

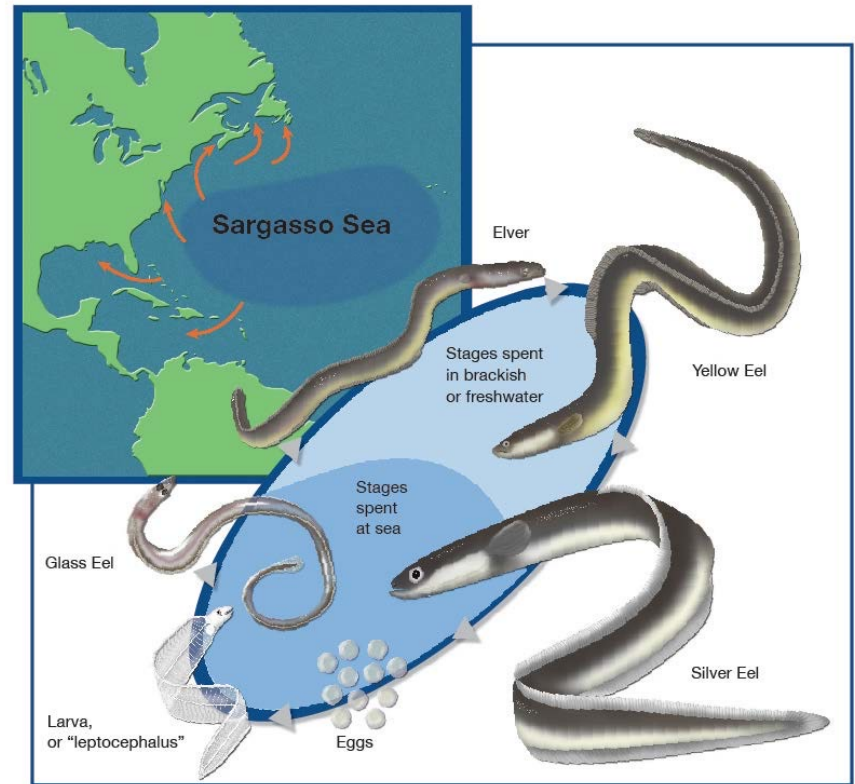
Overview of Canada & the *Anguilla rostrata*



Virtual Workshop: American Eel Range States
May 18 & 19 2021

Overview

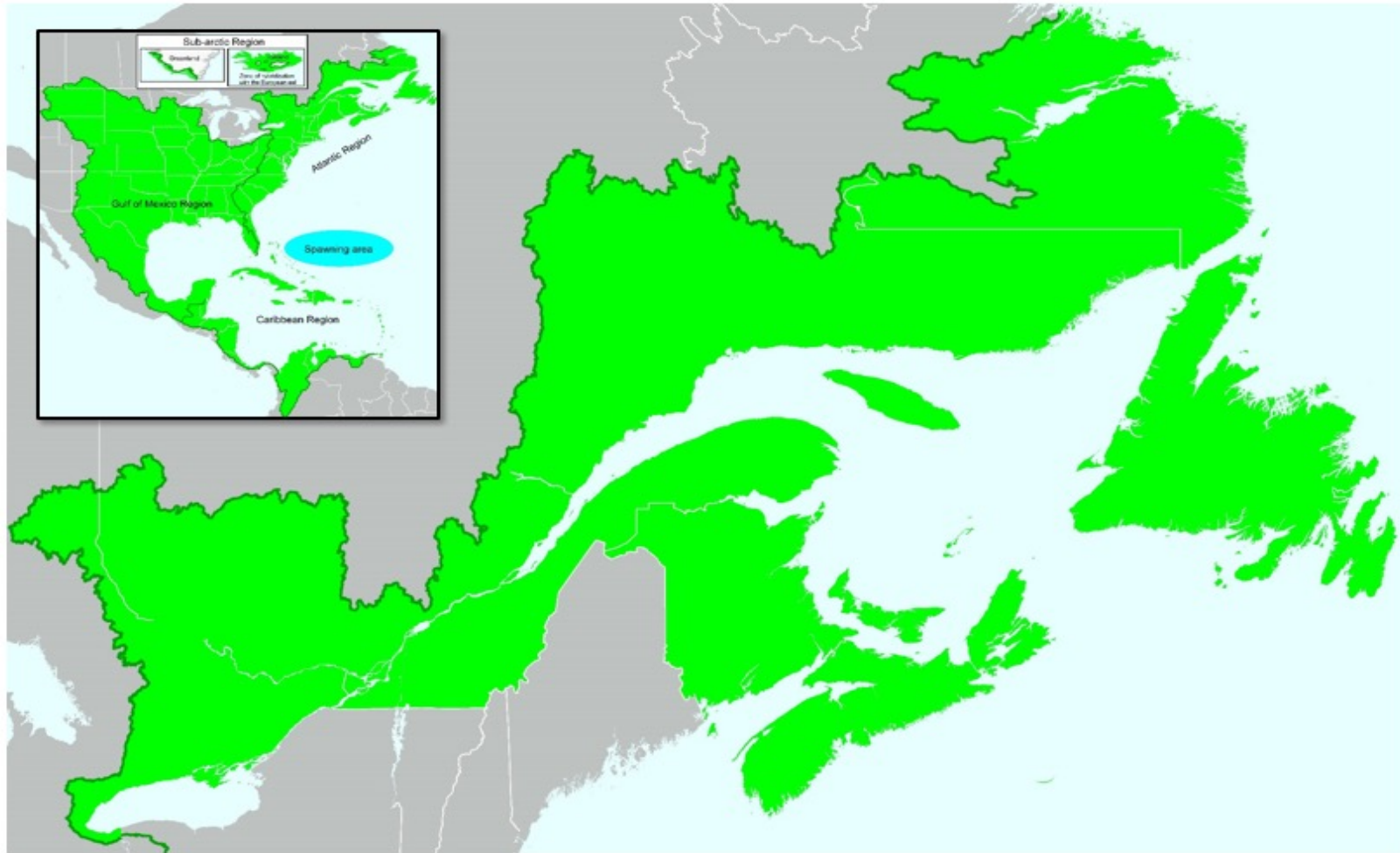
- **Part One: Science in Canada**
- **Part Two: Management in Canada**
- **Part Three: Political & International Considerations**



