras d'Or Lakes, NS



Legend
 Eel_Summer

Disclaimer:
 This map is for geographical purposes only, and may not accurately represent actual topographical features, or proposed features/infrastructure. Use of this map is for a specified research project only.
 Membertou Geomatics Solutions does not accept any responsibilities for use of this map other than the specified research project.
 Researcher: Amber Giles
 Cartographic Design: Membertou Geomatics Solutions
 Projection: NAD83 UTM Zone 20
 Scale: 1:250,000
 Version: 1.0
 Date: Nov. 1, 2014





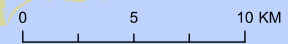
ATK Study - Eeling
Bras d'Or Lakes, NS

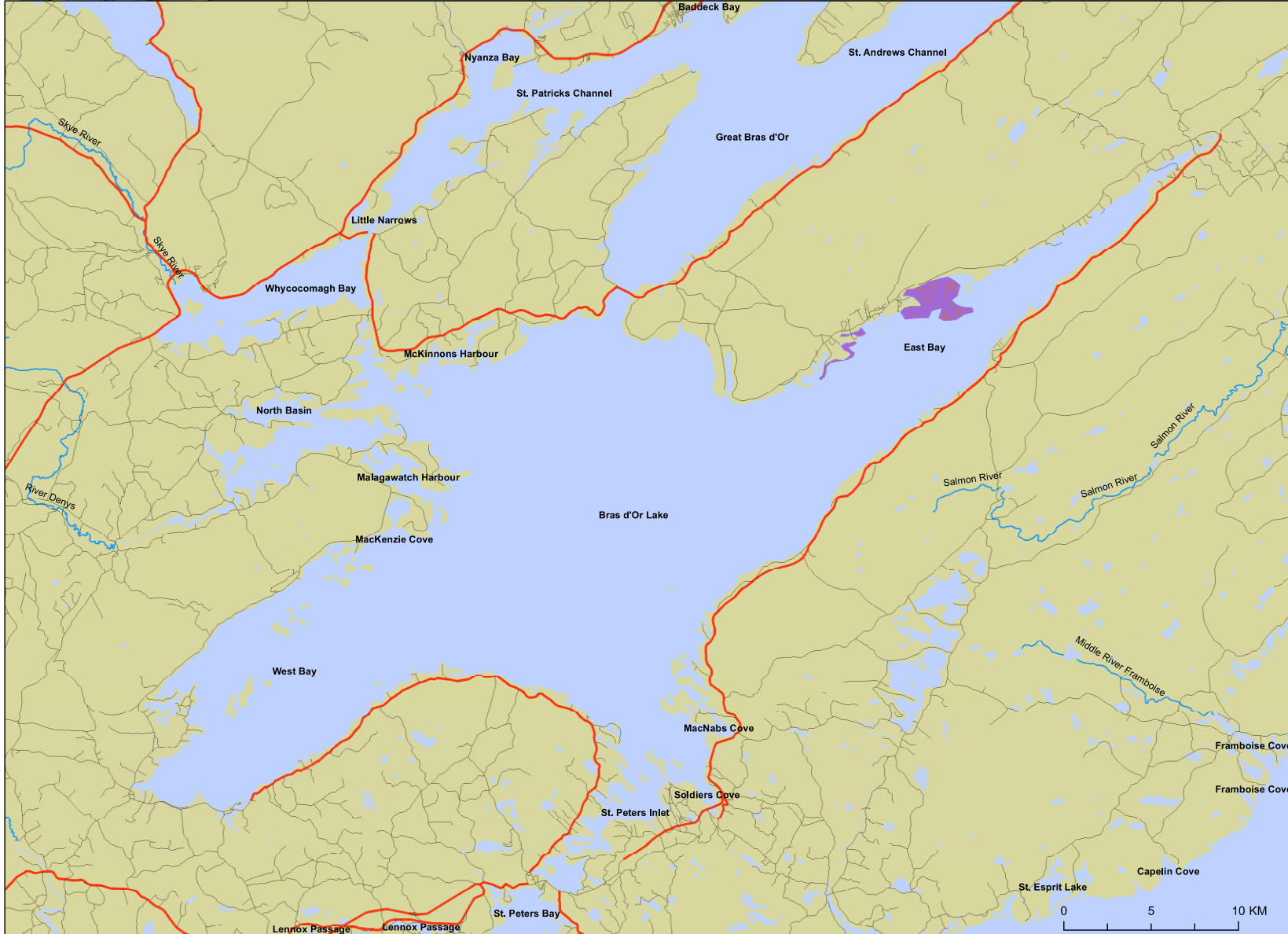


Legend

Eel_Winter

Disclaimer:
This map is for geographical purposes only, and may not accurately represent actual topographical features, or proposed features/infrast-structure. Use of this map is for a specified research project only.
Membertou Geomatics Solutions does not accept any responsibility for use of this map other than the specified research project.
Researcher: Amber Giles
Cartographic Design: Membertou Geomatics Solutions
Projection: NAD83 UTM Zone 20
Scale: 1:250,000
Version: 1.0
Date: Nov 2, 2014






