

TARGET SPECIES

Information / Monitoring

1(FM)* For the purpose of managing this resource (e.g. quota management), how would you qualify the monitoring of removals from the following components of the fishery:

- | | | | | | |
|---|---|---------------------------------------|---------------------------------------|---|-----------------------------|
| Commercial harvesting? | <input type="checkbox"/> Fully satisfactory | <input type="checkbox"/> Satisfactory | <input type="checkbox"/> Insufficient | <input type="checkbox"/> Unable to assess | <input type="checkbox"/> NA |
| Catches of this stock in other fisheries? | <input type="checkbox"/> Fully satisfactory | <input type="checkbox"/> Satisfactory | <input type="checkbox"/> Insufficient | <input type="checkbox"/> Unable to assess | <input type="checkbox"/> NA |
| Discards of target species? | <input type="checkbox"/> Fully satisfactory | <input type="checkbox"/> Satisfactory | <input type="checkbox"/> Insufficient | <input type="checkbox"/> Unable to assess | <input type="checkbox"/> NA |
| Subsistence/communal harvesting? | <input type="checkbox"/> Fully satisfactory | <input type="checkbox"/> Satisfactory | <input type="checkbox"/> Insufficient | <input type="checkbox"/> Unable to assess | <input type="checkbox"/> NA |
| Bait fisheries? | <input type="checkbox"/> Fully satisfactory | <input type="checkbox"/> Satisfactory | <input type="checkbox"/> Insufficient | <input type="checkbox"/> Unable to assess | <input type="checkbox"/> NA |
| Recreational harvesting? | <input type="checkbox"/> Fully satisfactory | <input type="checkbox"/> Satisfactory | <input type="checkbox"/> Insufficient | <input type="checkbox"/> Unable to assess | <input type="checkbox"/> NA |

2 (S/FM)* Was the following information evaluated through a formal scientific peer review process?

- | | | | | |
|--|--------------------------------|------------------------------------|-------------------------------------|-----------------------------|
| Stock status | <input type="checkbox"/> Fully | <input type="checkbox"/> Partially | <input type="checkbox"/> Not at all | <input type="checkbox"/> NA |
| Harvest rate used for management | <input type="checkbox"/> Fully | <input type="checkbox"/> Partially | <input type="checkbox"/> Not at all | <input type="checkbox"/> NA |
| Impacts/risks of removal levels | <input type="checkbox"/> Fully | <input type="checkbox"/> Partially | <input type="checkbox"/> Not at all | <input type="checkbox"/> NA |
| Impacts of management measures (e.g. mesh size, fish size, etc.) | <input type="checkbox"/> Fully | <input type="checkbox"/> Partially | <input type="checkbox"/> Not at all | <input type="checkbox"/> NA |

3 (S)* Are the following sources of information considered in the assessment of the status of this resource?

- | | | | |
|---|------------------------------|-----------------------------|--|
| Fishery-dependent data (e.g. catch rates) | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Not Available |
| Independent surveys by fishermen | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Not Available |
| Dedicated science-run surveys | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Not Available |
| Tagging information | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Not Available |
| Traditional Ecological Knowledge (TEK) | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Not Available |

4 (S)* Are there estimates of annual exploitation/harvest rates for this stock?

- Yes, and estimates are absolute Yes, and estimates are relative No NA

5 (S)* In support of this assessment, are there any outstanding issues (or concerns) with respect to **the quality of the data** for the following:

- | | | | | | |
|-------------------|---|---|---------------------------------------|------------------------------------|-----------------------------|
| Age determination | <input type="checkbox"/> Major, urgent issues | <input type="checkbox"/> Notable issues | <input type="checkbox"/> Minor issues | <input type="checkbox"/> No issues | <input type="checkbox"/> NA |
| Size monitoring | <input type="checkbox"/> Major, urgent issues | <input type="checkbox"/> Notable issues | <input type="checkbox"/> Minor issues | <input type="checkbox"/> No issues | <input type="checkbox"/> NA |
| Research survey | <input type="checkbox"/> Major, urgent issues | <input type="checkbox"/> Notable issues | <input type="checkbox"/> Minor issues | <input type="checkbox"/> No issues | <input type="checkbox"/> NA |
| Assessment model | <input type="checkbox"/> Major, urgent issues | <input type="checkbox"/> Notable issues | <input type="checkbox"/> Minor issues | <input type="checkbox"/> No issues | <input type="checkbox"/> NA |
| Harvest rates | <input type="checkbox"/> Major, urgent issues | <input type="checkbox"/> Notable issues | <input type="checkbox"/> Minor issues | <input type="checkbox"/> No issues | <input type="checkbox"/> NA |
| Tag returns | <input type="checkbox"/> Major, urgent issues | <input type="checkbox"/> Notable issues | <input type="checkbox"/> Minor issues | <input type="checkbox"/> No issues | <input type="checkbox"/> NA |
| Other issues | <input type="checkbox"/> Major, urgent issues | <input type="checkbox"/> Notable issues | <input type="checkbox"/> Minor issues | <input type="checkbox"/> No issues | <input type="checkbox"/> NA |
- (e.g. size at sex change; size at terminal moult; etc)

GO TO QUESTION 7 IF ALL ANSWERS TO THE ABOVE QUESTION ARE “MINOR ISSUES”, “NO ISSUES” OR “NA”.

