Integrated Fisheries Management Plan

Snow Crab in the Southern Gulf of Saint Lawrence

Crab Fishing Areas 12, 12E, 12F, 19

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Foreword

The purpose of this Integrated Fisheries Management Plan (IFMP) is to document the main objectives for the Snow Crab Fishery in the Southern Gulf of St. Lawrence in Crab Fishing Areas 12 (18, 25, 26) 12E, 12F and 19 as well as the management measures that will be used to achieve the objectives. This document also serves to communicate basic information about the fishery and its management.

Where Fisheries and Oceans Canada (DFO) is responsible for implementing obligations under land claims agreements, the IFMP will be implemented in a manner consistent with these obligations. In the event that an IFMP is inconsistent with obligations under land claims agreements, the provisions of the land claims agreements will prevail to the extent of the inconsistency.

This IFMP is not a legally binding instrument which can form the basis of a legal challenge. The IFMP can be modified at any time and does not fetter the Minister's discretionary powers set out in the Fisheries Act. The Minister can, for reasons of conservation or for any other valid reasons, modify any provision of the IFMP in accordance with the powers granted pursuant to the Fisheries Act.

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1. Overview of the Fishery

1.1 History

Snow crab landings from the Gulf of St. Lawrence were first reported in the early 1960's as bycatches from groundfish draggers. In 1965, a Danish seine fishery was started for snow crab off Cheticamp, Nova Scotia (NS) and the program expanded into New Brunswick (NB) and Prince Edward Island (PEI) in 1966 and into Quebec (QC) in 1967. By 1968, fish harvesters had switched to baited traps and approximately 60 boats participated in the fishery with fishing effort concentrated in two areas: off Gaspe, QC and west of Cape Breton, NS. Over the next decade or so, policies were introduced to identify more clearly the snow crab fleets, to define various snow crab fishing areas in the southern Gulf of St. Lawrence including Areas 12, 18, 19, 25 and 26 and to implement various management measures which included trap limits, male snow crab only fishery, minimum mesh size, and monitoring soft-shell or white shell crab in the processing plants.

With new fishing grounds of snow crab being found almost every year, the fishery developed rapidly. Landings started to climb, with almost 35,000 t landed in 1982. The steady rise in catch was thought to be attributable to more efficient harvesting rather than an increase in the resource: using high-performance vessels equipped with highly sophisticated equipment, the fleets intensified their power and fishing effort. By 1990, landings in the southern Gulf of St. Lawrence reached a dramatic low of less than 10,000 t. New management approaches were introduced in Area 12, 18, 25, 26 including the introduction of individual quotas (IQs), the introduction of an annual biological trawl survey to assess the status of the stock, and the establishment of an annual Total Allowable Catch (TAC). These measures contributed to improvements in the management of the fishery while landings began to climb again.

With the steady increase in landings and good prices, the value of the fishery was on the rise and the issue of the sharing of the resource became paramount. In 1995, as part of an Atlantic-wide strategy to provide additional access to the lucrative snow crab resource, there was temporary sharing of the resource with non-snow crab harvesters, and in the southern Gulf of St. Lawrence new exploratory zones were either confirmed or created (12E and 12F). By 1996, the Department had explored the idea of "partnering" and the concept of co-management of fisheries. A five-year co-management approach was introduced in Area 19 (1996-2000) and in Area 12 (1997-2001). Each co-management approach included a temporary sharing formula based on a sharing threshold, and a joint project agreement where a number of projects were identified and cost-shared between industry and DFO. In addition, the Area 12 approach included the integration of Areas 25 and 26 into Area 12 to become Area 12-25/26 and an industry-led initiative known as the "Solidarity Fund" to aid plant workers and crew members through a levy on catches. New co-management approaches were implemented in Area 19 with the last one being for the period 2005-2010. Exploratory zones 12E and 12F became commercial fishing areas in 2002.

In 2003, the 30-vessel fleet of the Area 18 fishery was integrated into Area 12-25/26. Also in 2003, new access was allocated to the fishery representing 15% of the total allowable catch (TAC) of the integrated Area 12-18/25/26. This new access was stabilized in 2010. Since 2003, Areas 12, 18, 25, 26 are managed as a single fishing unit; for ease of reading, for events taking place from 2003 onwards, they will be referred to as Area 12.

The cost sharing of management in Areas 12 and 19 continued in one form or another until the end of the 2006 season when the Federal court ruled (*Larocque* decision) that some of these arrangements were not provided for in law.

The level of participation by Aboriginal communities increased as DFO worked with First Nations to address the 1999 Supreme Court of Canada ruling in the Marshall decision. In Area 12, DFO initiated a program to retire licenses from the traditional fleet in order to acquire sufficient quota to support First Nations' participation. However, the pace of retirement did not allow the acquisition of sufficient quota to meet the needs. Consequently, the distribution of the TAC was adjusted and, in 2006, those affected were offered a financial aid package.

The implementation of the Precautionary Approach in Canadian fisheries is the cornerstone for ensuring the conservation of fisheries resources. This management approach is based on maintaining the harvesting rate at a moderate level when stock status is healthy, promoting rebuilding of the stock when it is poor, and making sure that the risks of serious harm to the stock are kept low. The first step in implementing this approach was completed in 2010 for the southern Gulf snow crab resource with the identification of biological reference points.

In September 2012, the southern Gulf of St. Lawrence snow crab fishery received the Marine Stewardship Council (MSC) certification for sustainable fishery. Obtaining the MSC certification will allow maintaining or accessing markets. The current MSC certificate is held by a group of snow crab processors. The certification is valid for five years after which the fishery has to be recertified.

1.2 Type of Fishery

The snow crab fishery in the southern Gulf of St. Lawrence (southern Gulf) is conducted solely as a commercial fishery.

