



Women fishers in Norway: few, but significant

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Abstract

Professional fishing and fisheries quota systems can affect women and men differently, yet gender analysis of quota systems is rare. In this article, we use a feminist framing and a mixed methods approach to examine the long-term gendered effects of the introduction of the 1990 quota system in Norway. Using statistics from the National Fishery Registry and the Directorate of Fisheries, we found that the number of women and men registered as fishers has declined since 1990 (an overall decline of 59%). Over this period, men have consistently outnumbered women among registered fishers (2.7–3.2% women), among boat owners (2.23% women in 2017) and particularly among owners of larger boats (> 11 m), which can have multiple quotas (0.35% women in 2017). However, changes in the age and geographic location among women fishers reflect changes to fisheries overall, as well as highlighting the gender-blind entry barriers that disproportionately impact women. In addition, contextualising statistical data with participant interviews conducted in North Norway, especially in Finnmark, enables us to examine more closely why the gender gap remains. This mixed method approach also identifies changes women and men working in fisheries have undergone, while also addressing women fishers' political efforts to improve gender equity in Norwegian fisheries. Our study contributes to a more nuanced understanding of Norwegian coastal fishing, and particularly women's small but significant presence.

Introduction

Men have dominated both historical fishing narratives and modern fisheries statistics (Kleiber et al. 2017; Klein and Davis 1988; Munk-Madsen 1990, 1996, 1998, 2000; Porter 1995; Power 2005; Willson 2016). In Norway, women's contribution to fishing households has focused on their role as part of the 'ground crew', engaging in many of the land-based fishing tasks (Balsvik 2001; Flakstad 1984; Gerrard 1983, 1995, 2005, 2016; Pedersen 1999). They were not registered as fishers, but their labour was integral to pre- and post-harvest tasks such as baiting long-lines, cleaning boats, washing clothes, gutting fish and sometimes the administration

work related to the crew and the boat (Gerrard 1975, 1983, 2011; Munk-Madsen 1996; Jentoft 1989; Thiessen et al. 1992; Pettersen 1994, 1997).

While women's labour has been critical to the longevity of the fisheries industry, they have not been seen as fishers, either by men or by women themselves. Moreover, women's fisheries labour has also often been paid less, or not at all. Indeed, women's fisheries tasks have been considered a natural part of their duties in fishing households. They fit in with their roles as daughters, sisters, wives, partners and friends in fishing communities (Bratrein 1976; Elstad 2004; Flakstad 1984; Gerrard 1975, 1995; Holtedahl 1986; Saugestad 1988; Pettersen 2018; Grønbech 2008). However, women have worked at sea, both as crew and as owners of their own boats. While these roles are often still part of their relationships with men, they have been and are an important part of Norway's fisheries (Bratrein 1976; Munk-Madsen 1990, 1996), and over time illustrate interacting changes in economic, social and ecological contexts. The examination of women's work on-water requires an understanding of the disproportionate gendered effects of gender-blind fisheries policies (Munk-Madsen 1990, 1996). The invisibility and subordination of women in the fisheries narrative means their voices are seldom heard or addressed in politics or policies (Gerrard 1983, 1995, 2005, 2007).

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Despite the marginalisation of women and their labour in fisheries, in Norway, women have still demonstrated efforts to enact political changes. In 1989, women leveraged the authority of their gendered identities as coastal women and fishers' wives to organise political actions against the cod moratorium. Women protested again in 1990, against the quota system (Gerrard 1995; Rossvær 1998). These women-led actions resulted in attempts to include women more formally in fisheries management processes. The Ministry of Fisheries established and financed the Fishery Sector's Women's Committee (1991–2003) (Lotherington & Ellingsen 2002; NSD undated). Later, in 2005, the Ministry of Fishery and Coastal affairs and the Ministry of Children and Family Affairs also initiated an 'Action Plan to Recruit more Women to the Marine Sector' (Handlingsplan for økt kvinneandel i marin sektor 2007). This action plan was a response to the closing of the Quota Committee on the pretext that the committee did not have 40% representation by women, which was a requirement of the Norwegian 1978 Gender Equality Act.

This article focuses on the comparatively small numbers of women who were registered as fishers between 1990 and 2017, which covers the period of the Norwegian coastal quota system for cod (*Gadus morhua*), saithe (*Pollachius virens*) and haddock (*Melanogrammus aeglefinus*). Documenting and understanding women's contributions to Norway's fisheries as professional fishers and political actors challenges assumptions that fishing can only be done by men, while also highlighting the interacting cultural and structural barriers that can limit women's participation.

This study builds on previous feminist research that has found disproportionate, negative effects of Norway's quota system on women fishers (see for example Munk-Madsen 1996; Pettersen 1997; Gerrard 2005, 2007). By examining the long-term statistical and observational data with a gendered perspective or lens, this study examines some of the lasting gendered impacts of the quota system. This includes interactions with changing social contexts, such as women's role in the welfare state (Sainsbury 2001) and compulsory education system for children from 6 to 18 years old (Norwegian Ministry of Education and Research undated).

Our examination of gender in Norway's fishing sits within the broader perceptions and agitation for gender equality in Norway. Norway is commonly perceived as a positive model of nationally supported gender equality, although this perception has been criticised (see for example Danielsen et al. 2015). Throughout Norway's history, women's equality and gender equity have been continuously under debate, and this has been reflected in changes to laws (Equality and Anti-Discrimination Act 2019). In 1913, Norwegian women's fight for the right to vote succeeded (Stortinget 2013), and in 1978, the first Gender Equality Act was enacted. Furthermore, equality measures have been implemented in various institutions, associations and industries, including sectors such as

academia and finance, where women are in the minority (see Eeg-Henriksen 1985; Finans Norge undated). It is in this light that gender and feminist perspectives focusing on women fishers and their situation are relevant and significant. To gain a better understanding of women in coastal fishing, we use an analytical framework informed by feminist perspectives in general and by fisheries in particular (e.g. Ellingsæter and Solheim 2002; Bourdieu 1977; Frangoudes and Gerrard 2018; Kleiber et al. 2017; Munk-Madsen 1996, 1998, 2000).

The Norwegian coastal fishing context

The fisheries industry has historically been one of Norway's main economic activities, and an important export industry selling fish to various external markets (Kolle et al. 2014). Cod, saithe and haddock together with other species, like certain kinds of herring (*clupea harengus harengus*) and mackerel (*scomber scombrus*), were and are important export species. Today, fishing takes place along the whole length of Norwegian coasts, but most fishers are registered in the western and northern counties (Fig. 1).

Like other fishing countries, fluctuations in fish stocks, changes in markets, technology, boat owners and crews, as well as shifts in administration and politics, are inevitable and normal. Norwegian fishing is regulated by laws and yearly political decisions that have direct impacts on fishers' work as well as indirect impacts on the daily life of their families.

All full-time and part-time fishers in Norway must be registered in the Norwegian Fishery Register (Fiskermanntallet) that has existed since the 1950s (Fiskeri og kystdepartementet 2008). The register is divided into full-time (professional) fishers (B-list) and part-time fishers (A-list) (Fiskeridirektoratet n.d.). The register is supposed to be a reliable list of people living and fishing in Norway. It is used by governmental and municipal agencies to distribute sickness and pension benefits, but also since 1990, it has been used to determine quota access.

Since 1990, fishers work within a coastal quota system that is stratified, quite complex and covers cod, saithe and haddock. To be allocated a quota, a boat belonging to a fisher or a fishing company must be registered in the vessel registry. There are several different quotas with rules that vary by the type of fisher (list A or B, as well as boat registry), where the fisher lives or if the community is identified as Sami (indigenous community), the size of the vessel, and the species targeted. From the very beginning, the coastal quota system created two groups of fishing boats: (a) group 1, later named the closed group, and (b) group 2, later named the open group (Table 1).

Open group fishers who formally reside in Sami defined areas or villages in the northern part of Norway, regardless of their ethnic identity, have special fishing rights in addition to the open group quota. These rights are defined in the Kystfiskekvota or Coastal Fish Quota and consist of 3000 tons to be divided and distributed to open group fishers. The

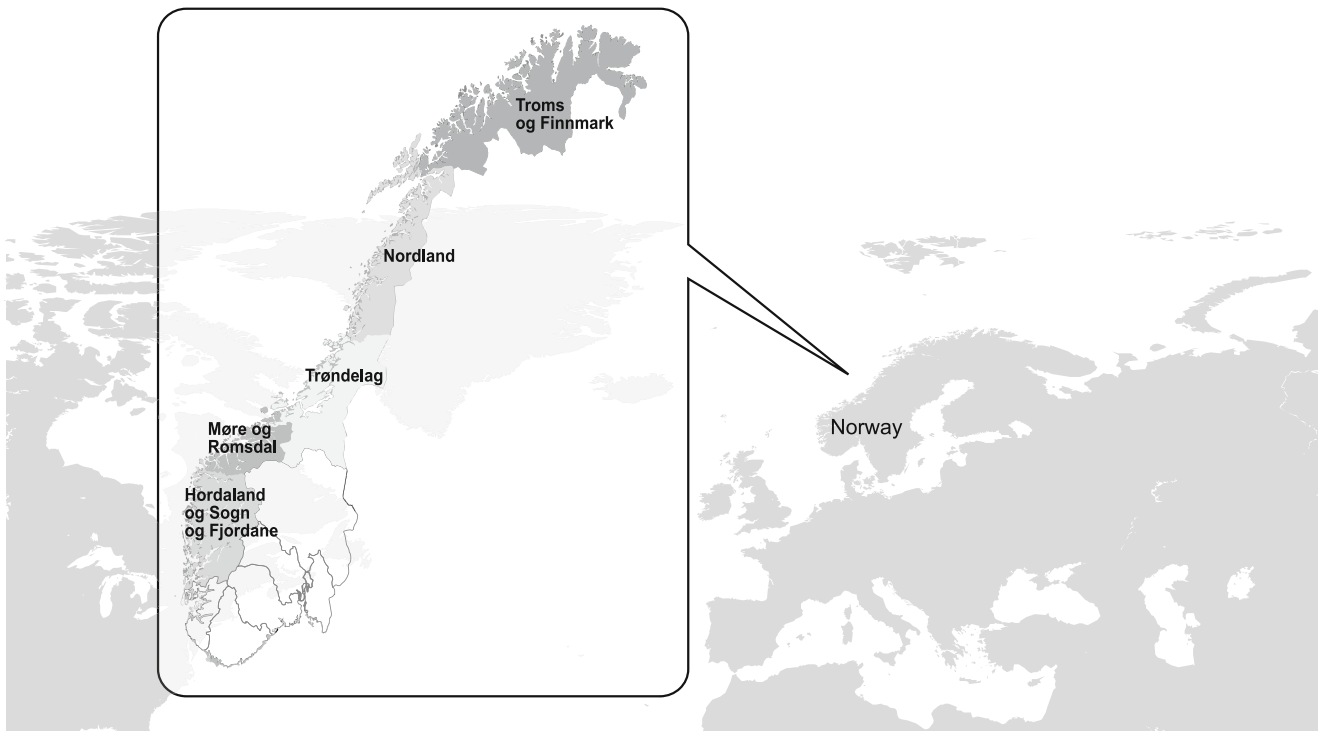


Fig. 1 The most important coastal fishing areas in Norway. Illustration: Rudi Caeyers/UiT The Arctic University of Norway

