Appendix III

DETAILS ON CATCH COMPOSITION OF EACH FLEET

We searched all the most recent Marine Stewardship Council (MSC) public certification reports for all marine fisheries that are, or have been, certified in Canada (n=32) for data and information pertaining to bycatch. Specifically, we sought data pertaining to the amount of all species caught that were retained or discarded, broken down by region or gear type if possible, and presented in table format. Due to the variation in the type of data (e.g., metric tonnes, counts of individuals), source (e.g., observer, logbook or dockside monitoring) and scale (e.g., entire fishery or observed sets), we were limited to calculating percentages of catch discarded and retained to enable comparisons.

Bycatch data was available in table format for 22 fisheries (see Table 1 of the report), comprised of 56 fleets (fishery, gear, fishing area). Two of these fisheries (Canadian Highly Migratory Species Foundation British Columbia albacore tuna North Pacific and the NAFO Division 4R Atlantic Herring Purse Seine Fishery) did not present data that allowed for the calculation of the percentage of total catch, therefore these fisheries were omitted from summaries using percentages, but were retained for tallies of the number of species caught. We investigated each taxa and ensured they were consistent across the dataset, assigned a higher level taxa grouping and noted if the taxa had a COSEWIC conservation status (special concern, threatened, or endangered).

The following pages contain figures presenting details about the catch composition of each fleet (n=56) included in the analysis, in alphabetical order. Please see table 6 of Appendix II of the report for a summary of bycatch data obtained from MSC certification report tables, with notes about table choice, if more than one dataset was available, and on any manipulation or assumptions applied for the analysis.

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Canada Scotia Fundy haddock	
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Fishing area: N/A - Gear type: Dredge	
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Grand Bank Arctic Surfclam Fishery	
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APPIM Iles-de-la-Madeleine lobster (Homarus americanus) Trap Fishery

Fishing area: N/A - Gear: Baited trap

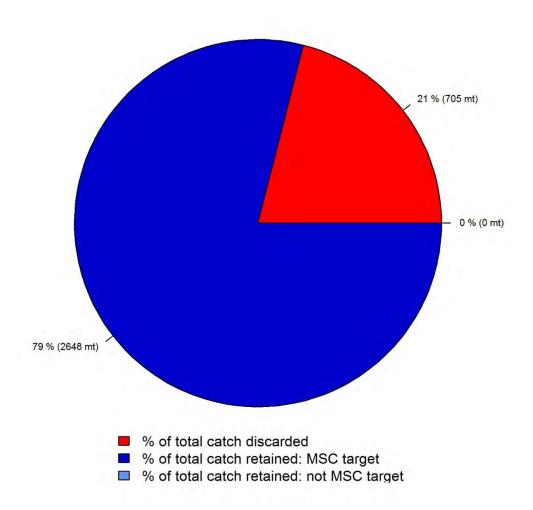


Figure 1. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data was scaled to the entire region of the fleet and is from observer data in 2011.

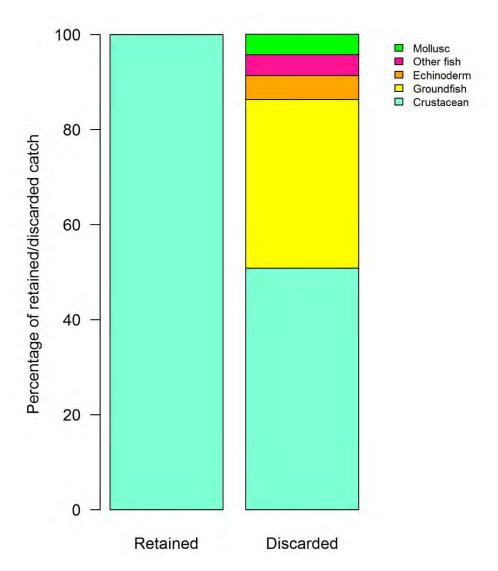


Figure 2. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.

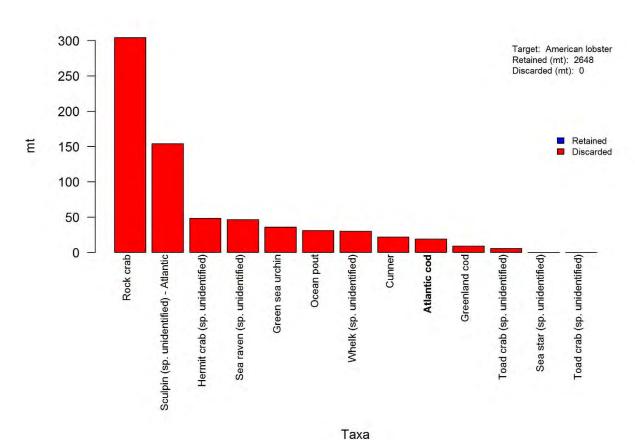


Figure 3. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data was scaled to the entire region of the fleet and is from observer data in 2011.

Banquereau Arctic Surfclam Fishery Fishing area: N/A - Gear type: Dredge

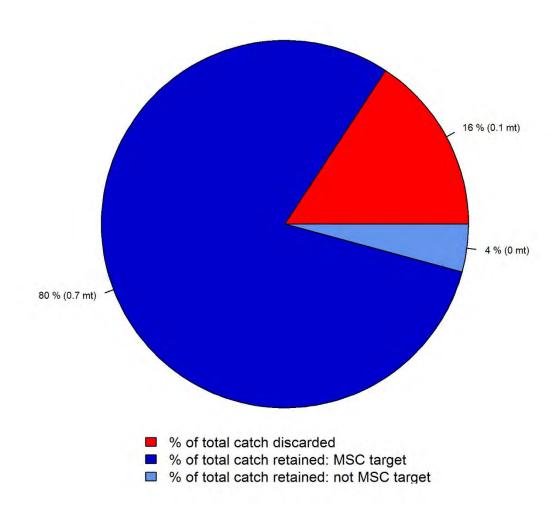


Figure 4. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data of unknown scale, but is likely not the entire region of the fleet. It is from on-board sampling of unsorted catch in 2005.

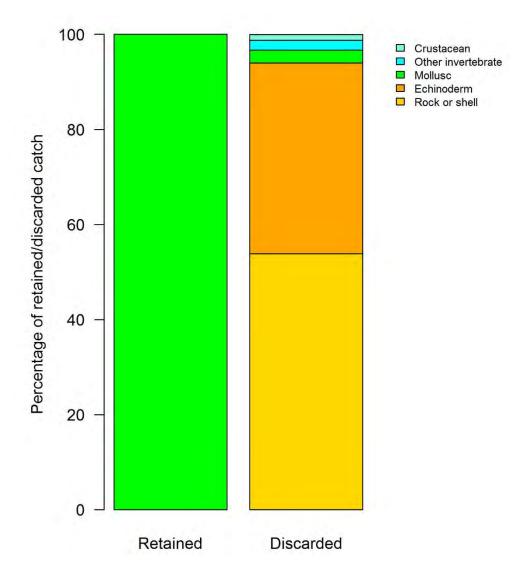


Figure 5. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.

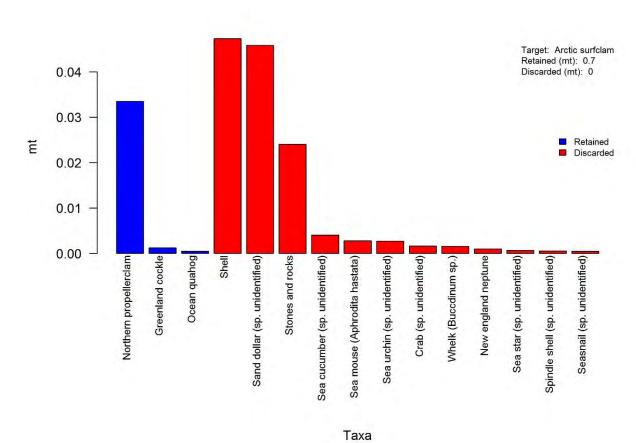


Figure 6. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data of unknown scale, but is likely not the entire region of the fleet. It is from on-board sampling of unsorted catch in 2005.

British Columbia hook and line spiny dogfish fishery

Fishing area: Inside Directed - Gear type: Bottom long-line

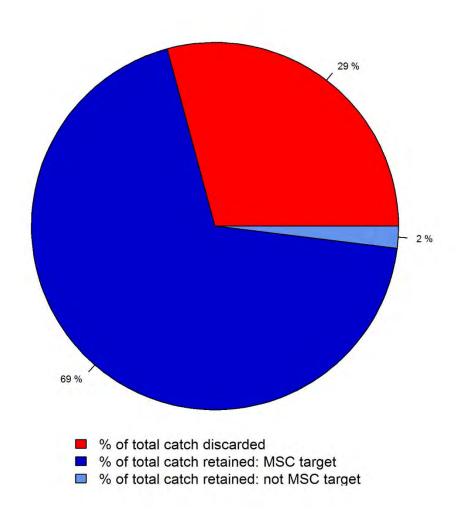


Figure 7. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. These percentages are based off counts of individuals, as weights were not available. This fleet had catch data of unknown scale, but is likely the entire region of the fleet. It is from logbooks and percentages represent the sum of individuals from 2006/07 to 2009/10.

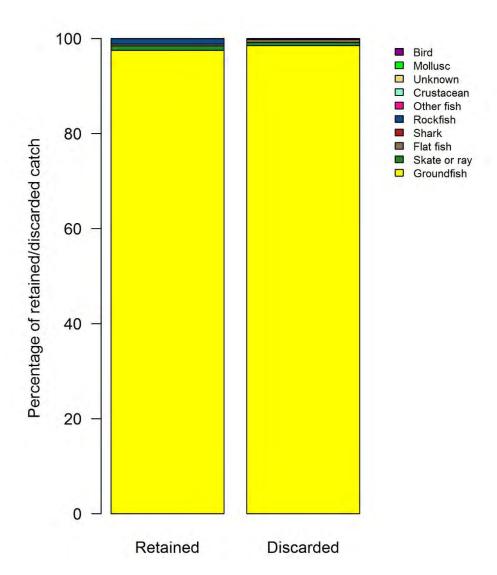
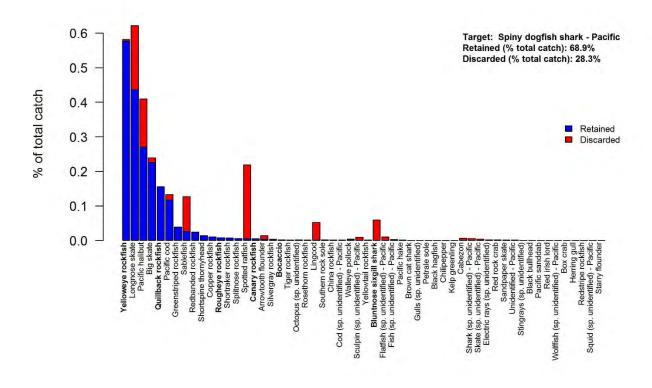


Figure 8. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.



Taxa
Figure 9. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data of unknown scale, but is likely the entire region of the fleet. It is from logbooks and percentages represent the sum of individuals from 2006/07 to 2009/10.

British Columbia hook and line spiny dogfish fishery

Fishing area: Outside Directed - Gear type: Bottom long-line

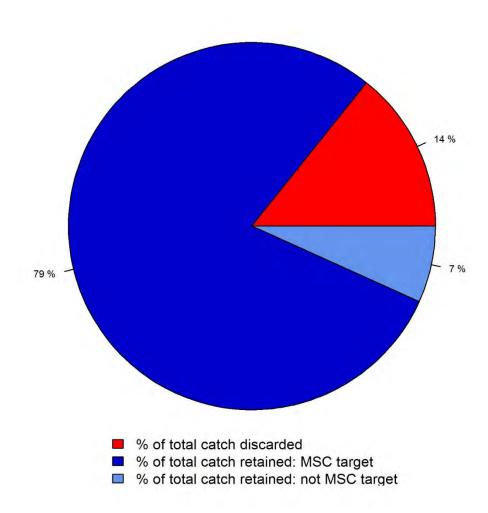


Figure 10. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. These percentages are based off counts of individuals, as weights were not available. This fleet had catch data of unknown scale, but is likely the entire region of the fleet. It is from logbooks and percentages represent the sum of individuals from 2006/07 to 2009/10.

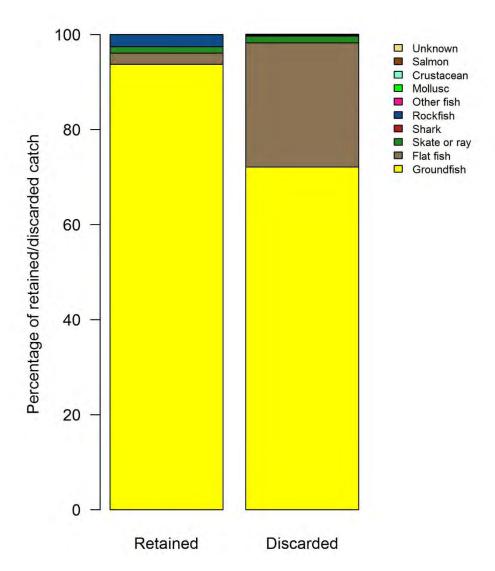
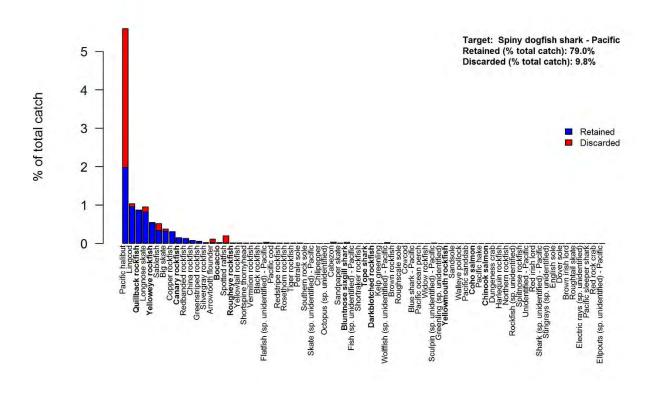


Figure 11. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.



Taxa
Figure 12. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data of unknown scale, but is likely the entire region of the fleet. It is from logbooks and percentages represent the sum of individuals from 2006/07 to 2009/10.

Fishing area: 3NO - Gear type: Bottom long-line

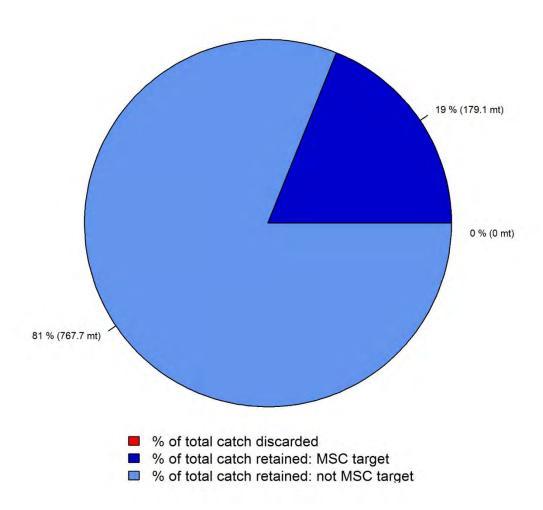


Figure 13. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data was scaled to the entire region of the fleet. It is from logbooks and landings data, with percentage calculated from the average of weights from 2007 to 2011.

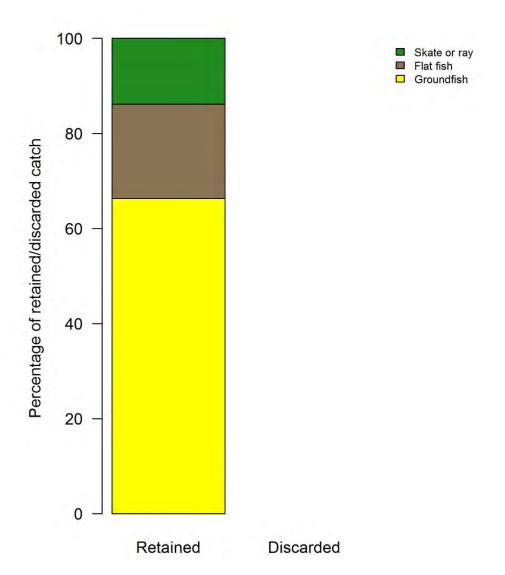


Figure 14. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.

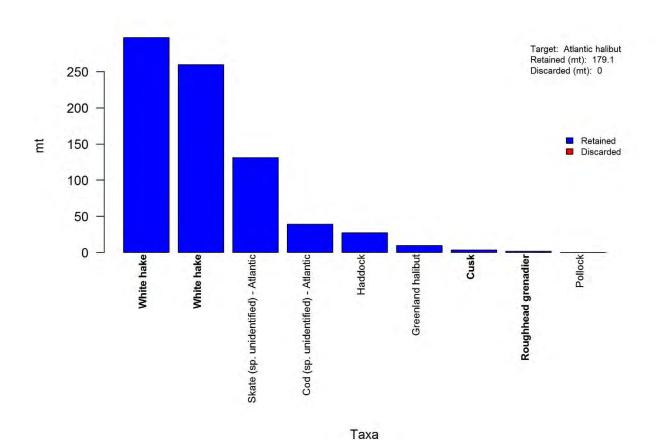


Figure 15. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data was scaled to the entire region of the fleet. It is from logbooks and landings data, with weights above representing the annual average between 2007 and 2011.

Fishing area: 3Ps - Gear type: Bottom long-line

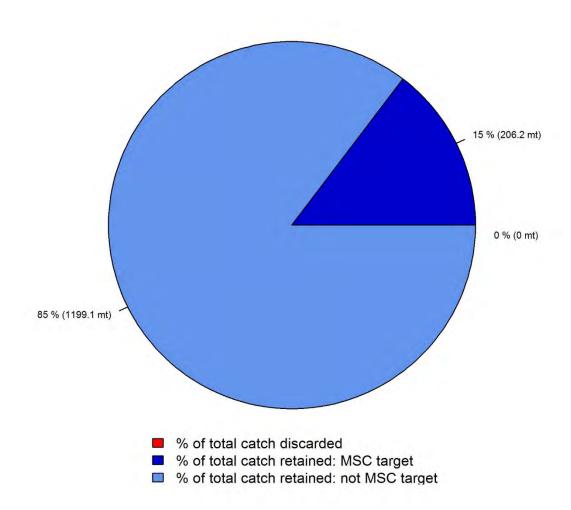


Figure 16. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data was scaled to the entire region of the fleet. It is from logbooks and landings data, with percentage calculated from the average of weights from 2007 to 2011.

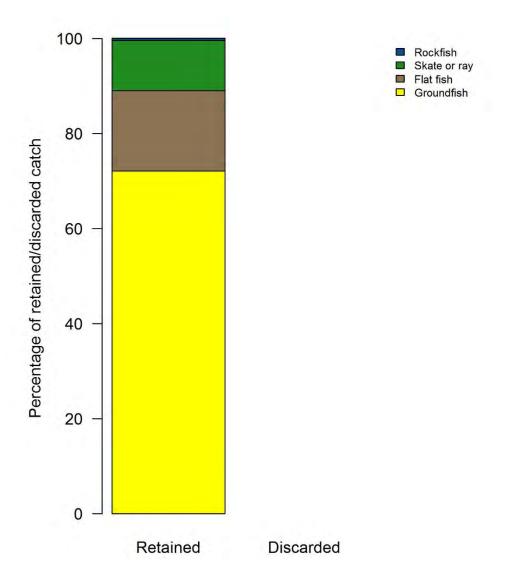


Figure 17. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.

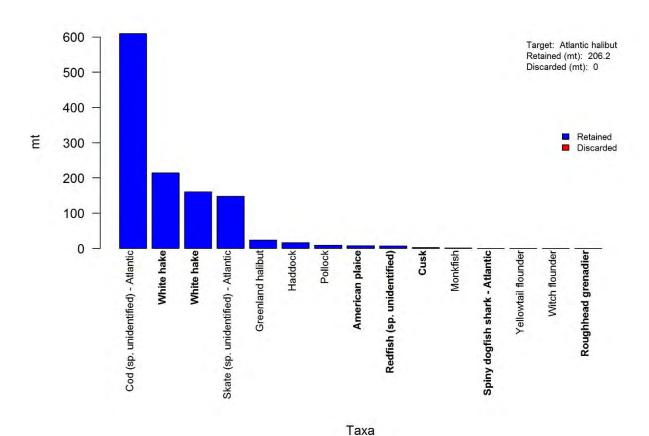


Figure 18. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data was scaled to the entire region of the fleet. It is from logbooks and landings data, with weights above representing the annual average between 2007 and 2011.

Fishing area: 4Vn - Gear type: Bottom long-line

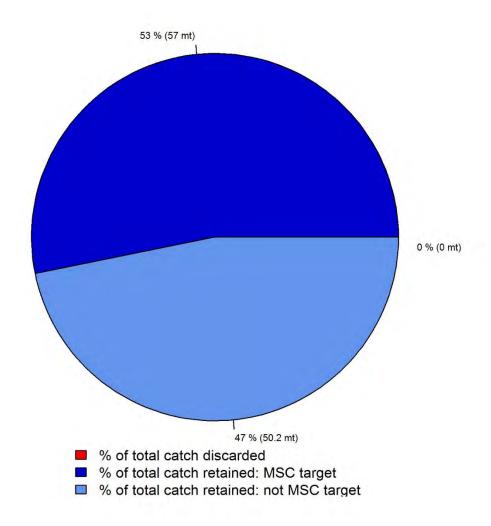


Figure 19. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data was scaled to the entire region of the fleet. It is from logbooks and landings data, with percentage calculated from the average of weights from 2007 to 2011.

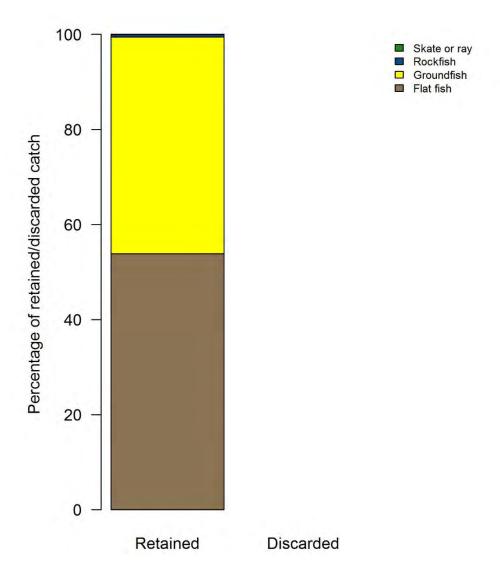


Figure 20. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.

