Guysborough County Inshore
Fishermen's Association
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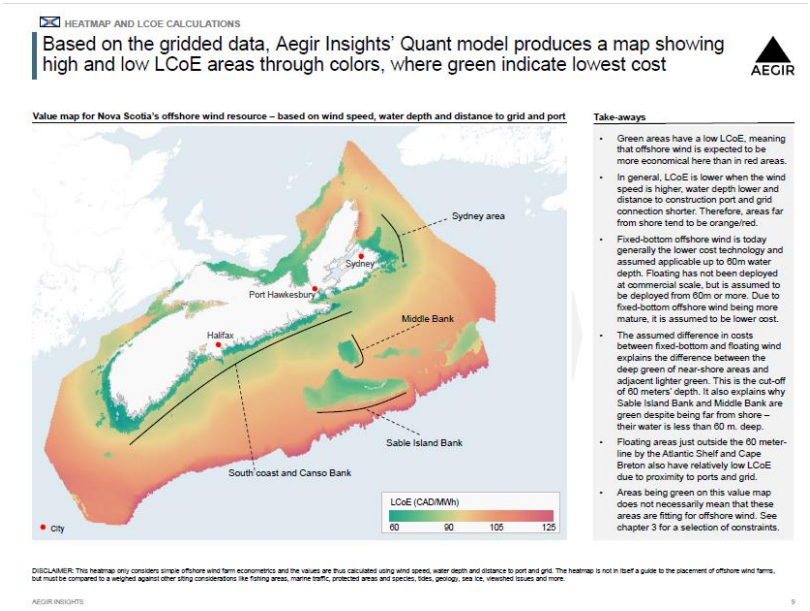
This document contains images displaying spatial data relevant to the commercial fishery of members represented by the Guysborough County Inshore Fishermen's Association. Images are screenshots of qgis mapping shapefiles displaying our members fishing grounds as well as screenshots of the DFO ATLAS commericial fishery layers important to Eastern Nova Scotia seafood harvesters.

Fig.1 Image published by Net Zero Atlantic produced by AEGIR displaying low cost of energy based on wind speed, water depth and distance to grid.



The Guysborough County Inshore Fishermen's Association are anticipating the federal and provincial governments are not going to place renewable energy projects at the lowest possible cost of energy production for the foreign owned energy conglomerates at the economic loss of another industry. A sustainable seafood industry that contributes to our provincial GDP exports millions of dollars in Nova Scotia each year. The harvesting of this seafood occurs mostly within the green and yellow areas of above image. The yellow and orange areas highlighted in the above image are still feasible for offshore wind just at a slightly higher cost. A new industry that is asking to share space with an existing billion-dollar industry operating in the same space will have to take the area left unused by the other users. Canada has an obligation to ensure this new industry is strategically located to mitigate conflict with other ocean users, is placed in a space that makes practical sense for all stakeholders and causes the least impact to the marine environment. When siting potential renewable energy projects, if placed in the yellow or orange areas, the construction phase of any renewable energy project and maintenance vessels will still travel through lucrative fishing areas and transmission cables will disturb the seafloor. Our fishermen will be impacted but to a lesser degree than if the wind farm was placed closer to shore within our fishing grounds.

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The image below highlights areas that are low cost for renewable energy development but are also areas of high ecological and biologically significant areas as displayed on the DFO ATLAS. The impact of converting all or most of these ecologically significant areas into wind farms would be the end of small fishing community's livelihood, the drastic decline in seafood exports, losses of jobs associated with the harvesting and seafood processing sector, significant losses of biodiversity on the banks/underwater reefs and potential loss of food sources for migrating fish and mammals. Marine communities gather in large numbers around reefs and banks. That's why they are so ecologically important not only to the habitat and well being of marine species but also to our commercial fishing businesses. These banks may be ideal cheap places to install wind turbines, but the truth is these banks are important intrinsically and economically to Nova Scotians.

Fig.2. Image published by AEGIR and again in the document "Catching the Wind" by Peter Nicholson.

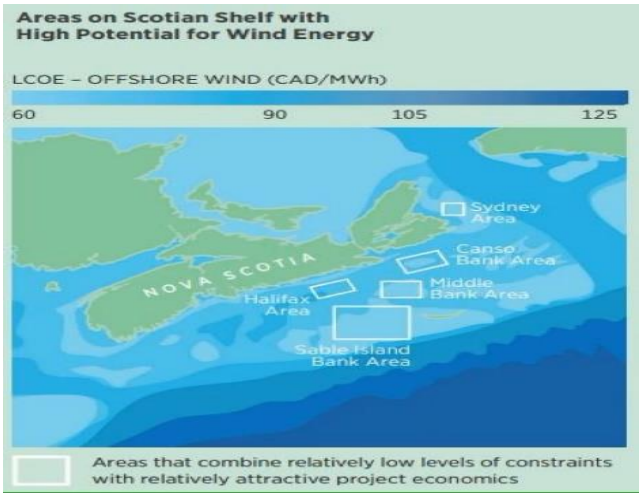
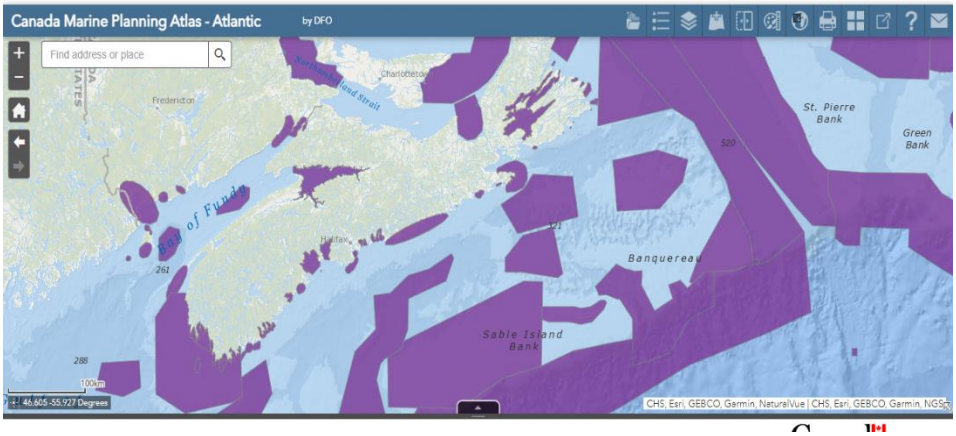


Fig 3. Purple shaded areas are important ecological and biological areas, DFO Atlas