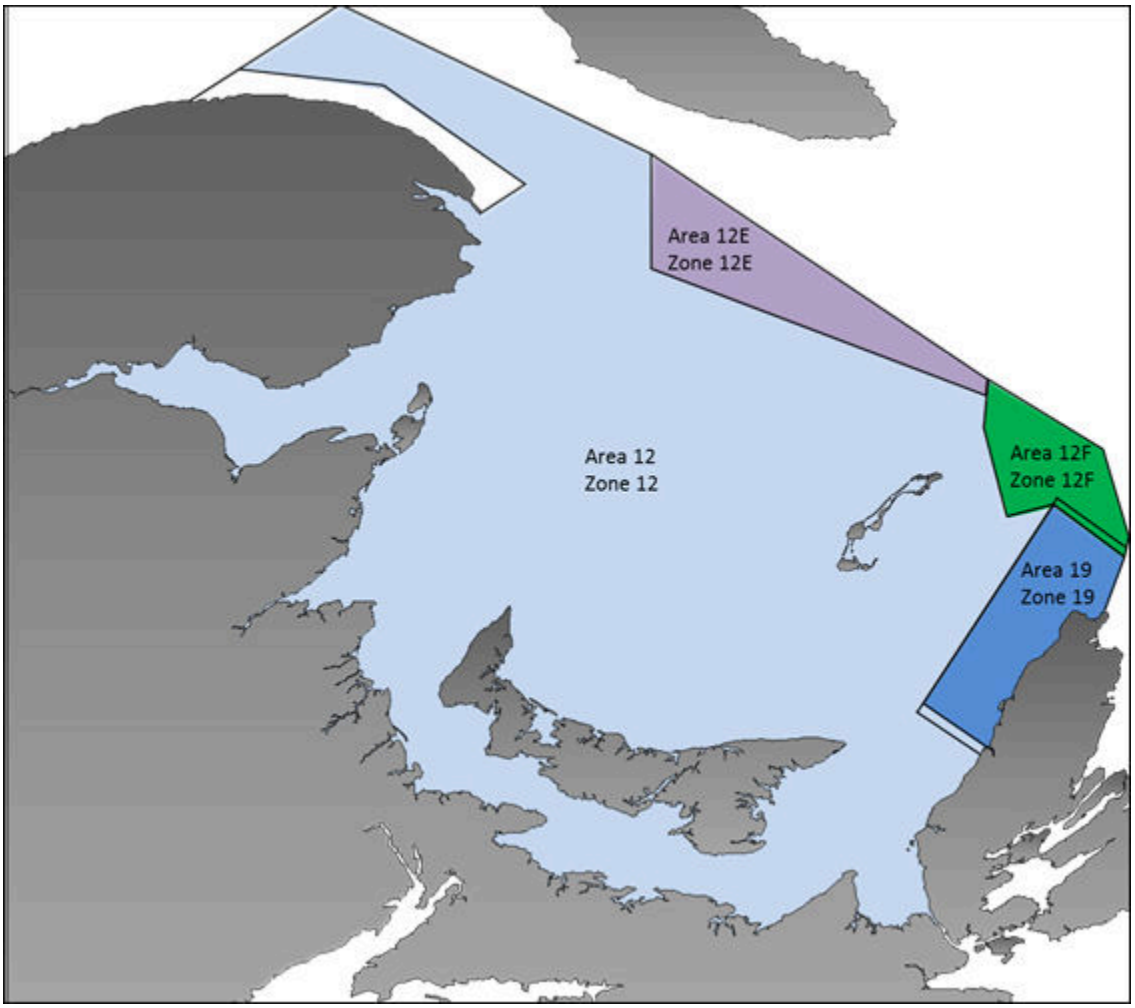
1.3 Participants

The southern Gulf snow crab fishery is comprised of First Nations, midshore fleets and inshore fleets (see Glossary) from NB, NS, PEI and QC. There are 12 First Nations communities which receive regular access to Area 12 and 3 in Area 19 as part of the Marshall Response Initiative.

1.4 Location of the Fishery

The fishery takes place in Crab Fishing Areas (CFA) 12, 12E, 12F and 19.

Figure 1: Snow Crab Fishing Areas in the Southern Gulf of Saint Lawrence



This figure illustrates the four snow crab fishing areas in the southern Gulf of St. Lawrence. Area 12 is the largest fishing zone and extends from Gaspé to the Magdalene Islands and towards the South. Area 12E is a narrow zone to the north-east. Area 12F is a smaller zone to the east of the Magdalene Islands. Area 19 is a zone adjacent to Cape Breton.

Crab Fishing Area 12, consists of the waters enclosed by the coastline and rhumb lines (similar to straight lines plotted on a nautical chart) joining the following points in the order which they are listed below:

Point Latitude - North Longitude – West

1. 46° 25′ 40″ 61° 07′ 00″
2. 46° 37′ 30″ 61° 30′ 15″
3. 47° 30′ 00″ 60° 43′ 20″

4. 47° 26′ 45″ 61° 00′ 00″
5. 47° 50′ 00″ 61° 08′ 25″
6. 47° 58′ 30″ 61° 07′ 30″
7. 48° 31′ 00″ 63° 08′ 30″
8. 49° 00′ 00″ 63° 08′ 30″
9. 49° 40′ 20″ 64° 54′ 50″
10. 49° 21′ 25″ 65° 35′ 30″
11. 49° 17′ 00″ 64° 44′ 00″
12. 48° 53′ 30″ 63° 48′ 54″
13. 48° 45′ 18″ 64° 09′ 54″

Crab Fishing Area 12E, consists of the waters enclosed by the rhumb lines (similar to straight lines plotted on a nautical chart) joining the following points in the order which they are listed below:

Point Latitude - North Longitude – West

1. 47° 58′ 30″ 61° 07′ 30″
2. 48° 02′ 30″ 61° 07′ 00″
3. 49° 00′ 00″ 63° 08′ 30″
4. 48° 31′ 00″ 63° 08′ 30″

Crab Fishing Area 12F, consists of the waters enclosed by the rhumb lines (similar to straight lines plotted on a nautical chart) joining the following points in the order which they are listed below:

Point Latitude - North Longitude – West

1. 47° 18′ 30″ 60° 18′ 00″
2. 47° 21′ 30″ 60° 16′ 00″
3. 47° 44′ 30″ 60° 25′ 15″
4. 48° 02′ 30″ 61° 07′ 00″
5. 47° 58′ 30″ 61° 07′ 30″
6. 47° 50′ 00″ 61° 08′ 25″
7. 47° 26′ 45″ 61° 00′ 00″
8. 47° 30′ 00″ 60° 43′ 20″
9. 47° 32′ 12″ 60° 42′ 15″
10. 47° 18′ 30″ 60° 18′ 00″
11. 47° 21′ 30″ 60° 16′ 00″
12. 47° 44′ 30″ 60° 25′ 15″
13. 48° 02′ 30″ 61° 07′ 00″
14. 47° 58′ 30″ 61° 07′ 30″
15. 47° 50′ 00″ 61° 08′ 25″
16. 47° 26′ 45″ 61° 00′ 00″
17. 47° 30′ 00″ 60° 43′ 20″
18. 47° 32′ 12″ 60° 42′ 15″

Crab Fishing Area 19, consists of the waters enclosed by the coastline and rhumb lines (similar to straight lines plotted on a nautical chart) joining the following points in the order which they are listed below:

Point Latitude - North Longitude – West

1. 46° 25′ 40″ 61° 07′ 00″
2. 46° 37′ 30″ 61° 30′ 15″
3. 47° 30′ 00″ 60° 43′ 20″
4. 47° 16′ 25″ 60° 17′ 40″
5. 47° 02′ 15″ 60° 24′ 55″

1.5 Fishery Characteristics

The fishery is prosecuted using baited traps set on muddy or sand-mud bottoms usually at depths of 70-140 metres. In the context of the precautionary approach, an annual TAC is established for the southern Gulf which takes into account the status of the stock and established biological reference points.

The opening date of the season varies annually based on consultations with the industry and the timing of the release of the management plan. The Area 12, 12E and 12F fisheries generally open once the southern Gulf is free of ice (mid-April) and close in mid-July while the Area 19 fishery generally opens in mid-July and closes in mid-September.

Among other fishery management measures in place are trap limits, a maximum mesh size in the traps, a minimum carapace size, no females retained, and a protocol to close areas so as to avoid excessive catches / handling / discarding at sea of soft crab/white crab (post-molt). Compliance mechanisms include at-sea monitoring through observer coverage and satellite tracking of vessels (Vessel Monitoring System) as well as the dockside monitoring of catches. More detailed information on TACs, management measures and access and allocation are found later in this document.

1.6 Governance

In addition to conservation and harvesting plans specific to each CFA, the fishery is governed by a suite of legislation, regulations, and policy including but not limited to those noted below:

- *Fisheries Act*
- *Coastal Fisheries Protection Act*, 1985
- *Oceans Act*, 1996
- *Species at Risk Act*, 2002
- *Atlantic Fishery Regulations* (AFR), 1985
- *Fishery (General) Regulations*, 1993
- *Aboriginal Communal Fishing Licences Regulations*, 1993
- Commercial Fisheries Licensing Policy for Eastern Canada 1996
- A Policy Framework for the Management of Fisheries on Canada's Atlantic Coast
- Sustainable Fisheries Framework: Conservation and Sustainable Use policies
    - A Fishery Decision-Making Framework Incorporating the Precautionary Approach
    - Policy on New Fisheries for Forage Species
    - Managing Impacts of Fishing on Benthic Habitat, Communities and Species

- Policy on Managing Bycatch

The Southern Gulf Snow Crab Advisory Committee provides the forum for consultation on matters related to the overall management of snow crab fishery in the southern Gulf. The Committee is comprised of representatives from First Nations, fish harvesters from each CFA, processors and provincial governments. The advisory committee is chaired by a DFO official from the Gulf Region, supported by Quebec region, regional and area officials in resource management, science, economics and conservation and protection. Historically, the advisory committee meets once annually. From time to time, ad-hoc working groups may be established by the committee to address specific issues. In addition, there are CFA-specific management committees to discuss management measures.