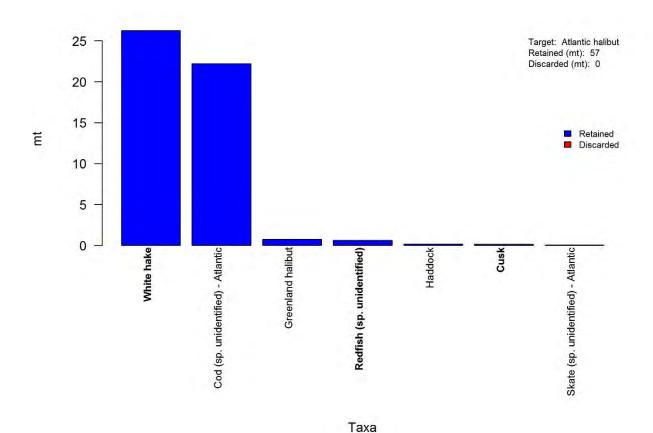


Figure 21. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data was scaled to the entire region of the fleet. It is from logbooks and landings data, with weights above representing the annual average between 2007 and 2011.

Fishing area: 4VsW - Gear type: Bottom long-line

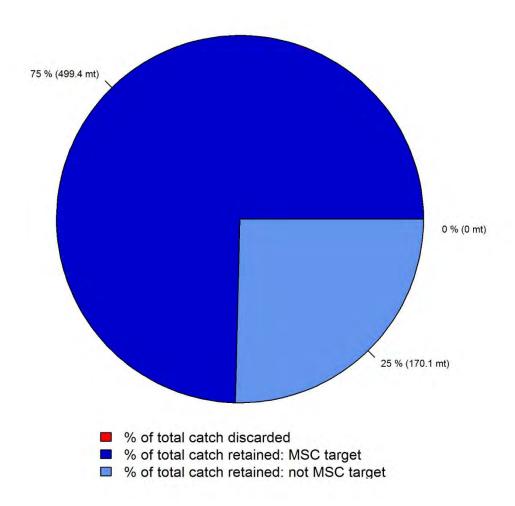


Figure 22. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data was scaled to the entire region of the fleet. It is from logbooks and landings data, with percentage calculated from the average of weights from 2007 to 2011.

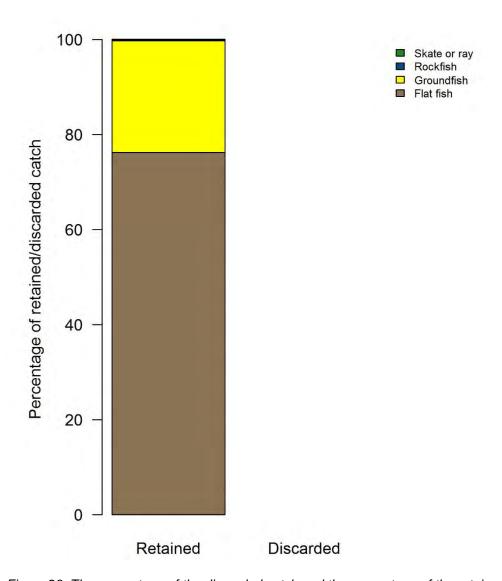


Figure 23. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.

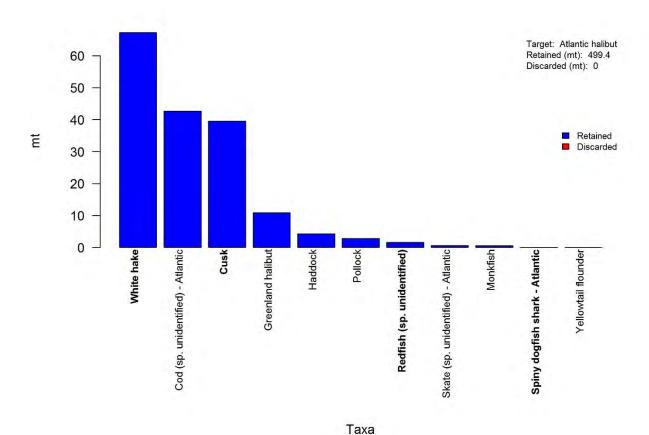


Figure 24. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data was scaled to the entire region of the fleet. It is from logbooks and landings data, with weights above representing the annual average between 2007 and 2011.

Fishing area: 4X5Y - Gear type: Bottom long-line

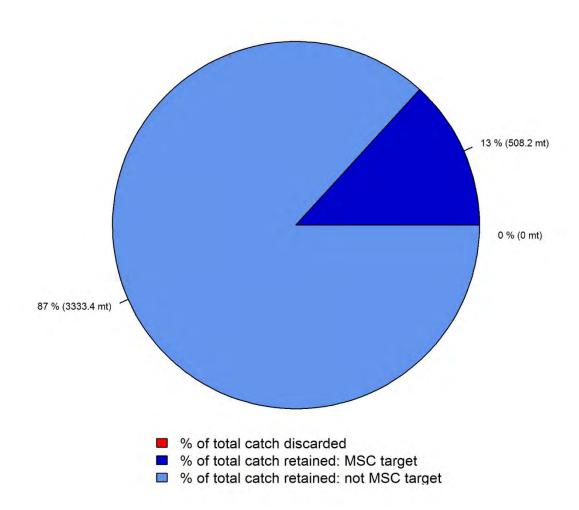


Figure 25. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data was scaled to the entire region of the fleet. It is from logbooks and landings data, with percentage calculated from the average of weights from 2007 to 2011.

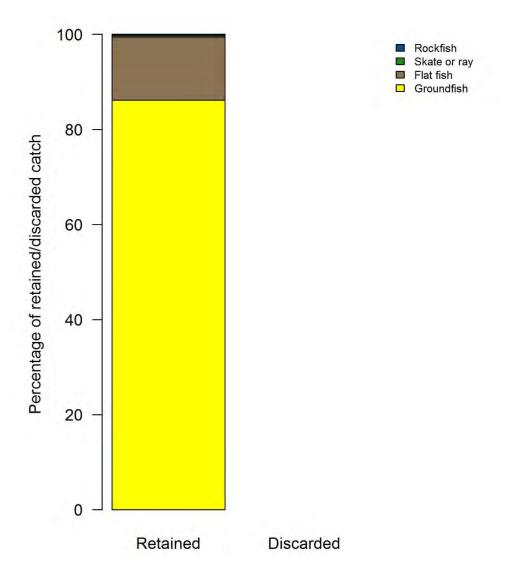


Figure 26. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.

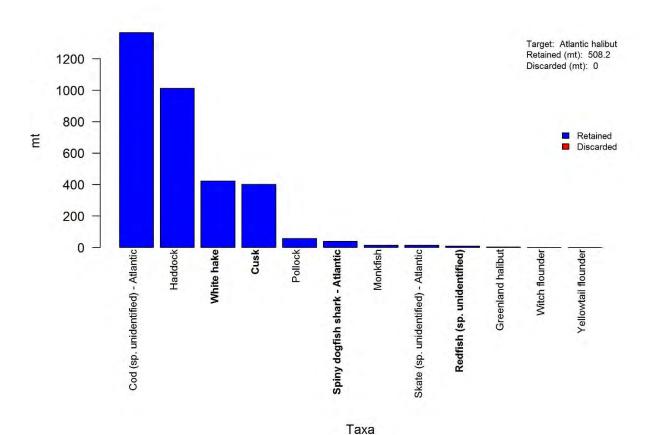


Figure 27. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data was scaled to the entire region of the fleet. It is from logbooks and landings data, with weights above representing the annual average between 2007 and 2011.

Fishing area: 5Ze - Gear type: Bottom long-line

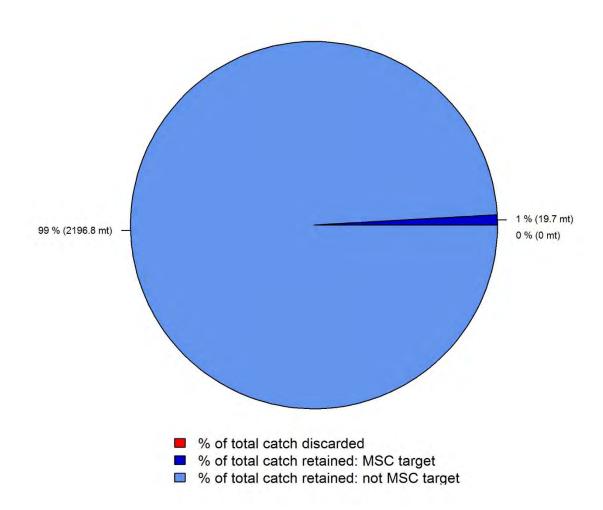


Figure 28. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data was scaled to the entire region of the fleet. It is from logbooks and landings data, with weights above representing the annual average between 2007 and 2011.

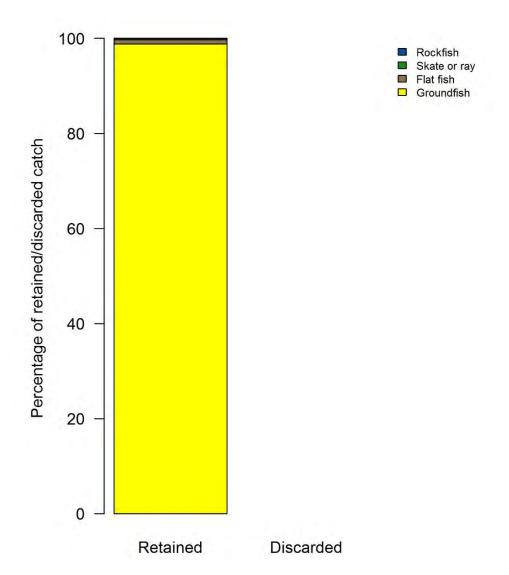


Figure 29. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.

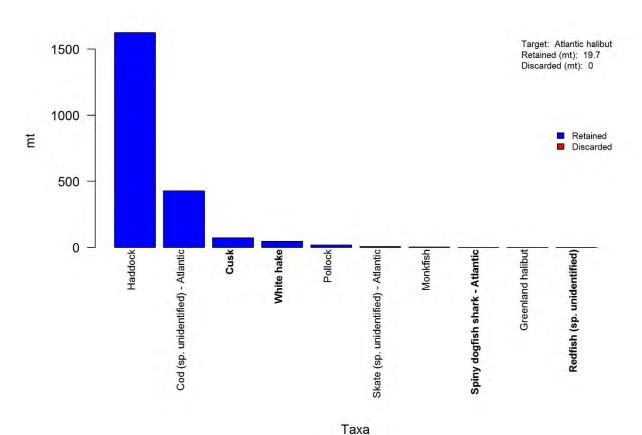


Figure 30. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data was scaled to the entire region of the fleet. It is from logbooks and landings data, with weights above representing the annual average between 2007 and 2011.

Fishing area: 3NO - Gear type: Gillnet

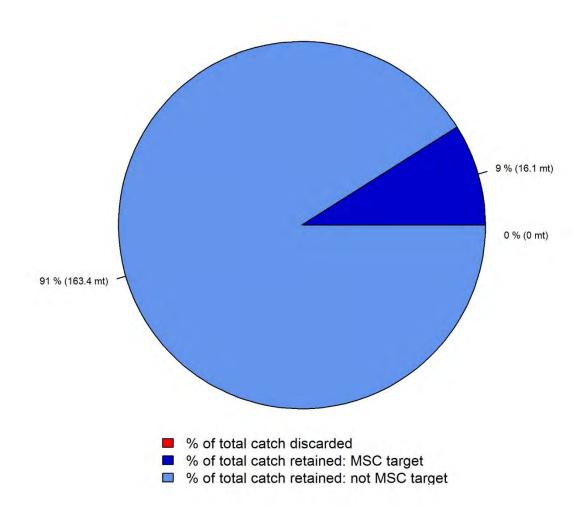


Figure 31. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data was scaled to the entire region of the fleet. It is from logbooks and landings data, with percentage calculated from the average of weights from 2007 to 2011.

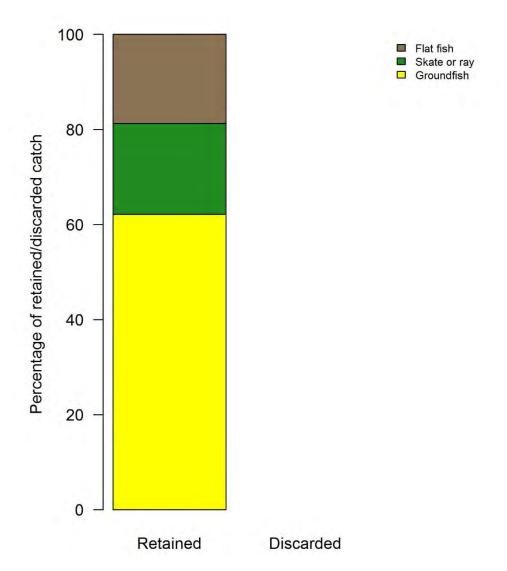


Figure 32. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.

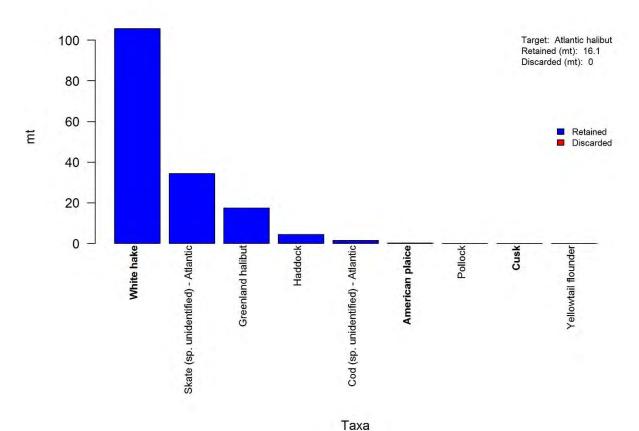


Figure 33. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data was scaled to the entire region of the fleet. It is from logbooks and landings data, with weights above representing the annual average between 2007 and 2011.

Fishing area: 3Ps - Gear type: Gillnet

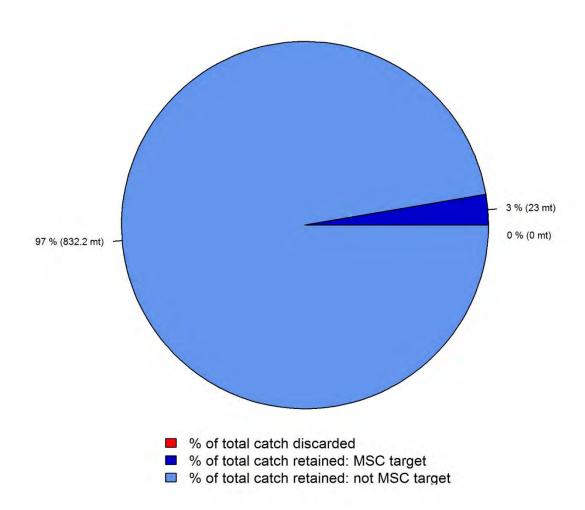


Figure 34. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data was scaled to the entire region of the fleet. It is from logbooks and landings data, with percentage calculated from the average of weights from 2007 to 2011.

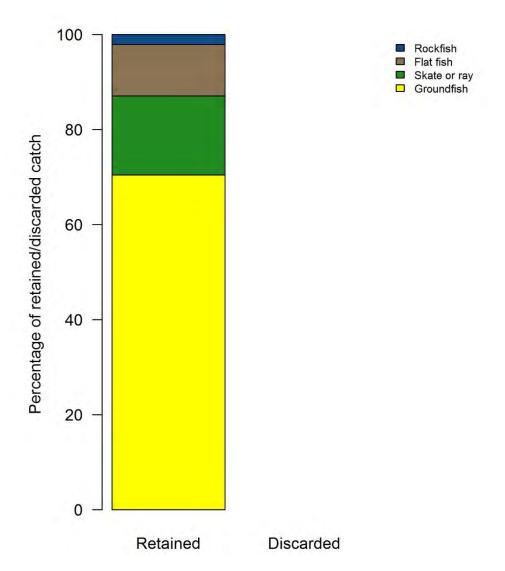


Figure 35. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.

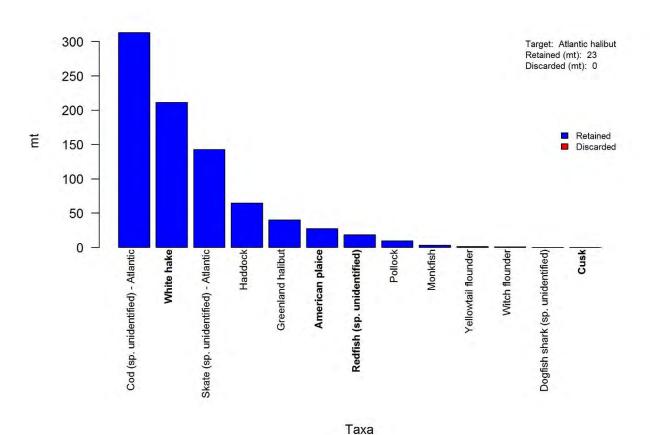


Figure 36. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data was scaled to the entire region of the fleet. It is from logbooks and landings data, with weights above representing the annual average between 2007 and 2011.

Fishing area: 4VsW - Gear type: Gillnet

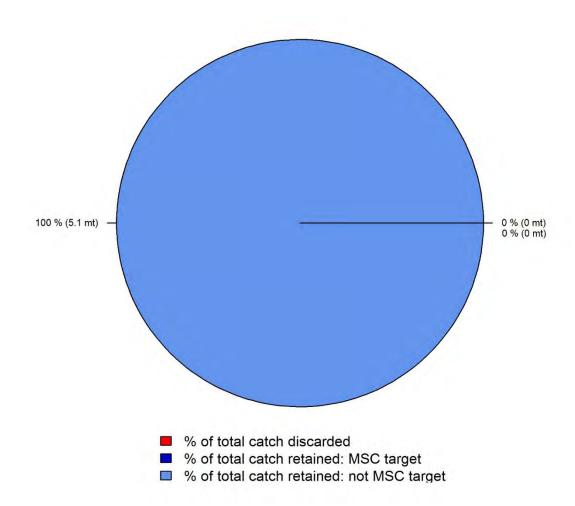


Figure 37. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data was scaled to the entire region of the fleet. It is from logbooks and landings data, with percentage calculated from the average of weights from 2007 to 2011.

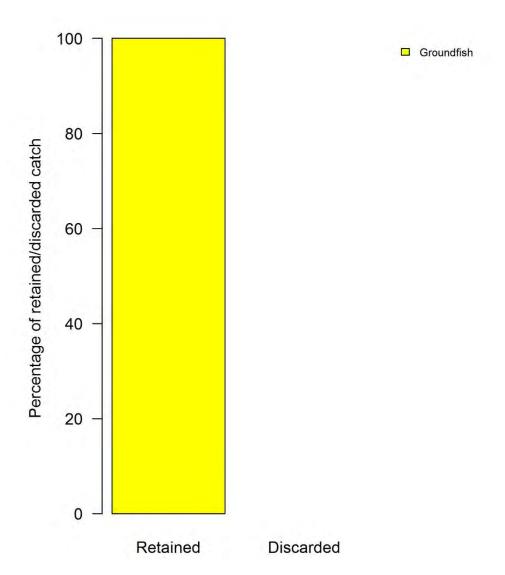


Figure 38. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.

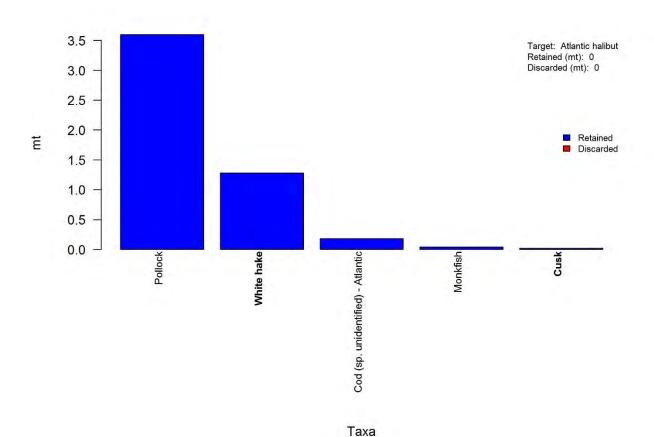


Figure 39. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data was scaled to the entire region of the fleet. It is from logbooks and landings data, with weights above representing the annual average between 2007 and 2011.

Fishing area: 4X5Y - Gear type: Gillnet

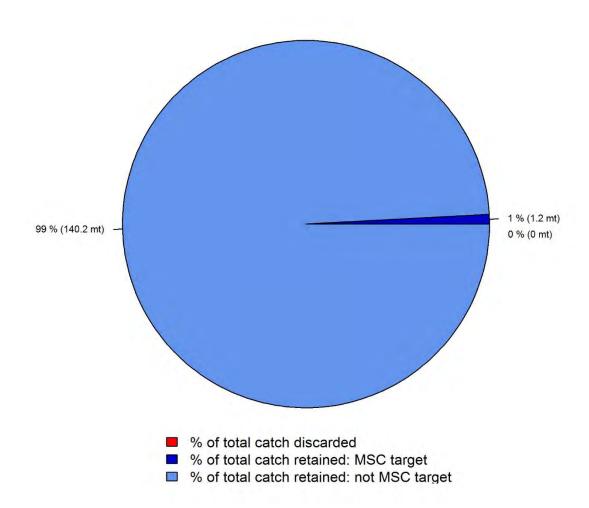


Figure 40. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data was scaled to the entire region of the fleet. It is from logbooks and landings data, with percentage calculated from the average of weights from 2007 to 2011.

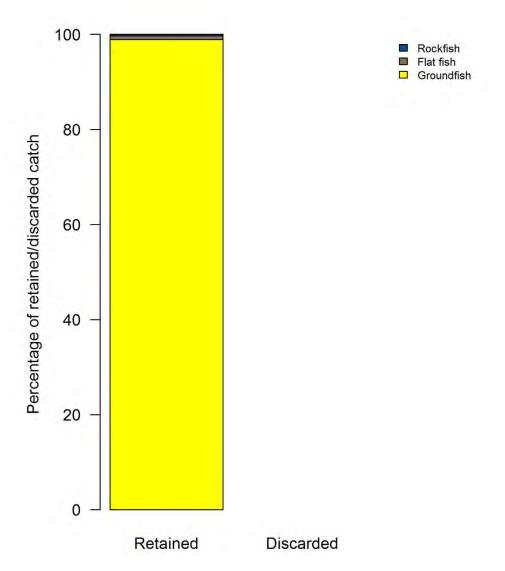


Figure 41. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.

