Enacting and Contesting Neoliberalism in Fisheries: The tragedy of commodifying lobster access rights in Southwest Nova Scotia

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1. Introduction

Lobster Fishing Area (LFA) 34 (see Figure 1), located off the coast of southwest Nova Scotia (SWNS), has proved to be a testing ground for conflicting Canadian federal fisheries policies. For many decades, Canadian fisheries authorities have struggled to balance competing concerns. On the one hand, ‘owner-operator’ policy has tried to protect equitable distribution of social and economic benefits and the welfare of coastal communities. On the other hand, ‘individual transferable quotas’ (ITQs) were introduced with the goal of making fisheries economically efficient and market driven. In the Atlantic Provinces, there has long been support for social welfare policy; despite the implementation of ITQs in some sectors of the fishery, fishermen’s organizations have lobbied hard to retain independent small-scale fisheries. In recent years, however, the vertically integrated corporate sector has been able to concentrate fishing rights to the lucrative, inshore lobster fishery in LFA 34. This paper examines how neoliberal ideas have influenced owner-operator policy and the effects of this on local fishing communities in LFA 34. This case study illustrates how varied the outcomes of a conflicted policy agenda can be, with technology-driven but social welfare oriented ‘modernization’ policies undertaken after the Second World War increasingly challenged by neoliberal agendas.

Neoliberalism has emerged as an important topic in the analysis of fisheries and marine policy [1–3]. The framing of fisheries problems as a tragedy of the commons fit well with neoliberal solutions of private property and efficient markets. Mansfield notes that this conceptual link between the so-called ‘tragedy of the commons’ and neoliberalism has created a distinctive and dynamic form of neoliberal governance in the oceans [1]. On the other hand, Foley, Mather and Neis [4] demonstrate how Newfoundland fisheries organizations have sometimes been able to re-embed social principles of access and equity into political regimes that privilege neoliberal economic efficiency. Their work supports the observation that neoliberalism is not a “thing that acts in the world,” but is instead a “restless and unstable process” [5]. To better understand this process, this paper asks why another Atlantic fishery, operating under the same governance regime, followed a different path, towards further privatization and marketization, and at the cost of the independence of small-scale fishermen. The paper thus explores how distinctive forms of neoliberalism emerge and what processes can explain their specificity.

To understand the neoliberalism processes in SWNS, Foucault’s concept of governmentality is applied [6–14]. Governmentality refers to both the acts and rationalities of state actors, and the ways in which people subsequently govern themselves by internalizing ideas about optimal conduct [15]. Dean [9] characterizes neoliberalism as a type of governmentality based on a critique of excessive government [6], one that has rationalized privatization during times of crisis. The analysis will show that some actors within the DFO have invoked neoliberal governmentality during crises in fisheries, thereby effectively concealing the role of privatization and marketization in precipitating these crises, as well as the potential for collective action to address them.

The push to create a neoliberal governmentality has transformed social relations, institutions, communities, and organizations through incentives for fishermen to act solely as *Homo economicus*, the rational individual who maximizes all opportunities [12]. Below, the paper explores how fishermen sometimes furthered neoliberal governmentality through their response to changes that threatened their livelihoods. While many scholars have pointed to the introduction of ITQs as a mechanism of neoliberalization [2,3,16], in SWNS, neoliberalism gained purchase through fishermen’s increasing dependence on lobster, debt, and contracts with processors. In turn, collective action became more difficult as

disagreements and even violence erupted between fishermen divided on the future management of the fisheries.

This analysis also makes use of the concept of governance, which draws attention to the diverse field of state and non-state actors who compete to steer, control, or manage society [17,18]. Lemke argues that societal change is always the product of an assemblage of various interacting governmental and non-governmental agendas and actors [8]. While government actors may set policies in place and undertake projects, the results are always imbued with the struggles and responses of the targets of government control, and this in turn generates incoherencies and compromises [8]. Analysis shows that fishermen do not enter such struggles as a unified force. Instead, deep divisions emerged when some fought to further their own interests by following neoliberal incentives, while others fought for community well-being and collective ways of dealing with problems. The expansion of neoliberalism in Atlantic Canada is far from complete. Instead, fishing organizations at different scales have highlighted the destructive effects of neoliberalism in the lobster fishery, and have called for a renewal of social equity principles rooted in post-war redistributive policies.