1.7 Approval Process

Decisions on the TAC and major conservation and management matters are made by the Minister of Fisheries and Oceans. Other decisions on elements related to the regular ongoing management of the fishery are made by the Regional Director General (RDG) Gulf Region in concert with the RDG from Quebec.

2. Stock Assessment, Science and Traditional Knowledge

2.1 Biological Synopsis

Snow crab (Chionoecetes opilio) is a crustacean like lobster and shrimp, with a flat, almost circular, body and five pairs of spider-like legs. In order to grow, the hard outer shell is periodically shed in a process called moulting. After moulting, crabs have a soft shell for a period of 8 to 10 months. Soft-shelled crab is defined by shell hardness (less than 68 durometer units). The term "white crab" describes both new-soft and clean hard-shelled crab (conditions 1 and 2, respectively). Unlike lobsters, snow crabs do not continue to moult throughout their lives. Females stop growing when they acquire a wide abdomen for carrying eggs, which occurs at shell widths less than 95mm. Males stop growing when they acquire large claws on the first pair of legs, which can occur at shell widths between 40 and 150 mm. In the southern Gulf of St. Lawrence, females produce eggs that are carried beneath the abdomen for approximately 2 years. The eggs hatch in late spring or early summer and the newly-hatched crab larvae spend 12-15 weeks floating freely in the water column. At the end of this period, they settle on the bottom. It takes at least 8-9 years for males to reach legal size. Snow crab in management Areas 12, 12E, 12F and 19 constitute a single biological population and the southern Gulf is considered as one unit for biological and assessment purposes.

2.2 Ecosystem Interactions

Environmental factors, such as water temperature, can affect the growth, moulting and reproductive dynamic as well as the movement of snow crab. The bottom temperatures over most of the southern Gulf of St. Lawrence are typically less than 3°C, which is considered suitable thermal habitat for snow crab.

2.3 Stock Assessment

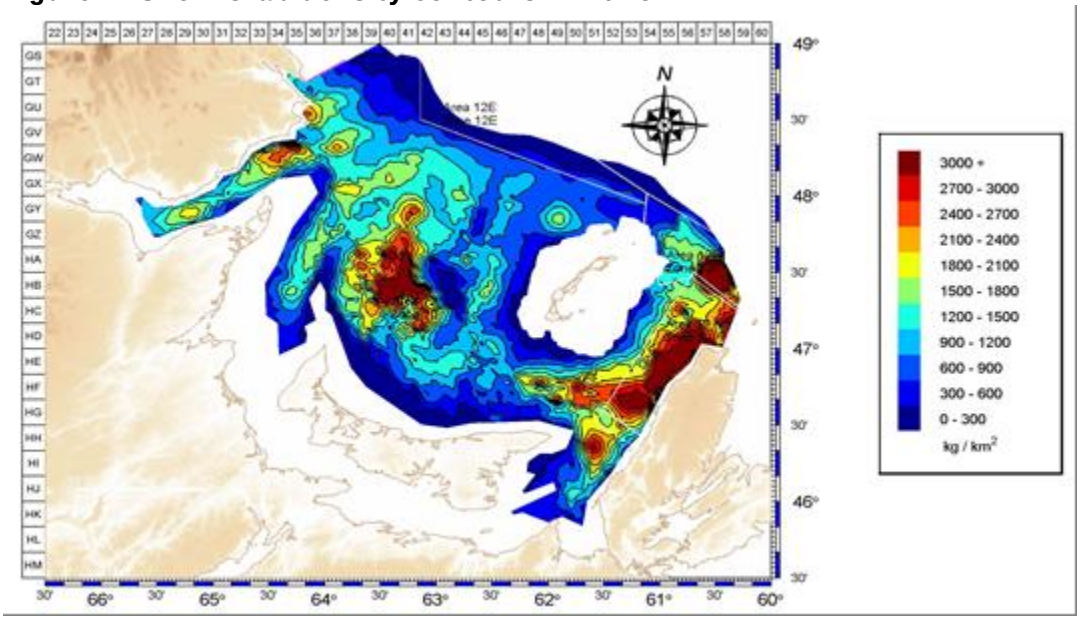
Snow crab assessments are conducted by DFO Science Branch and the results of the assessment are reviewed and the catch advice is developed through a science peer review process coordinated by the Canadian Science Advisory Secretariat (CSAS). The process includes participation by industry stakeholders so that their knowledge about the fishery is taken into account. Assessments and catch advice for the southern Gulf snow crab have been conducted annually. The peer reviewed assessments and science advisory reports are publicly available on the CSAS website.

The assessment of stock status is based on estimates of abundance derived from data collected using a multispecies annual trawl survey. The survey is conducted from July to September and samples the entire habitat of snow crab in the southern Gulf. From this survey, estimates of commercial biomass for the upcoming year's fishery and other stock related parameters are provided.

The commercial biomass consists of two categories of crab: hard-shelled adult males of legal size with carapace conditions 3 to 5 remaining after the fishery termed the residual biomass, and soft-shelled adult males larger than 95 mm carapace width (called R-1 or recruitment) of carapace conditions one and two that will be hard-shelled (carapace condition 3) and available to the fishery the following fishing season. As well, indices of future male recruitment (pre-recruits defined as R-4, R-3 and R-2) available to the fishery in 4, 3 and 2 years, respectively are provided. Indices of abundance of small adolescent male and female instar stage VIII (34-44 mm carapace width) are also provided as an indicator of longer term recruitment trends.

It takes at least six years for an adolescent male of instar stage VIII to reach the commercial size of 95 mm. Future and current spawning stock abundance indicators are developed based on the abundance of females (pubescent and mature). The term pubescent refers to females that will molt to maturity and mate the following year and become primiparous females (first brood). The term 'multiparous' refers to females which are carrying a brood for the second time or more. The term 'mature females', includes primiparous and multiparous females.

Figure 2: Snow Crab density contours in 2013



2.4 Stock Scenarios

The southern Gulf commercial biomass estimates have fluctuated through periods of high and low abundance. The period between successive highs is about ten years. The most recent high commercial biomass was estimated in 2005 and was followed by low abundance in 2010. Since 2000, the snow crab fishery has become largely dependent on the annual recruitment to the fishery (crab of carapace condition 3) rather than on the residual biomass from one year to the next. The 2012 post-fishery survey biomass of commercial-sized adult male crabs was estimated at 74,997t (95% C.I. 65,822 to 85,086 t), an increase of 18.7% from 2011. The available biomass for the 2013 fishery, derived from the 2012 survey, is within the healthy zone of the Precautionary Approach framework. Sixty five percent (65%) biomass, available for the 2013 fishery, is composed of new recruitment (48,969 t). The recruitment to the commercial biomass increased by 66.7% relative to the previous year. The residual biomass (26,028 t) decreased by 22.9% compared to 2011. The available predictions of recruitment of commercial-sized adult male crab indicate that they should remain at levels comparable to that of 2012 until the 2016 fishery.

2.5 Research

The current or recently completed research projects conducted by Science Branch are as follows: 1) Review of the methods for reconstructing a homogenous time series of biomasses and abundances from 1989 to present, (2) Alternate sampling designs to systematic sampling and analytical models to geostatistics should be considered for assessing the southern Gulf of St. Lawrence snow crab resource, (3) Study on "Temperature preference and a habitat index for

adult male and female snow crab, Chionoecetes opilio, in the Southern Gulf of St. Lawrence", (4) Research on the "Effects of temperature and gadid predation on snow crab recruitment: comparisons between the Bering Sea and Atlantic Canada", (5) Research on the "Effects of temperature on size-at-terminal molt and molting frequency in snow crab from two Canadian Atlantic ecosystems", (6). "Establishment of baseline data on snow crab biology for future assessment of potential impacts of seismic noise ".

