# Cold Hands, Dark Mornings: Why I am a Small-Scale Fisheries Researcher in Newfoundland and Labrador, Canada

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*Lobstering off the coast of Maine (Fall 2020). Photo credit: Highmark Pictures.*

## Abstract

I am a small-scale fisheries researcher in Newfoundland and Labrador (NL), Canada. Canadian small-scale fisheries are grounded in family and community structures and contribute to the resilience, autonomy, and identity of local fishing people. My work seeks to understand how relevant governing principles, as outlined by the Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries (SSF Guidelines), can support these community-based fisheries, ensuring continued benefits and access for fishing people. Principles are the guideposts of governance. They underlie and motivate the entire governing system including institutions and decision-making (Kooiman 2003). Examples of principles in the SSF Guidelines are *Human rights and dignity*, *Equity and equality*, and *Social and economic viability*. In a 'return to basic principles' approach (Neis et al. 2014), I hope to identify how principles as the core elements of policy- and decision-making can inform vibrant sustainable fisheries in NL, Canada now and into the future.

I am also an active commercial fishing person. I have worked as a deckhand on fishing boats in Maine and Alaska for the past six years, as well as most recently fishing for snow crab and cod in NL. My perspective as a fishing person provides me with experiential knowledge about small-scale fishing communities in this region of the world and of the livelihoods at stake in matters of food justice and environmental sustainability. In this way, I am a transdisciplinary researcher, which means I am a researcher with the perspective of a person who has also done the fishing work. This chapter explores, through storytelling, how perspectives like mine can connect governance principles to the daily lived experiences of fishing people, creating pathways for embodied governance, and ultimately, implementation of Blue Justice for small-scale fishing people.

## What happens on the water…

My journey began on Vinalhaven, a small fishing island off Maine's coast situated in the North Atlantic. Follow me there:

It is a chilly October morning. Puffs of cigarette smoke and warm breath are visible in the air. Headlights drift around street corners, as trucks rumble down the hill to the local convenience store. At the "Fisherman's Friend," locally referred to as 'the Friend,' fishers grab coffee and stock up on snacks for the day. In the harbour, just beyond the wharf, are over one-hundred lobster boats—around half of the island's total commercial fishing fleet. Though daylight is still a couple hours away, the harbour is full of activity. One by one, boat engines fire up. LED deck lights pierce through the blackness. Tunes from the FM radio can be heard faintly from shore along with a few scattered voices. Fishers unhook their boats from moorings and depart. Like massive ocean birds, many of the fishing boats will glide south towards the open ocean. Some will turn north, heading towards 'shoaler' (shallower) grounds. Others sail west into the open waters between Vinalhaven and the mainland, or east where the waters are colder and the air often hazy and wet. Nearly all of them will return home the same day, perhaps not until dark, tanks loaded with lobsters. The skippers and deckhands will get a warm meal, and a long rest in their own beds, ready to rise and repeat the following morning. They have lived these seasonal rhythms of work and rest their entire lives.

In this chapter, I explain why research in small-scale fisheries has meaning in my own life, and why small-scale fishing is distinct from many other 'jobs.' I also explain the importance of community and relationships in small-scale fisheries, and the vulnerabilities which fishing folks face. I begin with my experiences working in the fisheries, lobstering in Maine, which closely tie into small-scale fisheries in Canada. Small-scale fisheries in Atlantic Canada are those that are locally run, independent from corporate control, and embedded in coastal fishing communities (Stephenson et al. 2019). Then, I share one example of local governance close to home which reveals the interdependence of coastal fishing communities with the sea. After, I discuss the deeply personal stresses which fishers face, while taking on work that is

emotionally, physically, and financially risky. Next, I present the justification, purpose, and theoretical approach of my research in NL. Finally, I conclude with some reflections on this work.

