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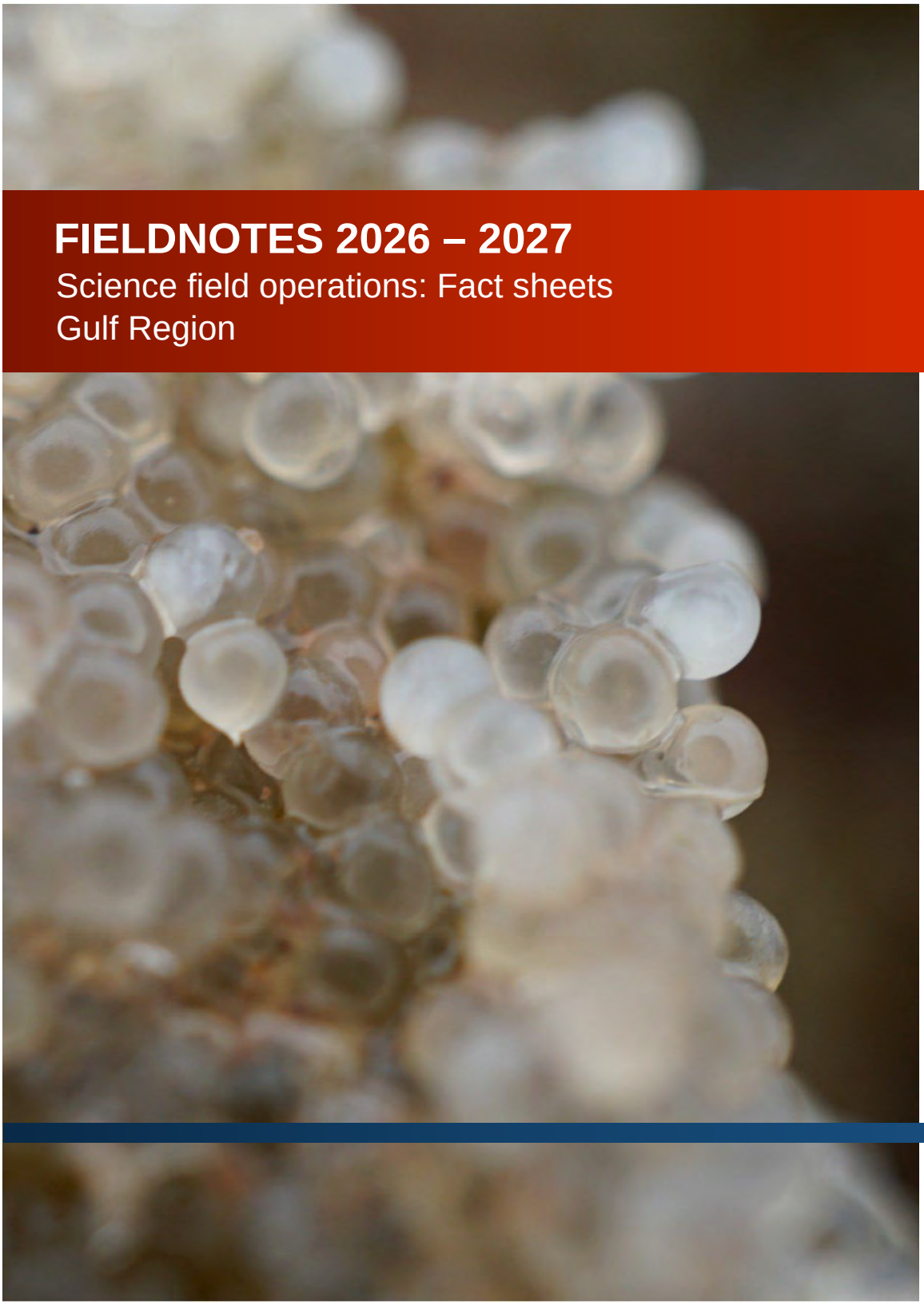

FIELDNOTES 2026 – 2027

Science field operations: Fact sheets
Gulf Region

Canada

Cat. No. Fs141-7E-PDF ISSN 2816-5268

Cover illustration: Atlantic Herring (*Clupea harengus*) spring spawned eggs.

Photo credit: Jacob Burbank (Fisheries and Oceans Canada)

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Table 1. Gulf Region field operations sorted by category, then Unique ID.

CATEGORY	UNIQUE ID	TITLE	PAGE
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 Population and Ecosystem Assessments	GLF_AHDACE_11	Marine Environmental Quality Monitoring – Dissolved Oxygen: Southern Gulf of St. Lawrence	2
	GLF_AHDACE_29	European Green Crab Monitoring: Gulf Region	3
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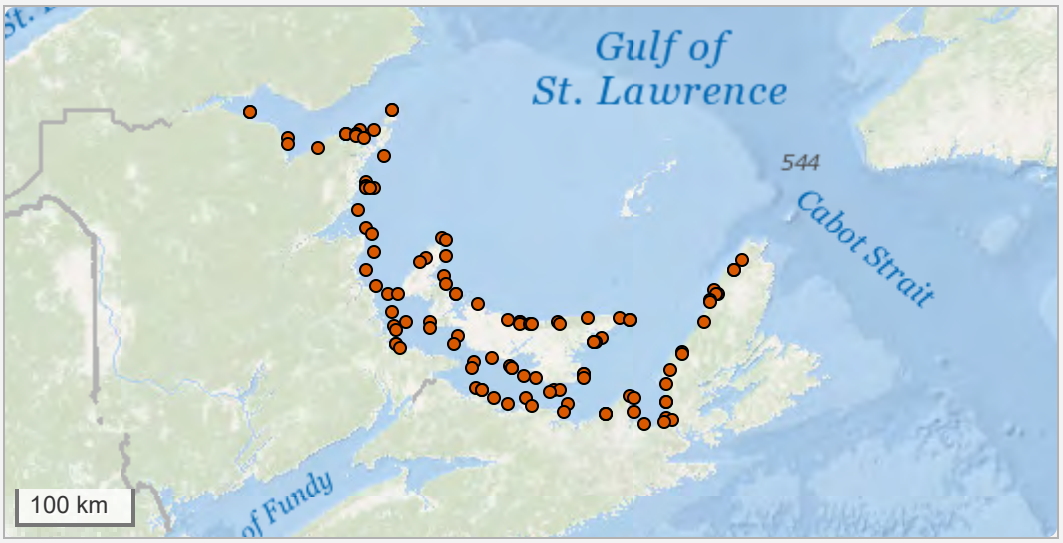
Coastal Temperature Monitoring Program
Southern Gulf of St. Lawrence



UNIQUE ID
GLF_FESDCRUS_30

CATEGORY
Hydrographic and Oceanographic

DATES
All year

START YEAR
1995

RECURRENCE
Annually

LOCATIONS
Lobster Fishing Areas (LFA) 23A, 23B, 23C, 23D, 24, 25, 26A and 26B

VESSEL
CCGS *Sir William Alexander*

EMAIL
Maxime.Ouellet@dfo-mpo.gc.ca

The Canadian Coast Guard Sir William Alexander
© Fisheries and Oceans Canada

Buoys
© Fisheries and Oceans Canada

DESCRIPTION

The objective of the program is to gather environmental coastal data to better understand fluctuations in water temperature and its effect on coastal marine species. Bottom and surface water temperatures are monitored in coastal waters of the southern Gulf of St. Lawrence using electronic recording devices attached to navigational buoys or moorings and set to record every thirty minutes. Since 2024, all sites are monitored for salinity, conductivity and sound velocity.

