

FEWER FISH THAN FRUSTRATIONS¹: An Analysis of Multiplicity in Knowledge Articulation

Anne-Sofie Christensen

Innovative Fisheries Management – an Aalborg University Research Centre
asc@ifm.aau.dk

Abstract Fisheries conflicts often occur. This paper explores a conflict between fishers and fisheries managers over the sudden closure of a large part of the North Sea, known as the cod box, during the winter and spring of 2001. What is the basis of such conflicts? Why do they persist? In order to understand fisheries conflicts, the empirical case is presented through the lens of buck-passing (Herzfeld 1993), which, I argue, can be interpreted as *rejected knowledge articulations*. In this article, I argue that the persistence of conflicts is based on ontological differences between fishers and managers. The conflicts are not simply about different interpretations of one and the same situation; rather, the object of the conflict – fisheries – is *multiple*. The multiplicity of fisheries is rooted in the different ways in which actors enact fisheries (Mol 2002).

The paper is based on a qualitative analysis of newspapers articles, field-work and key-informant interviews.

Introduction

Depression on Deck (Politiken 2001d), *The Net is Tightened* (Information 2001a), *Over-fishing Behind Cod Moratorium* (Politiken 2001b), *More Illegal Fishing* (Jyllands-Posten 2001a). Such dramatic headlines about fisheries are not unusual in the Danish media. These particular headlines occurred during a period when the cod stock in the North Sea was in severe decline, and this resulted in a reduction in total allowable catches (TACS) and the establishment of a temporary area closure. In particular, the area closure caused frustrations among fishers;² and their objections reached the media.

The area closure, which was put in place in early 2001 and lasted for ten weeks, became known as *the cod box*³. The conflict that arose between fishers and fisheries managers is the empirical focus of this paper. The questions asked are ‘what is the basis of such conflicts?’ and ‘why do they persist?’. The case study will be presented through the lens of *buck-passing* – a concept derived from Herzfeld (1993). Buck-passing is an analytical category for the action of blaming somebody else for a particular situation. Herzfeld interprets buck-passing as a way of displacing responsibility. I will, however, argue that buck-passing should be interpreted as *rejected knowledge articulations*. I understand *knowledge articulations* to be public expressions of how a person perceives a situation. In line with this, I will argue that conflicts are not simply based on different views of the object of conflict.

Instead, conflicts sometimes erupt from differences of an ontological kind: *Cod*, *cod box*, and *fisheries* are each multiple phenomena (Mol 2002). What does it mean that a phenomenon is multiple? The concept is defined by Annemarie Mol (2002) as the ontology of objects or phenomena, which means that no object or phenomenon is singular. Objects or phenomena are enacted in practices which produce different realities. This means that phenomena are different things to people in different everyday routines and practices. Conflicts between fishers and fisheries management are not simply based on different views of the object of conflicts. The object of the conflicts is multiple.

How does multiplicity show up in a public debate regarding an area closure in the North Sea? This paper will show that the arguments of the fishers and managers (the Danish Ministry of Fisheries, other politicians, and the biologists providing advice to the management system) are different: the fishers speak of fisheries in order to show that fisheries are not just an activity at sea, but are omnipresent in and vital to the community. The fishers refer to their everyday practice at sea where they use gear and vessels, and there is a particular smell and a moving deck. The managers decontextualise the fishing industry and reduce it to a manageable phenomenon with established management causalities such as equalising reduction of quota with landings reductions. The managers see fisheries management primarily as the protection of fish. Some politicians talk of cod and the cod box from their own position in the political field; hence, the cod and the cod box become weapons in a political game. They speak of the cod and the cod box as they would do about any other topic for political debate, and they assume their usual ideological positions. Hence, each restriction on fisheries – such as the cod box – is multiple: it may be seen as a restriction on local communities, as a means for the protection of fish stocks, or as just another political issue.

