

# Northern fisheries: managing income, nutrition and cultural values

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## Introduction

Fishing is a key livelihood for many people worldwide, and significantly contributes to global nutrition. However, there is an awareness of a widespread crisis in fisheries with profound ecological, social and cultural impacts (Urquhart and others 2013). The majority of people dependent on fishing are involved in small-scale fisheries, which stands in contrast to the narrow focus of most fishery science and policy on large-scale, capital intensive fishing (Berkes and others 2001). Small-scale fisheries require different approaches for research, policy and management, due to their specific technological, economic and sociocultural characteristics that differ from those of large-scale fisheries, as well as a large degree of internal diversity in terms of fish stocks, fishers' backgrounds, vessel capacity, etc (see Afterword of this collection of papers).

This collection focuses on the fishing practices, fishing communities and fisheries management in the circumpolar north. It highlights the similarities and differences between fishing in various places, bringing together studies from Alaska, Canada, Greenland, Iceland, Finland and Russia. Analysing very specific political, economic and sociocultural processes regarding fishing in these diverse settings, the authors draw our attention to what happens on the level of circumpolar fishers' everyday lives, thus complementing a wider picture of Arctic regional challenges with a more fine-grained perspective.

In this introduction, we outline some of the cross-cutting topics that are addressed in different contributions to the volume. Rather than summarising each contribution in turn, we draw on them selectively when sketching the respective topics to which they contribute.

## Why northern fisheries?

Recent environmental and political discourse has increasingly portrayed the Arctic and sub-Arctic as a crucial region, for example in relation to climate change, biodiversity and pollution. There has been growing emphasis on the regionalisation of the Arctic in academic circles and the mass media. Yet, what exactly makes the Arctic unique is still poorly understood. Focusing on its inhabitants' specific livelihoods and daily lives could be fruitful in approaching the Arctic as a region. While much has been written about the Arctic's physical qualities and

geopolitics, little attention has been paid to residents' everyday predicaments.

Many of the Arctic inhabitants live in coastal communities for which fish has long provided a significant source of nutrition and income. It is widely known that populations of northern coastlines, lake shores and river banks depend on fisheries and often derive their very *raison d'être* from fishing (for example McCay 1978; Hovelsrud and others 2010; Nakhshina 2012a). Therefore, fishing is crucial for many northern communities not only economically but also in terms of their identities and is zealously defended even if fishing activities themselves have declined. While this phenomenon is well-documented, for instance, for British fishing communities (for example Ross 2013), similarly focused accounts of circumpolar fisheries are scarce. Fishing in the north, both as livelihood and source of pride and identity, is a vital topic due to the vulnerability of northern communities, which undergo a steady outflow of people and investment (Hamilton and Otterstad 1998), and are subject to climate change and implementation of large-scale oil and gas development projects.

## Large issues in small details

The contributions to this volume aim at avoiding gross generalisations, stark abstractions and statistical averages. Instead, they spell out the importance of being very specific in analysing fishing issues, both local and supra-local. Fish is never just fish in general; and fishing, fishers and fishery policy are generalisations that gloss over many significant differences. Reedy and Maschner, for instance, report in their portrait of fish exchange networks in Aleutian fishing villages in Alaska that while in quantitative terms, market mechanisms do allocate sufficient food to villages, this is not necessarily considered the right kind of food. Rather than fish in general, particular fish species are valued for their taste and role in social networks.

A further reminder of the importance of specific details is provided by Mariat-Roy's analysis of the surge in Icelandic longline fishing since the 1990s. Part of the reason why this technique has recently enjoyed such popularity has to do with the fact that it harvests mostly larger and undamaged fish. Within the same species, size and integrity of individual fish are seen to matter economically and ecologically, as bigger and intact

specimen fetch higher prices and the technologies of harvesting them are considered environmentally benign. This small detail has significant implications for the relationship between catching restrictions and fishing income, as longline fishing allows earning more money from catching fewer fish. Mariat-Roy also illustrates how specific technologies come to matter in fishing success under austere economic conditions, for instance insisting on the critical role that particular hooks as well as more powerful engines for 'small boats' played in establishing viable fishing alternatives.

In Finnish Lapland the fishers whom Krause describes claim that fish caught in their home river stretch tastes better than those caught elsewhere or bought in stores. Although the same species are sold in local stores, consuming self-caught fish is highly valued as part of belonging. Among the Gwich'in in northern Canada, Wishart notes that the local availability of fish is valued as a reliable source of food supporting not only other activities 'on the land', but also the continuity of traditions. Likening the local fishery to a 'store' or a 'bank', Gwich'in refer to more than material reliability, invoking also its role in terms of forging and renewing social relationships, engaging in meaningful activities like annual fish camps, and passing on stories and skills.