OBJECTIVES

1. Track long-term temperature trends.
2. Support ecosystem and species assessments.
3. Enable climate change research.
4. Inform fisheries management.
5. Enhance public and scientific access.

COLLABORATORS

Canadian Coast Guard, Province of Prince Edward Island, Prince Edward Island Fishermen's Association, Gulf of Nova Scotia Fleet Planning Board

FOR MORE INFORMATION

Coastal Temperature Monitoring Program in the Southern Gulf of St. Lawrence

Marine Environmental Quality Monitoring - Dissolved Oxygen

Southern Gulf of St. Lawrence

UNIQUE ID
GLF_AHDACE_11

CATEGORY
Population and Ecosystem Assessments

DATES
June to September

START YEAR
2018

RECURRENCE
Annually

LOCATIONS
Cocagne, New Brunswick and Pugwash, Nova Scotia permanent sites

EMAIL
Thomas.Guyondet@dfo-mpo.gc.ca

Estuary
© Fisheries and Oceans Canada

Dissolved Oxygen probe on deployment stand
© Fisheries and Oceans Canada

DESCRIPTION

The Marine Environmental Quality (MEQ) program focuses on reducing stressors in coastal, estuaries and marine ecosystems. In the Gulf Region, the priority is to address nutrient enrichment in estuaries of the Northumberland Strait which causes algae growth, low oxygen, and eelgrass loss. The program monitors water quality (i.e. dissolved oxygen), working with Fisheries and Oceans Canada (DFO) Marine Planning and Conservation, provinces, Non-Government Organizations (NGOs), and researchers.

OBJECTIVES

1. Monitor estuarine ecosystem trophic state through dissolved oxygen levels.
2. Understand the effects of eutrophication from nutrient pollution in Prince Edward Island and the Northumberland Strait.
3. Develop science-based guidelines to reduce nutrient impacts and improve estuary health.
4. Build models to predict how land use and water flow influence coastal ecosystems.

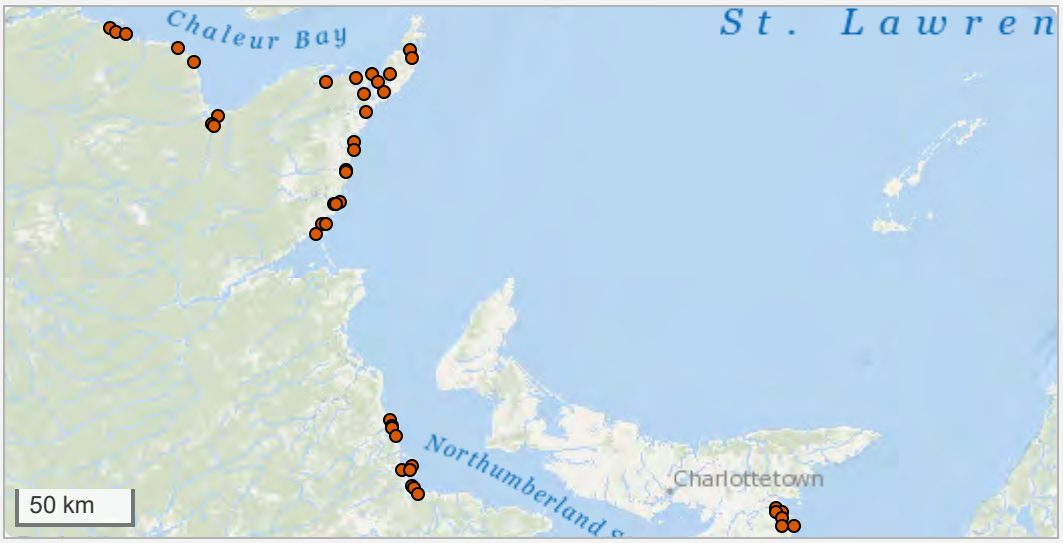
COLLABORATORS

Southern Gulf of St. Lawrence Coalition on Sustainability, Prince Edward Island provincial government - Communities, Land and Environment Water and Air Monitoring, National Institute for Scientific Research, Canadian Rivers Institute, University of Waterloo, Aquatic Ecosystems Branch, DFO Gulf

FOR MORE INFORMATION

Marine Environmental Quality Monitoring in Southern Gulf of St. Lawrence
Managing Marine Environmental Quality - together towards healthy oceans

European Green Crab Monitoring
Gulf Region



UNIQUE ID
GLF_AHDACE_29

CATEGORY
Population and Ecosystem Assessments

DATES
June to October

START YEAR
2016

RECURRENCE
Annually

LOCATIONS
Trapping sites for European green crab monitoring in New Brunswick and Prince Edward Island.

EMAIL
Renee.Bernier@dfo-mpo.gc.ca

Trapping for European green crab.
© Fisheries and Oceans Canada

European green crab.
© Fisheries and Oceans Canada

DESCRIPTION

Provide presence/absence and abundance data for the non-indigenous and the invasive European green crab in selected southern Gulf of St. Lawrence (sGSL) estuaries (northern and eastern coastal shores of New Brunswick and Prince Edward Island). Trapping takes place monthly, from June to October, for 3-4 consecutives days in selected bays. Targeted surveys for European green crabs are opportunistically conducted in coastal areas outside of their known distributional range within the sGSL to detect further spread.