LFA 34 in SWNS lies at the center of this contestation because it has the most valuable and abundant stocks, the largest number of participants [19], and the highest entry costs [20]. Contestation is particularly visible in the minutes of the LFA 34 Advisory Committee¹, a group set up by Fisheries and Oceans Canada (DFO) to receive information on the status of lobster stocks and to advise on management directions. The Committee includes representatives from license-holders, the Lobster Council of Canada, lobster buyers, the Fisheries and Scientist Research Society, and the Nova Scotia Fisheries Sector Council. Analysis of the debates generated among these diverse members illustrate how some fishermen attempted to preserve owner-operator independence, DFO members attempted to implement contradictory policy, and processors attempted to vertically integrate the fleet. The paper then contrasts these more localized struggles with those of fishermen's organizations working at a national scale, such as the Canadian Independent Fish Harvesters Federation (CIFHF). The degree to which access to the lobster fishery has reflected neoliberal or social welfare² objectives has depended on the ongoing contestation involving fishermen and fishing organizations, processing companies, members of the DFO, the Minister of Fisheries, and the courts. As this field of interactions changes, so too does the balance of neoliberal and equity-oriented goals in the lobster fishery. In particular, political struggles have pitted the individual self-interest of fishermen (particularly those who were said to gain a windfall in the privatization of access rights and in the opening up of a market in licences), against the interests of future generations and coastal communities.

2. Methods

2.1. Context of the Case Study

¹ There is also a LFA 34 Management Board, which is a locally organized association set up to represent the interests of the license-holders of LFA 34. The similarity of these two names sometimes creates confusion for fishermen.

² We use the term 'social welfare' to refer to the post-World War II welfare state, as well as to fishermen's appeals for recognition of the social consequences of policy, including reduced equity and community well-being. Neoliberal critiques of the welfare state have given the term 'welfare' a pejorative connotation. However, current appeals to social welfare reject the more bureaucratic and paternalistic form of the welfare state, and instead emphasize that social welfare goals can be realized through more accountable, democratic, and transparent decision-making processes [4]

The LFA 34 lobster fishery exists within a broad context of environmental, socio-economic, and political change in Atlantic Canada. Historically, fishing fleets in Southwest Nova Scotia relied on boats less than 13.7 m in length to fish for multiple species, including cod, haddock, hake, pollock, herring, mackerel and lobster [21]. In 1977, the Canadian government declared jurisdiction over a 200 mile Exclusive Economic Zone (EEZ), and the DFO was given the mandate to simultaneously modernize and expand fishing fleets, and to regulate and limit fishing effort [22]. The subsequent growth of subsidized industrial fishing fleets soon surpassed the natural productivity of fish stocks, leading to periodic crises of stock collapse [23,24]. The DFO attributed these crises to overcapacity and a lack of private property rights, and sequentially introduced ITQs for nearly all fish species, first to offshore groundfishing fleets, and later to inshore fleets. From the 1990s on, ITQ programs concentrated fishing rights into fewer hands. Fishermen in SWNS reacted with civil disobedience, occupying DFO offices and national monuments, and blockading a foreign fishing vessel that attempted to land groundfish caught within Canada's EEZ [25]. After the cod moratorium in 1992 as well as significantly reduced total allowable catches in groundfish, many SWNS harvesters sold their groundfish quotas [25]. This reduced fishermen's ability to adapt to changing economic and ecological conditions [25,26]. The lobster fishery became the backbone of the independent fishery and of coastal communities [27,28], and remains one of the few fisheries still managed without quotas.

2.2.Data and Analysis

This paper is based on two periods of research in LFA 34 conducted independently by two researchers: Barnett for four months in 2012 [see 25,26,28] and Messenger for five and a half months in 2015. We report on findings from field notes and interviews from this fieldwork, triangulated using government documents and meeting minutes provided below. In 2012, 31 semi-structured interviews were conducted with 16 active and four retired fishermen, four association leaders, two representatives from fishing ports, two government officials, and five lobster buyers. In 2015, three government officials, and 23 fishermen were interviewed, of which eight were port representatives for the LFA 34 Lobster Advisory Committee, many of whom also sat on the LFA 34 Management Board. While semi-structured interviews are formally analyzed elsewhere [25,26,28], interview data was the foundation for understanding fishing access rights in the region. The main themes from meeting minutes of the LFA 34 Advisory Committee were also reviewed and quantified. The Committee met three to four times per year from 2002-2014. Analysis of these minutes documented the most pressing issues the committee faced over those years. Keyword frequency searches characterized main themes within the meeting minutes, and allowed for coding of all occurrences of these themes. All three authors also observed and took notes at two policy workshops, hosted by the Canadian Independent Fish Harvesters Federation (CIFHF) and attended by representatives of DFO. These meetings discussed the extent to which concentration had accelerated throughout the 2000s, and reiterated demands by the CIFHF to put a stop to some of the most troubling aspects of the concentration process.