Conflict in the Fisheries Literature

In the social science literature, conflicts between fishers and fisheries managers are well studied (for example Smith 1991; Charles 1992; Eythorsson 1993; Butler 2006). Differences in the kind of knowledge that there is of fisheries have purportedly caused misunderstandings and even conflicts between fishers, authorities and scientists (Delaney *et al.* 2007; Butler 2006; Charles 1992; Smith 1991). Hence, anthropologists, sociologists and other social scientists have turned their attention to fishers' knowledge with interest, and have connected fishers' knowledge with conflicts. Various notions have been used, such as *traditional ecological knowledge* (for example Berkes 1993; Turnbull 1997), *fishermen's environmental knowledge* (for example Johannes *et al.* 2000) or *local ecological knowledge* (for example Mackinson 2001). These concepts describing fishers' knowledge are often defined in opposition to western science: qualitative versus quantitative, embedded versus dis-embedded, intuitive versus rational, *etcetera*. It is argued that fishermen have a fundamentally different kind of knowledge than, for example, scientists (Berkes 1993).

In the literature mentioned above, fishers are argued to possess a different kind of knowledge than biologists regarding topics such as fish fluctuations and

seasonal changes due to their family or local history and to their everyday work at sea (Menzies and Butler 2006; Berkes 1993; Johnson 1992). The literature often emphasises the benefits in fisheries from either taking fishers' knowledge into account when making management decisions, or from integrating fishers' knowledge with that of scientists (McGoodwin 2006; Menzies and Butler 2006; Nadasdy 1999; Sejrsen 2002; Eythorsson 1993). This kind of literature is often richly ethnographic, showing the diversity of people in this world. However, such accounts tend to be accompanied by two biases.

The first bias pertains to the social scientist's image of the fishers, who are often ascribed qualities reminiscent of *the noble savage* (Ellingson 2001). Ellingson's work regarding the myth of the noble savage refers to Rousseau, pointing out that a glorification of the natural life sometimes takes place in anthropological work. As fisheries often are associated with natural life, fishers are often associated with indigenous people. Sometimes the sympathy of the social scientists slides from the indigenous to the fishers (Holm 2003), even though fishers are a heterogeneous group (Christensen and Raakjær 2006) and fisheries is a highly capitalised industry in many countries. Holm has an argument similar to Ellingson: 'Quite often, the dichotomy between science and folk knowledge is arranged so as to overlap with other strong dichotomies, like power versus powerless; western-developed versus non-western-developing; top-down versus bottom up, modern versus traditional, *etcetera*' (Holm 2003:7-8). The fact that knowledge is produced in a given political, economic and management context is often not taken into account. Hence social science researchers do not pay attention to the fishers' political interests when studying their knowledge of fisheries. Fishers do have strong economic and social incentives to influence fisheries management, but little attention has been paid to the fishers' knowledge as a part of a political system (Butler 2006). Two reasons can be found for this bias among social scientists: 1) Fisheries social scientists often position their work in opposition to Hardin's *Tragedy of the Commons*, in which fishers are held to be individual rationalists (Hardin 1968; Feeny *et al.* 1990; Jentoft 2000). In 'Tragedy of the Commons' theories, the fishers become economic actors without any sensitivity towards or knowledge regarding the resource (Hardin 1968; Anderson 1991; Arnason 1984; Clark 1985); in 'anti-Tragedy of the Commons' theories, the fishers are often described as individuals who know are intimately knowledgeable of the ecosystem but who disregard personal economic gain (Berkes *et al.* 1989; Brox 1990; Feeny *et al.* 1990).

The second bias in this literature regards *perspectivalism* (Mol, 2002) wherein fishers and fisheries managers are seen to have different perspectives on a given issue of conflict. Perspectivalistic arguments thus reduce conflicts to the different perspectives that are held to compose them. Following from this, identifying the different perspectives on an issue and integrating them into political advice are often argued to be the proper way to study conflicts in social science (Delaney and Hastie 2007). Perspectivalistic accounts tend to focus on the differences in kinds of knowledge as the cause of a conflict rather than on the substance of the conflict. An example of this is given by Neis and Felt (2000) who focus on how fishers' knowledge differs from that of scientists. However, the differences

