

SW NEW BRUNSWICK HERRING INDUSTRY



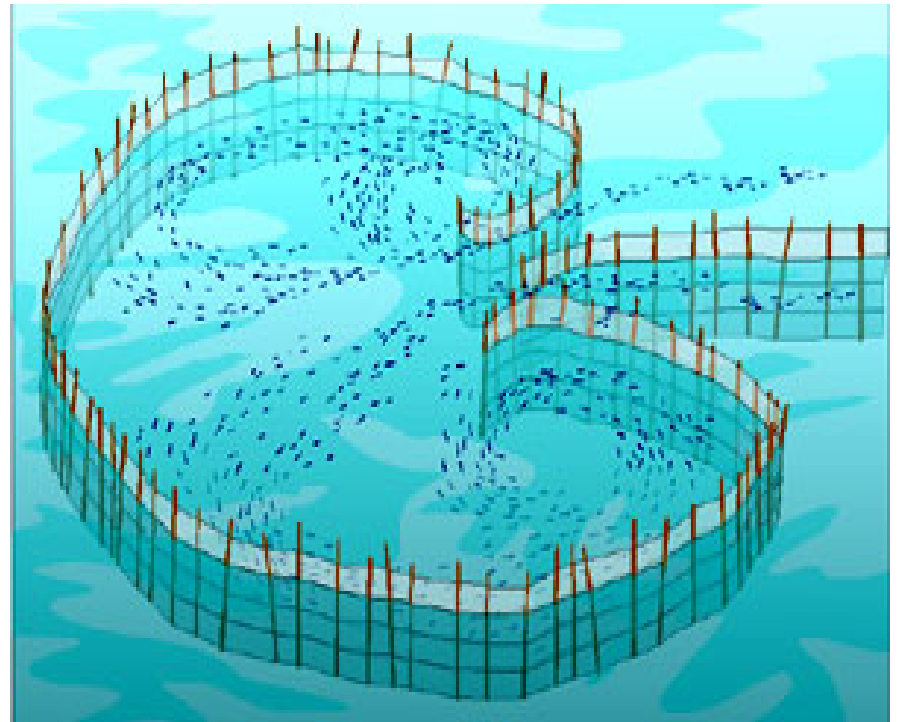


Only Remaining Weir Fishery in the World

Harvesting Methods



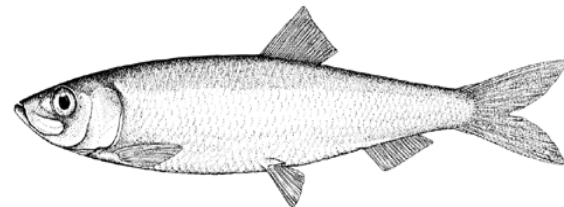
Purse Seining

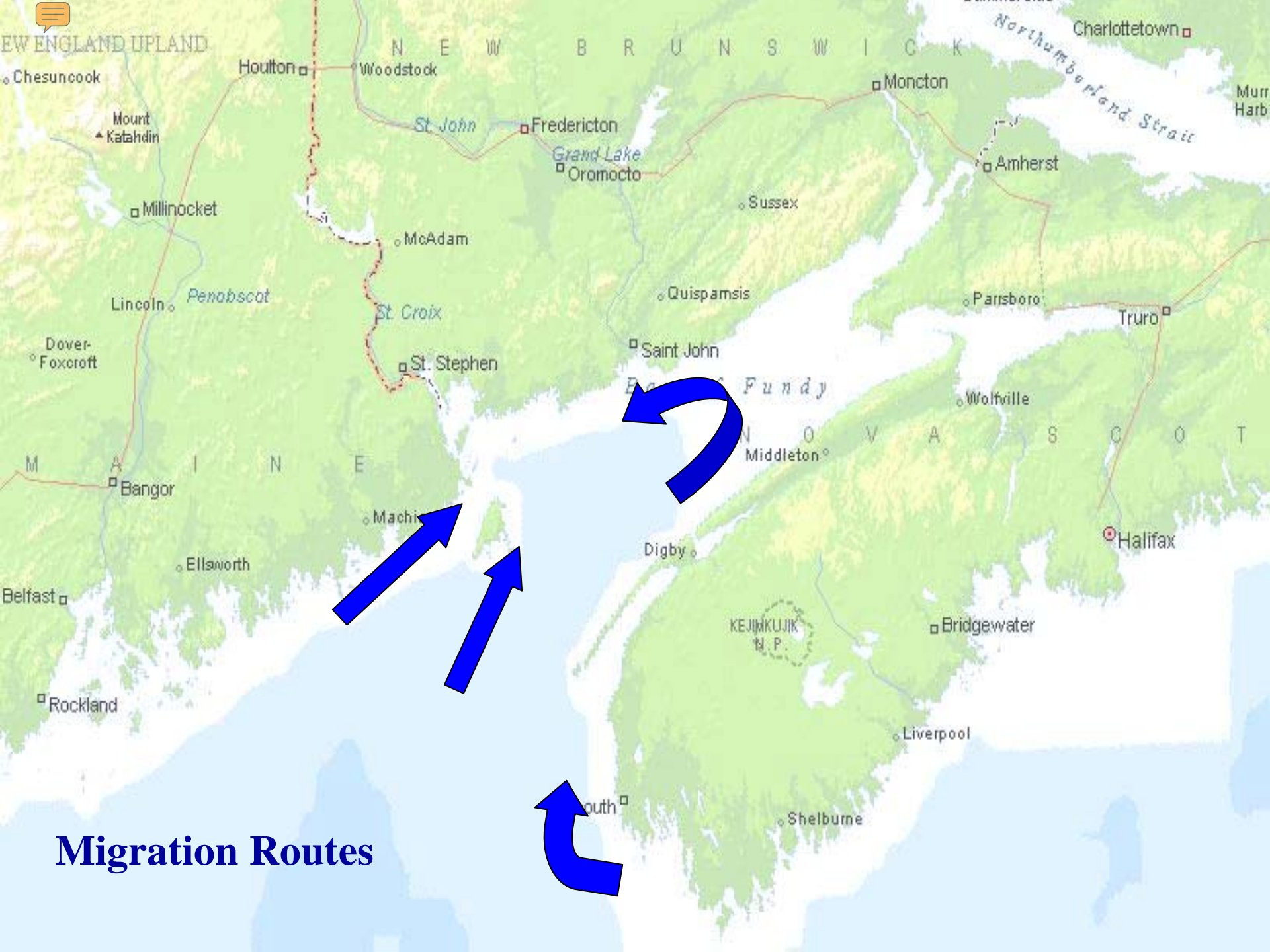


Weir Fishing

Herring Fishery in 1990

- ***145 operational weirs with an average catch of 25,000 metric tons***
- ***14 purse seiners in our side of the Bay with an average annual catch of 74,000 metric tons***
- ***670 herring fishermen (weirs & seiners)***
- ***4 sardine canneries employing 1,200 direct jobs***
- ***Various lobster bait buyers and Maine canneries***

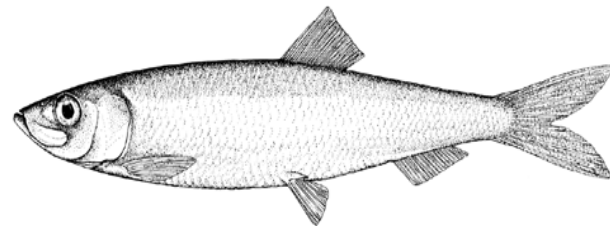




Migration Routes

Herring Fishery Today

- ***80 operational weirs with an average catch of 25,000 metric tons***