Table 1 Description of group 1 and group 2 quotas

Quota characteristics	Group 1 'closed group'	Group 2 'open group'
Quota size	Larger	Smaller
How the quota is held	Quota is connected to a registered boat and held by individual fishers or fishing companies.	Quota is connected to a registered boat and held by individual fishers.
Who can access this quota	Quota holders must: <ul style="list-style-type: none"> • Be registered full-time (primary) fishers • Have fishing experience north of 62 latitude. 	Quota holders must: <ul style="list-style-type: none"> • Be registered full-time (primary) OR part-time (secondary) fishers • Have fishing experience north of 62 latitude.
How many quotas can be held	Since 2004: <ul style="list-style-type: none"> • A boat < 11 m can only have one quota per species. • A boat between 11 and 14.99 m can have up to three closed group quotas for a single species in addition to the original quota given to the boat in 1990 (J-114-2017: Forskrift om spesielle kvoteordninger for kystfiskeflåten) 	Only a single quota per species.
Cost of quota	Free of charge when the quota system was introduced in 1990. Fishers that wanted more quotas, would have to buy a boat with closed group quota. After 2004, closed group quotas can be purchased on the open market. Since 2010, 10-15 free quotas in the closed group are awarded to fishers under 30 years old who are selected based on set criteria.	Free of charge
Tradability	In 1990, quotas could not be bought or sold. The quota in the closed group was allocated for at least 20 years and lasts until the fisher is 75 years old. Then it reverts to the official governmental authorities to be redistributed. Since 2004, quotas can be bought and sold on the open market for boats longer than 11 m.	Quota cannot be bought or sold. If unused it reverts to the Directorate of Fisheries to be redistributed.

Coastal Fish Quota began in 2011 and is meant to strengthen the rights of small-scale fishers in Sami communities (see for example, Jentoft and Sørensen 2017; Fiskeridirektoratet 2019).

The size of different quotas varies from year to year and is based on the estimated total available catch (TAC). Estimations of TAC are determined by members of the International Council for the Exploration of the Sea (ICES). Norwegian and Russian researchers are also involved, as well as Norwegian fishery interests (representatives from the various fishery-related associations). Before the final decision is made by the Ministry of Trade, Industry and Fisheries, a meeting is held where representatives from the various fishery institutions discuss the total TAC and the distribution of quota. The Directorate of Fisheries is responsible for implementing quota regulations including the allocation of the TAC to the different quota groups.

New fisheries have emerged since 1990, and new quota regulations have been developed in response. The King crab (*Paralithodes camtschaticus*) fishery has become an important source of income along the coast of Finnmark, the northernmost area of Norway. With a few exceptions, King crab quotas are available to fishers registered with closed or open group quotas, who live in the northern coastal municipalities (from Måsøy up to the Russian border). Like other species quotas, the size of a King crab quota varies in response to expert advice. Most recently, fishers cannot exclusively catch King crab; to be allocated crab quota, they must also catch other quota species up to a certain value that varies.

The complex quota system is an ever-evolving system that catalyses and responds to actions from both government institutions and people in the fishing industry. On occasions, networks and groups have been formed to protest quota policies. For example, in 2004, when the Fishery and Coastal Ministry made it possible to buy and sell closed quotas, the network ‘Kysten til kamp’ (Fighting for the coast) was established by two women from Lofoten. Their petition against the quota policy and the privatisation of fish resources was strongly supported by coastal habitants (Klassekampen 2005). However, the impact of these actions on fishing policy is limited, and political power is greater among fishers with bigger boats and a greater share of the closed group quota. Currently, the quota system is under revision, but the main principles are unlikely to change (St.melding 32 2018-2019). The final political results and the gender consequences of the proposed changes are yet to be debated and enacted.

Studying women fishers

Focusing on the role of women, gender and gendered relations is important in the evolution of Norway’s fisheries, and in understanding both the reasons for and impacts of changes in the industry. Scientific contributions on gender and fisheries were pioneered in Norway in the 1970s (Gerrard 1975; Lie 1975).

However, work that focused on the gendered consequences of the quota system began with Eva Munk-Madsen (1996, 1998, 2000), Pettersen (1994, 1997) and Gerrard (1995, 2007). While Pettersen and Gerrard emphasised the role of coastal and fishery-related women on the shore, Munk-Madsen used a feminist approach to examine why so few women were registered as fishers or owners or qualified for a closed quota. She discovered that most women fished under open group quotas. Munk-Madsen (1998) concluded that the quota policy was ‘gender-blind’, but the result was not ‘gender neutral’. She emphasised that the quota system was part of a patriarchal system that limited women’s access to fishing.

Norwegian women’s lack of fishing rights and limited influence on fishing politics is not unique. The quota system is a part of the North Atlantic Ocean regional fishery resource management system to which women have had little access or influence (Sloan 2004). For example, in Canada, quota policy has been shaped by the way fishing is seen as a masculine and patriarchal activity (Power 2005). The lack of social and political recognition of women’s contributions to fisheries has also been documented in Europe (Frangoudes and Pascual-Fernandez 2005), as well as globally (Williams 2008; Kleiber et al. 2017). Other feminist researchers have used frameworks that analyse culture and power, and their influence on the persistent gendered division of labour in general. Ellingsæter and Solheim (2002), inspired by Foucault, argue that the gender division in Norway’s labour market cannot simply be explained by social and economic structures and conditions. They argue that there are also invisible or ‘hidden’ power relationships connected to cultural codes and values that shape the formation and maintenance of gender differences concerning women and men’s choices of education, jobs and careers. These have consequences for wages and type of work, as well as influence on the labour market itself. Another influential theory includes Pierre Bourdieu’s (1972:164) concept of ‘doxa’, which is defined as *the experience by which the natural and social world appears as self-evident. Doxa represents aspects of culture and society that are taken for granted, not questioned and not discussed*. In this case, men’s dominance of the fisheries sector is taken for granted. Men’s views and practices are reflected in institutions and policies, which then reinforces their dominance and perpetuates a world view that this is something that should not or cannot be changed. To apply such analyses and concepts to gain a better understanding of women fishers in Norway will enrich the understanding of the Norwegian fisheries.

Methods and data

To better understand women in fishing and their related political efforts, this study makes use of mixed methods. Quantitative data were obtained from the Fiskermanntallet—

Register of primary (full-time) and secondary (part-time) occupation—and the Directorate of Fisheries. These data include sex-disaggregated information on the fishing workforce over time. The quantitative data from the Directorate of Fisheries include information about fishers' gender, age and in what county and municipality they live. Additionally, civil servants in the Directorate of Fisheries provided detailed statistics on women fishers who owned boats, including boats with quotas in the closed group. The register of women boat owners is limited to women who are majority owners (> 50%) of their fishing boat.

Quantitative data from different years are presented. We include the statistics from 1983 when the Directorate started to include gender in the register. The figures from the years 1990, 2000, 2006, 2014, 2016 and 2017 represent important points in the history of the quota system (Table 2).

Qualitative data were collected by the primary author through participant observation, interviews and conversations in fishery communities with local women and men in the municipalities of Nordkapp and Loppa in Finnmark, as well as in Tromsø and Berg in the county of Troms. Here, occasional encounters and planned meetings were conducted. Some of these meetings dealt with community issues like public service, or special community events. Data collection occurred between 1975 and 2017 (Gerrard 1975, 1983, 1995, 2005, 2007, 2011, 2013, 2016; Walsh and Gerrard 2018). Information about women's ownership of ocean-going fishing vessels was provided by a journalist in *Fiskeribladet*, based on e-mail correspondence (Torsvik 2018). Additional materials include regional media interviews with women fishers.

The combination of the quantitative and qualitative data reveals the changing presence of women fishers in the Norwegian labour market and contextualises this with insights into women's lives, their views and the meaning of their participation as fishers and in fishery politics. In this way, we can gain a better understanding of women as single actors and their relations with each other and with men, as well as emphasising the situation and contexts in which practices, relations and politics are performed and constructed (Haraway 1988). Furthermore, this feminist

mixed method approach reveals elements of hidden or invisible power as well as the undiscussed aspects of women's participation in fishing (doxa).

Women fishers 1990–2017

In this section, we present data about the numbers of women and men fishers in Norway between 1990 and 2017, focusing on variations in the types of fishers (primary or secondary group), their age and geographic location.