Nevertheless, the importance of fisheries for many northern communities and for their relations with outsiders has often been neglected both in academic research and fisheries management as the accounts of Davydov and Wishart, among others, amply illustrate. Among the Gwich'in, for example, fishing was a key aspect of the fur trade era, where fish was used not only to bait the trap lines and feed the dog teams, but also to provision traders that were dependent on fish even more than on furs until the late nineteenth century. But even today, when fishing intensities have reverted back to pre-fur trade levels, it continues to be of central importance to the Gwich'in. This importance is easily overlooked, however, if observers misunderstand that local references to 'the land' are in fact also referring to rivers and lakes. Davydov provides a similar account of non-recognition in relation to a centuries old fishing tradition among northern Baikal Evenkis in Siberia. Russian ethnographers and the post-Soviet state managers have both approached Evenkis as primarily hunters and reindeer herders while seeing fishing as a prerogative of the incoming Russian population. This legislative non-recognition has forced local people to fish outside official regulations, as fishing has become a main source of income, and sometimes the only means of survival for many rural dwellers in the wake of the collapse of the Soviet system.

### **The significance of the local**

Many of the specifics highlighted in these contributions emerge from particular local relationships. For example, Mariat-Roy points out that Icelandic coastal villagers' identities and economic prospects have been for a long

time closely tied to fishing. When the quota system allowed for concentrating locally caught fish on large vessels with home harbours elsewhere, employing crews from elsewhere and processing the catches elsewhere, many coastal villages feared for their very existence as they regarded themselves as fishing communities with little alternative to fishing-related livelihoods. This sense of loss went beyond the technically economic, as villagers perceived the boats devoid of fishing quotas as 'empty shells' in the harbour, epitomising the tragedy of being forced to give up a livelihood infused with local sweat, pride and tradition, just because the system of tradable fishing quotas worked to the benefit of big business. In this light, the 'moral significance' of the success of local longline fishing entrepreneurs can be understood as the 'collective victory' as Mariat-Roy calls the dynamics of local fishers, bankers and other community members working together to enable the establishment of new versions of village fisheries.

Holen finds a close interrelation of commercial and subsistence fishing to be providing for viability of rural Alaskan communities. He argues that it is a wide range of values that Alaskan villagers ascribe to both commercial and subsistence fishing, which helps sustaining long-term viability of their communities: fishing allows for adequate food security; it enhances community spirit through collective work during harvesting and processing and later through sharing of fish resources; fishing perpetuates senses of place and identity; last but not least, it helps passing a specific way of life down through the generations. Together, these factors contribute not only to viability of rural communities but also to their maintenance of a good quality of life. This makes people stay in the village even when economic benefits from fishing are declining.

Alongside maintaining social relationships, fishing activities also nurture local environmental knowledge. Krause, for instance, describes how fishing on the Kemi River in Finnish Lapland requires close attention to the ever changing environment. He argues that local fishers attune their attention less to individual fish as bounded specimen, but rather to 'fish-in-the-water' that also include particular vegetation, currents and appearances on the water surface. Thus Krause spells out the role of empathy in people's getting to know fish and successfully catching it in the same process. Wishart finds that fishing among the Gwich'in constitutes a core activity in their seasonal round of harvesting, where knowing when and where to place nets, and setting up and moving fish camps implies people's attention to the rhythms of the fish and the wider environments. Similarly, Tejsner insists that consuming and sharing whale meat in Qeqertarsuaq is tantamount to sharing news, updates about environmental conditions and stories about the places of the hunt. He also indicates how whaling very much consists of an attuning of temporal and spatial activities of the people in resonance with regularities and irregularities of the whales.

### The importance of the non-local

Fish is an integral part of cultural heritage. Yet, it is also very much subjected to the market, environmental dynamics and changes in state legislation. Ongoing depletion of fish stocks, commercialisation and capitalisation of fisheries and privatisation of fish quotas have led to degradation of small scale fisheries worldwide. Fishing impinges on a range of non-local relations, for instance because of the mobility of the fish themselves, which often include various potential catching sites with different legislation, and of the wide distribution networks of international fish markets.

It has been argued that fisheries management implies more than delineating appropriate territories and identifying relevant networks concerning fish populations, fishing activities and fish marketing. Rather, it is crucial to acknowledge the 'fluid spaces' of fish, that is spaces that continually transform and change some characteristics without altogether losing their identity (Bear and Eden 2008). This, in some respects, echoes Carson's (2002[1962]) classic observations of the critical role of water and fish in spreading and accumulating environmental toxins. Dealing with fish and fisheries, therefore, challenges simplistic compartmentalisations of the north into distinct places and communities, and emphasises the involvement of fishing communities in much larger biological, socio-economic and climatic dynamics. This wider approach to northern fisheries is evident throughout this collection, for instance in the notes about fishing history in Aleutian communities in Alaska provided by Reedy and Maschner, mentioning that the influx of Scandinavian fishermen together with the cod fishing boom resulted in distinctly hybrid heritage and identities among current villagers.

