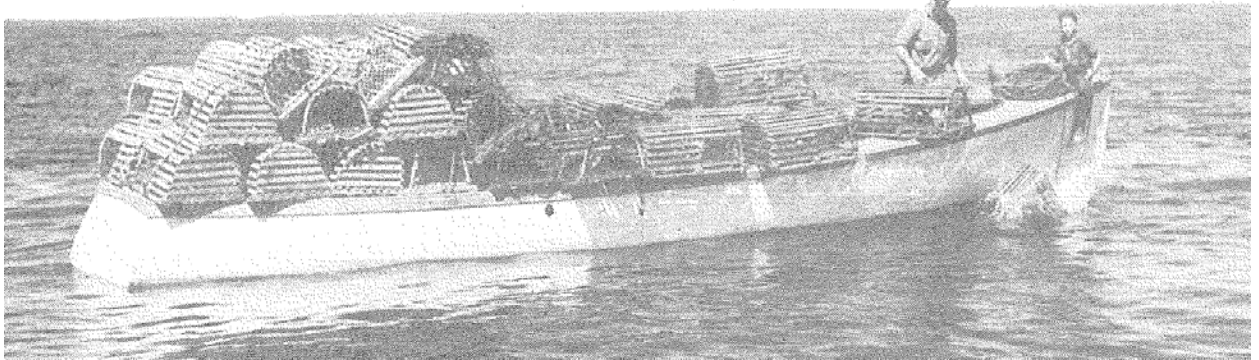




A Brief History of the Lobster Fishery in the Southern Gulf of St. Lawrence



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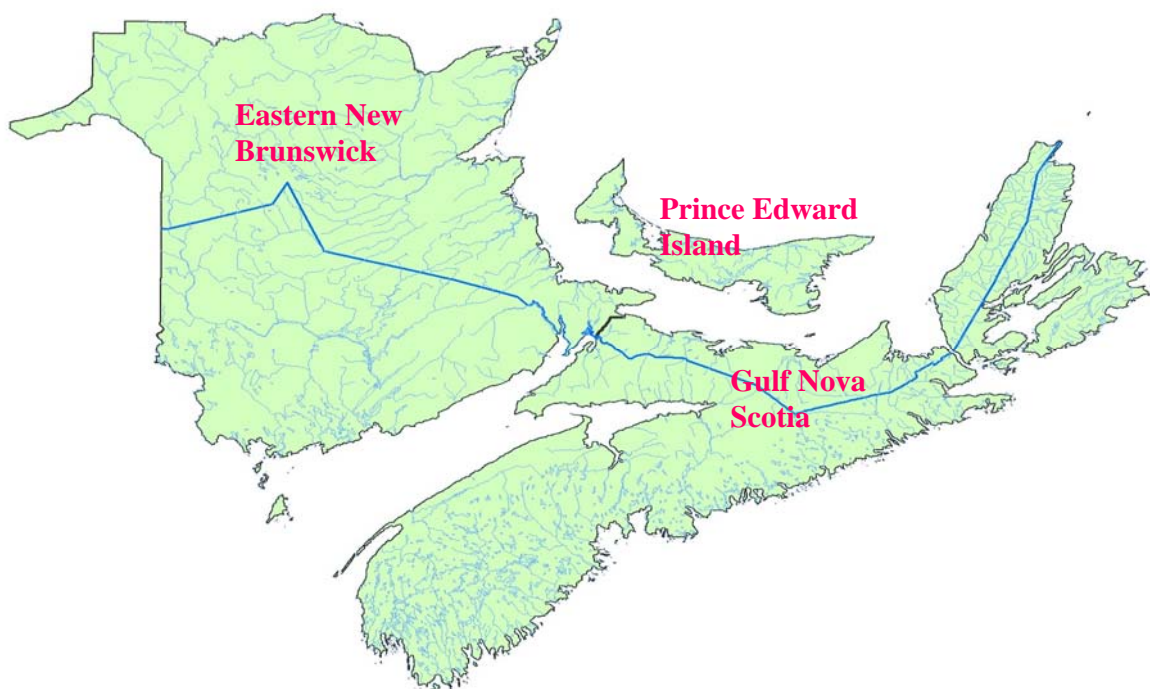
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Foreword

This document was compiled by John Hanlon as one in a series of publications designed to capture the history of important fisheries in the southern Gulf of Saint Lawrence managed by the Department of Fisheries and Oceans' (DFO) Gulf Region.

For those unfamiliar with DFO organizational structure, the Gulf Region can be described as those areas of eastern New Brunswick (NB), northern Nova Scotia (NS) and the province of Prince Edward Island (PEI) touching on the Gulf of St. Lawrence, as shown in the map below. Within this Region, the lobster fishery is considered to be the most important fishery.

Map of the Gulf Region



The initial work for this project was carried out by Stuart Beaton of Nova Scotia, Jim Jenkins of Prince Edward Island and Jean-Marie Nadeau of New Brunswick. These three independent researchers provided the local history and background of the lobster fishery in their respective provinces and their information has been compiled into this document.

The research provided by these three qualified individuals with varied backgrounds has proven to be a boon to this initiative. A former commercial lobster fisherman, a former DFO official and a former member of key fishermen's organizations, they have lent their unique expertise and perspective to the project, providing valuable quality and depth of information. Each researcher interviewed numerous individuals and referenced countless documents. Every effort has been made to ensure that the appropriate acknowledgments are provided at the end of the document.

The author uses the term "fisherman" throughout the document as an acknowledgement of the term used by the industry to describe those who work in the lobster fishery whether they be men or women.

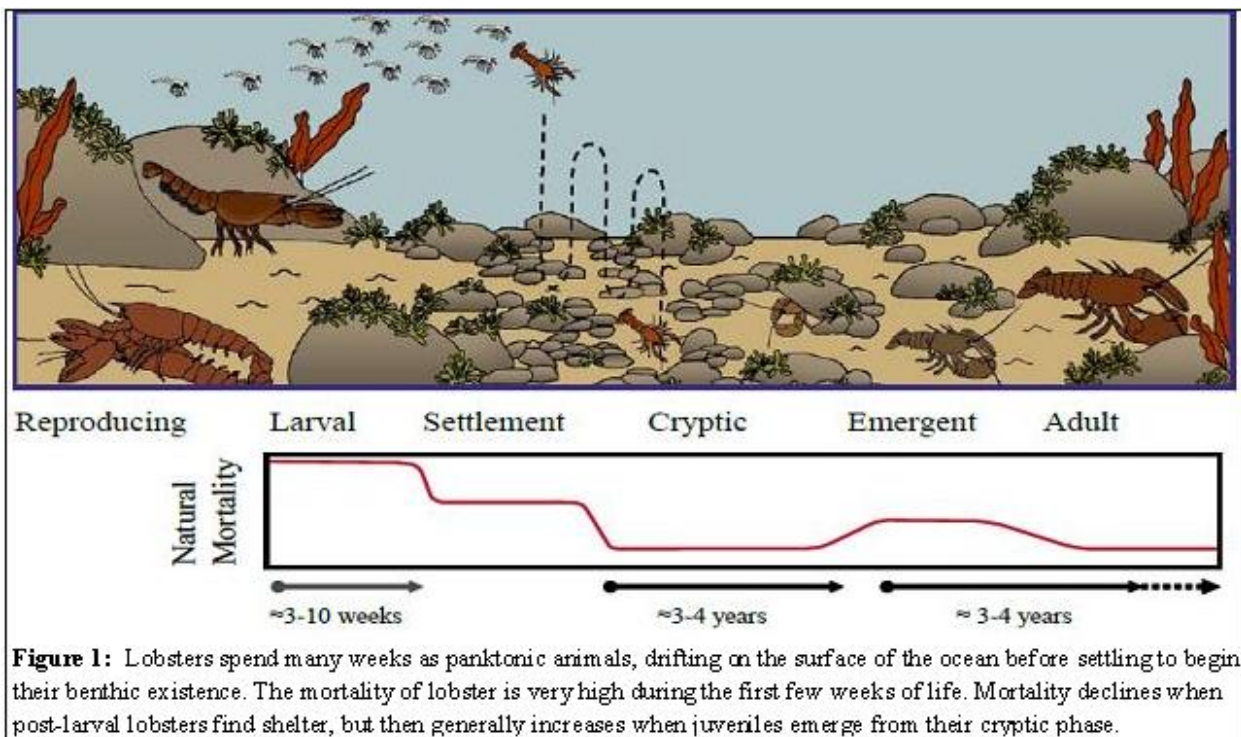
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1) Lobster Biology

The Fisheries Resource Conservation Council's (FRCC) 1995 and 2007 reports provide a brief section on lobster biology, which can be summarized as follows:

The lobsters found on Canada's East Coast, *Homarus americanus* (commonly known as American lobster or Atlantic lobster), are unique to the northwest Atlantic Ocean. Lobsters live on the ocean floor in a variety of combined environments, from mud and silt through to bedrock. Generally they are found in commercial numbers at depths less than 40 metres. Seasonal migrations related to depth are well documented. In spring, lobsters move towards shallow waters to reproduce and hatch eggs. Larvae are hatched between the months of July and September and are planktonic for three to ten weeks depending on temperature.



Lobster moulting is influenced by the size (or age) and gender of the lobster and also by temperature and food conditions. Mature females grow slower than mature males. In the southern Gulf of St. Lawrence it typically takes 15 to 20 moults for lobsters to reach minimum legal harvesting size over a period of six to nine years.

Mating occurs immediately following female moult with eggs becoming evident on the underside of the female approximately one year later (berried female). In the southern Gulf of St. Lawrence, 50 per cent of females mature at a carapace size of approximately 72 mm, except on the western coast of Cape Breton and in St. George's Bay where they mature at 75 mm. The number of eggs produced by females increases exponentially with size. Also, first-time spawners produce eggs of lower quality than those of older females.

It is unknown how many eggs are sufficient to ensure the sustainability of the biomass since there are no evident stock-recruitment relationships. Important factors include the survival of eggs and larvae under different environmental conditions and the carrying capacity of the environment to sustain certain numbers of young lobsters settling on the bottom.

The actual biomass of lobsters on the ocean floor is not known. Because ageing of lobster is difficult, models of population dynamics such as those currently used for other species cannot be used. As well, there are no tools developed well enough to forecast future recruitment. Scientists and fishermen believe that lobster biomass fluctuations have been experienced but they do not fully understand the causes. Many hypotheses have been proposed but it is unlikely that a single factor can explain the dynamics of population changes.

2) The Early Days

2.1 Pre-contact Aboriginal Lobster Fishing

For perhaps 13,000 years, indigenous peoples inhabited the lands adjacent to the southern Gulf of St. Lawrence. They lived in considerable numbers in territories defined by tradition and tribal rights. These people lived in harmony with the rhythm of the seasons and moved within their lands as resources and conditions changed throughout the year.

In the winter months the Mi'kmaq sought shelter inland from the cold and wind and access to game and firewood. With the coming of spring they established their quarters near the shore and particularly around estuaries. Among the bounties available were lobsters that could be taken by wading near the shore with spears, hooks and, incidentally, in fishing weirs. Lobster, known as "Wolum Keeh", was a source of food and fertilizer. Lobster shells were used for totems and decorations.

From the post-contact and colonial period until present times, there has been an ongoing presence of Aboriginals in the fishery. The Mi'kmaq were encouraged by early governmental authorities to engage in trade. The "truck house" system of trading posts dealt in marine products and became the basis of treaty claims to the commercial fishery two centuries later.

2.2 Early Uses by Non-Aboriginals

As with Aboriginal people, there are anecdotal and oral historical accounts of lobsters used by early settlers for food and for fertilizer prior to the development of a commercial fishery.

Fisheries historian Joe Gough recounts the widespread use of lobster in corn and potato agriculture in the Chaleur Bay area of northeast NB and elsewhere. Numerous commentators remember the abundance of lobsters available along the coastline and cite instances of labourers and domestics complaining of having to eat lobster several times a week. After storms in PEI, the settlers would gather the lobsters from windrows along the beach and spread them on the land for fertilizer. For eating purposes, they were so plentiful they could be gathered by hand in shallows and tide-pools.