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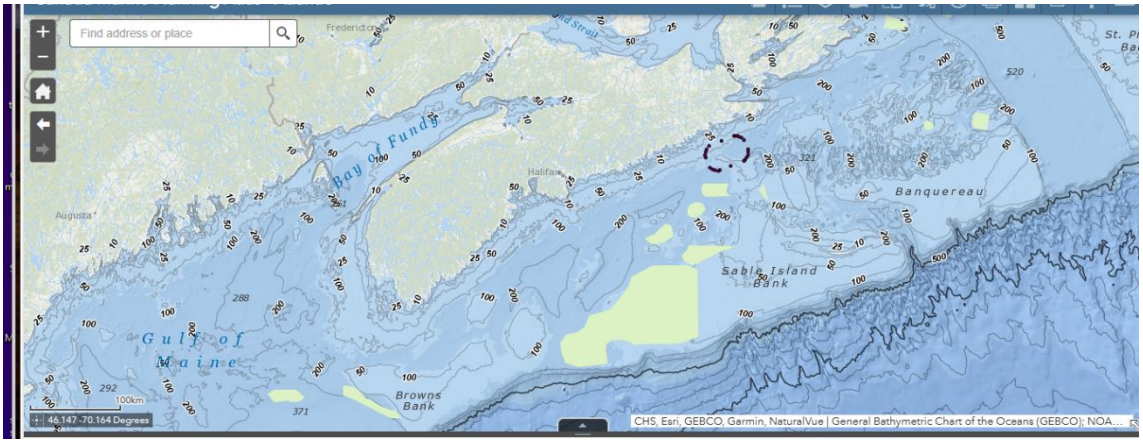
Guysborough County Inshore Fishermen's Association supports the Nova Scotia Fisheries Alliance for Energy Engagement (NSFAEE). We have attended meetings and participated in the NSFAEE's discussion surrounding low conflict fishing areas. The image below highlights areas of low fishing as agreed upon by the alliance. We do not support the placement of a renewable energy project approx. 25km off Goldboro, NS (highlighted in the image below by location markers). We are aware that this area has been selected by a renewable energy proponent for investigation. GCIFA does not support this project. Our fishermen use this space, it is economically important to our coastal communities. This "study area" barely excludes our inshore lobster fishery. This study area is extremely large. We ask should one renewable energy proponent be granted this much ocean space? This study area is orders of magnitude larger than required for a renewable energy project. Granting renewable energy seabed leases that are 10 to 200 times bigger than what is needed compounds impacts to other marine users. Lease sizes should correlate to the size of the space required for turbines and anchors only.

Fig. 4.



Guysborough County Inshore Fishermen's Association and its members cannot continue to conduct our seafood harvesting at our usual locations if this area of ocean space is designated as a renewable energy site. Many many fishermen would have to relocate, which would impact other fishermen compounding impacts. The loss of income from this lucrative snow crab and lobster area would be a devastating loss to our coastal communities.

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Fig. 5.

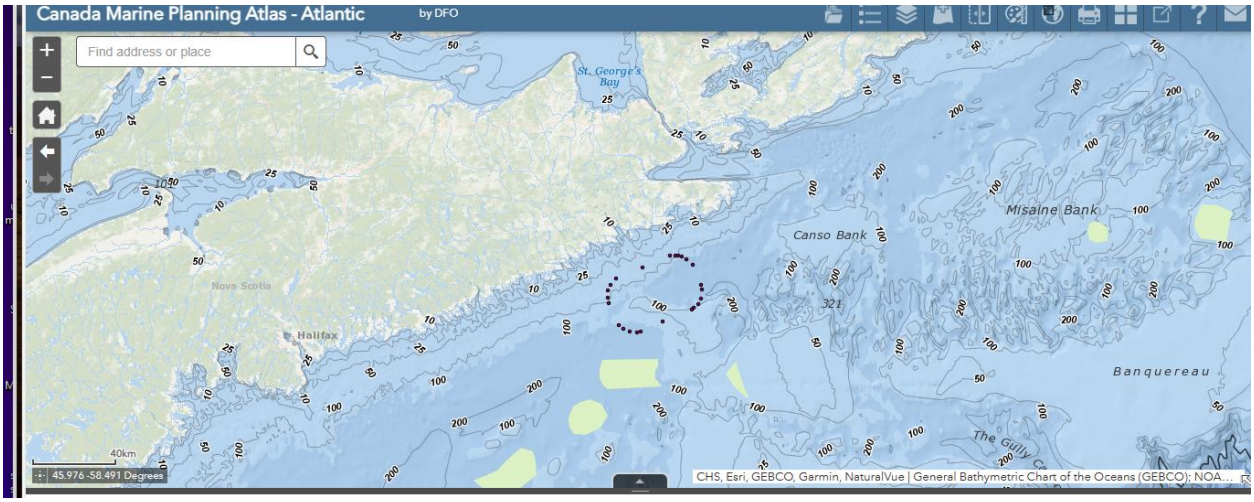
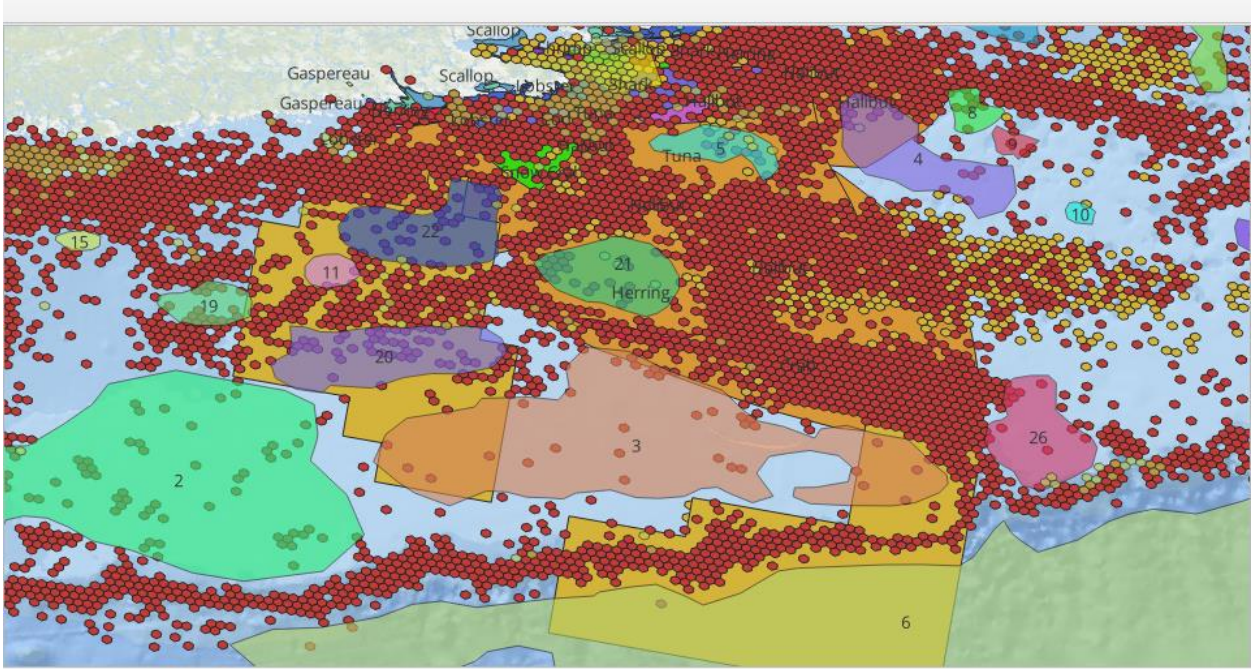


Fig. 6. Red dots are halibut landings, low conflict areas numbered polygons, with privacy screen fishery data.



There are many oil and gas leases that are dormant with no intention of hydrocarbon extraction in the future. These areas should be thoroughly investigated as areas for renewable energy development sites, fig 7.

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Fig 7.