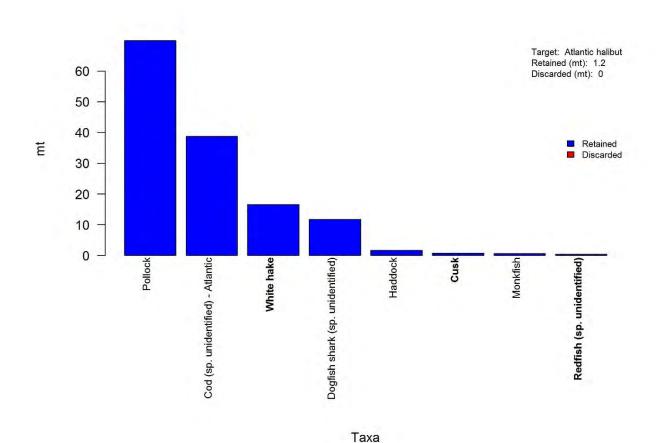


Figure 42. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data was scaled to the entire region of the fleet. It is from logbooks and landings data, with weights above representing the annual average between 2007 and 2011.

Fishing area: 5Ze - Gear type: Gillnet

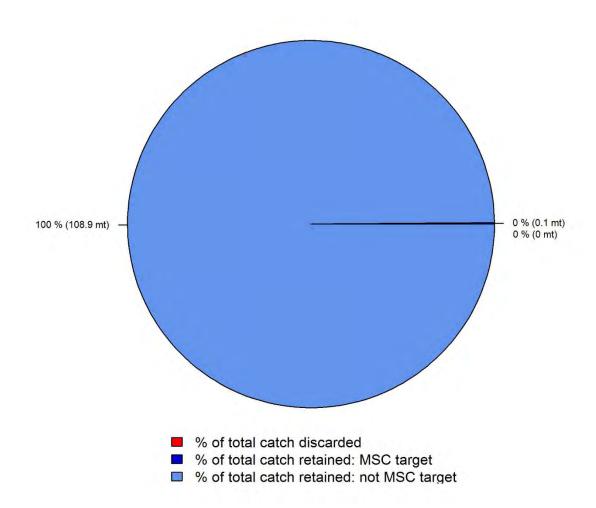


Figure 43. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data was scaled to the entire region of the fleet. It is from logbooks and landings data, with percentage calculated from the average of weights from 2007 to 2011.

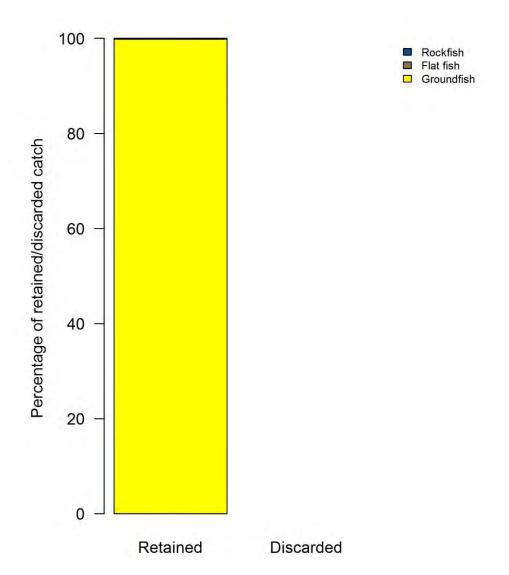


Figure 44. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.

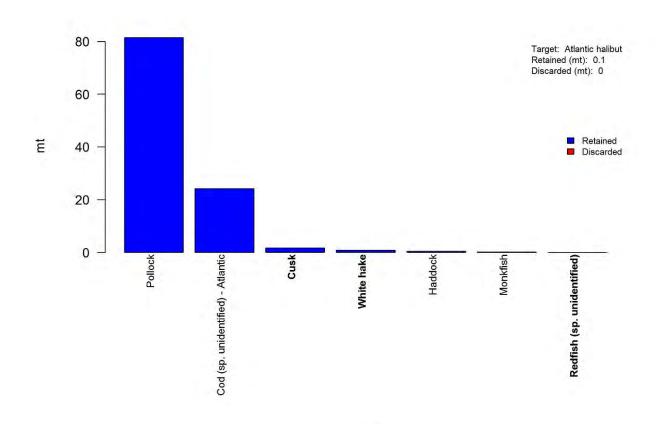


Figure 45. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data was scaled to the entire region of the fleet. It is from logbooks and landings data, with weights above representing the annual average between 2007 and 2011.

Taxa

Fishing area: 3Ps - Gear type: Handline

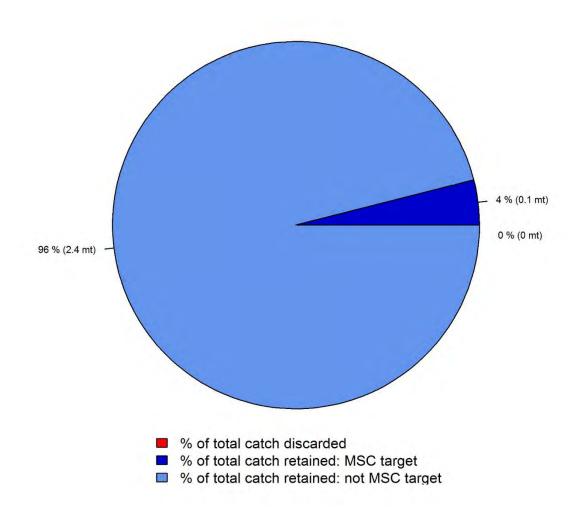


Figure 46. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data was scaled to the entire region of the fleet. It is from logbooks and landings data, with percentage calculated from the average of weights from 2007 to 2011.

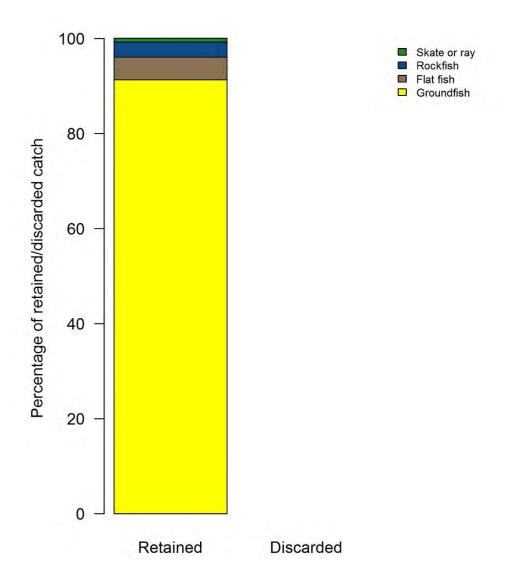


Figure 47. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.

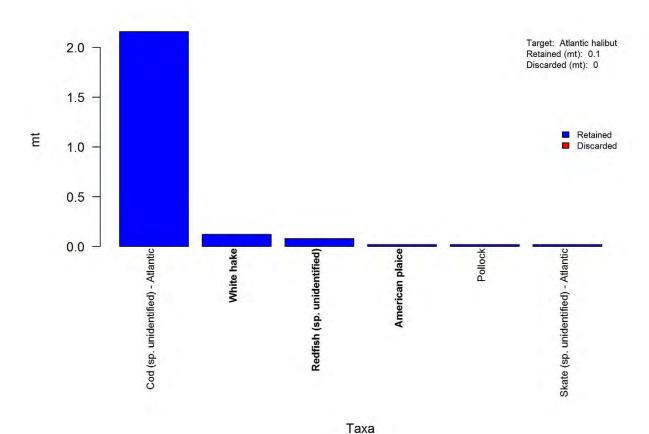


Figure 48. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data was scaled to the entire region of the fleet. It is from logbooks and landings data, with weights above representing the annual average between 2007 and 2011.

Fishing area: 4VsW - Gear type: Handline

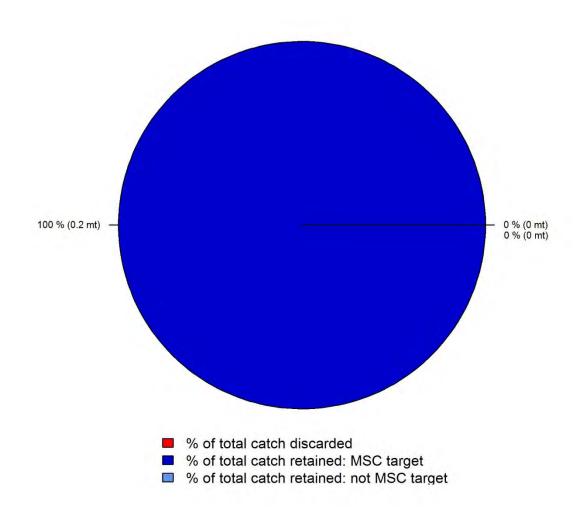


Figure 49. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data was scaled to the entire region of the fleet. It is from logbooks and landings data, with percentage calculated from the average of weights from 2007 to 2011.

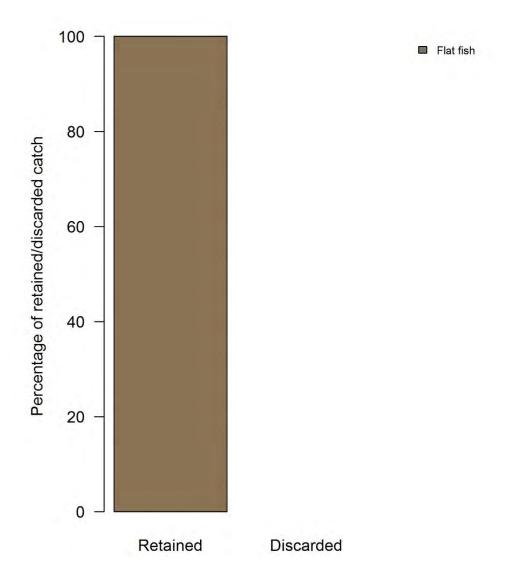


Figure 50. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data was scaled to the entire region of the fleet.

Please note, this fleet did not catch any taxa other than the MSC target, therefore there is no presentation of the weight (mt) of non-target catch.

Fishing area: 4X5Y - Gear type: Handline

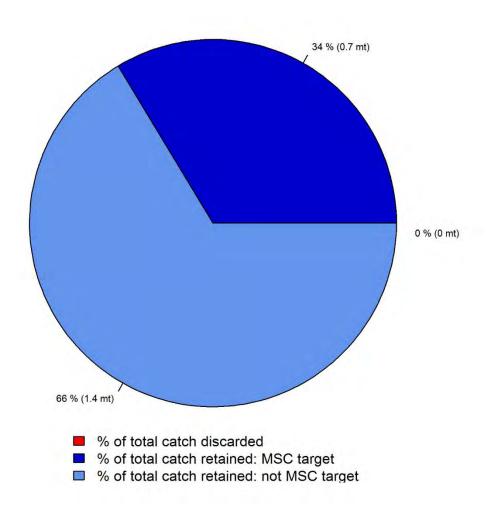


Figure 51. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data was scaled to the entire region of the fleet. It is from logbooks and landings data, with percentage calculated from the average of weights from 2007 to 2011.

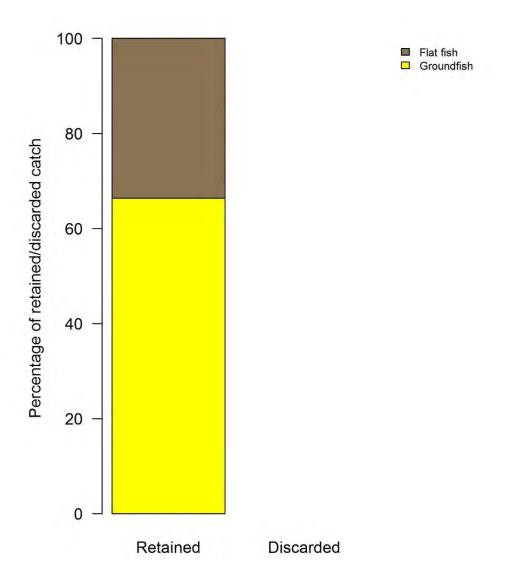


Figure 52. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.

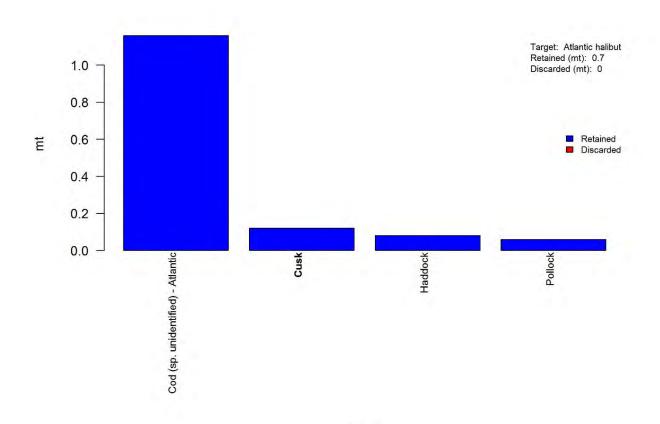


Figure 53. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data was scaled to the entire region of the fleet. It is from logbooks and landings data, with weights above representing the annual average between 2007 and 2011.

Taxa

Fishing area: 5Ze - Gear type: Handline

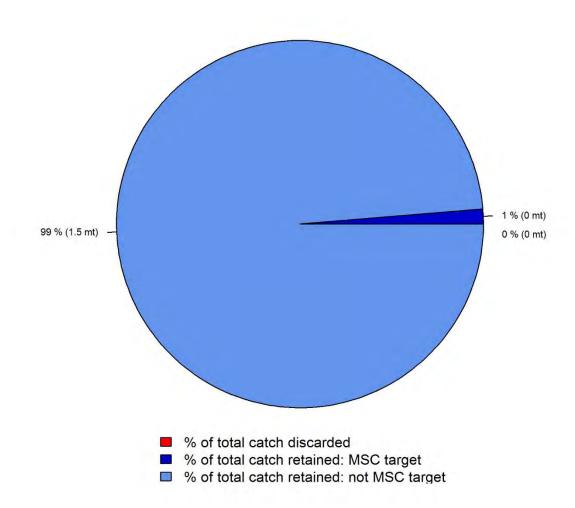


Figure 54. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data was scaled to the entire region of the fleet. It is from logbooks and landings data, with percentage calculated from the average of weights from 2007 to 2011.

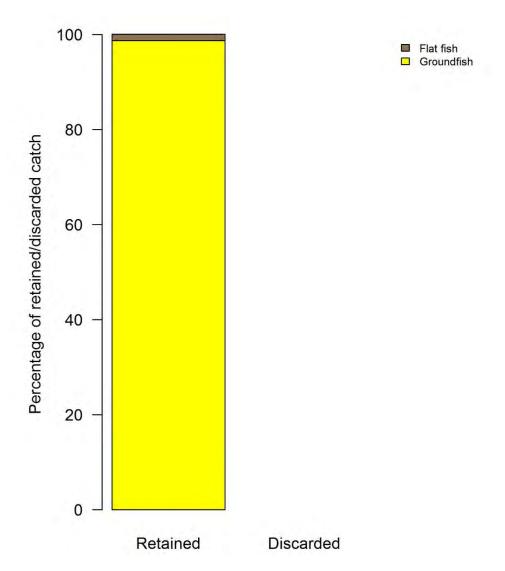


Figure 55. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.

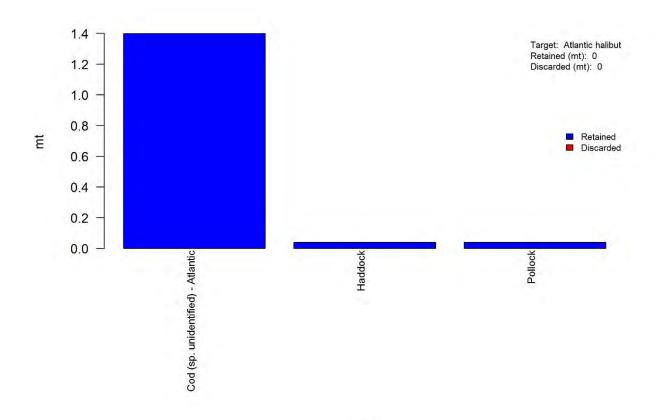


Figure 56. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data was scaled to the entire region of the fleet. It is from logbooks and landings data, with weights above representing the annual average between 2007 and 2011.

Taxa

Fishing area: 3NO - Gear type: Otter trawl or Danish seine

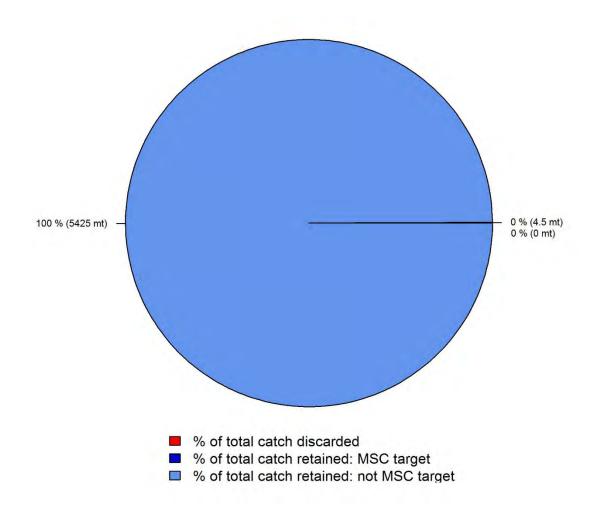


Figure 57. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data was scaled to the entire region of the fleet. It is from logbooks and landings data, with percentage calculated from the average of weights from 2007 to 2011.

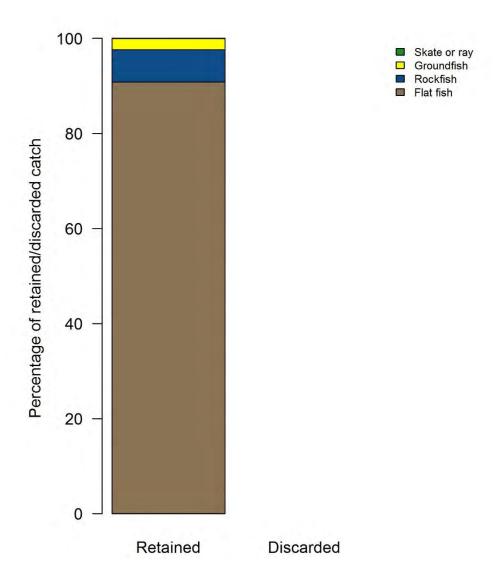


Figure 58. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.

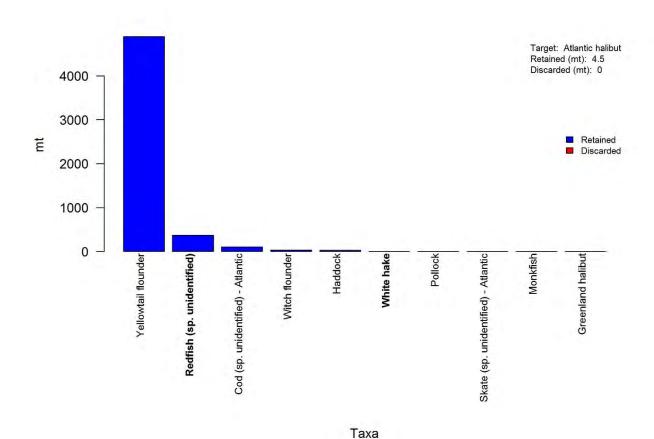


Figure 59. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data was scaled to the entire region of the fleet. It is from logbooks and landings data, with weights above representing the annual average between 2007 and 2011.

Fishing area: 3Ps - Gear type: Otter trawl or Danish seine

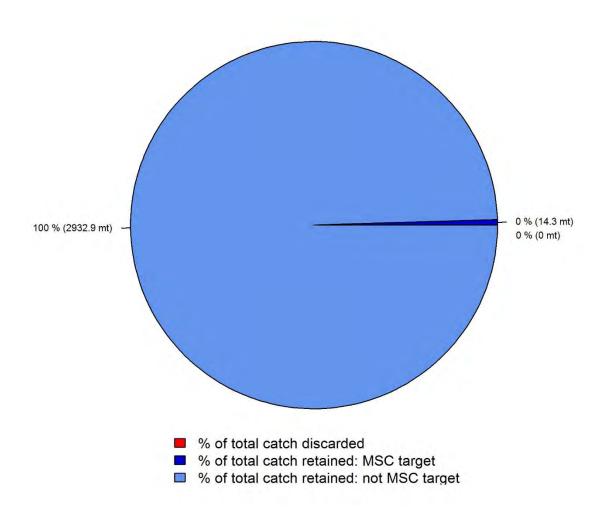


Figure 60. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data was scaled to the entire region of the fleet. It is from logbooks and landings data, with percentage calculated from the average of weights from 2007 to 2011.

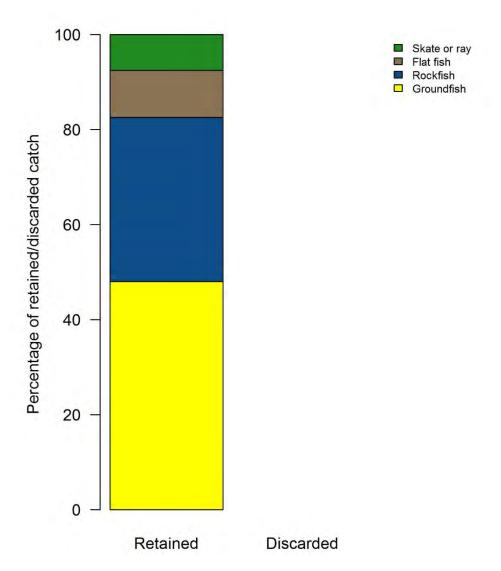


Figure 61. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.