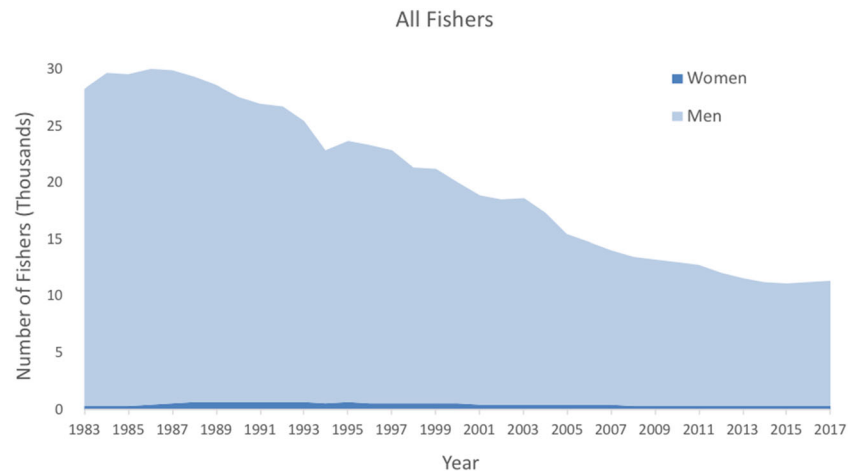
Since 1990, the total number of registered fishers has declined by 59%, falling from over 27,500 fishers in 1990 to 11,300 in 2017 (Fig. 2). The steepest decline was between 1990 and 2013. The number of registered fishers has stayed fairly steady in the past five years. Since 1990, the number of women fishers has been small compared to men (representing between 2.7 and 3.2% of all fishers), though women have always been present.

One reason for the decline in registered fishers starting in 1990 is due to the Directorate of Fisheries 'cleaning' the registers to only include active full- and part-time fishers. The number of women fishers follows the overall decreasing trend between 1990 and 2014 (Figs. 2 and 3) but has shown a slight increase since 2014. The years preceding the 1990 quota system also show a rapid increase in women registered as full-time or primary fishers. Indeed, most of the variation in total numbers of women fishers (both the initial rise prior to the 1990 quotas and the subsequent fall) are mainly due to changes in the number of women registered as primary fishers, while the number of women registered as secondary fishers has been comparatively steady, and consistently smaller comprising between 15.5 and 35.8% of all women fishers (Fig. 3). However, variations in numbers of primary and secondary fishers are not synchronous over time. Between 1995 and 2003, the number of women registered as secondary fishers increased (from 112 to 172), while the number of women registered as primary fishers fell (from 554 to 308). After 2003, the number of women fishers in both categories declined until about 2014, when the number of secondary fishers

Table 2 Overview of quota timeline

Year	Event
1990	The quota system of 'one boat- one quota' was introduced: Group 1 (later named closed group) and group 2 (later named open group)
1990s	The Directorate deleted many from the register of fishers since they considered many fishers as old and inactive
2000	A decade of the quota system
2004	Introduction of 'one-boat several quotas' and 'market-based quotas'
2006	The market-based quota system had been practiced for 2 years
2014	The market-based quota system had been practiced for 10 years.
2016	The increase of women in fishing
2017	The increase of women fishers continues

Fig. 2 Registered women and men fishers 1983–2017. Source: The Register of Norwegian Fishermen, Directorate of Fisheries, n.d.a. (11.1.2019)



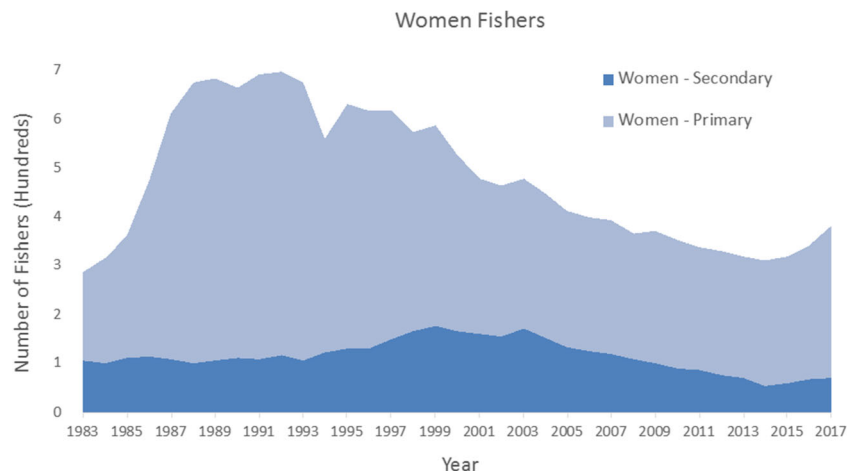
steadied, while of primary fisher numbers began to increase once again (Fig. 3).

Women fishers' age

The age of women fishers has also varied over time. The largest changes were seen in the decrease in young women registered as primary fishers between 1990 and 2000 (Fig. 4a).

In 1990, almost half (49.5%) of primary fishers were women under 30 years old, while more recently in 2017, they make up closer to one quarter (25.1%) of the total number of women primary fishers. One reason for the decrease in young women has been changes in the ocean going fleet, where women were working as filleting workers in fish processing and were registered as fishers. Among primary fishers, there has also been a sharp drop in women aged 60–69, and again for women 70 and older (Fig. 4a). The representation by age is quite distinct among secondary fishers, where women under 30 are only between 14.2 and 4.8% of the total, and overall, there is a more even distribution among the age categories (Figure 4B).

Fig. 3 Registered primary and secondary occupation women fishers 1983–2017. Source: The Register of Norwegian Fishermen, Directorate of Fisheries, n.d.a. (11.1.2019)



Geography and its influence

The number of women fishers has also varied by geography over time (Fig. 5a, b). The counties presented here are the ones with most women fishers in 2017. The counties are all ordered from the northernmost (Finnmark) to southernmost (Hordaland). In 1990, most primary fishers came from the county of Møre og Romsdal, where the ocean going fleet with the filleting workers was registered (44.5%), followed by Nordland (28.3%), while most secondary fishers were from Nordland (37.2%). This shifted over time as the numbers from western and central parts of Norway declined, while the numbers in the northernmost county, Finnmark, increased. By 2017, primary fishers were more evenly distributed between Møre og Romsdal (27.1%), Nordland (27.5%) and Finnmark (27.8%). Among secondary fishers in 2017, 33.9% were from Nordland, and 32.1% from Finnmark.

Finnmark is the only county where there has been an increase in primary and secondary women fishers between 2006 and 2017. In 2017, Finnmark had the highest number of primary occupation women fishers and the second highest

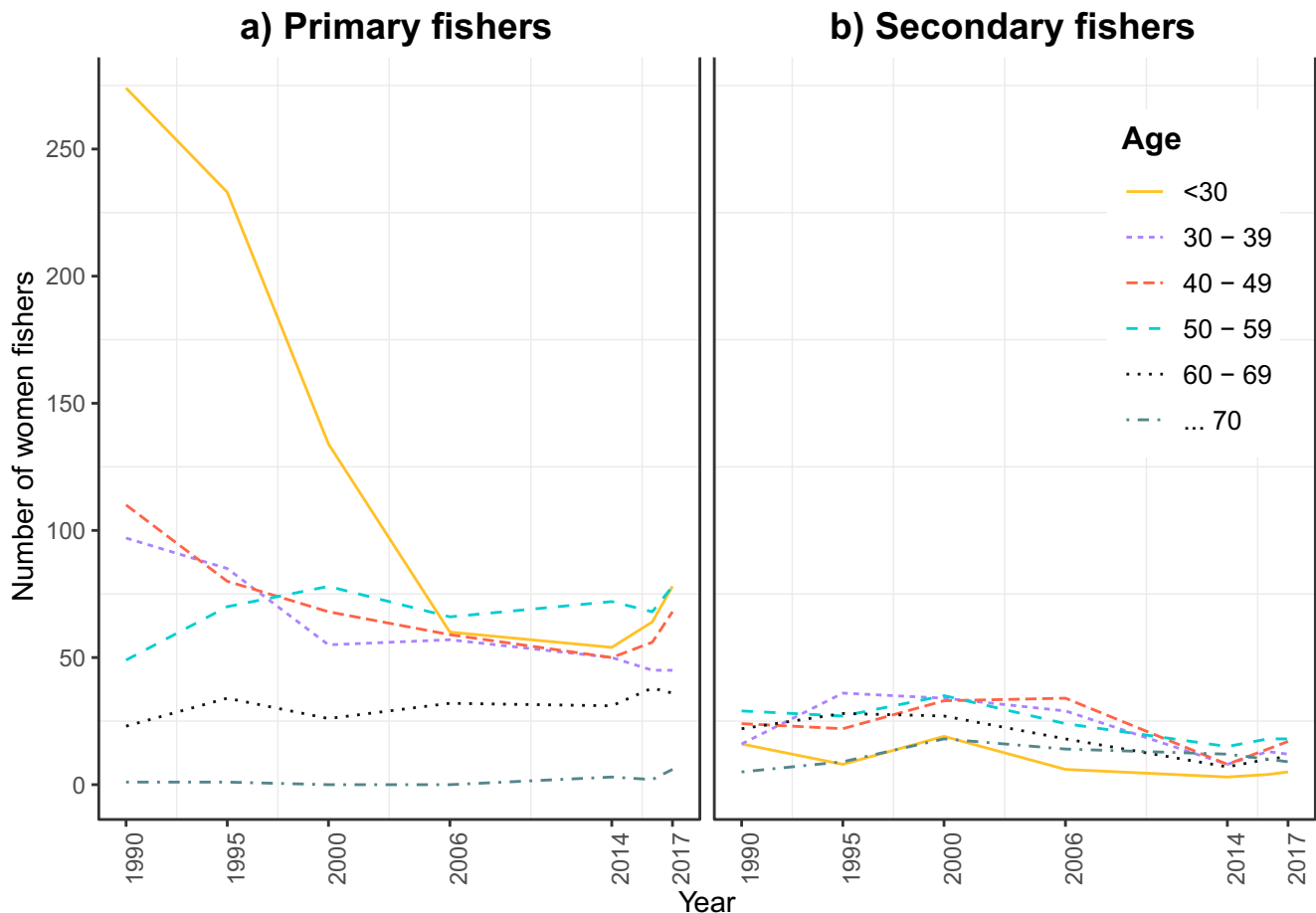


Fig. 4 The number of women fishers over time by age and (a) primary and (b) secondary fishing registrations. Source: The Register of Norwegian Fishermen, Directorate of Fisheries, n.d.b. (11.1.2019)

number of secondary women fishers (Fig. 5). The emergence of Finnmark is all the more notable since its population is the smallest of all these counties. Further research into the data presented in the fishers register shows that many women fishers live in coastal fishing communities where there has been an increase in the total number of women and men fishers.