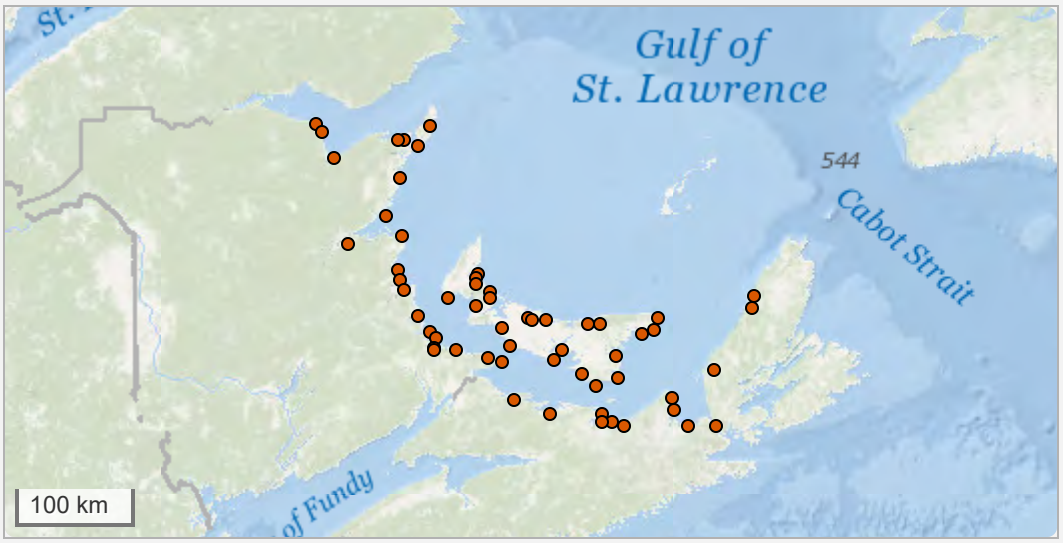
OBJECTIVES

1. Monitor European green crab abundance and spread through the sGSL estuaries.
2. Respond to European green crab reports and provide guidance to stakeholders and the public.
3. Collaborate on national and regional Aquatic Invasive Species (AIS) risk assessments, spread prevention, and mitigation.
4. Promote AIS awareness, stewardship, and regional reporting through outreach and expertise.

COLLABORATORS

Port of Belledune, New Brunswick Department of Agriculture, Aquaculture and Fisheries, Aquatic Invasive Species National Core Program, Prince Edward Island Department of Fisheries, Tourism, Sport, and Culture, Acadian Bay Entreprises Inc.

Aquatic Invasive Species Biofouling Monitoring
Gulf Region



UNIQUE ID
GLF_AHDACE_34

CATEGORY
Population and Ecosystem Assessments

DATES
April to October

START YEAR
2018

RECURRENCE
Annually

LOCATIONS
Biofouling monitoring collector lines are placed at ports, marinas and aquaculture sites within southern Gulf of St. Lawrence to detect Aquatic Invasive Species.

EMAIL
Renee.Bernier@dfo-mpo.gc.ca

Vase tunicates fouling collector plate

Golden star and clubbed tunicates fouling dish

DESCRIPTION

Provide early detection of newly arrived Aquatic Invasive Species (AIS) and monitor the spread, establishment, and spatial distribution of existing biofouling AIS within the inshore marine waters of the southern Gulf of St. Lawrence, including northern and eastern New Brunswick, the Gulf shore of Nova Scotia, and Prince Edward Island. This is achieved through targeted biofouling monitoring using collector plates deployed at more than 50 stations across the region. These are deployed in spring and retrieved in fall.

OBJECTIVES

1. Provide an overview of the distribution and abundance of the biofouling AIS in the Gulf Region.
2. Provide DFO management with required status of AIS in the Gulf Region for mitigation and management purposes.
3. Respond to AIS reports and provide guidance to stakeholders and the public.
4. Collaborate on national and regional AIS risk assessments, spread prevention and mitigation projects.
5. Promote AIS awareness, stewardship, and regional reporting through outreach and expertise.

COLLABORATORS

New Brunswick Department of Agriculture, Aquaculture and Fisheries, Parks Canada, Prince Edward Island Department of Fisheries, Tourism, Sport, and Culture, Aquatic Invasive Species National Core Program, Port of Belledune, Harbour Port and Marina Managers, Prince Edward Island Aquaculture Alliance, University of Prince Edward Island, Miscellaneous shellfish harvesters

FOR MORE INFORMATION

Aquatic Invasive Species (AIS) Biofouling Monitoring Dataset

SCUBA-Based Assessment of Lobster Density

Southern Gulf of St. Lawrence

Scuba Survey
© Maxime Ouellet (Fisheries and Oceans Canada)

Scuba Survey
© Fisheries and Oceans Canada

UNIQUE ID
GLF_FESDCRUS_08

CATEGORY
Population and Ecosystem Assessments

DATES
June to August

START YEAR
2000

RECURRENCE
Annually

LOCATIONS
Southern Gulf of St. Lawrence

EMAIL
Natalie.Asselin@dfo-mpo.gc.ca

DESCRIPTION

Dive surveys are used to study lobster populations without the bias of traps or trawls. SCUBA divers count and measure lobsters along fixed transects, recording data underwater. This method provides accurate data on abundance, size, sex, and berried females with minimal harm. The project supports both monitoring and research: it tracks juvenile lobster density as a sign of productivity and explores why lobster numbers vary across sites. Conducted at nine sites in NB and NS, the data help assess stock health and are being used to build models that may predict future changes in the fishery.

OBJECTIVES

1. Estimate the density of juvenile lobsters (carapace length 21-40 mm) at each site.
2. Use SCUBA data to link recruitment to catches.

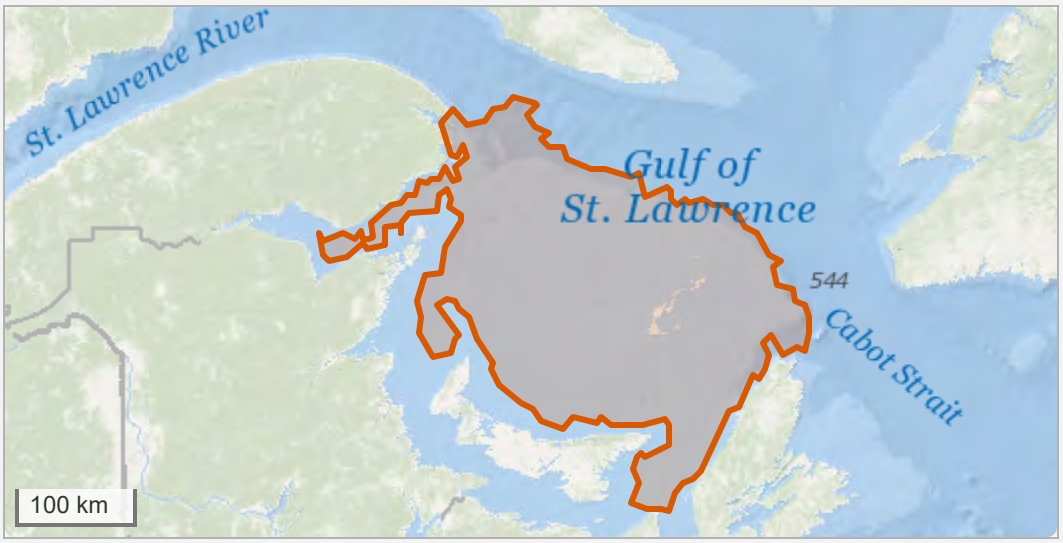
COLLABORATORS

Maritime Fishermen Union (MFU)

