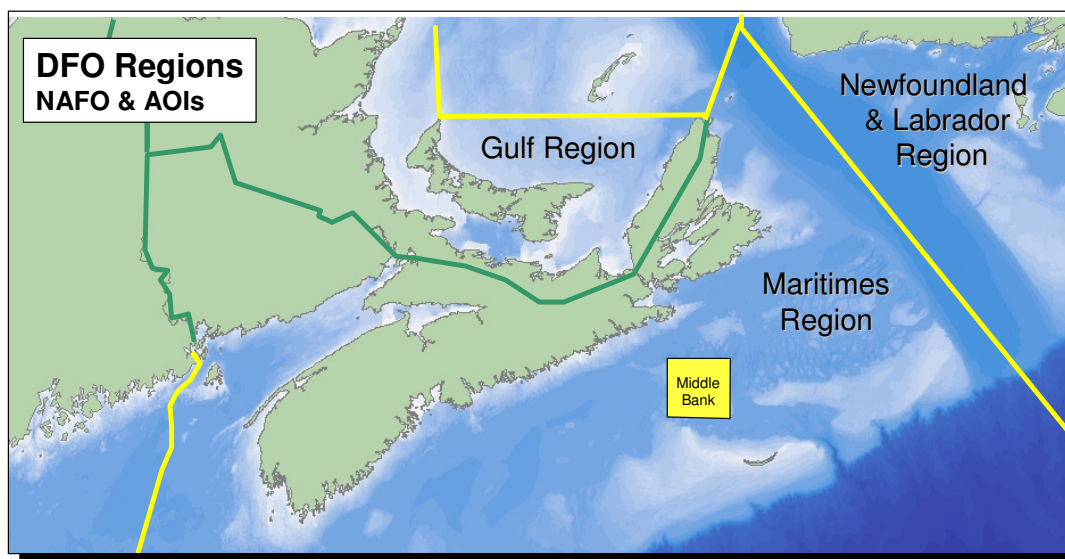


# **SOCIO-ECONOMIC PROFILE**

## **MIDDLE BANK AREA OF INTEREST**



This report is a socio-economic profile of the Middle Bank (MB) candidate area of interest (AOI). The report covers all direct socio-economic activities currently identified with the area of interest. As such, landed values used in the report represent only the value of the fishery when landed and do not include additional value-added activities such as processing or transportation. The analysis in no way suggests or implies the potential socio-economic impacts of a Marine Protected Area (MPA) designation on the area. Any impacts of an MPA designation will be dependent on whatever protection measures are implemented for the chosen area.

The Middle Bank candidate area of interest is located north of Sable Island Bank and is approximately 3,700 km<sup>2</sup> in size. The area includes Middle Bank and the channels, holes, and mounds to the north of the bank.

***What commercial fisheries currently operate on the Middle Bank AOI?***

Over the past 7 years, numerous fisheries have been active on the Middle Bank AOI including Bluefin Tuna, groundfish, Herring, Sea Cucumber, Sea Scallops, Shrimp, and Snow Crab.

In 2008, vessels fishing on the Middle Bank AOI primarily landed Snow Crab and Shrimp. All vessels landed in the Maritimes Region.

***What are the current landed values and landed quantities of the commercial fisheries operating on the Middle Bank AOI?***

In 2008, the total quantity landed of all species caught on the Middle Bank AOI was approximately 1,675 tonnes (t) which translated into a total landed value of approximately \$4.8 million.

The landed value was comprised primarily of Snow Crab with a total landed value of approximately \$4.2 million or 88% of the total landed value caught in the area.