6 (S)* If any major or notable issues were identified in the previous question, are they:
 being addressed through research? Fully Partially Not at all
 considered in the advice? Fully Partially Not at all
 (i.e., is risk/uncertainty incorporated in the advice?)

7 (S) Is the science advice for managing the fishery documented through the Canadian Science Advisory Secretariat, or through a formal scientific advisory body (e.g. from an international organization)?
 Yes, and advice is still current (go to question 8)
 Yes, but advice needs updating (go to question 8)
 No (go to question 9)

8 (S) Scientific advice on conservation requirements is:
 widely/publicly available in a timely fashion
 disseminated to interested parties in a timely fashion
 available but not widely distributed

9 (S) To what degree does the current research program cover the knowledge gaps in the following areas?
 Productivity of target species Fully satisfactory Satisfactory Insufficient
 Habitat Fully satisfactory Satisfactory Insufficient
 Ecosystems Fully satisfactory Satisfactory Insufficient

Stock Assessment

10 (FM)*Is the following information sufficiently documented for the following fisheries:

For the **commercial fishery**:

Fishing effort? Yes No NA
 Gear types? Yes No NA
 Number of active licenses? Yes No NA
 Current location of fisheries? Yes No NA

For the **recreational fishery**:

Fishing effort? Yes No NA
 Gear types? Yes No NA
 Number of active licenses? Yes No NA
 Current location of fisheries? Yes No NA

For the **subsistence fishery**:

Fishing effort? Yes No NA
 Gear types? Yes No NA
 Number of active licenses? Yes No NA
 Current location of fisheries? Yes No NA

11 (S)* For the purpose of assessing the status of this resource or the impact of this fishery, how would you qualify the monitoring of removals from the following components of this fishery:

- | | | | | | |
|---|---|---------------------------------------|---------------------------------------|---|-----------------------------|
| Commercial harvesting? | <input type="checkbox"/> Fully satisfactory | <input type="checkbox"/> Satisfactory | <input type="checkbox"/> Insufficient | <input type="checkbox"/> Unable to assess | <input type="checkbox"/> NA |
| Catches of this stock in other fisheries? | <input type="checkbox"/> Fully satisfactory | <input type="checkbox"/> Satisfactory | <input type="checkbox"/> Insufficient | <input type="checkbox"/> Unable to assess | <input type="checkbox"/> NA |
| Discards of target species? | <input type="checkbox"/> Fully satisfactory | <input type="checkbox"/> Satisfactory | <input type="checkbox"/> Insufficient | <input type="checkbox"/> Unable to assess | <input type="checkbox"/> NA |
| Subsistence/communal harvesting? | <input type="checkbox"/> Fully satisfactory | <input type="checkbox"/> Satisfactory | <input type="checkbox"/> Insufficient | <input type="checkbox"/> Unable to assess | <input type="checkbox"/> NA |
| Bait fisheries? | <input type="checkbox"/> Fully satisfactory | <input type="checkbox"/> Satisfactory | <input type="checkbox"/> Insufficient | <input type="checkbox"/> Unable to assess | <input type="checkbox"/> NA |
| Recreational harvesting? | <input type="checkbox"/> Fully satisfactory | <input type="checkbox"/> Satisfactory | <input type="checkbox"/> Insufficient | <input type="checkbox"/> Unable to assess | <input type="checkbox"/> NA |

12 (S)* How would you qualify the state of knowledge of the following biological characteristics of the stock:

- | | | | |
|-----------------------------|---|---------------------------------------|---------------------------------------|
| Size at maturity? | <input type="checkbox"/> Fully satisfactory | <input type="checkbox"/> Satisfactory | <input type="checkbox"/> Insufficient |
| Fecundity? | <input type="checkbox"/> Fully satisfactory | <input type="checkbox"/> Satisfactory | <input type="checkbox"/> Insufficient |
| Growth? | <input type="checkbox"/> Fully satisfactory | <input type="checkbox"/> Satisfactory | <input type="checkbox"/> Insufficient |
| Spawning season? | <input type="checkbox"/> Fully satisfactory | <input type="checkbox"/> Satisfactory | <input type="checkbox"/> Insufficient |
| Location of spawning areas? | <input type="checkbox"/> Fully satisfactory | <input type="checkbox"/> Satisfactory | <input type="checkbox"/> Insufficient |
| Location of nursery areas? | <input type="checkbox"/> Fully satisfactory | <input type="checkbox"/> Satisfactory | <input type="checkbox"/> Insufficient |
| Seasonal migrations? | <input type="checkbox"/> Fully satisfactory | <input type="checkbox"/> Satisfactory | <input type="checkbox"/> Insufficient |
| Population/stock structure? | <input type="checkbox"/> Fully satisfactory | <input type="checkbox"/> Satisfactory | <input type="checkbox"/> Insufficient |