FOR MORE INFORMATION

SCUBA Surveys to Assess Lobster Population Structure and Density

Snow Crab Research Trawl Survey
Southern Gulf of St. Lawrence



UNIQUE ID
GLF_FESDCRUS_10

CATEGORY
Population and Ecosystem Assessments

DATES
July to October

START YEAR
1988

RECURRENCE
Annually

LOCATIONS
Southern Gulf of St. Lawrence, NAFO Division 4T

VESSEL
Avalon Voyager II

EMAIL
Tobie.Surette@dfo-mpo.gc.ca

Avalon Voyager II
© Fisheries and Oceans Canada

Snow crab data collection
© Fisheries and Oceans Canada

DESCRIPTION

This annual bottom trawl survey aims to estimate the commercial biomass of snow crab for the upcoming season. At over 350 stations, data are collected on size, sex, maturity, shell condition, and egg presence. The survey also provides information on other species and oceanographic conditions. Results support stock assessments and scientific advice, guiding catch options using decision rules. Since 2013, it has been funded through a joint project agreement (Section 10 of the *Fisheries Act*), supported by a portion of the total allowable catch.

OBJECTIVES

1. Collect post-season snow crab data via trawl survey: count, size, sex, shell condition & other key biological details.
2. Analyze data to estimate snow crab numbers by category (e.g., mature/immature) and map where each group is found.
3. Study snow crab biology: growth, reproduction, survival, habitat conditions & response to environmental changes.
4. Use Fisheries and Oceans's peer review process to finalize science reports that guide next year's snow crab catch decisions.

COLLABORATORS

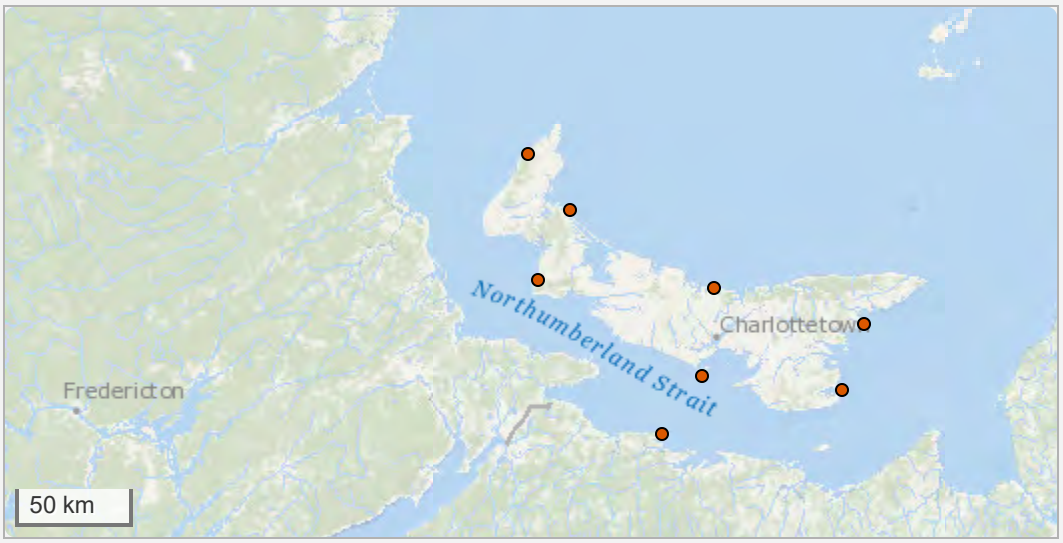
Associations des crabiers acadiens, Les Crabiers du Nord, Association des pêcheurs professionnels crabiers acadiens, Association des crabiers Gaspésiens, Association des crabiers de la baie, Regroupement des pêcheurs professionnels des Îles-de-la-Madeleine, P.E.I. Snow Crab Association, Area 19 Snow Crab Fishermen's Association

FOR MORE INFORMATION

Southern Gulf of St. Lawrence Snow Crab Research Trawl Survey Data

Bio-collectors for Lobster and Rock Crab Settlement

Southern Gulf of St. Lawrence



UNIQUE ID
GLF_FESDCRUS_13

CATEGORY
Population and Ecosystem Assessments

DATES
September to October

START YEAR
2008

RECURRENCE
Annually

LOCATIONS
Lobster fishing area (LFA) 24, 25, 26A, 26B

EMAIL
Natalie.Asselin@dfo-mpo.gc.ca

Young of the year lobster (<1yr)
© Fisheries and Oceans Canada

Bio-collector full of rock and gravel
© Fisheries and Oceans Canada

DESCRIPTION

Bio-collectors are used to collect data on American lobster settlement. In addition to young-of-the-year lobsters, these bio-collectors sample small individuals of benthic species in the coastal ecosystem, including rock crab, fish and aquatic invasive species. Data from this project contribute to estimates of lobster and rock crab recruitment in the southern Gulf of St. Lawrence.

OBJECTIVES

1. Evaluate the level of annual lobster postlarval settlement.
2. Evaluate the density of juvenile rock crabs.
3. Monitor coastal benthic species assemblage.

COLLABORATORS

Prince Edward Island Fishermen's Association, Gulf Nova Scotia Fleet Planning Board, PEI Department of Fisheries, Tourism, Sport and Culture

Northumberland Strait Multi-Species Bottom Trawl Survey

Southern Gulf of St. Lawrence

UNIQUE ID
GLF_FESDCRUS_15

CATEGORY
Population and Ecosystem Assessments

DATES
July to August

START YEAR
2000

RECURRENCE
Annually

LOCATIONS
Northumberland Strait

VESSEL
CCGS *M. Perley*

EMAIL
Natalie.Asselin@dfo-mpo.gc.ca

CCGS Perley
© Nicolas Rolland (Fisheries and Oceans Canada)

Multi-species Trawl Survey
© Fisheries and Oceans Canada

DESCRIPTION

This purpose of this survey is to obtain an index of the abundance of American lobster (*Homarus americanus*) in the Northumberland Strait. This research survey also provides fisheries-independent information for all of the species captured by the trawl.

OBJECTIVES

1. Support stock assessments with fishery-independent indicators, focusing on lobster abundance and productivity.
2. Collect and integrate oceanographic data and water samples into national databases to support environmental monitoring.
3. Generate multi-species data to inform a range of scientific and management needs.