Women fishers as boat owners

Many Norwegian coastal fishers own their own boat and some own more than one. Field work in Nordkapp municipality found that while some men owned more than one boat, women typically owned one smaller (< 11 m) boat. When we examine the number of women and men that are the majority (> 50%) owners of a boat in Norway, we see that many more men own boats than women. For example, in 2017, there were only 137 women owners, compared to 5,997 men owners (Fig. 6).

Going deeper into Fartøyregisteret or the Vessel register (2018), the listing shows that in the county of Finnmark, 43 coastal boats are owned by women fishers alone and 22 are co-owners, often with their husbands or partners. This means

that a great proportion (65 of the 89) of women fishers in Finnmark own their own boat or are co-owners.

There are relatively few larger vessels (> 11 m) owned by women¹. As explained before, only boats longer than 11 m can have more than one quota in the closed group connected to the boat. The total number of owners with boats larger than 11 m has decreased since 2002 (from 1,942 to 1,132), but the proportion of larger boats owned by women has always been smaller than 1% (0.4% in 2017) (Fig. 6). The number of women owning larger ocean-going boats (> 28 m) is even smaller. In the county of Møre og Romsdal, the number of women owners of these larger vessels has varied between 1 and 3 since 2002 (Fiskeridirektoratet 2018). This group is also distinct from the women who own coastal boats, because unlike the women who work on coastal boats, the owners of the bigger ocean-going boats seldom fish themselves but have inherited or taken over their fathers' ship-owning companies (Torsvik 2018).

¹ Ownership is defined by the Directorate of Fisheries as full or majority ownership (greater than 50%).

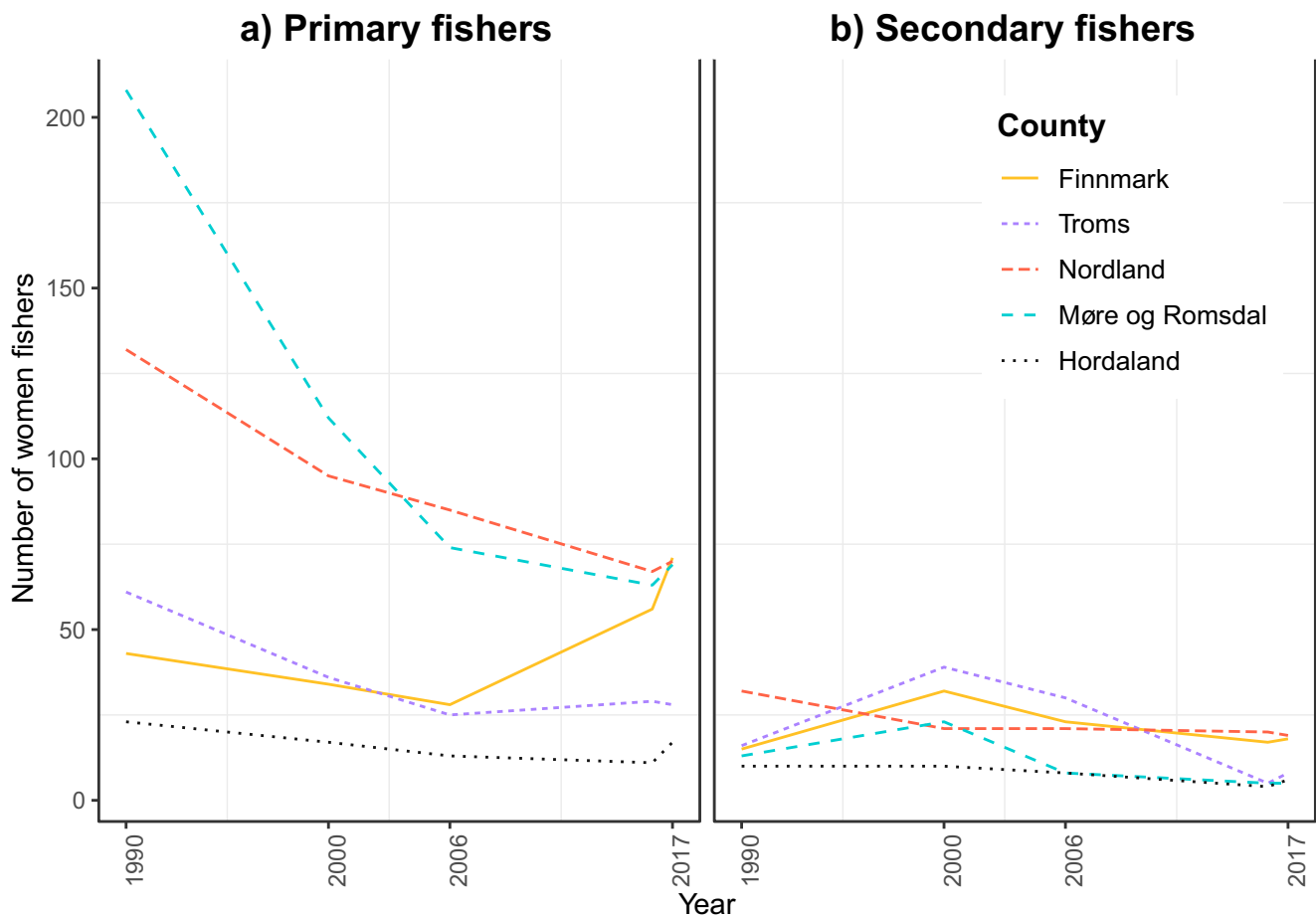


Fig. 5 The number of women fishers over time by county among (a) primary and (b) secondary fishers. Source: The Register of Norwegian Fishermen, Directorate of Fisheries, n.d.c. (11.1.2019)

Women fishers in the closed group quota system

Numbers of women-owned boats with a closed group quota are overall low, geographically distinct, and have varied since 2006, 2 years after the quotas could be bought and sold.

After 2006, closed group coastal quotas connected to women's boats have only been found in the three northernmost counties (Fig. 7). The number has increased in Finnmark, while remaining fairly steady in Troms and Nordland (Fig. 7). None of the other 14 counties in Norway have women who are majority owners of coastal boats with a quota in the closed group. This means that most women coastal fishers have open group quotas.

Why does the gender gap remain?

The 'silent' recruitment of women fishers

The gender gap or the huge difference between the number of women and men registered as fishers, boat owners and quota

holders can be related to several circumstances. The increase in registered women fishers in the last part of 1980s and the beginning of the 1990s for primary women fishers and some years later for secondary women fishers (Fig. 3) can in part be explained by an increase in the registration of fishers' wives. The justification for registering themselves as fishers was that when wife and husband worked together, the money was kept in the household (Gerrard 2005). One of the women interviewed during the fieldwork in 2004 explained:

I had worked together with my husband for a long time. In the beginning, when the quotas were introduced, my husband was only allowed to fish a small amount of fish compared to what we were used to. I took the responsibility for the work on shore, for example the administration and the baiting of his long-lines. In this way, we kept the money that we earned in the household. I continued with this work until my husband passed away. (Conversation in March, 2004 with a woman who registered as fisher when she was in her 50s and living in the municipality of Nordkapp).

