

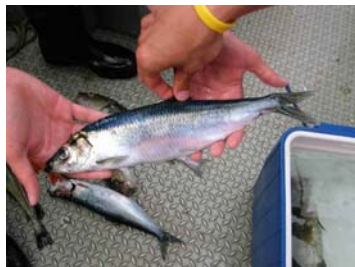
**The nearshore fishes of Bonne Bay,  
a fjord within Gros Morne National Park, Newfoundland**  
by Drs. Joe Wroblewski, David Methven, Robert Hooper and 114 students  
(available online at [www.curra.ca](http://www.curra.ca) under Publications and Report)

The fish were collected by the students and instructors (Dr. Joe Wroblewski and Dr. David Metheven) of the field course BIOL3714 Estuarine Fish Ecology, taught at the Bonne Bay Marine Station during the past eight years 2002-2009.

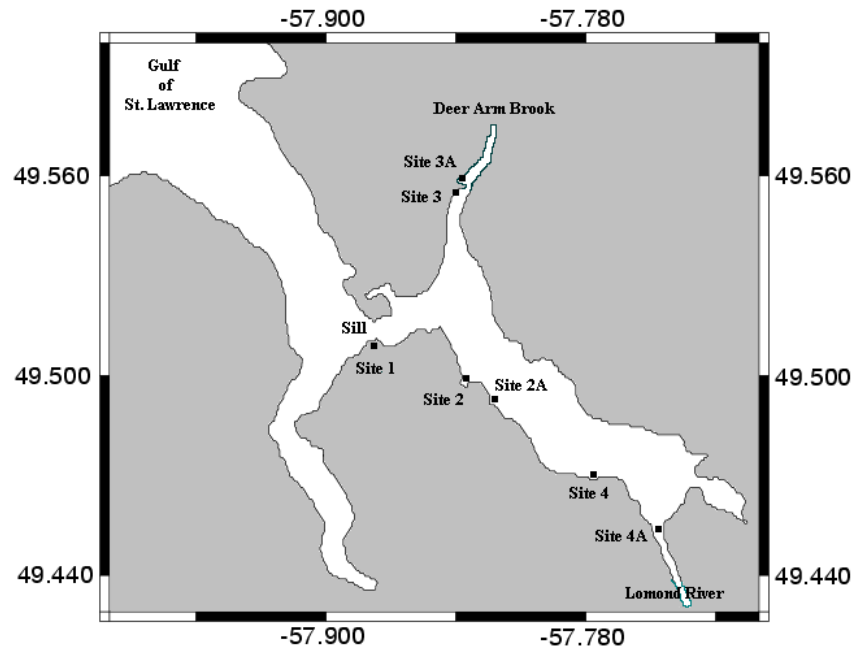


## Main points

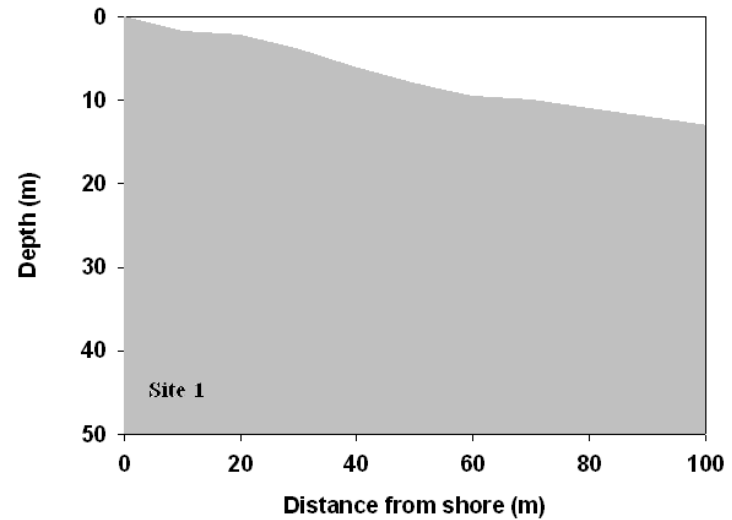
- **32 fish species** documented as inhabiting **nearshore waters of Bonne Bay**
- the **redfish** population in Bonne Bay is **genetically distinguishable**
- **Bonne Bay** is a **spawning ground** and **nursery ground** for fish species
- **stewardship of Bonne Bay** would contribute to **rebuilding Gulf fisheries**