COLLABORATORS

Canadian Coast Guard

FOR MORE INFORMATION

Northumberland Strait Multi-species Trawl Survey Data

Ecosystem Research Vessel Survey
Southern Gulf of St. Lawrence

UNIQUE ID
GLF_FESDMFM_04

CATEGORY
Population and Ecosystem Assessments

DATES
Late August to late September

START YEAR
1971

RECURRENCE
Annually

LOCATIONS
Southern Gulf of St. Lawrence

VESSEL
CCGS *Capt. Jacques Cartier*

EMAIL
Stephanie.Ratelle@dfo-mpo.gc.ca

CCGS Capt. Jacques Cartier
© Fisheries and Oceans Canada

Photograph in laboratory on the CCGS Cartier
© Fisheries and Oceans Canada

DESCRIPTION

The multi-species survey provides a fisheries-independent source of information about all marine living organisms that are captured by the fishing trawl. Scientists and students collect data on groundfish, invertebrates, and ocean conditions. This information helps estimate fish populations, identify species locations, and inform fishing limits. The project includes an annual trawl survey, lab work to study fish age and health, and the use of sensors and acoustic equipment. Results are added to a long-term database to track ecosystem changes and support research on over 70 species.

OBJECTIVES

1. Gather data to evaluate the abundance and distribution of the commercially exploited demersal or groundfish species.
2. Provide a data foundation for stock assessments of commercial species and recovery potential assessments of species-at-risk.
3. Ageing program supports age-based population models, which are required for an in-depth understanding of population dynamics.
4. Source of data on water temperature, salinity, dissolved oxygen, fluorescence, nutrients, phytoplankton, and zooplankton.
5. Undertakes special research projects to improve understanding of the dynamics and ecology of these species.

COLLABORATORS

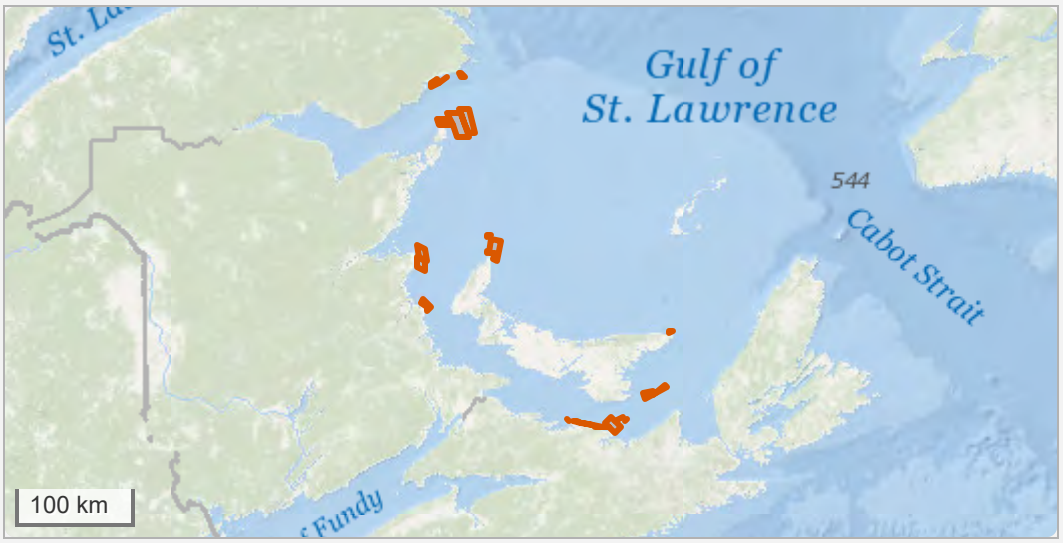
Canadian Coast Guard

FOR MORE INFORMATION

Southern Gulf of St. Lawrence Ecosystem Research Vessel Survey Dataset

Atlantic Herring Spawning Grounds Acoustic Survey

NAFO Division 4T



UNIQUE ID
GLF_FESDMFM_12

CATEGORY
Population and Ecosystem Assessments

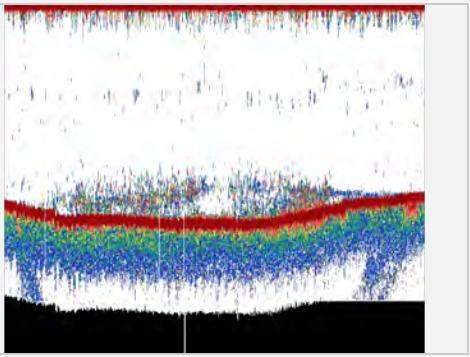
DATES
Fall herring fishing season (August-October)

START YEAR
2015

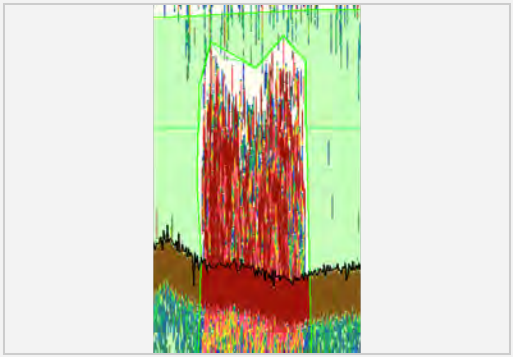
RECURRENCE
Annually

LOCATIONS
Southern Gulf of St. Lawrence

EMAIL
laurie.maynard@dfo-mpo.gc.ca



Acoustic Data
© Fisheries and Oceans Canada - Nicolas Rolland



Herring school
© Fisheries and Oceans Canada, Gulf Region

DESCRIPTION

Fisheries and Oceans Canada (DFO) and fishery associations in the southern Gulf of St. Lawrence have partnered on a spawning ground acoustic survey to estimate Atlantic herring biomass. The survey, conducted at night, uses random transects within a defined area and is carried out by commercial vessels following DFO protocols. The spawning ground acoustic survey is meant to provide estimate of spawning biomass among regions used as an abundance index for the 4T fall herring stock assessment.

OBJECTIVES

1. Estimate herring school sizes via weekly acoustic surveys by fishing vessels, following a defined sampling plan.
2. Detect herring spawning timing through weekly survey before, while and after the fishing season
3. Estimate annual uses of spawning ground throughout the Gulf.