My journey as a small-scale fisheries researcher in NL, Canada began as a deckhand in the lobster fishing industry, on the island of Vinalhaven, Maine. It was a place I once knew only as a visitor but learned to call my home after fishing there for six years. On Vinalhaven, fishing forms the foundation of every aspect of the cultural and economic fabrics of our community. A population of 1,200 supports an astounding 250 small-scale fishing operations. In this regard, nearly every year-round resident has direct or very close dependence on the fishery. As a deckhand there, I was aware of the growing fragility of North Atlantic-ocean-based livelihoods. Fishing towns along the coast of New England just south of Vinalhaven, once healthy thriving fishing economies, were now forced into ocean-adjacent economies like tourism (Playfair 2005; Young et al. 2019). Governments' push for industrialization and modernization, in combination with warming waters and increasingly limited resource supplies, were causes for the erasure and displacement of small-scale fishing communities across the North Atlantic (Bavington 2010; Jentoft 2014). For us on Vinalhaven, the fear of 'becoming extinct' (Jentoft 2020)—whether due to stock decline or political and economic changes—felt more pressing with each passing year. Presently, conservation groups wage war on Maine's lobster industry in a last ditch effort to save dwindling populations of North Atlantic Right Whales from possible gear entanglements (only a few hundred breeding female Right Whales remain). In the Fall of 2022, Maine lobster was moved onto the Monterey Bay Seafood Watch Red List of unsustainable seafoods. This event, in combination with high inflation (rising price of gas and living), means that small-scale, fisheries-dependent, and sustainable lobstering communities like Vinalhaven are struggling more than ever to remain viable. Meanwhile, most Maine fishers have yet to experience a North Atlantic Right Whale sighting during their extensive careers on the water.

In remote North Atlantic fishing communities like Vinalhaven, local governance institutions have preserved the fisheries for generations (Acheson 1988,

1997; Phyne 1990; Davis et al. 2006). Fishers collectively negotiate fishing territories, exclude uninvested outsiders from exploiting local resources, and uphold conservation measures.[25] Communities rely on direct access to open ocean and remote locations which are out of reach of potential competitors (Stedman et al. 2004). For rural communities, maintaining the fisheries is a question of survival, where there are few opportunities for work outside of fishing (Judd 1997). Communities are commonly perceived as land-based (St. Martin & Hall-Arber 2008). But in fishing communities, boundaries between land and sea interface in a never-ending dance of reciprocity . The onshore community extends into the ocean, where fishing on the water constitutes and reflects the bounds of community on land. Without interactions on the sea, without fishing, these communities are lost.

*Carver's Harbour, Vinalhaven, Maine, the Lobstermen's Co-Operative. Photo credit: Mike Mesko.*

[25] Since the 1990s government/ state intervention has largely taken the place of local agreements in Maine lobstering. See Henry & Johnson (2015) Acheson & Brewer (2003), and Corson (2004).

## Just part of the job

Small-scale commercial fishing, or the catching of wild fish for livelihood (as opposed to profit or recreation), has generated stable incomes to fishing households and, consequently, thriving rural economies across Maine and Atlantic Canada.[26] However, the numbers on paper do not reveal the uncertainty and anxiety which fishers often experience around their incomes. Harvesters never know what they will make in a day (Andrews et al. 2021). Many fishers work for months without pay, accruing most of their annual income in only a short time-period. Skippers (captains/ owner-operators) are responsible for various high-ticket expenses, meaning that even with high earnings, saving money is often difficult (Hewitt 2008).

As deckhands, work may be seasonally or geographically variable. This variability means that sometimes we move from place to place for different fisheries or start planning for the next gig in the middle of the current one. We have the responsibility to contract our own labour, yet never the job security of someone in the 'boss' position. In my six years of fishing, I have worked full seasons on five different vessels, and part time or 'filled in' on 19 boats (that I can count). Even when the skipper tells me to leave my rain gear and make sure to come back the next year, I am left with a feeling of insecurity. I end up asking myself, *what if I did not have enough safety training or boat mechanics skills? What if I did not mend net well enough or pick fast enough?* Even with all the necessary skills, there lurks the story of the deckhand who just 'wasn't a good fit.'[27] Captains have the power to change their minds at any moment on a single whim, leaving the crew jobless. There are always vessels waiting to hire, but on a different boat you are back at the bottom of the heap.

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[26] 2019 Value of Commercial Seafood landings: Maine: $674 million (USD) (DMR 2020); Nova Scotia $2.32 billion (CAD) (DFA 2020b); NL: $1.2 billion (CAD) (DFLR 2020a); New Brunswick: $1.74 billion (CAD) (DFA 2020a). The most important aspect of these values is that the money is spread among owner-operators and fishing people—not concentrated in a few powerful corporations.

[27] One time, the deal breaker (supposedly) was that the deckhand ate all the sour gummies on the boat when no one was looking.

