

The intent of this form is to gather input from fishermen regarding their observations and experiences with grey seals. This questionnaire is part of a collaborative effort between scientists, the fishing industry, and management partners to assess the effectiveness of potential management decisions on **your** fisheries. We appreciate you taking time to accurately and honestly answer the questions below. There are no right or wrong answers. Your participation is voluntary and confirms that you have given your informed consent to have your responses used in analyses specific to this study. Any personal data that you provide is completely privacy protected and ALL materials will be destroyed according to UBC policy. ***If you have any concerns about your rights as a research subject and/or your experiences while participating in this study, you may contact the Research Subject Information Line in the UBC Office of Research Services at 604-822-8598 or if long distance e-mail RSIL@ors.ubc.ca or call toll free 1-877-822-8598.***

The scientist conducting this study will happily address any study-specific questions. Please direct all completed forms and questions to:

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----START OF QUESTIONNAIRE-----

1. Your sex:

- Male
 Female
 Not declared

2. What is your age?

- | | |
|-------------------------------------|--------------------------------|
| <input type="checkbox"/> 20 or less | <input type="checkbox"/> 41-50 |
| <input type="checkbox"/> 21-25 | <input type="checkbox"/> 51-60 |
| <input type="checkbox"/> 26-30 | <input type="checkbox"/> 60+ |
| <input type="checkbox"/> 31-40 | |

3. What is the last year that you fished commercially?

QUESTIONNAIRE CONTINUED ON NEXT PAGE

4. The photos below show grey seals in different life stages. Have you seen *any* grey seals like the ones depicted below *while fishing commercially*?



- Yes
- No
- Unsure

5. What is your CURRENT or most RECENT fishery worked (you may select multiple fisheries)?

- | | |
|--|---|
| <input type="checkbox"/> Atlantic cod | <input type="checkbox"/> Atlantic Halibut |
| <input type="checkbox"/> Snow crab | <input type="checkbox"/> American Plaice |
| <input type="checkbox"/> Surf clam | <input type="checkbox"/> Atlantic Salmon |
| <input type="checkbox"/> Northern Quahog | <input type="checkbox"/> Winter Flounder |
| <input type="checkbox"/> Atlantic Scallop | <input type="checkbox"/> Greenland Halibut (Turbot) |
| <input type="checkbox"/> Blue Mussel | <input type="checkbox"/> White Hake |
| <input type="checkbox"/> Northern Shrimp | <input type="checkbox"/> Sealing (any species) |
| <input type="checkbox"/> American Lobster | <input type="checkbox"/> Other(Specify): _____ |
| <input type="checkbox"/> Atlantic Herring | <input type="checkbox"/> None/retired |
| <input type="checkbox"/> Atlantic Mackerel | |

6. What have you fished for in the past (you may select multiple species)?

- | | |
|--|---|
| <input type="checkbox"/> Atlantic cod | <input type="checkbox"/> Atlantic Halibut |
| <input type="checkbox"/> Snow crab | <input type="checkbox"/> American Plaice |
| <input type="checkbox"/> Surf clam | <input type="checkbox"/> Atlantic Salmon |
| <input type="checkbox"/> Northern Quahog | <input type="checkbox"/> Winter Flounder |
| <input type="checkbox"/> Atlantic Scallop | <input type="checkbox"/> Greenland Halibut (Turbot) |
| <input type="checkbox"/> Blue Mussel | <input type="checkbox"/> White Hake |
| <input type="checkbox"/> Northern Shrimp | <input type="checkbox"/> Sealing (any species) |
| <input type="checkbox"/> American Lobster | <input type="checkbox"/> Other(Specify): _____ |
| <input type="checkbox"/> Atlantic Herring | <input type="checkbox"/> None/retired |
| <input type="checkbox"/> Atlantic Mackerel | |

QUESTIONNAIRE CONTINUED ON NEXT PAGE

7. Are you currently:

- Owner/Operator (<65' vessel)
- a Captain (>65' vessel)
- Crew
- Retired

8. How many years have you fished *commercially*?

9. What is the length of the last *commercial* vessel you fished on? If you switch vessels often, what size do you most regularly fish from?