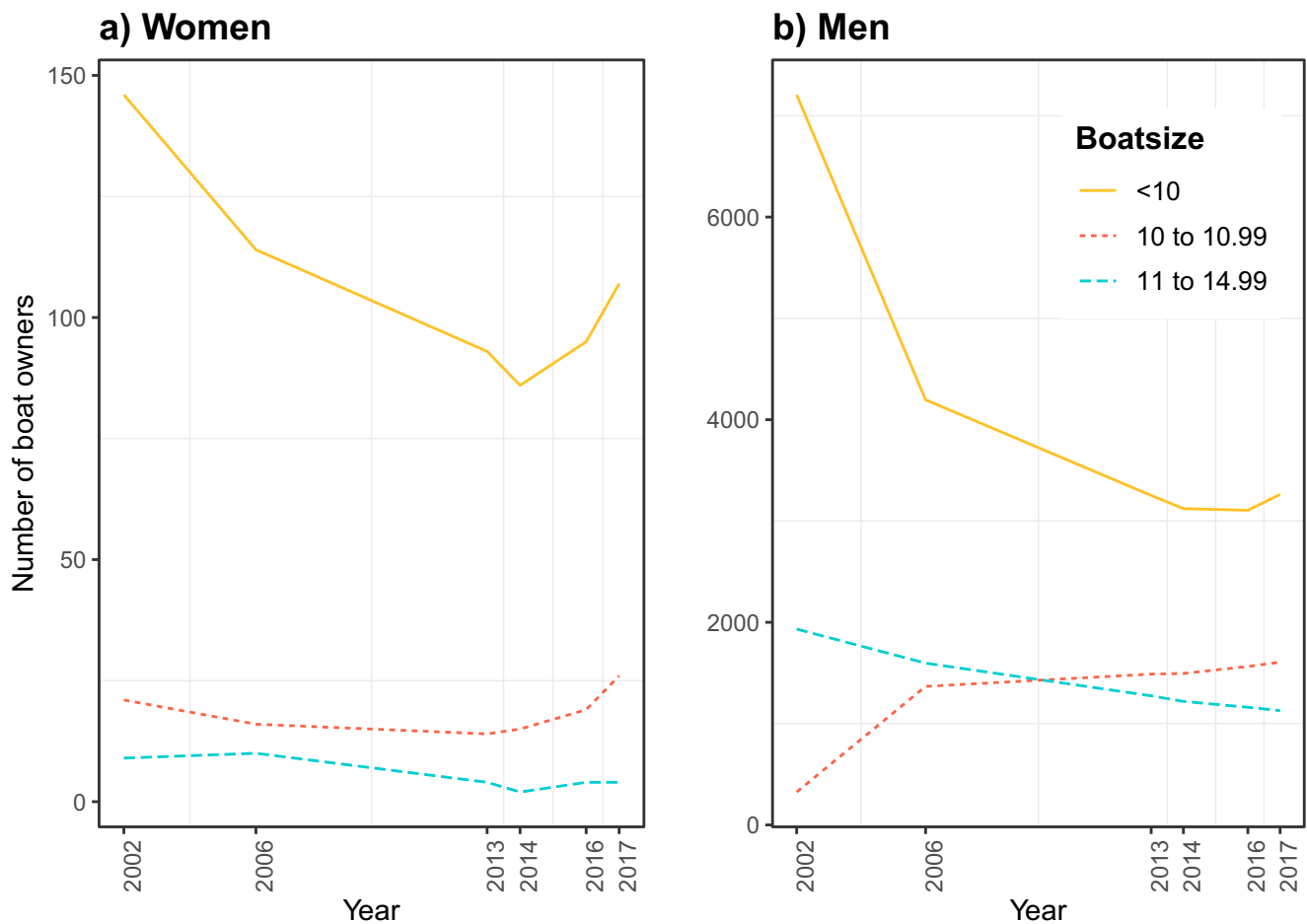


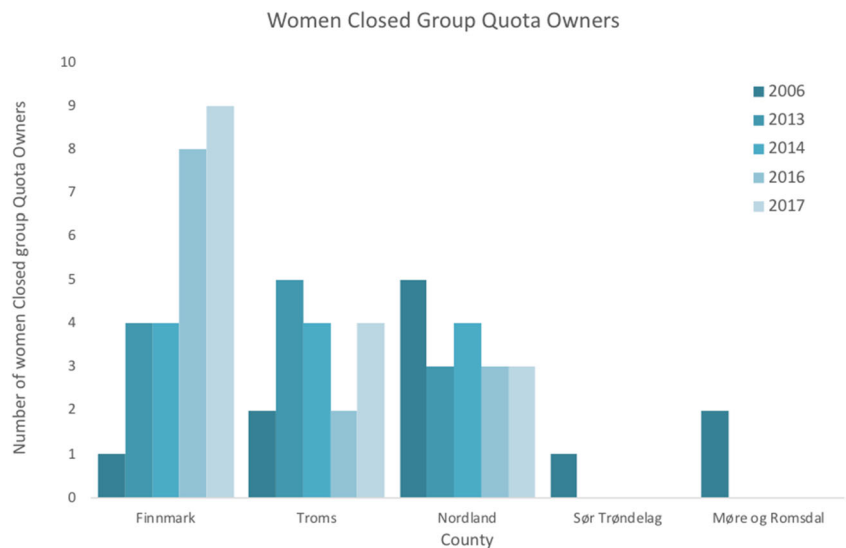
Fig. 6 The number of registered boat owners that are (a) women and (b) men. Data presented by year and boat size. Source: Fiskeridirektoratets fartøyregister (Vessel Registry from the Norwegian Directorate of

Fisheries that disaggregated the data from the year of 2002 to 2017. The information given by the Directorate 16.7. 2018)

The fishery adviser in the Nordkapp area had registered several women fishers in the Fishery Register and explained:

I know most of the local fishers in this area. I also know how hard the women have worked: baiting the long-lines,

Fig. 7 Women owners of coastal vessels with annual permits and rights to fish cod, haddock and saithe (closed group) north of 62° North 2006–2017 by county. Source: The Directorate started to disaggregate the data by sex in 2006. Source: The Directorate of Fisheries (n.d.e.)



washing the boats and doing other fishery-related duties. As I see this work, it is a part of fishing and should be registered. (Conversation with the fishery adviser, Honningsvåg, March 2004).

Registration formalised women's labour and made women, and women's labour more visible in the statistics.

Some years later, when the quotas became larger, there were additional incentives for women to become fishers:

I have always wanted to go fishing. Now the quota is bigger, I saw the chance to leave my job and start fishing and go to the fishing grounds with my husband. I like it, but it is a lot to learn, for example, I must improve my skills to handle the wheel when we come into the harbour.

(Conversation in April 2004 with a women fisher, 47 years old, living in the municipality of Nordkapp).

Many women fishers are partners to male fishers. For example, in 2017, a young woman in her 20s from Nordland said that she was 'recruited' by her boyfriend:

He told me about his job and asked if I wanted to try going fishing with him. That was a chance I could not reject. Now, I am thinking of buying my own boat.

(Conversation at the meeting for professional women fishers, May 2017.)

In other cases, becoming a fisher may be part of a personal rebellion against gendered expectations. A woman from Troms and an active member of the Fishermen's Association explained in an interview in Nordlys, the regional newspaper, that she 'rebelled at home as a little girl and broke the gender patterns that were very set at that time when only the boys got the opportunity to go fishing with their father. She and her sisters were finally allowed to go with him. When she decided to be a fisher herself many years later, she did not hear a single negative word—from anybody, and she does not regret it: *This is the best in life. The sea. The silence, and to search for fish* (Citations from Nordlys 23.6.2018). In an interview about the special arrangement of the recruitment quotas for young fishers, she said that young women should also be allocated a recruitment quota *so that they can be professional fishers* (Johansen 2018).

Gender, age and childcare

On examination of the Fishery Register's municipal list of Nordkapp, women represent 10% of registered fishers. Of the 24 registered women fishers, most are middle-aged, with only seven born in or after 1980. Previous studies have confirmed that women in their 20s and early 30s often leave fishing to establish

households, have children, continue their education or start other jobs (Grimsrud et al. 2015). The study also confirms that while both women and men leave fisheries to take on other careers, men's experience in fishing is more likely to be transferred to their next job. For example, men can apply their sailing experience to working in the offshore petroleum industry. By contrast, women tend to transition to caregiving or retail careers, where their fishing experience is less relevant. Part of the reason why women leave fishing when they have children is because the working conditions are incompatible with the demands of child raising. While there are examples of men fishers increasing their contribution to domestic responsibilities, women remain the primary caregivers of children (Gerrard 2013). Furthermore, official Norwegian state and municipal structures have yet to be established to respond to such labour needs. For example, childcare services, when available at all in fishing communities, do not operate during fishing working hours (Gerrard 2005). When women's responsibilities for childcare diminish as children get older, women may have more opportunities to go fishing. This is reflected in the data with a consistent decrease in the number of women fishers in the 30 to 39-year-old category, with slightly higher representation among younger (< 30) and older (40–49) women (Fig. 4a).

Geographic shifts

Finnmark has the highest proportion of women fishers, boat owners and quota holders, and there has been an increase in the representation of women in recent years (Figs. 5 and 7). One reason for this high level of representation is that fishing resources are available close to land almost all year around. Finnmark also has a long tradition of coastal fisheries using boats under 15 m, and women are more likely to own smaller boats.

Additionally, the increase may be part of a larger trend of increasing fisher numbers (both women and men) due to the availability of the King crab quota for fishers living in the municipality of Måsøy and other coastal municipalities eastwards towards the Russian border. King crab catches have been a good source of income, and these quotas are in addition to other open group quotas (Gerrard: Fieldwork in Nordkapp 2017).

Hidden structures

Behind such social patterns, there are informal and unspoken rules of behaviour that relegate women to the shore and men to the sea. As pointed out above, gender division of fisheries labour has been taken for granted, and women's onshore work was not always counted or valued in the household, community or on a national political scale (Gerrard 1983, 1995, 2007). The gender gap is thus maintained by structural conditions and hidden, undiscussed and invisible cultural codes and

values that are taken for granted (Ellingsæter and Solheim 2002). Women fishers and the differences between men and women fishers represent even today what Bourdieu called *doxa*. In other words, these relations and differences between women and men are seldom questioned or discussed in the media or other public forums.

Does the quota system strengthen the gender gap?

Since the inception of the quota system, the number of women fishers, boat owners and quota holders has remained very low, suggesting that gender equity in fisheries has not benefited from changes to the quota criteria and structure over the years. There are important differences between closed and open groups that illustrate some of the ways that women have been marginalised by the quota system. As documented earlier in this article, most women in Norwegian coastal fishing have boats with a quota in the open group. Such quotas represent a way of earning an income, though quotas in the closed group can result in greater capital accumulation, especially when quotas are sold. Indeed, having a boat with a quota in the closed group is more profitable, and hence gives owners more opportunities to buy, larger, newer and potentially safer boats. Additionally, fishers who received closed group quotas for free in the 1990s can now sell their quotas for a substantial amount of money. Few women received closed group quotas in 1990. In Finnmark, there were less than three women in this category (Gerrard 2007).

There have been efforts to address the prohibitive cost of buying closed group quotas, particularly for young fishers. A special arrangement, called ‘recruitment quotas’, is distributed annually by the Directorate of Fisheries with the intention of increasing the number of coastal fishers under 30 years old. The number of quotas and the criteria were decided upon politically (Fiskeridirektoratet 2018a). The selection criteria prioritise fishers who are (1) young (under 30 years old), (2) boat owners, (3) having fishery training, (4) working full-time in the fishery and (5) earning at least 200,000 Norwegian kroner (NOK) from fishing annually. In the last ten years, the programme has given out 120 closed group quotas to men, and only one to a woman (Fiskeribladet 2019; St. meld. 32 (2018-2019.pkt. 3.5.3.; Andøyposten 2016). Most women fishers do not fit the qualification criteria for multiple reasons. While young women do enter the fishery, many women also enter the fishery after they have had children and are thus older than 30 (Nordlys 2018). Younger women are also less likely to own boats. Moreover, women tend to receive formal training from non-fisheries programmes such as health. Hence, the selection criteria essential disqualify women from receiving a recruitment quota.

The other pathway to obtaining a closed group quota is to buy it, but again, women are often at a comparative disadvantage. Women have stated that they often lack the leverage

capital to buy a closed group quota (Ekrem 2018). Furthermore, women fishers also report that banks hesitate to give loans to open group holders. Thus, women fishers are seldom in a position to buy a new and perhaps a bigger and safer boat or a quota without a bank loan. The difference between the number of women and men fishers with quotas in the closed group continues to remain substantial.

