

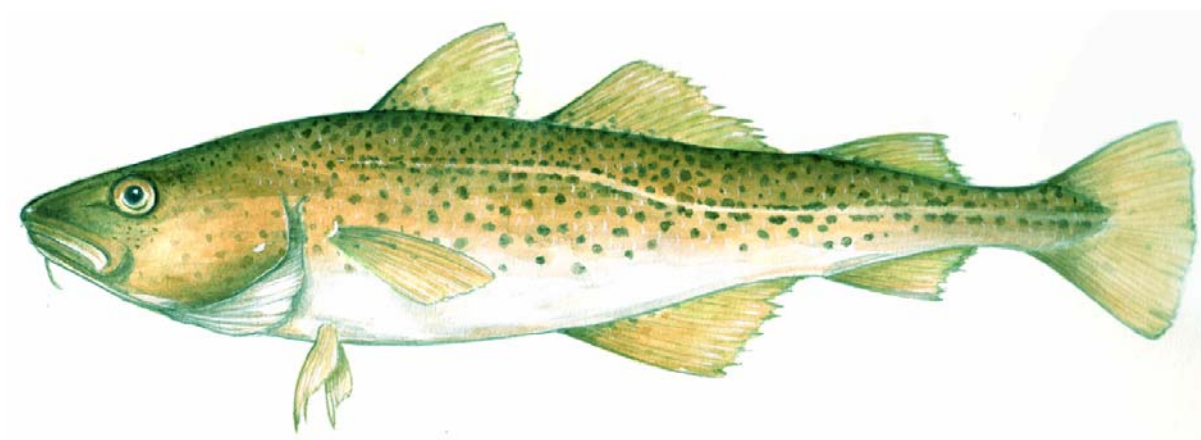


Fisheries and Oceans
Canada

Pêches et Océans
Canada

SPECIES AT RISK ACT

Legal listing consultation workbook



Atlantic Cod Maritimes population ***(Gadus morhua)***

Aussi disponible en français

Canada 



Addition of species to the Species at Risk Act

Introductory Information

The Species at Risk Act

The Species at Risk Act (SARA) strengthens and enhances the Government of Canada's capacity to protect Canadian wildlife species, subspecies and distinct populations that are at risk of becoming Extinct or Extirpated. The Act applies only to species on the SARA list.

Openness and transparency, including public consultation, is required in making decisions about which species should be included on the SARA list. The process begins with the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) assessing a species as being at risk. Upon receipt of these assessments, the Minister of the Environment, in consultation with the Minister of Fisheries and Oceans, has 90 days to report on how he or she intends to respond to the assessment and to the extent possible, provide timelines for action. Subsequent to the consultative process, a recommendation to the Governor in Council on whether to add certain species to the SARA list or to refer them back to COSEWIC is generated. Once a species is added to the SARA list, specific actions must be taken within specified time periods to help ensure that species' protection and recovery.

Public Consultation

The Government of Canada proclaimed the Species at Risk Act on June 5, 2003 as part of its strategy for the protection of wildlife species at risk. Attached to

the Act is Schedule 1, the list of the species that receive protection under SARA, commonly referred to as the 'SARA list'.

The existing SARA list reflects the 233 species the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) had assessed and found to be at risk at the time of the reintroduction of SARA to the House of Commons on October 9th, 2002.

For more information on SARA visit www.sararegistry.gc.ca

Role of COSEWIC

COSEWIC comprises experts on wildlife species at risk. Their backgrounds are in the fields of biology, ecology, genetics, aboriginal traditional knowledge and other relevant fields, and they come from various communities, including government, academia, Aboriginal organizations and non-government organizations.

Initially, COSEWIC commissions a Status Report for the evaluation of the conservation status of a species. To be accepted, status reports must be peer-reviewed and approved by a subcommittee of species specialists. In special circumstances assessments can be done on an emergency basis.

COSEWIC then meets to examine the status report, discuss the species and determine whether or not the species is at risk, and if so, assess the level of risk. For more information on COSEWIC visit www.cosewic.gc.ca



Terms used to define the degree of risk to a species

The degree of risk is categorized according to the terms Extirpated, Endangered, Threatened and Special Concern. A species is assessed by COSEWIC as Extirpated when it is no longer found in the wild in Canada but still exists elsewhere. It is Endangered if it is facing imminent extirpation or extinction. An assessment of Threatened means that the species is likely to become Endangered if nothing is done to reverse the factors leading to its extirpation or extinction. COSEWIC assesses a species as Special Concern if it may become a Threatened or Endangered species because of a combination of biological characteristics and identified threats.