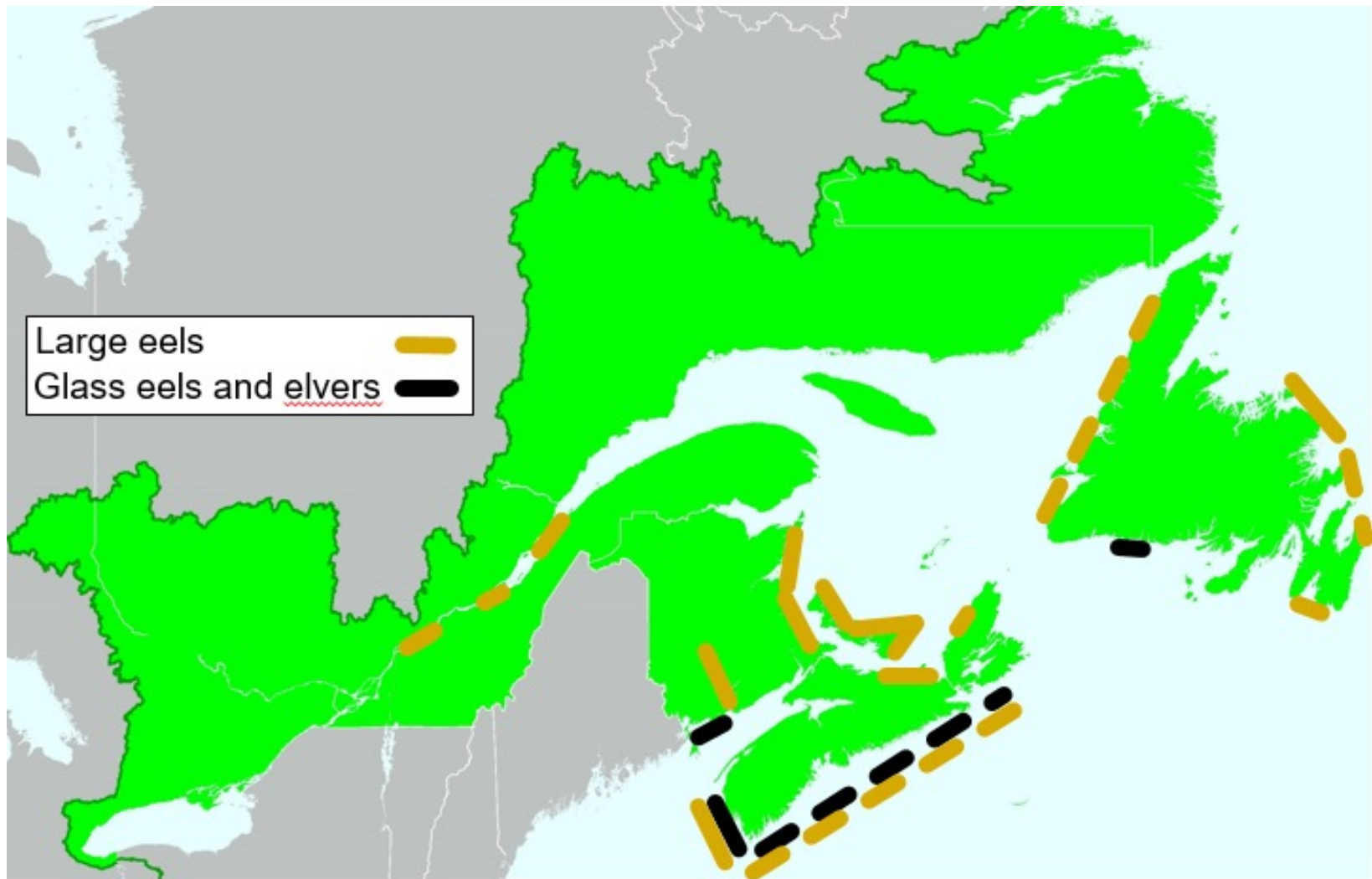


Part One: Science – Canadian distribution of species