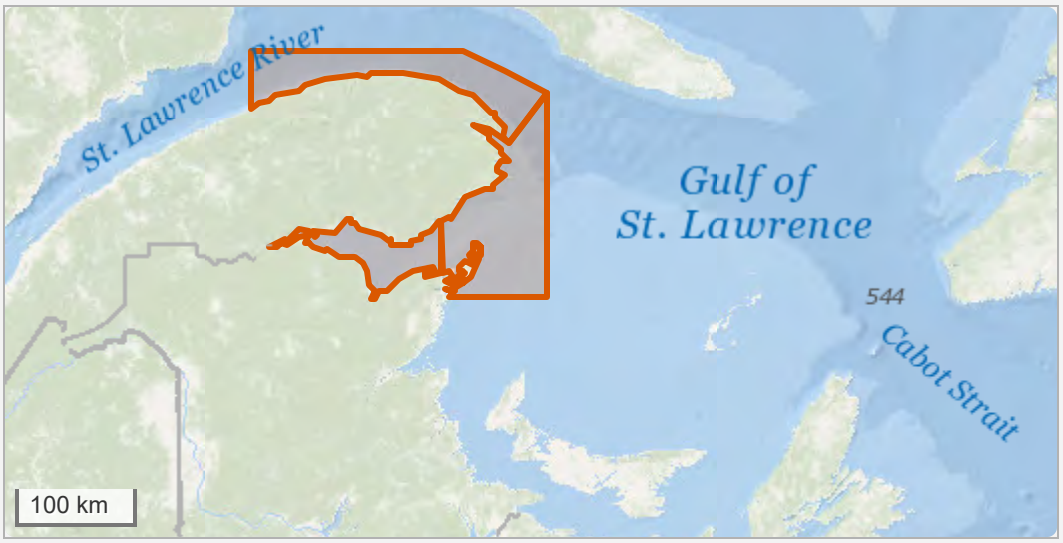
COLLABORATORS

Maritimes Fisherman's Union (MFU), Prince Edward Island Fishermen's Association (PEIFA), Mi'gmaq Wolastoqey Indigenous Fisheries Management Association (MWIFMA)

FOR MORE INFORMATION

NAFO Fishing Division 4T Herring Spawning Grounds Acoustic Survey

Herring Science Acoustic Survey
NAFO 4T Division



UNIQUE ID
GLF_FESDMFM_14

CATEGORY
Population and Ecosystem Assessments

DATES
September to October

START YEAR
1991

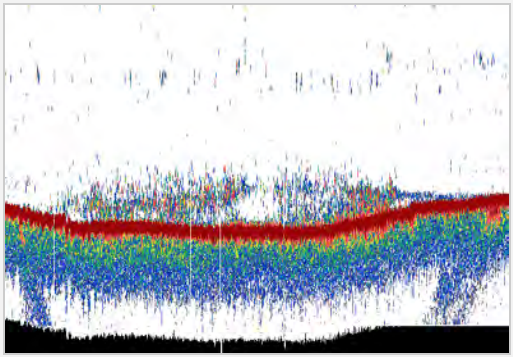
RECURRENCE
Annually

LOCATIONS
Baie-des-Chaleurs and Miscou Banks

VESSEL
R/V *Novus*, CCGS *M. Perley*

EMAIL
laurie.maynard@dfo-mpo.gc.ca

The Canadian Coast Guard M. Perley
© Fisheries and Oceans Canada



Herring Acoustics
© Fisheries and Oceans Canada

DESCRIPTION

The Herring Annual Acoustic Survey aims to collect samples and estimate biomass independently of the commercial fishery for both the spring and fall reproductive components. The survey also collects ecosystem data, such as zooplankton and oceanographic data. Hydroacoustic equipment is used to detect fish and estimate biomass, while bottom trawls confirm herring presence and provide length–age data to estimate catch-at-age. The program also supports research activities that enhance understanding of herring population dynamics and ecosystem interactions.

OBJECTIVES

1. Survey transect while recording acoustic data.
2. Characterize herring distribution and biomass.
3. Confirm herring presence with bottom trawl sampling data.
4. Support abundance index development through biomass and length-age data.
5. Enable ecosystem-based assessments.

COLLABORATORS

Canadian Coast Guard

FOR MORE INFORMATION

NAFO fishing division 4T Herring Science Acoustic Survey

Atlantic Herring Experimental Gillnet Survey

Southern Gulf of St. Lawrence

UNIQUE ID
GLF_FESDMFM_33

CATEGORY
Population and Ecosystem Assessments

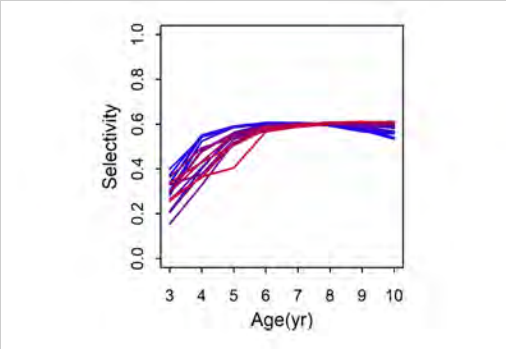
DATES
Spring (April-May) and fall (August-October) commercial fishing season

START YEAR
2002

RECURRENCE
Annually

LOCATIONS
Southern Gulf of St. Lawrence

EMAIL
laurie.maynard@dfo-mpo.gc.ca



Graph - Selectivity by Age
© Laurie Maynard (Fisheries and Oceans Canada)

Gillnet
© Fisheries and Oceans Canada

DESCRIPTION

The experimental gillnet survey is conducted in collaboration with Atlantic herring harvesters and uses standardized multi-mesh gillnets. Gillnets are set on spawning grounds in the spring and fall commercial fishing season and are used to estimate selectivity. Data are collected and support the Northwest Atlantic Fisheries Organization 4T spring and fall herring stock assessments.

OBJECTIVES

1. Fish and samples are collected to provide selectivity by mesh size and fish age.
2. Data provides an indicator of relative changes in fishery selectivity over time.
3. Data provides information on the demographic composition of herring on the spawning grounds.

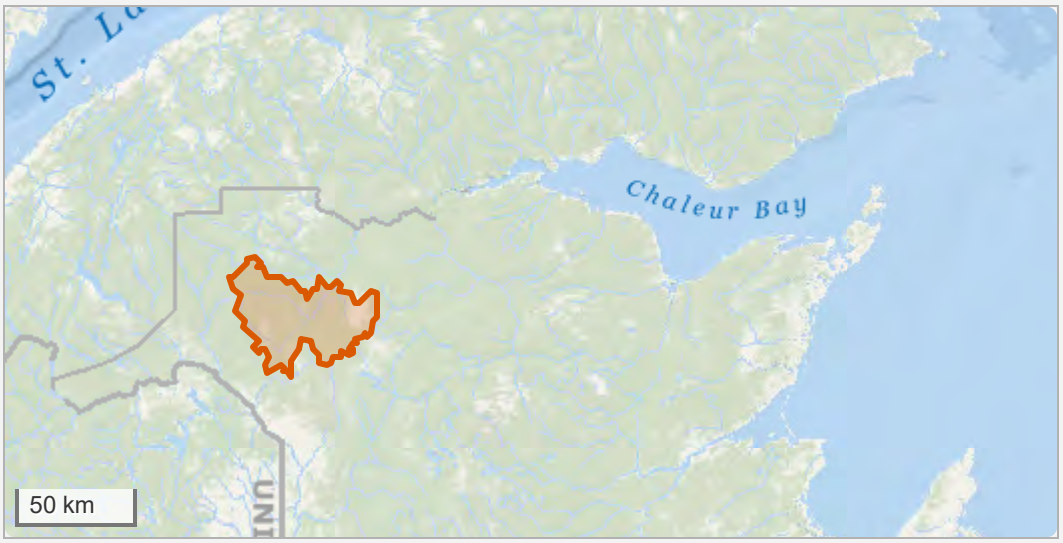
COLLABORATORS

Maritimes Fisherman's Union, Prince Edward Island Fishermen's Association, Mi'gmaq Wolastoqey Indigenous Fisheries Management, Fish Harvesters