In his book *The Fishery of Prince Edward Island*, Kennedy Wells offers an account by S.S. Hill who wrote: “As to lobsters . . . they should never be permitted to appear at dinner, and should not be eaten for breakfast or supper above once a week . . . they are in great plenty in the harbours, but the best are caught at sea. When brought to the wharf at Charlotte Town (for I do not know whether they are ever carried to the market), the boys who usually catch them, sell them for halfpenny or a penny a piece.”

2.3 Canning Technology and Commercial Fishing

Until the latter half of the 1800s lobster markets were limited to local consumption as transportation systems were not developed enough to allow highly perishable lobsters to be shipped any great distance.

The beginnings of the commercial fishery actually followed the invention and evolution of the canning process. With this new technology, lobster meat could be packaged in a stable, non-perishable form and shipped to markets in the United States and overseas. Furthermore, improved rail transportation opened the way for live exports to east coast American cities where there had long been a market for live lobster which had been supplied by New England fishermen.

2.4 The Canning Process

Canning, processing, putting down and putting up lobster all meant the same thing. That is, cooking the live lobster whole, breaking the animal into parts, extracting the meat, placing it in cans and heating it to sterilize the product.

In the Gulf of St. Lawrence in the mid-1800s, small lobster canneries were springing up all along the coast. Several of these earlier companies were in fact American enterprises that had moved north following a marked decrease in lobster abundance in Maine. According to noted fisheries economist A. Gordon DeWolf, the first Canadian lobster cannery was constructed in eastern New Brunswick at Portage Island at the mouth of the Miramichi River in about 1845.

The factory, cannery or plant, was a simple wooden structure. The cooker was a wood fired affair that used large, black iron pots. The vats were filled with fresh water and brought to a boil. The lobsters were cooked then dipped in cool water. While still hot, they were piled on a wooden table where preparation for the packing work began. Workers separated the claws and tails from the body, cracked the claws to remove the claw meat and picked the meat from the arms or knuckles.

The meat was washed rather superficially and headed for the packing table. A flat or tall one-pound can was filled with cooked meat and called “one pound”. Actual weighing probably entered into the picture at a later date. The cans were packed with tails on the bottom, fine meat or hash in the middle and claws on the top. Although not regulated, this was the industry custom.

George A. Leard, in his booklet “*Claws, Tales and Tomalley, Prince Edward Island Lobster Lore*”, describes the steps as follows: “The lobsters, after being shelled and washed, were packed in cans which, after the tops were soldered on, were bathed or boiled (terms interchangeable with

processing) for one and one-half to two hours. When the cans were taken out of the boiling water (generally sea water), they were sealed with a drop of solder and processed again for an hour.” The water bath was eventually replaced by the industrial pressure cooker. Steam replaced the water and double-rolled, hermetically sealed cans replaced the lead soldered, handmade cans.

Mr. Gough reports that by the beginning of the 1900s, government policy was to encourage Canadian entrepreneurs to enter the lobster canning business in order to eventually displace the pioneering American interests. By the very early 1900s there were over 700 canneries in Atlantic Canada.

2.5 Early Over-exploitation

In these early days, numerous observers raised concerns about over-exploitation of lobster, including Canadian Commissioner of Fisheries, W.F. Witcher. Mr. Gough quotes Commissioner Witcher, who warned in 1873, “. . . it seems that excessive fishing has exhausted the lobster fishery along the north coast of the United States: and that the enterprise which was embarked in same (canneries) has now been transferred to Canada.”

Mr. Gough further states that the Atlantic lobster fishery expanded explosively as Canadians followed the American lead. Commissioner Witcher’s warning came to pass; landings began to decline and the number of canneries likewise reduced to just a few of the larger and more modern facilities. In Chéticamp, NS for example, numerous factories that had dotted what is now the main street of the village disappeared over time. Packers such as E.P. Melanson, and the United Maritime Fishermen’s Co-operative had developed large-scale plants in eastern New Brunswick and trucked lobsters off the Cape Breton Island.

2.6 The Beginnings of a Regulated Fishery

As a result of these serious concerns for the state of the lobster fishery, the first regulations began to appear. Initially, a ban on the processing of egg-bearing females and soft-shell lobsters was instituted. Later, separate fishing seasons were developed in an attempt to avoid the moulting periods in July and August. These early measures were instituted in 1873-74 and as Mr. Gough reports, “The Maritime industry made vigorous objections.”

Once initiated, regulations immediately began to have impacts on the nature of the Gulf lobster fishery. For example, an objective during the first seasons was to, “. . . take lobsters when they were in the best condition, partly to reduce exploitation.” Fisheries economist Gordon DeWolf points out that “. . . an important effect of the long closed season was to make lobster fishing a part-time activity.”

3) The Evolution of Harvesting in the Commercial Fishery

3.1 First Inshore Lobstermen

In its early days, the lobster fishery was very amenable to small-scale operations. Lobsters could be caught relatively close to shore with small, affordable vessels. Traps and gear were made by the fishermen themselves with locally available wood for frames and lathes. Gear was fairly rudimentary and lobster could be fished by one or two people.

Lobster fishing was not very capital intensive: the product was sold at the point of landing so there was no great need for infrastructure such as salting and drying facilities which the cod fishery required. As a result, lobster fishing became a small-boat, small-scale and ultimately seasonal activity.

For these reasons, the industry came to be seen as a good opportunity for people to make a living, or at least contribute to subsistence, along the coast. The explosion of markets as a result of the numerous canneries attracted participation in the boom. In many areas the local inhabitants were primarily farmers or crofters. Cattle, sheep, crops, forestry, and lobster fishing all contributed to their livelihood.

3.2 Gear Changes: Traps, Equipment and Bait

In the earliest days, various hoop nets were employed to catch lobsters. However, it didn't take long for the fishery to become, as it still remains, a trap fishery. From that time on, there began a long period of developing more efficient lobster traps that continues to this day. Like the proverbial "better mouse trap", new and improved traps spawned rapid adoption throughout the Gulf fleet. One might say that traps, gear and technology developed in a sort of "arms race", with innovative fishermen everywhere seeking a competitive advantage in the lobster fishery. Any advantage, however, was short-term as imitators lurked on every wharf.

There were also a number of significant changes in other components of the fisherman's tool kit with respect to fishing gear. While some of these innovations and changes may seem trivial, to fisherman on the water, they had very significant impacts.

A giant step forward in the mid-1960s was the change from cotton twine for lobster trap heads to more durable and long-lasting nylon and synthetic twines. Anyone who fished in the days of cotton twines will remember the constant battle to keep trap heads in repair, as the natural cotton material was very susceptible to wear and rot. Nylon trap heads largely solved this problem.

Another key development in the 1960s was the adoption of polypropylene rope to replace the earlier and ubiquitous "Manila" or sisal rope. The new synthetic cordage was much stronger and not nearly as susceptible to rot or degradation, although fishermen soon discovered that lengthy exposure to the sun's ultraviolet (UV) rays would indeed degrade these new cordages. Synthetic ropes could, however, better withstand the strain of mechanical haulers and larger vessels. These

advantages served to reduce the number of fishing days lost to weather for smaller vessels with hand hauling or mechanical hauling of weaker ropes.

Pre-formed laminated bows proved to be stronger and more uniform than the traditional steamed and bent saplings that had previously formed the frames of “round” or half round traps. No longer did fishermen venture to the woods in wintertime to cut and prepare saplings for trap bows.

The “Rule” brand electric bilge pump was also a well-appreciated development and eliminated laborious hand pumping of vessel bilges. When it first appeared fishermen referred to the Rule pump as the “third man”!

The ingenuity of fishermen is remarkable and at times the simplicity of an innovation belies its elegance. A striking example adopted almost universally is the “hockey puck” toggle. This device is a simple three-inch ring of rubber made from recycled automobile tires. It provides a quick and totally fail-safe method of securing a trap to its back line without a knot to wear or over-tighten. The first response by anyone seeing this device for the first time is, “Why didn’t I think of that?”

While innovations have improved the lives of fishermen, it is worth noting that there is perhaps a hidden cost. The old traps made entirely of wood and cotton twine, as well as sisal or hemp ropes, were totally biodegradable. Modern ropes, twines and traps will endure in the environment with possible unknown, negative consequences for the resource. To account for this, traps are now required to have a biodegradable component integrated into their construction.

3.3 Trap Design and Construction

The use of round or bow traps has given way to increased numbers of square traps. As well, a growing number of wire traps are replacing the more traditional wooden traps.

Wire traps have the advantage of requiring much less maintenance but being manufactured items, they displace the homemade nature of conventional traps. Also, they are not biodegradable, so lost traps will remain on the ocean floor for decades.

Fishermen are of mixed minds regarding the relative merits of trap types, shapes and materials. Invariably, an individual fisherman will maintain that he has the best available model for local conditions. However, his neighbour may well have a different trap style and make the same claim!

3.4 Bait

In the early years of the fishery, bait was anything one could get to attract lobster. It didn’t take much to bait lobster, as they were very common and plentiful. As fishermen moved to deeper water using hoop nets and the old bow trap, the choice of bait became more important. Bait was usually the common fish found in shallow waters. These included herring, mackerel and groundfish offal. Since refrigeration was nonexistent, the bait was salted or pickled. In the early days, salting was the only way to make bait last and this method lasted for about one hundred years.

Refrigeration technology came into the fishery after the Second World War and over time, bait was also frozen. Today bait is used fresh, frozen, and more rarely, pickled. The preference for certain types of bait varies with the fishermen: while one may use herring, another will prefer mackerel.

Fresh herring is available in the spring and fall. Fresh gaspereau usually shows up late May, early June and fresh mackerel usually comes in around the first week of June and is present all summer and fall. Frozen bait is now common as there is usually not enough fresh bait to supply fishermen across the Maritimes. The most common frozen bait is herring and mackerel. When available, flatfish of smaller sizes and flatfish frames (a by-product of the flounder food fishery) are used in some areas.

3.5 Boats: Oars, Sail and Power

Fishermen initially used small rowed or sail vessels. Flats, dories and stemmers were three of the more common types. These vessels were small, often 16 to 19 feet in length. Boats were typically launched off the beach but in some areas, wharves and harbours existed. In other areas, boats rode at anchor behind whatever shelter was available.

Over time, the use of early gasoline engines replaced oar and wind power. The famous “one-lungers” (variously known as “jump spark”, “make and break” or “hit-and-miss” engines) appeared in droves and dozens of models were available from various foundries throughout the Maritimes. Acadian fisherman Louis Godin of Maissonette, NB, talked about fishing “en pok-pok en 1947”. It is difficult for people today to appreciate the technological impact of the simple little gasoline engines and there are many anecdotes from old timers expressing scepticism that such a small lump of cast iron could have the power of four horses!

Innovations in vessels and engines continued and the use of automotive gasoline engines in marine conversions added to the speed, endurance and safety of fishing vessels. Now more distant grounds could be safely exploited. By the late 1940s, these converted gasoline automobile engines became the norm in lobster boats. They were cheap, reliable and readily available either new or used. As a result of these more powerful engines, boats began to get bigger once again. Typical boats in the early 1950s were 32 to perhaps even 40 feet in length. Such vessels could not easily be hauled up or launched from beaches, so fleets began to aggregate in harbours along the coast. This had the effect of establishing more clearly defined fishing communities.

In early times, just about all components of a new boat were either locally available or produced in the Maritime Provinces. Wood was locally cut and milled, engines were produced at local foundries and shafts and propellers were tooled and cast locally.

Boat builders in the Northumberland Strait area developed a distinctive model of launch-type fishing boat characterized by strip plank construction, a pronounced flare to the bow and a relatively shallow draft. These vessels were easily driven, fast, safe and stable. As time went on, boatbuilding shops became more specialized and fewer in number. However, many smaller builders survived in scattered communities all along the coast. It was not at all uncommon for some fishermen to build their own vessels.

In the early 1980s, wood construction began to give way to FRP (fibre-reinforced plastic) fibreglass construction. This material is tough, leak-proof and very long-lived. Northumberland Strait builders began to shift to this new method and numerous new boat shops arose in places like Tatamagouche, NS, Kensington, PEI, Cocagne, NB and elsewhere.

One of the major outcomes of the shift to fibreglass was that now almost nothing in the construction material of a new vessel was locally produced or even from the Atlantic region. This was quite a change from the earlier days when every part of a boat was locally produced.

By the 1980s, diesel power had replaced gasoline engines to a great degree. The diesel engine is more economical in terms of fuel consumption. It is also a less volatile fuel than gasoline which makes it much safer. However, gasoline engines were easier to maintain and repair because most fishermen had the required expertise.