[Figure 1 here]

3. Background: History of Canadian Atlantic Fisheries Rationalization

In the 1960s and 70s, DFO fisheries economists and policy analysts widely agreed that common-pool resources would inevitably lend themselves to overfishing and rent dissipation³ [29,30], but differed on how to rationalize the fishery for economic efficiency [31]. Proponents of rationalization debated the relative merits of taxation, prohibitions on part-time fishermen, effort controls, licensing, and quotas, with many of the key issues foreshadowing dilemmas fishermen subsequently faced. By 1978, most fisheries economists agreed that output controls, or ITQs, were the ideal form of property right for fisheries management⁴ [2]. Despite this unified economic advice, however, actual licensing policy was shaped by a wider array of actors.

Matthews [31] argues that during the 1970s and 80s, Romeo Leblanc, as Minister of Fisheries, shifted fisheries policy towards rationalization. Leblanc explicitly based DFO policy on the assumption that an open access fishery would attract “more and more boats to chase fewer and fewer fish, producing less and less money to divide among more and more people” [32]. In following the thinking of those who argued for a looming tragedy of the commons in fisheries, he justified the need for rationalization [29]. This framing referred to fishermen as enterprises and asserted that economic hardship in fishing communities was due to a lack of property rights to support the most efficient enterprises.

It is obvious in retrospect, however, that Leblanc’s decisions were based on advice to meet both efficiency and equity objectives, and these objectives did not always integrate well into a single policy direction. Licensing policy provides a good example. Public policy reports throughout the 1970s laid out a series of somewhat conflicting recommendations, including reducing the number of fishermen, differentiating between “bona fide” fishermen and part-time fishermen, issuing licenses to fishermen rather than vessels, introducing ITQs, and prohibiting the sale or transfer of licenses. Levelton even recommended that license transfers only be permitted through a consultative process involving communities [33]. Meanwhile, Canadian fishermen lobbied in favour of limited-entry licensing [20] most strongly by the Newfoundland Fish Food and Allied Workers Union in the east coast [31], and the United Fishermen and Allied Workers Union in the west coast [2]. Other fisheries organizations, such as the Maritime Fishermen’s Union, lobbied for an owner-operator policy, which would stipulate that license-holders in the <19.8’ inshore sector must own and operate their licenses [34].

Given such conflicting advice, in the late 1970s and early 1980s the commons enclosure in Atlantic Canada was set unevenly into policy. In 1979, Leblanc extended limited-entry licensing systems to most fisheries in Atlantic Canada⁵, but at the same time introduced the Fleet Separation policy, which prohibited corporations, particularly fish processing companies, from holding licenses in the <19.8 m inshore fleet sector [34]. The number of fishermen in a given fishery would be limited by licenses. License would be issued to individuals who met new eligibility requirements, rather than vessels. Licenses would also differentiate between and confer different rights to full-time and part-time fishermen. Fishermen could own one license per species. These licenses would be non-transferable and would need to be renewed annually. By 1989, the owner-operator policy was universal in Atlantic fisheries [34], although the details of the policy were tailored to the values and needs of different fishing regions. Then, in 1996, the DFO sought uniformity across these regions

³ Gordon and Schaefer’s arguments were similar to that of Hardin’s “tragedy of the commons” [68]

⁴ For a dissenting opinion originating in an analysis of the groundfishery in the Maritimes, see MacKenzie 1979 [69].

⁵ The inshore Newfoundland fleet was exempt from limited-entry until the early 1980s.

and created what became known as the Core policy, thereby losing many creative institutions developed by fishermen to realize local community goals.

While many of the details of licensing policy suggested a balance between efficiency and equity objectives, different actors interpreted policies through an emphasis on different objectives. In surveys undertaken by the DFO, fishermen explicitly argued that licensing policy must ensure that fishermen are independent from processing firms [35], and that owner-operator and fleet separation policies must limit consolidation and vertical integration of Atlantic fisheries, and ensure a fair distribution of fishing access among coastal communities [4]. Many DFO economists and local level managers, however, saw limited-entry licenses as a first step towards converting an open access fishery to a system of private property rights⁶. Other actors, particularly those from the large-scale fleets and processing sector, pushed for the rationalization of the inshore fishery through ITQs, given that these had been introduced to the >19.8 m fleets in 1982 [36]. This would allow for vertical integration. Meanwhile, many social scientists began to criticize the property rights approach to fisheries, arguing that it was founded on a flawed conception of property, and unlikely to result in better management outcomes [37–41].

This summary of the actors, ideas, and assumptions behind licensing policy in Atlantic Canada, illustrates how a “distinctive form” [1] of neoliberalism has been generated, one in which the economic efficiency of fishing operations is counterbalanced by policies to ensure fair distribution of access rights. Conflicting values and objectives have left space for interpretive flexibility, for conflict over what the policy should mean in actual management strategies, and for struggles between proponents of different visions for the future of the fishery. The next section illustrates that while Leblanc called for a middle path between rationalization and “the rural romantics” of preserving the culture, employment, and livelihoods of coastal communities [42], subsequent regulatory practices and policy decisions in LFA 34 have leaned towards rationalization. Neither equity-oriented or neoliberal policies were ever fully implemented as envisaged by fisheries organizations or government actors. Nevertheless, these mingled policies produced unexpected incentives and outcomes. Opposition and struggle contributed to compromise and to incoherencies in government programs, and actors modified their behaviour to strategically respond to and capitalize on these compromises and incoherencies [8,43].