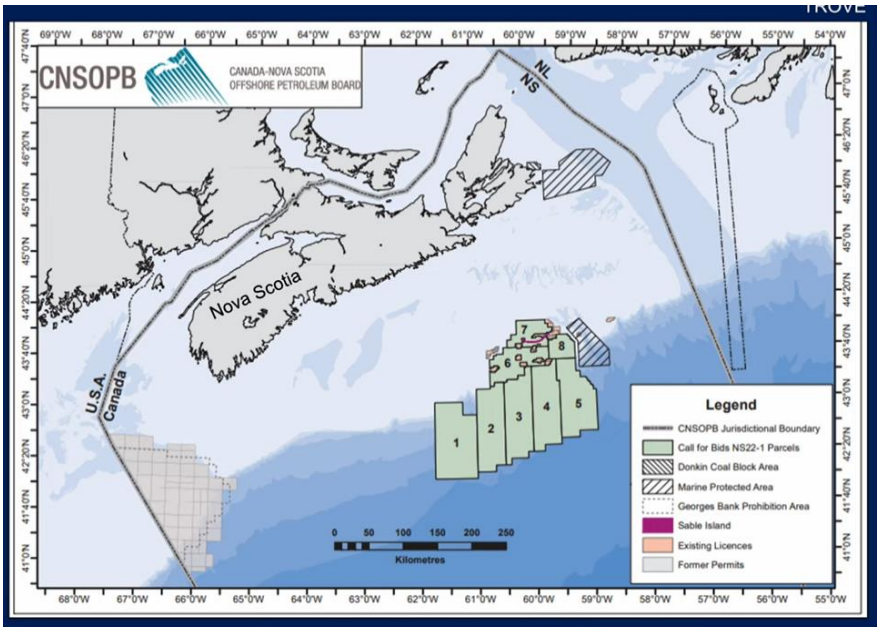

Fig 8. Emerald Bank Conservation Area, previously known as the haddock box is over 10,000km^2. We would like to suggest this area be developed for offshore wind energy projects. It is already a fishing closure area therefore designation as a renewable energy site would not affect the commercial fishery.

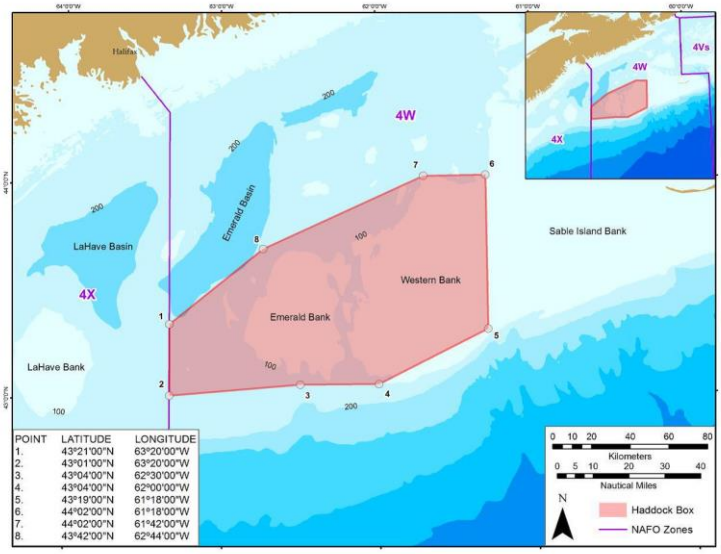

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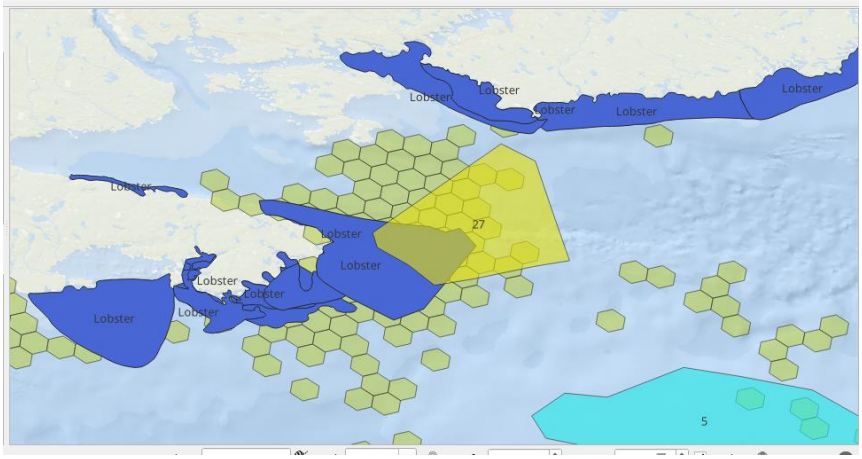
Fig 9. Bluefin tuna (green hexagons) and inshore lobster fishing activity (blue shaded area), see below image.



Some fisheries that occur on or near Canso Bank, identified as #5 Low Conflict Area, are not shown on DFO Atlas because fishermen fish the edges of the bank as these are areas of high biodiversity and highly productive habitat for marine fish, so often times there is high activity surrounding the bank with less in the shallower part of the centre of the bank. The fishing fleet is so small in this end of Nova Scotia compared to other regions, that the fishing activity may appear low comparatively. Most vessels are under 40 feet and thus are not required to carry VMS recorders. Several layers of data incorporated into the Atlas are from VMS sources. The fishing activity that occurs within this Low Conflict Area (Canso Bank) may appear low, but it is critical to sustaining our small coastal communities.

List of fisheries that occur on or near Canso Bank

Halibut - there is fishing activity landings for halibut in Low Conflict Area #5 Canso Bank, fig. 10.

Fig 10.

Guysborough County Inshore Fishermen's Association have highlighted local halibut fishing areas in the image below.

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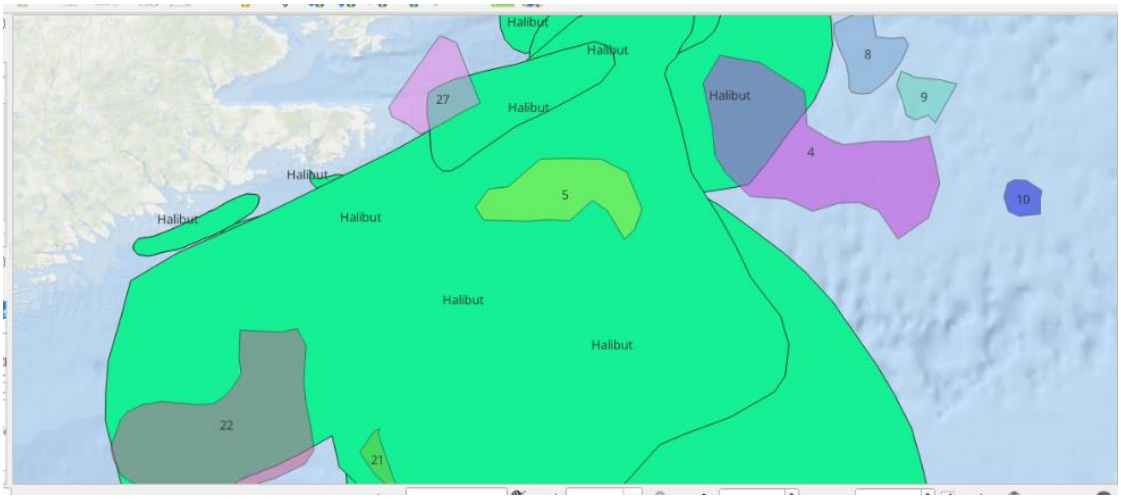
Fig 11. Halibut fishing areas, Guysborough County



Bluefin Tuna - there are bluefin tuna landings displayed on the ATLAS within Low Conflict Area #5 and we expect more in the future. There were 398 tunas landed in Canso during the 2023 season so far (ongoing), is a record year, more than double compared to last year. The location of this fishery is Low Conflict Area #5 and #27. We expect there will be high tuna landings from the Canso Bank area from this year's data and into the future.

Greysole/Witch Flounder fishing data is privacy screened on Canso Bank therefore it does not appear on the ATLAS.

Haddock fishery data is also privacy screened on Canso Bank therefore it does not appear on the ATLAS.

Herring fishery, our herring fishery data on Canso Bank is privacy screened therefore it does not appear on the ATLAS. Historically and up until recently the herring fishery only recorded HFA19 or HFA20 as the fishing area, no data on locations were recorded. Herring are very sensitive to light and sound. Guysborough County Inshore Fishermen's Association has spatial data displaying several herring fishing spots. See image below, fig 12.