New Assessments

Since October 9th, 2002, COSEWIC has assessed or reassessed additional species as being at risk, making them eligible for addition to the SARA list. Of these, aquatic species are the responsibility of the Department of Fisheries and Oceans and terrestrial species are the responsibility of Environment Canada. Responsibility for species that occur in parks administered by the Parks Canada Agency (both terrestrial and aquatic) is shared between the Parks Canada Agency and either Environment Canada or the Department of Fisheries and Oceans.

For more information on the Environment Canada consultations please see the SARA Public Registry:

www.sararegistry.gc.ca

SARA has been designed to conserve Canadian wildlife species and the habitats that support them. Public

involvement is integral to the processes of listing species as being at risk and protecting Canadian wildlife. The best way to secure the survival of species at risk and their habitats is through the active participation of all those concerned. As such, your comments on this document will be given serious consideration.

Purpose of the consultation

Having received the COSEWIC assessment of the species' status, the Minister of Fisheries and Oceans must provide the Minister of the Environment with a recommendation to the Governor in Council. This recommendation must be one of the following:

- a) that the COSEWIC assessment be accepted and the species be added to the SARA list;
- b) that the species not be added to the SARA list; or
- c) that the species be referred back to COSEWIC for further information or consideration.

The Government of Canada is required to take one of these actions within nine months of the Governor in Council having received the assessment from the Minister of the Environment.

COSEWIC bases its assessments solely on the biological status of each species. However, consultation with Canadians regarding the potential social and economic impacts of the addition of each species to the SARA list will occur before the Government of Canada arrives at informed decisions on listing. Of particular interest in these consultations is the identification of the benefits and costs of adding each of the species to the list relative to the potential

impacts on these species and on society of not adding them.

Therefore, before the government makes decisions regarding the SARA list, affected Canadians will have the opportunity to express their views and concerns. This consultation allows those affected to contribute to the government decision-making process.

Role and impact of public consultation

The results of this public consultation are of great relevance to the entire process of listing species at risk. The comments received will be carefully reviewed and evaluated. They will then be documented in a Regulatory Impact Analysis Statement (RIAS). The RIAS is an integral part of the federal regulatory process and is published with all regulatory proposals in the Canada Gazette Part I.

Following initial consultations, a draft Order (an instrument that serves notice of a decision taken by the executive arm of government) proposing to list all or some of the species under consideration will be prepared. This draft Order will be published along with the RIAS in the Canada Gazette Part I for a comment period. Based on the outcome of the comment period, a recommendation to the Governor in Council on whether to add certain species to the SARA list or to refer them back to COSEWIC will be generated. The final decision will be published in Canada Gazette Part II and on the Public Registry.

Significance of the addition of a species to the SARA list

The protection that comes into effect following the addition of a species to the

SARA list depends upon the degree of risk assigned to that species.

Protection for listed Extirpated, Endangered and Threatened species

Under the Act, prohibitions protect individuals of Extirpated, Endangered and Threatened species. These prohibitions make it an offence to kill, harm, harass, capture or take an individual of a species listed as Extirpated, Endangered or Threatened, or to damage or destroy the residence of one or more individuals (and the critical habitat, if and when identified) of an Endangered or a Threatened species. The Act also makes it an offence to possess, collect, buy, sell or trade an individual of a species that is Extirpated, Endangered or Threatened or a part or derivative of one. These prohibitions come into force when a species is listed on Schedule 1 of the SARA.

The focus of protection will be on those species for which the federal government has direct legal authority. The protection will be in force for all listed birds protected under the Migratory Birds Convention Act, 1994 and for listed aquatic species. The prohibitions will also apply to all listed species on federal lands.

For all other listed Endangered, Threatened and Extirpated species, the provinces and territories have the responsibility to ensure that they receive adequate protection.