FOR MORE INFORMATION

sGSL (NAFO Division 4T) Atlantic Herring Experimental Gillnet Surveys

Atlantic Salmon Snorkel and Canoe Survey
New Brunswick



UNIQUE ID
GLF_FESDSDF_16

CATEGORY
Population and Ecosystem Assessments

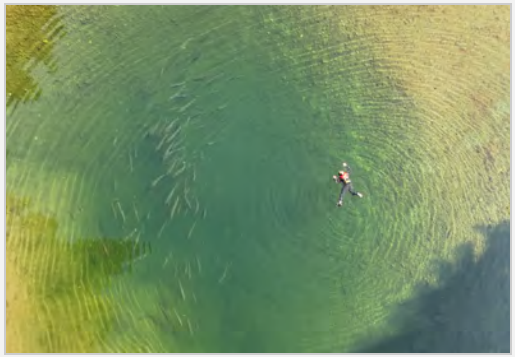
DATES
September to October

START YEAR
2001

RECURRENCE
Annually

LOCATIONS
Upper Restigouche, New Brunswick

EMAIL
Michael.Coffin@dfo-mpo.gc.ca



Snorkel Count
© Kirby Morrill (Fisheries and Oceans Canada)

Snorkel Activity
© Colin Macfarlane (Fisheries and Oceans Canada)

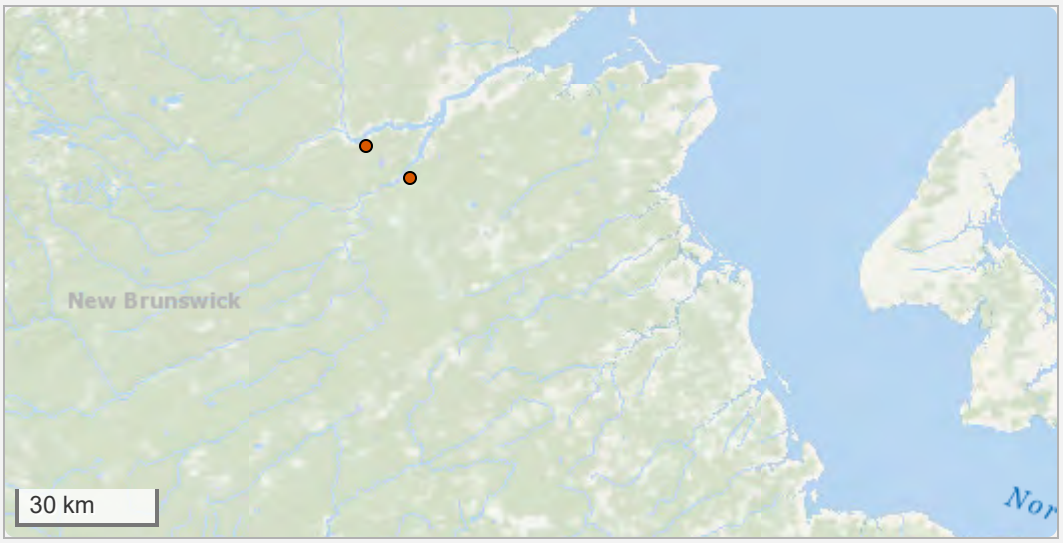
DESCRIPTION

Snorkel surveys provide fishery-independent estimates of adult Atlantic salmon. Trained crews visually count salmon and record size categories while snorkeling. These direct observations are complemented by data from the sport fishery to inform stock assessment for Salmon Fishing Area (SFA) 15. The approach is part of a broader assessment program targeting three life stages: smolt migration, juvenile community, and adult population.

OBJECTIVES

1. Provide a fisheries independent count of adult Atlantic salmon.

Atlantic Salmon Trapnet Program
New Brunswick Rivers



UNIQUE ID
GLF_FESDSDF_17

CATEGORY
Population and Ecosystem Assessments

DATES
May to October

START YEAR
1950

RECURRENCE
Annually

LOCATIONS
Miramichi River, New Brunswick

EMAIL
Michael.Coffin@dfo-mpo.gc.ca

Millerton Trapnet
© Kari Underhill (Fisheries and Oceans Canada)

Cassilis Trapnet
© Kelsey McGee (Fisheries and Oceans Canada)

DESCRIPTION

Trapnets in the Miramichi River (May–October; Cassilis and Millerton) capture Atlantic salmon and other diadromous species to collect biological data and support mark-recapture population estimates. They also provide key information on other species such as gaspereau, American shad, and striped bass. Data from all trapnets contribute to population modeling, management decisions, and are made available for research and monitoring purposes.

OBJECTIVES

1. Estimate salmon abundance and trap efficiency through capture-mark-recapture.
2. Collect biological data, including length, weight, and age.
3. Support salmon life-cycle understanding and conservation through data collection.

COLLABORATORS

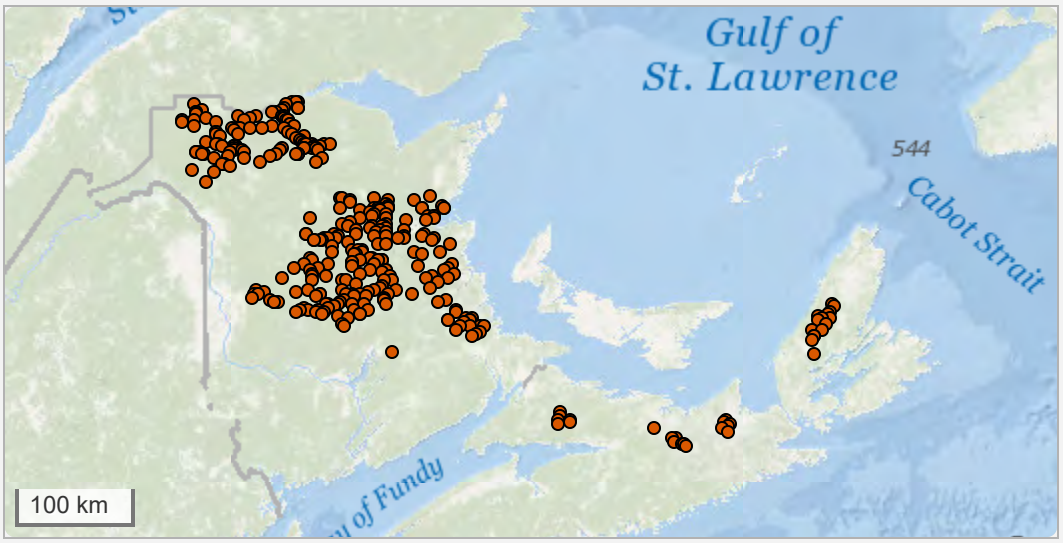
Natoaganeg First Nation, Metepenagiag First Nation