Table 1 Landed Quantity and Landed Value, 2008

Species	Landed Value (\$)	Landed Quantity (Round Kg)
Snow Crab	\$4,226,158	930,104
Shrimp	\$324,356	311,807
Other	\$275,348	405,520
<b>Total</b>	<b>\$4,825,862</b>	<b>1,647,431</b>

Note: Landed values do not include additional value obtained through processing

***How seasonal are the fisheries on the Middle Bank AOI?***

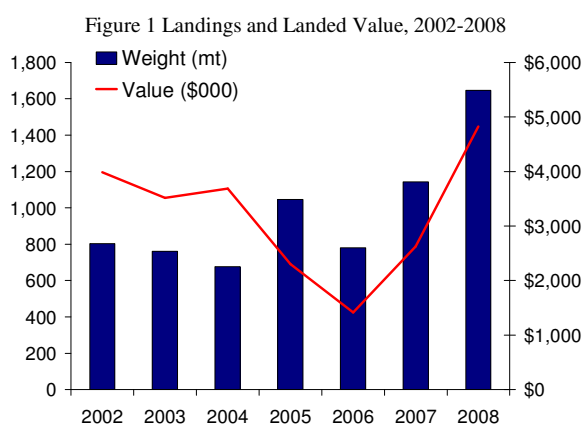
In 2008, fisheries were active on the Middle Bank AOI ten months of the year with no activity in January or February. The months fished by vessels operating on the Middle Bank AOI varied substantially by species. Table 2 summarizes months fished and the month reporting the largest landings in 2008.

Table 2 Months Fished and Peak Month by Species, 2008

Fishery	Months Fished	Peak Month	Peak Months Landings as a % of Fishery's Total Landings
Shrimp	March-June, October-December	November	31%
Snow Crab	June-October	July	66%
Other	April-October	September	35%

**What has been the trend for the commercial fisheries on the Middle Bank AOI since 2002?**

There has been a significant increase in landings caught on the Middle Bank AOI since earlier in the decade. The total landed value of all species caught on the Middle Bank AOI has been increasing since 2006 and reached a 7 year high of approximately \$4.8 million in 2008 (Figure 1). The increase in total value was led by an increase in Snow Crab and Sea Scallop landings. The Sea Scallop fishery appears to be highly cyclical with a peak occurring in 2003 and again in 2007 with other years showing very low or nonexistent landings.

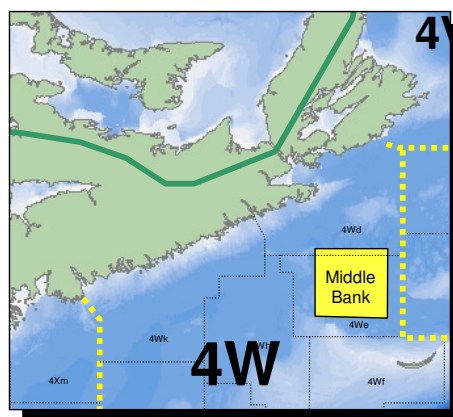


**What percentage of the total landed value of the NAFO unit areas does fishing on the Middle Bank AOI generate?**

The Middle Bank AOI is located in two NAFO unit areas 4Wd and 4We.

The total landed value of all species caught in NAFO unit area 4We and landed in the Maritimes Region was approximately \$9.5 million in 2008. Of this total value, approximately \$4.3 million or 45.7% was caught on the Middle Bank AOI.

The total landed value of all species caught in NAFO unit area 4Wd and landed in the Maritimes Region was approximately \$42.3 million in 2008. Of this total, approximately \$480,000 or 1.1% was caught on the Middle Bank AOI.



***How important are the species caught on the Middle Bank AOI in a regional context?***

Total landings from the Middle Bank AOI produce only a small share of the Maritimes Region’s total landed value. In 2008, species caught on the Middle Bank AOI and landed in the Maritimes Region contributed approximately 0.74% to the total Maritimes Region landed value and 0.60% to total Maritimes Region landings.

Two species caught on the Middle Bank AOI and landed in the Maritimes Region were of significant importance to their respective fisheries, Snow Crab and Sea Cucumber. Snow Crab caught on the Middle Bank AOI and landed in the Maritimes Region represented 10.4% of the total value of Snow Crab landed in the Region. Sea Cucumber caught on the Middle Bank AOI represented between 10% and 20% of the total landed value of the species in the Maritimes Region.