- <35'
- Inshore 35' to <45'
- Midshore 45' to <65'
- >65'

10. In what month(s) do you fish?

- | | |
|-----------------------------------|------------------------------------|
| <input type="checkbox"/> January | <input type="checkbox"/> July |
| <input type="checkbox"/> February | <input type="checkbox"/> August |
| <input type="checkbox"/> March | <input type="checkbox"/> September |
| <input type="checkbox"/> April | <input type="checkbox"/> October |
| <input type="checkbox"/> May | <input type="checkbox"/> November |
| <input type="checkbox"/> June | <input type="checkbox"/> December |

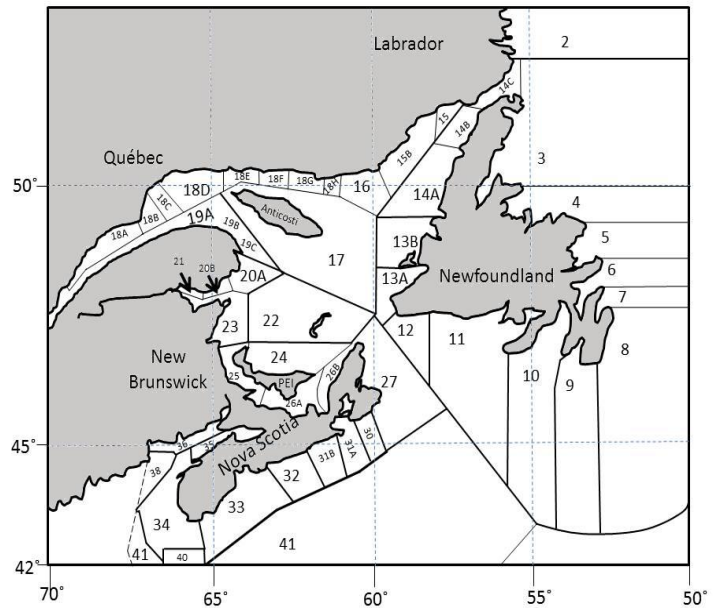
11. For each month, indicate how often you encounter grey seals using the following ranking system:

- 1=I see few, if any, grey seals (0-10)
- 2=I see some grey seals (11-100)
- 3=I see many grey seals (100-500)
- 4=I see very high number of grey seals (>500).

Enter 0 or leave blank for months that you do not fish.

- | | |
|---------------|----------------|
| ____ January | ____ July |
| ____ February | ____ August |
| ____ March | ____ September |
| ____ April | ____ October |
| ____ May | ____ November |
| ____ June | ____ December |

12. Indicate where you *mostly* fish now by **circling** the zone number (or the last zone that you fished, if retired). If the area that you have *mostly* fished is straddling multiple zones, circle those zones as well.



13a. What is the largest number of grey seals that you can recall seeing at one time *while commercially fishing*?

13b Were these grey seals that you saw:

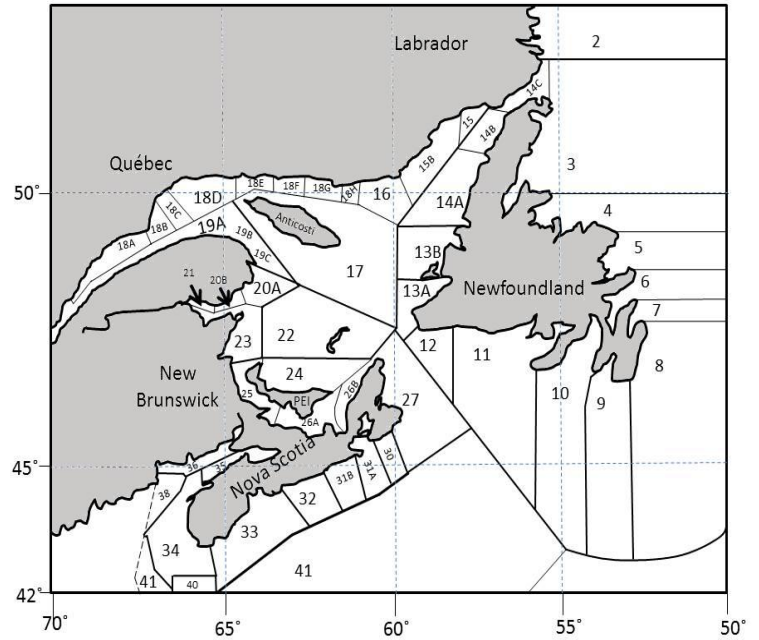
- All on land
- Mostly on land
- Half were on land, half were in the water
- Mostly in the water
- All in the water

13c What was **the year** that you saw the largest number of grey seals?

13d If you can recall, **what was the month**?