For skippers and crew, every moment on the water counts and being out of commission for even a short time due to injuries or mechanical breakdowns can devastate fishers' yearly income. When something goes wrong, fishers rely on members of the family and community to help finish the season and put food on the table for winter. In October 2020, my captain lost the tip of his thumb in a boat-related injury during the most productive period of the lobster season. Luckily, we were able to continue fishing with the help of his son. In this regard, there are no guarantees in fishing—not that we will make money, not that we will be alive to tell the tale (Davis 2012; Lough 2018).

Fishing is an embodied livelihood. The work lives inside our hands, muscles, bones, and shows in the lines on our faces with visible effects on our minds and bodies (Eckhert et al. 2018). Regardless of the risks, fishing is lifelong (Kooiman et al. 2005). Fishers are master ecologists of the sea, dedicating their lives to studying, measuring, and predicting weather patterns and the movements of wild creatures. Fishers often do not consider leaving the industry because fishing is more than just an identity (Pinkerton and Edwards 2009)—it defines our schedules, friendships, houses, hometowns, marriages, habits, and knowledge and skills. A friend once told me, "*Asking me to find a new job is like asking me to find a new life*." We fish because it's what we love and what we know (Thiessen and Davis 2008).

Despite the abundant economic and social benefits of small-scale fisheries, fishers hold many fears at bay each time they climb aboard the boat in the morning. The struggle for sustainability, autonomy, and well-being in fishing communities, as well as the political and climactic uncertainty which fishers face, has intensified social challenges in small coastal communities, as of late. In lobstering communities like Vinalhaven, anxieties about the future exacerbate underlying social issues, such as substance abuse and seasonal affective disorder (Overton 2017; Franceschetti 2018; Couch 2021).[28] Mental health is also a growing concern for fishers in NL (CBC "The Broadcast"

[28] In the summer of 2021, my friends on Vinalhaven were having one of the most lucrative summers lobstering in their lives. However, the money did little to alleviate stress and anxiety felt in the community concerning changing regulations surrounding North Atlantic Right Whales.

August 2021; Pollock et al. 2021), where fishing people face 'traditional risks' compounded by 'modern uncertainties' (King et al. 2021). These include dangerous working conditions and variable prices and catches compounded by the rising costs of boats and licenses, increasing government regulations, and worsening weather conditions (Smith et al. 2014). Fishing for snow crab in the spring of 2022, one of the crew explained to me that the wind and storms worsen each year. Nonetheless, *"You can't make a living tied to the wharf,"* he said.

Authors writing about ocean governance often state that worldwide capture fisheries are in a state of crisis (Pauly et al. 2002; Worm et al. 2006; Coulthard et al. 2011). This 'crisis' might be particularly prevalent in places with growing populations, little governmental support for fishing communities, diminishing natural resources, and unstable value chains (Chuenpagdee 2011). Concerns about climate change, overfishing, and industrial fisheries also come to the fore (Coulthard 2009). However, social science researchers are asking: what does 'crisis' really mean? Crisis is experienced subjectively by fishing people—a 'social struggle,' which fishers navigate daily (Bavinck et al. 2018). Such a struggle relates to the mental health, emotional well-being, and financial security of fishing people and environmental integrity of ecosystems. In this way, a 'return to basic principles' approach, which my own research takes, requires an understanding of principles, theory, contexts, and literature, as well as fishers' livelihoods, experiences, and struggles (Allison & Ellis 2001). The addition of a researcher who herself engages in the embodied struggles of fishing people is an asset to addressing a worldwide crisis that finds breath and takes on life inside fishing people. As a researcher and fishing person, I offer this perspective. Applied to governmental laws and policies, such an approach will contribute to implementation of the Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries (SSF Guidelines) in NL for improved small-scale fishing livelihoods and coastal communities.

*The summer sockeye salmon run in Bristol Bay Alaska (July 2021). Pictured is myself (yellow) and my deck mate Cassidy Butler (orange). Photo credit: Captain Fran Kaul.*

## A research journey

Often fisheries sustainability is thought of in terms of biological fish stocks. When I tell people I am a fisheries scientist, many of them assume I am a natural scientist. However, as a fishing person, I can understand how vital the governance aspects of sustainability in fisheries are. These include the processes of decision-making, their guiding principles, and the outcomes of those choices. Governance also refers to who is involved in decision-making and which factors, and livelihoods, are considered. Where there is social struggle among fishers, there also must be communication of that struggle to those in power to ground policies in the lives of fishers and in the future of fishing communities (Bavington 2010; Stephenson et al. 2019). Because many of these factors, and voices, can sometimes be at odds, problems in small-scale fisheries governance can often be overwhelmingly complex for any student or researcher (Jentoft & Chuenpagdee 2009). I use two approaches which

embrace, rather than ignore the complexity evident in small-scale fisheries. These include transdisciplinarity and interactive governance theory.