in knowledge are mainly owing to the different positions of the actors. The two kinds of knowledge – scientific and lay knowledge – are organised differently and are gathered and organised in order to support different interests and positions. Both parties (fishers and managers) know and live in the same world, so it will provide a better and more thorough understanding of the world to take into account more perspectives of this world. Perspectivalistic studies can be useful and carry important phenomenological lessons. They are constructive when the conflicts are in fact a matter of different perspectives and the parties lack the ability to bridge between their respective perspectives. This will of course often be the case. Therefore such studies can be of great value in understanding how fisheries conflicts unfold. Annemarie Mol (2002) is nonetheless critical of perspectivalistic accounts for two reasons: 1) the object of the conflict is assumed to be unified. This means in terms of the fisheries conflict that the very object of the conflict – fisheries – varies depending on who enacts the situation; 2) the substance of the conflict tends to disappear. When conflicts become a matter of perspectives, then the substance in the conflict (for example restrictions on fisheries) is often disconnected from the analysis.

Multiplicity in Fisheries

The concept of multiplicity is taken from Annemarie Mol's book 'The Body Multiple: Ontology in medical practise'. In this book, Mol investigates how atherosclerosis is practised or *enacted* in a hospital. She demonstrates how atherosclerosis is different phenomena in different enactments. In the doctor's consultation, atherosclerosis is a kind of pain which occurs after having walked less than a certain number of metres. In the radiologist's angiography, atherosclerosis is the change in the lumina on the x-rays of the arteries of the legs. When 'duplex' is used, atherosclerosis becomes changes in the blood velocity. For the surgeon, atherosclerosis is stenoses of the arteries, which can be removed by surgery. Mol gives many more examples in her rich ethnography. On the basis of the many ways in which the disease is enacted in different settings in the hospital, Mol argues that the various medical practices relating to atherosclerosis each enact a different version of this object. Her conclusion is that atherosclerosis as an object is *multiple*.

Hence, the concept of multiplicity is introduced as an ontology of objects or phenomena, which says that no object or phenomenon is singular; objects or phenomena are enacted in practices that produce different realities. Mol focuses on enactment, which is essential in understanding multiplicity; *to enact* connotes that objects or phenomena are attuned to, interact with, and are shaped in various practices that produce different realities (Mol 2002).

When we translate multiplicity into the world of fisheries, a cod is not simply a fish swimming in the sea. A cod is indeed a fish, an organism of flesh and bones. At the same time, however, it is a scarce resource, which is the basis for a certain kind of life; a number in statistics; a form of currency; and an object of management. Fishers enact fisheries in one way (they fish) and fisheries managers enact it in another way (they manage or enact their politics through fisheries).

The two groups live in different worlds which mean having different enactments regarding fisheries.

Conflicts in fisheries are thus not just based on different kinds of knowledge or different perspectives: the object of conflict itself, fisheries, is not unified but multiple. Yet fishers and fisheries authorities think of conflict in perspectivalist terms: if the opposite party does not share one's position, they must have misunderstood it or have an agenda arising from their institutional positioning. The implication, therefore, is that both parties assume that the cod or the cod box are unified objects. Yet, in keeping with Mol, I argue that they are actually speaking of different things when discussing the cod box.

Research Methods and Data Material

The paper is based on four complementary studies: 1) anthropological field work in a fishing village close to the cod box; 2) participation in an inter-disciplinary, EU funded research project: *Policy and Knowledge in Fisheries Management (PKFM)*; 3) retrospective interviews with key informants; and 4) a thorough analysis of the written media from 2001 to 2004. The first three of these studies contribute to this paper through the understanding of the existing contexts during instances of buck-passing while the fourth study addresses the patterns present in buck-passing and provides the empirical quotations for this paper. Each of these studies is further explained in the following bullet points.

- I conducted anthropological fieldwork during and after the cod-box closure living and fishing in a fishing village on the periphery of the affected area (Christensen 2002). Even though the fieldwork focused on why fishers were motivated to fish in a modern society, the cod box and fishers' knowledge were central themes, since discussions on the effectiveness of the cod box were omnipresent.
- *Policy and Knowledge in Fisheries Management (PKFM)* was an inter-disciplinary project to identify and understand shortcomings in European fisheries policy and its implementation. The project focused on knowledge production and decision-making within the EU, the interrelationships between these processes and the role of stakeholders and the public media. The North Sea cod fishery was adopted as a case study (Schwach *et al.* 2007).
- Analysis of the public debate was supported by approximately twenty single interviews and follow-up interviews with key people such as Danish fisheries officials, fisheries journalists, fishers and other stakeholders.
- The analysis of buck-passing (Herzfeld 1993) is based on all newspaper articles in the Danish media regarding the North Sea cod from early 2001 until the autumn 2004.⁴ There was a total of 193 newspaper articles from the written Danish media and 293 articles from *Fiskeri Tidende*, the weekly paper of the Danish Fishermen's Association. The term *debate* refers to contents of and statements made in this collection of articles. The debate was inductively analysed using NUD*IST, a textual data analysis software, using a methodological