- ***5 purse seiners with appr 35% share of the Scotia-Fundy TAC (landings vary from 15,000 – 35,000 tons)***
- ***380 herring fishermen (weirs & seiners)***
- ***1 cannery employing 1,000+ direct jobs***
- ***Various lobster bait dealers that supply to NB, NS, and Maine***

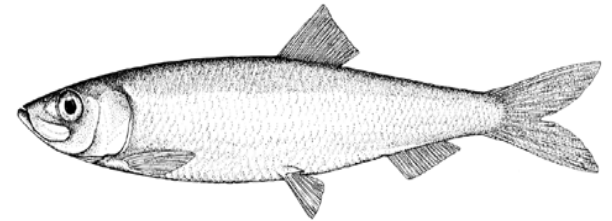






Lessons Learned

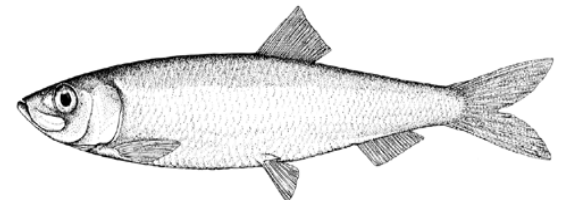
- ***Fishing and Processing Capacity has to match the availability without jeopardizing resource (Sustainability).***
- ***Harvest limits have to be strictly adhered to.***
- ***Spawning grounds have extra consideration and protection.***
- ***Small fish removals are being closely monitored and controlled.***
- ***Balance and Common Sense have been instilled in management of the fishery (fishermen observations should count!).***