4. Localized neoliberalism: license privatization in the Atlantic Canadian lobster fishery

Bodiguel [20] provides an outline of how the lobster fishery licensing market evolved. While the 1981 licensing policy confirmed that a license was a non-transferable privilege and not a property right, subsequent licensing provisions and regulatory practices suggest otherwise. First, provisions allow an existing license holder to request that their license be reissued to a new entrant. In practice, this allows a license holder to sell a service by recommending to the DFO that they reissue the license to a new entrant, who subsequently pays the original license holder for this service. Second, various federal buy-back programs “established licenses as marketable items in the fishermen’s mind” [20]. Before limited-entry, a license cost twenty-five cents; in recent times licenses were being sold for more than \$500,000 in LFA 34 [20,25]. While this increase loosely tracked the average landed value per license in LFA 34,

⁶ Many scholars have pointed out that managers often erroneously assumed that all fisheries were open access [28,62,70,71].

license prices were distorted by buy-back programs [44]. Thus, limited-entry paved the way for a market in licenses.

License transferability clearly increased the costs of entry into the lobster fishery, but the property rights status of licenses remained ambiguous, which posed a challenge for would-be new entrants. The ambiguity stemmed from the tension between the *de facto* status of licenses as property (which Sinha [45] referred to as beneficial interest), and the *de jure* DFO position that licenses were privileges [45,46]. In Prince Edward Island, where limited-entry was introduced in 1966, financial institutions sought advice from the DFO as to whether fishermen could use licenses as collateral for loans. In 1977, the DFO clarified that licenses were the property of the crown, were not transferable, and that financial institutions could not use licenses as collateral [20]⁷. But while the DFO further clarified that they intended to reduce what they referred to as “a black market” in licenses, no regulations or measures have been taken to date [20,26]. Thus for financial institutions, a license was a privilege granted by government, but for fishermen, a license functioned more like a transferable property right. As entry into the fishery became increasingly expensive, obtaining financing for new licenses through contractual arrangements with fish buyers and processors became more attractive, despite the contravention of DFO policy.

In the 2000s, lobster prices and catches were at record highs, and specialized fishermen who left the groundfishery wanted to gain access to the lobster fishery. With demand for lobster licenses high and supply limited, the cost of entering the lobster fishery was high. In some cases, the Nova Scotia Loan Board or banks financed new entrants [25]. The debt loads at this time were based on the assumption that fishermen would maintain high catches, and prices would remain high. But the availability of loans was limited, and the number of controlling agreements between processors or larger operators and smaller inshore fishing enterprises grew rapidly. From the fishermen’s perspective, such agreements financed access to the lobster fishery, more fish species, or improvements to vessel capacity. From the processor perspective, these agreements allowed greater control over lobster supply. While both sides might be said to benefit, new entrants entered the fishery under vastly different terms than retiring harvesters.

A controlling agreement remains a challenging loophole in owner-operator policy. It is a contractual agreement between a financier (often a processor), an entrant and a retiring fisherman; the financier provides the entrant with money to purchase a license or set of licenses and the entrant agrees to the obligations set by the financier. The retiring fisherman meanwhile exits the fishery with funds to finance his retirement. Typically, the entering fisherman would agree to sell his fish and/or to yield a share of their landed value to the processor (see also [47]). Barnett and Eakin [26] give an example in which a captain paid 47% of his landed value to a fish buyer who not only controlled the license, but also owned the boat. Such share agreements vary depending on the degree to which the captain holds the licenses, quotas, gear, and boat. Controlling agreements differ significantly from loans or simple supply or finance agreements with processing firms because captains do not enter these agreements as independent operators, and there are often no conditions that allow the captain to become an owner-operator over time. In effect, fishermen become employees of processing firms that control the right to fish.

Controlling agreements have provided space for a new array of market activities and speculation in licenses. First, individuals or corporations can control multiple licenses by drawing up contracts with multiple fishermen. Thus, fishermen report that some individuals

⁷ This policy position was eventually reversed in 2008 by the *Saulnier* decision at the Supreme Court of Canada [72].

or corporations controlled as many as 30 licenses. Such practices also allow them to circumvent consolidation rules in the quota fisheries that limit the amount of quota an individual can own [26]. Second, some individuals speculate by buying up licenses at low prices and selling at a premium [28]. Third, controlling agreements allow processing firms to gain greater control over the market chain through vertical integration. Finally processors can gain control over labour by making fishermen's access to more profitable fisheries (i.e., lobster) conditional on their participation in less profitable fisheries (e.g., groundfish) [26].