Exceptions to the prohibitions on aquatic species may be authorized by the Minister of Fisheries and Oceans, provided that the survival or recovery of the species is not jeopardised. The Ministers may enter into agreements or

issue permits only for (1) research relating to the conservation of a species or (2) for activities that benefit a listed species or enhance its chances of survival or (3) that incidentally affect a listed species.

Protection for listed species of Special Concern

The prohibitions of SARA for species listed as Extirpated, Endangered and Threatened will not apply to species of Special Concern; however any existing protections and prohibitions, such as those authorized by the Migratory Birds Convention Act or the Canada National Parks Act, continue to be in force.

Recovery strategies and action plans for Extirpated, Endangered and Threatened species

The addition of an Extirpated, Endangered or Threatened species to the SARA list triggers the requirement for the preparation of a recovery strategy and action plan which will be the subject of separate consultations.

Recovery strategies will be completed and made available on the SARA Public Registry to allow for public review and comment, within one year for Endangered and within two years for Threatened and Extirpated newly listed species.

Recovery strategies will address the known threats to the species and its habitat. They will identify areas where more research is needed and population objectives that will help ensure the species' survival or recovery, and will include a statement of the timeframe. Recovery strategies and action plans will identify, to the extent possible, the

critical habitat of the species. Action plans will include measures to address threats, help the species recover and protect critical habitat. Measures to implement the recovery strategy will also be identified in the action plan.

Recovery strategies and action plans will be prepared in cooperation with aboriginal organizations, responsible jurisdictions, and relevant management boards directly affected by them. Stakeholders affected by the recovery strategy will also be consulted.

Management plans for Species of Special Concern

For species of Special Concern, management plans will be prepared and made available on the Public Registry within three years of their addition to the SARA list, allowing for public review and comment. Management plans will include appropriate conservation measures for the species and for its habitat.

Management plans will be prepared in cooperation with aboriginal organizations, responsible jurisdictions, and relevant management boards directly affected by them. Stakeholders affected by the management plan will also be consulted.

Public comments on the addition of species to the SARA list

The species described in this workbook has been assessed or reassessed by COSEWIC as a species at risk, and is being considered for addition to the SARA list. Please complete the survey beginning on page 9 and return in person or by regular mail to the address below. In order to consider your comments,



responses are required no later than October 29th, 2004.

Species at Risk Coordination Office
Bedford Institute of Oceanography
P.O. Box 1006
1 Challenger Drive
Dartmouth, NS
B2Y 4A2

Alternatively, please e-mail your comments (with the species name in the subject line) to

XMARSARA@mar.dfo-mpo.gc.ca

If you would like more information on the other populations of Atlantic cod and/or wish to provide comments relating to the proposed additions of those populations to the SARA, please visit <http://www.sararegistry.gc.ca> to access electronic versions of consultation workbooks for those populations.

Your comments will be reviewed and used to consider whether or not to place each species on the SARA list.

Species specific information

Atlantic cod

The Atlantic cod is a marine species found on the continental shelves of both the Northwest and Northeast Atlantic Ocean. It has the characteristic gadoid shape that includes three dorsal and two anal fins with coloration that varies throughout its range from near-black, to brown to red. The flesh is firm and white making it an ideal species for drying and/or salting. In general, size at maturity for cod ranges from 45 to 55cm although in recent years, smaller mature

individuals have been observed specifically on the Eastern Scotian Shelf.

In Canadian waters, cod range from Georges Bank to Newfoundland and Labrador and North to the waters off Baffin Island. They are also found adjacent to Canadian waters on the northeast and southeast tips of the Grand Banks and on Flemish Cap.

Atlantic cod is a batch spawner, releasing eggs at various times over a 3 to 6 week period. During their juvenile stage, cod require a diverse habitat that includes vertical structures like eel grass and corals which provide protection from predation. Habitat requirements for adult cod are not clearly understood, but temperature and food supply appear to be critical factors for distribution and abundance.

The diet of adult cod is varied; studies of stomach contents have identified fish species such as capelin, sandlance, herring, redfish and cunners along with numerous invertebrate species like squid, mussels and brittle stars. In the larval stage they feed primarily on amphipods and copepods but switch to crustaceans and euphausiids as juveniles.