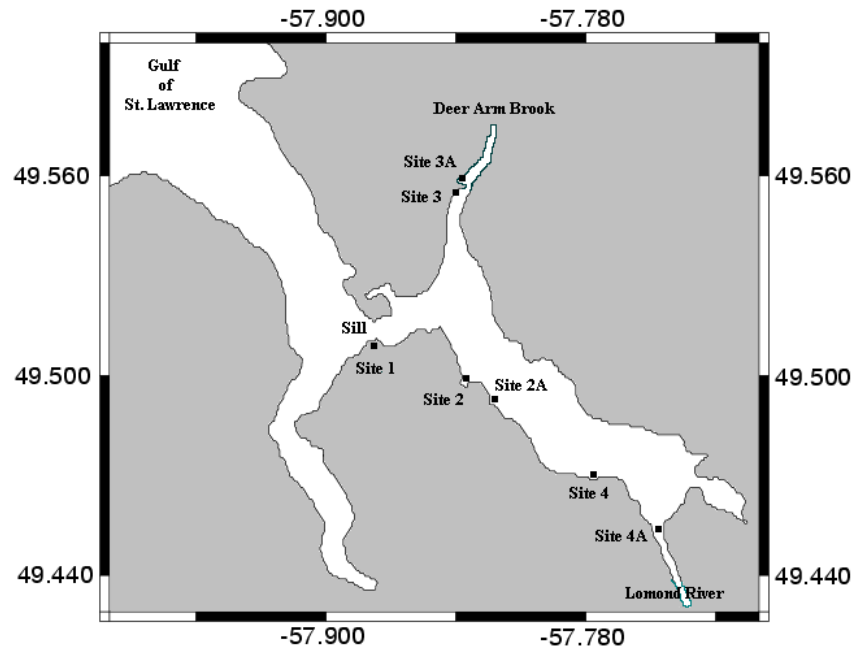
## Site 1 is Gadds Harbour



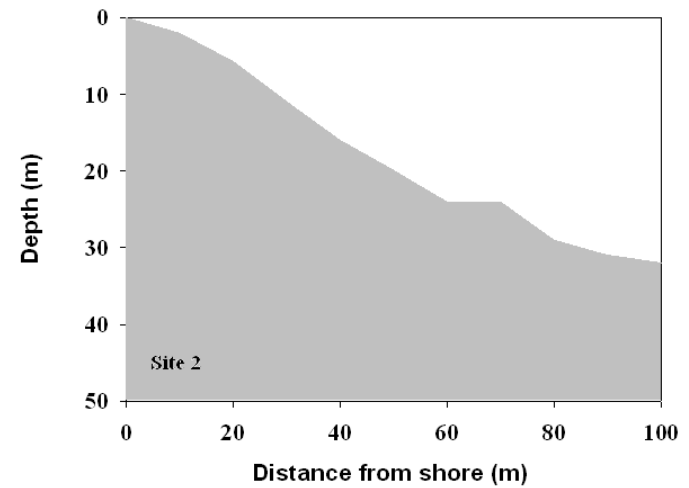
brown, green and red seaweeds



## Site 2 Norris Cove

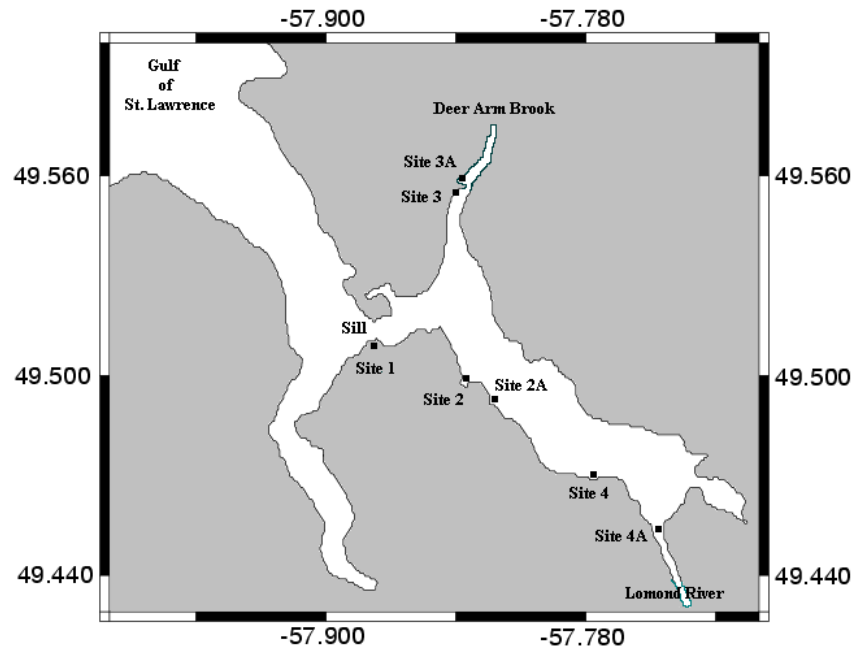