Boat and quota ownership are also linked to political power. It is the men who hold closed group quotas, often several quotas, who have important positions in fishers associations and are most likely to be interviewed by the media, though with some exceptions (see for example Kyst og Fjord 2019). Such facts may also explain why few women coastal fishers refer to themselves as vessel owners (*redere*) or organise their vessels in limited shipping companies (*rederier*), as many men fishers do (Gerrard 2013).

Hopes for the future: women fishers and their political initiatives

Development among women fishers and their lack of access to quotas in the closed group has taken place in a period where fishing has intensified and led to an even more capitalised, professionalised and male-dominated ownership structure compared to what Munk-Madsen (1996) and Power (2005) described earlier. Women are at a disadvantage in either buying quotas or receiving recruitment quotas. It is the less predictable and less profitable open group quotas that help women to establish and maintain themselves as fishers. The male-dominated ownership of boats and quotas in the closed group, combined with few measures to improve women fishers’ situation, has, so far, contributed to the maintenance of gender differences and a lack of equality in fishing and fishing policies. The numbers and the discussion presented above indicate that gender equality in fishing and fisheries is still far off in Norway.

Previous efforts made by women to improve their position in fisheries have focused more broadly on women in fishery households and fisheries in general (Gerrard 1995), and less as their individual roles as fishers. There have been efforts focusing on women’s issues and to improve women’s representation in fisheries and fisheries governing organisations, but these have been met with barriers. The Fishery Sector’s Women’s Committee (1991–2003) was closed down (Lotherington & Ellingsen 2002:18; NSD undated) under the pretext that the committee did not serve the fishery, only the coastal and fishery communities. The Regulating Committee was replaced by a meeting that did not need to meet the criteria of 40% of the underrepresented gender in the committee (Equality and Anti-Discrimination Act 2019). The plan for more women in the marine sector came up with some objectives but formulated few means to increase women’s participation as professional fishers (Handlingsplan for økt kvinneandel i marin sektor 2007).

More recently, women fishers have begun to organise and publicly highlight the challenges they face. In 2017, women fishers initiated a conference with themes on gender equality in fishing, how to stop discrimination, how to organise and improve women's rights as professional fishers, as well as recruitment and better working conditions for women fishers (iFinmark 2017; NRK 2017). More than 20 women, of which 15 were women fishers, attended the meeting and shared experiences of how to get trainee places on boats, how to manage and combine fishing and family life, how to improve the recruitment of women into fishing, financing questions related to motherhood, pregnancies and women's maternity leave, especially for boat owners, how to get support for buying or getting a quota in the closed group and how to organise work to promote their rights as women fishers. However, these women felt they were too few to create a separate organisation, and instead argued for greater representation of women in the Norwegian Fishermen's Association (Norges fiskarlag). Informally, some women from East Finnmark also argued for membership in the Norwegian Coastal Fishermen's Association (Norges Kystfiskarlag). The women present at the meeting, as well as other women not present, created a virtual network through e-mail and a Facebook group (Kyst og fjord 2017). After the meeting, some of the women continued to protest for gender equity within fisheries by meeting a representative from the Norwegian Fishermen's Association. Efforts by these groups have focused on expanding labour flexibility regulations to include pregnancy and childcare, as well as changing the selection criteria for obtaining a closed group recruitment quota. Some efforts have been more successful than others.

The tangible outcomes of these efforts and organisation were few until some recent regulation changes relating to pregnancy and maternal leave for registered open quota fishers. In 2018, a husband and wife who were both registered fishers and boat-owners discovered that the regulations on open group fishers allowed them to hire replacement skippers when they were sick or had to leave for political action, but there were no provisions for pregnancy or childcare. This meant that regulations to allow for greater labour flexibility did not take women or women's reproductive labour into account. This oversight was fixed with a special regulation that now covers women fishers who are pregnant or have children up to 2 years old (Fiskebåt 2018). The expansion of these rights to cover parental leave for male fishers and parents with a sick child will be discussed in 2019 (Nærings- og fiskeridepartementet 2018; Fiskebåt 2018).

Another focus is redefining the criteria for obtaining a recruitment quota in the closed group, which are distributed to increase the number of young fishers. Due to selection criteria that indirectly excludes women, only one out of 120

recruitment quotas has been given to a woman (Fiskeribladet 2019; St. meld. 32 (2018-2019, pkt. 3.5.3.)). The cultural and structural barriers that lead women to establish themselves as full-time fishers at an older age than men make them less likely to meet simultaneously the age, boat ownership and full-time fisheries employment criteria. Recognising this gender equity issue, a local branch of the Fishermen's Association in Tromsvik, Troms county, proposed that half of all new recruitment quotas should be given to women (conversation with Johansen 2018). When the board of Fiskarlaget Nord handled this proposal, they underlined the principle of 'same possibilities', emphasising a need for selection criteria that would give women and men equal chances to be rewarded recruitment quotas. The board members recognised that there are good reasons for defining different age criteria for women and men, given the birth and childcare factors that lead women to full-time fishing at an older age (Fiskarlaget Nord 2018). The board adopted a proposal with different age criteria for women and men, as well as underlining better practices for financing boats and equipment. However, the political authorities hesitated in making the criteria responsive to gender equity, and the age and earning criteria were unchanged. Despite additional instructions from the Ministry of Trade, Industry and Fishery to the Directorate of Fisheries that they give priority to a woman with equal standing to a man (Fiskeribladet 2018), all ten recruitment quotas for 2019 went to men (Fiskeribladet 2018). The minister of fisheries commented in the media:

Unfortunately, most men fill the defined criteria. The government will continue to consider possible actions to increase the number of women fishers, the minister Nesvik wrote (Dessverre er det fortsatt klart flest menn som fyller disse vilkårene. Regjeringen vil fortsette med å vurdere mulige tiltak for flere kvinnelige fiskere, skriver Nesvik) (Kyst og Fjord 2018).

This example illustrates that the discussions on gender equity in fisheries sit within a larger political context where young male fishers feel disadvantaged because it is difficult for them to enter the closed group (though not quite as hard as it is for women), but also established fishers are pushing back against recruitment because their quota has recently been reduced by about 20%. In response, the Minister of Fisheries has noted that recruitment quotas no longer serve their aim and in their current form will come to an end (Fiskeribladet 2019; St. meld. 32 (2018-2019). St. Melding 32 (2018-2019) suggests reducing the number of recruits to five per year and introducing a 'bonus supplement' lasting for 5 years, but still valid only for fishers younger than 30 years old.

These examples show that women small-scale coastal fishers have to relate to a public fishery political discourse coloured by gender blindness that nonetheless has gender

consequences, especially for women. When women meet as professional fishers, participate in public debates and agitate for change within their associations, they demonstrate their willingness and advocacy to improve women's working conditions. However, except for the special rules for pregnant women and women fishers with small children, little seems to have changed in fishery politics or policies to favour women fishers.

While politicians agree in public that changes should be made, they also appear to be responding to hidden and unspoken rules that act as barriers to real change (Ellingsæter and Solheim 2002). As long as such informal 'rules' are not discussed, but taken for granted, women's minority position in fishing will also be taken for granted.

Concluding remarks: women fishers today—few, but significant?

The data presented in this article show that gender, age, time and geography interact with implications for the number of women who participate in fishing—as registered fishers, boat owners or quota holders. When analysing the data relevant to women's participation in fishing over time and with attention to their age and geography, it is possible to see some resource- and policy-related shifts occurring. The longstanding relationship with this subject matter and observations from the field also provide an interpretative platform for extrapolating structural and cultural dimensions that limit women's participation in fisheries. What we see from the data is that there are still relatively few women compared to men who fish, own boats or have quotas in the closed group. Additionally, policy papers still pay little attention to women in the fishing industry.

While quotas and the professionalisation of fisheries have had an impact on women in Norway, the persistently low number of women fishers is also a product of entrenched cultural and gendered practices informed by patriarchal policies favouring male fishers. This finding is further supported with the more recent evidence of women fishers organising themselves about these issues.

Gender research in Norway has documented that institutionalisation, organisation and special means are necessary for women to achieve more equal rights (Danielsen et al. 2015). This includes women-led initiatives, for example through women's networking in meetings and by means of internet-based social networks, as demonstrated by some women fishers. Still, women struggle to obtain rights that men obtained years ago. Thus, fisheries and quota management systems continue to be patriarchal as Eva Munk-Madsen (1998) wrote over two decades ago. Since her analysis, quotas in Norway have been even more important, as they are not only expensive to buy, but also regarded as an investment opportunity (Trondsen et al. 2017; Grytås 2015; Tøllefsen

2017). The data from the Directorate of Fishery, as well as the above-mentioned arguments, evidence that few coastal women fishers meet the criteria to claim opportunities in coastal fishing.

While there is lip service paid to gender equality, women's issues are infrequently considered when making new policies, rules and regulations. Women, compared to many male fishers, are marginalised financially and politically. As long as quotas in the closed group are expensive, the criteria for the recruitment quota will mostly benefit men, as no special financing means exist, and most women cannot compete for a quota in this quota market. Some additional regulations stipulate labour exceptions for women who are pregnant or are mothers of children younger than 2 years, but so far, there are few signs of taking all aspects of women fishers' special biological, cultural and social situation into consideration when policies are established.

In June 2019, the Norwegian government launched a new white paper, St. melding 32 (2018–2019). One of its purposes was to simplify the quota system, but so far, it has been a missed opportunity to address gender equality and equity in the quota system. The document is gender-blind and does not even include the words 'women' or 'gender' nor does it address measures to improve women's recruitment, working conditions or women's overall situation in fisheries. The document will be sent for review by various fisheries institutions, and then sent to Norwegian parliament, the Stortinget. The parliament will discuss it and make the final decisions before the new quotas and quota regulations are implemented.