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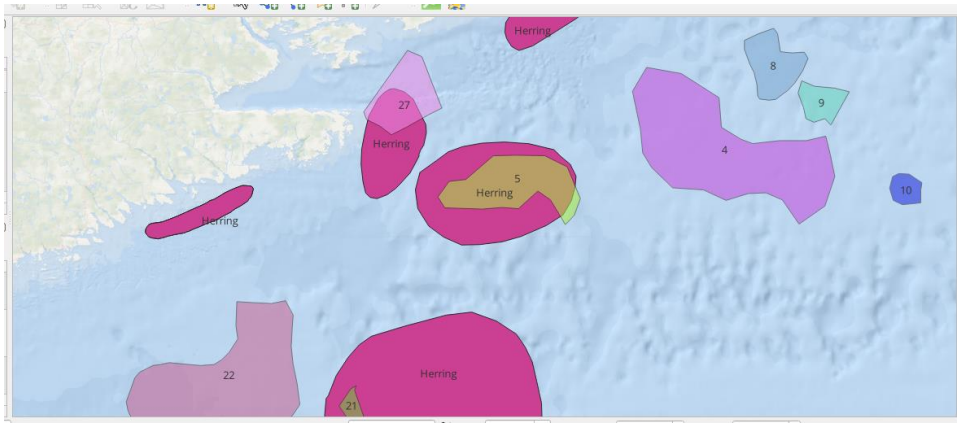
Fig. 12.



Silver Hake, also privacy screened within Low Conflict Area #5 Canso Bank.

Snow Crab, high intensity of snow crab landings are caught around the exterior and surrounding Low Conflict Area #5 Canso Bank as well as fishing that occurs on Canso Bank. This is a really important area to this species. Snow crabs are very sensitive to benthic disturbances and will vacate an area if unsuitable environmental conditions occur. Canso Bank is economically valuable to fishermen in Eastern Nova Scotia. Disturbing this area would likely cause these snow crab landings to dissipate. Their primary food include shrimp, fish (capelin and lumpfish), starfish, sea urchins, worms, detritus, large zooplankton, other crabs, ocean quahaug, molluscs, sea snails and sea anemones. Snow crabs are vulnerable to benthic disturbances and water quality fluctuations. Environmental contaminants such as metals and pollutants held within the sediment layer of the seafloor has the potential to negatively impact this species. Snow crabs prefer cold water temperatures and occur at a wide range of depths, from 20 to 2000 metres, most often on sandy or muddy bottoms. This snow crab fishery provides income and jobs to our local economy. https://www.dfo-mpo.gc.ca/species-especes/profiles-profils/snow-crab-crabe-neiges-atl-eng.html

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Fig 13. Snow crab landings displayed on ATLAS around Canso Bank

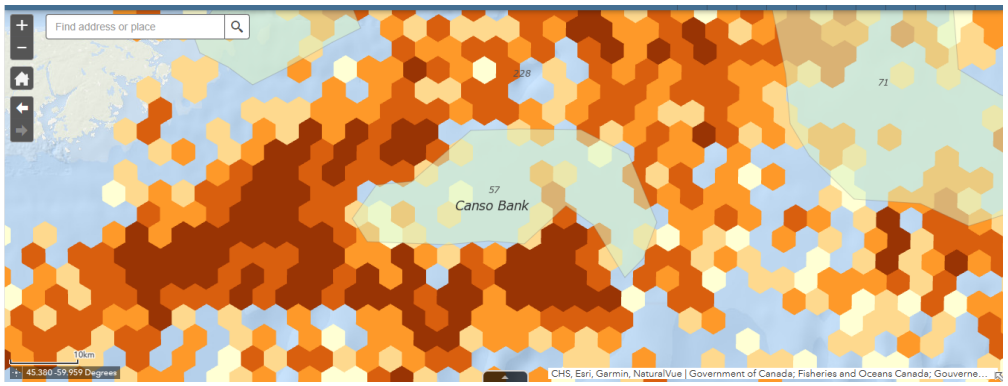
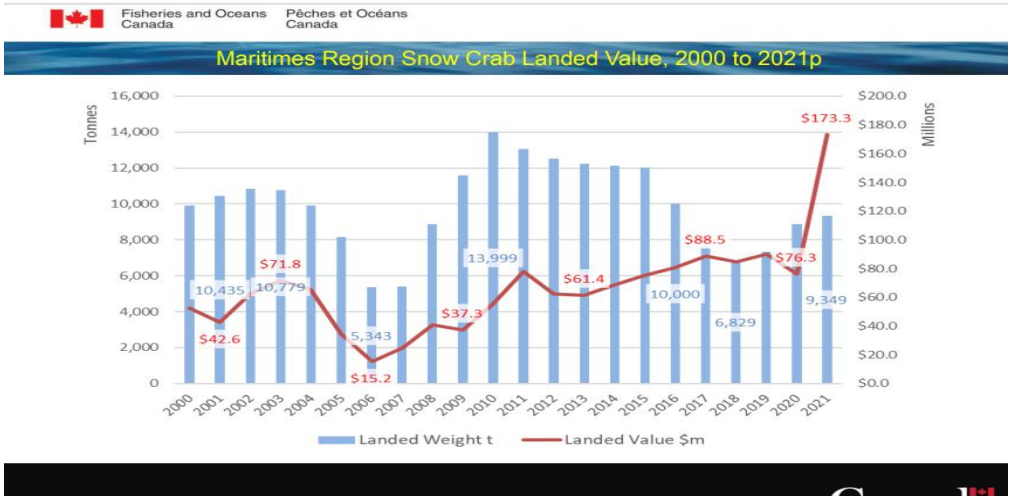
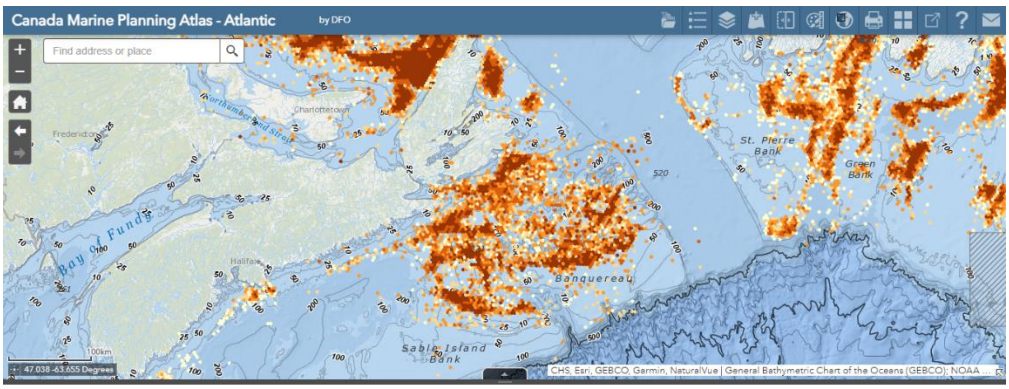


Fig 14. Image below is Maritimes region snow crab landed value.



To display where that dollar value of snow crab comes from, see image below, Eastern Nova Scotia.

Fig. 15. Snow Crab landings from ATLAS



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Shrimp fishing occurs on the northern edge of this Low Conflict Area of Canso Bank. These landings are displayed on the DFO Atlas. Shrimp are also identified as a food source for the snow crab in the area.

Redfish – Canso Bank is under a privacy screen for redfish landings.

Swordfish – Canso Bank is under a privacy screen for swordfish landings.