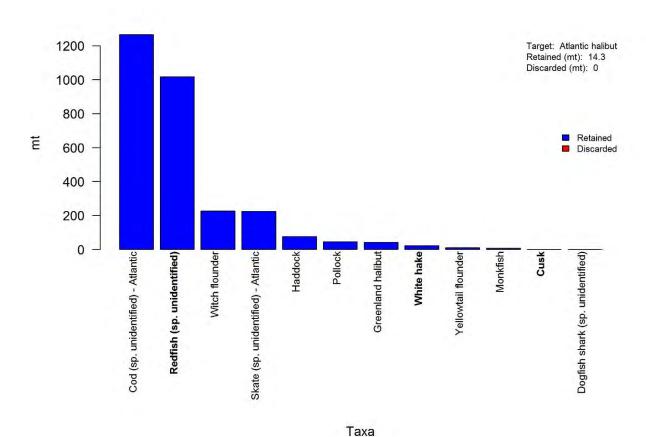


Figure 62. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data was scaled to the entire region of the fleet. It is from logbooks and landings data, with weights above representing the annual average between 2007 and 2011.

Fishing area: 4Vn - Gear type: Otter trawl or Danish seine

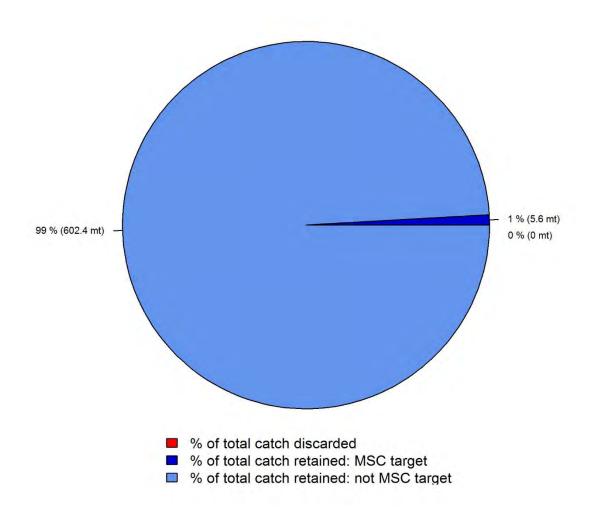


Figure 63. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data was scaled to the entire region of the fleet. It is from logbooks and landings data, with percentage calculated from the average of weights from 2007 to 2011.

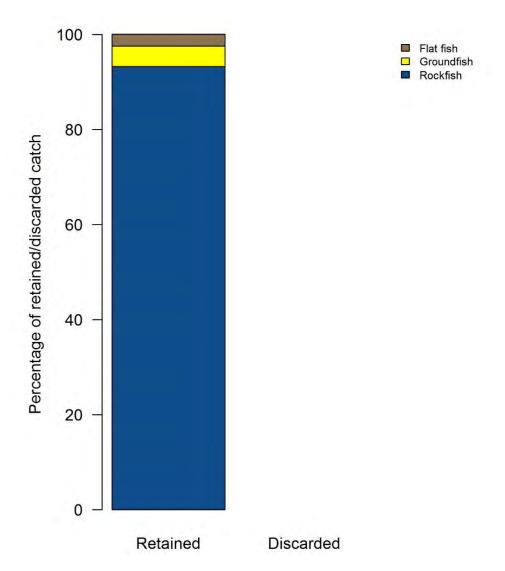
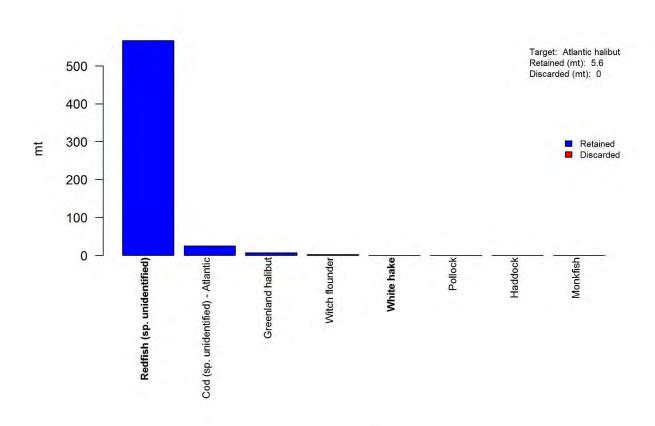


Figure 64. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.



Taxa
Figure 65. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data was scaled to the entire region of the fleet. It is from logbooks and landings data, with weights above representing the annual average between 2007 and 2011.

Fishing area: 4VsW - Gear type: Otter trawl or Danish seine

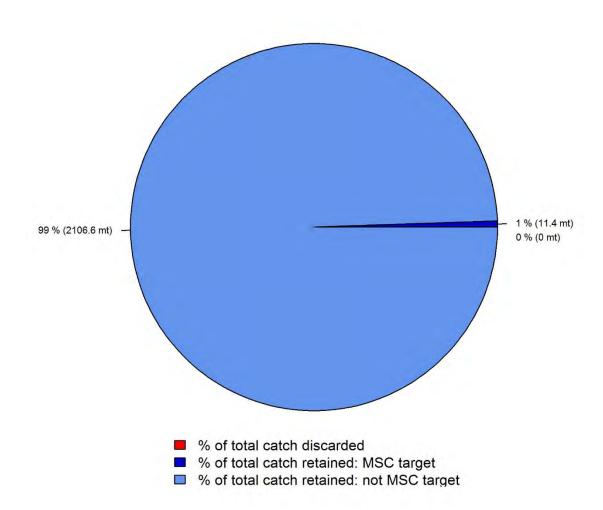


Figure 66. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data was scaled to the entire region of the fleet. It is from logbooks and landings data, with percentage calculated from the average of weights from 2007 to 2011.

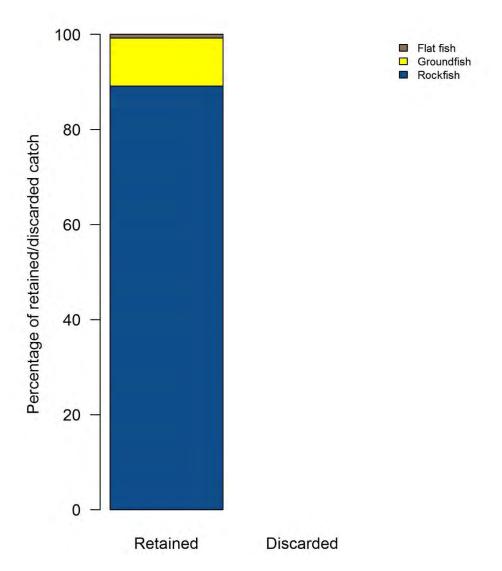


Figure 67. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.

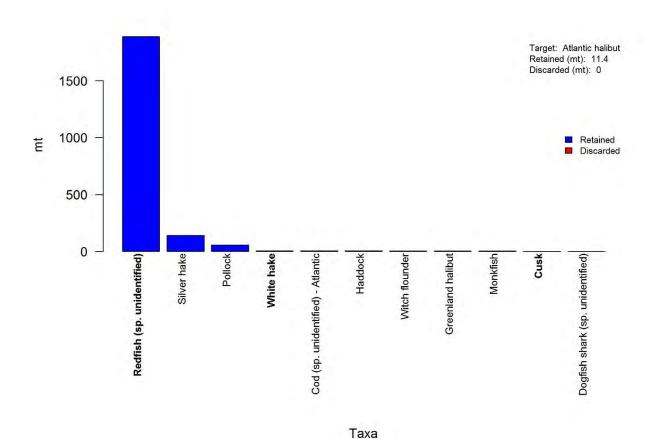


Figure 68. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data was scaled to the entire region of the fleet. It is from logbooks and landings data, with weights above representing the annual average between 2007 and 2011.

Fishing area: 4X5Y - Gear type: Otter trawl or Danish seine

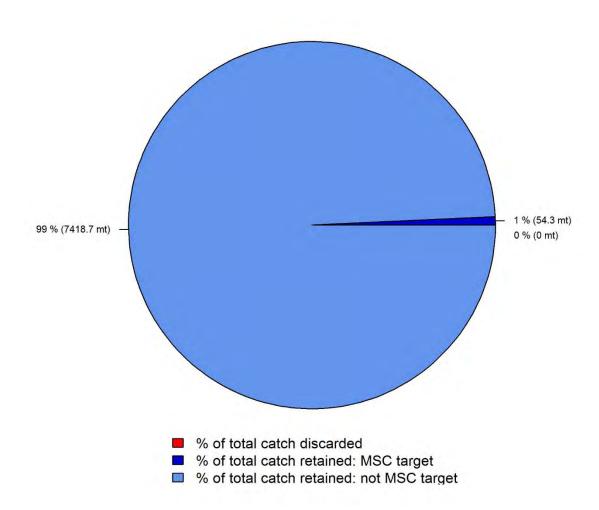


Figure 69. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data was scaled to the entire region of the fleet. It is from logbooks and landings data, with percentage calculated from the average of weights from 2007 to 2011.

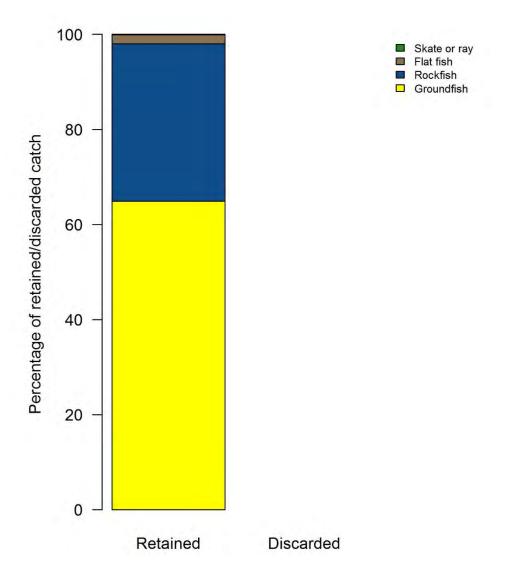


Figure 70. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.

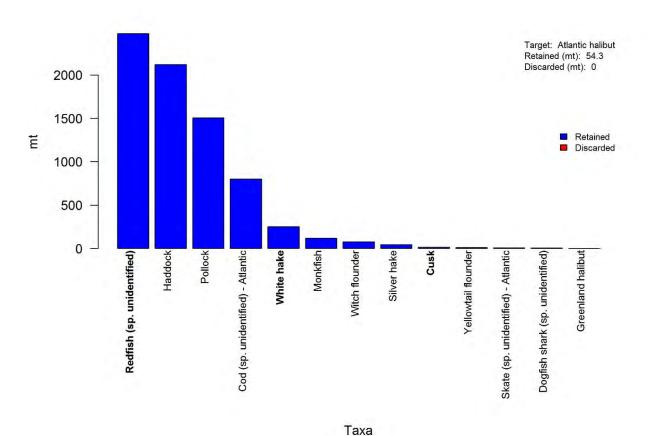


Figure 71. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data was scaled to the entire region of the fleet. It is from logbooks and landings data, with weights above representing the annual average between 2007 and 2011.

Canada Atlantic Halibut

Fishing area: 5Ze - Gear type: Otter trawl or Danish seine

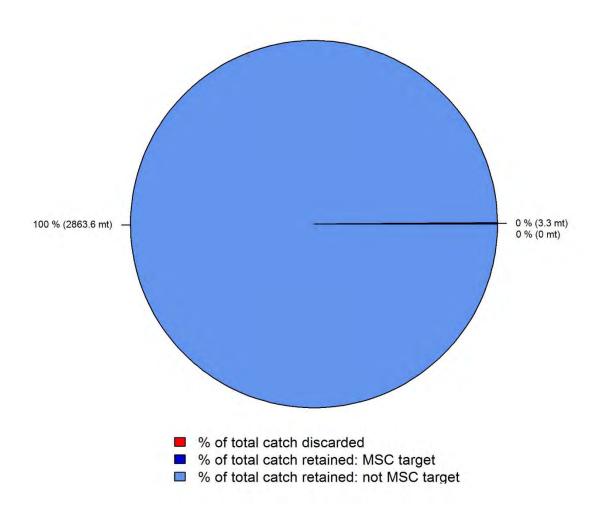


Figure 72. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data was scaled to the entire region of the fleet. It is from logbooks and landings data, with percentage calculated from the average of weights from 2007 to 2011.

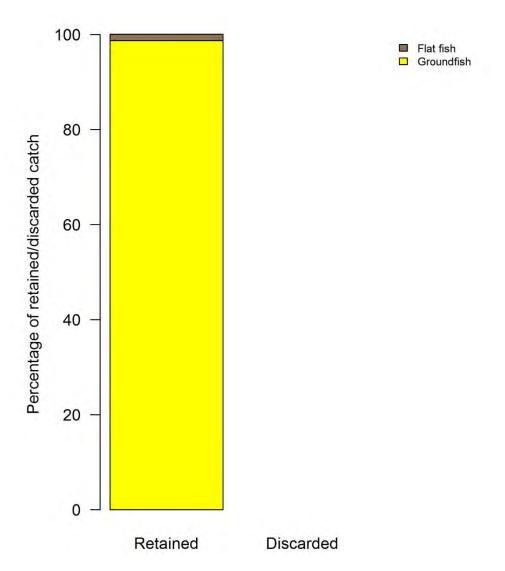


Figure 73. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.

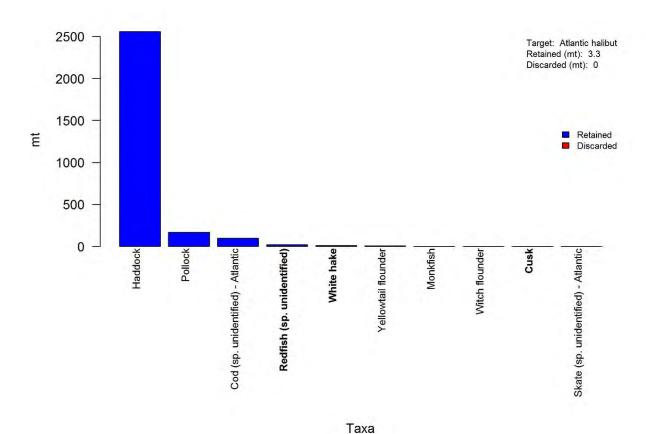


Figure 74. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data was scaled to the entire region of the fleet. It is from logbooks and landings data, with weights above representing the annual average between 2007 and 2011.

Fishing area: Div. 0A SFA 1 - Gear type: Otter trawl or Danish seine

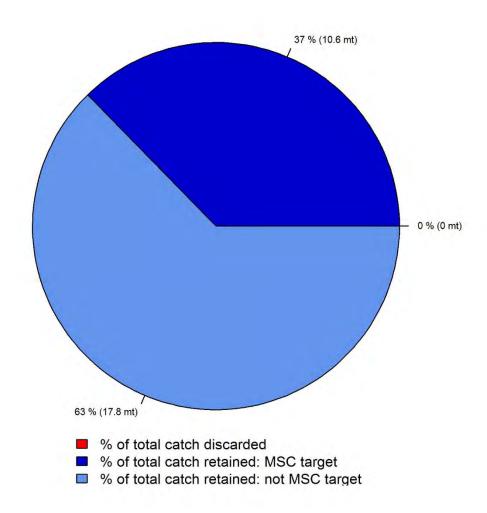


Figure 75. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data of unknown scale, but is likely just observed trips of seven offshore vessels from 2012/13 to 2014/15. Percentages were calculated from the sum of weights across these years.

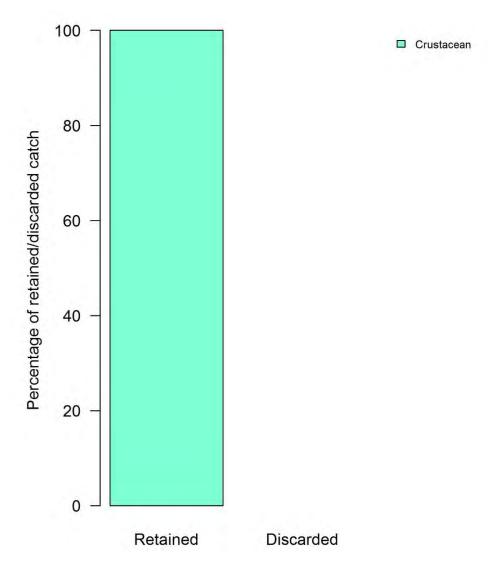
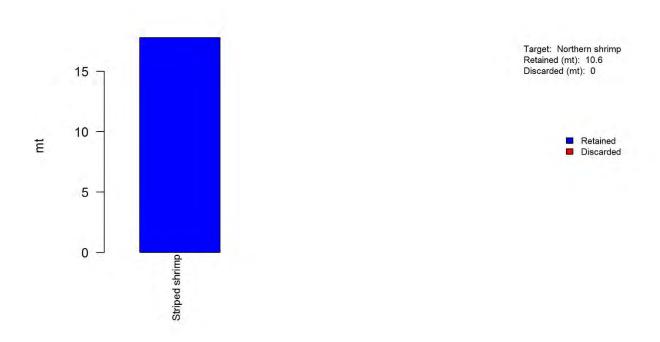


Figure 76. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.



Taxa

Figure 77. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data of unknown scale, but is likely just observed trips of seven offshore vessels from 2012/13 to 2014/15. Weights above represent the sum of weights across these years.

Fishing area: Div. 0B EAZ - Gear type: Otter trawl or Danish seine

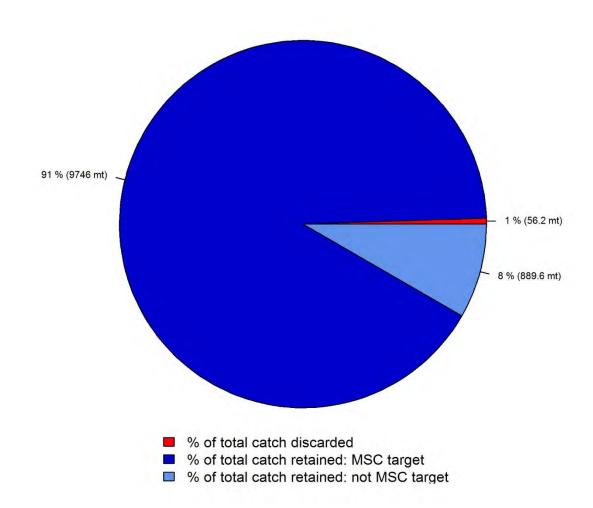


Figure 78. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data of unknown scale, but is likely just observed trips of seven offshore vessels from 2012/13 to 2014/15. Percentages were calculated from the sum of weights across these years.

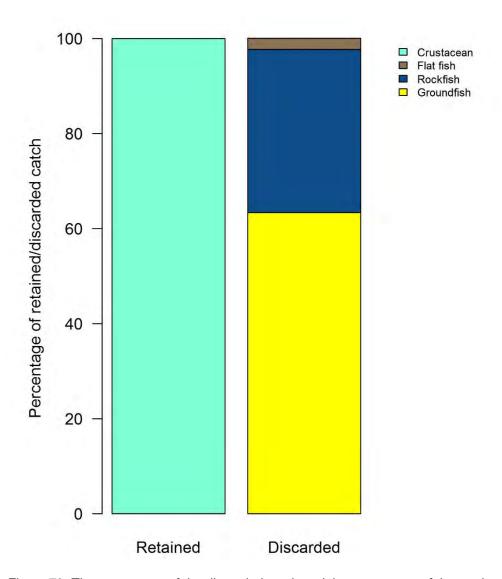


Figure 79. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.

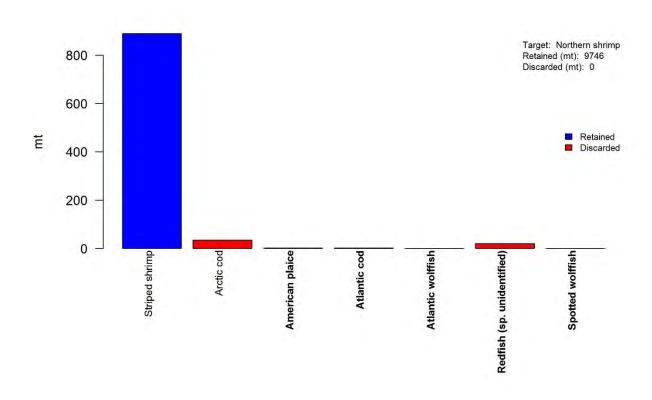


Figure 80. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data of unknown scale, but is likely just observed trips of seven offshore vessels from 2012/13 to 2014/15. Weights above represent the sum of weights across these years.

Taxa

Fishing area: Div. 2G SFA 4 - Gear type: Otter trawl or Danish seine

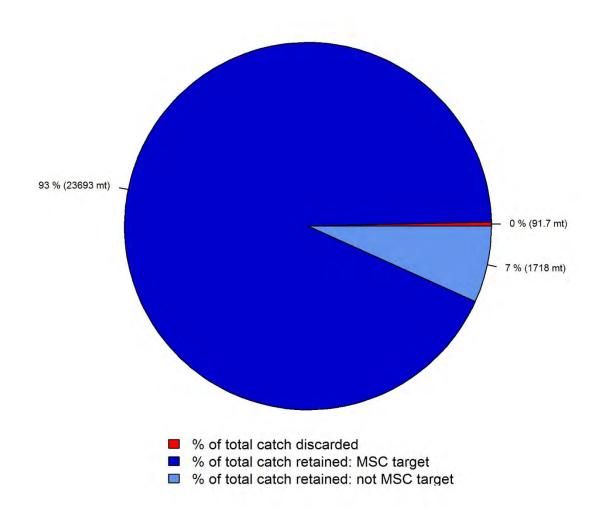


Figure 81. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data of unknown scale, but is likely just observed trips of seven offshore vessels from 2012/13 to 2014/15. Percentages were calculated from the sum of weights across these years.