In terms of the local spin off and “multiplier effect”, supplying the fishery has pretty much gone from having a major local impact to a very minor impact. Virtually nothing in or aboard a modern lobster boat today is manufactured in Canada, much less locally. Engines come from the U.S., Japan and Sweden. Electronics are mainly from Japan. Fibreglass materials are primarily petroleum based, and so on.

Although materials are no longer a factor in the local economy, Atlantic Canada still retains a strong reputation for quality design and construction of fishing vessels and some boat yards remain in production.

3.6 Hauling Equipment

In the early days, traps were either set individually or in stationary lines. In either case they were hauled by hand. This, as well as the size and mobility of oar-powered boats, greatly limited the number of traps that could be fished in a day. After the introduction of small gasoline engines, boats became bigger and could more actively seek out lobster grounds. Still, much of the work was done by hand. The development of gurneys powered by stationary make-and-break type engines made life easier for the fishermen of the 1930s and 1940s. Of course, these mechanical haulers also served to increase the overall fishing effort.

Once automotive conversion engines became commonplace, hauling gurneys were driven by power take-off systems from either engines or transmissions. The combination of larger, faster and more reliable vessels with effective hauling systems led to an ability to haul more traps per day and to actively seek out more distant fishing grounds.

The final step in the refinement of the trap hauling systems came about with the development of the hydraulically powered, hands-free trap hauler. This innovation lightened the workload of crewmen.

3.7 Electronics.

One of the most recent developments in vessel equipment and fishing aids is acoustical depth sounding equipment. Prior to its development, fishermen sounded out the ocean bottom using

greased weights or grapnels to determine depth and bottom type. Once reefs were located, the fishermen plotted them by triangulation from landmarks and they plotted courses by time and compass heading. In some cases, marker buoys were set out to indicate the presence of a rocky shoal.

So called “flashers” were the first acoustical devices to appear and gave fishermen the depth of the water but not much information as to the type of bottom substrate. The first “paper sounders” appeared in the late 1960s to early 1970s and enabled fishermen to identify appropriate lobster habitat in deeper waters. The paper sounder produced a graphic picture of the contours of the ocean bottom and through the thickness and darkness of the stylus line. This information gave clues as to the ocean bottom type as well as profile.

Prior to the introduction of sounders, fishermen relied on landmarks from previous experience to locate hidden reefs and rock piles. Of course these could be obscured by fog and other adverse weather conditions. Fishermen with sounders could now accurately find the “good” ocean bottom. This gave the first owners of the technology an edge, so competitors quickly followed suit to level the playing field once again.

Sounders became more refined and now have digital displays, can interface with navigational computers, and have actual seabed mapping functions which refine existing charts in real time. No refuge exists today for lobsters as every inch of the coastal waters has been scoured at one time or another. It is safe to say that no rock is left unfished in the course of a season.

Marine navigational aids systems have also evolved over the years. The early positional locating system – Decca – became available after the Second World War. It used hyperbolic low-frequency radio wave positioning. Decca was followed by the more accurate Loran A and Loran C systems, which were widely used. In recent years, the more refined Global Positioning System (GPS) has proven to be a great aid to modern fishermen. GPS, coupled with video screen displays and accurate charting and plotting systems, has taken much of the mystery out of modern fishing. With GPS, fishermen can retrieve lobster traps in restricted visibility and locate favoured fishing locations reliably and with ease.

In the past, fishermen used landmarks, triangulation and “dead reckoning” with clock and compass to locate gear and choice fishing shoals. Experience was a big factor in a fisherman’s success. With GPS, years of learning on the water were replaced to a great extent by a video screen. One older fisherman remarked that fishing had become “. . . a video game, like Pac Man.” You just put the cursor on the screen to your target and follow the arrow to get to your destination.

Another senior fisherman remarked that the old timers kept track of the shore in thick fog because they could “. . . hear the lambs bleating in the pasture . . .” So navigational aids such as time, course, wind direction and direction of swell were augmented by anything useful, even lambs!

GPS has proven to be a great tool for fishermen and has, among other things, significantly improved safety. A vessel in trouble can be located immediately from its GPS coordinates. Charting systems let the fisherman know exactly where he is at all times.

The fishery has gone through a quantum change over the years: from the row boat and stationary lines of traps to a modern fleet with the latest in electronics and technology mounted aboard

fibreglass vessels up to 45 feet in length, driven by powerful diesel engines. Though these developments have been very rapid, there are still a few active fishermen who fished in the day in 24-foot boats with trusty make-and-break one-lungers, laboriously hauling their pots by hand.

4) The Evolution of Processing and Market Development

4.1 Early Processing Woes

While the fishing side of the southern Gulf lobster industry was evolving using improved technology, the processing part of the industry was also evolving and improving from the squalor of the 1800s.

Hygiene in lobster canneries in the early years was less than acceptable. Shipments of canned (hot pack) lobsters were being turned back for various reasons. The handling of lobsters at sea and on land was abysmal resulting in a poor quality product. Cans of lobster were subjected to any number of problems that resulted in a range of hazards for consumers. Spoiled product, injury from chewing struvite (mineral crystals), the presence of various bacteria, lead contamination etc. could cause illness and sometimes death.

4.2 Government Fish Inspection

These problems in the earlier days of lobster processing were gradually cleaned up. The Fish Inspection Act was passed in 1914 but it took decades to change processing practices. The Fish Inspection Branch was created in November 1949. Since all fishery officers were also inspectors, the Department had the flexibility of employing these personnel as they deemed necessary.

From the 1930s to the 1970s, the Department was extremely active in preparing information circulars, pamphlets, books, etc. to educate and inform the public, fishermen, processors and workers. In the 1930s and early 1940s, Ernest Hess of the Department of Fisheries published no less than 33 circulars on the procedures of canning lobsters, giving detailed specifications on individual processes. From 1948 to 1971, the Department published a monthly news magazine that was sent to fishermen, processors and staff. This publication reported on meetings, new technology, social programs, and development in fisheries in Canada and around the world.

Various departmental branches began to specialize and in 1995, the Fish Inspection Branch was separated from the Department of Fisheries to become part of the newly formed Canadian Food Inspection Agency.

4.3 Markets

The earliest processed products were canned lobster meat and tomalley shipped to Great Britain and U.S. markets in the latter half of the 1800s.

As early as the mid-1880s, fishermen in Nova Scotia and New Brunswick were beginning to experiment with shipments of live lobster to the U.S. Canneries from Charlotte County, NB were the first to ship live lobsters into that market. This was due to their proximity to the U.S. and the trade relationship that had built up over the years. The technology they developed led to experimental shipments of live lobster to Great Britain as early as 1892.

Nova Scotia plants shipped to the U.S. using cargo vessels. In 1887, the Yarmouth Lobster Company specifically built the vessel *Electra* for that purpose. It took seventeen hours to make the trip. This venture was successful, which spelled doom for the canneries located on the Atlantic coast and along the Bay of Fundy.

The U.S. market for live lobster has had an influence on the way lobsters are caught and processed to this day. Financial returns were far better for live lobster. In the early days, canneries might pay \$1.60 per hundred for lobster over 9" in length but fishermen could get three cents each (\$3.00 per hundred) for lobsters over 10½" length in the live market.

This higher price for live lobster shipped to the U.S. created what is known as the "market size" lobster. In areas such as the Gulf where canneries are plentiful, lobsters under the legal size in the U.S. are processed, hence they are called "canners".

4.4 New Product Forms

The call for hot pack lobsters declined rapidly and was replaced by cold pack cans. The difference between a lobster cold pack and hot pack was in the processing and subsequent storage. Hot packed lobster was retorted (processed and heated) and could be stored in cases in a clean dry warehouse. Cold pack was frozen and stored in cold storage. As refrigeration facilities grew, so did the distribution system for transporting and storing frozen product.

In the late 1970s, Jim Bliss of the Market Development Center in Charlottetown, PEI, formulated a new product. He tried freezing lobsters in a plastic bag with brine added: the Popsicle Pack was created. This product targeted a low price market in Europe. It sold to grocery stores as opposed to restaurants and wholesalers and was aimed at the consumer who wanted lobster for dinner at a reasonable price. Roger Foulem, a New Brunswick processor, credits the Popsicle Pack with saving the lobster industry in the late 1980s. The next new product was Baby Boils. This was whole cooked lobster left in the shell and frozen.

While the Popsicle Pack and Baby Boils created new opportunities, they were also problematic for the industry. Since plants usually found themselves with a surplus of lobster, particularly in May, these lobsters were processed as Popsicle Pack and Baby Boils. Both these products were sold at a lesser price and hurt the market for fresh lobster products.

Frozen tails began to be produced in the mid-1980s followed by various different packs of claws, knuckles, lobster paste, cocktail claws, minced lobster meat, tomalley and roe, etc. Later, pasteurized lobster evolved and with today's new technology, new product forms are constantly being developed and modern lobster processors are able to produce product lines that are attractive to the consumer, easy to use and to ship.

4.5 The Modern Lobster Market

Canada and United States are the only countries that harvest American lobster with Canada having the highest landings. In terms of lobster exports, the United States is the primary market for Canadian lobsters, followed by Europe (primarily Belgium, France and the United Kingdom) and Japan. The U.S. exports some of their “soft-shelled” lobsters for processing to Canada (primarily in NB), which is then re-exported back to the U.S. Canadian lobster is sold in different forms, but the main products traded on the U.S. markets are live lobsters, lobster tails and meat.

Usually considered a luxury product, lobster is mostly consumed on special occasions where the restaurant industry plays a leading role. The demand for lobster depends on the economic situation of the country where it is consumed. With more than 80 per cent of Canadian lobster exports destined for the United States, U.S. market conditions have a significant impact on the Canadian lobster industry.

4.6 Sustainability Certification Initiatives

Consumer demand for ecologically sustainable products has led many industries to develop programs to certify that their products are “clean, green and eco-friendly”. The certification process is conducted by a specialized company which undertakes sustainability audits on fisheries to determine if they are appropriately harvested and managed. Industry pays the considerable cost of the audit and the process is ongoing, as re-certification is needed every few years. The result for fisheries that satisfy the sustainability criteria is the issuance of certification and an “eco-label” for the product. Several large European grocery chains have stated that they will buy *only* eco-certified products in the near future.

Certification may well become necessary if new markets are to be developed and even to keep existing markets. The process will be expensive and it is very difficult to differentiate lobsters from one zone to the next, hence an industry-wide approach may be necessary.

5) The Rise of Owner-Operator Licensing and the Demise of the “Company-Boat” and “Company-Store”

5.1 The Conventional Wisdom on Owner-Operator

The notion of an owner-operator fishery (one where the licence holder personally fishes the licences he is issued) is firmly held in the southern Gulf of Saint Lawrence. In the DFO report *A Policy Framework for the Management of Fisheries on Canada’s Atlantic Coast* and the attendant report on the extensive consultations conducted by DFO officials, *What We Heard*, support for the principle of owner-operators was robust.

In preparing *Intergenerational Succession in the Gulf of Saint Lawrence Lobster Fishery*, Stuart Beaton interviewed a number of fishermen in Lobster Fishing Area (LFA) 26A. When asked if the lobster fishery should remain an owner-operator fishery, 96.6 per cent of fishermen supported the concept of owner-operator. The fishermen in the study also indicated a concern that owner-operator was being eroded in some LFAs through the use of “trust agreements” which will be examined below.

Today very few fishermen have any understanding of the extent to which company-owned boats characterized the early days of the lobster fishery. Around 1929, when the Tuttle King operations relocated from Saddle Island, NB to Pomquet Ferry, Antigonish County, NS, the company was apparently comprised of a mixture of company and privately-owned boats and remained that way until the late 1950s. Approximately 30 boats were owned by the King interests and most of the crews were from the Cape Tormentine area of NB. As many as 60 women worked in the factory, many of them from Cape Bald, NB. When the King operation ended, several families that were involved in vessel operations with the King fleet remained in the area.