brown, green and red seaweeds

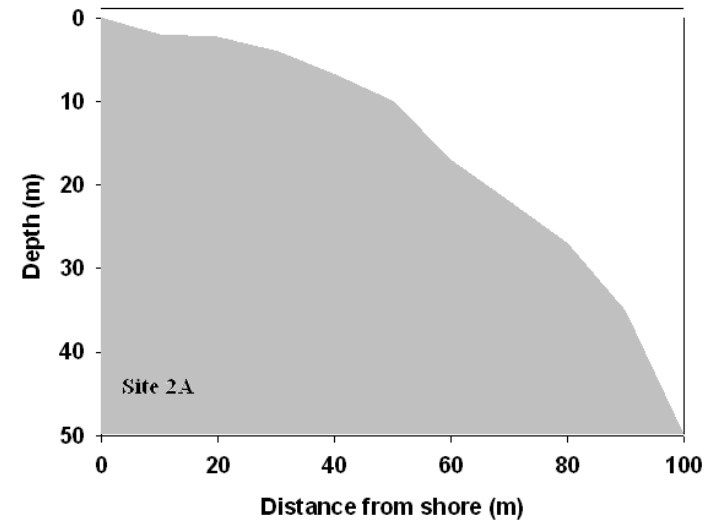




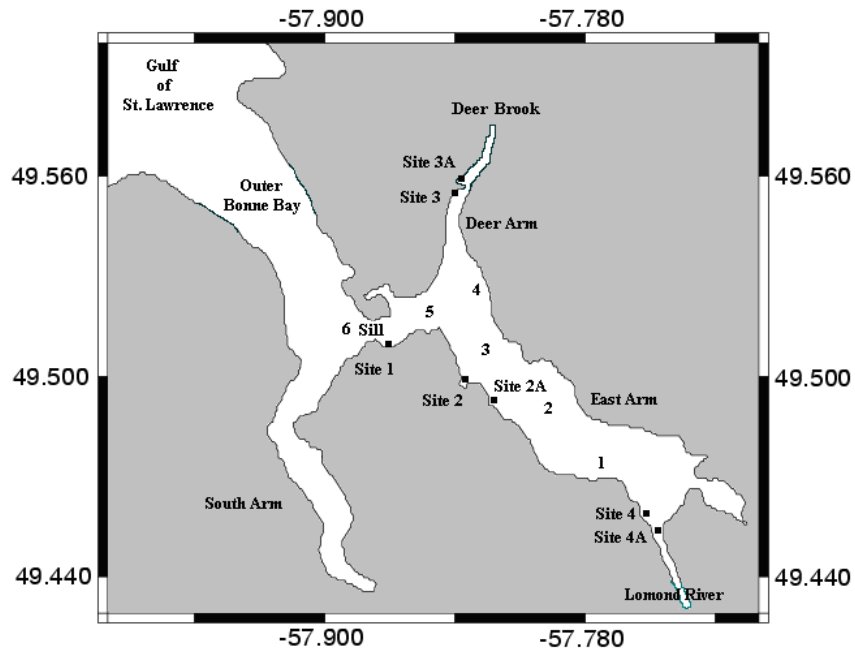
## Site 2A Lord and Lady Cove



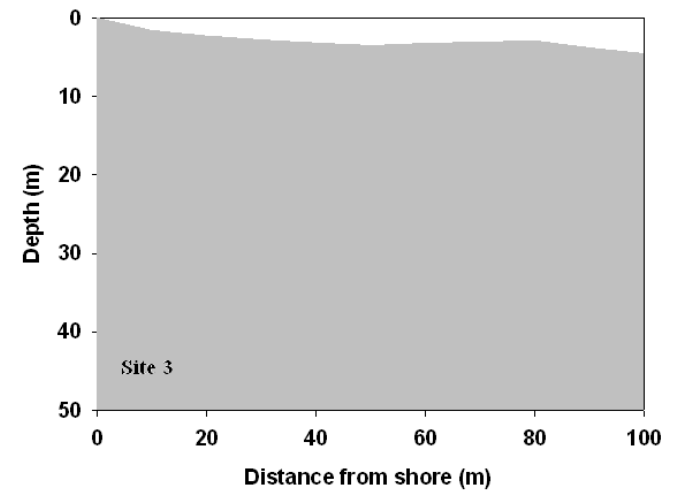