Whelk Fishery – There are two licenses for whelk, near Canso. No data for landings as it was up until recently an experimental fishery.

Middle Bank identified by AEGIR report is a high fishing area for fishermen in the northeastern part of Nova Scotia. Low Conflict Area #21. Landings are not recorded as displayed on the DFO atlas because it is a small fleet comparatively to other more densely populated fishing ports in Nova Scotia. The nautical chart below as well as the image above for herring displays that herring fishery and halibut fishery occurs in the area known as Middle Bank, Low Conflict Area #21, Fig 16. The DFO atlas displays shrimp, halibut, snow crab and scallop fishery data within this Low Conflict Area. We also have snow crab fishermen that travel through this area to get to their snow crab fishing grounds.

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Fig 16.

An area highlighted as Halifax area in the AEGIR report is not close in proximity to the city of Halifax. See image below. Its unclear exactly where this location is. We would assume it is within Low Conflict Area #22. It is stated in the AEGIR report that there is fishing activity areas close by. We assume it has only been identified because of the close proximity to shore which would result in low cost of energy production. The DFO atlas displays halibut landings, hake, swordfish, snow crab and bluefin tuna within this Low Conflict Area #22. Privacy screened flounder landings and Whelk. Privacy screened fishing data for shrimp occurs here within Low Conflict Area #22. To create a buffer around high fishing density areas, we have suggested to cut down the size of this Low Conflict Area #22. There are still fishery landings within this LCA that would necessitate compensation. We are concerned that if we delete this LCA #22 completely then an energy proponent will be given their preferred previously identified “surveyed area” closer to shore directly in a high snow crab, hake, hagfish, cod, halibut, scallop, shark and bluefin tuna fishing area.

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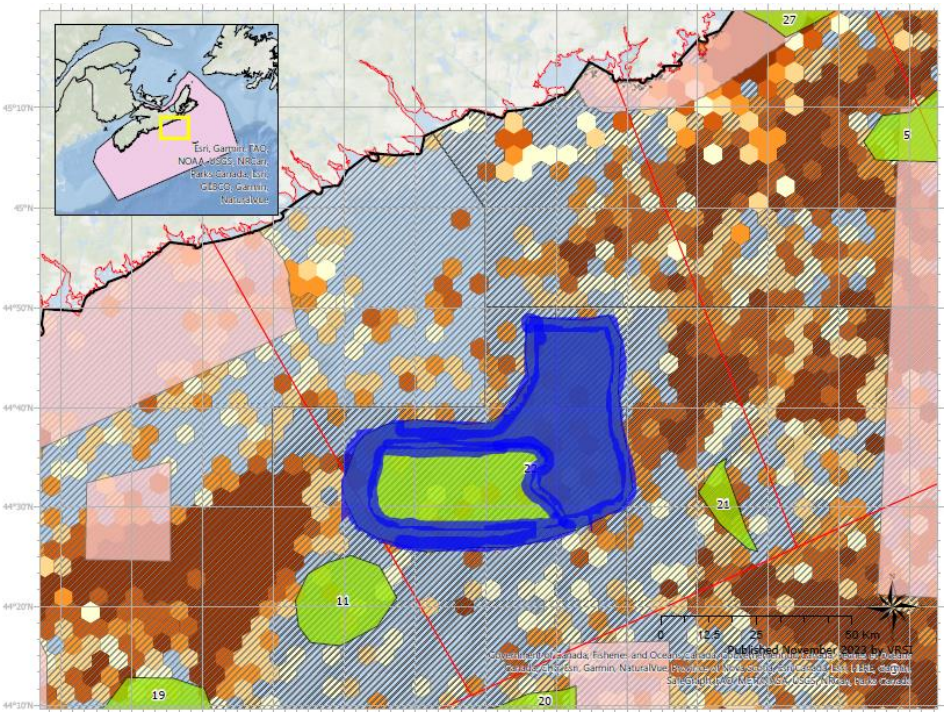
Fig 17.



Halibut landings within a renewable energy proponents “Study Area” is highlighted below, fig 18. The savings a renewable energy company would gain by leasing an area closer to the coastline, will disappear through compensation for taking this valuable halibut and snow crab fishing area. The gains from going closer to shore are not going to be realized. The DFO ATLAS displays fishery data in weight, a dollar value can be placed on each of these hexagons for each fishery. Compensation will include future economic losses into perpetuity. The cost of compensation of these two fisheries alone (halibut and snow crab) within this space erases any financial advantage the proponent would have by placing the project there.

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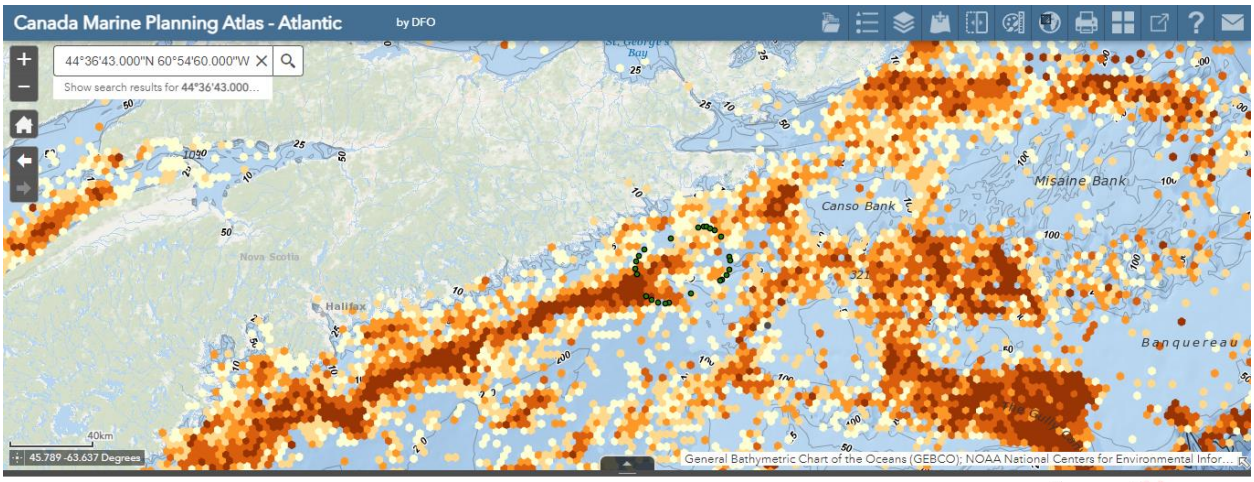
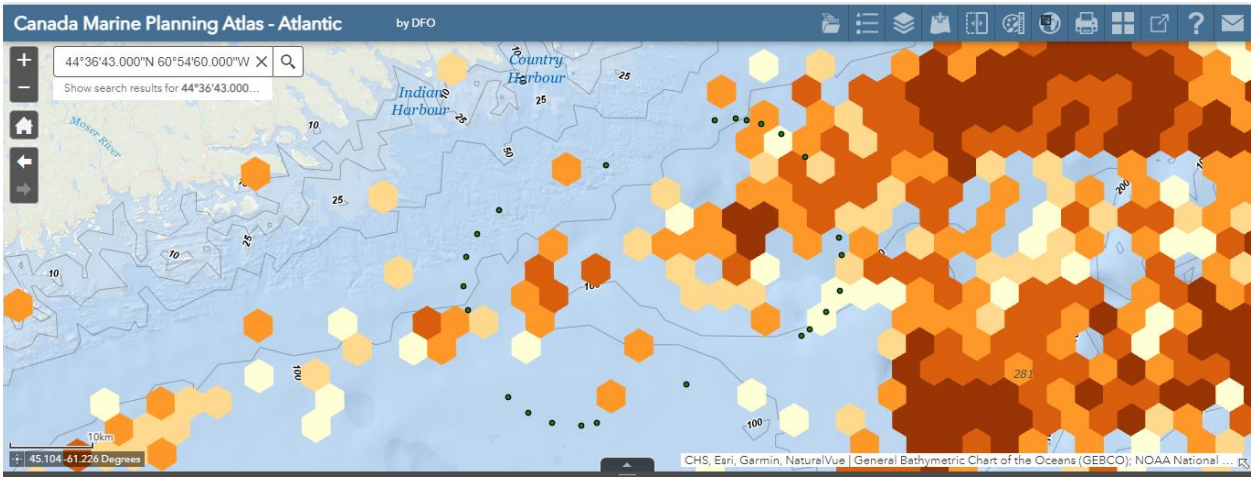
Fig 18. Halibut landings



Snow crab landings with renewable energy proponent “study area” highlighted is below, fig 19.