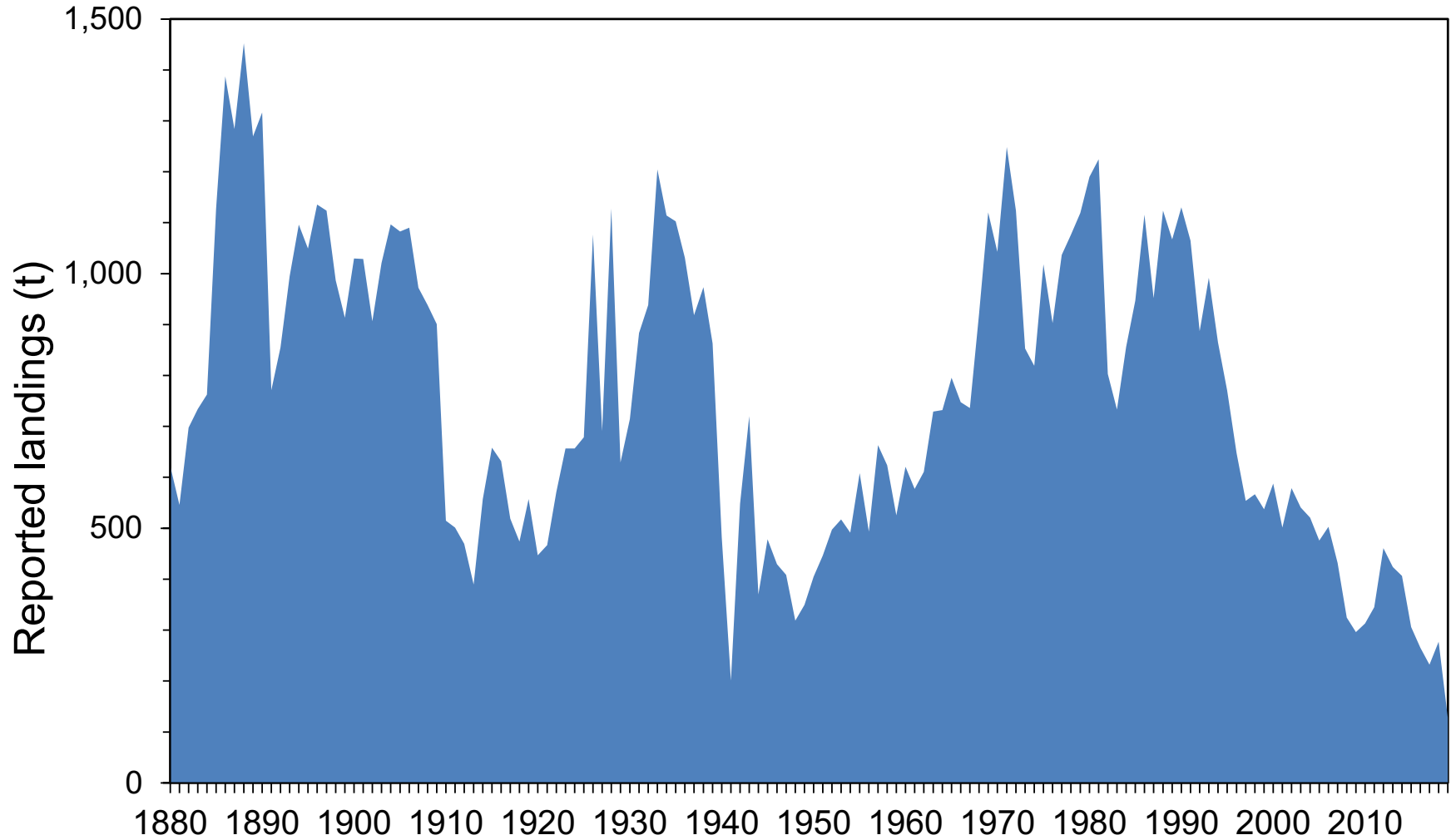
Confirmed and plausible American eel range in Canada