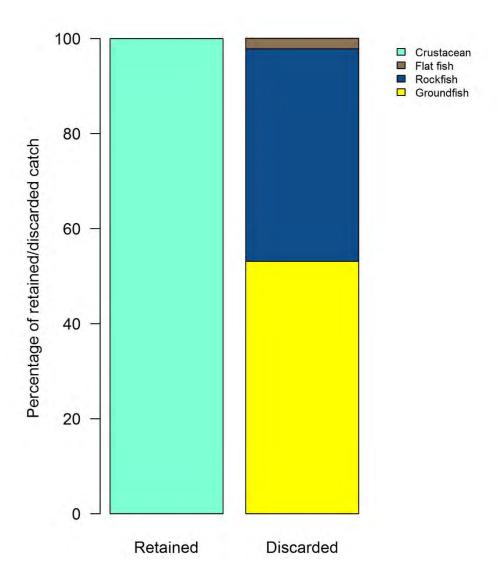
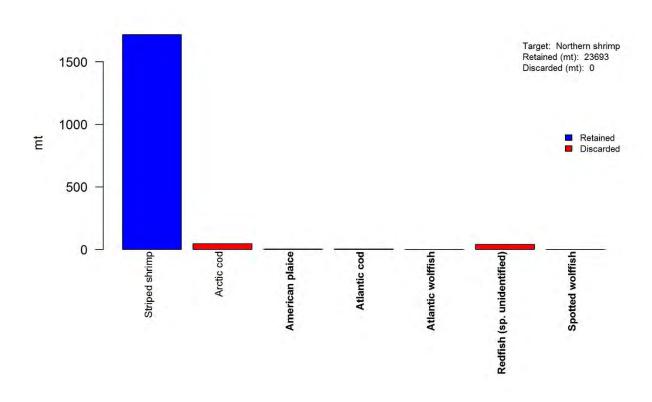


Figure 82. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.



Taxa
Figure 83. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data of unknown scale, but is likely just observed trips of seven offshore vessels from 2012/13 to 2014/15. Weights above represent the sum of weights across these years.

Fishing area: 2H SFA 5 - Gear type: Otter trawl or Danish seine

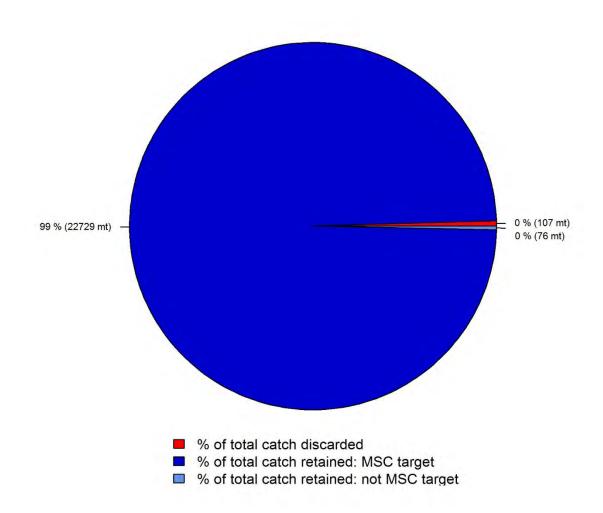


Figure 84. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data of unknown scale, but is likely just observed trips of seven offshore vessels from 2012/13 to 2014/15. Percentages were calculated from the sum of weights across these years.

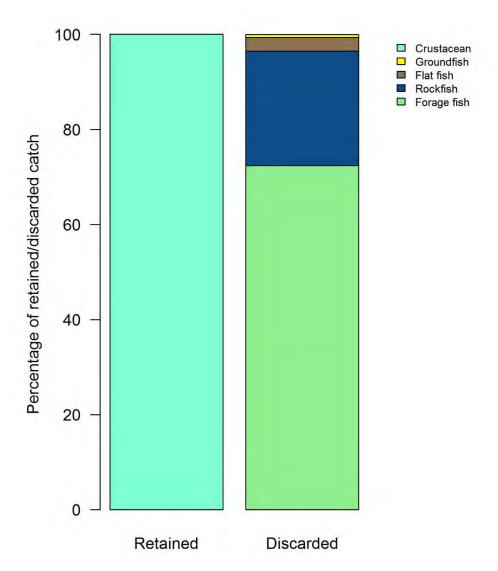
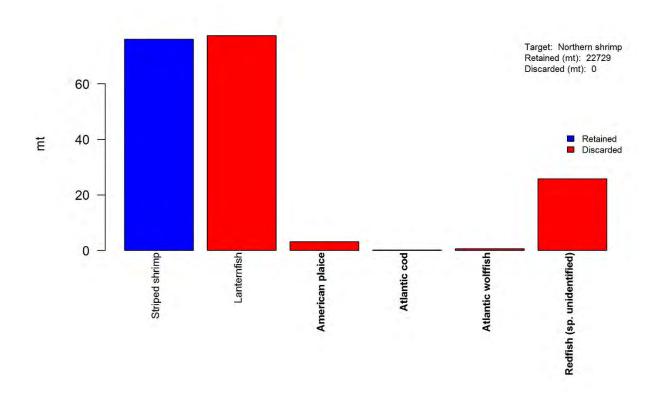


Figure 85. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.



Taxa
Figure 86. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in hold if they have a COSEWIC conservation designation (Special

taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data of unknown scale, but is likely just observed trips of seven offshore vessels from 2012/13 to 2014/15. Weights above represent the sum of weights across these years.

Fishing area: 2J SFA 5 and SFA 6 - Gear type: Otter trawl or Danish seine

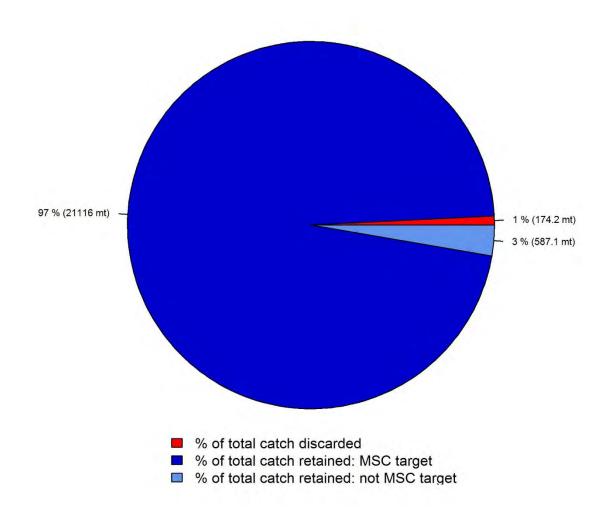


Figure 87. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data of unknown scale, but is likely just observed trips of seven offshore vessels from 2012/13 to 2014/15. Percentages were calculated from the sum of weights across these years.

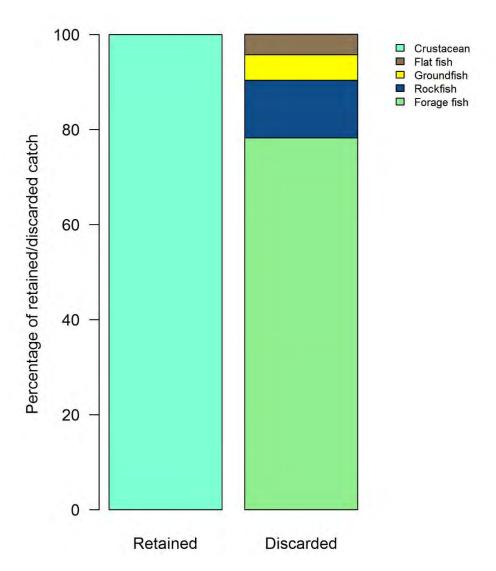
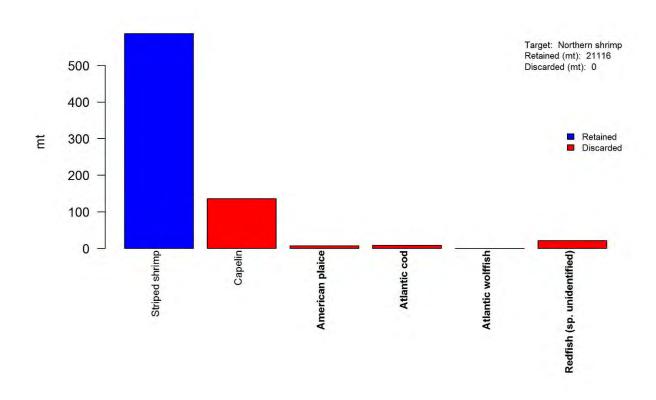


Figure 88. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.



Taxa
Figure 89. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data of unknown scale, but is likely just observed trips of seven offshore vessels from 2012/13 to 2014/15. Weights above represent the sum of weights across these years.

Fishing area: Div. 3K SFA 6 - Gear type: Otter trawl or Danish seine

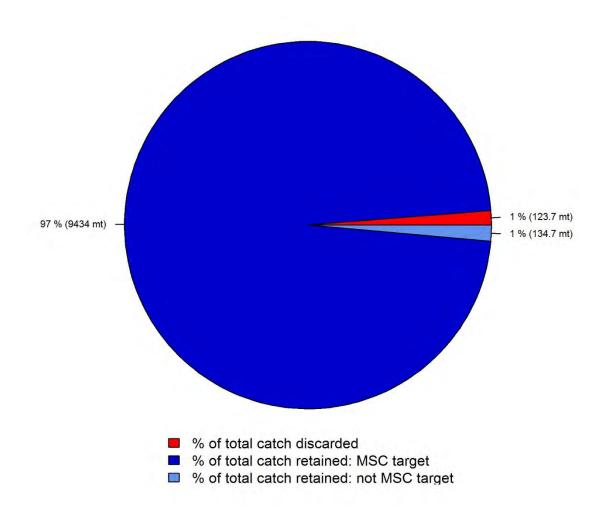


Figure 90. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data of unknown scale, but is likely just observed trips of seven offshore vessels from 2012/13 to 2014/15. Percentages were calculated from the sum of weights across these years.

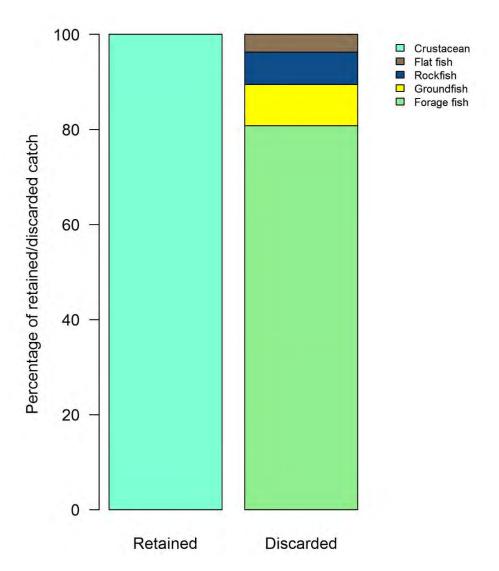
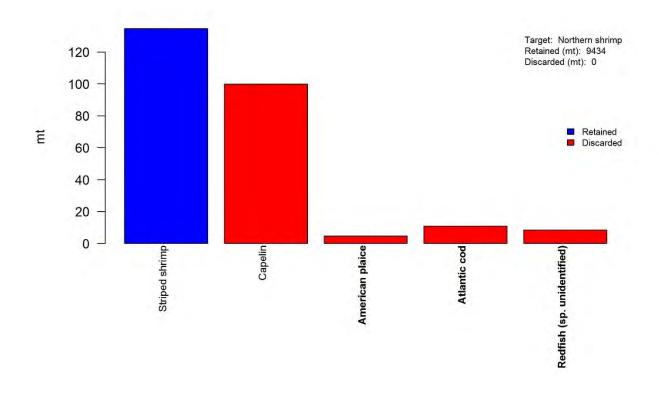


Figure 91. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.



Taxa
Figure 92. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data of unknown scale, but is likely just observed trips of seven offshore vessels from 2012/13 to 2014/15. Weights above represent the sum of weights across these years.

Fishing area: Div. 3L SFA 7 - Gear type: Otter trawl or Danish seine

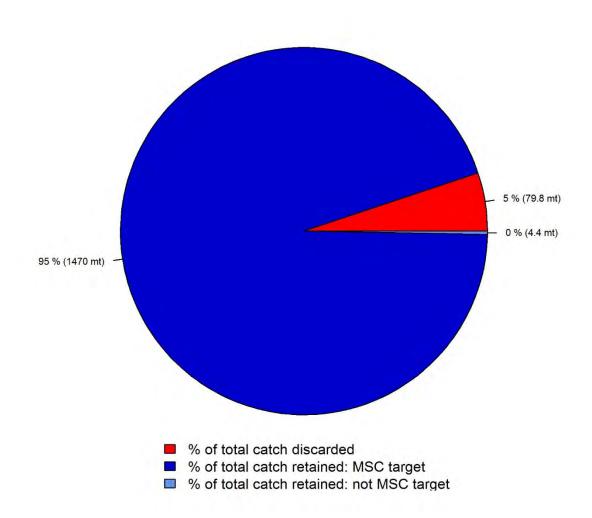


Figure 93. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data of unknown scale, but is likely just observed trips of seven offshore vessels from 2012/13 to 2014/15. Percentages were calculated from the sum of weights across these years.

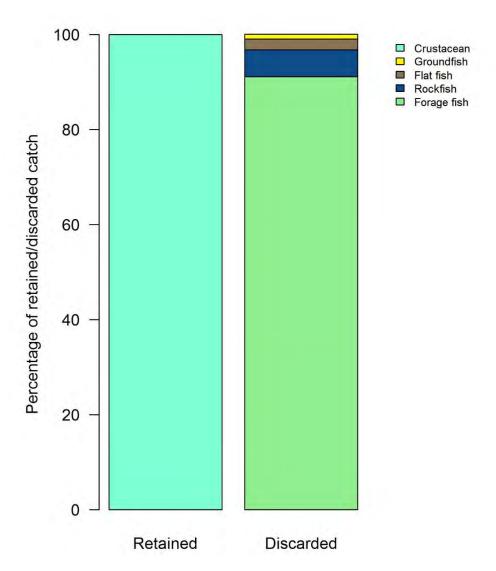
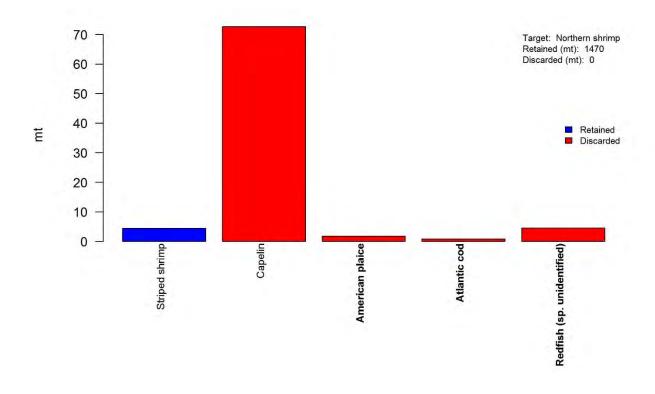


Figure 94. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.



Taxa

Figure 95. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data of unknown scale, but is likely just observed trips of seven offshore vessels from 2012/13 to 2014/15. Weights above represent the sum of weights across these years.

Canada Pacific halibut (British Columbia)

Fishing area: N/A - Gear type: Hook and line (Bottom longline troll or handline)

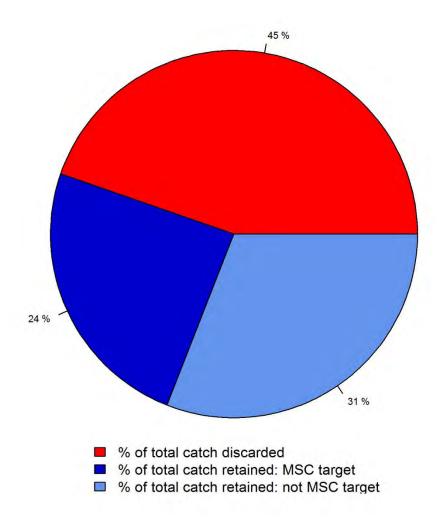


Figure 96. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. These percentages are based off counts of individuals, as weights were not available. This fleet had catch data was scaled to the entire region of the fleet. It is from logbooks and percentages represent the sum of individuals from 2006 to 2008.

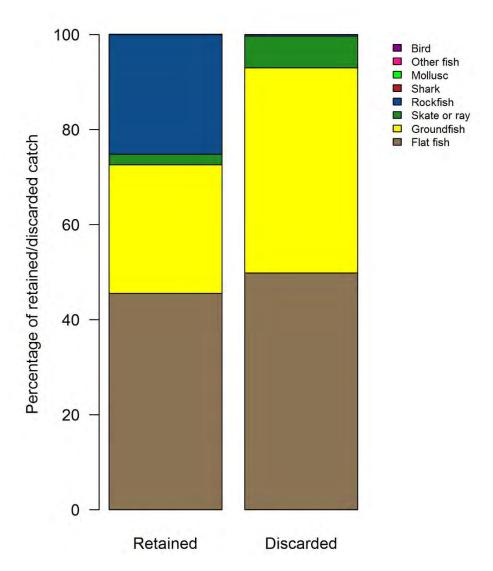
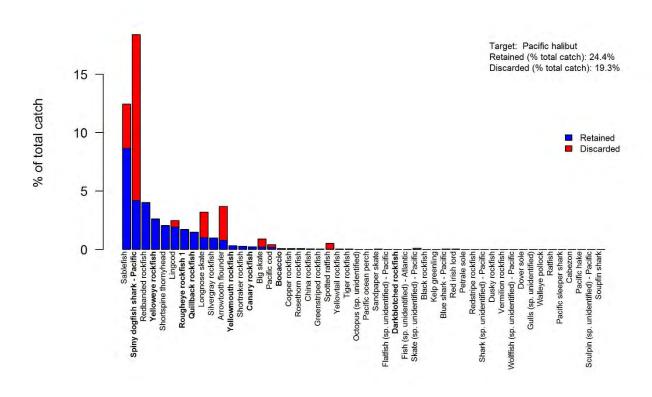


Figure 97. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.



Taxa Figure 98. The percentage of total catch (retained and discarded) of non-target taxa from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data was scaled to the entire region of the fleet. It is from logbooks and percentages represent the sum of individuals from 2006 to 2008.

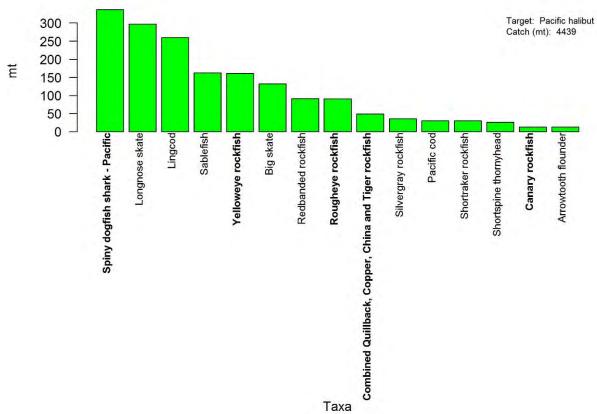


Figure 99. For comparison purposes, data from the most recent MSC report (recertification; DeAlteris et al. 2015) showing the weight (mt) of non-target catch from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This most recent certification report did not contain quantitative data about all bycatch taxa, and instead only summarized information pertaining to the MSC defined major bycatch, minor bycatch and ETP species as obtained from catch accounting statistics. These statistics account for quota species retained and discarded amounts, but do not account for non-quota species discard amounts. Furthermore, the table did not differentiate between discarded and retained amounts for the quota species. Thus, we did not use the more recent data in the analysis but show it here for comparative purposes.

Canada Scotia Fundy haddock

Fishing area: 4X5Y - Gear type: Bottom longline

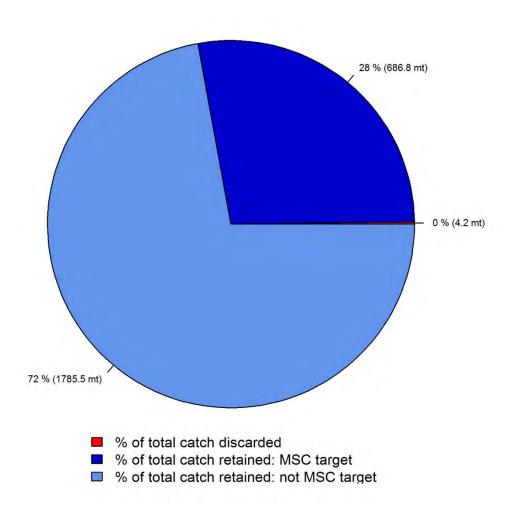


Figure 100. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data of unknown scale, but is likely representative of the entire fleet. It is likely from dockside monitoring and observer data collected between 2004 and 2013 (exact timeframe depending on source table), with percentages calculated from annual averages of weight.

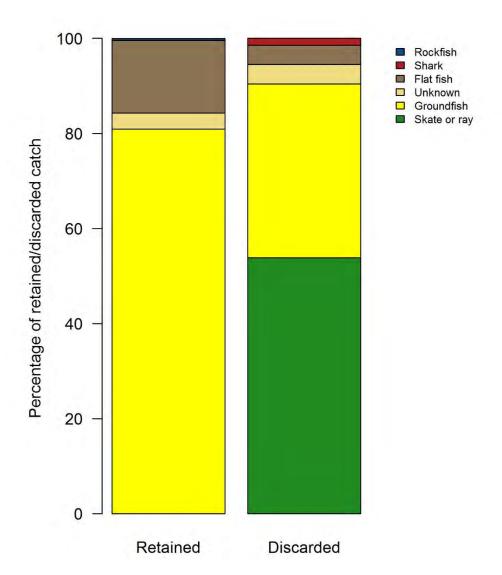


Figure 101. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.

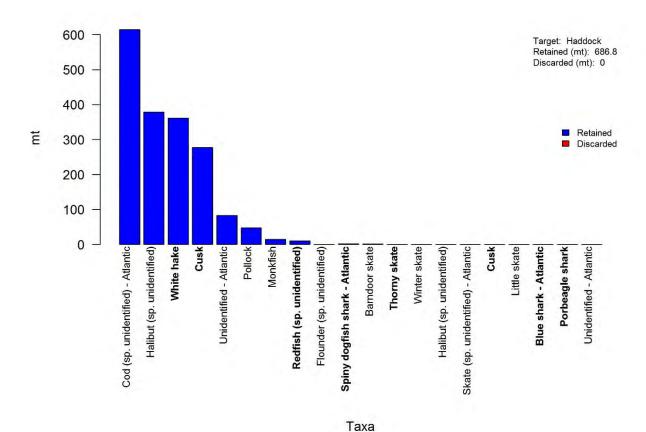


Figure 102. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data of unknown scale, but is likely representative of the entire fleet. It is likely from dockside monitoring and observer data collected between 2004 and 2013 (exact timeframe depending on source table), with above weights representing annual averages.