***How many vessels actively fish on the Middle Bank AOI?***

In 2008, there were 45 active vessels fishing on the Middle Bank AOI. Over half of these vessels fished Snow Crab. The breakdown by species is summarized in Table 3.

Table 3 Number of Vessels by Primary Species, 2008

<b>Primary Species</b>	<b>Total</b>
Snow Crab	26
Shrimp	11
Other	8
<b>Total</b>	<b>45*</b>

Note: Some vessels may fish more than one species. Primary species categorization is based on the species that contributed the most to the vessel’s total landed value.

***How dependent are the active vessels on catches from the Middle Bank AOI?***

Over half of the vessels that are active on the Middle Bank AOI are not very dependent on the area although two vessels are almost exclusive to the area. Of the 45 active vessels fishing on the Middle Bank AOI, 29 earned less than 25% of their total landed value from fishing in the area. The breakdown by dependency is summarized in Table 4.

Table 4 Vessel Dependency, 2008

<b>Dependency</b>	<b>Number of Vessels</b>
< 25%	29
25-50%	5
50-75%	9
>75%	2

***What gear types are used on the Middle Bank AOI?***

In 2008, the most common gear types used by vessels fishing on the Middle Bank AOI were trap, longline and Shrimp trawl.

***What is the total estimated employment generated from fish harvesting on the Middle Bank AOI?***

It is estimated that approximately 194 individuals worked on vessels fishing on the Middle Bank AOI in 2008, with over half estimated to work on Snow Crab vessels. However, due to the seasonal nature of the fishing industry this does not necessarily represent full-year or full-time employment. Estimated employment by primary species is summarized in Table 5.

Table 5 Estimated Employment by Species, 2008

Primary Species	# Vessels	Average Crew Size*	Total
Shrimp	11	6	66
Snow Crab	26	4	104
Other	8	3	24
<b>Total</b>	<b>45</b>		<b>194</b>

Note 1: Average crew size estimates are from Cost and Earnings Survey, Management Plans & other DFO sources.

Note 2: Total does not necessarily represent full-time/full-year employment.

In addition to the employment generated from fish harvesting in the Middle Bank AOI there is also employment generated on shore due to related activities such as processing and transportation. Estimates of this additional employment are not available at this time.

***How much crew income does fishing on the Middle Bank AOI generate?***

Assuming a crew share of 40% of the vessels' landed value, it is estimated that in 2008 species caught on the Middle Bank AOI generated approximately \$1.9 million in crew income. Employment on Snow Crab vessels accounted for approximately 90% of total crew income. The estimated income by primary species is summarized in Table 6.

Table 6 Estimated Crew Income by Species Category, 2008 (\$)

Primary Species	Total Number Employed	Estimated Total Income
Shrimp	66	\$129,743
Snow Crab	104	\$1,690,463
Other	24	\$110,139
<b>Total</b>	<b>194</b>	<b>\$1,930,345</b>

Note: Actual crew share may vary by fishery.

### ***How much First Nation's activity occurs on the Middle Bank AOI?***

There are currently 6 First Nation licence holders operating 13 First Nation vessels actively fishing on the Middle Bank AOI. This represents over a quarter of all vessels active in the area. Together these vessels landed over \$1.1 million in 2008 with Snow Crab representing most of the landings.

All of the 6 active First Nation licence holders that fished on the Middle Bank AOI earned less than 25% of their total landed value from fishing in the area.

### ***In what counties do the vessels land?***

In 2008, vessels reporting landings from the Middle Bank AOI landed in 15 ports located throughout Nova Scotia. These ports were located in Cape Breton, Richmond, Guysborough, Halifax and Shelburne County. Approximately 57% of the landed value from the Middle Bank AOI was landed in Guysborough County with another 25% of the value landed in Richmond County. County summaries for Nova Scotia are summarized in Table 7.