- | | |
|-----------------------------------|------------------------------------|
| <input type="checkbox"/> January | <input type="checkbox"/> July |
| <input type="checkbox"/> February | <input type="checkbox"/> August |
| <input type="checkbox"/> March | <input type="checkbox"/> September |
| <input type="checkbox"/> April | <input type="checkbox"/> October |
| <input type="checkbox"/> May | <input type="checkbox"/> November |
| <input type="checkbox"/> June | <input type="checkbox"/> December |

QUESTIONNAIRE CONTINUED ON NEXT PAGE



13e What was your approximate location where you saw the greatest number of grey seals (circle the zone number or numbers)?

14. Can you list other locations where you have seen grey seals **on land** by writing the zone number below?

15. If you observe species OTHER than grey seals, which species of seals do you regularly see (check all that apply)?

- Harp seals
- Harbour seals
- Hooded seals
- Other
- I do not see seals OTHER than grey seals
- I do not see ANY seals

16a. Which fisheries do grey seals have a NEGATIVE impact on (Select all that apply)?

- | | |
|---|---|
| <input type="checkbox"/> ALL Fisheries | <input type="checkbox"/> Atlantic Mackerel |
| <input type="checkbox"/> Atlantic cod | <input type="checkbox"/> Atlantic Halibut |
| <input type="checkbox"/> Snow crab | <input type="checkbox"/> American Plaice |
| <input type="checkbox"/> Surf clam | <input type="checkbox"/> Greenland Halibut (Turbot) |
| <input type="checkbox"/> Northern Quahog | <input type="checkbox"/> White Hake |
| <input type="checkbox"/> Atlantic Scallop | <input type="checkbox"/> Sealing (any species) |
| <input type="checkbox"/> Blue Mussel | <input type="checkbox"/> I don't know/Undecided |
| <input type="checkbox"/> Northern Shrimp | <input type="checkbox"/> NONE |
| <input type="checkbox"/> American Lobster | |
| <input type="checkbox"/> Atlantic Herring | |

QUESTIONNAIRE CONTINUED ON NEXT PAGE

16b. Which fisheries do grey seals have a POSITIVE impact on (Select all that apply)?

- | | |
|---|---|
| <input type="checkbox"/> ALL Fisheries | <input type="checkbox"/> Atlantic Herring |
| <input type="checkbox"/> Atlantic cod | <input type="checkbox"/> Atlantic Mackerel |
| <input type="checkbox"/> Snow crab | <input type="checkbox"/> Atlantic Halibut |
| <input type="checkbox"/> Surf clam | <input type="checkbox"/> American Plaice |
| <input type="checkbox"/> Northern Quahog | <input type="checkbox"/> Greenland Halibut (Turbot) |
| <input type="checkbox"/> Atlantic Scallop | <input type="checkbox"/> White Hake |
| <input type="checkbox"/> Blue Mussel | <input type="checkbox"/> Sealing (any species) |
| <input type="checkbox"/> Northern Shrimp | <input type="checkbox"/> I don't know/Undecided |
| <input type="checkbox"/> American Lobster | <input type="checkbox"/> NONE |

16c. If DFO allowed grey seal culls, which fisheries would IMPROVE (Select all that apply)?

- | | |
|---|---|
| <input type="checkbox"/> ALL Fisheries | <input type="checkbox"/> Atlantic Herring |
| <input type="checkbox"/> Atlantic cod | <input type="checkbox"/> Atlantic Mackerel |
| <input type="checkbox"/> Snow crab | <input type="checkbox"/> Atlantic Halibut |
| <input type="checkbox"/> Surf clam | <input type="checkbox"/> American Plaice |
| <input type="checkbox"/> Northern Quahog | <input type="checkbox"/> Greenland Halibut (Turbot) |
| <input type="checkbox"/> Atlantic Scallop | <input type="checkbox"/> White Hake |
| <input type="checkbox"/> Blue Mussel | <input type="checkbox"/> Sealing (any species) |
| <input type="checkbox"/> Northern Shrimp | <input type="checkbox"/> I don't know/Undecided |
| <input type="checkbox"/> American Lobster | <input type="checkbox"/> NONE |

16d. If DFO allows grey seal culls, which fisheries would become WORSE (Select all that apply)?