These practices have generated intense debate about the future of owner-operator fisheries. In economic terms, limited-entry licensing is perceived to have internalized the externalities caused by open access conditions, while controlling agreements have allowed processing firms to vertically integrate to match supply to demand. But fishermen's organizations have raised alarm about such practices and their effects on employment and income levels for captains and crew, as well as prices for and the status of fish stocks. Despite fishermen's concerns, a recent DFO document [48]⁸ suggests that some members of DFO favour vertical integration. The authors of this document continue the argument that problems in the owner-operator fisheries stem from the lack of fully flexible property rights. They suggest that the lobster fishery is far from, "a fully flexible system . . . able to maintain an ongoing balance between resource availability and market conditions on the one hand, and the optimal fishing power needed to harvest on the other" [48]. They recommend that the fishery could be moved towards market-based solutions by regularizing license-stacking measures, and by introducing "catch controls."⁹

To summarize, in LFA 34, the internal conflicts between economic efficiency and social welfare goals inherent in DFO limited-entry policy have stimulated practices and processes that take the lobster fishery toward economic rationalization. In the process of *de facto* rationalization, fishermen and fishing communities have experienced social ills. Barnett and Eakin documented increasing debt loads, decreased employment, earnings and opportunities, and increased vulnerability to low lobster prices [26]. In a fashion characteristic of neoliberal theorists, some policy analysts reject the role that unregulated privatization plays in these social ills, and instead attribute problems to excessive state regulation and to incomplete marketization and privatization. For example, Burke and Brander characterize Atlantic Canadian fisheries management as a "common property problem" comparable to the economy of the former Soviet Union [49]¹⁰. They suggest that there is no alternative but to expand market-based solutions in the lobster fishery. The next section shows the influence of this thinking by tracing out debates between fishermen and the DFO in LFA 34, to illustrate how DFO management choices increased flexible property rights while downplaying efforts to enforce owner-operator policy. To do this, the LFA 34 Advisory Committee meeting minutes are used to discuss the actual management processes and how policy change unfolded.

5. Managing Rationalization in LFA 34

Several themes emerged from the LFA 34 Advisory Committee meeting minutes, including market prices, effort reductions, partnerships and license stacking, vessel size, controlling agreements and owner-operator and fleet separation policies. Figure 1 shows the timing and

⁸ Obtained through access to information request, Access to Information Act 1980-81-82-83, c 111, Sch. I "1".

⁹ Catch controls limit the catches of individual fishers or of the fleet as a whole.

¹⁰ At the time of writing this piece in 1995, both authors were with the Program Coordination and Economics Branch of the Scotia-Fundy Region of the DFO.

frequency (number of times mentioned) of these topics, highlighting the Committee's most pressing concerns 2002-2014. These concerns are discussed in the order that they emerged in meeting minutes. Figure 2 demonstrates that during the 12 years of data, there were periodic hot topics that arose, and then disappeared, often when policy decisions were finalized. The major spikes and their importance to policy change are discussed in the following order: 1) vessel length regulations (2002-2008), 2) controlling agreements and owner-operator policy (2003-2007), 3) partnerships and stacking policies (2004-2012), and 4) rule changes to deal with the market price for lobsters (2007-2014).

[Figure 2 here]

5.1. Vessel Length

As fishermen's dependence on the lobster fishery increased, and with the corporate sector attracted by high prices for lobster, the DFO came under pressure to increase vessel length. The vertically integrated corporate fleets owning groundfish quota pushed for increased vessel size and extensions so that they could use >13.7 m groundfish vessels in the lobster fishery. Independent fishermen were concerned that such amendments to vessel size would give vertically integrated corporate fleets a catch advantage, as it would allow them to deploy more traps with fewer trips. Many independent fishermen responded by investing in wider and longer boats or by adding removable extensions. Therefore, Advisory Committee members frequently sought clarification of official policy regarding the maximum vessel length. According to meeting minutes, there was general agreement that vessel capacity should remain limited, but some actors periodically reintroduced the question of the official length of a vessel. Meanwhile, average vessel capacity continued to increase. Vessel length is now limited to <15.2 m, including an extension, but there is currently no limit on vessel width.