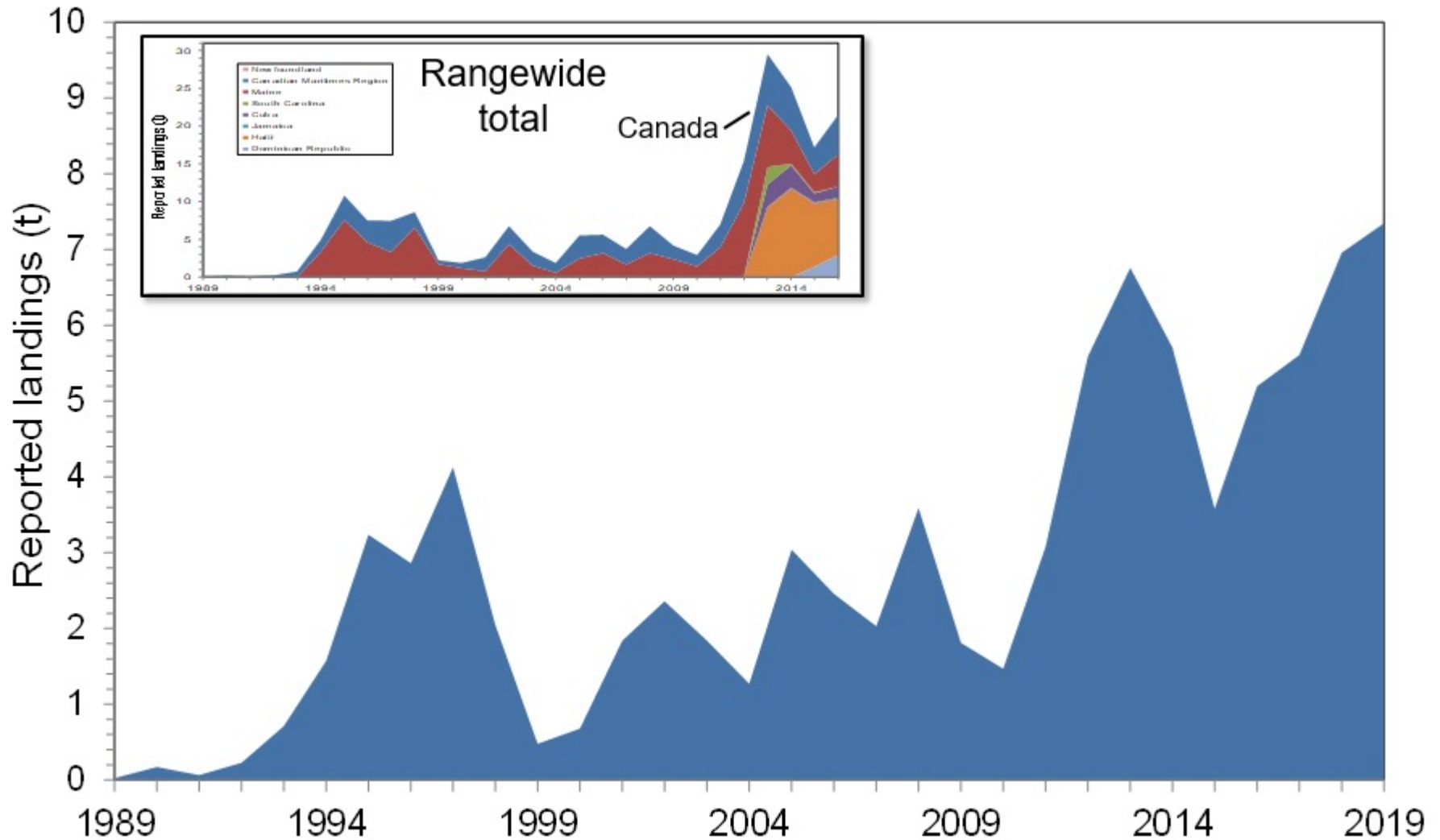
Main American eel fisheries locations in Canada