- | | |
|---|---|
| <input type="checkbox"/> ALL Fisheries | <input type="checkbox"/> Atlantic Herring |
| <input type="checkbox"/> Atlantic cod | <input type="checkbox"/> Atlantic Mackerel |
| <input type="checkbox"/> Snow crab | <input type="checkbox"/> Atlantic Halibut |
| <input type="checkbox"/> Surf clam | <input type="checkbox"/> American Plaice |
| <input type="checkbox"/> Northern Quahog | <input type="checkbox"/> Greenland Halibut (Turbot) |
| <input type="checkbox"/> Atlantic Scallop | <input type="checkbox"/> Sealing (any species) |
| <input type="checkbox"/> Blue Mussel | <input type="checkbox"/> I don't know/Undecided |
| <input type="checkbox"/> Northern Shrimp | <input type="checkbox"/> NONE |
| <input type="checkbox"/> American Lobster | |

17. How do you think grey seals impact fisheries (select all that apply)?

- They prey on commercial fish stocks and reduce their numbers
- They steal bait from gear
- They take fish from gear
- They damage/destroy gear
- They cause delays that result in less time spent fishing
- They spread seal worms
- Grey seals do not impact fisheries

QUESTIONNAIRE CONTINUED ON NEXT PAGE

The following questions (18-20) apply to **the fishery that you CURRENTLY or LAST worked**. If you **CURRENTLY** work more than one fishery, indicate the one that is your **MAIN** source of income

18a. Do you find yourself replacing bait **due to raiding by grey seals**?

Yes

No

18b. If Yes to 18a, how often?

Every time I retrieve my gear (100% of the time)

Most of the time I retrieve my gear (75% of the time)

About half the time I retrieve my gear (50% of the time)

Occasionally (25% of the time)

Rarely (10% of the time)

18c. If Yes to 18a, how much do you spend to replace bait taken by grey seals per incident, **on average (dollar amount)**?

19a. Is your gear **damaged by grey seals**?

Yes

No

19b. If Yes to 19a, how often?

Every time I retrieve my gear (100% of the time)

Most of the time I retrieve my gear (75% of the time)

About half the time I retrieve my gear (50% of the time)

Occasionally (25% of the time)

Rarely (10% of the time)

19c. If Yes to 19a, how much time do crew members spend **repairing gear due to damage by grey seals**?

<1hr/week

2-5hrs/week

6-10hrs/week

>10hrs

Gear cannot be repaired and has to be replaced

QUESTIONNAIRE CONTINUED ON NEXT PAGE

19d. If Yes to 19a, **on average** how much does it cost to repair AND/OR replace gear?

REPAIR (your best dollar estimate per incident):

REPLACE (your best dollar estimate per incident):

20a. Is your catch infested by seal worms?

- Yes
- No

20b. If Yes to 20a, what percentage of catch is infested?

- <10%
- 10-25%
- 26-50%
- 51-75%
- >75%

20c. If Yes to 20a, do you obtain a difference in price for filets or catch that is infested with **seal worm**?

- No, there is no difference in price, or the difference is negligible.
- Yes (please select an additional option below)
 - On average, I receive <25% of normal market value
 - On average, I receive <50% of normal market value
 - On average, I receive <75% of normal market value
 - On average, I receive >75% of normal market value

21a. Select all the statements that you agree with if there IS **NO** seal cull (Select all that apply):

- There will be **NO CHANGE** in number of fish
- There will be **FEWER** fish than before
- There will be **MORE** fish than before
- My employment opportunities will be **WORSE** off
- My employment opportunities will be **BETTER** off
- Fishery profits would **INCREASE**
- Fishery profits would **DECREASE**
- Grey seals will interfere with gear, making my job more difficult
- OTHER (Specify):

21b. Select all the statements that you agree with if there IS a seal cull (Select all that apply):

- There will be **NO CHANGE** in number of fish
- There will be **FEWER** fish than before
- There will be **MORE** fish than before
- My employment opportunities will be **WORSE** off
- My employment opportunities will be **BETTER** off
- Fishery profits will **INCREASE**
- Fishery profits will **DECREASE**
- Certain groups or countries will boycott my fishery products, and drive profits down
- OTHER (Specify):

QUESTIONNAIRE CONTINUED ON NEXT PAGE

22. Are there too many GREY seals in the Gulf?

Yes

No

Undecided

23. What in your experience makes you believe there are/are not too many grey seals?

24. Indicate your general opinion regarding grey seals and your fishery. Remember that there are no right or wrong answers. Feel free to use the back of this survey to complete your answer.

END OF QUESTIONNAIRE