COSEWIC assessment

COSEWIC assessed four populations of Atlantic cod in May 2004: the Newfoundland and Labrador population, Laurentian North population, Maritimes population, and the Arctic population. This workbook only deals with the Maritimes population of cod which has been identified by DFO for management purposes as five separate stocks: (1) Southern Gulf of St. Lawrence (NAFO Division 4T), (2) Cabot Strait (NAFO Division 4Vn), (3) Eastern Scotian Shelf



(NAFO Divisions 4VsW), (4) Bay of Fundy/Western Scotian Shelf (NAFO Division 4X), and (5) cod found on the Canadian portion of Georges Bank (NAFO Division 5Zej,m). COSEWIC provides the following rationale for designating the Maritimes population of cod **special concern**:

Cod in the Southern Gulf of St. Lawrence, across the Scotian Shelf and into the Gulf of Maine comprise a heterogeneous assemblage of stocks that are at low levels of abundance as a group. These levels are not unprecedented for the cod in the Southern Gulf, Southwest Scotian Shelf, Bay of Fundy and George's Bank, but those on the Eastern Scotian Shelf are at historic lows and have continued to decline in the absence of directed fishing. Overall, cod in the entire region have declined 14% in the past 30 years, and have demonstrated a sensitivity to human activities. Threats to persistence include directed fishing, bycatch in other fisheries, natural predation, and natural and fishing-induced changes to the ecosystem.

Threats to Cod

Exploitation in the form of directed fishing, bycatch, illegal fishing, misreporting, discarding and natural predation are all considered to be potential factors responsible for the lack of recovery of cod. Fishing pressure may also have contributed to genetic changes such as younger age at maturity and lower growth rates. These, along with natural and fishery-induced ecosystem changes, including habitat alteration, and changes in species interactions have contributed to higher mortality rates for the Maritimes population of Atlantic cod.

Protecting Cod

There are conservation measures in place to protect the Maritimes population of cod. Stocks where biomass and production remain low, (4VsW and 4Vn May - November) have been placed under moratoria where catches are restricted to the lowest possible bycatch (i.e. less than 150 tonnes annually) For stocks not under moratoria, protection is provided through the Integrated Fisheries Management Plan (IFMP) under which annual total allowable catches (TAC's) control the overall fishing mortality. The potential for exceeding TAC's is controlled through a Dockside Monitoring Program (DMP) and observer deployments to areas of concern.

Other conservation measures in place include limiting the size of fish that can be caught and preventing the disturbance of spawning fish through seasonal spawning area closures. For the 4T stock in particular, a year round closure is in place for the Shediac Valley which has been identified as a nursery area.

Potential Impacts on Stakeholders

Once listed in the Species at Risk Act, activities that affect the Atlantic cod or its habitat may receive more scrutiny. Automatic prohibitions do not apply to species of special concern under SARA. A SARA Management Plan will be developed and there is a range of management measures that may be implemented to conserve the Maritimes population of Atlantic cod.

These measures may lead to a variety of impacts on stakeholders, including additional costs. The following list is



not exhaustive; please use this consultation as an opportunity to list omissions.

Aboriginal

Aboriginal peoples will be invited to participate in the development of a Management Plan for the Maritimes population of Atlantic cod. Management strategies that could affect aboriginal people fishing for commercial species in areas inhabited by cod may be considered.

Fishing Industry

If a particular fishing activity is identified to be a threat to the survival of a listed species, management measures will be taken to address the threat.

These measures could include increased observer coverage in certain areas, closed areas, gear modifications, or other measures developed in collaboration with industry that will help prevent and minimize interactions.

Oil and Gas Industry

The effects of the oil and gas industry on groundfish populations are poorly understood. Seismic testing may have a deleterious effect on demersal fish, eggs and larvae. Proposed oil and gas activities that fall under the Canadian Environmental Assessment Act (CEAA) will be required to address the impacts on SARA listed species in accordance with this legislation.

Military Operations

Maritime Forces Atlantic may be asked to prepare guidelines for naval exercises or underwater site remediation in areas

of cod habitat. They may be asked to refrain from undertaking specific types of exercises in these areas. As identified in SARA, these requirements would be waived in emergencies or if national security were affected.

Research Activity

Those wishing to carry out research on cod or in areas of their habitat may be required to comply with strict guidelines. This may limit the types and/or durations of research permitted on cod and may lengthen the preparation time required for planning research projects.