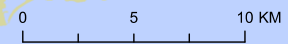
ATK Study - Eeling
Bras d'Or Lakes, NS

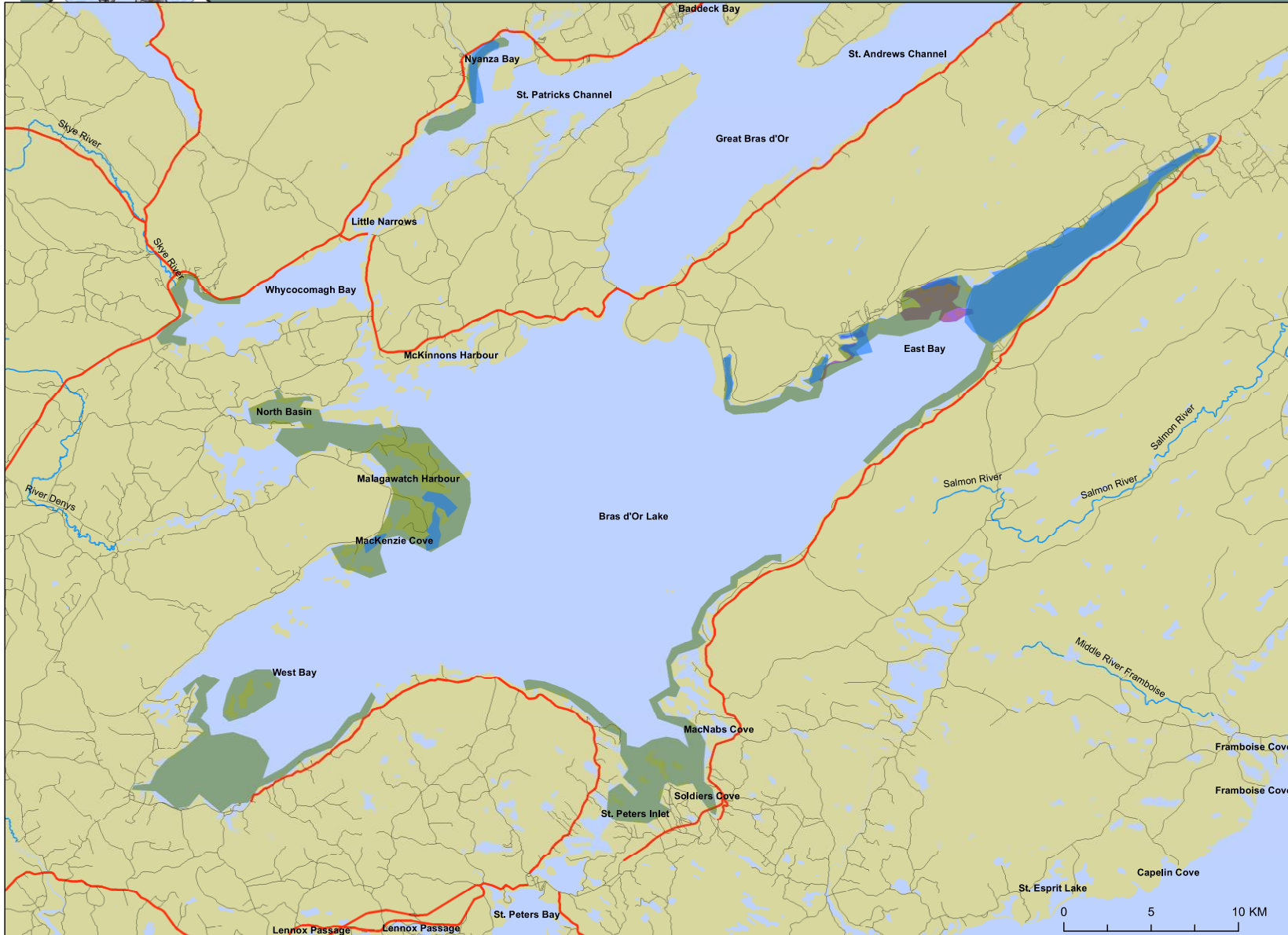


Legend

 Eel_First

Disclaimer:
This map is for geographical purposes only, and may not accurately represent actual topographical features, or proposed features/infrast-structure. Use of this map is for a specified research project only.
Membertou Geomatics Solutions does not accept any responsibility for use of this map other than the specified research project.
Researcher: Amber Giles
Cartographic Design: Membertou Geomatics Solutions
Projection: NAD83 UTM Zone 20
Scale: 1:250,000
Version: 1.0
Date: Nov 2, 2014





ATK Study - Eeling
Bras d'Or Lakes, NS



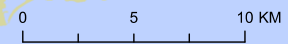
Legend

- Eel_Winter
- Eel_Summer
- Eel_First

Disclaimer:
This map is for geographical purposes only, and may not accurately represent actual topographical features, or proposed features/infrast-structure. Use of this map is for a specified research project only.

Membertou Geomatics Solutions does not accept any responsibility for use of this map other than the specified research project.

Researcher: Amber Giles
Cartographic Design: Membertou Geomatics Solutions
Projection: NAD83 UTM Zone 20
Scale: 1:250,000
Version: 1.0
Date: Nov 2, 2014





Recommendations

- Increase meaningful communication between DFO and Aboriginal groups and communities
- Long term relationships between organizations and Aboriginal groups and communities
- Cross-cultural understanding
- People into the process
- Broaden definition and understanding of TEK to IKS

Eeling Practice

Management Recommendations

Sharing eels with elders, family, and community members	<ul style="list-style-type: none">• Minimum FSC level ensured
Undertaking a period of observation before eelers begin to eel	<ul style="list-style-type: none">• Courses for fishers which include Mi'kmaq cultural awareness