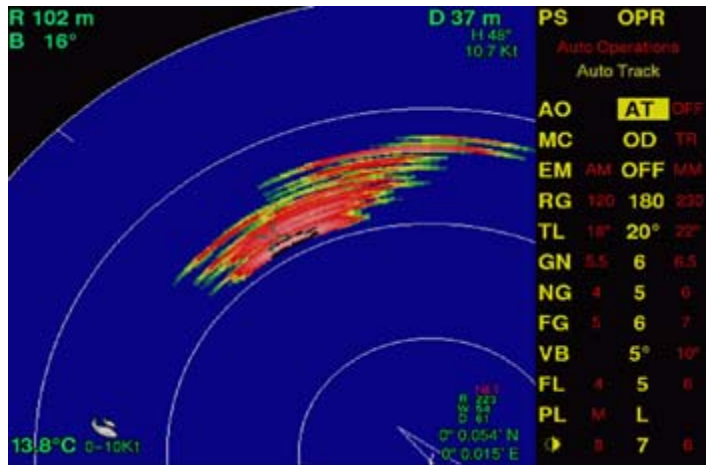
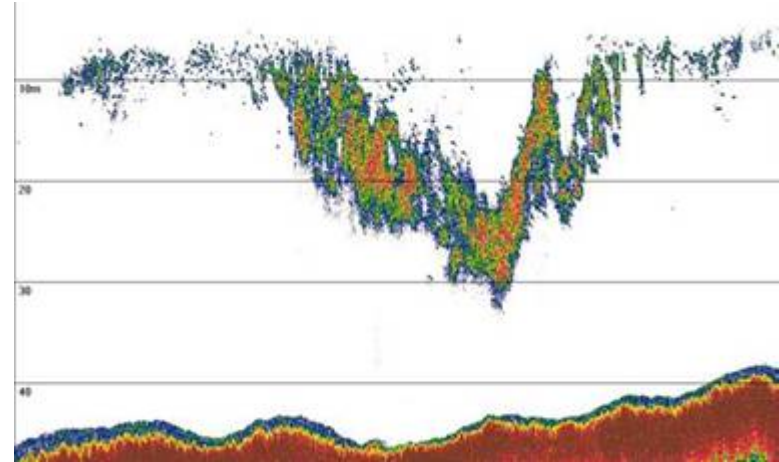


Industry Input into Research & Assessment

- *Virtually every landing is sampled and L/Fs provided to science at no cost to DFO*
- *Purse seine fleet complete numerous acoustical surveys of spawning grounds at enormous financial cost (equipment and operational)*
- *Weir industry developed and funded an extensive 3 year tagging program to determine migration patterns*
- *Seiners tagged spawn herring to define residency as well as affinity*