2.6 Aboriginal Traditional Knowledge

Aboriginal Traditional Knowledge (ATK) is recognized in this fishery as a source of information. Where possible, DFO will consider and integrate ATK shared by aboriginal organizations in the assessment and management processes for this stock.

3. Economic, Social and Cultural Importance of the Fishery

According to the Food and Agriculture Organization (FAO), more than 30 species of crab are fished worldwide. In 2010, snow crab represented about 14% of world landings of crab (excluding aquaculture). Snow crab is fished primarily in Canada, the USA, Russia, Korea, Greenland, and in Japan and in 2010, Canadian landings represented approximately 43% of the global landings. In Canada, snow crab is fished only on the Atlantic coast with quotas being distributed between 23 crab fishing areas and in 2012, 18% of the landings volumes came from the southern Gulf areas. Detailed snow crab landing information can be found on DFO website.

The southern Gulf has seen three periods of high landings: 1981-1985, 1993-1997, and more recently 2004 to 2008; this is in keeping with the natural fluctuation of the commercial biomass (there was no biomass estimation prior to 1987). The peak landing was reported in 2005 (≈37,000t). Landed prices are subject to variations of the supply of snow crab not only at the regional level but also on world markets and are influenced as well by the supply of other crustaceans that can be substituted or are preferred to snow crab (e.g. Alaskan King crab, Dungeness crab, lobster).

Fishing enterprises consist of the captain and about four crew members for those staying at sea for 3-4 days at a time, or one crew member for those undertaking daily fishing trips. In 2012, 413 fishing boats (DFO 2011) and their crew participated to the southern Gulf snow crab fishery, providing seasonal harvesting employment to over a thousand individuals. Some fleets are made up of specialized snow crab fish harvesters while other fleets are multi-species licence holders with the most significant other species being lobster, herring, mackerel and tuna.

Snow crab is mainly exported. In 2012, total Canadian seafood export value was over $4,127M of which 13% ($551M) consisted of snow crab exports. Since the collapse in the 1990s of the snow crab and Tanner crab stocks in the USA, the volume of exports of Canadian snow crab to the USA have continued to increase. Snow crab export volumes to the USA from the combined provinces of New Brunswick, Nova Scotia, Prince Edward Island and Quebec increased from 64% in 2001 to 80% in 2012. During the same period, volumes to Japan decreased from around 31% to 14%. Since 2001 more than 90% of the snow crab is exported as sections or as whole frozen or fresh crab; very little crab is processed beyond this stage for export.

Canadian snow crab products face strong competition from other countries where snow crab is fished and from substitute products, particularly Dungeness crab and American lobster (for the in-shell market). Competition on the Japanese snow crab market comes mainly from Russia and Korea due to their geographic proximity to Japan while in the USA the competition comes mainly from American crab products.

In the USA, snow crab is destined to the middle to low-end market including low-price Asian and buffet restaurants, mid-range restaurants, casinos and over-the-counter sales. In Japan, the market for snow crab is more diversified and is situated in the middle to high-end segment of the market which includes luxury resorts, sushi restaurants, gift baskets and over-the-counter sales (Pinfold 2006).

Because of its high dependence on the American market, significant changes in the exchange rate or in the economic climate can have an important impact on the price paid to processors and consequently to fish harvesters. The recovery in the USA of the snow crab and Tanner crab fisheries could also have a negative impact on the Canadian industry.

4. Management Issues

4.1 Fisheries Issues

4.1.1 Large Variation in Resource Abundance

The southern Gulf snow crab commercial biomass oscillates in a cyclical manner with about 5 years of strong recruitment to the fishery followed by 4-5 years of lean recruitment pulses. The periods of low abundance can have impacts on incomes and employment in the harvesting and the processing / transportation sectors and results in reduced economic activity in those communities with an attachment to the fishery.

4.1.2 Highgrading / Discarding at Sea

Highgrading, which is an illegal activity, occurs when sorting and discarding of commercial-sized crab is carried out at sea to improve catch composition for the purpose of obtaining higher value for the catch. The discarding of smaller commercial-sized crab (for ex. 95 mm to 102 mm, 3 ¾ to 4 in), damaged crab (handling induced missing legs for example) and older “mossy” crab” are examples of highgrading practices which are prohibited in the fishery.

4.1.3 Access to the Resource

In 2003, access to the fishery in Area 12 was provided on a regular basis to new fleet sectors and this was stabilized in 2014. However, this element of the Area 12 management plan remains controversial for some fleets.

4.2 Depleted Species Concerns

Canada developed the Species at Risk Act (SARA) and a number of complementary programs to promote recovery and protection of species considered to be extirpated, endangered, threatened or of special concern. The protection and recovery of species at risk involves the development and implementation of species-specific recovery strategies, action plans and management plans depending upon their status. Snow crab in the southern Gulf has not been assessed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) and is not considered at risk by DFO.

All snow crab licence holders are required, through conditions of licence, to respect protection measures for species at risk and to submit to DFO a SARA logbook at the end of each fishing season for all their fishing trips. The logbook requires harvesters to report various information should they encounter species at risk. More information regarding aquatic species at risk.

4.3 Oceans and Habitat Considerations

Work continues to develop a network of Marine Protected Areas (MPAs) as tools to support the ecosystem approach and to support sustainable fisheries. MPAs are not necessarily “no take” zones; rather they are developed and implemented to support sustainable fisheries management. The first step in developing new MPAs requires the identification of Areas of Interest (AOI) which are identified by their ecological and biological importance and are deemed to be under some level of threat from human activity. Two AOI (Shediac Valley and American

Bank) have been identified in the southern Gulf of St. Lawrence and consultative processes have been initiated to ascertain whether they become MPAs.

The Sustainable Fisheries Framework provides the basis for ensuring Canadian fisheries are conducted in a manner which support conservation and sustainable use. It incorporates existing fisheries management policies with new and evolving policies (Fisheries Renewal). These include the Policy for Managing the Impact of Fishing on Sensitive Benthic Areas.

4.4 Gear Impacts

The fishing gear (conical traps) used in the southern Gulf of St. Lawrence snow crab fishery is not considered to have a significant detrimental impact on the fish habitat. The Canadian Science Advisory Secretariat (CSAS) publication "Potential impacts of fishing gear (excluding mobile bottom-contacting gears) on marine habitats and communities" outlines the potential impacts associated to habitats and species. Comparative studies of fishing gear have determined that traps have lesser impacts on habitats than other gear types (Kaiser et al. 2003).

4.5 International Issues

The European Union (EU) has introduced regulations effective January 2010 that require Canadian fish and seafood products to have a government validated catch certificate attesting that the product is not from an Illegal, Unreported, and Unregulated (IUU) fishery. More information can be found on the Fisheries Renewal website under Tracking & Traceability.

There are growing legal and market-driven demands in key fish importing countries for assurances that fisheries are managed sustainably and in environmentally responsible ways. In 2012, the southern Gulf snow crab fishery received the Marine Stewardship Council certification. The current MSC certificate is held by a group of snow crab processors. The MSC certification is required to access several markets, especially in Europe. Several major food chains like Loblaws in Canada and Walmart in the USA, have developed sustainable seafood source policies in partnership with MSC.

5. Objectives

There are a number of overarching objectives that guide fisheries management planning for all species. The objectives are guided by the principle that the fishery is a common property resource to be managed for the benefit of all Canadians, consistent with conservation objectives, the constitutional protection afforded Aboriginal and treaty rights, and the relative contributions that various uses of the resource make to Canadian society, including socio-economic benefits.