brown, green and red seaweeds



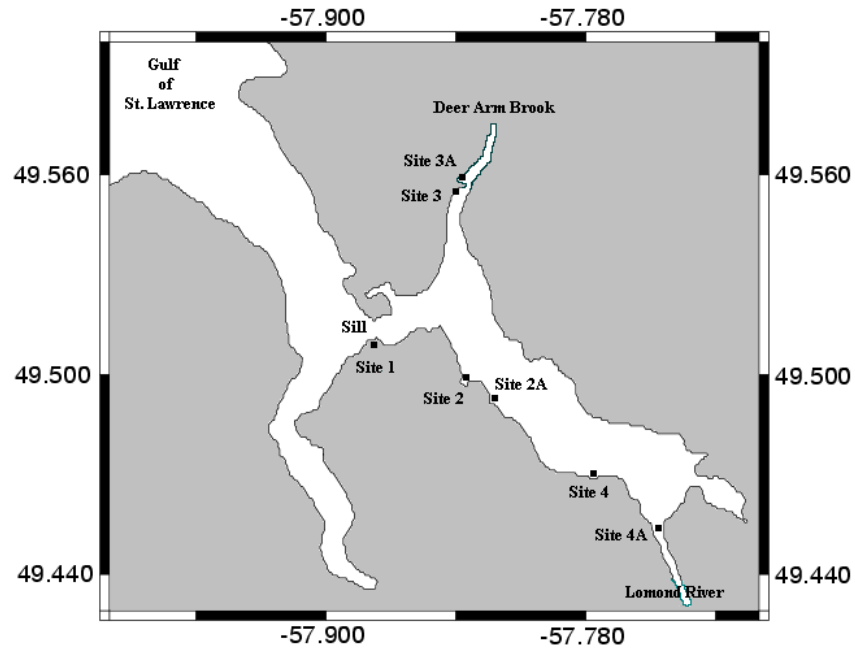
## Site 3 Deer Brook delta



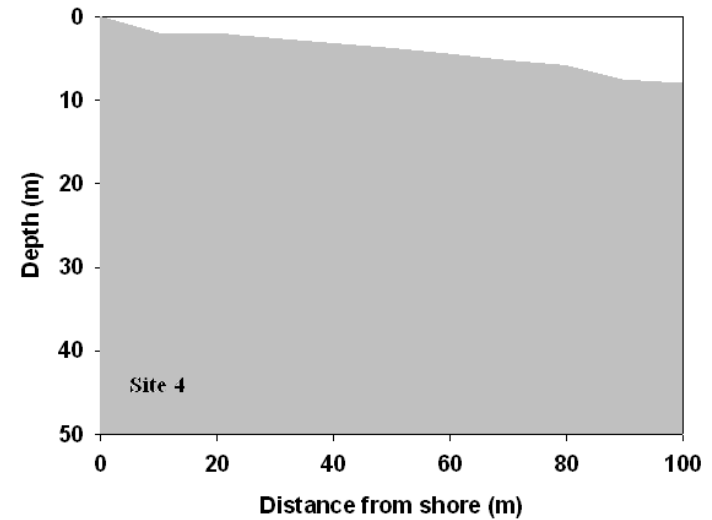
brown, red and green seaweeds  
blue-green algae  
eel grass