5.2 Owner-Operators and the Company-Store

The Robin Companies in eastern NB were a clear example of “company control” in the fishing industry. Sue Calhoun, in her book *“A Word to Say”*, describes the Robin family as Jerseymen from the Channel Islands south of England who moved into the Gulf cod fishery in the 1760s. The firm “Robin, Pipon and Company” established a base on the Chaleur Bay where they bought cod and furs from the locals and in turn sold them salt. This relationship evolved into the “truck” system already in use in Newfoundland and elsewhere at the time. Instead of paying wages, the merchant provided gear and provisions at the beginning of the fishing season in exchange for the fisherman’s catch. No money changed hands and the value of the catch was determined by the merchant himself. The price was never quite enough and the fishermen often depended on the company store to get through the winter, leading to a cycle of dependence and a control relationship. The Robin, Jones and Whitman stores that descended from these early Jersey merchants were active until recent years in communities throughout the Maritimes.

While the truck house system originally evolved in the cod fishery, it is worthy of mention that lobster processors also often maintained considerable control over the lives of fishermen even after the fishermen held actual ownership of their vessels. Gordon DeWolf, Cliff Levelton and others reported the practice of lobster companies providing extensive credit to fishermen out-of-season in order to secure their supply of lobsters. Fishermen frequently were extended credit for fishing supplies, vessel purchases, repairs, vehicles and winter provisions. Many times at “settle up”, the landings barely met the bill, which kept the fishermen in a form of peonage and dependence. Though owner-operators were the rule in the fishery, many companies exerted a large measure of control over fishermen into the late 1960s.

By the late 1950s, company ownership of licences and vessels was waning. By 1968, when Limited Entry Licensing had been established throughout the Maritimes, no company licences had survived in the Gulf Region. Eventually, after a number of regulatory efforts had been enacted to broaden employment in the fishery and to limit participation in the fishery to activity in only one LFA, owner-operators became the rule in the lobster fishery.

It is widely held that the practice of control by credit described above was in large measure the impetus for the development of fishermen's co-operatives.

6) The Co-op Movement

The co-operative movement in fisheries evolved in the late 1920s, in large part from the social activism of Fathers Jimmy Tompkins and Moses Coady of Margaree Valley, Cape Breton. Father Tompkins was inspired by the deplorable conditions of the fishermen in the Canso, NS area. He and his cousin Moses began an initiative to educate and organize fishermen to become "masters of their own destiny". These two clergymen established the Antigonish Movement for Co-operative Development and the Extension Department (and later the Coady International Institute) at St. Francis Xavier University in Antigonish, NS.

Father Coady began to organize meetings and training sessions leading to co-operative development. His message fell on fertile ground in many areas in the Gulf Nova Scotia region particularly where companies did not own vessels. These were primarily owner-operator fishermen but largely dependent of the largesse of the lobster packers for credit and winter supplies. They were often stuck in a vicious circle; taking credit from the company only to work the year and barely meeting the bill, thus caught in another year of credit dependence. The situation was further compounded by a widespread belief among fishermen that prices they received were neither just nor a true indication of the value of their lobster.

Co-operatives were established throughout the Gulf Region and many remain to this day. The St. George Co-op at Ballantyne's Cove in NS, founded in 1935, operates today as the North Bay Fisherman's Co-op. The first co-op in PEI still exists in Tignish. One of its founders, Chester McCarthy, a lawyer and well-known businessman, went on to become the first president of the group of co-operatives known as the United Maritimes Fishermen (UMF). The Association Co-opérative des Pêcheurs de l'Île Ltée (Island Fishermen Co-operative Association Ltd.) in Lamèque, NB has been operating since 1943.

During the evolution of the co-operative movement, consolidation was the order of the day in the lobster processing industry. This gave rise to large privately owned companies such as Paturel, E.P. Melanson, Cape Bald Packers and others that became giants in the business.

The co-operatives followed suit with the consolidation of numerous small groups into the processing and marketing umbrella of the UMF. This organization became a major player in the lobster business, with a large plant at Richibucto Village, NB, and numerous other facilities around the Maritimes. Over time, local co-ops began to feel a loss of independence and support weakened for the UMF until it eventually went out of business in 1983.

One of the unheralded aspects of the co-op presence in the Gulf was that they built and developed a tradition of leadership among fishermen. This later translated into a strong movement toward fishermen's organizations as a voice to be brought forward to DFO.

7) Fishermen's Organizations

In Romeo LeBlanc's first major speech as Fisheries Minister, he put the independent fisherman first and foremost. (J. Gough p. 308). He said, ". . . In licensing and all these associated matters. I intend to listen closely to the bona fide fisherman, the man whose life is fishing. . . . But I would remind the fishermen that we can't consult every single one of them. In a word: organize. Be sure your voice is heard and be sure your spokesmen are properly mandated and accountable to you." It is interesting to note Minister LeBlanc's use of the term "bona fide" to describe fishermen who were dependent on the inshore fishery. Those same inshore fishermen later took up this term as they developed the "Bonafide Licensing Policy" which will be discussed later.

While it is true that there were fishermen's organizations in the early days, it was not until Minister LeBlanc encouraged fishermen to organize that the role of these organizations began to take on the work they are well known for today.

7.1 The Maritime Fishermen's Union

The Maritime Fishermen's Union (MFU) got its start in 1977 in eastern NB, representing small-boat multi-purpose inshore fishermen, particularly lobster fishermen. J. Gough cites ". . . the MFU took an assertive stance, holding demonstrations, provoking incidents, and gaining a radical reputation. LeBlanc soon recognized the organization's vigour and drive. DFO decisions began to reflect MFU influence. Relations with the Department improved, especially after LeBlanc created the Gulf Region." Many key fisheries leaders emerged from this important organization over the years including original organizer Gilles Thériault, Guy Cormier, long-time Executive Director Mike Belliveau and organizer Reg Comeau.

The MFU expanded with success into NS where Local 4 in Gulf Nova Scotia produced leaders like Percy Hayne Jr. and Hasse Lindblad, both of whom held the position of MFU President in later years. The MFU worked hard to establish a presence in PEI. Calhoun notes that Gilles Thériault, with a lot of hard work by organizers like Jamie Ellsworth and Ivan Shaw managed to establish MFU locals in Miminegash, PEI in 1978 and later in the Savage Harbour-Rustico area. Despite these initial successes, little inroad was made towards an all-encompassing presence in PEI.

The MFU, with its strong leadership from the inshore industry, began a campaign to gain legislation to support unions. In 1982, the Province of New Brunswick enabled collective bargaining and the MFU eventually won rights to bargain and for mandatory dues in Gulf New Brunswick. The MFU currently represents over 2,000 owner-operators throughout the Maritimes.

7.2 The Prince Edward Island Fishermen's Association

The Prince Edward Island Fishermen's Association (PEIFA) was formed to represent the views of fishermen on government policies and to make their issues known to all. In Kennedy Well's book, he lists the PEIFA as being formed in the mid-1960s, when trap limits were being discussed. The Association's own website refers to the early 1950s, when trap limits were being put into place. While this point may be up for discussion, the existence and importance of the PEIFA itself is not.

In the early 1970s, the Association participated in a federation of fishermen, processors and government called the PEI Fisheries Federation. In 1979 the Association voted to opt out of the Federation, detaching itself from government grants and becoming financially self-sufficient. At the time, PEIFA had a total of 691 members. In 1982, the Association was incorporated.

In 2004, the provincial government passed into law The Certified Fisheries Organizations Support Act. PEIFA is the only organization to meet the criteria of the Act and, as such, is now recognized as the representative organization for all core fishermen in the Province of Prince Edward Island. PEIFA is comprised of six local fishermen's organizations that represent fishermen from around PEI.

7.3 Gulf Nova Scotia Organizations

In Gulf Nova Scotia, the MFU was a key player in the late 1970s when fishermen were first organizing. However, the fishing industry in that area is spread along a coastline from the NB border to the northern tip of Cape Breton and has a long history of smaller groups representing local fishermen. Groups such as MFU's Local 4, the Northumberland Fishermen's Association, the Bonafide Fishermen's Organization and the Chéticamp and Area Fishermen's Association have been around for many years, representing Gulf Nova Scotia fishermen. In the late 1990s, the Nova Scotia Department of Fisheries and Agriculture established the Nova Scotia Fisheries Organization Support Act. This Act provides for a system of accreditation for core fishermen's organizations and Gulf Nova Scotia organizations were some of the first to be accredited.

These fishermen's groups have become the key industry voices in a comprehensive consultative process used in the development of government policies. In the early days, they were supported by having their travel to fisheries meetings paid for by government. In the 1990s, the federal government policies and direction shifted to address the deficit in which Canada found its finances. Cutbacks, layoffs, and shifting of priorities all fed into the mix. The result was that the vast consultative process formulated by the federal government was downsized and one of the first hits was paying fishermen to attend consultative meetings. This has been a major challenge for the all fishermen's organizations.

8) The Evolution of Regulations and Policy

8.1 Changes in Management Measures

The beginnings of the commercial lobster fishery came about from the development of the canning process, which made it possible for lobster to make its way to market. The earliest days of the fishery were characterized by a gold rush mentality coupled with a sentiment prevalent in those times that ocean resources were virtually inexhaustible.

As previously noted, several early officials had reported that the lobster fishery was in a serious state of decline even before 1900. W.F. Witcher, then Commissioner of Fisheries, reported that the very reason American enterprises had moved to Atlantic Canada was that the lobster resource in New England had been so sorely depleted and that “. . . There is nothing easier than to exhaust a shellfish fishery, and nothing harder than to revive it.” (J. Gough, p.124). In appreciation for such concerns, the first of a long, slow and sometimes contradictory process of regulating the lobster fishery emerged.

The first Fisheries Act was enacted in 1868. The first known regulation in 1873 forbade the taking of egg-bearing lobsters weighing less than one and a half pounds as well as soft-shelled, newly molted lobsters.

From 1887 to 1913, the Federal Government convened no less than eight commissions to investigate the lobster industry, resulting in numerous recommendations. In general, the results were progressively more restrictive. In 1913 (as he had done in 1898) E.E. Prince of the Marine Fish Department and the Biological Board once again advocated limited entry for the lobster fishery. “So long as the taking of lobsters on Canadian shores is a free fishery, so long will it be difficult to carry out the preventative measures that are desirable, not to do so would exhaust the fishery.” (J. Gough, p.125) Limited entry into the lobster fishery did not fully take hold until 1968.

This process of commissions and studies continued over the years. In addition to those mentioned above, some other notable reviews were Mr. Prince’s examination in 1918, the 1927 Royal Commission, Minister Romeo LeBlanc’s commissioned study in 1974 and the Fisheries Resource Conservation Council (FRCC) Reports of 1995 and 2007.

This practice of review followed by regulatory or policy change has a long history in the lobster fishery in Canada. Joe Gough and others have listed the various regulatory changes over time. The following represents a summary of some of the key management tools, both regulatory and policy that have been developed over the years.

8.2 Protection of Spawning Female Lobster

As previously noted, the very first known regulatory restriction involved the taking and processing of spawn female lobster. At first, only females of a certain size were targeted. Over time, however, this prohibition became virtually universal and remains in place to this day. The goal is to allow spawning females to complete the reproductive cycle in support of future recruitment.

8.3 Seasons

In 1874, the first closed season was established during July and August to protect lobsters during the spawning period. This practice expanded over time in concert with the establishment of different lobster districts. In 1877 and 1879, various closed seasons were established for different parts of the coast rather than having a uniform closed time.

In 1887, “closed times” changed to the span of July 1st to December 31st in the Atlantic area, and from July 15th to the end of December in the Gulf. In 1898, these seasons again changed to

establish longer fall and winter seasons in the south and shorter summer seasons in the north. This was the beginning of the fishing pattern of a spring fishery in the Gulf of St. Lawrence. The fishery usually opened in early May and closed by the end of July at the latest when the water was warmer and lobster moulting was underway.

In 1934, this changed again to provide for a later fishery in the western Northumberland Strait. The exact reason for the change to this later season is not clear. Various explanations have been offered including difficulty navigating through spring ice, water temperature and its impact on when lobster begin to trap in that area, and the desire to ensure a season was always open in the Maritime Provinces to supply markets. Nevertheless, since that time there have been two main seasons in the Gulf of St. Lawrence fishery. These are known as the “spring fishery” which occurs from the beginning of May to the end of June, and the “fall fishery” which usually opens in the first half of August and runs two months to the first half of October.

In April of 1969, Sunday fishing for lobster was banned. This ban remained in effect until 1984 when it was challenged and deemed unconstitutional.