To conclude, men's power in fishing not only comes from their numbers, but also because they have long influenced fishing practices and fishery politics. The traditional thinking and principles that lie behind this kind of power and influence seems to continue as doxa; unspoken and 'hidden in the wall'. However, the number of women fishers has been increasing, as has women fishers' willingness to organise and mobilise and demand that their voices be heard. In this way, through their fishing practices and their efforts to influence fishing policies, women are challenging gendered meanings of words like fisher, fishing and fishery politics. By doing so, women, although few in numbers, make a difference and can be said to be significant—even though the road to reach equity and equality will be a long and slippery one.

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Compliance with ethical standards

Conflict of interest The authors declare that they have no conflict of interest.

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References

- Andøyposten. 2016. Fiskerinnen fikk fylketslikestillingspris <https://web.retriever-info.com/services/archive/displayPDF?documentId=055097201610049b4640d035744cd743e8cd1532f19771&serviceId=2> (accessed 18.3.2019)
- Balsvik, Randi Rønning. 2001. Kystkvinner i nord: liv, arbeid organisering. *Arbeiderhistorie 2001*. Oslo: Arbeiderbevegelsens arkiv og bibliotek, pp. 121–133.
- Bratrein, Håvard Dahl. 1976. The tradisjonelle kjønnsrollemønstrer i Nord-Norge. In *Drivandes kvinnfolk: om kvinner, lønn og arbeid*, ed. Håvard Dahl Bratrein et al., 21–38. Tromsø: Universitetsforlaget.
- Bourdieu, P. (1977). *Outline of a Theory of Practice* (Cambridge Studies in Social and Cultural Anthropology) (R. Nice, Trans.). Cambridge: Cambridge University Press. <https://doi.org/10.1017/CBO9780511812507>
- Danielsen, Hilde, Eirinn Larsen, and Ingeborg W. Ovesen. 2015. *Norsk likestillingshistorie*, 240 pp. Bergen: Fagbokforlaget.
- Eeg-Henriksen, Fride. 1985. *The role of women in higher education. The case of Norway*, 159 pp. Oslo: NAVF's utredningsinstitutt; 8/85.
- Ekrem, Anne Lise. 15.9. 2018. E-mail correspondence.
- Ellingsæter, Anne Lise, and Jorun Solheim, eds. 2002. *Den usynlige hand: Kjønnsmakt og moderne arbeidsliv*, 424 pp. Oslo: Gyldendal.
- Elstad, Åsa. 2004. *Kystkvinner i Norge*, 168 pp. Oslo: Kommunalt forlag.
- Equality and Anti-Discrimination Act 2019 <https://lovdata.no/dokument/NLE/lov/2017-06-16-51> (accessed 6.7.2019).
- Fiskebåt. 2018. *Lettere for kvinnelige fiskere*. <http://fiskebat.no/nyheter/lettere-for-kvinnelige-fiskere> (accessed 25.9.2018)
- Fiskeri- og kystdepartementet 2008. Forslag til ny forskrift om føring av fiskermanntal <https://docplayer.me/14607478-Forslag-til-ny-forskrift-om-foering-av-fiskermanntal-hoyringsnotat-av-2-juni-2008.html>, page 6, (accessed 6.7.2019)
- Fiskeribladet. 2018. *Nå er det klart – disse får rekrutteringskvote* <https://fiskeribladet.no/nyheter/?artikkel=63464> (accessed 13.11.2018)
- Fiskeribladet. 2019. *Fiskeriministeren utelukker ikke at rekrutteringskvoten skrotes*. Fiskeribladet 20.2.19:6.
- Fiskeridirektoratet. 2018a: *Nytildeling av deltakeradganger (rekrutteringskvoter) 2019* <https://www.fiskeridir.no/Yrkesfiske/Registre-og-skjema/Skjema-yrkesfiske/Deltakeradganger-rekrutteringskvoter> (accessed 20.12.2018).
- Fiskeridirektoratet 2019. *Kystfiskekvoten videreføres*. <https://www.fiskeridir.no/Yrkesfiske/Regelverk-og-reguleringer/Dispensasjoner-og-registreringsordninger/Kystfiskeordningen> (accessed 15.3.2019).
- Fiskeridirektoratet. n.d.a, b and c. *Hovedyrke, biyrke fordelt etter kjønn, og alder (Registered primary/secondary occupation fishermen by age and sex in the years) 1983- 2017*: <https://www.fiskeridir.no/Yrkesfiske/Statistikk-yrkesfiske/Fiskere-fartoyeg-og-tillatelser/Fiskere-fra-fiskermanntallet> (accessed 11.1.2019).
- Fiskeridirektoratet. 2018. *Fartøyregisteret 2018*. Produced by Fiskeridirektoratet, (Directorate of Fisheries). 16.7.2018. <https://register.fiskeridir.no/fartoyreg/?m=fartyoppl&f=1> (accessed 18.3. 2019)
- Flakstad, Anne-Grethe. 1984. *Kan endring innen kvinnearbeid utløse strukturendringer*. In *Myk start hard landing: om forvaltning av kjønnsidentitet i en endringsprosess*, ed. Ingrid Rudie, 64–83. Oslo: Universitetsforlaget.
- Frangoudes, Katia, and Siri Gerrard. 2018. (En) Gendering change in small-scale fisheries and fishing communities in a globalized world. *Maritime Studies*, 2018 17 (2): 117–124.
- Frangoudes, Katia, and José J. Pascual-Fernandez, eds. 2005. *Women in fisheries and aquaculture: Lessons from the past, current actions and ambitions for the future*. *Proceedings of the International Conference AKTEA*, 4–6 February 2004, Santiago de Compostela, Spain. Asociacion Canaria de Antropologia. https://www.researchgate.net/profile/Jose_Pascual-Fernandez/publication/268416668_Women_in_Fisheries_and_aquaculture_lessons_from_the_past_current_actions_and_ambitions_for_the_future/links/54aed7d10cf21670b358740f.pdf 315 pp. (accessed 19.12.2018)
- Gerrard, Siri. 1975. *Arbeidsliv og lokalsamfunn: Samarbeid og skille mellom yrkesgruppe i et nord-norsk fiskevær*. *Magistergradsavhandling*. Institutt for samfunnsvitenskap, Universitetet i Tromsø. 290 pp.
- Gerrard, Siri. 1983. *Kvinner i fiskeridistrikter: Fiskerinæringas bakkemannskap*. In *Kan fiskerinæringa styres?* ed. Bjørn Hersoug, 217–241. Oslo: Novus Forlag.
- Gerrard, Siri. 1995. *When women take the lead: Changing conditions for women's activities, roles and knowledge in North Norwegian fishing communities*. *Social Science Information* 34 (4): 593–631.
- Gerrard, Siri. 2005. *Living with the quotas: Changing gendered practices?* *Tidsskrift for kjønnsforskning* 4: 34–49.
- Gerrard, Siri. 2007. *Quota policy and local fishing: Gendered practices and perplexities*. *Maritime Studies (MAST)* 2007; Volum 6 (2). pp. 53 - 75.
- Gerrard, Siri. 2011. *Mobile practices and gender contracts in fisheries societies*. *Tidsskrift for kjønnsforskning*. pp.: 40–55.
- Gerrard, Siri. 2013. *Mobilities, materialities and masculinities: Interconnected mobility practices in Norwegian coastal fisheries*. *Norsk Geografisk Tidsskrift–Norwegian Journal of Geography* 67 (5): 312–319.
- Gerrard, Siri. 2016. *Kvinner i kystfiske – Gjester ved menns bord?* In *Ulik likestilling i arbeidslivet*, ed. Sigtona Halrynjo and Mari Teigen, 277–298. Gyldendal Akademisk: Oslo.
- Gerrard, Siri. 2017. *Fieldwork in Nordkapp 2017*. Fieldnotes. Tromsø: Center for Women and Gender Research/Department of Social Science, University of Tromsø.
- Grimsrud, Gro Marit, Bjørn Tore Nystrand, and Lovise Kvalsund Otterlei. 2015. *Hva betyr kjønn og kompetanse for hva fiskere gjør når de går i land? Møreforskning Rapport 2015: 66, 68*. Ålesund: Møreforskning.
- Grønbech, Dagrunn. 2008. *Kystkvinner liv og virke: Fra naturalhushold til eniltværelse: En verdighetsbeskrivelse*. In *PhD-dissertation*, 305. Tromsø: Universitetet i.