Trandisciplinarity, the first theoretical framework for this research, is useful in small-scale fisheries governance because it acknowledges that many voices including fishers, social and natural scientists, policymakers, and elected officials must be included for addressing problems for which no one has all the answers. Transdisciplinary research uses a contributions-based lens to find a path forward by incorporating diverse knowledge and human experiences of change, while recognizing that neither scientists, nor anyone else, are the absolute authorities on any given subject (Chuenpagdee & Jentoft 2019). My perspective is transdisciplinary because I bring my own human, subjective experiences of fishing directly into the scientific research. Transdisciplinary perspectives recognize that different ways of knowing co-exist, and that I do not have to, or may not be able to, choose between fisher and scientist—but that these two ways of knowing are inherently entwined in my work. Being open about my perspective adds power and meaning to my research project (Clark 2013), as well as showing the benefits of transdisciplinary approaches for future work.

Interactive governance theory, the second theoretical framework for this research, is useful because it does not force researchers to simplify systems like fisheries, which are inherently complex. Instead of rushing to solutions, interactive governance theory focuses on problem-learning to make the system more governable (Kooiman et al. 2005; Chuenpagdee 2011). Interactive governance theory deals with three orders. The first order is defined as the everyday actions, negotiations and outcomes of problem-solving, such as quota decisions in NL which change yearly. The second order is related to institutional arrangements, rules and structures framing the first order, for instance, provincial and federal laws and policies that affect fisheries. The third order, or the meta-order, refers to values, images and principles, which shape decision-making and underlie the entire governing system (Kooiman & Jentoft 2009). Principles in the third order, and their interactions with laws and policies in the second order, are the focus of my research. Principles-based analysis of governance has the potential to clarify

complex and contradictory decision-making in NL fisheries through a series of motivating factors, i.e. *Economic development*, *Environmental sustainability*, and *Equity and equality*, which are easier to distill than decision-outcomes (Song & Chuenpagdee 2015; Andrews et al. forthcoming).

Taken together, the transdisciplinary and interactive governance approaches are particularly relevant for informing research on small-scale fisheries in Canada, and have been important for framing and propelling my Master's research. These approaches empower me to continue learning, contribute through that learning (even if in a small way), and cultivate an appreciation for, rather than fear of, complexity.

Defining small-scale fisheries in Canada is an important step to identifying pathways towards protection of their rights and access through implementation of principles from the SSF Guidelines. NL small-scale fisheries are defined as the small-boat fleet, which includes boats less than 40 feet in length (Chuenpagdee et al. 2017; DFLR 2020b). Small-scale fisheries make up the largest portion of fishing people in NL and have the largest landed value of any sector, when combined with the inshore fleet, which includes all boats less than 65 feet in length (Sabau & Boksh 2017; Fish, Food and Allied Workers (FFAW)-Unifor 2021). More important are the qualitative characteristics of the small-scale fisheries which make them unique from other ocean sectors in Canada including the industrial fishing fleet (Johnson et al. 2018). NL small-scale fisheries are embedded in communities and households, reliant on wild caught fish for food, and contribute towards the resilience, autonomy, wellbeing, and identity of fishing people (Jentoft 2014; Lowitt 2014; Neis et al. 2014). Moreover, these fisheries represent a way of interacting with the ocean and inter-generational knowledge accumulation, which is crucial for scientific knowledge of coastal spaces (Murray et al. 2006). NL small-scale fisheries can also be characterized by their vulnerability. The small-scale fisheries confront challenges with recruitment of young people into the industry (Neis et al. 2013; Allen et al. 2018), stock fluctuations, ecosystem changes (Mather 2013), and foreign corporate control of small-scale and inshore processing (Davis 2015; Andrews et al. 2022). Finding ways to address these challenges through a 'return to basic principles' approach is

crucial so that the values of the small-scale fisheries are not lost for good (Neis et al. 2014). This can be done by grounding the SSF Guidelines principles in the subjective struggles of fishers to steer Canadian small-scale fisheries governance towards sustainability into the future.