approach based on *grounded theory* (Glaser and Strauss 1967). The themes of the database were developed inductively based on the arguments in the debate.

The newspapers in the debate serve different purposes. The central difference lies between the daily press and *Fiskeri Tidende*. One of the more important tasks for the daily newspapers is to report changes in management regulations or developments in local communities. *Fiskeri Tidende* is the largest single source of information on fisheries and is broadly acknowledged by officials, stakeholders and others as the forum for debating fisheries issues. Every week, *Fiskeri Tidende* prints several letters-to-the-editor, mainly from fishers, but also from other stakeholders (for example recreational fishers, fishers' families, environmental organisations, and the eco-inshore-fishers from the Danish Society for a Living Sea), biologists and politicians. Given that fishers are not just fishers, but also citizens with the right to vote, *Fiskeri Tidende* also serves as the place for politicians to communicate their points of view⁵ on fisheries issues. These issues are rarely discussed in election campaigns, since fisheries is a small industry in Denmark (less than one percent of GNP). In the late autumn of 2001, an election for the Danish Parliament took place, manifesting itself in *Fiskeri Tidende* through the politicians' increased interest in fisheries. Sometimes *Fiskeri Tidende* served as a release valve for the frustrations of the fishers. The paper published drawings and jokes such as: 'Why is there no more cod left in the North Sea? They have all gone to Brussels'⁶ (*Fiskeri Tidende* 2001e). The punch line here relates to the double meaning of cod which, in Danish, is used as a slightly more polite word for a stupid person.

Buck-Passing

The case study is presented through the analytical lens of *buck-passing* (Herzfeld 1993). The fundamental question of Herzfeld's book is how bureaucracy is maintained, even though it produces inequalities in societies that are thought to be democratic. In his book, Herzfeld provides us with a range of examples – in other words how the use of certain language or symbols can benefit the user in a bureaucratic system. Buck-passing is a mechanism for maintaining the system, as it fills out the mismatch between the ideal and the real world; between the ideals of an egalitarian community and the reality of mistakes that unavoidably will take place when humans are responsible for management and decision making in bureaucracy.

Buck-passing is an analytical category for the action of blaming somebody else for an unfortunate situation (Herzfeld 1993). Herzfeld sees buck-passing as displacement of responsibility. I argue that buck-passing cannot be seen as excuses and the displacement of responsibility, but should rather be seen as *rejected knowledge articulations*. I use the term *knowledge* according to Barth (2002), who states that knowledge is: '...what a person employs to interpret and act on the world' (Barth 2002:1). This is in line with Mol's concept of enactment as the producer of multiplicity; different enactments produce different knowledge and, *vice versa*, different knowledge produces different enactments. Consequently, *knowl-*

edge articulations are public expressions of how a person perceives the situation; when these articulations are rejected by the public I note them as *rejected knowledge articulations*. My analysis of the debate shows that the main part of the debate between the fishers and fisheries management systems has to do with questions such as: *Who is to blame? Who is to take responsibility for the situation?* The debate focuses less on how to improve the situation. I will, however, argue that the buck-passing should be seen as rejected knowledge articulations rather than as a way of displacing responsibility.

Evidence

What is the story behind the North Sea cod? Looking at the graphs in Figure 1, it is clear that it is a sad story. Since the 1990s, the TACS for the cod in the North Sea and Skagerrak⁷ have declined dramatically.