Canada Scotia Fundy haddock

Fishing area: 5Zjm - Gear type: Bottom longline

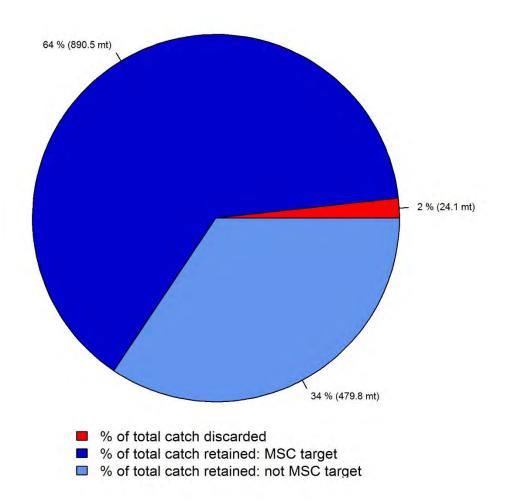


Figure 103. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data of unknown scale, but is likely representative of the entire fleet. It is likely from dockside monitoring and observer data collected between 2004 and 2013 (exact timeframe depending on source table), with percentages calculated from annual averages of weight.

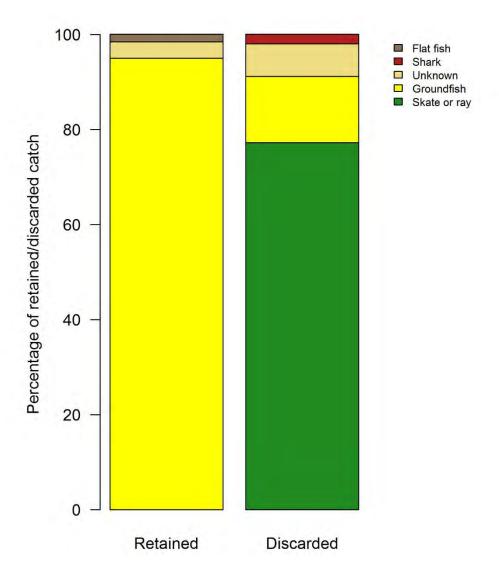


Figure 104. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.

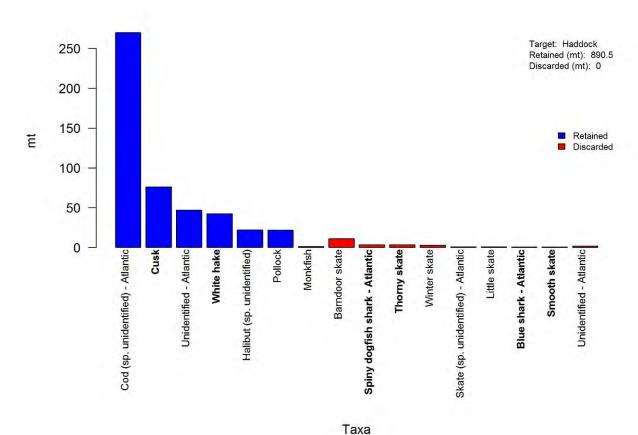


Figure 105. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data of unknown scale, but is likely representative of the entire fleet. It is likely from dockside monitoring and observer data collected between 2004 and 2013 (exact timeframe depending on source table), with above weights representing annual averages.

Canada Scotia Fundy haddock

Fishing area: 4X5Y - Gear type: Otter trawl or Danish seine

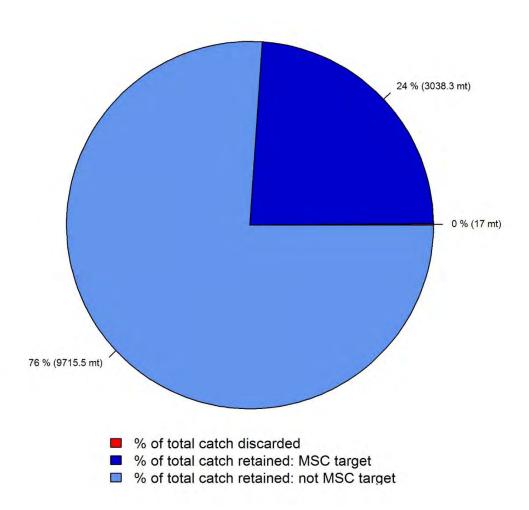


Figure 106. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data of unknown scale, but is likely representative of the entire fleet. It is likely from dockside monitoring and observer data collected between 2004 and 2013 (exact timeframe depending on source table), with percentages calculated from annual averages of weight.

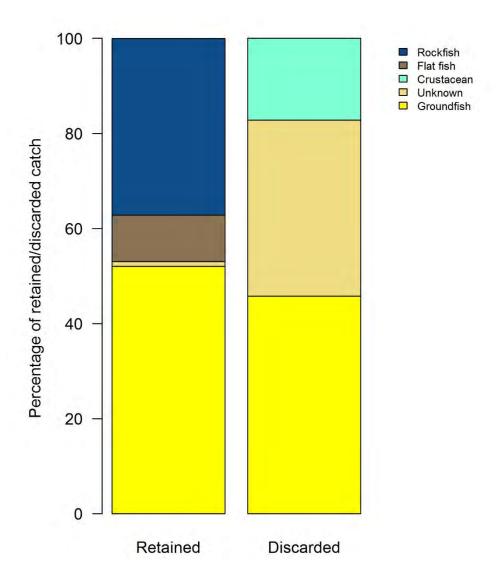


Figure 107. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.

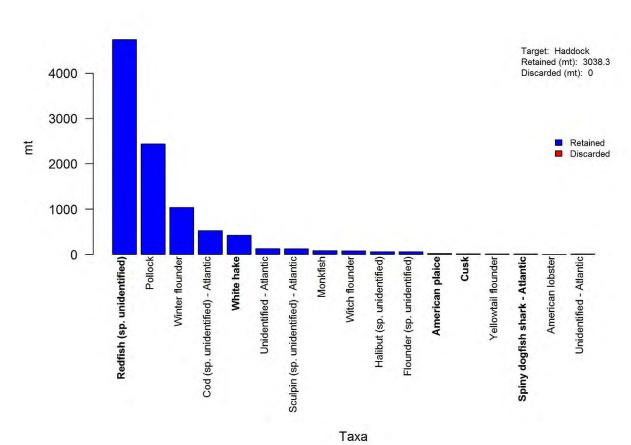


Figure 108. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data of unknown scale, but is likely representative of the entire fleet. It is likely from dockside monitoring and observer data collected between 2004 and 2013 (exact timeframe depending on source table), with above weights representing annual averages.

Canada Scotia Fundy haddock

Fishing area: 5Zjm - Gear type: Otter trawl or Danish seine

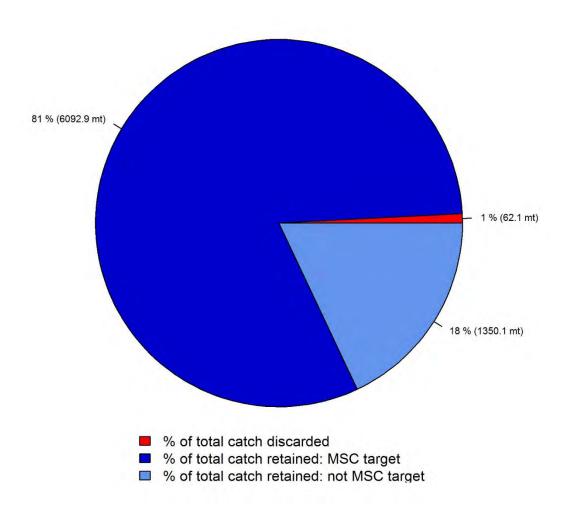


Figure 109. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data of unknown scale, but is likely representative of the entire fleet. It is likely from dockside monitoring and observer data collected between 2004 and 2013 (exact timeframe depending on source table), with percentages calculated from annual averages of weight.

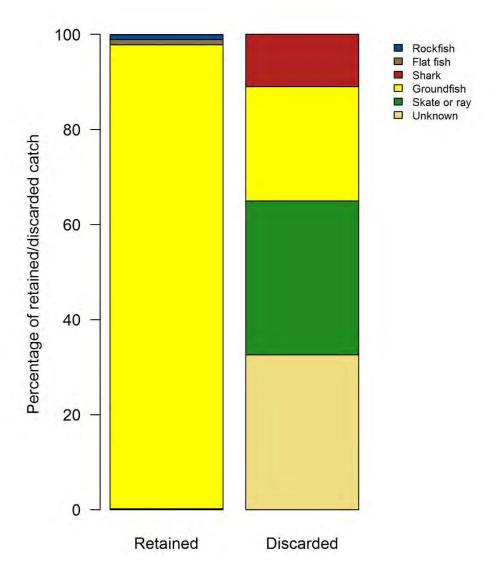


Figure 110. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.

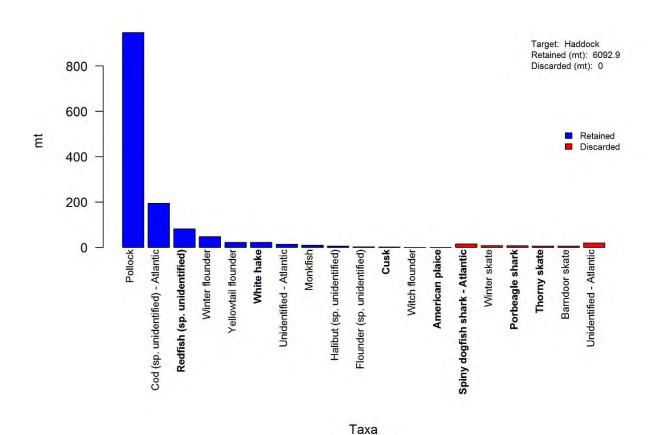


Figure 111. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data of unknown scale, but is likely representative of the entire fleet. It is likely from dockside monitoring and observer data collected between 2004 and 2013 (exact timeframe depending on source table), with above weights representing annual averages.

Fishing area: N/A - Gear type: Bottom longline

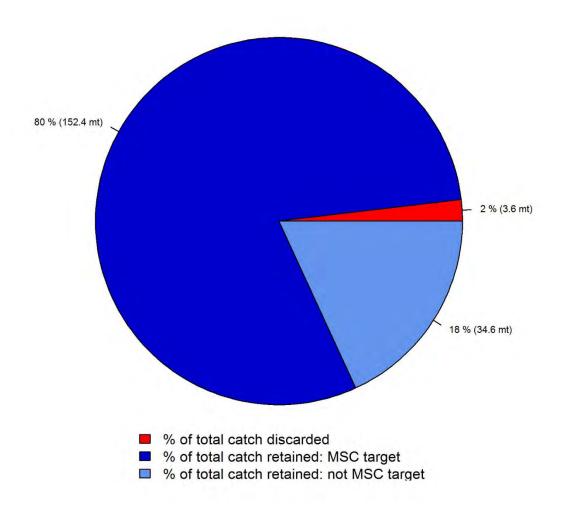


Figure 112. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data representative of observed trips, not scaled up to the fleet, collected between 2010/11 to 2012/13. Percentages were calculated from the sum of weights across years.

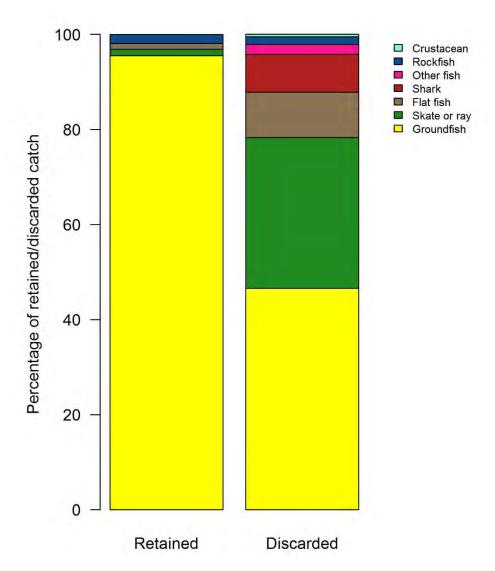


Figure 113. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.

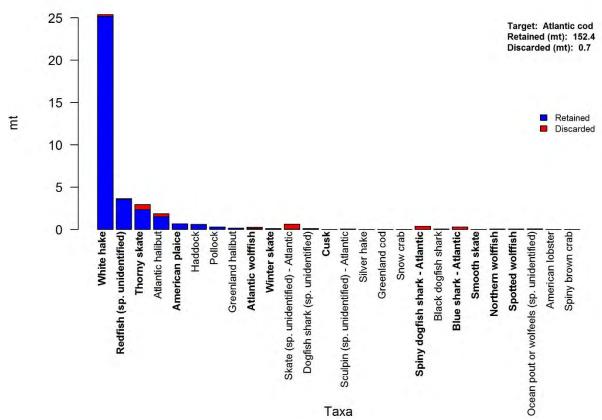


Figure 114. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data representative of observed trips, not scaled up to the fleet, collected between 2010/11 to 2012/13. Above weights represent the sum of weights across years.

Fishing area: N/A - Gear type: Gillnet

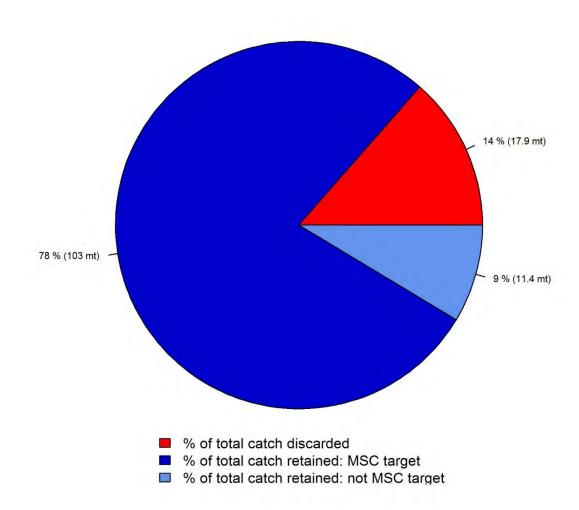


Figure 115. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data representative of observed trips, not scaled up to the fleet, collected between 2010/11 to 2012/13. Percentages were calculated from the sum of weights across years.

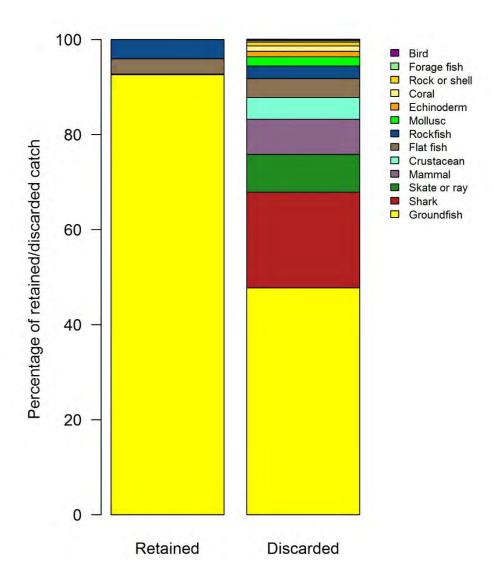
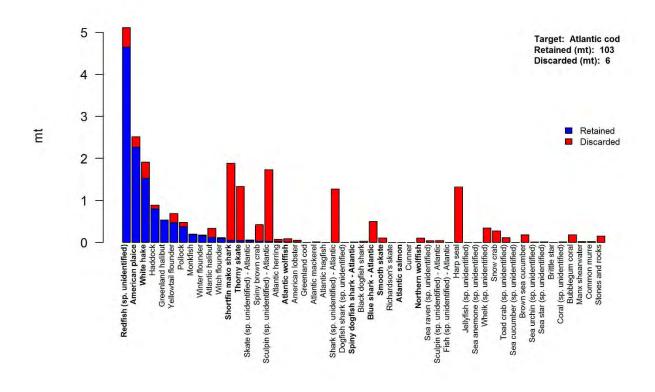


Figure 116. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.



Taxa
Figure 117. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data representative of observed trips, not scaled up to the fleet, collected between 2010/11 to 2012/13. Above weights represent the sum of weights across years.

Fishing area: N/A - Gear type: Handline

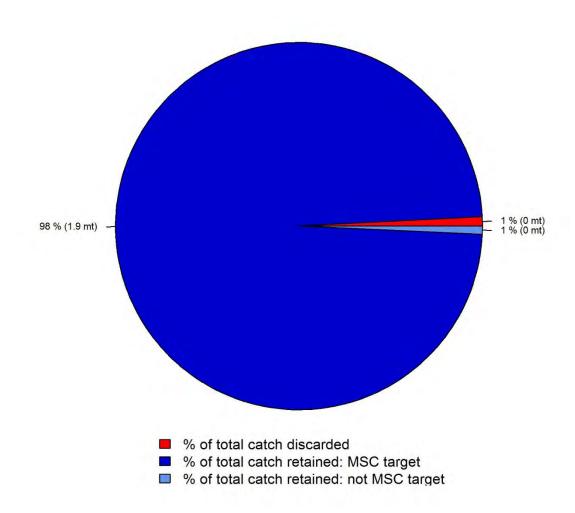


Figure 118. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data representative of observed trips, not scaled up to the fleet, collected between 2010/11 to 2012/13. Percentages were calculated from the sum of weights across years.

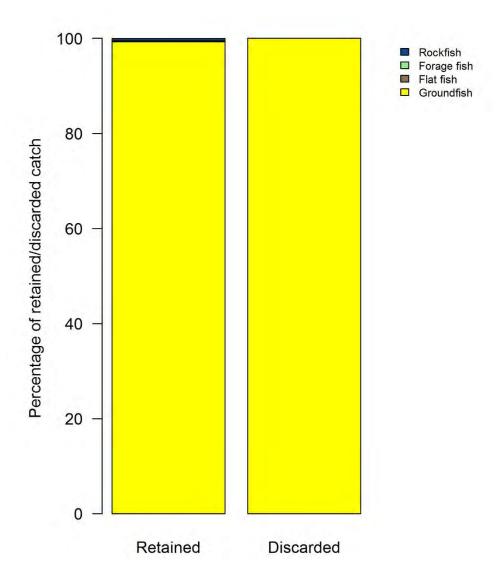


Figure 119. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.

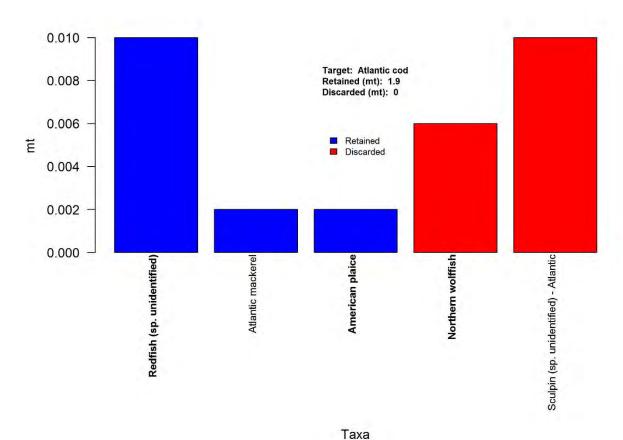


Figure 120. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-centre of the plot. This fleet had catch data representative of observed trips, not scaled up to the fleet, collected between 2010/11 to 2012/13. Above weights represent the sum of weights across years.

Fishing area: N/A - Gear type: Otter trawl or Danish seine

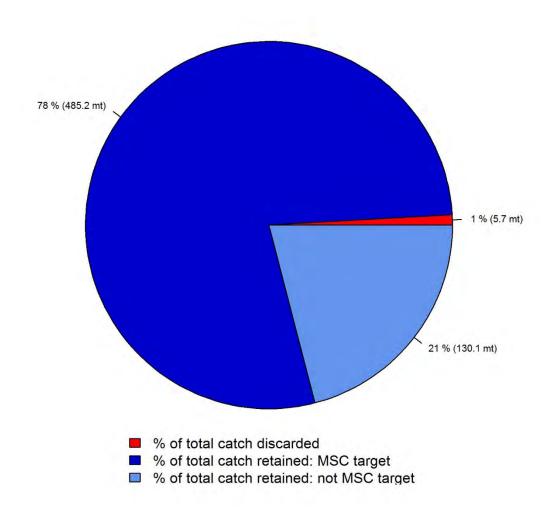


Figure 121. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data representative of observed trips, not scaled up to the fleet, collected between 2010/11 to 2011/12. Percentages were calculated from the sum of weights across years.

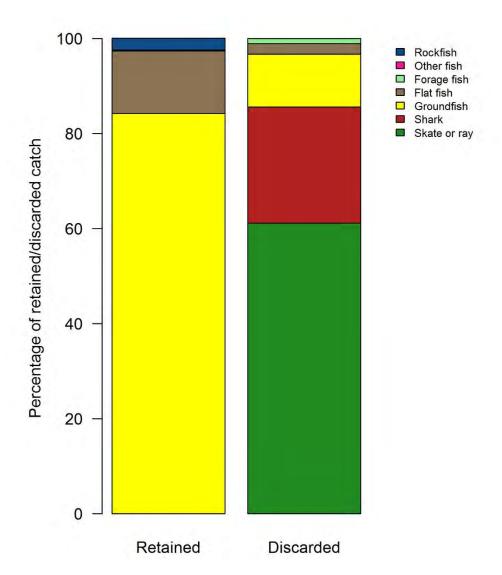


Figure 122. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.

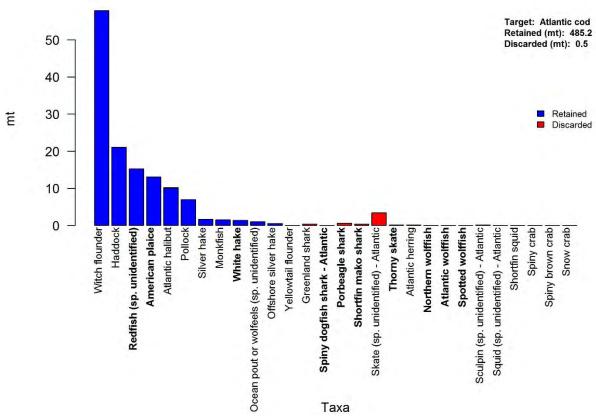


Figure 123. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data representative of observed trips, not scaled up to the fleet, collected between 2010/11 to 2011/12. Above weights represent the sum of weights across years.