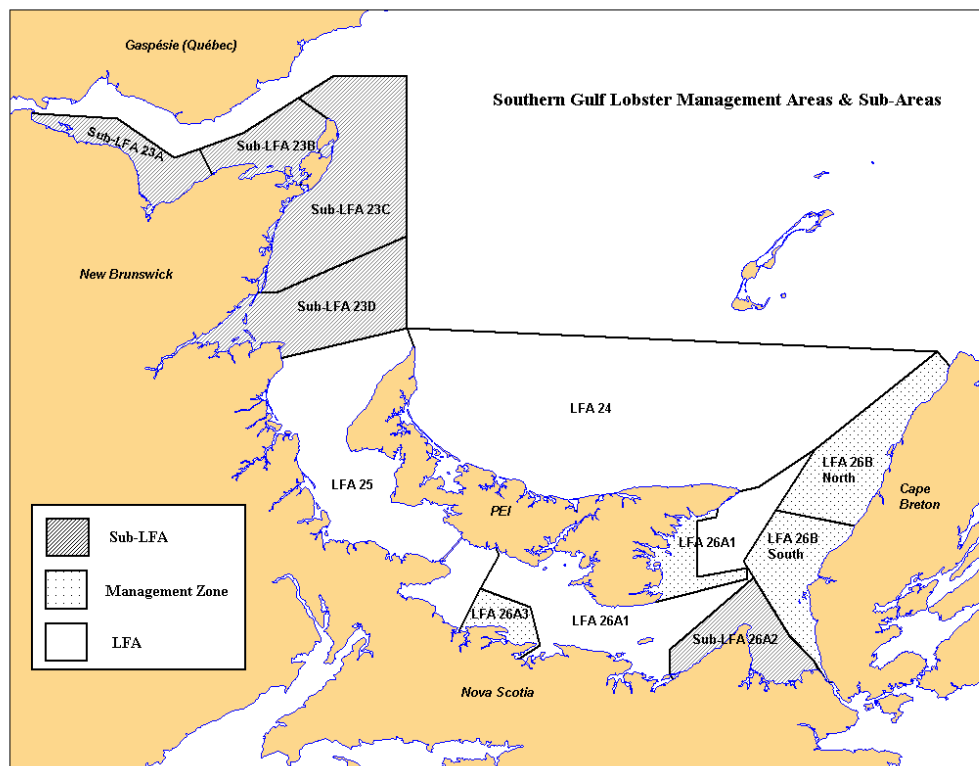
8.4 Management Areas

The creation of the first Lobster Fishing Districts (see map) came out of the 1898 Royal Commission under E.E. Prince. In 1934, the Atlantic fishery was subsequently divided into 17 fishing areas and an important new regulation prevented fishermen from fishing more than one district. This was to have a profound effect on the fishery over time. Regulatory changes in 1984 established Lobster Fishing Areas (LFAs).

Map of Lobster Fishing Districts 1899



Map of LFAs and Sub-LFAs 2011



8.5 Size Restrictions

In 1874, the first size limit of nine inches overall length was established over vigorous opposition from both canneries and fishermen.

In 1913 the Dominion Shellfish Fishery Commission re-established size restrictions and, since that time, some form of minimum size limit has been in place. Until the early 1950s, these limits were “length overall” restrictions but eventually the measurements related to carapace length which was easier to measure and enforce. In the earlier years, the minimum size ranged from as small as six inches to as large as 10½ inches for the canner districts. These different sizes ranged up and down over the years. For example in 1929, a six inch size was established and then raised one inch each year to a minimum length of eight inches. Then in 1940, a six inch limit was once again put in place for canner areas.

In 1941 the market lobster size limit became 3 3/16 inches carapace length; this was to harmonize with the legal U.S. minimum size. Again, for the next few years, these sizes fluctuated for various reasons, not the least of which was to co-ordinate with the American market, which was fast becoming the primary target for Canadian lobsters. In 1952, a 2 3/8 inches carapace size was introduced and then changed to 2½ inches in 1953. With this new canner size and the market carapace size at 3 3/16 inches, the carapace size picture was to remain stable until the late 1970s.

In the late 1970s, the Department of Fisheries and Oceans and the Province of Nova Scotia began to push fishermen to consider carapace size increases in the Gulf. The concept at the time was to advance to 2¾ inches in carapace size and thus allow more females to spawn at least once. This issue kindled a series of boisterous demonstrations that caused a great divide within the industry. Although the effort failed in its initial attempt to convince fishermen to accept a larger lobster, it eventually resulted in the creation of a pilot project area in Gulf Cape Breton. LFA 26 was subdivided into 26A and 26B. In 1986, 26B (the Cape Breton portion) initiated a four-year project to increase the carapace size from 2½ (63.5 mm) inches to 2¾ inches (70 mm). This early work led to the Gulf-wide carapace size increases of the early 1990s. Today, the regulated minimum carapace size of lobster is set with the objective of ensuring at least 50 per cent of female lobsters reach sexual maturity before capture.

8.6 Regulating Trap Configuration

The first attempt at regulating the configuration of traps used in the fishery came in the early 1890s, when minimum lath spacing in traps was instituted to provide a means of escape for small lobsters. The Dominion Shellfish Commission lifted this requirement in 1914, following pressure from canneries that too many lobsters were escaping. This Commission was also the first to reference a “standard trap”.

In 1949, lath spacing was again regulated with the canner areas set at 1¼ inches and the market areas set at 1 5/8 inches. This was rescinded in 1955 as it was not at all popular with the fishermen and enforcement was a problem.

Things did not change again until the late 1970s. Governments began talking about escape mechanisms which would allow small lobsters to escape, and they produced a number of devices that were distributed to fishermen. Several different types were tried but rejected. Nevertheless, the work led to the development of mandatory “escape vents” in the 1980s, which are widely used and supported today. Furthermore if the escape mechanism was attached to the trap with biodegradable fasteners, the escape vent would eventually lift off providing escape from a lost trap for inadvertently caught lobsters. Biodegradable panels are mandatory in the fishery.

8.7 Trap Limits

New fishing gear and vessel technologies led to a steady increase in the number of traps in the fishery by as much as a threefold from 1917 to 1927. In 1919, E.E. Prince first recommended trap limits; however the first trap limit to appear in Atlantic Canada was a voluntary measure instituted by the fishermen of the Port of Lismore, Pictou Co. NS in the 1950s.

Landings began to decline in 1960 and the government shifted its focus to managing the resource and “effort control” became the phrase of the day. Government studied traps, fishermen and boats. In 1966, the first regulated trap limit appeared in District 8 (LFA 25), with a limit of 250 traps. This was followed by a myriad of different limits by district which changed over the years.

Trap tagging was introduced in the late 1960s to prevent fishermen from cheating the system. At first, aluminum tags were used and this evolved into plastic tags. Today trap limits are seen as a key effort control mechanism in the fishery.

8.8 Production Controls

The processing industry has had a major influence on the evolution of regulations in the lobster fishery over the years. Seasons, size limits and trap configurations have been important to processors because they can affect their supply of lobster. As recently as the 1990s, processors were actively engaged in the debate on the issue of carapace size increases. Often they would try and influence decisions through their employees, many of whom were spouses of the lobster fishermen. As noted previously, the first regulatory restrictions included prohibiting the processing of berried females. This was later reinforced by penalizing canneries that broke this “spawn lobster” law more than three times with the loss of their processing licence for one year.

As stated in an earlier section, with the increase in the number of canneries and the decline in production quality, attempts were made to educate and regulate the activities of processors. Subsequent regulatory elements included a prohibition from purchasing broken lobster meat, the inspection of plants before they opened and the requirement that the cannery be issued a processor’s number specific to that plant. This was reinforced in 1914 when the Fish Inspection Act was enacted. This registration number was embossed on the can cover and became integral to the can package.

8.9 Policy Development

In simplest terms, a policy is a statement of intended direction and is usually supported by a regulatory tool that is enforceable so as to bring effect to the policy.

As discussed earlier the development of the canning industry was the catalyst for the development of the commercial lobster fishery. In the early years, it is unclear that policy was anything more than reactionary. The growth of canneries led to an increase in the number of fishermen eventually leading to overfishing. The first regulations were attempts at curtailing this increase in fishing and controlling cannery production quality.

As time went on, the government held review after review, resulting in a myriad of regulatory changes to lobster size, seasons, districts, etc. Concern was expressed repeatedly regarding conservation of the lobster resource and its capacity to withstand increased fishing. Some early interveners showed their understanding that to address resource conservation, controlling the number of participants in the fishery was needed. However, this was not addressed until 1967.

Signs of “policy” thinking related to aspects other than conservation started to show up in the mid-1930s. In 1934, a regulation was enacted to allow fishermen to fish in only one lobster district each year; a person could not fish the spring season and fish again in the fall season. The rationale was viewed by the government as a measure to protect the fishermen who conserved the resource. This is an example where a policy concept is supported by a regulation.

From that time, a number of government policies have been announced and implemented that have had a significant impact on the Gulf lobster fishery. Included among these are Unemployment (or Employment) Insurance for Fishermen, Limited Entry, The Moonlighter Policy, Licence Retirement, and the Bonafide Licensing Policy, all of which will be discussed in more detail.

9) Poaching

9.1 In the Beginning

Poaching, in the context of this document, means activities such as fishing of sublegal sized or berried lobsters, fishing more than the legal number of traps, having untagged gear, fishing out of season, fishing without a licence, etc.

When the lobster fishery first began in the 1850s-1860s, there were no rules or laws to govern fishermen's activities. Berried lobsters and non-berried lobsters alike were harvested. There were no size limits, no gear standards, no seasons as such, and no fishery officers. The first Fisheries Act passed in 1868, and the first comprehensive sets of regulations were enacted in 1889. These regulations were simplistic by today's standard and were virtually ignored.

As the lobster fishery grew and vessels began to be motorized, overfishing was becoming a problem. The taking of berried females and sublegal sized lobsters was commonplace. Hygiene standards were poor, as was the quality of canned lobster products. Fishermen were selling shucked meat to the plants for packing and it was becoming more difficult to sell canned lobster because of the poor quality. The Fish Inspection Act was introduced in 1914 in an attempt to control plant processing and improve quality.

Through a series of Royal Commissions and committees, the federal government realized the Fisheries Department needed more manpower as well as vessels to patrol at sea. They also knew they had to focus on the canneries, the prime user of illegally caught lobster.

These resources were not available until after the Second World War. With men returning from the war, the federal government expanded, enabling the Department of Fisheries to hire fishery officers. These officers had authority to apply the laws and regulations related to the Fisheries Act and Regulations, as well as the Fish Inspection Act and Regulations.

It remained, however, that if the Department wanted to control poaching it had to have the cooperation of honest fishermen. Poaching had become a full-time business for many fishermen after the war, especially in the western portion of PEI and around the Baie-Ste-Anne area of eastern NB. Communities condoned the practice as a normal way of life. Warning systems were in place to assist poachers including various types of signals such as lights, flags, clothes on the lines, etc. Of course the plants or canneries were complicit in the process as they provided the outlet for poached lobster.

The Department hired, trained and equipped officers with modern tools. The “men in green” began their efforts to push back the wave of poaching and provide some order in the lobster fishery. They complemented their efforts with a program to target the plants where the product was processed. The Department also launched a communications campaign to demonstrate to the honest fishermen that it was actually their money the poachers were stealing. This educational aspect became important in helping stem the tide and turn honest fishermen and their communities against poachers.

In the 1950s and 1960s, the Department positioned men from all over Atlantic Canada in hot spots around the Maritimes. This “Special Force”, often referred to by fishermen as “Goon Squads”, tackled poaching in a coordinated way using stakeouts on known poachers and processors, patrolling key problem areas and dragging for traps.

The key to stopping poaching lay with the packers. Without canneries providing a market, poaching would be reduced to local sales, which were minimal. The legal tools employed were dramatic and effective. Illegal traps were smashed and any lobster as well as vessels, vehicles, or other gear used in commission of illegal fishing was seized and forfeited to the Crown. If a processor was implicated in an operation, he had the threat of losing his processing licence which would essentially put him out of business.

9.2 Changing Years

In the 1970s, honest fishermen began to realize that poaching was hurting them financially. Fishing communities began to resent poachers and eventually became a powerful force in influencing the hard-core poachers to quit their illegal work. They began co-operating with DFO and working with fishery officers in exercises to destroy illegal traps.