References

COSEWIC 2003. COSEWIC assessment and update status report on the Atlantic cod *Gadus morhua*, Newfoundland and Labrador population, Laurentian North population, Maritimes population, Arctic population in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. Xi + 76 pp.



Consultation Workbook Survey – Atlantic cod (Maritimes population)

The government's decision on whether or not to list a species under the Species at Risk Act (SARA) will be based on a full description and understanding of the costs and benefits of the impacts of protection and recovery on individuals, organizations, First Nations, industries, and Canadian society in general.

This survey form can be used to provide your opinions about listing the Maritimes population of Atlantic cod under SARA. It also begins with some general questions about conservation priorities and your awareness of other aquatic species at risk.

Comments are welcome from individuals of all backgrounds, whether you are engaged in activities that may be affected by Atlantic cod conservation efforts or are a citizen with an interest in Atlantic cod.

You should read the consultation workbook before completing these questions.

About the Consultation Workbook Survey

The consultation workbook survey asks you to answer a series of questions that require reflection about your views relating to the conservation and recovery of the Maritimes population of Atlantic cod. There are a variety of question formats in this survey. There are also numerous opportunities for personal responses to further explain your views. If you would like to keep the introductory sections of this workbook, please feel free to detach this section and return only the survey.

Please return your workbook by October 29, 2004, to:

Species at Risk Coordination Office

Bedford Institute of Oceanography

P.O. Box 1006

1 Challenger Drive

Dartmouth, NS B2Y 4A2

Alternatively, you may email comments to XMARSARA@mar.dfo-mpo.gc.ca

In addition to this survey, public meetings will be held in the Maritimes during the consultation period. For specific times and locations of public meetings, please check <http://www.sararegistry.gc.ca>.

If you would like more information on the other populations of Atlantic cod and/or wish to provide comments relating to the proposed additions of those populations to the SARA, please visit <http://www.sararegistry.gc.ca> to access electronic versions of consultation workbooks for those populations.

The information that you provide is important! We very much appreciate the time and effort you take to complete this survey!



Your Opinion on Government Priorities

Commercial fishing, sport fishing, First Nation food and ceremonial fishing, industrial use and conservation needs are all considered when the government makes decisions about conservation policies and programs. How would you rate the importance of these considerations if you were making decisions about the management of aquatic species at risk?

**Please choose an option that reflects your
rating of the importance of these
considerations in ocean management**

	Very Low Priority	Somewhat Low Priority	Moderate Priority	Somewhat High Priority	Very High Priority
Recreational Fishing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Commercial Fishing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Marine Industries	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Conservation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
First Nations Food and Ceremonial Fishing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Do you have any other comments about how conservation priorities should be determined? If so, please use the space below.



Your Awareness about Aquatic Species at Risk in the Maritimes

This table shows a number of listed and proposed species at risk in the Maritimes (COSEWIC designations are provided). For each, please indicate your knowledge of this species.

	I am not familiar with this species	I am somewhat familiar with this species	I am very familiar with this species
Inner Bay of Fundy Atlantic Salmon (current SARA status: endangered)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Atlantic Whitefish (current SARA status: endangered)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lake Utopia Dwarf Smelt (current SARA status: threatened)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leatherback Turtle (current SARA status: endangered)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Atlantic Wolffish (current SARA status: special concern)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
North Atlantic Right Whale (proposed SARA status: endangered)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Blue Whale (proposed SARA status: endangered)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Northern Bottlenose Whale (proposed SARA status: endangered)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cusk (proposed SARA status: threatened)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Porbeagle Shark (proposed SARA status: endangered)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Yellow Lampmussel (proposed SARA status: special concern)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Your Opinions about Conservation Priorities for Aquatic Species at Risk in Atlantic Canada

Please choose an option that reflects your rating of what level of priority should be placed on conservation efforts for this species.