Industry & Science

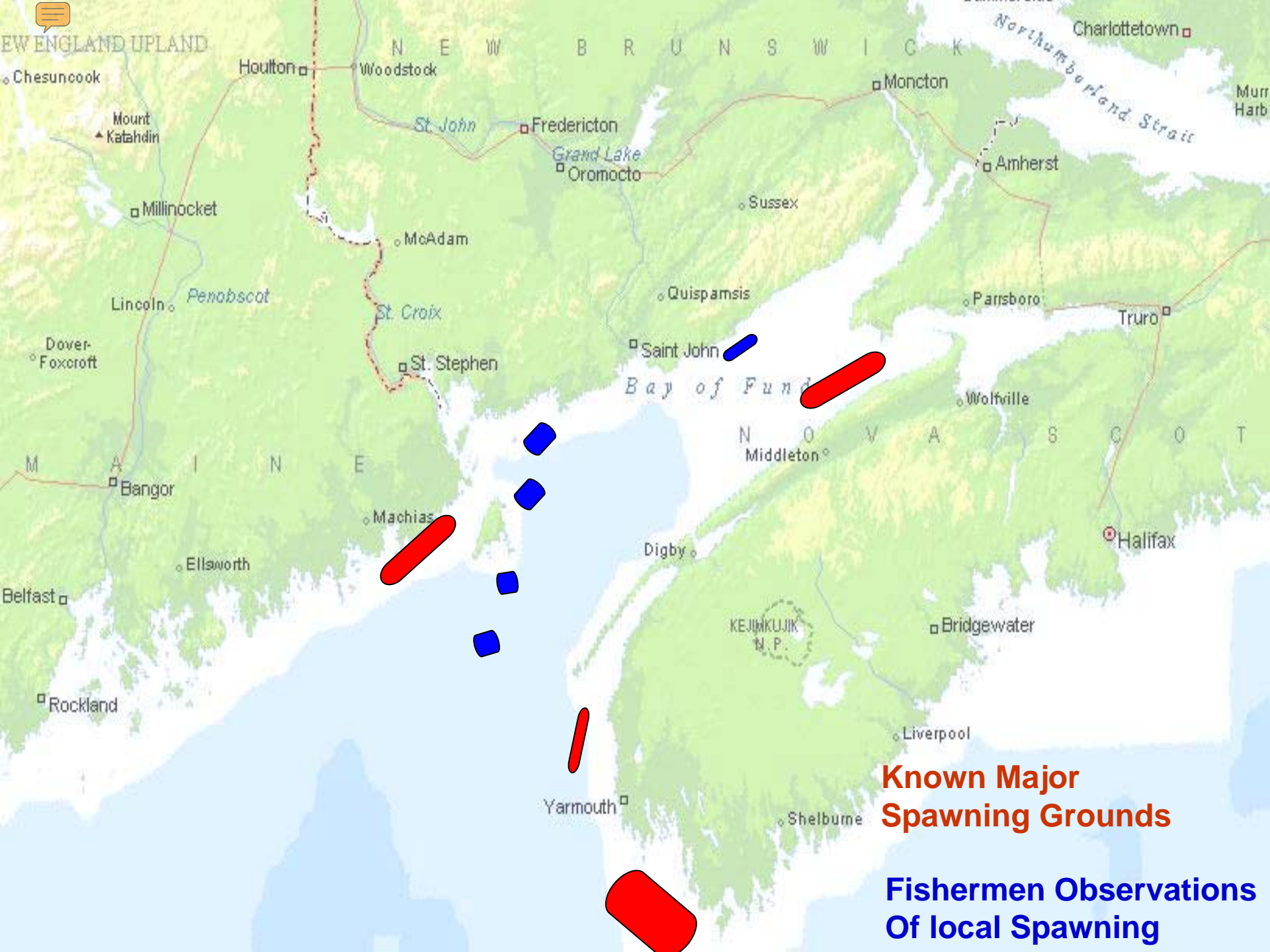


CONSIDERABLE TIME WAS TEMP. 5/11/12. RESEARCHED BY *Richard J. ...*
 Date: 05/11/2012 07:21:22 Date Location: *12.13.12 - 12.13.12*
 Crew: *...*
 Other: *...*

Time	Lat	Long	Depth	Temp	Salinity	Speed	Heading	Roll	Pitch	Yaw	Altitude	Pressure	Light	Wind	Wave	Cloud	Visibility	Weather	Remarks
07:21:22	12.13	12.13	10	13.8	35.0	0.0	180	0	0	0	0	0	0	0	0	0	0	0	...

Measurements Made: *...*
 Date: *...*
 Time: *...*
 Location: *...*
 Name: *...*





Current Challenges



- ***Continued Aquaculture Expansion (see annex1)***
- ***Insufficient Infra-structure (wharfs, etc)***
- ***Lack of Research/Science Funding(see annex 2)***
- ***Increased Operational Costs***
- ***Coastal Development (lights)***
- ***Increased use of Marine Environment (traffic, noise, pollution)***
- ***US fleet overcapacity and affect***
- ***Stagnant Herring Markets***



Precaution & Common Sense???

...Although we fully realize each specific area has varying qualities as well as restrictions regarding the suitability of open pen aquaculture, the information on this slide should give cause for careful consideration by all stakeholders.

	<u>Annual Tons Prod.</u>	<u>Km of Coastline</u>	<u>Tons prod./Km</u>
Norway	500,000	57,000	8.8
Chile	220,000	4,300	51.2
Scotland	154,000	9,900	15.6
Ireland	14,000	1,450	9.7
British Columbia	71,000	25,700	2.8
New Brunswick (Fundy)	40,000	780	51.3

Research Requirements

- *Locate, document, and quantify local spawning*
- *Identify cumulative affect of salmon aquaculture on herring behavior and weir success (water quality, noise, lights, etc)*
- *How has climate change effected BoF herring?*
- *Is seal population growth having far reaching affects on herring?*