Canadian landings of American eels, 1880-2019



Canadian landings of American eel elvers, 1989-2019



Part Two: American Eel Fisheries Management in Canada

- Sub-categories of fisheries
 - Commercial (includes communal-commercial)
 - Food, Social, and Ceremonial (FSC)
 - Recreational
- Active commercial fisheries in 5 provinces with a 6th (Ontario) closing commercial fisheries in 2004
- Beyond FSC, some Indigenous groups looking for greater commercial access
- Recreational fisheries are active in 4 provinces (none in Quebec and closed in Ontario as of 2005)
- Increasing interest in glass/eel fishery

Elver Fishery (eels of <10 cm / directed glass eel fishery)

- Total Allowable Catch (TAC) for the commercial fishery (9,960 kgs wet weight)
- Individual quota by licence holder
 - Caps on number of licences (9)
 - Catch limits by watercourse scaled to drainage area (km²)
 - No overlap in the elver fishery: authorized fishing locations do not permit two licence holders to fish the same location.
- Reporting requirement for fishing, transport, and/or sale of fish (includes reporting when fishing begins and ceases each day fishing occurs)
- 100% of sales verified by a third party
- Restrictions on gear type, the overall number of gear units that are permitted to be used, spacing between fishing gear and the maximum amount of fishing gear permitted in a watercourse.
- Licence holders provide names of persons permitted to fish and a list of all vehicles and vessels used in fishing operations.
- Biosecurity protocols are required or in place to prevent spread of a swim bladder parasite detected in some areas in Canada.
- There is also a NL glass eel fishery (150kgs) that is contingent on use for domestic aquaculture.

Precautionary Eel Management Framework for Maritimes Region

1. Meet adult eel escapement targets for the region as a whole
 - Work underway to estimate
 - standing stock
 - mortality from human-activities (turbines, fisheries)
2. Meet adult eel escapement targets for individual rivers
 - Current objective is to maintain separation of eel and elver fisheries

Spatial extent of activities resulting in Mortality

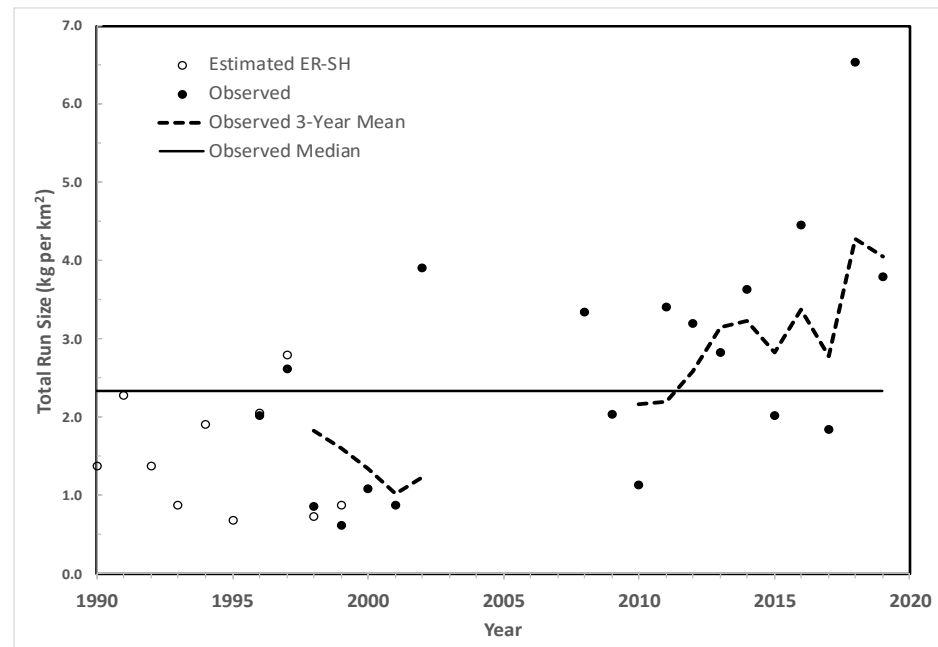
- Assessed relative to total available habitat
- Extent of overlap
 - Managers aim to minimize overlap in fisheries