	Very Low Conservation Priority	Somewhat Low Conservation Priority	Moderate Conservation Priority	Somewhat High Conservation Priority	Very High Conservation Priority	I am not Familiar with this Species so Cannot Say
Inner Bay of Fundy Atlantic Salmon (current SARA status: endangered)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Atlantic Whitefish (current SARA status: endangered)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lake Utopia Dwarf Smelt (current SARA status: threatened)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leatherback Turtle (current SARA status: endangered)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Atlantic Wolffish (current SARA status: special concern)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
North Atlantic Right Whale (proposed SARA status: endangered)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Blue Whale (proposed SARA status: endangered)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Northern Bottlenose Whale (proposed SARA status: endangered)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cusk (proposed SARA status: threatened)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Porbeagle Shark (proposed SARA status: endangered)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Yellow Lampmussel (proposed SARA status: special concern)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Your Opinions about Threats to Cod

Please indicate your opinion about how significant a threat this factor is to the Maritimes population of Atlantic cod.

	Very Low	Somewhat Low	Moderate	Somewhat High	Very High	I Have No Opinion On This Factor
Fishing for Groundfish using Handlines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fishing for Groundfish using Gillnets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fishing for Groundfish using Longlines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fishing for Groundfish using Trawl Nets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
American Fishing in U.S.A. Waters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Seismic Exploration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Oil & Gas Drilling/Production Activities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Contamination by Human Pollutants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Climate Change and Effects on Marine Ecosystems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Do you have any comments about other possible activities or factors that may impact the conservation of the Maritimes population of Atlantic cod? If so, please use the space below.



Your Opinions about Possible Interventions to Help Atlantic Cod Conservation

For each factor, please indicate what level of impact you think this measure will have on the conservation of the Maritimes population of Atlantic cod.

	Very Low	Somewhat Low	Moderate	Somewhat High	Very High	I Have No Opinion On This Factor
Conduct Scientific Research to Better Understand Cod Behaviour and Distribution	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Increase the Size of Fines for SARA Infractions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Increase Awareness about Cod Conservation within the Fishing Industry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Modify Fishing Gear so that Fewer Cod are Landed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Close Areas with High Concentrations of Cod to Fishing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Close other Fisheries after a Certain Amount of Cod is Landed as Bycatch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Close Areas with High Concentrations of Cod to Oil and Gas Production	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reduce Harvest Levels in Areas Where Cod Quotas Exist	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Do you have any other comments about how other interventions might help the conservation of the Maritimes population of Atlantic cod? If so, please use the space below.



Your Opinion about the Potential Direct or Indirect Costs of the Conservation of the Maritimes Population of Atlantic Cod

Please choose an option that reflects your rating of the likely economic impacts (direct and indirect) of the conservation of the Maritimes population of Atlantic cod to this industry or group.

	Negligible	Somewhat Low	Moderate	Somewhat High	Very High	I Have No Opinion On This Factor
Costs to the Fixed Gear Longline Fishery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Costs to the Fixed Gear Gillnet Fishery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Costs to the Mobile Gear Groundfish Fishery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Costs to the Oil and Gas Industry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Costs to Scientific Researchers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Costs to my Personal Household	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Do you have any other comments about how conservation interventions might lead to costs on other people or industry sectors, or about what your suggestions are to minimize costs? Costs might be direct (e.g., increasing the cost of doing business) or they might be indirect (e.g., lost opportunities for commercial activities). If so, please use the space below.



Your Opinion about the Potential Benefits of the Conservation of the Maritimes Population of Atlantic Cod to Canadian Society

Please choose an option that reflects your rating of the likely benefits (economic or social) of the conservation of the Maritimes population of Atlantic cod to this industry or segment of society.

	Negligible	Somewhat Low	Moderate	Somewhat High	Very High	I Have No Opinion On This Impact
Benefits to Maritime Coastal Communities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Benefits to Canadian Society as a Whole	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Benefits to First Nations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Benefits to the Scientific Community	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Your Opinion about Other Potential Benefits of Conservation of the Maritimes Population of Atlantic Cod

Please choose an option that reflects your level of agreement or disagreement with the following statements.

	Strongly Disagree	Somewhat Disagree	Neither Agree Nor Disagree	Somewhat Agree	Strongly Agree	I Have No Opinion On This Impact
I think that Atlantic cod are valuable because they play an important role in maintaining healthy marine ecosystems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I think that Atlantic cod will be valuable to future generations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I think that many people in Canada value Atlantic cod even though they may never personally see an Atlantic cod.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Do you have any other comments about who might benefit from the conservation of the Maritimes population of Atlantic cod and how important this benefit might be? If so, please use the space below.