5.2. Controlling Agreements

Fishermen began to voice concerns over controlling agreements in the 1990s [45], at LFA 34 Advisory Committee meetings in 2004, and at the Nova Scotia Standing Committee on Resources in 2005. In one venue [50], a captain stated that: "the vertical integration of the inshore lobster fishing fleet is following the same route as groundfish, scallop, herring, and the tuna fisheries – to the demise of the inshore fishing industry in our communities." In meeting minutes, LFA 34 fishermen appealed to the DFO to reverse controlling agreements and support owner-operator policy. Harvesters from numerous LFAs also pushed for provisions to facilitate inter-generational transfers, and to strengthen owner-operator and fleet separation policies at consultations with the DFO during the Atlantic Fisheries Policy Review process (1999-2004). In all such venues, DFO representatives reiterated department support for owner-operator policy, but often claimed legal limits on their ability to interfere with contractual arrangements. Given lack of action by local DFO officials, fishermen's organizations directed their lobbying efforts towards the Minister in Ottawa, who finally took action in 2007, by announcing the Policy for Preserving the Independence of the Inshore Fleet in Canada's Atlantic Fisheries (PIIFCAF). PIIFCAF created an "Independent Core" category in licenses with sole eligibility for receipt of new or replacement fishing licenses. License-holders were required to declare whether they were a party to any controlling agreement, and to terminate or amend any such agreements by April 12, 2014 in order to comply with PIIFCAF. This success was offset by the Minister's decision that PIIFCAF

would not apply to seven fishing fleets managed through ITQs. Thus while concentration was decried in one sector of the fishery, it was openly encouraged in others.

5.3. Stacking and Partnerships

Since 1996, fishermen have supported a form of partnership sometimes called “buddying up” wherein two license-holders fish together on one boat with 50% more traps than is normally permitted for one license [51]. The DFO subsequently introduced changes to the partnership policy, arguing these would make the fishery more responsive to changing market conditions. There is a significant difference, however, between the older buddying up, and the new ‘flexible’ partnerships and license stacking rules. In flexible partnerships only one license-holder is required to be on the vessel, fishing a 50% increase in traps. In license stacking, a captain individually purchases a second lobster license and is thus able to fish with 50% more traps. In this case, the second or “stacked” license is said to be permanently retired from the fishery, but could better be described as “concentrated”. In 2006, the LFA 34 Advisory Committee reviewed the partnership policy and asked port representatives to discuss stacking options with port captains. Later, many fishermen in LFA 34 felt blindsided when in 2008, the DFO regularized these new partnership and stacking options without further consultation. DFO representatives, meanwhile, continued to emphasize that all license-holders were required to comply with PIIFCAF.

The 2008 minutes show that the majority of the fishermen on the LFA 34 Advisory Committee opposed license stacking on the grounds that it was “contrary to owner-operator policy.” An Advisory Committee co-chair wrote a letter to the DFO area director “explaining how disappointed the committee felt that the decision to allow license stacking/combining was made without the advice of the LFA 34 Advisory Committee.” In 2009, DFO officials replied that the licensing options were introduced to “provide relief during difficult economic times”, and that the decision “has already been made” and “will continue to be available.” These options have remained available since 2008, and in LFA 34, license stacking and flexible partnerships have increased annually (see Figure 3).

[Figure 3 here]

5.4. Reducing Effort and Gluts

In LFA 34, as much as 50% of lobster landings occur in the first 15 days of the season [52]. In 2008, a precipitous drop in lobster prices triggered Committee discussions on regulatory changes to reduce fishing effort at onset of the season and the resulting glut of lobster landings. Members considered their options with advice from DFO representatives, who reiterated regulatory and enforcement constraints on change. The options were thus limited to existing conservation measures, especially trap limits and seasonal closures. The Advisory Committee focused on three potential measures: 1) trap limit reductions, especially at the beginning of the season, 2) prohibiting Sundays fishing, and 3) delaying the start of the season. In 2013 and again in 2014, the Advisory Committee sent ballots to license-holders to vote on whether they wanted regulatory change. In both polls, a mix of changes was included on the ballot, and fishermen were to indicate the option(s) with which they could agree. In 2013, despite 52% of 597 license-holders voting for change, the Minister of Fisheries rejected change on the grounds that there was no clear majority for any one option. Only 28% of voters favoured a reduced trap limit and one week season delay [53]. In 2014, 54% of 733 license-holders voted for no change, and 69% voted against trap limit reductions [54]. Harvesters reported that they opposed change on the grounds that proposals would not

improve livelihoods in the lobster fishery; they would be difficult to revoke once applied; and that any rules would disproportionately benefit some harvesters over others [28]. Problems associated with the seasonal glut on the market remain.