FOR MORE INFORMATION

Count of Atlantic Salmon in Rivers (Index)

Atlantic Salmon Electrofishing Program

New Brunswick and Nova Scotia Rivers



UNIQUE ID
GLF_FESDSDF_18

CATEGORY
Population and Ecosystem Assessments

DATES
August to October

START YEAR
1968

RECURRENCE
Annually

LOCATIONS
New Brunswick and Nova Scotia Rivers

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Michael.Coffin@dfo-mpo.gc.ca

Electrofishing site
© Fisheries and Oceans Canada

Electrofishing
© Fisheries and Oceans Canada

DESCRIPTION

The electrofishing program monitors juvenile Atlantic salmon in freshwater rivers across New Brunswick and Nova Scotia. Each fall, trained crews visit fixed sites to assess salmon abundance using electrofishing gear, which temporarily stuns fish for safe capture and release. They record fish size, age (using scale structures), and note other species present. This data supports regional stock assessments and helps track long-term trends in salmon populations.

OBJECTIVES

1. Monitor juvenile Atlantic salmon abundance at various life stages in freshwater habitats.
2. Collect data on other freshwater fish species encountered during surveys.
3. Use a standardized electrofishing crew of three (or four for closed sites) to ensure consistent sampling methods.

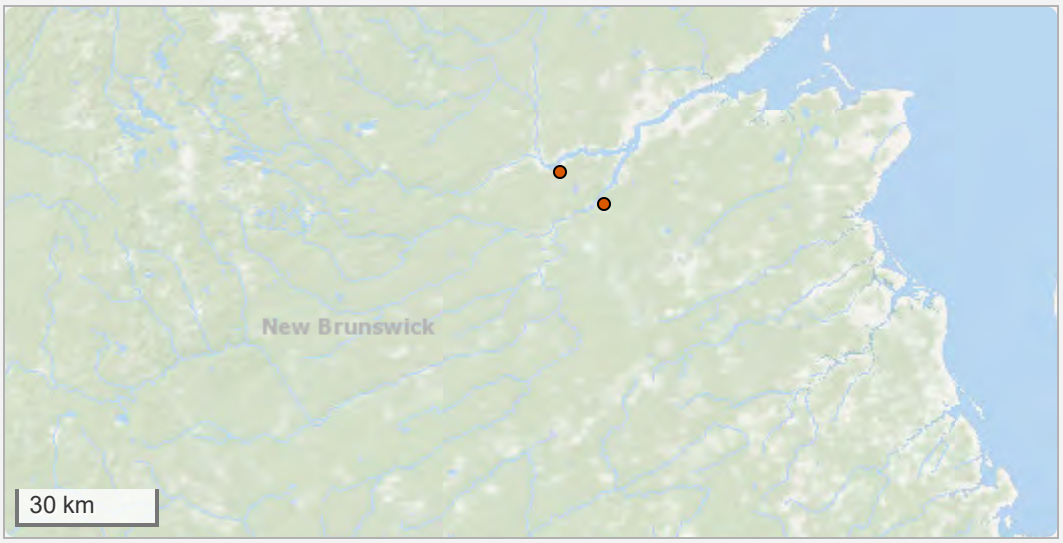
COLLABORATORS

Mi'kmaw Conservation Group, Natoaganeg First Nation, Listuguj First Nation, Ministry of Forests, Wildlife and Parks

FOR MORE INFORMATION

Open Government Portal - Electrofishing Data from New Brunswick and Nova Scotia

Striped Bass Monitoring
Southern Gulf



UNIQUE ID
GLF_FESDSDF_31

CATEGORY
Population and Ecosystem Assessments

DATES
Spring (May to June)

START YEAR
1993

RECURRENCE
Annually

LOCATIONS
Miramichi, New Brunswick

EMAIL
Michael.Coffin@dfo-mpo.gc.ca

Trapnet
© Sam Hudson (Fisheries and Oceans Canada)

Striped Bass
© Sam Hudson (Fisheries and Oceans Canada)

DESCRIPTION

Since 1993, striped bass in the southern Gulf of St. Lawrence have been monitored on the Northwest Miramichi spawning grounds. Each May, fish are tagged and sampled at trapnets, and in June, gaspereau catches are checked for tagged bass to estimate population size. Additional counts and biological data from DFO trapnets at Millerton and Cassilis strengthen the assessment. Since 2003, acoustic tags have tracked bass movements in the Miramichi and southern Gulf, providing information for estimating spawner abundance and guiding management.

OBJECTIVES

1. Tag and sample striped bass on spawning grounds each spring.
2. Estimate population size using mark-recapture and trapnet data.
3. Track striped bass movements with acoustic transmitters.
4. Provide data to support fisheries management and conservation.

COLLABORATORS

Commercial gaspereau fishermen of the Northwest Miramichi, Natoaganeg First Nation, Northumberland Salmon Protection Association, Province of Quebec, Southeastern Anglers Association

Atlantic Salmon Smolt Monitoring
New Brunswick

UNIQUE ID
GLF_FESDSDF_32

CATEGORY
Population and Ecosystem Assessments

DATES
Spring (April to June)

START YEAR
2001

RECURRENCE
Annually

LOCATIONS
New Brunswick Smolt Wheels

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Michael.Coffin@dfo-mpo.gc.ca

Smolt
© Fisheries and Oceans Canada

Atlantic Salmon
© Fisheries and Oceans Canada

DESCRIPTION

Each spring, smolt wheels are installed on the Restigouche, and key tributaries to monitor the migration of Atlantic Salmon smolts. Wheels are generally set up in April, with runs lasting about four weeks and concluding by early June. Daily checks ensure smolts are released after recording abundance, length, weight, and age (determined from length and scale structures). Data collected feed life-cycle models to estimate salmon recruitment and guide conservation.

OBJECTIVES

1. Monitor the timing, duration, and abundance of Atlantic Salmon smolt migration in freshwater rivers each spring.
2. Collect data on smolt abundance, size, weight, and age using scale structures.
3. Provide data for life-cycle models to estimate salmon recruitment and improve population stock assessments.
4. Support conservation by informing strategies to protect Atlantic Salmon populations and sustain fisheries.
5. Compare smolt migration patterns across rivers and years to track spatial and temporal population variation.

COLLABORATORS

Listuguj First Nation, Eel River First Nation, Ministry of Forests, Wildlife and Parks, Gespe'gewa'gi Institute of Natural Understanding (GINU)

FOR MORE INFORMATION

Atlantic Salmon Smolt Data from the Kedgwick River, New Brunswick