Alongside the pronounced non-local dynamics of their histories and harvests, fishing communities have been learning to deal with other supra-local factors as well, in particular fisheries science and state regulations (for example Einarsson 2011, about Icelandic fisheries). In estimating fish populations and attempting to determine 'maximum sustainable yields', biologists and economists have hoped to halt the global decline in fish stocks endangered by improved technology and an open-access image of the seas and their resources. Legislators, in turn, have attempted to translate these insights into policies to regulate fishing activity (for example Acheson 1981: 300). These often draconic measures have engendered radical transformations in many fisheries (for example Bavington 2010), many of which are related to the re-definition of fishing rights as tradable goods, and the fierce conflicts between fishers and perceived outsiders.

Jakobsen and Raakjær's analysis of Greenlandic fishery reforms, for example, makes explicit some of the powerful liberalisation discourse that often works to the detriment of northern small-scale fishers. Their account also points to the fishers' strong, but often futile,

resistance to further 'rationalisation' of fisheries. This resistance expresses the radically different perspectives that fishing communities and state managers often have regarding successful fisheries. While the latter tend to approach them in terms of maximum yield and minimum per-unit cost, for Greenlandic communities the fisheries are part of a multiple income livelihood base, where commercial fishery income is needed alongside subsistence fishing and hunting. Fishing revenue on a national scale is of little direct relevance for the people in these communities; what may seem uneconomic for central government managers can be a crucial ingredient of local livelihoods. Nevertheless, through drawing on the same fish stocks and sometimes even competing for the same quota shares, small- and large-scale fisheries are deeply implicated in each other.

### Managing fisheries, and fishers who manage

As McCay argued more than thirty years ago (1978), political processes influence fishing communities' livelihoods and capacities to adapt as much as do the biophysical dynamics of fish stocks and the economies of fish markets and technologies. McCay, with Berkes and others, propagate models of fishery 'co-management' (Berkes and others 2005; Jentoft and others 1998) in which fishers are involved, along with state bureaucracies and scientific bodies, in making the rules of running the fishery. At the same time, Jentoft (2000; Jentoft and others 1998) expresses caution that approaches to co-management of fisheries are frequently based on too technical an understanding of institutions, emerging from a rational choice framework grounded in methodological individualism. Jentoft proposes, rather, to take the social reality of communities into account when considering fisheries management, and to connect fisheries management with community development, as he sees them linked.

Implicit in the idea of co-management, as well as in many contributions to this collection, is the attempt to understand and tackle local and non-local dynamics in fisheries in an integrated manner. Social scientists can play an essential role in facilitating this long-awaited dialogue between fishermen and governing bodies. Their deep immersion in fishers' most quotidian practices and everyday concerns produces unique knowledge that can shed light on predicaments of life in a fishing community and how these can be ultimately improved. Social scientists' expertise can furthermore highlight factors that have so far prevented officials from taking measures to improve small-scale fisheries' often adverse conditions.

The disparity between, on the one hand, a governmental approach to fishing and, on the other hand, fishers' own ideas and practices is a prominent theme cutting across many of these papers. One such disparity concerns the rigidity of government policy on what constitutes indigenous fishing identity, which contrasts with the flexibility and adaptability of fishing as practiced by people

themselves. Reedy and Maschner observe that while managers prefer to see certain harvested marine species as indigenous, the fishing history of the local population can in fact be a very diverse constellation of practices. Dealing with a similar issue among indigenous people in Siberia, Simonova employs the metaphor of memories as a fishing tool in her description of Evenkis' struggle to justify and legalise their centuries-old practice of nocturnal fishing for pike, which is illegal under current Russian fisheries legislation. Simonova shows how local people and water landscapes form an alliance against official law. Unlike people and landscape, law does not have an ability to remember and is therefore ignorant of the importance of nocturnal fishing for local people, both as a means of subsistence and deep emotional experience.

Many contributions to this volume address how mainstream, state centred and universal-science based management approaches to northern fisheries tend to apply a logic developed for large-scale, single species systems to the essentially small-scale, mixed economies of local communities. This marginalises the very systems they set out to manage, and often produces phenomena that are even more difficult to manage. A case in point is the myopic focus of some policies on single fish species or fishing practices documented by Tejsner and Reedy and Maschner, which may undermine the fishers' ability to adapt their practices in accordance with fluctuating environments and force them into novel relations with fish that are then deemed 'non-indigenous' by the government.