13 (S)* Are estimates available for:

- | | | | |
|-----------------|--|--|-----------------------------|
| Stock size? | <input type="checkbox"/> Yes, and estimates are absolute | <input type="checkbox"/> Yes, and estimates are relative | <input type="checkbox"/> No |
| Spawning stock? | <input type="checkbox"/> Yes, and estimates are absolute | <input type="checkbox"/> Yes, and estimates are relative | <input type="checkbox"/> No |
| Recruitment? | <input type="checkbox"/> Yes, and estimates are absolute | <input type="checkbox"/> Yes, and estimates are relative | <input type="checkbox"/> No |

14 (S) Are there measures of precision for:

- | | | | |
|---------------------------|------------------------------|-----------------------------|-----------------------------|
| Stock size estimates? | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> NA |
| Spawning stock estimates? | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> NA |
| Recruitment estimates? | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> NA |

15 (S)* Has there been an evaluation of the assessment framework for this stock (with a look at alternative hypotheses and approaches?)

- Yes (go to question 16) No (go to question 17)

16 (S)* Has the assessment been shown to be robust?

- Yes No

Reference Points

17 (S)* Have the following stock status reference points (expressed in terms of biomass or other metrics) been identified for this stock:

- | | | |
|---|------------------------------|---|
| Upper Stock Reference (point where stock enters the healthy zone) | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Limit Reference Point (point below which serious harm is occurring) | <input type="checkbox"/> Yes | <input type="checkbox"/> No (go to question 20) |

18 (S) Was the Limit Reference Point evaluated through a formal scientific peer review process?

- Fully Partially Not at all

- 19 (S) If limit reference points have been established:
 the relationship of the stock status reference points to impaired reproductive capacity is assumed demonstrated
 the metric used to establish impaired reproductive capacity is based on spawning biomass other metric

Harvest Strategy

- 20 (S)* Have removal reference levels been identified for when the stock is in the:
- | | | |
|---------------|------------------------------|-----------------------------|
| Critical Zone | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Cautious Zone | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Healthy Zone | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

- 21 (S)* What is the harvest rate (or harvest level) in relation to the removal reference (or the maximum acceptable removal rate or level for the stock)?
 Harvest rate above removal reference for zone occupied Harvest rate at or below removal reference for zone occupied Unknown

- 22 (FM) When there is increased uncertainty of stock size estimates, management actions are: More cautious Unchanged Less cautious

Harvest Control Rules and Tools

- 23 (S/FM)* For this stock, harvest rules/decision rules which aim to control exploitation:
- have not been developed (go to question 27)
 - are in place but are informal and may not be compliant with the precautionary approach
 - are well-defined and compliant with the precautionary approach

- 24 (S/FM) Do these harvest rules imply that the reference removal rate is reduced (as a function of stock abundance) when the stock shows evidence of decline but not yet depleted (i.e. is in the Cautious Zone)? Yes No

- 25 (S/FM)* When the stock shows evidence of depletion (i.e. in the Critical Zone), do these harvest rules imply that stock growth is promoted by keeping catches to the lowest possible level until the stock has shown evidence of rebuilding (i.e. has cleared the Critical Zone)? Yes No

- 26 (S/FM)* How effective is the harvest rule in reducing exploitation as the limit reference point is approached?
 Very effective Somewhat effective Not effective

27 (FM)* How would you qualify the effectiveness of the following management tools in promoting sustainability of the fishery?

- | | | | | | |
|---|---------------------------------------|---|---|--------------------------------------|--|
| TAC (escapement based or harvest rate based) | <input type="checkbox"/> Not used/NA | <input type="checkbox"/> Proven effective | <input type="checkbox"/> Believed effective | <input type="checkbox"/> Ineffective | <input type="checkbox"/> Effectiveness unknown |
| Individual quotas or individual transferable quotas | <input type="checkbox"/> Not used/NA | <input type="checkbox"/> Proven effective | <input type="checkbox"/> Believed effective | <input type="checkbox"/> Ineffective | <input type="checkbox"/> Effectiveness unknown |
| Measures to control competitive fisheries | <input type="checkbox"/> Not used /NA | <input type="checkbox"/> Proven effective | <input type="checkbox"/> Believed effective | <input type="checkbox"/> Ineffective | <input type="checkbox"/> Effectiveness unknown |
| Effort control (number of licenses, amount of gear, etc.) | <input type="checkbox"/> Not used/NA | <input type="checkbox"/> Proven effective | <input type="checkbox"/> Believed effective | <input type="checkbox"/> Ineffective | <input type="checkbox"/> Effectiveness unknown |
| Time and area closures | <input type="checkbox"/> Not used/NA | <input type="checkbox"/> Proven effective | <input type="checkbox"/> Believed effective | <input type="checkbox"/> Ineffective | <input type="checkbox"/> Effectiveness unknown |
| Gear selectivity | <input type="checkbox"/> Not used/NA | <input type="checkbox"/> Proven effective | <input type="checkbox"/> Believed effective | <input type="checkbox"/> Ineffective | <input type="checkbox"/> Effectiveness unknown |
| Size limits | <input type="checkbox"/> Not used/NA | <input type="checkbox"/> Proven effective | <input type="checkbox"/> Believed effective | <input type="checkbox"/> Ineffective | <input type="checkbox"/> Effectiveness unknown |