Figure 1. The Danish quota in the North Sea and Skagerrak from 1998 to 2006. (Danish Directorate of Fisheries 2007)

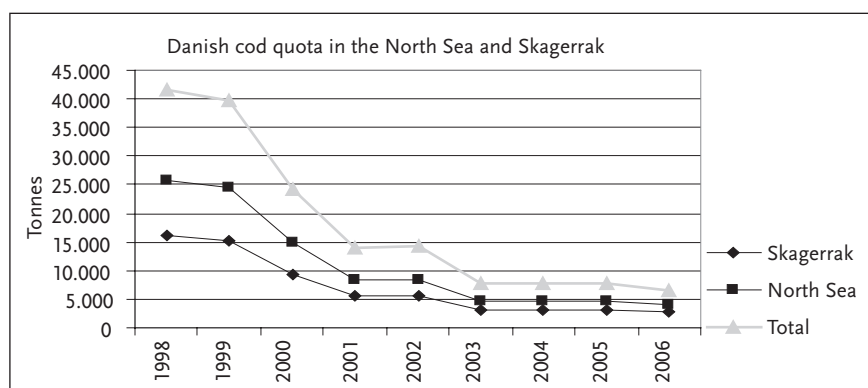


Figure 2. The overall institutional set-up of Danish fisheries management. Institutions such as the EU Parliament, DG Fish and advisory committees such as ACFA or STECF could rightfully have had a place in the model, but have been left out for simplicity.

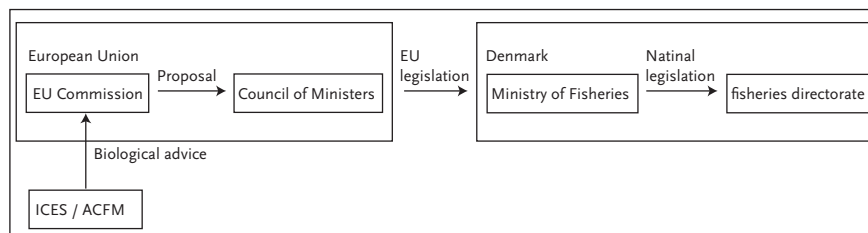


Figure 2 shows an institutional map of the decision-making process in the fisheries management system of the EU. The International Council for the Exploration of the Sea (ICES) advises the EU Commission on the setting of TACS. Since 2001, ICES has recommended closing cod fisheries, and this has to some extent been supported by the Commission and the EU Commissioner for Fisheries. If this has been implemented, it would have meant no (Danish) fisheries for demersal species in the North Sea, as none of these fisheries can claim to take place without quantities of by-catches of cod. The Council of Ministers is the decision-making body in the EU and claims to balance biological, economic, and social objectives when setting the TACS. The Council has not followed the advice from ICES since the cod TAC had been set higher than recommended year after year. After the annual setting of TACS, they are divided into national quotas: the member states are allocated the same percentages of the different TACS every year – a principle known as *relative stability*.

Economically, cod is the most important species for the demersal fishers in Denmark. In 2000, before the cod box and the dramatic TAC reductions, an average of seventy percent of the income in the port of Thorsminde came from the cod fishery. In 2004 the cod dependency was down to approximately thirty percent of the income for the fishers. Thorsminde is one of the more cod dependent ports (Fiskeri Tidende 2001c). Such statistics contribute to an understanding of the seriousness of the debate in some local areas.

At the same time, other solutions to the economic problems of fisheries have failed. An increase in the price of fish has often compensated Danish fishers for the lower quotas, since prices tend to increase when the supply of fresh cod goes down. The price of cod is usually high compared to most other species, but increasing cod prices did not serve as a buffer for reduced catches this time. The average price of a kilo of cod at the auctions remained remarkably stable;⁸ 19.85 Danish Kroner (2.67 Euro) in 2000 and 20.13 Danish Kroner (2.71 Euro) in 2004.⁹ However, the fishers in Thorsminde had been able to partially substitute other species for cod. In the same period, average income fell by approximately twenty percent¹⁰, which is much less than the missing income from cod.

The cod fisheries of the North Sea are carried out from ports on the periphery of Denmark in areas with only a small amount of industry besides the fishery. The dependency on fisheries in the municipalities on the west coast of Denmark is quite high. For instance, in the municipalities of Holmsland or Hanstholm¹¹ sixty to seventy percent of the income in 2002 came from taxes on the fishery and fisheries related industries (Fiskeri Tidende 2001c; Information 2001b).