Thus far, authors have noted a prioritization of economic growth as a key principle guiding fisheries governance in NL (Sabau & van Zyll de Jong 2014; Song and Chuenpagdee 2015; Andrews et al. 2022). Daly and Farley (2011: 16) in their book *Ecological Economics*, introduce the concept of 'uneconomic growth,' which occurs when economic growth "*costs more than it is worth*." Sabau and van Zyll de Jong (2014) apply this concept to NL small-scale fisheries. These authors point out that fisheries policies prioritized economic growth despite ecological limitations, resulting in negative outcomes for small-scale fishing communities and cultures.

In 2022, these growth objectives came to a head in varying outcomes, interpretations and competing discourses surrounding a concept called the Blue Economy (also referred to as 'Blue Growth'), first emerging in the 2012 United Nations Convention on Sustainable Development (Silver et al. 2015). Actions associated with the Blue Economy include development of offshore energy, industrial fishing, and the push to establish marine protected areas (Bennett et al. 2020). The combination of these interests creates what Cohen et al. (2019) refer to as a 'growing squeeze' for small-scale fishing people. The Canadian federal government develops a Blue Economy strategy of its own, which completed its consultation phase with the issuing of a 'What We Heard Report' (DFO 2022). Canada's Blue Economy papers thus far indicate both alignments and contradictions with the SSF Guidelines, mentioning economic growth alongside principles such as equity, inclusivity and gender equity and equality.

The SSF Guidelines contain a set of 13 governing principles intended to bring attention to the needs and contributions of small-scale fisheries (FAO 2015). Since its creation, the document has gained traction globally, with many governments signifying their commitment to implementing the SSF Guidelines. At the 34$^{th}$ Committee on Fisheries, held in 2020, the Canadian government was announced as becoming the fifth country to become 'Friends'

of the SSF Guidelines indicating an opportunity to explore the relevance and applicability of the SSF Guidelines in shaping strategies and policies in Canadian oceans governance (FAO 2020). As such, this research presents a unique opportunity to explore how these principles can be implemented in NL, a historically fisheries-reliant province in the Global North with vulnerabilities, challenges, and strengths. It is possible that the SSF Guidelines can play a key role in shaping and guiding a Blue Economy to ensure justice and equity for small-scale fishing people in Canada. It is therefore timely to discuss how the SSF Guidelines apply to NL to protect the values of small-scale fishing people in Canada through enactment of the future Blue Economy strategy.

Scholars have stressed the inherent linkages between a Blue Economy and outcomes for small-scale fishing people because of its potential to impact small-scale fishers' access to fishing grounds and healthy and sustainable ecosystems. They offer Blue Justice as a counter narrative to the Blue Economy (Schreiber et al. 2022). Blue Justice is a term coined by Moenieba Isaacs at the 3rd World Small-Scale Fisheries Congress in 2018 in Thailand based on her work in South Africa (Jentoft et al. 2022). Blue Justice means being inclusive of small-scale fishing people in plans for ocean development, making efforts to reverse past wrongs, and preserving the diverse livelihoods of coastal peoples (Chuenpagdee 2020). Blue Justice recognizes the linkages between protecting the rights of small-scale fishing people and implementation of the SSF Guidelines (Jentoft 2022). As policies in the Blue Economy unfold, recognition of small-scale fishing struggles and livelihoods through implementation of key principles into laws and policies will be crucial if small-scale fishing rights are to be promoted and preserved.

*Lobstering off the coast of Maine (October 2020). Photo credit: Highmark Pictures.*

## Conclusion

As my personal story of fishing implies, fisheries problems are not ethereal or external, but they are experienced—in cold hands, on dark mornings, in fishers' anxious thoughts and sore muscles. They are lived on rocky coasts, at the local bank, at the breakfast table, at the kid's school, in the gear workshop, and on the fishing boat. Implementation of the SSF Guidelines requires hard work and knowledge, but also a return to basics in connecting principles to human lives. I have gained perspective in my own research through years of 'doing the work' on fishing boats. I experienced many struggles in the fisheries. I also experienced joys, moments of beauty, freedom, and complete safety, which I may never be able to translate into words. None of it—not the struggles, nor the joy—impacts my decision to go and get back on the boat. Soon enough, I will be climbing aboard in the dark chilly morning, preparing to make another day's pay.

*Perfect day on the water (Summer 2017). The author lobstering off Vinalhaven, Maine. Photo credit: Jim Smith.*

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