The disparity between the governmental approach to fishing and that of fishers themselves is further revealed in the issue of subsistence versus commercial fishing. Several of these papers demonstrate that while management regimes usually expect indigenous peoples to have certain types of relationships with certain types of fish, in reality there is a large variety of fishers' relations with marine species that guide people's everyday livelihood strategies. Fishers considered indigenous are treated in fisheries management regulations as having rights only to species that are associated with this indigeneity. In the Aleutian fishing communities, local livelihoods are endangered not only by the government's placing priority on commercial over subsistence fishing and perpetuating this priority, but moreover by its insistence on the very separation of these two activities. Reedy and Maschner explain that people working on commercial vessels are allowed only to earn money there and not to take any catch home. By pressing them into the role of post-processing consumers, this arrangement simultaneously reinforces the division between different kinds of fishing, and institutionalises a monetarised market economy. Under these conditions, they observe that fishing in the Aleutian communities necessitates 'navigating the rules' as much as navigating the sea.

'Navigating the rules' can become a necessity for dealing with a rigid centralised system of resource management that is not responsive to local specificities. Davydov applies the concept of 'free spaces' to coping

strategies of Evenki fishermen in the Lake Baikal area who have to pave their way through inadequacies of fisheries management in post-Soviet Russia. 'Free spaces' comprise certain practices whereby people can exercise their own mechanisms of social control. The existence of 'free spaces' reveals the disparity between law and local moral rules: while officials see local people's fishing activities as criminal, fishermen themselves might see legislation as illegitimate. The post-Soviet retreat of the state from many rural areas has deprived local people of legitimate ways to make a living, while the frenzied embracing of the market economy has led to the imposition of regulations that are inadequate for the local context (see also Nakhshina 2012a, 2012b).

Managerial preference to draw a fixed line between subsistence and commercial fishing has also produced the distinction between occupational and non-occupational whalers in Greenland. Tejsner's work shows how such rigid divisions can jeopardise the long-established historical interdependence between social integrity and human-animal relations. Introduction of this formal divide has forced people into arguments over individual rights to hunting marine mammals which used to be regulated collectively at the community level. While a central topic in policy and management, the clear cut between subsistence and commercial fishing has never existed in practice. People have always been creative and entrepreneurial in mobilising all means available for them in order to access marine resources.

That fisheries management questions in Greenland go to the heart of social and cultural politics is evident in Jakobsen and Raakjær's analysis of the deeply rooted interests that long upheld a 'reform inertia' in fisheries policies. They note that fishery development has long been treated as near synonymous with national progress and nation building. For instance, industrialisation has proceeded through labour concentration and capitalisation of the fishery. Through this relationship, questions of national politics, such as fatigue with a long-ruling political party, have tangible and potentially radical effects on fishery policy. With 'post-industrial development' priorities, the interests of the fishers, now a small minority of the political constituency, became opposed to what were considered national fishery interests. The argument of greater profitability for society not only raises questions about what society is implied, and how profits and costs are redistributed in the process, but also reconfigures the publicly visible interest groups in the conflict. In the Greenlandic fisheries reform case, this included the redefinition of 'fishers' from people deriving livelihood and identity from fishing, to quota shareholders, and to shareholders in large seafood businesses. Who fishers are, and what counts as constituting them for public debate, is thus not pre-given, but emerges from shifting discursive practices.

As fishing and fish, in all of the contributions, mean more than just food and employment, but have important social, cultural, political and identity implications,

resilience in these northern communities is typically tied to continuing fishing in one way or another. Wishart's account of the Peel River Gwich'in suggests that continuing going to fish camps was understood as tantamount with continuing social life as a group. At the same time, however, the Gwich'in also consider fishing as resilience in a far more practical way. When the 'hard times' come and snowmobile fuel becomes scarce, it is said that fish will feed the dog teams, as they had during the fur trade era, and thus keep people mobile. Fishing is seen as a guarantee that 'the land' will provide for its inhabitants, and that they will be able to manage in difficult times.

### Conclusion

These contributions unpack the complexity of relations between fishers, fishing communities, states, markets and a changing environment from various angles. Although in these diverse places and developments 'fishing' means rather different things, we have highlighted a number of overarching themes that the papers address, and have pointed to their common approach of grappling with large issues by looking at small details, as well as in how northern fisheries are simultaneously entangled in very local, and essentially non-local processes.

We have also pointed to the frictions in the management of these fisheries, often outcomes of opposing management ideals and strategies at state and community level. It has become evident, however, that the subtitle of this collection, 'managing income, nutrition and cultural values' does not primarily refer to the technicalities of fishery management. Rather, this managing refers to the manifold and often surprising agencies of fishing people, in coping with, challenging or changing the political and material contexts of their activities. Managing for northern fishers and communities is thus not about abstractions, models and statistics, but about catching and eating specific fish for specific purposes under changing social and ecological circumstances.

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