The conservation objectives require consideration of the impact of the fishery not only on the target species but also on non-target species and habitat. The social, cultural and economic objectives reflect Aboriginal rights and recognize the economic contribution that the fishing industry makes to the prosperity of Canadian businesses and many coastal communities. The Department is committed to managing the fisheries in a manner that helps industry stakeholders and First Nations to be economically successful while using the ocean's resources in an environmentally sustainable manner. The following objectives have been defined for the snow crab fishery in the southern Gulf of St. Lawrence.

Objectives

Stock Conservation

- To ensure high quality scientific data collection to assess the southern Gulf of St. Lawrence snow crab stock abundance and trends.
- To ensure the reproductive potential of the stock is preserved by implementing all of the elements of the Precautionary Approach such as Harvest Strategies and Decision Rules based on the biological reference points and various states of the stock.
- To protect recruitment to the fishery by the continued implementation of a soft/white shell crab monitoring program to minimize their capture, handling, discarding and landings.

Ecosystem

- To ensure that any potential collateral effects the fishery has on other species or habitats are mitigated.
- To continue to minimize bycatches of other species by ensuring that the configuration of fishing gear minimizes their capture and maximizes their escapement.
- To minimize impacts on sensitive benthic areas.

Stewardship

- To continue to have an open and transparent working relationship with industry stakeholders and to build a collaborative approach between and among stakeholders.
- To continue to hold Southern Gulf Snow Crab Advisory Committee meetings at predetermined frequencies which allows stakeholders to share their perspectives and for the Department to consult on the management of the fishery.

Socio-economic

- To provide stability, transparency and predictability in the management of the fishery in order to promote a fishery that operates in an efficient and orderly manner.
- To provide stable access to the resource over longer periods to allow industry stakeholders to develop long-term business plans.
- To work with interested fleets on modernization initiatives such as in the development of Individual Transferable Quotas (ITQ) programs so as to contribute to economic viability and to facilitate fleet restructuring and the administration of quota.
- To promote a high-quality product including the continued implementation of a soft-shell /white shell crab monitoring program to minimize the capture, handling, discarding and landings.

Compliance

- To promote a fishery that operates in an efficient and orderly manner that respects applicable legal and regulatory elements.

6. Access and Allocation

6.1 Licensing

Principles respecting the management of Atlantic Canadian fisheries including the priority of access to fishery resources can be found in the Policy Framework for the Management of Fisheries on Canada's Atlantic Coast available online.

In response to the Supreme Court of Canada in the Marshall (1999) decision, communal commercial licenses are issued to Aboriginal organizations and they designate the fish harvesters and vessels to be used in the fishery.

Access to the snow crab fishery is granted through licences issued under the discretion of the Minister of Fisheries and Oceans as per section 7 of the Fisheries Act. Anyone fishing snow crab must have a valid licence and conditions and vessels must be registered and display vessel registration numbers. Crew members must also be registered. For communal commercial licences held by Aboriginal organizations, vessels and crews must be designated to fish.

The policies governing the issuance of these licences including licence reissuance, vessel replacement, fish harvester and vessel registrations, general policy guidelines, etc., are included in the Commercial Fisheries Licensing Policy for the Gulf Region and the Commercial Fisheries Licensing Policy for Eastern Canada 1996. A number of policies are in place to promote independent core harvesters, the owner/operator policy, the fleet separation policy.

6.2 Quota Shares

A sustainable and economically prosperous snow crab fishery in the southern Gulf of St. Lawrence includes certainty, transparency and stability concerning access to the resource. Quota shares among groups/fleets in the snow crab fishery are considered stable. The distribution the TAC is show in Appendix A.

6.3 Quota transfers

The development of ITQ programs by some southern Gulf of St. Lawrence snow crab fleets allows for self-adjustment mechanisms for quota transfers between members of a fishing fleet(s). This provides the members of those fishing fleet(s) flexibilities in the management of their business affairs in order to foster their economic viability.

Guidelines for ITQ programs are in place to help administer temporary or permanent transfers by providing an operational framework that defines limits (i.e. maximum temporary or permanent transfers) or specifies the maximum number of traps.

7. General Management Measures

This section provides an overview of some of the key management measures for information purposes only. Full details are found in various regulations and schedules and in conditions of licenses which are issued annually.

7.1 Fishing Seasons/Areas

The fishing seasons in CFAs 12, 12E and 12F open once winter ice retreats sufficiently to allow for all participants to depart from their harbours and fish in a safe manner. The opening date is determined annually in consultation with industry. The fishery closes in mid-July. The Area 19 fishery generally opens in mid-July and closes in mid-September. In addition, for the purpose of monitoring soft shell / white crab, southern Gulf CFAs are subdivided into a varying number of quadrants or sectors and these can be closed during the fishing season in accordance with established protocols.

7.2 Control and Monitoring of Removals

7.2.1 Trap Limits and Related Gear Restrictions

There are limits set on the number of traps per vessel in the snow crab fishery. There is a maximum mesh size of 75 mm and traps may not exceed 2.1 m3 in volume. All traps must be tagged and identification information must be on buoys. A portion of the mesh in each trap must be constructed and affixed with biodegradable material to minimize the risk of “ghost fishing” of lost traps.

7.2.2 At-sea Monitoring

The use of a satellite vessel monitoring system (VMS) is mandatory. At-sea observers are deployed to support enforcement and scientific programs and to monitor soft shell / white crab.

7.2.3 Monitoring of Catches

Logbooks that include data on fishing effort and catch are mandatory. Fish harvesters must hail out prior to sailing and hail in prior to arriving at dockside. Dockside monitoring using approved third party monitoring companies is mandatory for all landings. Protocols for dockside monitoring including equipment to be used (i.e. electronic scales with memory) and data to be recorded (for example landings must be registered in kilograms) have been defined.

7.2.4 Harvest Controls

Only male crab of a minimum carapace size of 95 mm may be retained. Fish harvesters are authorized to release commercial-sized male crab with small claws back to the water (immature males). Possession of crab meat or crab parts separated from the carapace is prohibited. Soft shell /white crabs may also be returned to the water. Protocols are in place to protect these vulnerable crabs from excessive handling.

7.2.5 Quota reconciliation

The reconciliation of quota overruns is applied to commercial quota fisheries administered by DFO. This administrative approach was introduced in 2011 to all fleets in the Area 12 snow crab fishery. Quota reconciliation provides that any overruns of a quota in one year will be accounted for in advance of the following fishing season. The accounting will result in a quantity of fish equal to the quantity of the overrun being taken off the allocation (i.e., not allocated) of the respective licence holder before the next fishing season starts.

7.3 Total Allowable Catch (TAC)

In the context of the precautionary approach, an annual TAC is established for the entire southern Gulf biological unit which takes into account the status of the stock and established biological reference points. The southern Gulf of St. Lawrence-wide TAC is distributed between the four crab fishing areas of the southern Gulf in proportion to their relative annual commercial biomasses.

7.4 Precautionary Approach

A Fishery Decision-Making Framework Incorporating the Precautionary Approach is applied to key harvested stocks managed by Fisheries and Oceans Canada.

This decision framework is one part of an overall Sustainable Fisheries Framework for Canadian fisheries, which includes a number of other policies and initiatives, completed or being developed, that together provide a more rigorous and comprehensive approach to managing Canada's fisheries, factoring in ecosystem considerations and precaution. The Precautionary Approach provides guidance on the management measures to be applied based on the status of the stock.

General Approach

Critical Stock Status: Conservation considerations prevail. Management actions cannot be inconsistent with secure recovery.

Cautious Stock Status: Socio-economic and conservation considerations should be balanced in a manner that reflects location in zone and trajectory.

Healthy Stock Status: Socio-economic considerations prevail. Conservation measures consistent with sustainable use apply.

Harvest rate strategy

Critical Stock Status: Harvest rate (taking into account all sources of removals) kept to an absolute minimum.

Cautious Stock Status: Harvest rate (taking into account all sources of removals) should progressively decrease from the established maximum and should promote stock rebuilding to the Healthy Zone.