Table 7 Summary by County, 2008

<b>Nova Scotia County</b>	<b># Vessels</b>	<b>Value (\$)</b>	<b>Weight (Round kg)</b>
Guysborough	19	\$2,744,699	1,124,694
Richmond	17	\$1,202,823	291,019
Cape Breton	5	\$556,160	174,786
Other Counties*	10	\$322,181	56,932
<b>Total</b>	<b>45*</b>	<b>\$4,825,863</b>	<b>1,647,431</b>

Note 1: Total number of vessels may not add up as there may be some double counting of vessels due to vessels landing in more than one county.

Note 2: Other counties include Halifax and Shelburne. Information is aggregated due to confidentiality.

### ***How important to the communities in Nova Scotia are landings from the Middle Bank AOI?***

Landings from the Middle Bank AOI represent a small share of the five counties' total landed value. The total landed value of all species landed in Guysborough County was approximately \$55.3 million in 2008. Of this total, approximately \$2.7 million or 5% was caught on the Middle Bank AOI. In Richmond County, of the approximately \$30.3 million in total landed value, just under 4% was caught on the Middle Bank AOI. County dependency on the AOI is summarized in Table 8.

Table 8 County Dependency, 2008

<b>Nova Scotia County</b>	<b>Landed Value from MB Fisheries</b>	<b>Total Landed Value from all Fisheries</b>	<b>% of Total Landed Value Caught on MB</b>
Guysborough	\$2,744,699	\$55,340,266	4.96%
Richmond	\$1,202,823	\$30,293,722	3.97%
Cape Breton	\$556,160	\$55,350,132	1.00%
Other Counties*	\$322,181	\$186,441,434	0.17%

Note : Other counties include Halifax and Shelburne. Information is aggregated due to confidentiality.

***How many processing plants are there in the communities reporting landings from the Middle Bank AOI?***

Of the estimated 184 active processing plants in Nova Scotia, 86 were located in counties reporting landings from the Middle Bank AOI. In Guysborough and Richmond Counties, which reported landing 82% of the total value from the AOI, there were 11 active processing plants. The number of processing plants by county is summarized in Table 9.

Table 9 Number of Processing Plants by County, 2006

<b>Nova Scotia County</b>	<b>Number of active plants</b>
Guysborough	6*
Richmond	5*
Cape Breton	7
Halifax	20
Shelburne	48
<b>Total</b>	<b>86</b>

Note: \* indicates where the highest landings occur  
 Number of active plants - source: Nova Scotia Seafood Processing Sector State of the Industry and Competitiveness Assessment, Gardner Pinfold (2007)

***How dependent are the communities in Nova Scotia on fish processing and fish harvesting?***

In Guysborough County, where 57% of the total value from the Middle Bank AOI was landed in 2008, 17% of the labour force is employed in the fishing and fish processing industry during 2005. In Richmond County where an additional 25% of the AOI total value was landed in 2008, 11% of the labour force is employed in the fishing and fish processing industry during 2005. The number of individuals employed in fishing and seafood processing by county is summarized in Table 10.

Table 10 Total Number Employed by County for Selected Industries during 2005

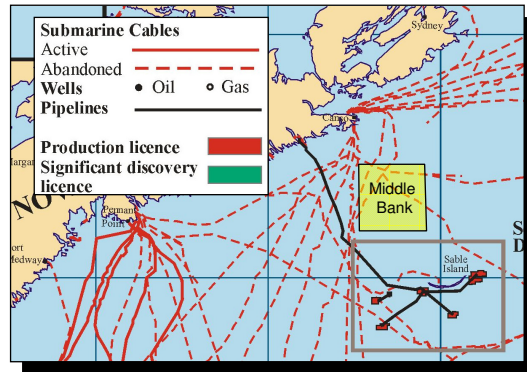
<b>Nova Scotia County</b>	<b>Total Experienced Labour Force 15 years and Older</b>	<b>Fishing</b>	<b>Seafood Product Preparation and Packaging</b>
Cape Breton (% of Total)	45,175 (100%)	970 (2.15%)	505 (1.12%)
Guysborough (% of Total)	4,215 (100%)	395 (9.37%)	340 (8.07%)
Richmond (% of Total)	4,175 (100%)	175 (4.19%)	275 (6.59%)
Halifax (% of Total)	210,135 (100%)	720 (0.34%)	520 (0.25%)
Shelburne (% of Total)	7,710 (100%)	2,085 (27%)	1,025 (13%)

Source: Statistics Canada, 2006 Census

***Is there any oil or gas activity currently operating on the Middle Bank AOI?***

There are no oil or gas wells, pipelines or exploration licensing agreements currently in place on the Middle Bank AOI. The area is just north of the current Sable Island project.