Year	Activity	P(Total Habitat)	Extent of Overlap	
			Eel	Elver
2015	Hydro-electricity	0.164	0.056	0.111
	Eel Fisheries	0.468		0.084
	Elver Fisheries	0.285		
2016	Hydro-electricity	0.164	0.052	0.111
	Eel Fisheries	0.432		0.056
	Elver Fisheries	0.274		

Commercial Elver Fishery

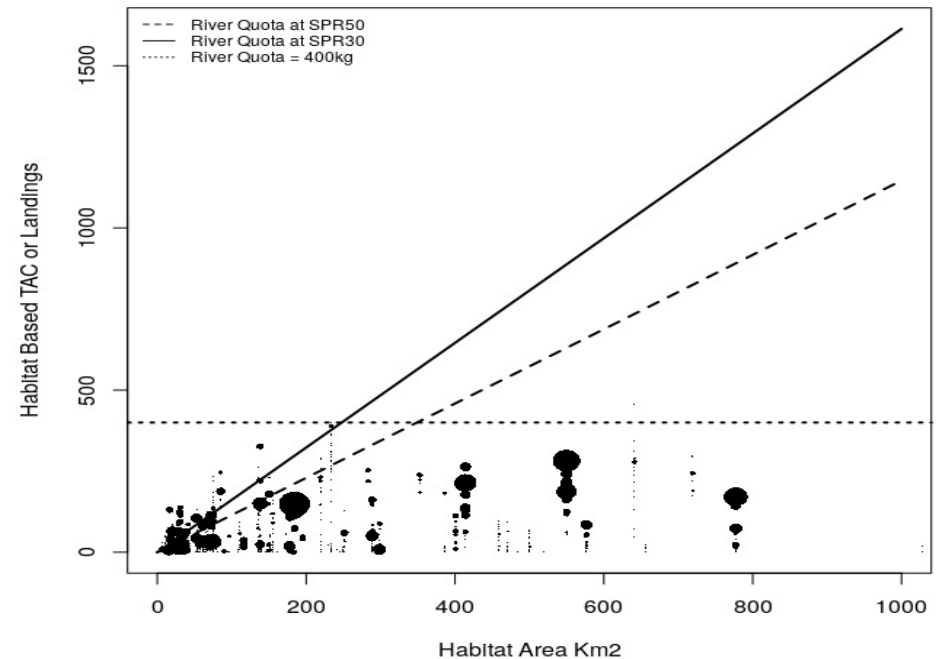
Fishery-Independent Annual Total Run Size Index

- Used to monitor recruitment trends
- Establish Limit and Target mortality reference points (median run size 1996-2018)
- Decline in 3-year mean below median triggers review



Elver Fishery

- Total Allowable Catch (TAC) for Region (9960kg in wet weight)
- River specific harvest limits
 - Mortality Reference Points
 - Adjusted to Watershed Areas



Part Three: Significance & Policy Implications for Canada

Eels play three key important roles for Canada:

- **Environmental:** ecosystem role in freshwater, brackish, and coastal waters
- **Cultural:** Significance for Indigenous groups in eastern Canada
- **Economic:** value of commercial fisheries



International Considerations – CITES

- 2009 – European eel listed on Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), leading to a sharp increase in demand and price for other eel species (including American eel) in international markets.
- 2016 – CITES Decisions (17.186 and 17.187) called on eel range States to submit information on science, management, and trade information for their respective eel species.
- 2018 – in response, Canada and the USA co-sponsored the first SSC-organized workshop with all American eel range States.
- 2019: A new series of relevant Decisions related to American eel were recently adopted at the CITES CoP18.

Canadian interests in American eel collaboration

- As a signatory of the Hamilton Declaration, Canada is a strong supporter of the Sargasso Sea Commission and its work to advance conservation of the Sargasso Sea, an important ocean habitat for many species of interest to Canada, including the American eel.
- Canada would like to seize this opportunity to initiate an ongoing dialogue between American eel range States to determine how to we can, individually and collectively, position ourselves advantageously in the face of future CITES pressures.
- In particular, Canada has an interest in advancing collaboration and dialogue on issues relevant to elver traceability, assesment, and monitoring

thank you

merci

gracias

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