6. Regional Consultations to Strengthen Owner-Operator Policy

PIIFCAF may seem to reinforce owner-operator policy, but given recent developments, fishermen's organizations expressed concern about the future of owner-operator and fleet separation policies. First, in 2012 the DFO released *The Future of Canada's Fisheries: A discussion document* [55]. As this document was written in the language of neoliberalism, referring to economic efficiency, market-based approaches, self-reliance, and "a complex web of rules" that make it difficult for industry to "adapt to variations in stock availability and global market conditions", it is not surprising that it did not mention owner-operator and fleet separation policies. Atlantic Canada's Independent Core fleet organizations responded with hard-hitting criticism in the press and by lobbying the Minister. In their view [56], the Future of Canada's Fisheries document was "written in the ideological code of de-regulation," and was "a barely veiled attack on the Owner-Operator and Fleet Separation policies." [56].

Second, controlling agreements continued to grow in number despite PIIFCAF and the harvester requirement to report and to divest themselves of controlling agreements by April 2014. In 2014 and 2015, the Canadian Independent Fish Harvester's Federation (CIFHF)¹¹, representing independent owner-operator fleets, held a series of workshops with DFO on strengthening and enforcing owner-operator policy and PIIFCAF. Fishermen recounted the numerous methods by which "company boats" continued to operate despite the compliance deadline. Lawyers rewrote contracts between processing companies and license-holders such that agreements fell outside a narrow legal definition of control. For example, a license-holder could freely transfer his license to another fisherman, provided that the license-holder first reimbursed the company at exorbitant interest rates. Some agreements exploited other license conditions, including requirements that fishermen reside in the district for which they are licensed and license-holder substitutions through abuses of medical leave, vacation days, and other temporary options to replace vessel captains. Overall, fishermen's organizations wanted reaffirmation of the core principle that fish should be allocated to those who catch them and who live in coastal communities adjacent to fishing grounds.

During these workshops, DFO officials complained of few legal options to address the problem. They argued that the Minister's authority was limited to enacting measures linked to conservation and that PIIFCAF, owner-operator, and fleet separation policies would not withstand a legal challenge. The CIFHF, however, commissioned a legal opinion that refuted this position [see 45]. In May 2015, this legal opinion was presented to the Minister. By July 2015, the Minister responded with three actions said to ensure compliance. First, all license-holders are now required to annually declare that they are not subject to a controlling agreement when they renew their licenses. This opens up those involved in controlling agreements to criminal prosecution for falsifying a declaration. Second, license holders suspected of non-compliance would be reviewed by a Regional Review Committee to demonstrate that they can meet independent core eligibility status. Third, the DFO would conduct "risk-based" targeted reviews at the time of license re-issue by randomly selecting license holders to provide full documentation demonstrating compliance with PIIFCAF.

¹¹ Comprised of representatives from fishermen's unions, associations, management boards, and advisory committees.

These measures are intended to increase the capacity of the DFO to locate, quantify the number of, and revoke licenses in controlling agreements.

It remains to be seen if the new policy will strengthen owner-operator policy, or how these procedures will shift the balance between neoliberal and social welfare objectives in licensing policies. While PIIFCAF enforcement may protect independent owner-operators and prevent vertical integration, it is unclear whether or how captains with revoked licenses could find legal means to remain in the fishery. Fishermen argue that if individuals and companies cannot concentrate licenses, demand and license costs should decrease, despite continuing demand from owner-operator fishermen. Given the *Saulnier* decision in the Supreme Court of Nova Scotia, which established that financial institutions can use fishing licenses as collateral [57], access to licenses at a lower cost through legal financing from banks may assist those captains who lose the access they obtained through controlling agreements.

7. Discussion

Like others [2,4,58], this paper traces important transformational change in Atlantic Canadian fisheries back to the policies and programs enacted by Romeo Leblanc. However, Leblanc's rhetoric and actions were fraught with internal tensions due to influence from neoliberal ideas introduced as a check on the welfare state. Leblanc appeared to favour both the neoliberal goals of fostering individualized economic efficiency and competition, and the social welfare goals of preserving small-scale fishing as a livelihood and a culturally significant activity. Fishermen appear to have internalized both sets of goals and promoted them variably through individual strategizing and collective action. Through the 1990s, however, Leblanc's policy changes enabled the DFO to further concentration in the Atlantic lobster fishery, despite owner-operator and fleet separation policies. The outcomes were predictable, as Dean [7] notes, since neoliberal scholars have long been aware that expanding free markets leads to concentration and monopolies.

In exploring how distinctive forms of neoliberalism emerge and what processes can explain their specificity, three important strategies and technologies for neoliberal expansion and for producing economic subjects in LFA 34 were identified. First, as Dean [9] notes, crises or exceptional circumstances empowers some government agendas. For example, ecological crisis in the cod fishery was viewed through the lens of the tragedy of the commons, to which the neoliberal solution was privatization of fishing access-rights [59]. A second strategy, according to Dean [9], is the critique of excessive government, which in the fisheries simultaneously promoted private property solutions and eroded government responsibility for problems caused by concentration. By 2008, and despite scholarship documenting problems with ITQs, privatization and concentration of lobster licenses was well underway in LFA 34. In fact, the financial crisis in the lobster fishery reinvigorated neoliberal options. Once again, some DFO officials saw the economic crises as justifying the concentration of fishing rights into fewer hands, in order to further economic flexibility.