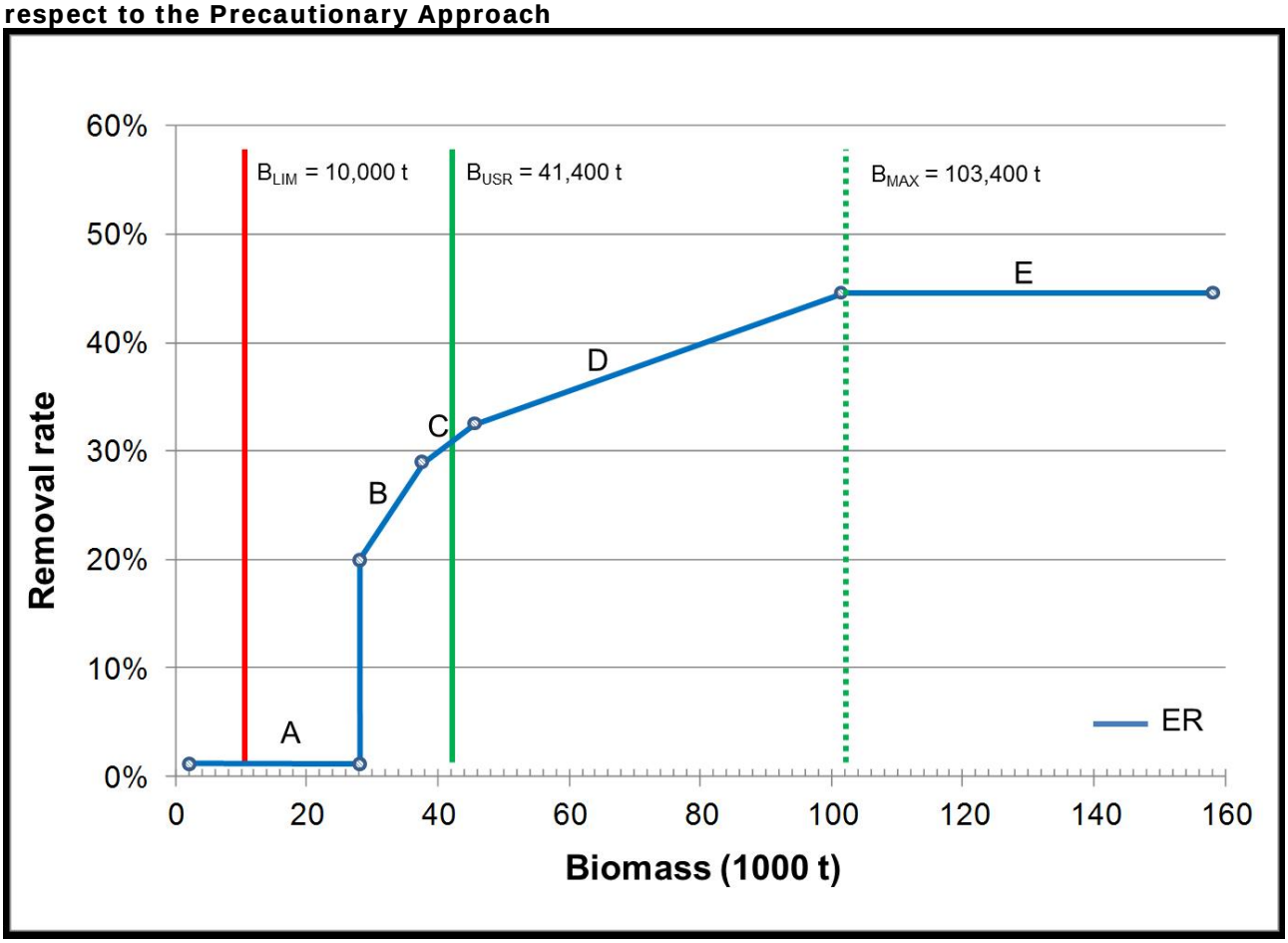
Healthy Stock Status: Harvest rate (taking into account all sources of removals) not to exceed established maximum.

Biological reference points that are consistent with the Precautionary Approach policy have been established for the southern snow crab Gulf stock. More details can be found in the science advisory report of reference points for the southern Gulf snow crab biological unit.

stakeholders and First Nations and consider the status of the stock and the biological reference points. A peer-review assessment of the compliance of the harvest decision rules with the Precautionary Approach was completed. . The harvest decision rules were accepted in 2014, following a recommendation from the Southern Gulf of St. Lawrence Snow Crab Advisory committee.

The accepted rules are illustrated in the following figure and table:

Figure 3: Illustration of the harvest decision rules according to stock levels with respect to the Precautionary Approach



BLIM
Limit Reference Point
BUSR
Upper Stock Reference Point
BMAX
Maximum observed commercial biomass
ER
Removal rate (i.e. exploitation rate)

Description of the harvest decision rule segments represented by letters A through E

Harvest Decision Rule Application (Letters A through E correspond with the segments illustrated in the figure above)	Minimum Exploitation Rate	Maximum Exploitation Rate
A. If the commercial adult male biomass is at 27,000 t or lower.	0.0%	0.0%
B. If the commercial adult male biomass is between 27,000 t and 36,000 t.	20.0%	29.0%
C. If the commercial adult male biomass is between 36,000 t and 45,540 t.	29.0%	34.6%
D. If the commercial adult male biomass is between 45,540 t and 103,400 t.	34.6%	45.0%
E. If the commercial adult male biomass is above 103,400 t.	45.0%	45.0%

8. Shared Stewardship Arrangements

There are currently no formal shared-stewardship or co-management arrangements in place in the snow crab fisheries in CFAs 12, 12E, 12F and 19. Under Section 10 of the Fisheries Act, joint-project agreements may be developed in order to support certain initiatives.

9. Compliance Plan

9.1 Conservation and Protection Program Description

The Conservation and Protection program promotes and maintains compliance with legislation, regulations and management measures implemented to achieve the conservation and sustainable use of Canada's aquatic resources, and the protection of species at risk, fish habitat and oceans.

The program is delivered through a balanced regulatory management and enforcement approach including:

- promotion of compliance through education and shared stewardship;
- monitoring, control and surveillance activities;
- management of major cases / special investigations in relation to complex compliance issues; and
- compliance and enforcement program capacity.

9.2 Program Delivery

Compliance in the snow crab fishery is achieved through the application of the *Fisheries Act*, the *Fishery (General) Regulations* and the *Atlantic Fishery Regulations* by Fishery Officers, as well as any variation orders made pursuant to the regulations. The following offers a general description of compliance activities carried out by C&P in the snow crab fishery.

- Land-based Fishery Officers conduct:
  - inspection of catches to ensure compliance
  - inspection of fishing gear
  - dockside checks of landings and weigh-outs
  - licence checks
  - overt and covert patrols to ensure compliance during both open and closed seasons
- During sea patrols, Fishery Officers conduct vessel inspections to check snow crab gear and catch. Fishery Officers also do licence verifications during sea patrols.
- All snow crab fleets are subject to the VMS requirement. Compliance of the VMS is assessed by C&P staff and anomalies are investigated. The VMS system allows for C&P to be more effective with its resource utilization.
- C&P assures quality control of the Dockside Monitoring Program (DMP) through dockside checks and investigation of incidents related to dockside observer performance. C&P usually resolves irregularities in collaboration with dockside monitoring companies but reserves the right to recommend revocation of designation in serious cases of unprofessional or irregular observer conduct.
- The snow crab fleet is subject to at-sea-observer coverage and this has been used in sensitive fishing areas or to address catch reporting anomalies. DFO reserves the right to request at-sea observer coverage where circumstances dictate.
- Routine aerial patrols are conducted in the areas covered by this plan. This is a valuable means of ensuring compliance with seasonal and area closures as well as investigating reports of illegal activity.