Hard-core poachers are now reduced to a few in isolated areas. In a series of interviews with fishermen, processors and organizers from the NB fishery, researcher Jean-Marie Nadeau found their comments regarding poaching very interesting with the most telling being: “. . . in the past poaching was a way of life . . . today, those who do it are bandits.”

This comment certainly gives an indication of the degree to which poaching has been brought under control. There are, of course, pockets of illegal poaching activity still active. However, DFO has a well equipped group of fisheries officers with modern investigative tools who see lobster poaching as a priority to be addressed wherever it occurs. More and more, fishermen and their organizations are providing concrete information and aid to DFO’s enforcement efforts in the battle against illegal activities.

10) Fishing “Territory”

10.1 Traditional and Customary Fishing Practice

The holder of a lobster licence for a given LFA is entitled to fish anywhere within the LFA. However, in practice, fishermen’s freedom of movement is quite constrained by tradition.

Movement of licences from port to port within an LFA is generally discouraged by social pressures. Even in very early times, a fisherman attempting to encroach on the grounds of other fishermen was frowned upon and there are well-documented instances of “lobster wars” over territory.

It is important to note that there are local variations to a general rule. For instance, LFA 25 is characterized by far greater operational mobility than LFA 26A or 26B. This may be because parts of the Northumberland Strait are so narrow and that three provinces (NS, NB & PEI) share that LFA. Other LFAs experience less fleet mobility. In practice, vessels often travel considerable distances from their home port and may not fish the same area from one year to the next.

In general fishermen fishing from one harbour have a collective territory and may butt up against and mingle a bit with fishermen from the next port but there is a “line” or point beyond which neither side will normally venture.

10.2 Berths

Berths exist only along the shore and do not apply in offshore areas where fishermen mingle on the grounds and move about as the fishing dictates. Researcher Stuart Beaton has 32 years of experience in this traditional berth scenario. He notes that in the earliest times, the waters adjacent to farm property were considered an extension of the boundaries of the farm. Fence lines, hedgerows etc., were extended out to sea as far as the “hard bottom” or lobster habitat went. These fence lines were like ranges and defined the berth. Each fisherman fished alone in his berth, just as he would work alone in his field or his woodlot.

11) Employment Insurance – UIC/EI

11.1 Fishermen and UIC

As early as 1935, with the beginnings of unemployment insurance in Canada (UIC), fishermen were excluded from the program as self-employed “co-adventurers” as opposed to wage employees. The government agency in charge of the administration of UIC and the Federal Department of Fisheries resisted the inclusion of fishermen in the program. Fishermen were guaranteed to be unemployed every year and the concern was that it may be perceived as a subsidy in U.S. markets and therefore trigger a countervailing duty on seafood products. There was also the view that UIC income support would prevent fleet rationalization by propping up otherwise non-viable enterprises.

Jack Pickersgill, MP for Bonavista-Twillingate, NL and a cabinet minister, championed fishermen to be included in the system. Virtually single-handedly, he managed to achieve this goal in 1957, overriding objections from bureaucrats who had stubbornly excluded fishermen for over 25 years. The question persists as to whether or not UIC for fishermen has been a benefit to the industry.

11.2 EI's Impact on the Fishery

Today, the level of dependence of fishermen on employment insurance (EI) varies directly with their income. Fishermen in areas with low landings are highly dependent of EI and/or second incomes. Likewise, fishermen who are highly leveraged as new entrants or who have high debt loads for a new vessel and so on, are highly dependent also.

EI dependence has, in the past, provided a perverse incentive in fisheries. For example, in the years prior to the collapse of the cod fishery, effort and participation actually increased as fishermen struggled to become eligible for EI (“getting their stamps”), since earnings were low and alternative employment was unavailable.

12) Limited Entry Licensing

12.1 The Debate

Perhaps the most significant development in the management of the southern Gulf lobster fishery was the institution of limited entry in PEI in 1967, then across the fishery in 1968. Seasons, trap limits, size limits and all sorts of various conservation measures and methods to control lobster fishing have been important and continue to be refined and developed today; but limited entry changed the fishery completely.

The concept of limited entry was not new by any means. It was the subject of considerable debate and it took nearly 60 years for the system to be adopted. It is worth repeating the advice of E.E. Prince in 1913, who recognized that limited entry was a starting point to effective effort control: “So long as the taking of lobsters on Canadian shores is a free fishery, so long will it be difficult to carry out the preventative measures that are desirable, not to do so would exhaust the fishery.”

E.E. Prince realized that it would be impossible to control or reduce effort in the fishery if, as soon as any conservation measures had resulted in an improvement of the available resource, new entrants emerged to dissipate the benefits of conservation. Entry limitation was seen as a bedrock first step in effective effort control.

Nevertheless, limited entry remained contentious. First, it was politically difficult to limit entry since the fishery was such a major source of employment in areas with little other economic activity. Two world wars and a major depression occurred in the intervening years between E.E. Prince’s recommendation and the ultimate implementation of limited entry.

“As the Great Depression took hold and employment shrank, more people entered the fishery” (J. Gough, p.186). Joe Gough also quotes economist H. Scott Gordon who noted: “By 1939 there were more than 50 per cent more fishermen in Prince Edward Island than there had been ten years before.” In addition, numerous commentators questioned the legitimacy of granting exclusive access to a public resource to a select few. Long-time DFO official Cliff Levelton questioned the ethics of having individuals benefit from a “windfall” profit from a privilege granted by the State.

Fisheries economist Gordon DeWolf recognized that once limited entry came into place, several outcomes were likely. “Licence limitation and trap limits as introduced in the late 1960s will distribute incomes more equally, will not effect (sic) effort substantially, may lead to an increase in the total number of traps, may have adverse effects on economic efficiency and will increase the value of boats as the right to fish for lobsters becomes capitalized.”

All of Mr. DeWolf’s contentions have proven to be true. The number of traps did increase somewhat after limited entry because there were considerable numbers of enterprises fishing lower numbers of traps than some of their compatriots. Once limited entry was implemented, fishermen were in a sense more professionalized. Cliff Levelton’s concern about the capitalization of licences and the likely increase in vessel values likewise proved correct. (At the time of his writing, licences were attached to the boat. Today the licence is attached to the fisherman, as is discussed later in the Bonafide Licensing Policy section). In effect, it is the licence itself that has become capitalized.

13) The Moonlighter Policy and Class A, B & C Licences

13.1 The Policy

The Moonlighter Policy came out of Minister Romeo LeBlanc’s 1974 commissioned study on the lobster fishery. It was announced on November 9th, 1976, establishing category A, B and C licences. The Minister was sending a clear message that he was reducing effort and that those who depended on the fishery for their livelihood were being given preference. The people holding B and C licences were going to disappear from the fishery. Essentially, the Moonlighter Policy was to rid the fishery of people with other employment, and reserve it for those who were most dependent on it.

A screening process was carried out and fishermen were categorized. A fisherman could appeal to a fishery officer, produce evidence of his participation and review the evidence the officer had. If dissatisfied with his classification, he could then approach a local Appeal Board to hear his case. If still not satisfied, he could appeal directly to the Minister. The final verdict would categorize him as the evidence would direct, and this decision was final. The following briefly describes the various categories.

13.2 Category Class A

This licence category was granted to fishermen who had a lobster licence the year before, who depended on the fishery and who had neither full-time employment nor any full-time seasonal employment.

In applying this policy, the Department defined limits. Fishermen could hold a job as long as their income did not exceed the minimum wage for the area, plus 25 per cent. Earnings from primary resource jobs and unemployment insurance were not used in the calculations. Licence holders could transfer their licences under certain circumstances. If a fisherman took full-time employment once he had been categorized as Class A, his licence was to be cancelled as opposed to being downgraded.

13.3 Category Class B

In this category were part-time fishermen with long attachments to the fishery. Their licences had limits on the number of traps: 30 per cent of the maximum commercial number of traps for their LFA. They could remain in the fishery as long as they held the licence but transfers of these licences were not permitted. If the fisherman changed his work situation so that he did not have full-time employment, he could upgrade his licence to category A-1. Initially this A-1 licence meant he could fish commercially but it was not transferrable. The policy later changed to allow for the A-1 licence to be treated the same as an A licence. The upgrading could only be done in the off-season as opposed to during the lobster season. This upgrading was discontinued in 1985. It is important to point out that the Moonlighter Class B licence should not to be confused with earlier, similar designations announced in the 1960s which were never upgradable.

13.4 Category Class C

These were given to part-time fishermen licensed after 1968 who did not meet the requirements for A or B licences. The plan was to let these licences die within two years or go until the summer of 1979.

14) Lobster Buy-Back Programs

While the reductions in licences dictated by the Moonlighter Policy were being felt, a licence buy-back program was instituted on PEI, from 1976-1978. The program was an offshoot of the G. DeWolf report of 1975 and the later C. Levelton report. The Fisheries Minister at the time, Romeo LeBlanc, agreed with the concept of reducing effort in the lobster fishery. The PEI buy-back program was negotiated between the two levels of government in 1976 at a time when PEI had nearly 1,500 lobster fishers. A similar program was expanded to include NS and NB in 1978, which resulted in almost 1,600 lobster licences being retired at a cost of \$5 million.

As a result of these buy-back programs, coupled with the impacts of the Moonlighter Policy, there were almost 3,000 fewer lobster licences in the Maritime Provinces in 1983 than had been in the early 1970s. Following these efforts, the fishery went on to enjoy high returns over the next twenty years.

15) The Creation of the Gulf Region

In 1980, Minister LeBlanc announced that he would create a new DFO administrative region to manage fisheries in the Gulf of St. Lawrence. This new region was to include parts of NB, NS, and Newfoundland and Labrador (NL) as well as the provinces of Quebec and PEI. The rationale for this decision was to manage the fishery in the Gulf of St. Lawrence through an ecosystem approach.

The Gulf Region of DFO became official on April 1st, 1982 under the leadership of its first Regional Director General, Len Cowley. Over time, the Gulf Region has seen a number of

adjustments from an organizational perspective. In 1984, Quebec was removed and made into its own administrative region and in 1993, the west coast of NL was returned to that province. Since then, there have been further adjustments in DFO's management structure. However the Gulf Region is still operating and managing fisheries for the three Maritime Provinces touching on the southern Gulf.

Joe Gough states: "In the 1970s, the Gulf had at times been a wild place, with even wharf-burning in one instance. Demonstrations and protests in Eastern New Brunswick, many organized by the fledgling Maritime Fishermen's Union had become common. By the mid-1980s, they had almost disappeared." He cites the leadership of Len Cowley and subsequent leaders as well as the presence of the new region as having improved relations.

It can be said that Minister Romeo LeBlanc was "Father" of the Gulf Region. He made clear his views about the role of the Department in managing the fishery for the fishermen. This philosophy could not help but drive the approach of the managers who worked in the Gulf Region. One of the best examples of managing the fishery for fishermen was the development of the Bonafide Licensing Policy.

16) The Bonafide Licensing Policy

16.1 C.R. Levelton

After 1968, limited entry became the norm and licensing policy went through several models with common practice becoming that the licence would be attached to the vessel. Licensing policy was confusing and unevenly applied and in 1979, long-time DFO official C.R. (Cliff) Levelton conducted a review of licensing policy for the Department in an attempt to improve the situation.

Mr. Levelton determined, in the discussion on limited entry, that assigning the licence to the vessel artificially increased the value of the vessel beyond its stand-alone value. Furthermore, attaching the licence to the vessel rather than the fisherman created operational difficulties for fishermen who wanted to diversify or expand their operations.

He further noted: "The current licensing system is not easily understood by those in the fishing industry or even by those administering the system. It has become overburdened, cumbersome, inconsistent in application and unresponsive." He had prepared a report following extensive consultations with industry with the view to simplifying and re-organizing licensing policy.

Mr. Levelton identified numerous troublesome elements in the policy of the day. For example, if a fisherman with a vessel licensed for lobster and herring wanted to enter the scallop fishery, he had to buy a second vessel to which there was a scallop licence attached.

In addition DFO had a "use-it-or-lose-it" policy with respect to species licences. That is, if a fisherman did not participate (have sales) in a given fishery in a calendar year, he was in danger of not having that licence renewed the following year. This policy had several unfortunate effects. Fishermen were forced into activity in non-profitable fisheries as well as fishing weak resources

merely to hold on to their licence package. This was often done to the detriment of stressed fishery stocks.