Third, the inconsistencies created within governance of the fisheries created space for DFO officials in LFA 34 to promote license stacking and ignore controlling agreements. Space was also created for individual fishermen to follow incentives to engage in contracts contrary to policy. The commodification of access rights shifted risk from fishing communities to the individual "fishing enterprise." Individual captains had to take up the risk of incurring large debts, or of signing exploitative contracts, if they wanted to remain in the lobster fishery or to recoup their losses in the ITQ fisheries. Fishing captains then, as Dean explains, must "make [their] life into an enterprise," and as an individual, "become an entrepreneur of him or herself" [10]. Such incentives appealed to those fishermen who

considered themselves as independent businessmen [59]. These processes demonstrate how a unique neoliberal governmentality emerged through the practices of DFO officials interpreting policy, and fishermen responding strategically to incentives and economic pressures.

8. Conclusion

This paper covers a broad sweep of time (late 1970s to 2015) over which government actors and those who were governed engaged in struggles over the future direction of the Atlantic fisheries. While the patterns observed in Southwest Nova Scotia also developed in other LFAs, LFA 34 led the way. The LFA 34 Advisory Committee minutes show that fishing members often disagreed with changes to licensing arrangements, but these changes subsequently shaped options for individual fishermen and for the future of coastal communities. These changes also made it more difficult to organize collective action at the local scale, leading as they did to disputes within fishing communities. However, fisheries organizations at larger scales were able to moderate or resist neoliberal directions. The CIFHF was able to take strategic action to strengthen owner-operator policy through media campaigns and by lobbying the minister. All of these strategic actions demonstrate how power is decentered in fisheries governance. The Minister of Fisheries, DFO officials, the processing sector, and fishermen and fishing organizations have all engaged in a series of actions and tactics seeking to define what is possible and what is not, what is necessary and what is not, and how the fishery should be governed [13].

Foucault and his followers encourage us to explore the spheres of governance and governmentality as a space of strategic and rhetorical action and contestation. Governance is composed of competing agendas, strategies, techniques and tactics (licensing policy, ITQs, media campaigns), which have unexpected outcomes (complicated and contradictory policy, individual debt and heightened economic vulnerability) [60]. Neoliberal governmentality has introduced the idea of the rational and efficient individual enterprise that operates independently from community. In viewing neoliberalism as heterogeneous, constituted by individuals, organizations, and policy processes, the focus is placed on how policies and incentives for action emerged from struggles between competing objectives and future visions for fisheries in Atlantic Canada.

This approach leads to a better understanding of fisheries governance and future policy directions in two ways. First, while fishermen promoted limited-entry, and thus agreed that there can be too many fishermen chasing too few fish, the tragedy of the commons is not the only tragedy. This paper highlights several other potential or realized tragedies that emerge from recent governance directions in SWNS: too many investors chasing too few access rights; insufficient consultation processes in policy development; insufficient attention to policy conflicts; too much individualized debt in conditions of financial volatility; and too much processor control. Addressing these tragedies in the light of governance struggles must involve recognition of and open debate about ultimate objectives. Fishermen's values often run counter to the neoliberal emphasis on individual property rights, and instead favour equitable distribution of benefits and the adjacency principle that supports community well-being. Such alternative values lead to alternative framings of problems, and can be used to consider new incentive structures to ensure both economic viability and equitable benefits from fisheries [61], as has been done in the Newfoundland case described by Foley, Mather and Neis [4]. Second, neoliberalism in Atlantic Canadian fisheries policy has set in place long-term barriers to collective action. Incentives that drive individuals to maximize at the expense of communities have been shown to have harmful consequences for coastal communities and ecosystems [2,16,21,26,62]. Government actors are only one piece of the

governance puzzle, and a stronger civil society is needed to shape policies that better reflect the values of coastal communities and realize conservation goals [60,63–67]. But building better governance processes in LFA 34 will require debt reduction and flexibility that supports inshore multispecies fisheries. Additionally, fisheries organizations should play a more meaningful role in determining the eligibility, independence, and accessibility of new entrants. This may level the playing field to improve governance processes.

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Figure captions

Figure 1. Map of Atlantic Canada and Southwest Nova Scotia, indicating Lobster Fishing Areas (LFAs).

Figure 2. Frequency of dominant themes discussed by the Lobster Fishing Area 34 management board from 2002-2014.

Figure 3. Number of stacked vessels, partnerships and flexible partnerships from 2009 to 2012 (as reported in LFA 34 Advisory Committee meeting minutes).