- Grytås, Gunnar. 2015. *Kvoteparar: Privat rikdom – utarma fiskevær*, 317. Oslo: Samlaget.
- Halrynjo, Sigtona, and Mari Teigen, eds. 2016. *Ulík likestilling i arbeidslivet*, 344. Oslo: Gyldendal.
- Handlingsplan for økt kvinneandel i marin sektor. 2007. <https://www.regjeringen.no/no/dokumenter/handlingsplan-for-okt-kvinneandel-i-mari/id478943/> (accessed 13. April 2016).
- Haraway, Donna. 1988. Situated knowledges: The science question in feminism and the privilege of partial perspective. *Feminist Studies* 14 (3 (Autumn, 1988): 575–599.
- Holtedahl, Lisbet. 1986. *Hva mutter gjør er alltid viktig. Om å være kvinne og mann i en nord-norsk bygd i 1970-årene*, 224. Oslo: Universitetsforlaget.
- iFinnmark 2017. Trude tok tak i Sandra-saken – nå samles de kvinnelige yrkesfiskerne (<https://www.ifinnmark.no/hasvik/porsanger/alta/trude-tok-tak-i-sandra-saken-na-samles-de-kvinnelige-yrkesfiskerne/s/5-81-492381>) (accessed 19.9.2017)
- Jentoft, Svein, ed. 1989. *Mor til rors: Organisering av dagligliv og yrkesaktivitet i fiskerifamilier. Forskningsrapport*, 192 pp. Tromsø: Norges Fiskerihøgskole.
- Jentoft, Svein, and Siri Ulfsdatter Søreng. 2017. Securing sustainable Sami small-scale fisheries in Norway: Implementing the guidelines. In *The small-scale fisheries guidelines: global implementation*, ed. Jentoft Svein, Chuenpagdee Ratana, Barragán-Paladines Maria José, et al., 267–290. Dordrecht: Springer Science.
- Johansen, Ann Mari. 2018. Spleis på et par kvoter slik at vi får unge kvinner inn i fiskeryrket. I *Fiskeribladet* den 13.11.2018. <https://fiskeribladet.no/nyheter/?artikel=63529> (accessed November 16th 2018).
- Klassekampen 10.8.2005. Fra Lofoten med fesk. <https://www.klassekampen.no/7283/article/item/null/fra-lofoten-med-fesk> (accessed 6.7.2019).
- Kleiber, Danika, Katia Frangoudes, Hunter Snyder, Afrina Choudhury, Steven Michael Cole, Kumi Soejima, Cristina Pita, Anna Lavoie, Cynthia Lauren McDougall, Hajnalka Petrics, and Marilyn Porter. 2017: 737-759. Promoting gender equity and equality through the small-scale fisheries guidelines: Experiences from multiple case studies. Svein Jentoft, Ratana Chuenpagdee, María José Barragán-Paladines, and Nicole Franz (eds): The small-scale fisheries guidelines: Global implementation, https://www.researchgate.net/publication/317644549_Promoting_Gender_Equity_and_Equality_Through_the_Small-Scale_Fisheries_Guidelines_Experiences_from_Multiple_Case_Studies (accessed 14 September 2017).
- Klein, Jane Nadel and Dona Lee Davis. 1988. *To work and to weep: Women in fishing economies*. St. John's, Nfld.: Institute of Social and Economic Research. 320 pp.
- Kolle, Nils, Atle Døssland, Arnljot Løseth, and Åsa Elstad, eds. 2014. *Norges fiskeri- og kysthistorie: Ekspansjon i eksportfiskeriene 1720-1880*, 640 pp. Bergen: Fagbokforlaget.
- Kyst og Fjord. 2017. Klar for kvinnesamling. 24 May. <https://www.kystogfjord.no/nyheter/forsiden/Klar-for-kvinnesamling> (accessed 18.9. 2017).
- Kyst og Fjord. 2018. Han stenger ute unge og kvinner! <https://www.kystogfjord.no/nyheter/forsiden/Han-stenger-ute-unge-og-kvinner> (accessed 16.11.2018)
- Kyst og Fjord. 2019 (28.3.). Nå kommer jentene. <https://www.kystogfjord.no/nyheter/forsiden/Naa-kommer-jentene> (accessed 10.7.2019)
- Lie, Merete. 1975. *Kvinner i fiskeindustrien. Magistergradsavhandling*, 135pp. Oslo: Universitetet i Oslo.
- Lotherington, Ann-Therese & Mai-Britt Ellingsen: Små penger og store forventninger -Nettverkskreditt i Norge 1992 – 2002. *Report 08/2002:18*. Tromsø: Norut samfunnsforskning. https://norut.no/sites/default/files/static_files/content/download/2235/14698/SF08-2002-2.pdf (accessed 16.3.2019).
- Munk-Madsen, Eva. 1990. 'Skibet er ladet med køn': en analyse af kønsrelationer og kvinders vilkår i fabrikksskibsflåden. *Hovedoppgave*, Norges fiskerihøgskole, Universitetet i Tromsø.
- Munk-Madsen, Eva. 1996. *Fiskerkøn*. Doktorgrad. Tromsø: Norges fiskerihøgskole, Universitetet i Tromsø.
- Munk-Madsen, Eva. 1998. The Norwegian fishing quota system: Another patriarchal construction?'. *Society & Natural Resources* 11 (3): 229–240. <https://doi.org/10.1080/08941929809381075>.
- Munk-Madsen, Eva. 2000. Wife on the deckhand, husband the skipper: Authority and dignity among fishing couples. *Women's Study International Forum* 23 (3): 333–342.
- Nærings- og fiskeridepartementet. 2018. *Bedre regler for kvinnelige fiskere* <https://www.regjeringen.no/no/aktuelt/bedre-regler-for-kvinnelige-fiskere/id2609402/> (accessed 22.9.2018).
- Fiskarlaget Nord. 2018. Angående rekrutteringskvoter – rekruttering av kvinner til fiskeryrket (Sak 43/18 – 2018) (<https://www.fiskarlaget.no/index.php/medlemslagene/fiskarlaget-nord/dokumenter-fiskarlaget-nord/11-protokoller-styret>) (accessed 16.3.2019).
- Nordlys. 2018. Mari-Ann ... <https://www.nordlys.no/fiskeripolitikk/fiskeri-og-havbruk/tromvik/mari-ann-var-livlos-da-helikopteret-landet-da-hun-ble-ufor-nektet-hun-a-gi-opp-arbeidslivet/f/5-32-109902?access=granted>. Interviewed by Silje Solstad and Linda Vaeng Sæbbe and published June 23.2018 (accessed 7.7.2019)
- Finans Norge (undated): Mangfold og likestilling Finans Norges posisjoner <https://www.finansnorge.no/siteassets/arbeidsgiver/likestilling%2D%2D-mangfold/finans-norges-posisjon-formangfold-og-likestilling-.pdf> (accessed 5.7. 2019).
- Norwegian Ministry of Education and Research undated. https://www.udir.no/globalassets/upload/brosjyrer/5/education_in_norway.pdf (accessed 11.7.2019).
- NRK. 2017. Vil samle fiskerkvinner til kamp mot sladder og misunnelse. 2 March. <https://www.nrk.no/finnmark/vil-samle-fiskerkvinner-til-kamp-mot-sladder-og-misunnelse-1.13405872>).
- NSD undated: Forvaltningsbasen: Fiskerieringens kvinnevalg <http://www.nsd.uib.no/polsys/data/forvaltning/utvalg/10050000> (accessed 9.7.2019).
- Pedersen, Kirsti. 1999. det har bare vært naturlig Friluftsliv, kjønn og kulturelle brytninger *PhD dissertation*. Institutt for samfunnsfag, Norges idrettshøgskole. Oslo: Norges idrettshøgskole. 424 pp.
- Pettersen, Liv Toril. 1994. Hovedsaken er at kjerringa er i arbeid: Husholdsstrategier i fiskerikrisen. Oddmund Otterstad and Svein Jentoft (eds.) *Leve kysten: Strandhogg i Fiskeri-Norge*. Oslo: Ad Notam Gyldendal. Pp. 65-76.
- Pettersen, Liv Toril. 1997. Hovedsaken er at kjerringa er i arbeid: Husholdsstrategier i fiskerikrisen. *Hovedoppgave i sosiologi*, Norges teknisk-naturvitenskapelige universitet (NTNU).
- Pettersen, Liv Toril. 2018. From household business to shareholding companies—Impacts on gender relations and influence in fisheries and fish farming in northern Norway *Maritime Studies* (2018, pp 1-15). <https://doi.org/10.1007/s40152-018-0122-8> (accessed 18.3. 2019)
- Porter, Marilyn. 1995. 'She was skipper of the shore-crew': Notes on the history of the sexual division of labour in Newfoundland. Carmelita McGrath, Barbara Neis and Marilyn Porter (eds.): *Their lives and times: Women in Newfoundland and Labrador: A collage*, St. John's: Killick Press. Pp. 33-47.
- Power, Nicole Gerarda. 2005. *What do they call a fisherman? Men, gender and restructuring in the Newfoundland fishery*. St. John's: ISER Books.
- Rossvær, Viggo. 1998. *Ruinlandskap og modernitet: hverdagsbilder og randsonerfaringer fra et nord-norsk fiskevær*, 186. Oslo: Spartacus.
- Sainsbury, Diane. 2001. Gender and the making of welfare states: Norway and Sweden. *Social Politics: International Studies in Gender, State & Society*, Volume 8, Issue 1, Pages 113–143

- (<https://doi.org/10.1093/sp/8.1.113>) (accessed 11.7.2019).
Published: 01 March 2001
- Saugestad, Sissel. 1988. *artners in entreprise. Institutt for samfunnsvitenskap. Rapport*. Tromsø: Institutt for samfunnsvitenskap.
- Sloan, Lindis, ed. 2004. *Women's participation in decision-making processes in arctic fisheries resource management*. Norfolk: Forlaget Nora and Kvinneuniversitetet Nord.
- St.melding 32 (2018-2019): Et kvotesystem for økt verdiskaping - en fremtidsrettet fiskerinæring. <https://www.regjeringen.no/no/dokumenter/meld.-st.-32-20182019/id2661031/sec9> (accessed 2.7.2019).
- Stortinget. 2013. Centenary of women's suffrage in Norway 1913–2013 <https://www.stortinget.no/nn/In-English/About-the-Storting/News-archive/Front-page-news/2012-2013/Centenary-of-womens-suffrage-in-Norway-1913%2D%2D2013/> (accessed 11.7.2019)
- Thiessen, Victor, Anthony Davis, and Svein Jentoft. 1992. The veiled crew: An exploratory study of wives' reported and desired constructions to coastal fisheries enterprises in Northern Norway and Nova Scotia. *Human Organization* 51 (4): 342–352.
- Tøllefsen, Rolf Bjørnar. 2017. Oppspinn fra Kystens tankesmie. *Nordlys*, 6 September 2017. <http://nordnorskdebatt.no/article/oppspinn-kystens-tankesmie> (accessed 18.3.2019).
- Torsvik, Nils. 16.10. 2018. E-mail correspondence
- Trondsen, Torbjørn, Peter Ørbech, and Arne Luther. 2017. Tøllefsen benekter harde offentlige fakta. *Nordlys*, 8 September 2017 <http://nordnorskdebatt.no/article/tollefsen-benekter-harde> (accessed 18.3.2019).
- Walsh, Deatra E; Gerrard, Siri. 2018. Gender, mobilities and transformation in Loppa, a rural municipality of Norway's High North. *Gender, Place & Culture: A Journal of Feminist Geography*. Doi: <https://doi.org/10.1080/0966369X.2018.1484702>. (accessed 7.7.2019)
- Williams, Meryl J. 2008. Why look at fisheries through a gender lens? *Development* 51: 180–185.
- Willson, Margaret. 2016. *Seawomen of Iceland: Survival on the edge*, 274. Seattle: University of Washington Press.

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