Canadian 4VWX Purse Seine Herring Fishery

Fishing area: N/A - Gear type: Purse seine

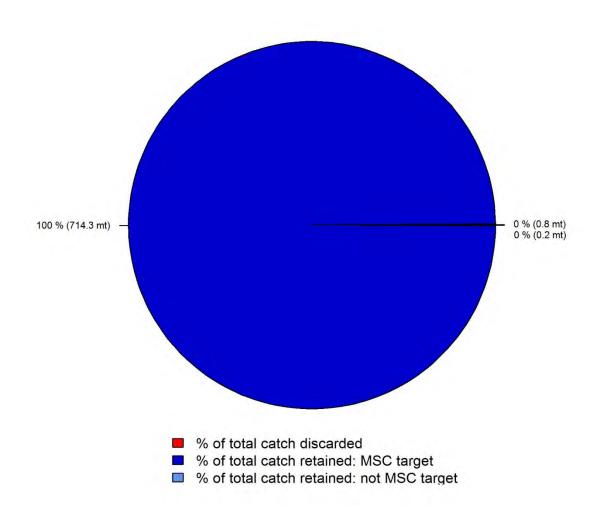


Figure 124. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data representative of observed sets in 2014, not scaled up to the fleet.

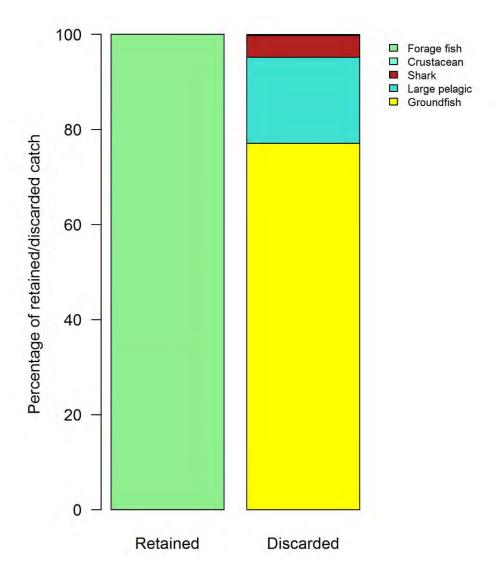


Figure 125. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.

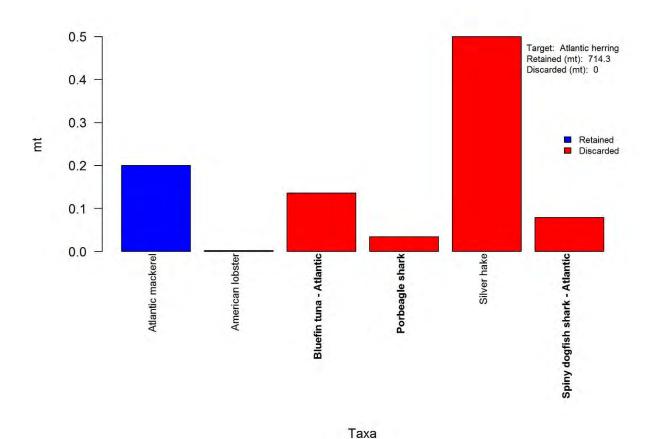


Figure 126. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data representative of observed sets in 2014, not scaled up to the fleet.

Canadian Highly Migratory Species Foundation (CHMSF) British Columbia albacore tuna North Pacific

Fishing area: N/A - Gear type: Troll and Jig

This fleet did not have data pertaining to the target catch amounts included in the tables pertaining to non-target catch, therefore presentations are not included of the percentage of total catch.

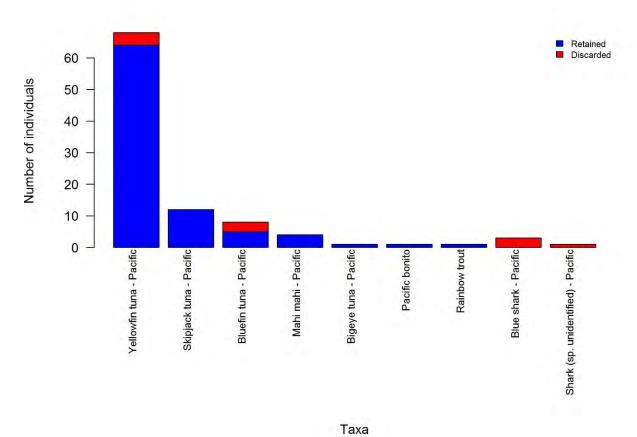


Figure 127. The number of individuals retained and discarded of non-target taxa from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch was not included in the dataset. This fleet had catch data was of unknown scale, but likely represents the entire region of the fleet. It is from reported catches in 2012 to 2014, with the above number of individuals representing the sum of individuals across these years.

Eastern Canada offshore lobster

Fishing area: N/A - Gear type: Baited trap

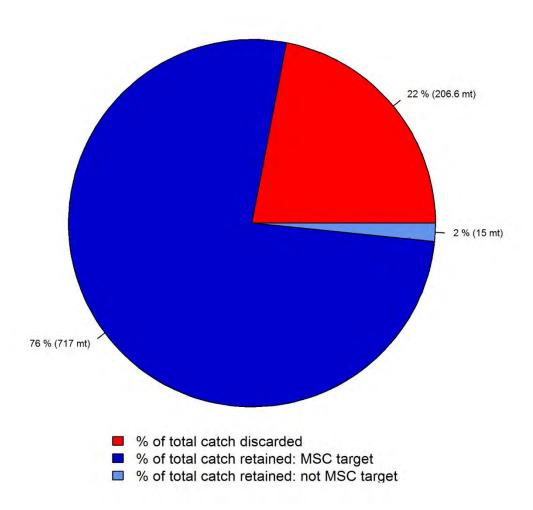


Figure 128. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data was scaled to the entire region of the fleet. It is based off observer data with percentages calculated from the average of weights in 2006 and 2012.

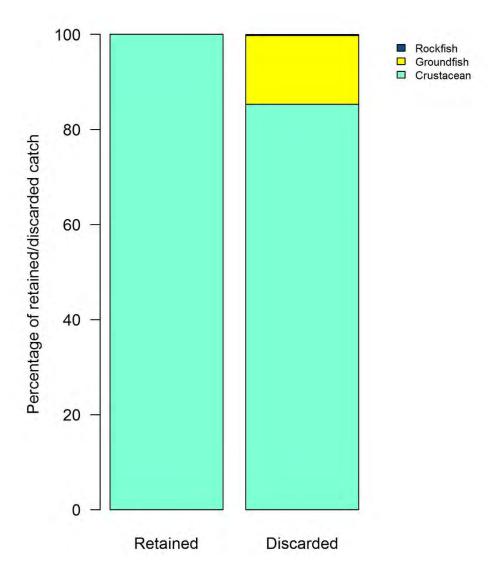


Figure 129. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.

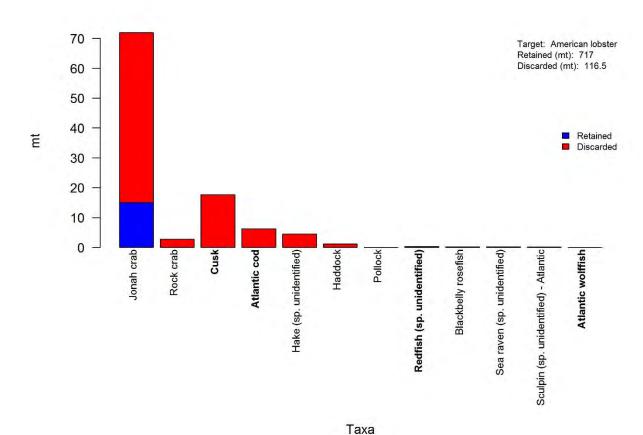


Figure 130. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data was scaled to the entire region of the fleet. It is based off observer data with the above weights representing the average of weights in 2006 and 2012.

Eastern Canada offshore scallop

Fishing area: N/A - Gear type: Dredge

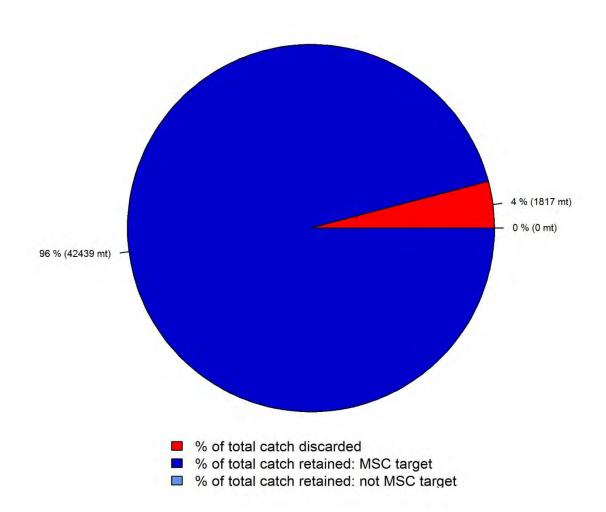


Figure 131. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data of unknown scale, but is likely representative of the entire fleet on Georges Bank. It is likely observer data and percentages were calculated from the annual average of weights from 2008 to 2013.

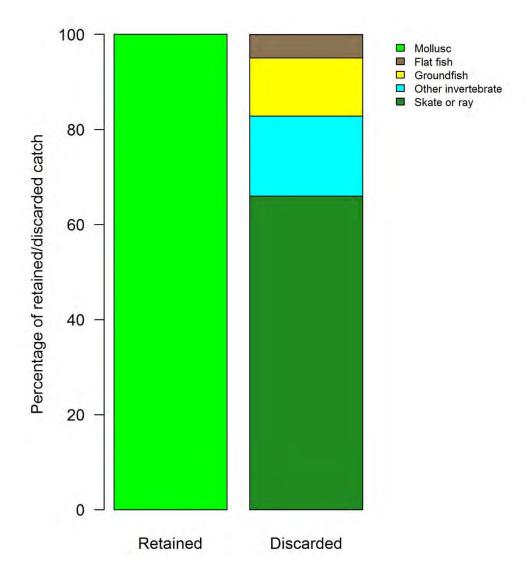


Figure 132. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.

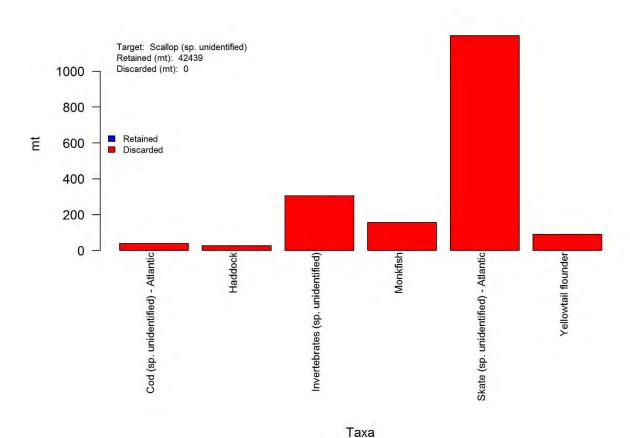


Figure 133. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-left corner. This fleet had catch data of unknown scale, but is likely representative of the entire fleet on Georges Bank. It is likely observer data and above weights represent the annual average of weights from 2008 to 2013.

Gaspesie lobster (Homarus americanus) Trap Fishery

Fishing area: N/A - Gear type: Baited trap

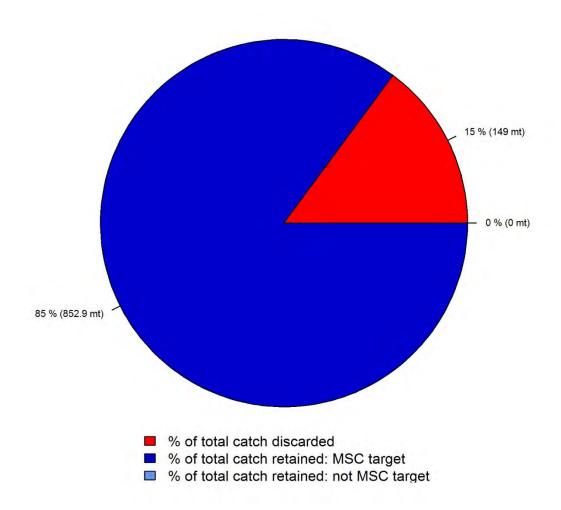


Figure 134. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data was scaled to the entire region of the fleet. It is likely based off observer data collected in 2011.

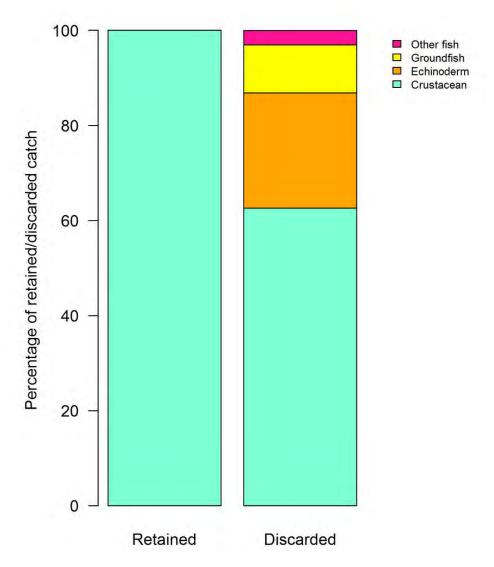


Figure 135. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.

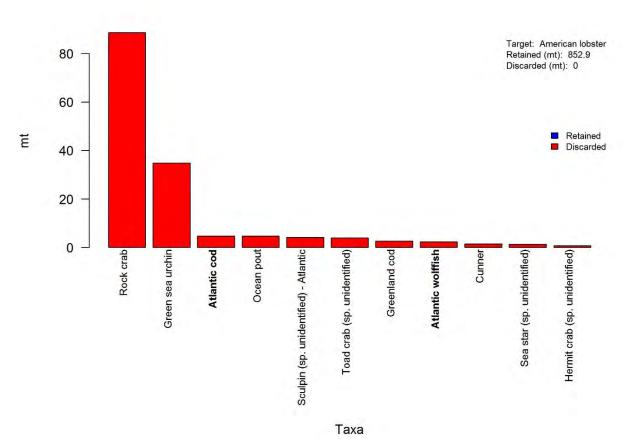


Figure 136. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data was scaled to the entire region of the fleet. It is likely based off observer data collected in 2011.

Grand Bank Arctic Surfclam Fishery Fishing area: N/A - Gear type: Dredge

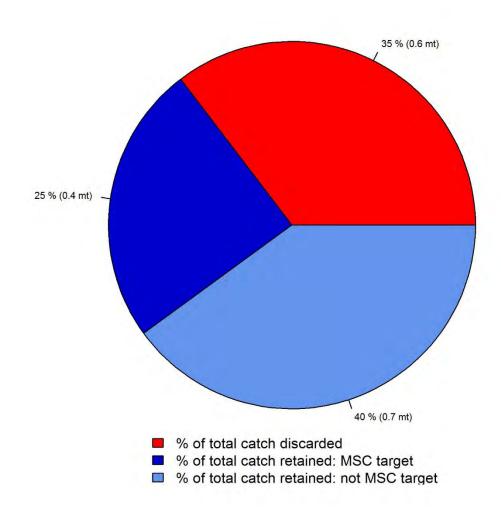


Figure 137. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data of unknown scale, but is likely representative of observed trips only. It is based on the on-board sampling of unsorted catch from 2002 to 2009 with percentages calculated from the sum of weights across this period.

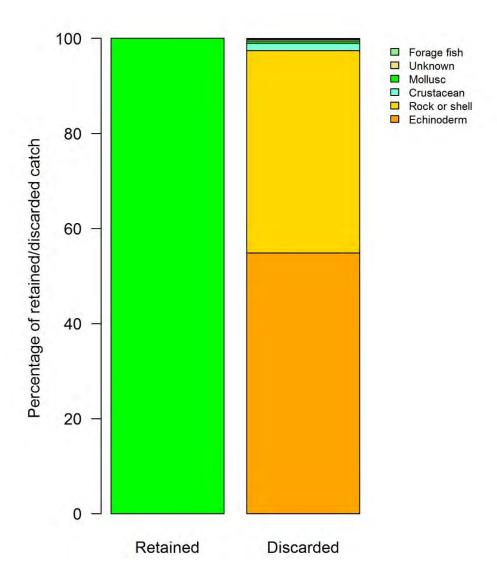


Figure 138. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.

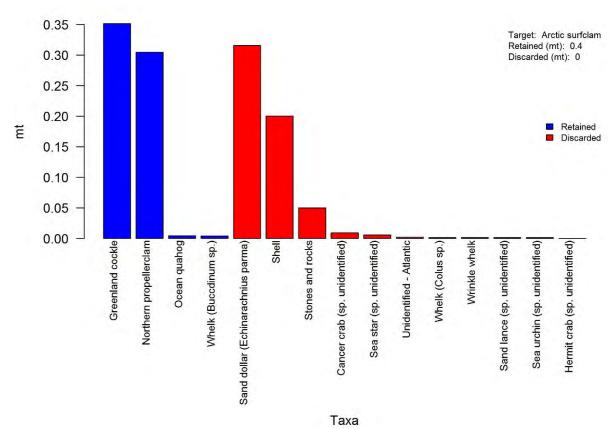


Figure 139. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data of unknown scale, but is likely representative of observed trips only. It is based on the onboard sampling of unsorted catch from 2002 to 2009 with above weights representing the sum of weights across this period.

Gulf of St. Lawrence shrimp

Fishing area: N/A - Gear type: Otter trawl or Danish seine

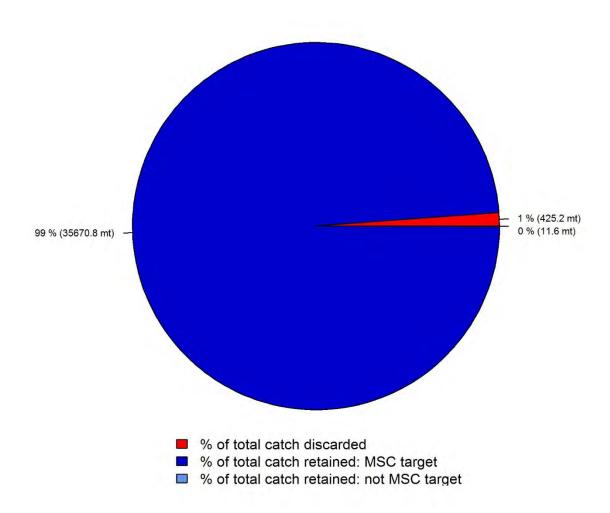


Figure 140. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data was scaled to the entire region of the fleet. It is based off of observer data collected from 2007 to 2011. Percentages were calculated from the annual average of weights in this time period.

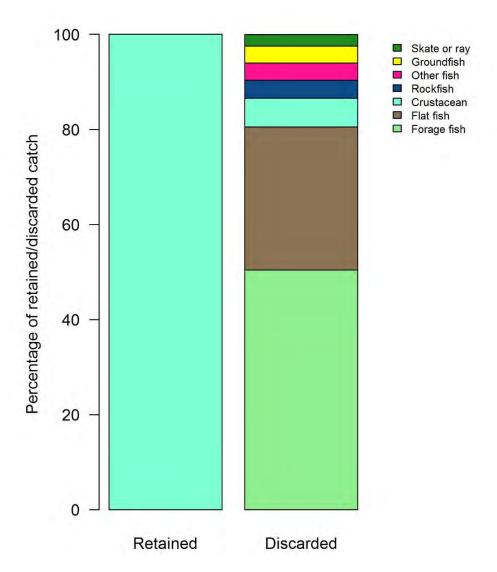
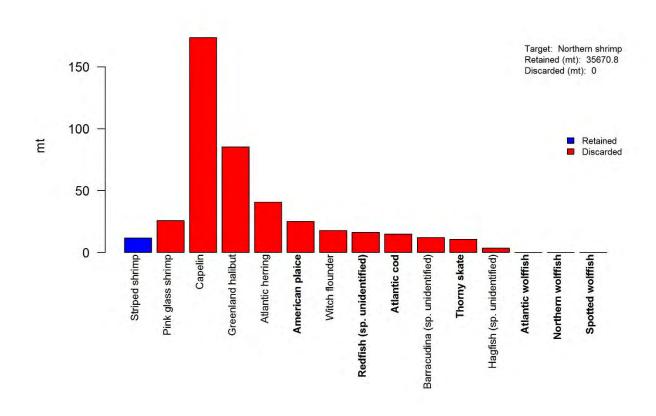


Figure 141. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.



Taxa
Figure 142. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data was scaled to the entire region of the fleet. It is based off of observer data collected from 2007 to 2011.

NAFO Division 4R Atlantic Herring Purse Seine Fishery

Fishing area: N/A - Gear type: Purse Seine

This fleet did not have data about the target catch and all non-target catch at the same scale, therefore presentations are not included of the percentage of total catch.

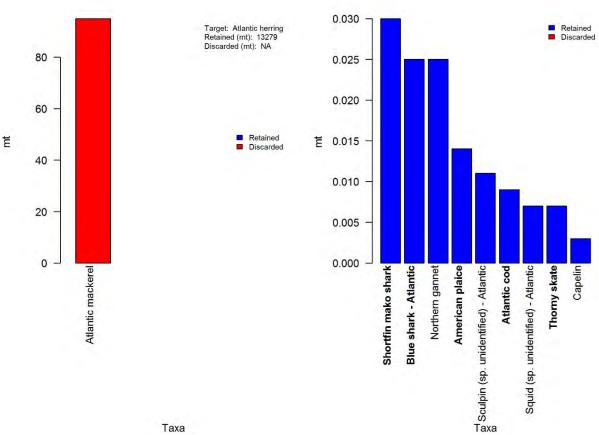


Figure 143. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Please note there are two y-axis denoted different scales. Target catch is noted in the top-right corner of the left-hand plot, and was reported at the same scale as the Atlantic mackerel landings (entire fleet). This data is likely based on landings data collected between 1998 and 2012 and represents the annual average. The right-hand plot presents catch data of observed sets only from 2005 to 2009, with the sum of weights in this time period shown.

North Atlantic Swordfish (*Xiphias gladius*) Canadian Pelagic Longline Fishery Fishing area: N/A - Gear type: Pelagic Longline

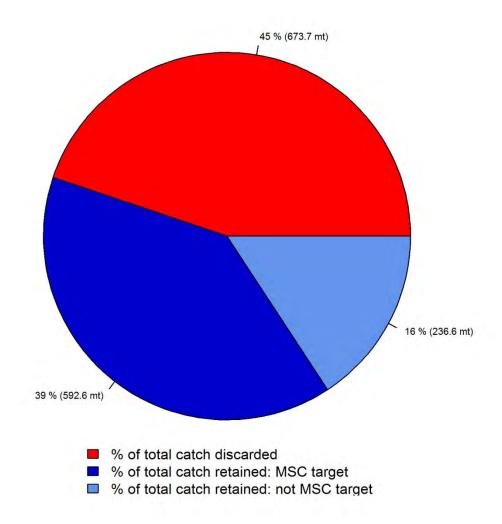


Figure 144. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data representative of observed trips only from 2002 to 2009. Percentages were calculated from the sum of weights across this time period.