Fig 19. Snow Crab landings



This “study area” also encroaches on bluefin tuna fishery activity as displayed on the ATLAS and the inshore lobster fishery is currently setting traps only 5km away from this study area. We expect the inshore lobster fishery to expand its range in the future years due to climate change.

Low Conflict Area #27 – The mouth of Chedabucto Bay is not a major bank that has been identified so we have not included an explanation of this area to the fisheries alliance. A major shipping lane runs through it and even more fishing occurs here than the lucrative fishing banks nearby. We have more information about this fishing area if required in the future.

Image below is mapping historical fishing patterns relative to proposed areas of “low impact” VMS data has been used as opposed to logbook data thinking it better captures the length of

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tows, and the coming and going steaming patterns to the fishing grounds. Shrimp Fishing areas, Fig 20 and 21.

Fig 20.

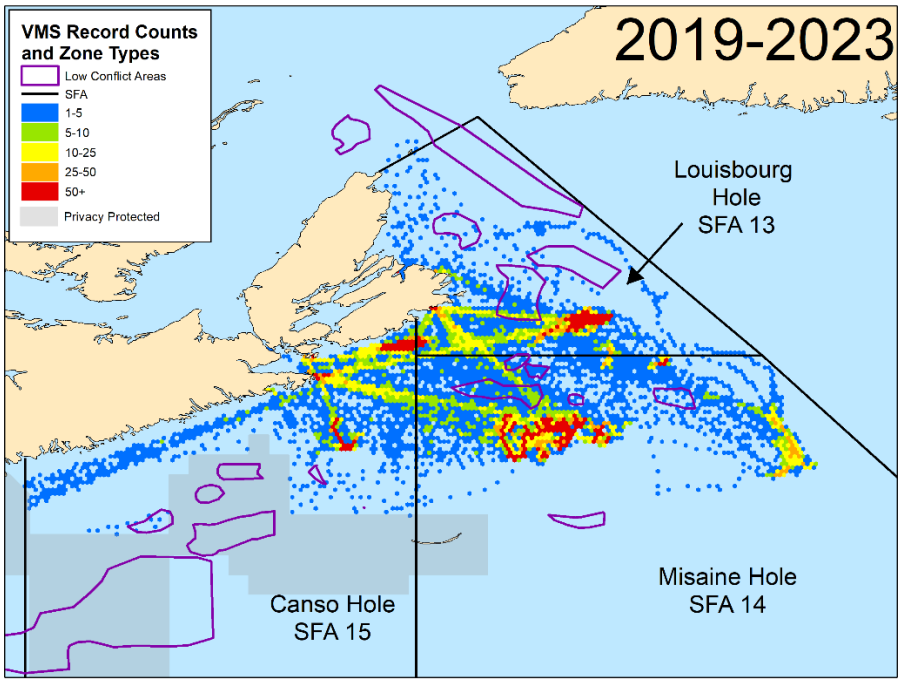

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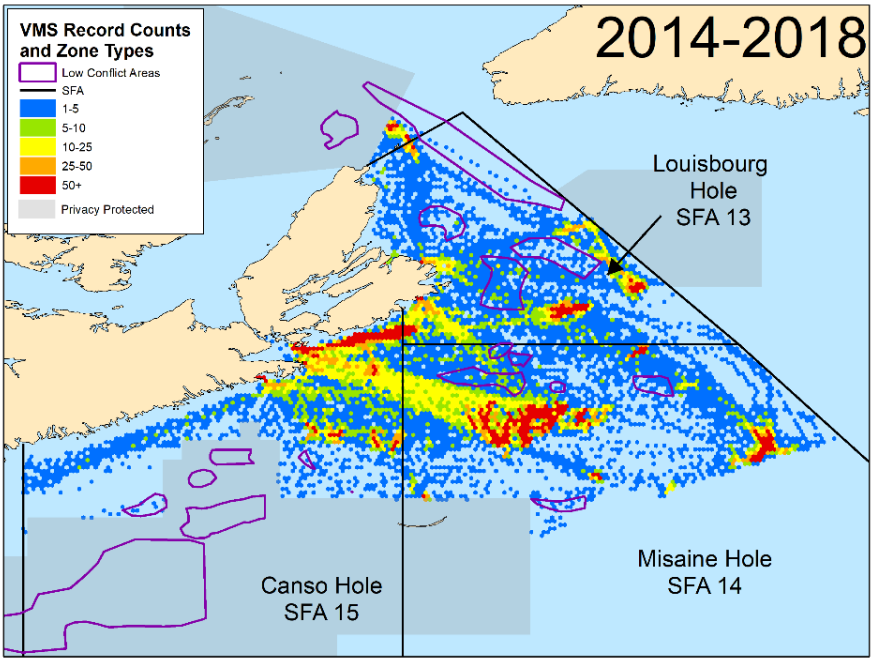
Fig 21.



The images below display some of our members fishing areas for crustaceans and groundfish.

Fig 22.

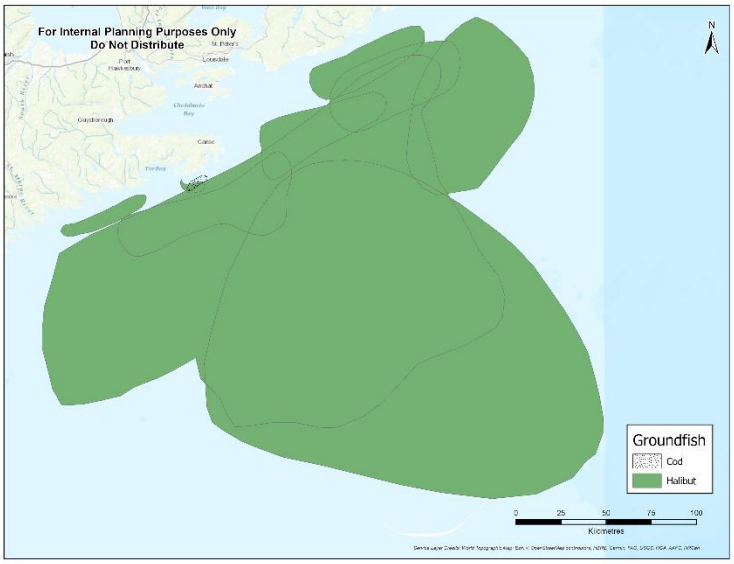


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Fig 23.