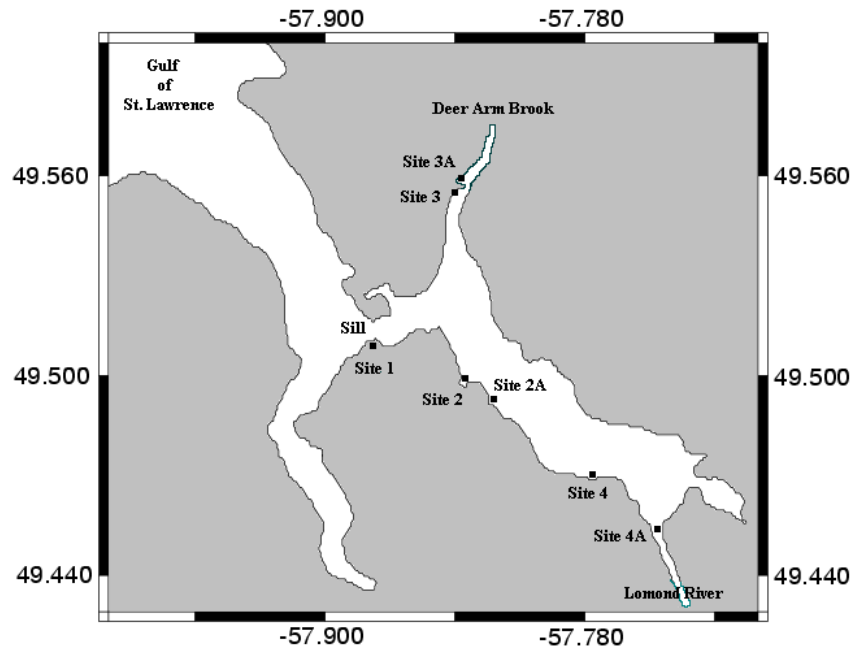
## Site 4 Lomond Cove



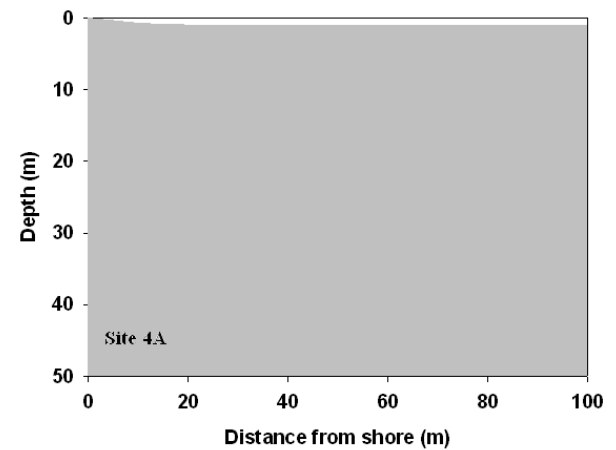
brown, red and green seaweeds



## Site 4A Lomond River delta



Brown, red and green seaweeds  
eel grass





## Family Rajidae

*Raja erinacea* (little skate)

*Raja ocellata* (winter skate)

*Raja radiata* (thorny skate)

## Present at Site

3

2, 2A, 3, 4

1, 3, 4



Family Anguillidae  
*Anguilla rostrata* (American eel)

Present at Site  
1, 2, 3, 3A, 4, 4A



Family Clupeidae  
*Clupea harengus* (Atlantic herring)

Present at Site  
1, 2, 2A, 3, 3A, 4





Family Salmonidae  
*Salmo salar* (Atlantic salmon)  
*Salvelinus fontinalis* (brook trout)

Present at Site  
1, 2, 3, 3A, 4, 4A  
1, 2, 3, 4



Family Osmeridae

*Mallotus villosus* (capelin)

*Osmerus mordax* (rainbow smelt)

Present at Site

1

1, 2, 3, 3A, 4, 4A





## Family Gadidae

*Gadus morhua* (Atlantic cod)

*Gadus ogac* (rock cod)

*Merluccius bilinearis* (silver hake)

*Microgadus tomcod* (Atlantic tomcod)

*Urophycis tenuis* (white hake)