9.3 Consultation

Shared stewardship and education are promoted through emphasis on the importance of C&P communication with the community at large including:

- Presentations to client/stakeholder groups, including school visits or community programs. Informal interaction with all parties involved in the fishery on the wharf, during patrols or in the community to promote conservation.
- Participation of C&P Supervisors in enforcement advisory meetings with industry to determine expectations in relation to monitoring, control and surveillance activities.
- Participation of C&P personnel in Enforcement Round Tables in order to establish an ongoing relationship and partnership with stakeholder representatives from all sectors of the communities throughout the Gulf Region interested in the conservation and protection of the marine resources and habitat.
- Participation of C&P personnel (liaison officer) during consultations and annual meetings organized by the Aboriginal Fisheries division and/or the Area Aboriginal Coordinators with Aboriginal Organizations.

9.4 Compliance Performance

In addition to other tasks, Fishery Officers are responsible for enforcing many commercial, recreational and aboriginal fisheries. For the years 2000 to 2011, snow crab enforcement in the Gulf Region accounted for an average of 6.5% of Fishery Officers' time which is the equivalent of an average of approximately 5,700 hours/year. However, for detachments where the level of snow crab activity is high in relation to other fisheries, considerable resources are dedicated to this fishery. In some areas, snow crab enforcement account for over 30% of officer time and has risen closer to 45% in some cases.

The purpose is to achieve high compliance rates with snow crab fishery regulations through effective programs and through productive and ongoing communications with stakeholders. These programs help ensure compliance with management measures related to closed areas/time, mesh sizes, minimum crab size, trap limits, escape mechanism, biodegradable panels, etc.

The compliance performance may be measured by a number of indicators, including:

- Total of Fishery Officer hours
- Total hours of patrols
- Number of vessels checked
- Number of vehicles checked
- Number of persons checked
- Number of gear checks
- Number of site checks
- Number of violations / warnings
- Number of resulting charges
- Compliance with overall TAC and quotas
- Compliance with prohibitions
- Compliance with licence conditions

9.5 Current Compliance Issues

There are some compliance deficiencies in the snow crab fishery. Most of the violations are associated with:

- fishing during closed time;
- fishing in a closed area;
- illegal gear;
- hail-outs less than the number of required hours; and
- departing without an at-sea-observer.

Some C&P statistics indicate convictions; however low fine levels are not an adequate deterrent. While C&P is prepared to seek higher impact penalties through targeted enforcement, court action is still costly in terms of officer time and money. Industry participants in this fishery have a huge role to play in achieving better compliance through closer cooperation with C&P as part of an effort to lower the tolerance of illegal activity.

10. Performance Review

The Southern Gulf of St. Lawrence Snow Crab Advisory Committee meetings allow for an open venue for discussing the management and performance of the fishery. The following indicators will be used to determine if the plan objectives as outlined in Section 5 are met.

Stock Conservation

Objectives

- To ensure high quality scientific data collection to assess the southern Gulf of St. Lawrence snow crab stock abundance and trends.
- To ensure the reproductive potential of the stock is preserved by implementing all of the elements of the Precautionary Approach such as Harvest Strategies and Decision Rules based on the biological reference points and various states of the stock.
- To protect recruitment to the fishery by the continued implementation of a soft/white shell crab monitoring program to minimize their capture, handling, discarding and landings.

Indicators

- Scientific surveys and at-sea observers collect adequate information for assessing the southern Gulf of St. Lawrence snow crab stock abundance and trends.
- The southern Gulf of St. Lawrence reproductive potential is preserved by adjusting the targeted exploitation rate accordingly to stock levels (i.e. critical cautious or healthy zones).
- Harvest Strategies and Decision Rules are implemented and that their performance is monitored.
- A uniform annual exploitation rate is applied in all southern Gulf CFAs which minimizes the risk of the stock falling into the critical zone.
- The soft shell / white crab protocol is applied.

Ecosystem

Objectives

- To ensure that any potential collateral effects the fishery has on other species or habitats are mitigated;
- To continue to minimize bycatches of other species by ensuring that the configuration of fishing gear minimizes their capture and maximizes their escapement;
- To minimize impacts on sensitive benthic areas.

Indicators

- Catches of non-targeted species are minimized.
- If required, measures are put in place to minimize impacts on Species at Risk or habitats.

- The Policy for Managing the Impact of Fishing on Sensitive Benthic Areas is implemented in collaboration with the industry stakeholders in specific areas, as required.

Stewardship

Objectives

- To continue to have an open and transparent working relationship with industry stakeholders and to build a collaborative approach between and among stakeholders.
- To continue to hold Southern Gulf of St. Lawrence Snow Crab Advisory Committee meetings at predetermined frequencies which allows stakeholders to share their perspectives and for the Department to consult on the management of the fishery.

Indicators

- Frequency and type of discussions that take place with and between stakeholders.
- Level of participation by stakeholders in the consultative process and working groups.
- When appropriate, under Section 10 of the Fisheries Act, joint-project agreements will be developed in order to support certain initiatives.

Socio-economic

Objectives

- To provide stability, transparency and predictability in the management of the fishery.
- To provide stable access to the resource over longer periods to allow industry stakeholders to develop long-term business plans.
- To work with interested fleets on modernization initiatives such as in the development of ITQ programs so as to contribute to economic viability and to facilitate fleet restructuring and the administration of quota.
- To promote a high-quality product including the continued implementation of a soft-shell /white shell crab monitoring program to minimize the capture, handling, discarding and landings.

Indicators

- The Total Allowable Catch for the fishery is set in a predictable and transparent manner.
- Stability of access to the resource is in place.
- The soft shell / white crab protocol is applied.
- Interested fleets develop ITQ administrative guidelines which promote economic viability.
- A high quality product is landed and processed.
- Gluts on the market and in the processing plants are avoided.

Compliance

Objectives

- To promote a fishery that operates in an efficient and orderly manner that respects applicable legal and regulatory elements.

Indicators

- Compliance indicators (Section 9.4) such as the number of Fishery Officer hours and the number of occurrences and violations.
- Effective at sea observer deployment and information collection.
- Dockside Monitoring Audits/Checks performed by the Fishery Officers.

11. Safety at Sea

Caution is exercised relative to the timing of the opening of the southern Gulf snow crab fishery by delaying the commencement of fishing until the risks posed by ice and weather are minimal. A comprehensive opening date protocol is in place including clearly defined inclement weather triggers that would warrant a delay in the expected season opening date. The opening date protocol includes consultation with various industry sectors.

12. References

DFO. 2009. A fishery decision-making framework incorporating the Precautionary Approach.

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DFO 2010. Potential impacts of fishing gear (excluding mobile bottom-contacting gears) on marine habitats and communities. (Canadian Science Advisory Secretariat – Science Advisory Report 2010/003)

DFO. 2011. Assessment of snow crab in the southern Gulf of St. Lawrence (Areas 12, 19, 12E and 12F). (Canadian Science Advisory Secretariat – Science Advisory Report 2011/002)

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Pinfold, Gardner. 2006. Overview of the Atlantic Snow Crab Industry. Submitted to the Department of Fisheries and Oceans and Atlantic Council of Fisheries and Aquaculture Ministers.

Glossary

Abundance: Number of individuals or total weight of animals in a stock or a population.

Allocation: A portion or share of the Total Allowable Catch allocated to a class of vessels or fleet.

Age Composition: Description of the abundance of the resource in the catch or in the stock area by age.

Biomass: Total weight of all individuals in a stock or a population.

Bycatch: The unintentional catch of one species when the target is another.

Carapace Size: In the case of snow crab, means the distance measured in a straight line through the greatest breadth of the shell of the crab.

Catch per Unit Effort (CPUE): The amount caught for a given fishing effort. In terms of snow crab fishery, the unit of effort is often measured in the number of traps hauled.