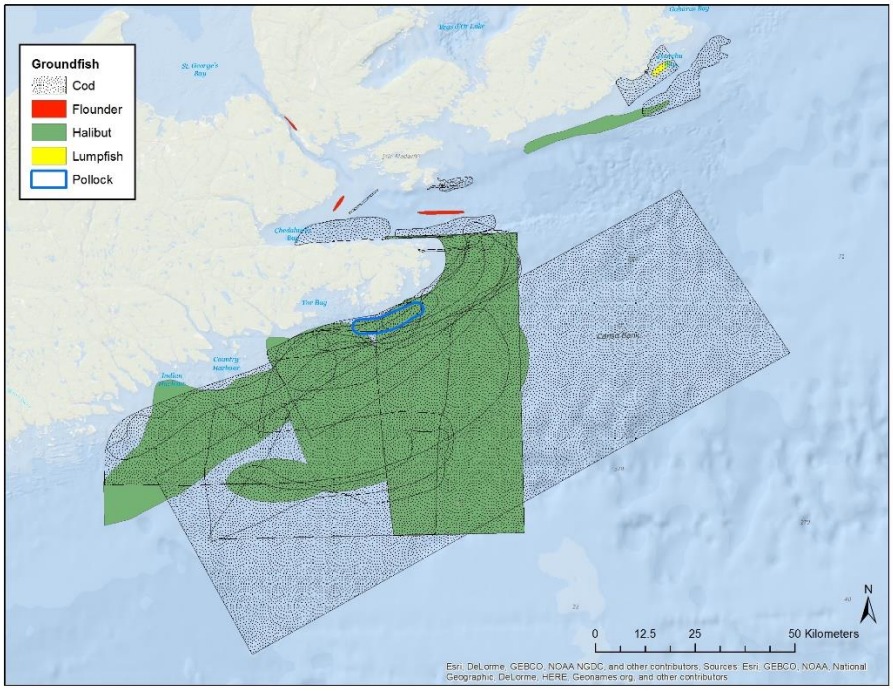

Fig 24.

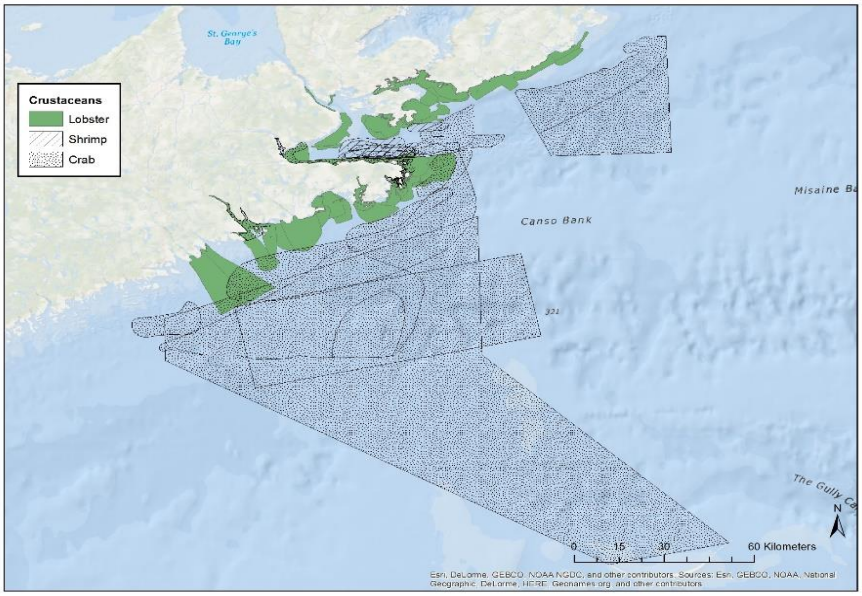

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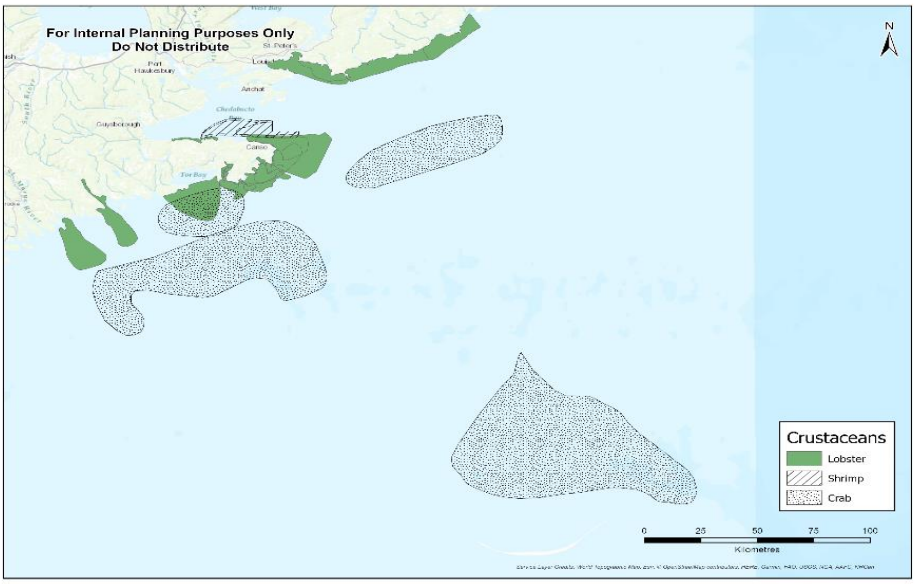
Fig 25.



The images below displays some fishing spatial data for large pelagic fish species in the Canso area. Bluefin Tuna and Shark. It does not display data from fishing boats that travel to this area to fish from PEI, Cape Breton and the gulf NS.

Fig 26.

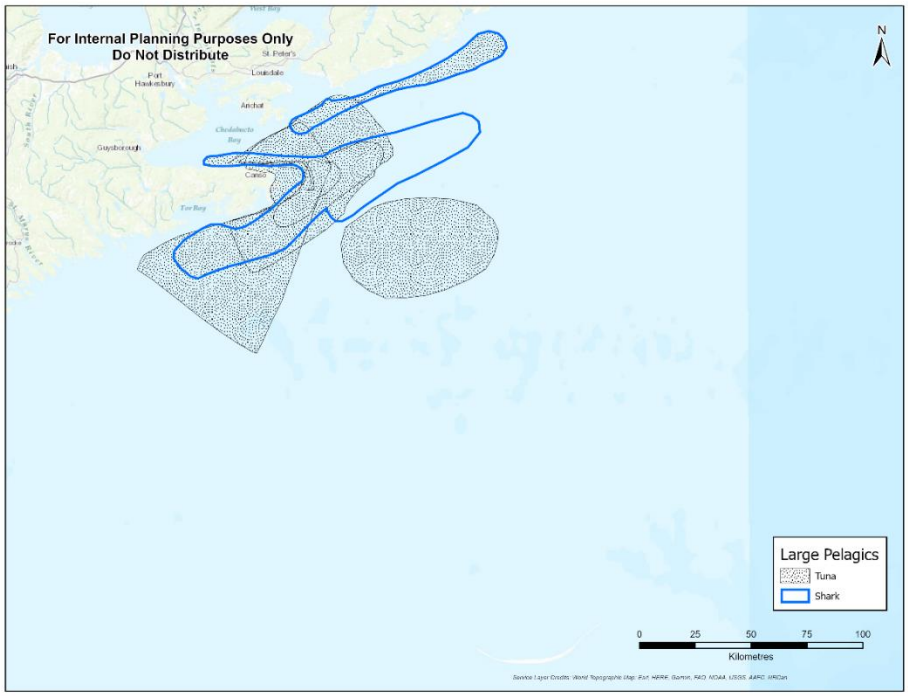


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Fig 27.