## Present at Site

1, 2, 3, 4, 4A

1, 2, 2A, 3, 4

3

3

1, 2, 2A, 3, 4



Family Gasterosteidae

Present at Site

*Gasterosteus aculeatus* (threespine stickleback) 1, 2, 2A, 3, 3A, 4, 4A

*Gasterosteus wheatlandi* (blackspotted stickleback) 1, 2, 3, 3A, 4A

*Apeltes quadracus* (fourspine stickleback) 3, 3A, 4A



Family Labridae  
*Tautogolabrus adspersus* (cunner)

Present at Site  
1, 2, 2A, 3, 4



Family Syngnathidae

Present at Site

*Syngnathus fuscus* (northern pipefish)

3



Family Zoarcidae

Present at Site

*Zoarces americanus* (ocean pout)

1, 2, 3





Family Stichaeidae  
*Ulvaria subbifurcata* (radiated shanny)

Present at Site

2



Family Pholidae

*Pholis gunnellus* (rock gunnel) Present at Sites 1, 2, 3, 4



Family Anarhichadidae

Present at Site

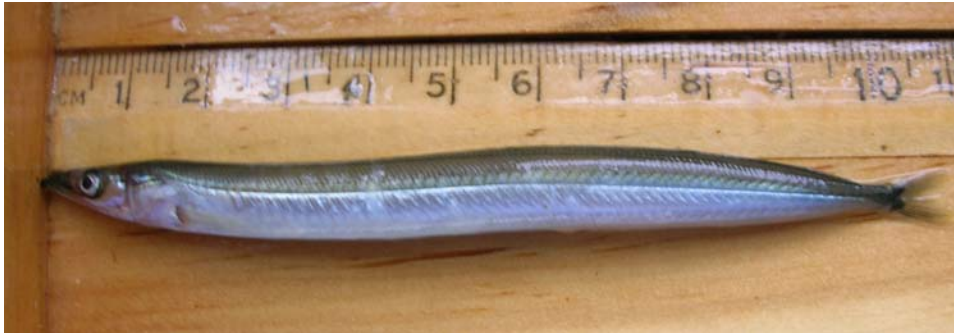
*Anarhichas lupus* (Atlantic wolffish)

1



Family Ammodytidae  
*Ammodytes americanus* (American sand lance)

Present at Site  
1, 2, 4A





Family Scorpaenidae  
*Sebastes fasciatus* (Acadian redfish)

Present at Site  
1, 2, 2A, 4



## Family Cottidae

*Hemitripterus americanus* (sea raven)

*Myoxocephalus aeneus* (grubby)

*Myoxocephalus octodecemspinosus* (longhorn sculpin)

*Myoxocephalus scorpius* (shorthorn sculpin)

## Present at Site

1, 2, 3, 4

1, 2, 2A, 3, 4

1, 2, 3, 4, 4A

1, 2, 3, 4





Family Bothidae

*Scophthalmus aquosus* (windowpane flounder)

Present at Site

3



Family Pleuronectidae

*Limanda ferruginea* (yellowtail flounder)

Present at Sites

1, 3

*Pseudopleuronectes americanus* (winter flounder)

1, 2, 2A, 3, 3A, 4, 4A





**Bonne Bay is a nursery ground for fish species which support commercial fisheries and recreational/food fisheries**



## **Fish that migrate from marine waters, across Bonne Bay into Deer Brook and Lomond River**

- Atlantic salmon
- brook trout
- rainbow smelt
- American eel





## Opportunities for

- **STEWARDSHIP - Community stewardship** of fish nursery **ground habitat** in Bonne Bay is important for **commercial (cod, hake)** and **recreational (brook trout, salmon, smelt)** species.
- **REBUILDING BAY STOCKS**- co-management of Bonne Bay based on information from fisher/scientist research
- **MARINE SCIENCE EDUCATION** about Bonne Bay
- **ADVENTURE/EXPERIENTIAL TOURISM** of Bonne Bay



## **Acknowledgements**

This research on the fishes in Bonne Bay is a contribution to the Community-University Research for Recovery Alliance (CURRA) project.

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Special thanks are extended to the Biology 3714 students who collected fishes during the years 2002 to 2009 and to the teaching assistants. Thanks are also extended to Dennis Rumbolt, William Coffey and Fiona Cuthbert.