It was proposed that the Department create “full-time/part-time” categorization of fishermen based on dependence on the fishery. The Department introduced the concept to the fishery industry and began working on defining what a fisherman would need in terms of fishing activity to be considered “full-time”.

Despite natural limitations, the Gulf inshore fishery has a long tradition of multi-species fishing. Numerous individuals have a high dependence on the fishery and fish from “ice to ice”. Species such as groundfish, scallops, herring, mackerel, salmon and snow crab were important species harvested over the years. Nevertheless, this inshore fishery was clearly dominated by lobster fishing where no season was longer than two months.

For this reason, the initial approach resulting from Cliff Levelton’s work of identifying fishermen as “full-time” did not sit well with the inshore fishermen in the southern Gulf. Their reaction to the proposed changes was to dig in their heels and devise their own approach to solving their problems. This approach was to have Atlantic-wide repercussions in the years to come. Today, the development of the Bonafide Licensing Policy stands as one of the best examples of a fishermen-driven management initiative.

16.2 Fishermen-Driven Initiative

A number of fishermen from Local 4 of the Maritime Fishermen’s Union (MFU) in the Pictou and Antigonish areas in NS, led by Percy Hayne, set out to develop what they believed to be a more reasonable, flexible policy to the proposed full-time/part-time approach being put forth by DFO.

Instead of using the full-time/part-time categorizations proposed by DFO, they developed a policy which set out one-time qualification criteria in order to determine who “Bonafide” fishermen were. Licences could then be held for various species and gear types and could be transferable between Bonafide fishermen only.

The analogy was that a Bonafide “card” or status was like a hand, and species licences were like playing cards in that hand. The cards could be moved around among the players but fishermen had to keep at least one card in their hand to remain in the game. To extend this analogy a bit further, fishermen couldn’t have two of the same cards, that is they couldn’t hold two licences for the same species.

The qualification criteria for attaining Bonafide status was that a fisherman had to have at least one major species licence and/or meet a one-time income test. Once a fisherman met the one-time qualification, species licences could be bought, sold or transferred as a part of his normal operational flexibility. The Bonafide fisherman had to retain at least one major licence (usually but not always a lobster licence) to remain a Bonafide fisherman. New entrants had to purchase the “Bonafide Status” as well as at least one major licence in order to replace a retiring fisherman. In this way, limited entry was respected and at the same time fishermen gained flexibility in their operations.

The policy's theory was that the number of fishermen would remain constant or even reduce over time and the total number of species licences would remain constant. What would change would be the distribution of various species licences among the total number of fishermen.

The goals of this policy were twofold: the number of "professional" fishermen would be capped; and fishermen would gain the ability to diversify, buy or divest elements of their operation in a sensible manner without the "use-it-or-lose-it" provision. This would greatly improve the flexibility of operations for fishermen and remove stress from weak stocks as fishermen would no longer have to participate in a fishery merely to retain the licence for that fishery.

The MFU ratified the plan and pushed it forward to DFO. Although Percy Haynes and his MFU Local 4 leadership team had developed the plan, an Antigonish, NS fisherman named Cameron MacKenzie made it his personal crusade to travel to as many southern Gulf ports as possible to sell the idea and gain the written support of fishermen. In the end, with the overwhelming support of fishermen in all three provinces, DFO worked in consultation with the policy developers and fishermen's groups to fine tune and implement the Bonafide Licensing system.

It is safe to say that the Bonafide Licensing Policy was one of the most significant measures to have been developed by fishermen and ultimately accepted by DFO. This policy, started in the southern Gulf of St. Lawrence in the mid-1980s, would eventually form the basis for the Core Licensing Policy of 1996 that was to become the guiding policy for Canada's east coast fishery today.

17) Lobster Science

17.1 Early Scientific Work

Joe Gough mentions that during the Second World War, the DFO's Alfred Needler recruited David Wilder, a University of Toronto graduate, to work on lobster at the St. Andrews Biological Station. He was given six technicians and soon became the Fisheries Research Board's leading expert on lobster biology. His work stretched from 1942 to 1975.

The Fisheries Research Conservation Council (FRCC), in its 1995 report, notes that scientists have been studying lobster for a very long time. Prior to the mid-1970s, lobster research focused on general biology: growth, distribution, general movements of adults, fecundity, etc. In the mid-1970s, models which combine several kinds of biological information to assess stock status in relation to exploitation (in particular yield per recruit) were adapted for use with lobster.

17.2 Modern Stock Assessment

Today, the lobster fishery is managed based on input controls rather than output controls (amount of removals). Principal management tools include: trap limits, length of season, number of fish harvesters, minimum and maximum carapace sizes, return of egg-bearing females to the water, gear configuration, etc.

The stock status of LFAs in the Gulf Region is assessed using indicators based on a mix of: fishery-independent trawl surveys; SCUBA surveys; fishery-based data from DFO official catch statistics; at-sea sampling; voluntary index-fishermen logbooks; voluntary recruitment-index logbooks; and biological sampling.

There is no predicting tool for the lobster fishery to describe stock prospects or population trends. However, lobsters in the southern Gulf as a whole continue to be in high abundance with landings above long-term average. Nevertheless, strong negative trends can be seen in recent years in the central and western Northumberland Strait. The lobster fishery in the southern Gulf continues to have high exploitation rates and to be heavily dependent on new recruits making this “recruitment fishery” immediately susceptible to changes in the level of recruitment.

Two multi-year management plans aimed at increasing egg production seem to have had a positive effect on lobster production overall.

The broad objective of all departmental research studies is to increase our knowledge of lobster biology and coastal habitat in order to support decision-making on conservation issues for lobster stocks.

17.3 Lobster Hatcheries

The survival rate of lobster eggs is very low in nature. A large mature female lobster may carry several hundred thousand eggs, a natural response to this very high egg and larval mortality.

An initiative undertaken by the Maritime Fishermen’s Union in conjunction with Orion Seafood Group of Shediac, NB has led to the Homarus Inc. lobster hatchery project. This project has developed a hatchery system which has a high success rate in getting lobster larvae to stage four which is the age and size at which larvae settle to the ocean bottom. These hatchlings are then seeded onto appropriate habitats.

Though this project has been widely promoted and publicized, it is by no means a new strategy. In the early 1900s, several hatcheries were in existence in the Gulf of St Lawrence. No doubt the technology is more refined today and possibly hatchery efforts may be more successful than in the past. However, it is very difficult to track and identify lobster larvae that will enter the fishery some six or seven years after their release. Historical data on the early hatcheries seems scant. All we know is that such operations existed, their efforts did not persist for very long and results are not apparent.

18) The Business of Lobster Fishing

18.1 Enterprise Values

There has been a very significant increase in entry costs into the southern Gulf lobster fishery over time. In the earliest days prior to limited entry, a fisherman could enter the lobster fishery at very little cost (a licence cost 25 cents for many years). Since limited entry and the evolution of DFO’s licensing policy, enterprise costs have varied (they include boat, gear and related licences held by a

fisherman). As an example, in Gulf Nova Scotia, enterprises went from approximately \$150,000 in the 1990s to over \$400,000 in the post-Marshall climate (1999 *Crown v. Donald Marshall*).

Licence values are also influenced by the past financial performance of the fishery in the area and also by the desire of the buyer to enter the fishery. These amounts may vary between LFAs.

18.2 Financing in the Past

Prior to limited entry, it was common practice for the owners of canneries to finance new entrants into the fishery in exchange for promise of repayment and a guarantee of supply to the packer. This situation created a cycle of credit dependence as has been described previously. Early commentators on the lobster fishery noted that the situation was far from rosy. Joe Gough states that Moses Perley of NB reported in 1849 that fishermen in his day were living in a “. . . state of bondage. . .” and “. . . even in a worse position than the Southern slaves. . .”

No doubt conditions were much better in the years leading up to limited entry and for a number of years after 1968. However, “credit” dependence of fishermen to packers was a problem which persisted into the 1970s. In a way, the escalating costs of entry likely eased the packers out of financing new entrants as the costs of entry simply became too high for the packers to bear.

18.3 Financing in the Post-Limited Entry Fishery

Three potential sources of financing emerged following limited entry licensing. The first option was for the entrant to self-finance through arrangements with friends and family, or in some cases to enter into formal or informal arrangements with the licence seller to make payments over time. This option became more difficult to arrange as fishing enterprises evolved into a more normal set of business practices: there were various tax implications and entry costs escalated.

The second common source of financing for the new entrant was the Provincial Fisheries Loan Board. Typically the Loan Board was viewed as a good option since terms were flexible and it was generally believed that the Loan Board understood the state and workings of the fishery. This provided borrowers comfort against changing circumstances. The Loan Board was, in a sense, a part of the fishing industry in a way that banks were not.

Provincial Fisheries Loan Boards did not lend monies against the value of the licence but would lend against the value of the vessel and other hard assets in the transaction. The reason was that there was no value attached to the licence: DFO legislation and policy stated that a licence is not property and is issued at the pleasure of the Minister. This meant the licence could not be used as collateral in its truest sense. Independent financing had to be obtained for the licence component of the enterprise. New entry fishermen typically saved for down payments, received family help and occasionally took personal loans from commercial lenders to finance their purchases. Once again, rapid inflation in entry costs continued to make financing difficult.

18.4 Commercial Lenders

The third major source of financing for the new entrant was commercial lending institutions such as chartered banks and credit unions. In general, banks and credit unions had a reluctance or inability to extend credit for the purchase of licences because these were not assignable and had no value as collateral. Financial institutions would typically lend against hard assets, but the nature of the licence precluded the extension of credit for its acquisition.

Some lenders loaned money on the strength of personal recognizance or by assignment of assets such as homes or other chattels. Generally, credit unions tended to be more flexible in this regard. They are frequently community-based and lending decisions are made “in-house” to a greater extent than at chartered banks.

Regardless of which source of financing was used, two factors came into play: the first was that the costs of entry were getting very high, which complicated the situation for the new entrant. Secondly, the inability to assign the licence to the lender greatly curtailed the availability of funding. This led to a situation where, to gain financing, new entrants sometimes entered into “Trust Agreements” with fish processing companies or with other individuals.

18.5 Trust Agreements

“Trust Agreement” (TA) is a term commonly used in the industry to describe an arrangement between a licence holder and another party, where the licence holder is under some level of control by that party. Such agreements fly in the face of the owner-operator policy and the nature of the lobster fishery. As mentioned earlier, fishermen in the southern Gulf have raised the issue of these TAs and have asked DFO to address the issue.

DFO made an effort to address this complex issue with its “Preserving the Independence of the Inshore Fishery in Canada’s Atlantic Fishery”, or PIIFCAF, initiative in 2007. This policy establishes a new class of core fishermen who have not relinquished control of their licences through a TA. Fishermen involved in such arrangements must declare their existence to DFO under certain stipulated conditions.

The PIIFCAF exercise is intended to clarify which arrangements between third parties and licence holders may be used as the basis for third party financing. The whole matter of TAs will be a troublesome and ongoing issue for the fishery and DFO in the future. The *Royal Bank of Canada, Goodman Rosen v. Saulnier* Supreme Court of Canada decision may have implications on the nature of a licence that will be far reaching in terms of credit availability as well as with trust agreements.

18.6 Fishing Income

Over 3,000 lobster fishing enterprises work the waters of the southern Gulf of St. Lawrence. Individual income varies greatly between fishermen and between LFAs over time, with very good incomes being earned in some places at some times and extremely marginal earning available to fishermen in other places and times.

Consequently, any attempt to determine average financial performance of the fleet without taking into account the current situation among LFAs and, indeed, to account for wide disparities within any given LFA, is not productive.

As an example, landings peaked in the central portion of the Northumberland Strait in the mid-1980s and there are accounts of vessels landing in excess of 35,000 pounds in a season. Today, those same enterprises struggle to land 5,000 pounds. At the same time, some vessels in Cribbons Point, NS reported landings in excess of 30,000 pounds in 2006 while the same vessels caught perhaps 10,000 pounds in 1986.