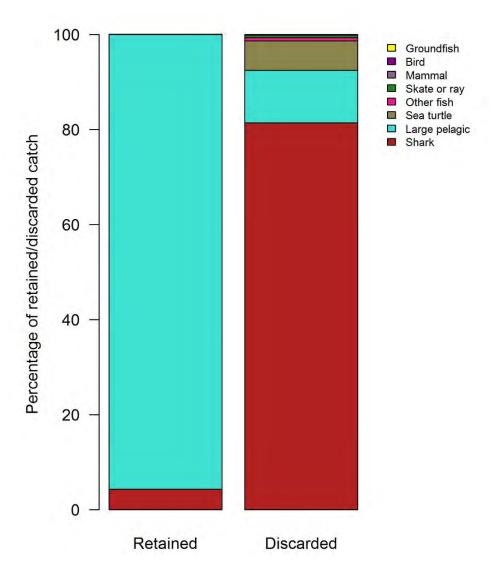
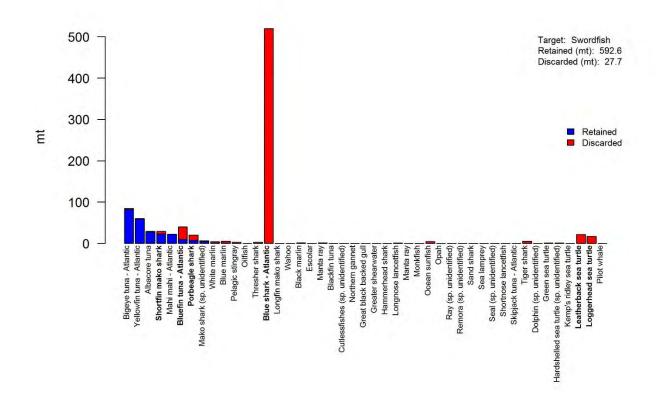


Figure 145. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.



Taxa

Figure 146. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data representative of observed trips only in 2002 to 2009, with weights above representing the sum across this time period. Please note that at the time of fishery certification, and when this analysis was conducted, blue sharks in the Atlantic were designated 'Special Concern' by COSEWIC, but were downgraded to 'Not at Risk' in November of 2016.

OCI Grand Bank Yellowtail Flounder Trawl Fishery

Fishing area: N/A - Gear type: Otter trawl or Danish seine

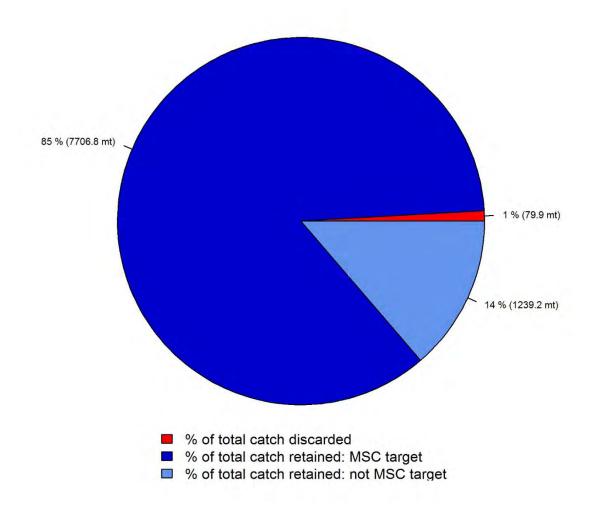


Figure 147. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data was scaled to the entire region of the fleet. It is based on logbook data from 2013.

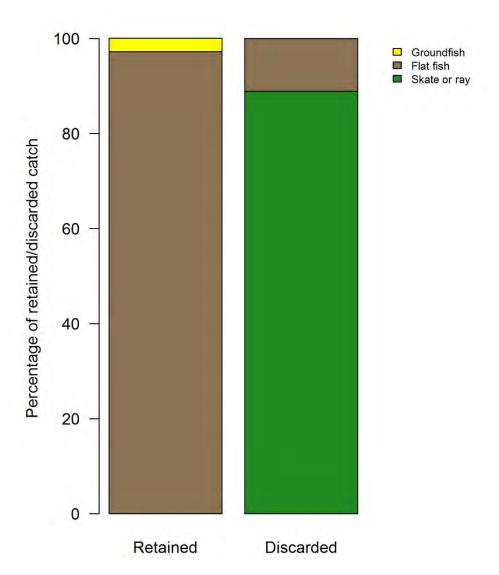


Figure 148. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.

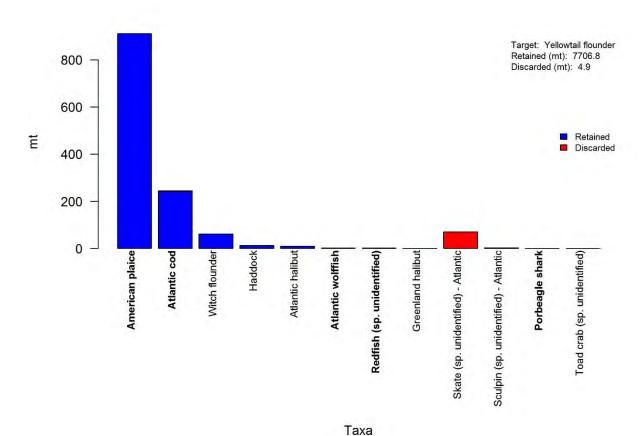


Figure 149. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data was scaled to the entire region of the fleet. It is based on logbook data from 2013.

Scotian Shelf northern prawn trawl

Fishing area: N/A - Gear type: Otter trawl or Danish seine

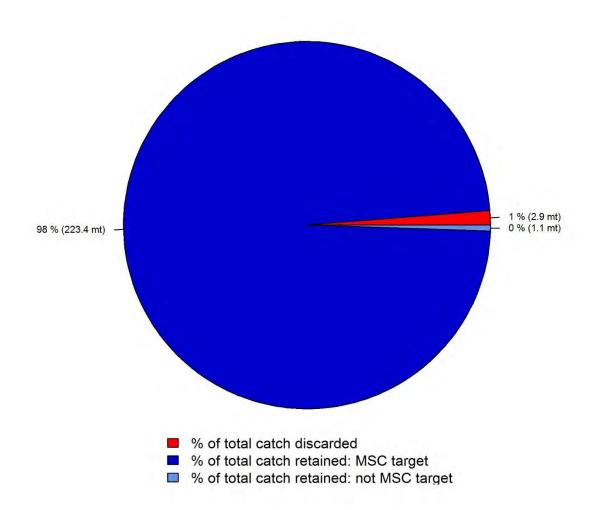


Figure 150. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data representative of observed trips only from 2008 to 2010. Percentages were calculated from the sum of weights across this time period.

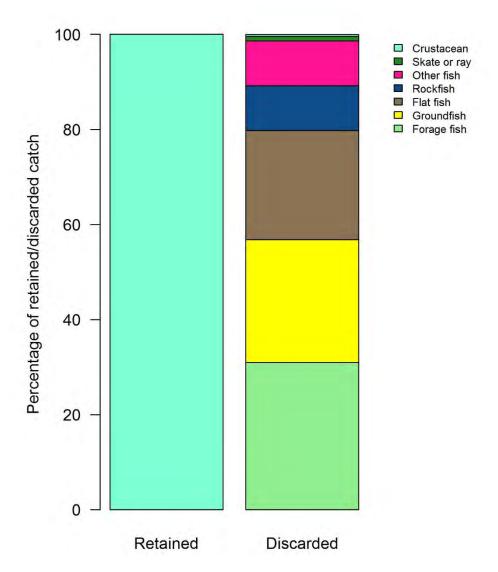


Figure 151. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.

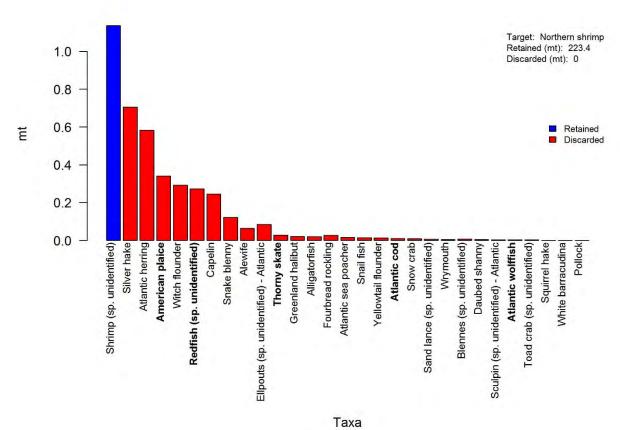


Figure 152. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data representative of observed trips only from 2008 to 2010. Weights above represent the sum of weights across this time period.

Scotian Shelf Snow Crab (Chionoecetes opilio) Trap Fishery

Fishing area: N/A - Gear type: Baited trap

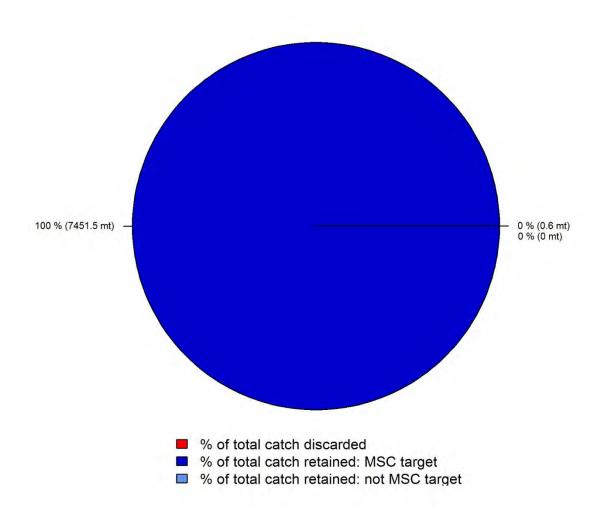


Figure 153. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data was scaled to the entire region of the fleet. It is based on observer data collected between 2006 and 2009. Percentages were calculated from the annual average of weights in this time period.

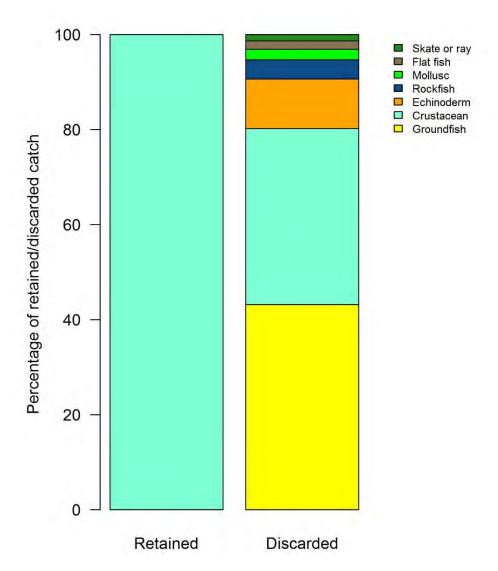


Figure 154. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.

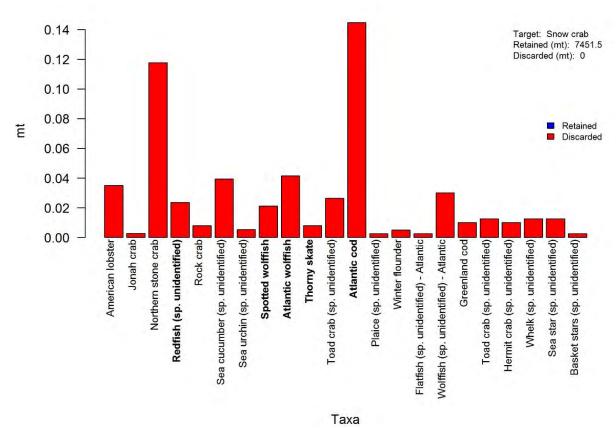


Figure 155. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data was scaled to the entire region of the fleet. It is based on observer data collected between 2006 and 2009. Weights above represent the annual average in this time period.

The Canadian Pacific Sablefish (Anoplopoma fimbria) Fishery

Fishing area: N/A - Gear type: Bottom long-line

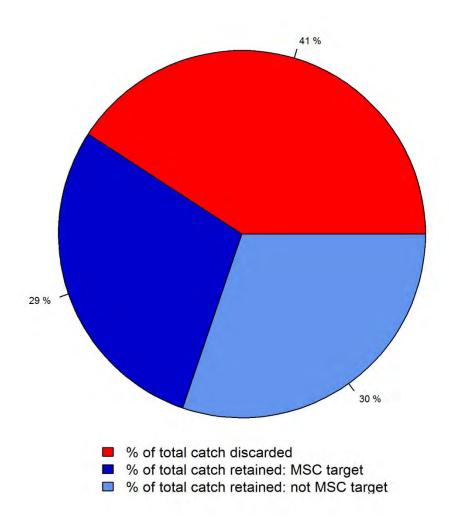


Figure 156. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. These percentages are based off counts of individuals, as weights were not available. This fleet had catch data was scaled to the entire region of the fleet. It is from logbook data collected between April 2006 and October 2008. Percentages were calculated from the sum of individuals across this time period.

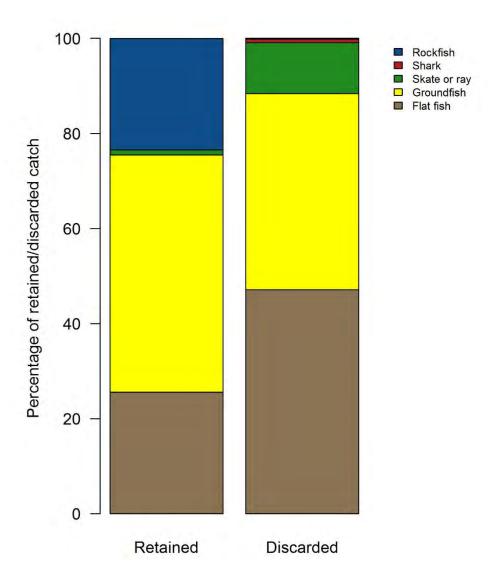


Figure 157. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.

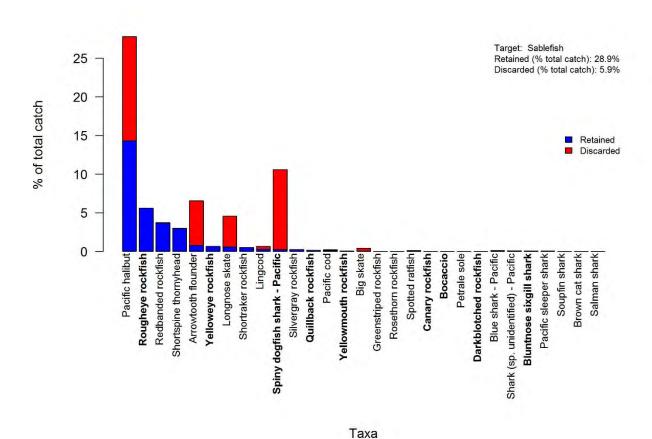


Figure 158. The percentage of total catch (retained and discarded) of non-target taxa from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data was scaled to the entire region of the fleet. It is from logbook data collected between April 2006 and October 2008. Percentages were calculated from the sum of individuals across this time period.

The Canadian Pacific Sablefish (Anoplopoma fimbria) Fishery

Fishing area: N/A - Gear type: Korean trap long-line

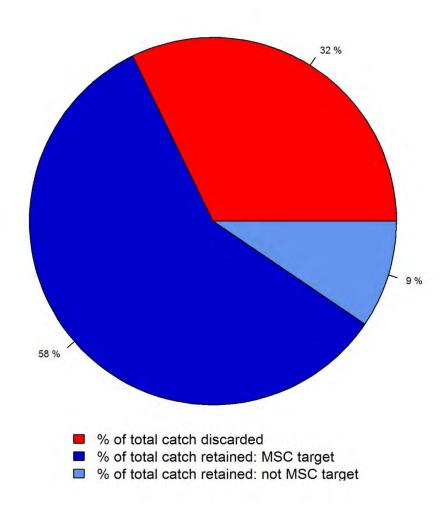


Figure 159. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. These percentages are based off counts of individuals, as weights were not available. This fleet had catch data was scaled to the entire region of the fleet. It is from logbook data collected between April 2006 and October 2008. Percentages were calculated from the sum of individuals across this time period.

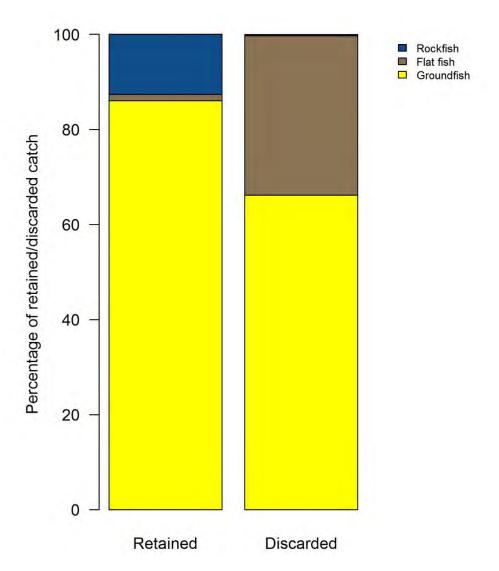


Figure 160. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.

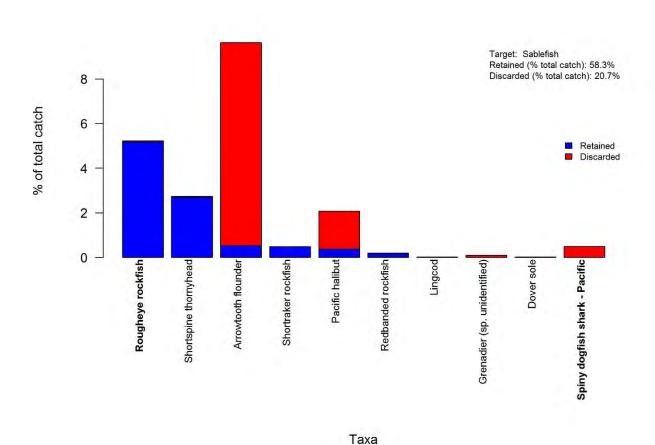


Figure 161. The percentage of total catch (retained and discarded) of non-target taxa from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. It is from logbook data collected between April 2006 and October 2008. Percentages were calculated from the sum of individuals across this time period.

US and Canada Pacific Hake Midwater Trawl Fishery

Fishing area: N/A - Gear type: Midwater trawl

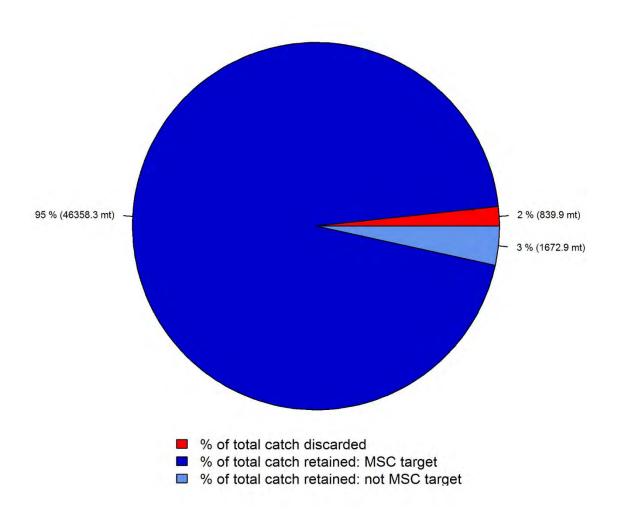


Figure 162. The percent of total catch that is retained or discarded, with an indication of the percent of total catch retained that is and is not (if applicable) the MSC certification target. The weight (mt) that each percentage represents is also indicated. This fleet had catch data was of unknown scale, but likely representative of the entire region of the fleet. It is likely from electronic and dockside monitoring in 2012.

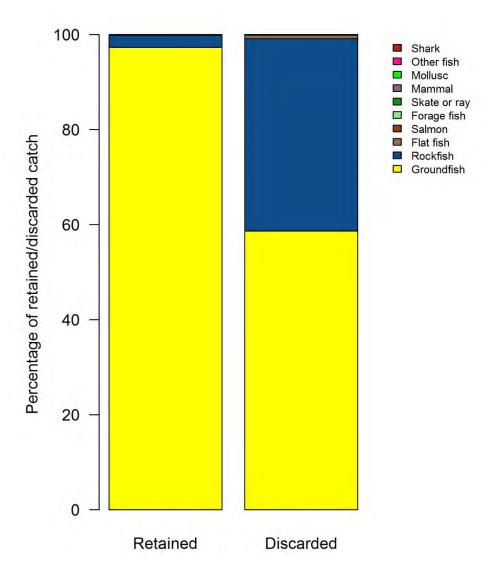
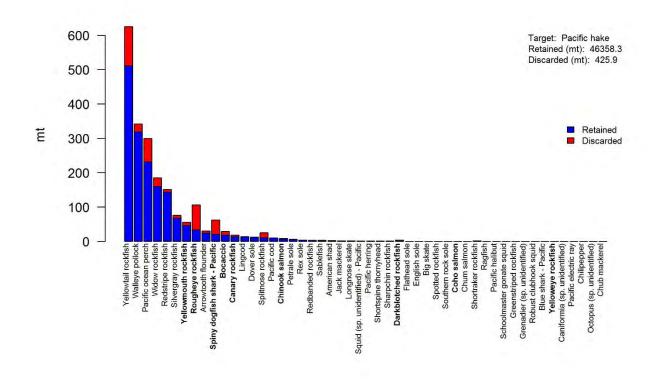


Figure 163. The percentage of the discarded catch and the percentage of the retained catch falling into each of 19 taxa groups (see Table 5 and Table 6 for a list of taxa groups considered). Please note that the y-axis is scaled to 100% of either the discarded or retained catch; the actual percent of catch that is retained or discarded can be found in previous figure.



Taxa
Figure 164. The weight (mt) of non-target catch retained and discarded from the fleet in each of the lowest taxa levels available, with taxa names in bold if they have a COSEWIC conservation designation (Special Concern, Threatened, Endangered). Target catch is noted in the top-right corner. This fleet had catch data was of unknown scale, but likely representative of the entire region of the fleet. It is likely from electronic and dockside monitoring in 2012.