Deciding to leave the commercial eel fishery	<ul style="list-style-type: none">• Conservation efforts
Using spears over nets	<ul style="list-style-type: none">• Gear restrictions
Keeping all eels caught during winter spearing	<ul style="list-style-type: none">• Change to seasonal management for fishery• Varying Size Limitation of seasonal periods
Not fishing or only taking enough for the elders during years of low populations	<ul style="list-style-type: none">• Adaptive management• Monitoring programs
Visiting eeling sites only once in a cycle, rotational fishing	<ul style="list-style-type: none">• Conservation efforts
Being extremely selective during summer fishing, only taking the "good sized ones"	<ul style="list-style-type: none">• Size limits for summer eeling



SARA
General
Status
Report

COSEWIC

Status
Recommendation

Competent
Minister

Response
Statement
Extended

Co-Chairs

NACOSAR

AFSAR

DFO: Aquatic Species at Risk

Lead Region: Gulf

ATK Sub-Committee

Fresh Water Fish Sub-Committee

Source
Report

Assessment
Report

Status
Report

Listing
Recommendation

Management
Scenarios

Recovery
Potential
Assessment

Consultation

Socio-
Economic
Analysis





Community Recommendations

- Three areas of high importance for retention of language, and transmission of culture and knowledge were identified in Eskasoni
 - John Paul's Lane
 - Beaches
 - Goat Island and surrounding Island
- Special attention to the preservation of these habitats would work to preserve habitat for eels, as well as protect important habitats for cultural and language retention and transmission
- Establish monitoring program in collaborations with AAROMS to ensure the habitats remain good eeling areas, culture and language retention, and to facilitate the teaching of younger generations about honouring the environment and relationships with relations



Thank you!
Wela'liog!
Woliwon!

Giles.Amber.M@gmail.com

www.fishwiks.ca