Income is described as landings multiplied by price minus expenses. Expenses appear to have risen at a rate at least equal to the cost of living. As previously indicated, the cost of vessels has far outstripped inflation. Bait too has become scarce and expensive especially in the spring seasons as the Gulf spring herring stock is in serious decline. Other operating costs have also risen dramatically. A crewman's wages in 1971 came to perhaps \$85 to \$100 per week and are now in the area of \$700 per week. A fisherman's fuel in 1971 was 25 cents a gallon and today is in excess of 55 cents per litre.

Prices for lobster have risen gradually over the years. For example, the average price per pound in the spring season in 1972 was about 90 cents. By 2006, it was approximately \$5.50 per lb. However in the recessionary year of 2009, prices were as low as \$3.50 per lb. for markets and under \$3.00 per lb. for canners.

It is fair to say that recent lobster seasons, with higher than average catches across the Gulf, have provided on average decent incomes for fishermen. Those in areas with low catches, or fishermen who are highly leveraged as a result of being new entrants or who have high loans for new vessels, face very difficult times.

Income generated from fishing varies greatly from time to time, from place to place and from enterprise to enterprise. For those looking for details and analyses, these can be found through DFO's Gulf Region's Policy and Economics Branch.

19) R. v. Sparrow and R. v. Marshall

Over the years, Canadian courts have been asked to rule on the rights of Aboriginals to participate in various fishing activities. In recent years, two significant decisions were rendered that impact on the fishery of today including lobster.

19.1 The Sparrow Decision

In 1990, the Supreme Court of Canada ruled on a 1984 case from British Columbia (Sparrow). Its decision recognized an Aboriginal right to fish for food, social and ceremonial purposes. While this did not allow Aboriginals to fish commercially, it was an important step in the evolution of thinking regarding the place of Aboriginals in the fishery.

DFO responded to this decision with the Aboriginal Fishing Strategy Program (AFS), a strategy to provide Aboriginal people with opportunities to fish in a manner consistent with the Sparrow decision and provide for co-operative management of these fisheries.

An economic development component of AFS provided opportunities for Aboriginal people to participate in co-operative management activities and in commercial fishing activities. In 1994, the Allocation Transfer Program (ATP) was also put in place as a strategy to encourage and increase aboriginal participation in coastal commercial fisheries. It facilitated the voluntary retirement of existing commercial licences and the issuance of replacement licences to eligible Aboriginal organizations.

19.2 The Marshall Decision

In 1999, the Supreme Court of Canada ruled on the matter of the *Crown v. Donald Marshall*. Mr. Marshall had been charged with fishing eels commercially without a licence in the Pomquet area of Gulf Nova Scotia. Marshall maintained that he had a treaty right to participate in the commercial fishery stemming from treaties with the British Crown representative in NS in the 1700s. In a groundbreaking decision, the Supreme Court ruled in his favour. However, certain elements of the decision were not clearly enunciated resulting in considerable confusion and unrest throughout the Maritime Provinces.

Nowhere did this unrest become more significant than in the community of Burnt Church on the eastern New Brunswick coast. The Burnt Church First Nation took to the water to exercise what they believed to be their new lobster fishery based on their interpretation of the Marshall decision, an interpretation that was in conflict with the position held by DFO. This led to a series of on-the-water clashes that were the subject of national and international news broadcasts.

As a result of the situation at Burnt Church and elsewhere the Supreme Court, in an unprecedented fashion, issued a subsequent “clarification” of the decision. The initial decision contained uncertainties as to the extent of the right and the level to which the Government of Canada continued to retain a regulatory authority. In the clarification, the Court affirmed that the Aboriginal right was to be a regulated right.

The decision and the clarification established that Aboriginal Mi'kmaq Treaties of 1760-61 “. . . gave the Mi'kmaq a right to provide for their own sustenance by trading the products of their hunting, fishing and gathering for necessities.” The Supreme Court construed the modern context of “necessaries” to mean the equivalent of a “moderate livelihood” from the fishery and that their participation is “. . . not for the accumulation of wealth.”

DFO's response to this decision was The Marshall Response Initiative, which established a process of negotiation to provide Aboriginal people access to commercial fisheries by retiring access from existing commercial fishermen. As a result, there are now over 200 lobster licences held by Gulf Region Aboriginal communities.

The initial negative reaction on the part of the existing non-Aboriginal fishermen to the development or recognition of Aboriginal entitlements has disappeared. This can be attributed to a number of factors. DFO's retiring of existing effort to make opportunities for First Nations to enter the fishery was a key element. However, leadership in both Aboriginal and non-Aboriginal fishing communities was crucial. Many leaders called for cool heads and a spirit of co-operation in the face of potential violent backlash. This was all helped by the very high level of co-operation and integration into the industry by the Aboriginal captains and crews through mentoring programs supported by First Nations, governments and the fishing industry.

20) The Fisheries Resource Conservation Council

20.1 The 1995 Conservation Framework for Atlantic Lobster

In September 1994, Minister Brian Tobin asked the Fisheries Resource Conservation Council (FRCC) “. . . to review the current approaches to lobster conservation and to recommend conservation strategies for Atlantic lobster.” The FRCC began by holding a series of meetings with stakeholders knowledgeable about the fishery. Along with what they heard in the meetings, they received fifty-three briefs from stakeholders.

In their 1995 report to Minister Tobin, the FRCC set out their findings and recommendations. They recognized that there were no “. . . signs of impending collapse.” However, they indicated there were reasons to be concerned: the fishery was targeting exploitation rates that were too high; there were low levels of egg production, and; fishermen were “. . . taking too much and leaving too little.”

Of specific note, from a Gulf Region perspective, was the reference to carapace size differences between the various LFAs. “No doubt minimum carapace size is not the only contributing factor to maintaining a stock given the high level of landings in LFA 24.” The report further stated: “It is entirely possible and quite probable that one LFA is benefiting at the expense of another.”

The report recommended that conservation measures be put in place to ensure good egg production, reasonable fishing mortality and a biomass composed of several year (size) classes. They established a “tool box” approach where a number of suggested tools or conservation measures could be used.

20.2 The 2007 Sustainability Framework for Atlantic Lobster

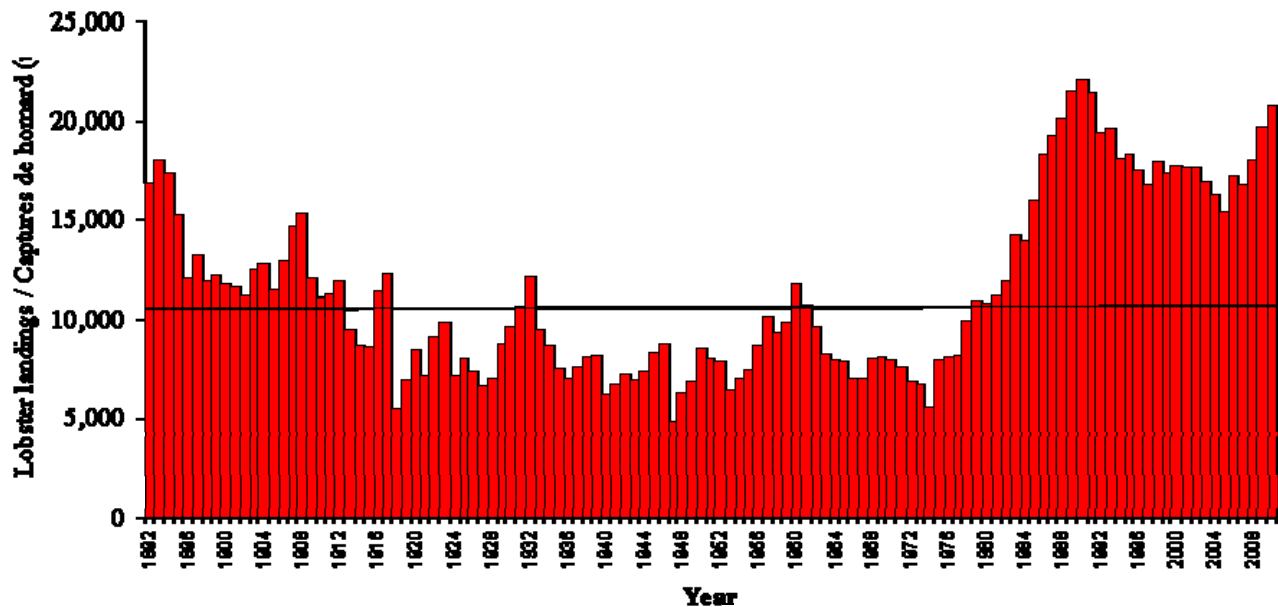
In February 2006, Minister Loyola Hearn asked the FRCC to undertake another review of the Atlantic lobster fishery. He requested that it consider a modernized approach to fisheries renewal with respect to ecosystem considerations and an enhanced stewardship role for the industry. In its subsequent report, the FRCC noted that generally, LFAs outside Quebec had not accepted 1995 recommendations fully and that “. . . harvesters either swear by the 1995 report or swear at it.”

While the FRCC noted that its pessimistic resource forecast of 1995 had not come to pass, the report warned that fishing effort had increased since 1995 and that single species dependence had evolved over that period as well. It raised concerns that very high exploitation rates pose considerable risk to the sustainability of lobster and identified the current fishing strategy as having no mechanism to control fishing effort.

While the report made many recommendations, its conclusions remained focused on the problem of controlling exploitation. It noted that the 1995 framework had provided a solid plan to enhance the conservation of the lobster resource, yet many of the key issues raised were just as prominent or more so in 2007. Overall, the risks to sustainability had increased and DFO and industry had taken too few initiatives to lessen this risk.

The FRCC’s fundamental conclusion was that “. . . the risks to sustainability are too high in the lobster fishery and that the time has come for the industry to take charge and mitigate these risks. The time of doing nothing has past.”

21) Abundance, Subsequent Decline and Recovery



Above is a graphic representation of the historical lobster landings for the entire Gulf Region from 1892 to 2009. The black horizontal line indicates the average landings over the period. It is worth noting that the landings since 1980 have been above average. Even more outstanding is that landings in the early 1990s were apparently at, or even above, all-time recorded high levels.

One must also note that the graph begins at 1892 – several years after a period when there had been numerous warnings that the fishery was in a serious state of decline. The 2007 FRCC report stated: “. . . The lobster stock of today is almost certainly much smaller than the stock that was present prior to the start of the lobster fishery more than a century ago.”

From the early days of a virgin fishery with untold biomass levels, early-recorded catches of 15,000 tonnes and more were reported in the late 1800s. Landings began to drop in response to the increased effort brought about by the canning industry. Landings then bottomed out to around 6,000 tonnes in the mid-1910s. They fluctuated between 6,000 tonnes and 12,000 tonnes until the early 1980s when an unprecedented surge in landings began. As noted above, landings in the latter part of the 20th century are the highest recorded, reaching over 20,000 tonnes in the early 1990s.

22) The New Millennium

22.1 The New Millennium

Although landings have dropped off in recent years, they still remain well above the long-term average from the time records have been kept. This document speaks of the many and varied changes to the management of the lobster fishery since the first regulation was enacted in 1873. Recent work by the FRCC has established a framework that sets out a vision for the future management of the lobster fishery and challenges DFO and fishermen to work together to implement the measures necessary to ensure the long-term sustainability of this important fishery.

22.2 The Importance the Lobster Fishery

There is little doubt that lobster is the most important fishery in the southern Gulf of St. Lawrence. Joe Gough points out that it was the lobster fishery, spurred on by the growth of the canning industry that: “. . .broke the hold of the old Jersey houses . . .”, which kept settlers at Point Miscou, NB in what some called a state of bondage. By the end of the 19th century, lobster rivalled salt cod in value. Mr. Gough further states: “. . . by the end of the 20th century, (lobster) would turn out to be the most successful of the traditional fisheries.”

Through its ups and downs over more than a century and a half, the lobster fishery has brought a special way of life to Gulf Region fishermen.

22.3 The Lobster Fisherman of Today

Today we see our lobster fishermen not only as men and women operating small businesses in rural and remote coastal Maritime communities; we see them as critical to the economies of these areas. These are people who must manage the operation of vessels and gear worth hundreds of thousands of dollars; operate complex electronic equipment; navigate, through sometimes dangerous waterways; manage and understand a myriad of complex regulations and licence conditions; manage and supervise crewmembers; participate in fishermen's organizations, and, of course; find, catch, land and sell lobster. They do this work with a love for their time-honoured profession that is remarkable.

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