Stock Status and Rebuilding

28 (S)* What is the status of this stock?

- Critical (*serious harm likely*)
- Cautious (*serious harm possible*)
- Healthy (*serious harm unlikely*)
- Unknown (If «Unknown », go to question 34)

29 (S) Is your evaluation of stock status based on a quantitative assessment or is it based on a qualitative appreciation of what the situation is?

- Quantitative Best Appreciation

30 (S) If this stock is low in the **Cautious Zone**, has a rebuilding plan been developed? Yes No NA

31 (S) If this stock is in the **Critical Zone**, has a rebuilding plan been implemented? Yes No (go to question 33) NA (go to question 33)

32 (S)* How likely is the rebuilding plan to successfully rebuild the species/stock within a reasonable time frame?

- Highly likely Likely with evidence Likely Possible Unlikely

33 (S) Is the advice formulated in relation to a formal Precautionary Approach framework? Yes No

34 (S) Are there provisions in the fishing plan for maintaining the distribution or sub-population structure (could include spawning aggregations) of the stock being fished?
 Yes No

35 (S) What is the likelihood that fishing at current levels will seriously harm reproductive capacity by disrupting the following population processes or biological characteristics?

- | | | | | | |
|-------------------------------------|---------------------------------|-----------------------------------|-----------------------------------|---|----------------------------------|
| Migration | <input type="checkbox"/> Likely | <input type="checkbox"/> Possible | <input type="checkbox"/> Unlikely | <input type="checkbox"/> Evidence of unlikely | <input type="checkbox"/> Unknown |
| Spawning or reproductive activities | <input type="checkbox"/> Likely | <input type="checkbox"/> Possible | <input type="checkbox"/> Unlikely | <input type="checkbox"/> Evidence of unlikely | <input type="checkbox"/> Unknown |
| Age composition | <input type="checkbox"/> Likely | <input type="checkbox"/> Possible | <input type="checkbox"/> Unlikely | <input type="checkbox"/> Evidence of unlikely | <input type="checkbox"/> Unknown |
| Sex composition | <input type="checkbox"/> Likely | <input type="checkbox"/> Possible | <input type="checkbox"/> Unlikely | <input type="checkbox"/> Evidence of unlikely | <input type="checkbox"/> Unknown |
| Spawning components | <input type="checkbox"/> Likely | <input type="checkbox"/> Possible | <input type="checkbox"/> Unlikely | <input type="checkbox"/> Evidence of unlikely | <input type="checkbox"/> Unknown |
| Genetic diversity | <input type="checkbox"/> Likely | <input type="checkbox"/> Possible | <input type="checkbox"/> Unlikely | <input type="checkbox"/> Evidence of unlikely | <input type="checkbox"/> Unknown |

BYCATCH - RETAINED SPECIES

Retained Bycatch: *corresponds to species retained for commercial purposes that are not the initial targeted species (i.e., the subject of this checklist).*

36 (FM) Is there retained bycatch (of species for which there is no separate checklist) in this fishery? Yes No (go to question 42)

Only fisheries with retained bycatch AND for which there is no separate checklist should answer the remaining questions in this section. As authorization is required to retain bycatch, most species retained for commercial purposes should have their own separate checklists. Refer to the master list to find out which retained bycatch species have its own checklist. However, in the "Retained Bycatch" box on Page 1 of this document, identify all the other species or stocks caught with the target species whether or not they have their own checklist.

37 (FM) How would you qualify the monitoring of retained bycatch? Complete Partial Marginal None

38 (FM) Are the following measures in place to manage the retained bycatch?