Co-management: The sharing of responsibility and accountability.

Communal Commercial Licence: Licence issued to aboriginal organizations pursuant to the Aboriginal Communal Fishing Licences Regulations for participation in the general commercial fishery.

Crab Fishing Area (CFA): A management zone established in regulation for the purposes of supporting the management of the snow crab fishery within a given geographic area.

Dockside Monitoring Program (DMP): A monitoring program that is conducted by an independent company that has been designated by the Department of Fisheries and Oceans, which verifies the species composition and landed weight of fish landed. For snow crab, the coverage is 100% of the vessels in the fishery.

Ecosystem Factors: The ecosystem is a complex web of interdependencies where changes in one constituent can have implications for other constituents. Examples of ecosystem factors include: the effect of one species exploitation on another, the effects of the environment, and the impacts of habitat alteration on the mix of organisms the altered habitat can support.

Exploitation rate: Percentage of the available commercial biomass which is harvested.

Fishable Biomass: The total amount or weight of fish that may be caught and retained.

Fishing Effort: Intensity of fishing using a given gear (e.g. traps hauled) over a period of time within a geographic area.

Fishing Mortality: Losses of the resource directly attributed to fishing, often symbolized by the mathematical symbol F.

Food, Social and Ceremonial (FSC) Fishery: A fishery conducted by Aboriginal groups for food, social and ceremonial purposes under rights affirmed by the Supreme Court of Canada in the Sparrow decision (1990).

Individual Quota (IQ): The further division of fleet quotas to individual enterprises or vessels. Where such allocations are transferrable under established guidelines, they are referred to as Individual Transferable Quotas (ITQs).

Limited Entry: A fishery management policy in place to limit fishing effort and to support economic viability of enterprises.

Marshall Response Initiative: In response to the Supreme Court of Canada decision in the Marshall (1999) case on the commercial aspects of Aboriginal fishing rights, the Department of Fisheries and Oceans introduced a series of initiatives to support the participation by First Nations in commercial fisheries.

Mesh Size: Size of the mesh of a net. Different fisheries have different minimum or maximum mesh size regulations.

Midshore: Refers to a vessel category with an overall length of greater than 65' and less than 100'. However, for the purposes of the snow crab fishery in the southern Gulf of St. Lawrence, midshore fleet refers to the 130 snow crab enterprises which were present in Area 12 in 1990 and this includes enterprises in the less than 65' category.

Multi-species Fleet: A fleet where each of the fishing enterprises holds licenses for a number of different fisheries.

Natural Mortality: Mortality due to natural causes, symbolized by the mathematical symbol M.

Observer Coverage: Fisheries monitoring program requires a licence holder to carry an officially recognized observer onboard the vessel for a specific period of time to provide support to a variety of DFO programs including enforcement and science.

Participation Criteria: Policy established at the time of limiting entry to a fishery that defines the rules governing who is eligible to receive licenses. Typically, participation criteria include proven participation in the fishery at a minimal level for a minimum amount of time.

Population: Group of individuals of the same species, forming a breeding unit, and sharing a habitat.

Precautionary Approach: Set of measures and actions, including future courses of action, which ensures prudent foresight, reduces or avoids risk to the resource, the environment, and the people, to the extent possible, taking explicitly into account existing uncertainties and the potential consequences of being wrong.

Quota: Portion of the total allowable catch that a unit such as vessel class, country, etc. is permitted to take from a stock in a given period of time.

Recruitment: Amount or weight of individuals becoming part of the exploitable stock for the first time; e.g. at a size that can be legally caught and retained in a fishery.

Research Survey: Survey at sea, on a research vessel, allowing scientists to obtain information on the abundance and distribution of various species and/or collect oceanographic data. Ex: bottom trawl survey, plankton survey, hydro-acoustic survey, etc.

Shared Stewardship: An approach to fisheries management whereby participants are involved in fisheries management decision-making processes at appropriate levels, contribute specialized knowledge and experience, and share in accountability for outcomes.

Spawning Stock: Sexually mature component of the stock or population.

Stock: Describes a population of individuals of one species found in a particular area.

Stock Assessment: Scientific evaluation of the status of a species belonging to a same stock within a particular area in a given time period.

Total Allowable Catch (TAC): The amount of catch that may be taken from a stock over a given period of time.

Tonne (t): Metric tonne, which is 1,000 kg or 2,204.6 lbs.

Trawl: cone-shaped net towed in the water by a boat called a "trawler". Bottom trawls are towed along the ocean floor to catch species such as groundfish. Mid-water trawls are towed within the water column.

Appendix A

*Numbers are rounded to three decimal places.

**In licensing policy, the term midshore is reserved for vessels in the >65' to <100' category. However, the snow crab fishery, the commonly used term midshore refers to the fleet of 130 vessels in Area 12 present in 1990 and includes vessels in the <65' category.

Summary Distribution of the Total Allowable Catch (TAC) - Crab Fishing Area 12 (12, 18, 25, 26)

Distribution of the TAC	Percentage of TAC*
First Nations	15.816 %
Traditional Fleets	69.184 %
New Access Fleets	15 %
Total (All)	100 %

Distribution of the Total Allowable Catch (TAC) - Crab Fishing Area 12 (12, 18, 25, 26)
First Nations

Distribution of the TAC	Percentage of TAC*
New Brunswick	8.700 %
Quebec	6.239 %
Prince Edward Island	0.877 %
Total	15.816 %

Distribution of the Total Allowable Catch (TAC) - Crab Fishing Area 12 (12, 18, 25, 26)
Tradional Fleets

Region	Percentage of TAC*
Midshore, New Brunswick **	39.408 %
Midshore, Quebec **	21.169 %
Midshore, Nova Scotia **	1.169 %
Inshore, Nova Scotia	4.002 %
Inshore, Prince Edward Island	3.436 %
Total	69.184 %

Distribution of the Total Allowable Catch (TAC) - Crab Fishing Area 12 (12, 18, 25, 26)
New Access Fleets

Region	Type	Percentage of TAC*
New Brunswick	MFU	6.161 %
New Brunswick	ITQ groundfish specialists	0.713 %
New Brunswick	Competitive groundfish specialists	0.255 %
Quebec	Fixed gear and scallop fleets Gaspe Peninsula	2.1660 %
Quebec	Fixed gear and scallop fleet Magdalen Islands	0.9495 %
Quebec	Mobile gear fleet Gaspe Peninsula	0.1127 %
Quebec	Mobile gear fleet Magdalen Islands	0.4508 %

Distribution of the Total Allowable Catch (TAC) - Crab Fishing Area 12 (12, 18, 25, 26)
New Access Fleets

Region	Type	Percentage of TAC*
Quebec	Lobster harvesters Gaspe Peninsula (RPPSG)	0.8857 %
Quebec	Lobster harvesters Magdalen Islands (APPIM)	0.2723 %
Nova Scotia		0.913 %
Prince Edward Island	PEIFA	1.867 %
Prince Edward Island	PEI Groundfishermen's Association	0.225 %
Total		15 %

Crab Fishing Area 12E

Distribution of the TAC	Percentage of TAC
New Brunswick	75.0 %
Quebec	12.5 %
Prince Edward Island	12.5 %

Crab Fishing Area 12F

Distribution of the TAC	Percentage of TAC
Quebec	68.75 %
Nova Scotia	31.25 %

That portion of the TAC above 544t is shared on a ratio of 60%-40% between the regular fleet and temporary allocations which will be provided to independent harvesters in the core group. The temporary allocations are distributed based on existing fleet shares.

Crab Fishing Area 19

An individual trap transfer quota management system is in place for this fishery. The total number of traps / shares is 1,699. One trap is equivalent to one share of the TAC. The maximum number of traps / shares any one fish harvester can hold is 26. The minimum number of traps / shares any one fish harvester can hold is 3. The number of licences can vary between 145 and 184.