The area is within the Nova Scotia Department of Energy’s ‘Available Offshore Lands’ boundary.

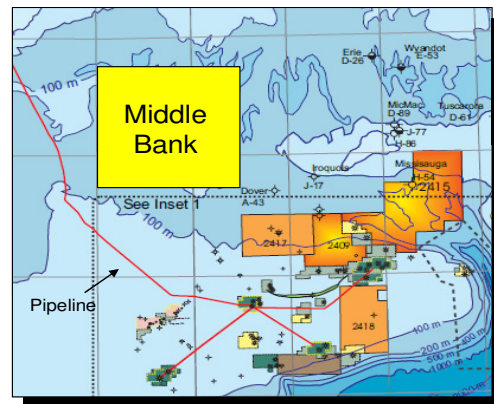


Source: <http://www.gov.ns.ca/energy/oil-gas/offshore/current-activity/>

***Are there any other oceans activities occurring on the Middle Bank AOI?***

There are no active submarine communications cables within the Middle Bank AOI however; there are a number of abandoned cables running through the area.

Other activities that may occur in the area include water transportation, ocean tourism and government services. Information on these potential activities is not available at this time.



Source: <http://www.acls-aatc.ca/>



**APPENDIX**

Figure A1 Snow Crab Landings and Landed Value, 2002-2008

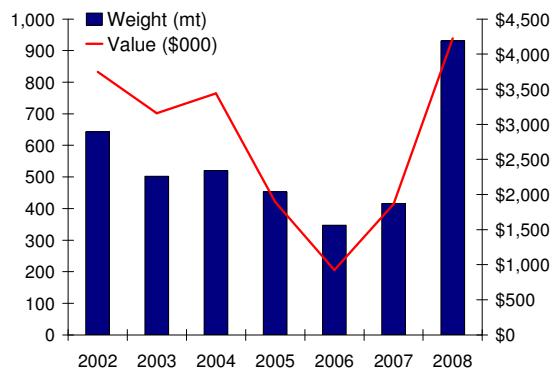


Figure A3 Other Landings and Landed Value, 2002-2008

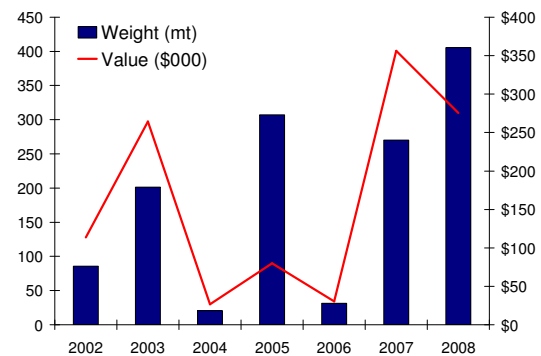
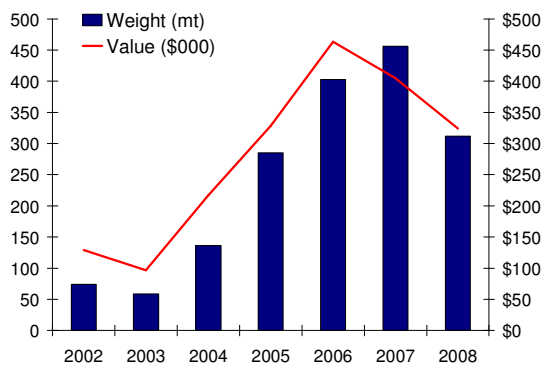


Figure A2 Shrimp Landings and Landed Value, 2002-2008



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