- | | | | | |
|--|--|---|---|---|
| Bycatch limits | <input type="checkbox"/> for all species | <input type="checkbox"/> for most species | <input type="checkbox"/> for some species | <input type="checkbox"/> for no species |
| Monitoring through observers | <input type="checkbox"/> for all fleets | <input type="checkbox"/> for most fleets | <input type="checkbox"/> for some fleets | <input type="checkbox"/> for no fleets |
| Monitoring through logbooks | <input type="checkbox"/> for all fleets | <input type="checkbox"/> for most fleets | <input type="checkbox"/> for some fleets | <input type="checkbox"/> for no fleets |
| Quota trading system | <input type="checkbox"/> for all fleets | <input type="checkbox"/> for most fleets | <input type="checkbox"/> for some fleets | <input type="checkbox"/> for no fleets |
| Gear selectivity measures | <input type="checkbox"/> for all fleets | <input type="checkbox"/> for most fleets | <input type="checkbox"/> for some fleets | <input type="checkbox"/> for no fleets |
| Season/Area closures | <input type="checkbox"/> for all fleets | <input type="checkbox"/> for most fleets | <input type="checkbox"/> for some fleets | <input type="checkbox"/> for no fleets |
| Fishing protocols based on maximum discard limit | <input type="checkbox"/> for all fleets | <input type="checkbox"/> for most fleets | <input type="checkbox"/> for some fleets | <input type="checkbox"/> for no fleets |

39 (FM) A comprehensive harvest strategy on retained bycatch is in place for:
 all species most species some species no species

40 (FM) The comprehensive harvest strategy on retained bycatch is documented in an Integrated Fisheries Management Plan or fishing plan for:
 all species most species some species no species

41 (S)* How would you qualify the chances of this fishery causing serious or irreversible harm to any species in the retained bycatch?
 Negligible Very low Low Medium/high Unknown

BYCATCH - DISCARDED

Discarded Non-target Bycatch: *Answer the following questions for non-target species only. The following section will address discards of the target species.*

42 (FM) Are there discards of other species in this fishery?
 Yes (go to question 43) No (go to question 48) Unknown (go to question 48)

43 (FM) How would you qualify the monitoring of these discards? Complete Partial Marginal None Unknown

44 (FM) Has scientific advice been provided to assess the impact of discards of other species in this fishery? Yes No

45 (FM) Are there measures in place for the explicit purpose of managing discards, such as:

Discards monitored through observers?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Discards monitored through logbooks?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Quota trading system?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Gear selectivity measures?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Season/Area closures?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Fishing protocols based on maximum discard limit?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Other measures (such as avoidance strategies)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No

46 (FM) What is the likelihood that the discarded catch survives when returned to the water? Good Fair Poor / Nil

47 (S)* How would you qualify the chances of this fishery causing serious or irreversible harm to any species in the discarded bycatch?
 Negligible Very low Low Medium-high Unknown

Discarded Target Bycatch: Answer the following questions for discards of the target species only, (i.e., the species which is the subject of this checklist.)

48 (FM) Are there discards of the target species in this fishery?

Small or young fish?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unknown
Large or old fish (i.e., crab)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unknown
Other?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unknown

IF NO TO ALL IN QUESTION 48, GO TO "BYCATCH – ENDANGERED, THREATENED OR SPECIES OF SPECIAL CONCERN" (question 53).

49 (FM) How would you qualify the monitoring of these discards? Complete Partial Marginal None Unknown

50 (FM) Has scientific advice been provided to assess the impact of target species discards on this fishery? Yes No

51 (FM)* Are there measures in place for the explicit purpose of managing target species discards, such as:

Discards monitored through observers?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Gear selectivity measures?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Season/Area closures?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Small fish protocols?	<input type="checkbox"/> Yes	<input type="checkbox"/> No

52 (FM) What is the likelihood that the discarded catch survives when returned to the water? Good Fair Poor / Nil

BYCATCH – ENDANGERED, THREATENED, OR SPECIES OF SPECIAL CONCERN

53 (FM) Do any species captured in the context of this fishery correspond to one of the following situations?

Subject to a moratorium	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Currently assessed by COSEWIC as endangered, threatened or special concern	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Listed under the Convention on International Trade of Endangered Species (CITES)	<input type="checkbox"/> Yes	<input type="checkbox"/> No

54 (FM) Is there bycatch of Species-at-Risk (listed under SARA as endangered, threatened or special concern) in this fishery?

- Yes (go to 55)
 No (go to 57)
 Unknown (go to 57)

55 (FM) Is the bycatch of Species-at-Risk (under SARA) monitored for all such species? Yes No

56 (FM) The fishery is operating within the bounds of SARA requirements for:
 all SARA species some SARA species none of the SARA species

HABITAT

Benthic Habitat

57(FM)* In this fishery, does gear contact the bottom? Yes No (go to 65)

58 (FM)* Is there a strategy in place consistent with the Sensitive Benthic Areas policy to ensure that the fishery does not pose a risk of serious or irreversible harm to sensitive benthic areas within the geographic extent of this fishery? Yes No

59 (FM) Has the location of fishing activity been mapped? Fully Partially Marginally / Not at all

60 (FM) Have sensitive benthic areas been mapped? Fully Partially Marginally / Not at all