Comments about the Proposed Listing Status of the Maritimes Population of Atlantic Cod

Have you read the COSEWIC status report for Atlantic cod?

Yes ☐

No ☐

Please choose an option that reflects your level of support for the Government of Canada listing the Maritimes population of Atlantic cod as a species of special concern under the *Species at Risk Act*.

I **Strongly Disagree** with listing the Maritimes population of Atlantic cod as a species of special concern ☐

I **Somewhat Disagree** with listing the Maritimes population of Atlantic cod as a species of special concern ☐

I **Neither Agree nor Disagree** with listing the Maritimes population of Atlantic cod as a species of special concern ☐

I **Somewhat Agree** with listing the Maritimes population of Atlantic cod as a species of special concern ☐

I **Strongly Agree** with listing the Maritimes population of Atlantic cod as a species of special concern ☐

If you disagree with listing the Maritimes population of Atlantic cod as a species of special concern, could you please tell us why?



If you agree with listing the Maritimes population of Atlantic cod as a species of special concern, could you please tell us why?

How can you as an individual, or your industry, organization or community, participate in conservation efforts for this species? Please give examples of particular activities if you are able.



Do you have any other comments about this survey or SARA that you would like to share with us? If so, please use the space below.



Background Information about You

What is Your Age Category?

- < 20 Years ☐
- 20-29 Years ☐
- 30-39 Years ☐
- 40-49 Years ☐
- 50-59 Years ☐
- 60-69 Years ☐
- > 70 Years ☐

What is Your Gender?

- Female ☐
- Male ☐

Where do you live?

- Nova Scotia ☐
- New Brunswick ☐
- Prince Edward Island ☐
- Newfoundland and Labrador ☐
- Quebec ☐
- Ontario ☐
- Western Canada or Territories ☐
- Outside Canada but I am a Canadian Citizen or Permanent Resident ☐
- Outside Canada - I am not a Canadian Citizen or Permanent Resident ☐



In which sector are you employed?

- | | |
|--------------------------------|--------------------------|
| Retired | <input type="checkbox"/> |
| Full-Time Homemaker | <input type="checkbox"/> |
| Student | <input type="checkbox"/> |
| Commercial Fishing/Processing | <input type="checkbox"/> |
| Farming | <input type="checkbox"/> |
| Forestry | <input type="checkbox"/> |
| Oil and Gas | <input type="checkbox"/> |
| Professional Services | <input type="checkbox"/> |
| Private Sector – Other | <input type="checkbox"/> |
| Academic | <input type="checkbox"/> |
| Federal Government | <input type="checkbox"/> |
| Provincial Government | <input type="checkbox"/> |
| Non-Governmental Organization | <input type="checkbox"/> |
| I am Between Jobs | <input type="checkbox"/> |
| I am Employed in another Field | <input type="checkbox"/> |

If you work in the commercial fishing or processing industry, what types of commercial fishing activities have you engaged in over the past 5 years? Please check all the applicable boxes.

- | | |
|---|--------------------------|
| Work in a Processing Plant | <input type="checkbox"/> |
| Fish for Groundfish on a Fixed Gear Vessel (<45') | <input type="checkbox"/> |
| Fish for Groundfish on a Fixed Gear Vessel (>45') | <input type="checkbox"/> |
| Fish for Groundfish on a Mobile Gear Vessel | <input type="checkbox"/> |
| Fish for Lobster | <input type="checkbox"/> |
| Fish for Scallops | <input type="checkbox"/> |
| Fish for Snow Crab | <input type="checkbox"/> |
| Fish for Large Pelagics on a Longline Vessel | <input type="checkbox"/> |
| Work in the Aquaculture Industry | <input type="checkbox"/> |
| Fish for Other Species or Using Other Methods | <input type="checkbox"/> |
| Industry Association Representative or Consultant | <input type="checkbox"/> |

You've now finished the survey – thank you very much for your help



SCHEDULE OF CONSULTATIONS

Monday, October 25	Yarmouth, Nova Scotia	Rodd Grand Hotel	1pm-4pm
Monday, October 25 (bilingual session in the evening only)	Yarmouth, Nova Scotia	Rodd Grand Hotel	7pm-10pm