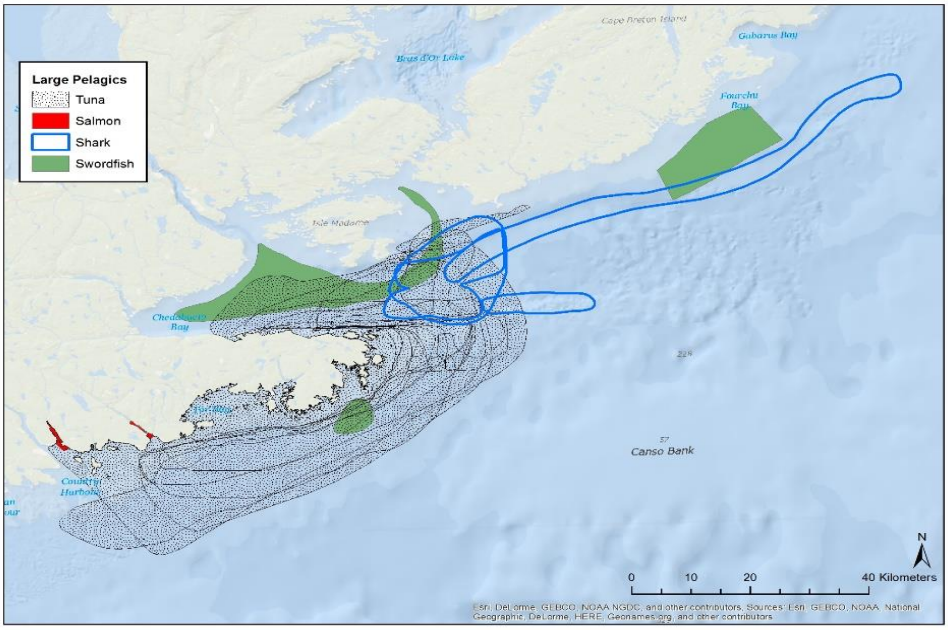

Fig 28.

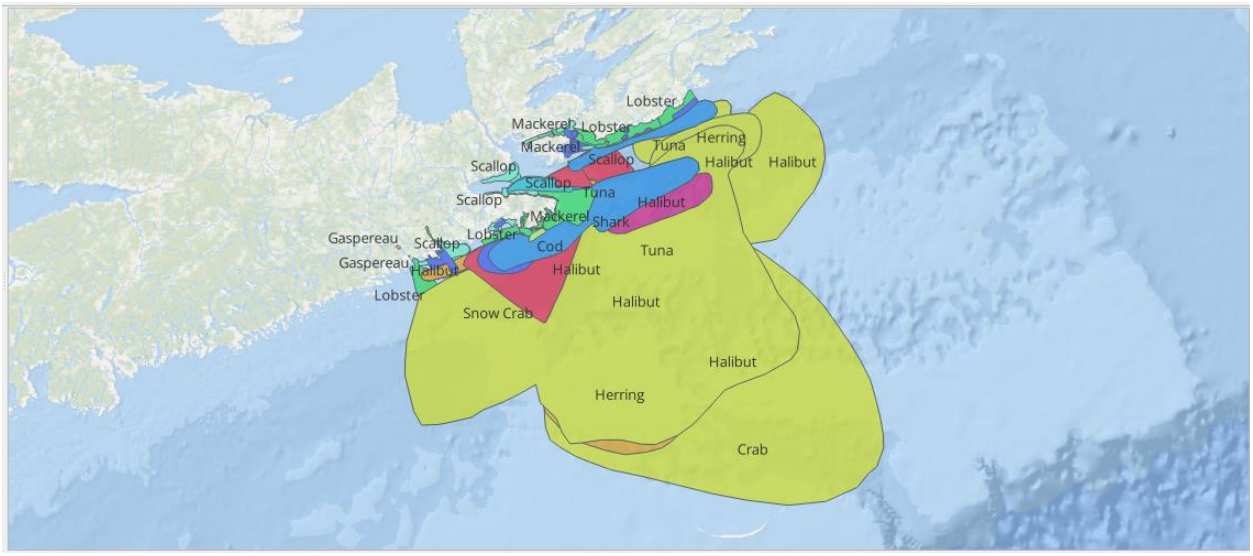

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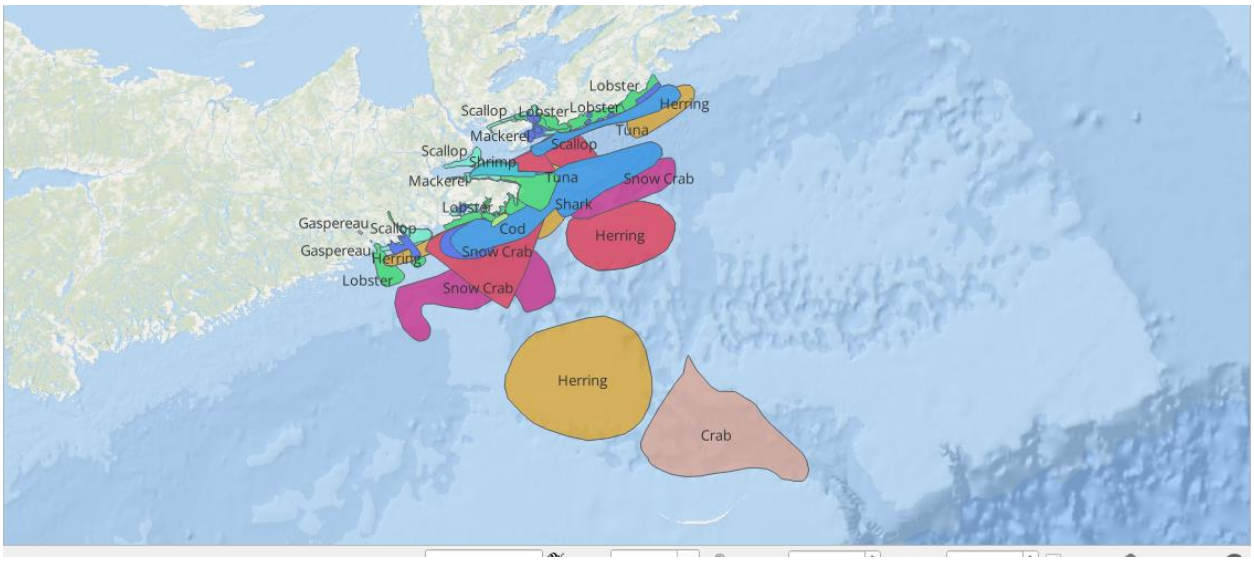
Fig 29.



Designating Canso Bank as a potential area for renewable energy development would be a devastating loss to fishermen in eastern Nova Scotia. Many fishing boats from Cape Breton travel southwest to this area to fish. Many fishing boats from the Halifax area travel east to fish this area. Fishing boats from PEI and the Gulf NS travel to this area each year to fish Bluefin Tuna. Snow crab area CFA24 is from Fourchu (Cape Breton) to Pennant point near Sambro but most of the snow crab landings are occurring in the eastern end of this CFA, see Fig 13 and 15 for snow crab landings displayed on ATLAS. Converting this area to a renewable energy site will impact hundreds of fishermen's business from Sambro to Cape North, PEI and the gulf NS. It doesn't make sense to place a wind farm in such a high fishing area when there are areas just farther east that have lower fishing activity that have just as much wind resource. The cost savings that would be gained from placing wind farms in the Canso bank area would be lost through compensation of future fishery landings within the area. Guysborough County Inshore Fishermen's Association struggles to balance our communities need for renewable energy with our reliance on a healthy ocean ecosystem. We will continue to support our coastal communities by the sustainable harvesting of a healthy food source for Canadians supporting UN SDG 2 and 14.