61 (FM) Has a risk assessment been conducted? Fully Partially Marginally / Not at all (go to 63)

62 (S) How likely is it that this fishery is causing serious or irreversible harm to sensitive benthic habitat, communities or species?
 Evidence of unlikely Unlikely Possibly Unknown

63 (FM) Are there specific management measures in place to mitigate the impact of the fishery on sensitive benthic areas (i.e., closures under the Fisheries Act or other management measures)? Fully Partially Marginally / Not at all (go to 65)

64 (FM) Are the measures monitored to see if they are meeting objectives? Fully Partially Marginally / Not at all

Habitats of Significance (non-benthic)

65 (FM)* Is there a process in place to identify *non-benthic* habitats of significance (such as spawning areas, nursing areas, overwintering areas and migration routes) to this stock within the geographic extent of the fishery? Yes (go to 66) No (go to 70)

66 (FM)* Are there non-benthic habitats of particular significance to the stock within the geographic extent of the fishery?
 Yes (go to 67) No (go to 70) Unknown (go to 70)

- 67 (FM)* Is there a strategy in place to ensure that the fishery does not pose a risk of serious or irreversible harm to habitats of significance to the stock? Yes No
- 68 (FM)* Are there specific measures (i.e., closures) to mitigate the impact of the fishery on these habitats? Yes No (go to 70)
- 69 (FM)* Are the fishery operations adhering to these measures? Yes Partially No
- 70 (FM/S)* How likely is it that this fishery is causing serious or irreversible harm to *non-benthic* (spawning areas, migration routes) habitats of significance to the stock?
 Evidence of unlikely Unlikely Possibly Unknown
- 71 (FM)* Are there Marine Protected Areas (MPAs), National Marine Conservation Areas (NMCAs) or Marine Parks within the geographic extent of the fishery?
 Yes (go to 72) No (go to 73) Unknown (go to 73)
- 72 (FM) Are the fishery operations consistent with the conservation framework established for these MPAs, NMCAs and/or Marine Parks?
 Yes Partially No

ECOSYSTEMS

- 73 (S) Are the following elements sufficiently understood to provide advice on their impacts on population dynamics of the target species?
- | | | | |
|---|------------------------------|------------------------------------|-----------------------------|
| Physical conditions | | | |
| Of habitat or seafloor structure | <input type="checkbox"/> Yes | <input type="checkbox"/> Partially | <input type="checkbox"/> No |
| Of water properties (temperature, salinity, etc.) | <input type="checkbox"/> Yes | <input type="checkbox"/> Partially | <input type="checkbox"/> No |
| Biological components | | | |
| Primary productivity | <input type="checkbox"/> Yes | <input type="checkbox"/> Partially | <input type="checkbox"/> No |
| Secondary productivity | <input type="checkbox"/> Yes | <input type="checkbox"/> Partially | <input type="checkbox"/> No |
| Species interactions | | | |
| Predator/prey interactions | <input type="checkbox"/> Yes | <input type="checkbox"/> Partially | <input type="checkbox"/> No |
| Environmental changes arising from human activities | <input type="checkbox"/> Yes | <input type="checkbox"/> Partially | <input type="checkbox"/> No |
| The role of the target species in the ecosystem | <input type="checkbox"/> Yes | <input type="checkbox"/> Partially | <input type="checkbox"/> No |
- 74 (FM)* Has advice on the following been taken into account in establishing TACs or other management controls:
- | | | |
|---------------------------|------------------------------|-----------------------------|
| Oceanographic conditions? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Freshwater conditions? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
- 75 (FM)* Is there an incidence of lost gear in this fishery? Yes No (see guidance) Unknown (go to 80)
- 76 (S/FM) Has the loss of fishing gear been quantified? Yes Partially No
- 77 (S/FM) Has the impact of the loss of fishing gear been studied? Yes Partially No
- 78 (S/FM)* The occurrence of lost gear is considered to be:
 Significant Moderate Negligible Unknown

79 (S/FM)* The impact of lost gear on biodiversity (ghost fishing) is considered to be:
 Significant Moderate Negligible Unknown

80 (S/FM)* Do the fishing practices and management measures minimize the loss of fishing gear? Yes Partially No

81 (S/FM)* Are there effective measures in place to mitigate the impact of lost gear (e.g. biodegradable components, programs for recovery of lost gear)?
 Yes Partially No

82 (S) How likely is it that the fishery is causing serious or irreversible harm to the ecosystem structure and function?
 Evidence of Unlikely Unlikely Possible Likely Unknown

83 (FM) Are there measures in place to ensure that the fishery does not cause serious or irreversible harm to the ecosystem structure and function?
 Yes Partially No

84 (S/FM) How would you qualify the chances of this fishery causing serious or irreversible harm to the following non-target species groups:

fish species?	<input type="checkbox"/> Negligible	<input type="checkbox"/> Unlikely	<input type="checkbox"/> Possible	<input type="checkbox"/> Likely	<input type="checkbox"/> Unknown
invertebrate species?	<input type="checkbox"/> Negligible	<input type="checkbox"/> Unlikely	<input type="checkbox"/> Possible	<input type="checkbox"/> Likely	<input type="checkbox"/> Unknown
corals?	<input type="checkbox"/> Negligible	<input type="checkbox"/> Unlikely	<input type="checkbox"/> Possible	<input type="checkbox"/> Likely	<input type="checkbox"/> Unknown
marine mammals?	<input type="checkbox"/> Negligible	<input type="checkbox"/> Unlikely	<input type="checkbox"/> Possible	<input type="checkbox"/> Likely	<input type="checkbox"/> Unknown
sea turtles?	<input type="checkbox"/> Negligible	<input type="checkbox"/> Unlikely	<input type="checkbox"/> Possible	<input type="checkbox"/> Likely	<input type="checkbox"/> Unknown
sea birds?	<input type="checkbox"/> Negligible	<input type="checkbox"/> Unlikely	<input type="checkbox"/> Possible	<input type="checkbox"/> Likely	<input type="checkbox"/> Unknown

GOVERNANCE, POLICY AND FISHERY-SPECIFIC MANAGEMENT SYSTEMS

85 (FM) Is the directed fishery on this stock currently under moratorium or closed? Yes No

86 (FM)* Are the management decisions related to conservation objectives (e.g. harvest controls, escapement and effort controls) and their rationale clearly documented?
 Yes No (go to 88)

87 (FM)* Are these decisions and their rationale made available publicly? Yes No

88 (FM)* Is there an Integrated Fisheries Management Plan (IFMP)?
 Yes, current using new template (go to 90) Yes, current using old template (go to 90) Yes, but out-of-date (go to 90) No (go to 89)

89 (FM) Is there a harvest plan in place (i.e., Conservation Harvesting Plans, fishing plans within an IFMP, or fishing plans not associated with an IFMP)?
 Yes, current (go to 90) Yes, but out-of-date (go to 90) No (go to 94)

90 (FM)* Is the IFMP or harvest plan widely available and easily accessible? Yes No

- 91 (FM)** Does the IFMP or harvest plan:
 Identify clear short- and long- term objectives:
- For target species? Yes No
 - For by-catch species? Yes No
 - For sensitive areas/habitat within the geographic extent of the fishery? Yes No
 - For monitoring and stock assessment requirements? Yes No
 - For ecosystem structure and function Yes No
- Include concrete measurements of the degree to which these objectives are met:
- For target species? Yes No
 - For by-catch species? Yes No
 - For sensitive areas/habitat within the geographic extent of the fishery? Yes No
- Incorporate a research plan with information needs:
- For target species? Yes No
 - For by-catch species? Yes No
 - For sensitive areas/habitat within the geographic extent of the fishery? Yes No
 - Reference Traditional Ecological Knowledge? Yes No
- Explicitly reference the science advice:
- For target species? Yes No
 - For by-catch species? Yes No
 - For sensitive areas/habitat within the geographic extent of the fishery? Yes No
- 92 (FM)** Are there outstanding allocation issues that significantly impede our ability to implement the IFMP or harvest plan? Yes No
- 93 (FM)** Is there an annual process to review the performance of this plan, i.e., to assess management measures against objectives? Yes No
- 94 (FM)** Do stakeholders have an opportunity to play a role in:
- The collection of information on the fishery (landing, bycatch, discard) Yes Partially No
 - Decision making Yes Partially No
 - Stock assessment process Yes Partially No
- 95 (FM)** Do stakeholders actively participate in:
- The collection of information on the fishery (landing, bycatch, discard) Yes Partially No
 - Decision making Yes Partially No
 - Stock assessment process Yes Partially No

96 (FM)* How would you qualify the engagement of the following groups in the development of the IFMP or harvest plan?

Aboriginal groups?	<input type="checkbox"/> Formal / planned	<input type="checkbox"/> As needed	<input type="checkbox"/> Rare	
Commercial sector?	<input type="checkbox"/> Formal / planned	<input type="checkbox"/> As needed	<input type="checkbox"/> Rare	<input type="checkbox"/> NA
Recreational sector?	<input type="checkbox"/> Formal / planned	<input type="checkbox"/> As needed	<input type="checkbox"/> Rare	<input type="checkbox"/> NA
Environmental NGOs?	<input type="checkbox"/> Formal / planned	<input type="checkbox"/> As needed	<input type="checkbox"/> Rare	<input type="checkbox"/> NA
Other NGOs?	<input type="checkbox"/> Formal / planned	<input type="checkbox"/> As needed	<input type="checkbox"/> Rare	<input type="checkbox"/> NA
Local communities?	<input type="checkbox"/> Formal / planned	<input type="checkbox"/> As needed	<input type="checkbox"/> Rare	<input type="checkbox"/> NA
Processing sector?	<input type="checkbox"/> Formal / planned	<input type="checkbox"/> As needed	<input type="checkbox"/> Rare	<input type="checkbox"/> NA
Wildlife Management Boards?	<input type="checkbox"/> Formal / planned	<input type="checkbox"/> As needed	<input type="checkbox"/> Rare	<input type="checkbox"/> NA
General public?	<input type="checkbox"/> Formal / planned	<input type="checkbox"/> As needed	<input type="checkbox"/> Rare	<input type="checkbox"/> NA
Fish farmers / aquaculture?	<input type="checkbox"/> Formal / planned	<input type="checkbox"/> As needed	<input type="checkbox"/> Rare	<input type="checkbox"/> NA
Other users?	<input type="checkbox"/> Formal / planned	<input type="checkbox"/> As needed	<input type="checkbox"/> Rare	<input type="checkbox"/> NA
Provincial/Territorial governments?	<input type="checkbox"/> Formal / planned	<input type="checkbox"/> As needed	<input type="checkbox"/> Rare	<input type="checkbox"/> NA
Other federal departments?	<input type="checkbox"/> Formal / planned	<input type="checkbox"/> As needed	<input type="checkbox"/> Rare	<input type="checkbox"/> NA

97 (FM)* Is there a process in place to evaluate the performance of the formal engagement with stakeholders? Yes No

COMPLIANCE AND ENFORCEMENT

This section should be completed by C&P, in consultation with FM. Please refer to the Guidance document for explanation for each question. For C&P responses, a scale from 0 – 10 is provided where 0 is the most negative response and 10 is the most positive.

98 (C&P)* To what extent has a risk-based compliance management plan been developed for this fishery?
 0 1 2 3 4 5 6 7 8 9 10 NA

99 (C&P)* How would you rate the C&P education and engagement activities aimed at increasing the level of understanding and buy-in in this fishery?
 0 1 2 3 4 5 6 7 8 9 10 NA

100 (C&P)* How would you rate the effectiveness of the following controls in the fishery:

At Sea or Field Observers	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>	8 <input type="checkbox"/>	9 <input type="checkbox"/>	10 <input type="checkbox"/>	NA <input type="checkbox"/>
Dockside Monitoring	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>	8 <input type="checkbox"/>	9 <input type="checkbox"/>	10 <input type="checkbox"/>	NA <input type="checkbox"/>
Mandatory Logbooks	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>	8 <input type="checkbox"/>	9 <input type="checkbox"/>	10 <input type="checkbox"/>	NA <input type="checkbox"/>
Hailing in	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>	8 <input type="checkbox"/>	9 <input type="checkbox"/>	10 <input type="checkbox"/>	NA <input type="checkbox"/>
Hailing out	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>	8 <input type="checkbox"/>	9 <input type="checkbox"/>	10 <input type="checkbox"/>	NA <input type="checkbox"/>
VMS (Vessel Monitoring System)	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>	8 <input type="checkbox"/>	9 <input type="checkbox"/>	10 <input type="checkbox"/>	NA <input type="checkbox"/>
Video Monitoring	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>	8 <input type="checkbox"/>	9 <input type="checkbox"/>	10 <input type="checkbox"/>	NA <input type="checkbox"/>
Other (please specify in comments section)	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>	8 <input type="checkbox"/>	9 <input type="checkbox"/>	10 <input type="checkbox"/>	NA <input type="checkbox"/>

101 (C&P)* What is the current level of coverage by Fishery Officers in the following three categories?

Air surveillance 0 1 2 3 4 5 6 7 8 9 10 NA

At-Sea surveillance (program vessels and CCG ships) 0 1 2 3 4 5 6 7 8 9 10 NA

Land Based surveillance (dockside or other) 0 1 2 3 4 5 6 7 8 9 10 NA

102 (C&P)* To what extent are enforcement actions taken when violations are detected?
0 1 2 3 4 5 6 7 8 9 10 NA

103 (C&P)* To what extent are deterrents (sanctions) effective at dealing with non-compliance in this fishery?
0 1 2 3 4 5 6 7 8 9 10 NA

104 (C&P)* What is the level of compliance with regulations, license conditions and management measures in this fishery?
0 1 2 3 4 5 6 7 8 9 10 NA

105 (C&P)* Are there processes in place to detect and/or measure unreported/misreported catches for this fishery?
0 1 2 3 4 5 6 7 8 9 10 NA

106 (C&P)* To what extent is the level of unreported/misreported catches in this fishery considered to be significant?
0 1 2 3 4 5 6 7 8 9 10 NA

Comments or rationale related to any of the compliance and enforcement questions above.

RATIONALE/COMMENT BOX: Please provide rationale and comments in the field provided below, clearly indicating the question to which the comment refers.