However, the overall reduction in the TAC is not the only change in the management of the cod fisheries. In late January 2001, the EU and Norway bilaterally decided to close for ten weeks a large area of the North Sea for all commercial fishing – the closure was named *the cod box*. They were concerned about the condition of the cod stock. The explanation given by the Danish Minister of Fisheries for the closure was that the cod should undisturbed in the spawning area during spawning season (Ritzeaus Bureau 2001a). In the years before the closure, the largest part of the annual incomes of the demersal fishers was earned during these ten weeks of the year.

In Denmark, the closure was the starting point for increased inspections of cod fishing. Apart from increased inspection in general, two new principles were introduced: 1) It became illegal to land cod anywhere else other than at the authorised fish auction sites; 2) It became compulsory to report to the fisheries inspectors two hours before arriving at port. These increased regulations caused frustration for fishers.

Most of the North Sea cod is caught in mixed fisheries. Other species than cod have also been subject to changed regulations. The TACS for Norway lobster have increased, which may have saved many of the demersal fishers from going bankrupt. In parallel with the cod recovery plan, a recovery plan for hake was devised, and in the autumn of 2003 a recovery plan for plaice was suggested. The cod fishers also catch hake and, in particular, plaice. The final long-term recovery plan (Council regulation: 423/2004) to bring the cod stock up to 150,000 tonnes was adopted as late as summer 2004. The overall recovery plan mainly prolonged the existing policies and TACS relating to cod.

Buck-Passing During the Cod Box

The Danish demersal fishers and their organisation, the 'Danish Fishermen's Association' (DFA) were discontentment with the cod box – the exact ten weeks of its imposition comprised the economically most important season for the fishers. One of the headlines in *Fiskeri Tidende* was: 'From incredulity to elementary, violent anger'.¹² The headline was followed by a joke to ease the tension: 'Fishing prohibited? That's something you write on the dockside to prevent anglers from fishing'¹³ (*Fiskeri Tidende* 2001b).

The fishers were dissatisfied with the EU and Norway and claimed that a closure of this kind would do no good because fishing was not the (only) reason for the low cod stock. The fishers pointed to other industries, which they claimed were polluting the sea and thus ruining the cod stock (*Ritzaus Bureau* 2001b). In particular, the oil drilling industry in the North Sea was a target (*Berlingske Tidende* 2001a). The fishers supported their arguments by pointing to specific drilling areas, where large amounts of cod used to be caught, or by saying that drilling took place in a spawning area. The fishers wanted the scientists to look into these matters. They also wanted the relevant industries to be held accountable and to provide compensation for their wrongdoings to society and to the fishers (*Berlingske Tidende* 2001a).

Other fishers pointed to climatic changes affecting the North Sea. The fishers argued that the southern line for cod was moving north as the water temperature in the North Sea increased. They gave an example of this by showing that within recent decades the most southern port for demersal fisheries in Denmark had moved approximately forty kilometers north from Esbjerg to Hvide Sande (*Politiken* 2001c). Some of the fishers suggested that if the cod was disappearing anyway, they might as well maintain their living while it lasted. Later this argument was used by the fishers to say that the target level of the cod stock should be much lower, since the cod area in the sea had been reduced so heavily due to changes in temperature (*Fiskeri Tidende* 2002). Another fisherman stated: 'The North Sea is so full of herring that the cod spawn has been eaten up. So it won't

help at all to reduce fishing.¹⁴ (Fiskeri Tidende 2001a). The interaction between cod and herring is a recurrent topic for discussion.

The fishers were also unhappy with the Danish Minister for not representing them in a proper way, and with the Danish Parliament for not wanting to give them compensation for the lost catches. The president of the Danish Fishermen's Association and official spokesperson for the fishers, Bent Rulle, said: 'This [financial compensation for lost catches] is only fair because the fault lies within the system. We have not fished more than what the politicians have decided. We have followed the advice from the biologists, the EU Commission and the Danish government'¹⁵ (Politiken 2001a).

On the other hand, Ritt Bjerregaard, the Danish Minister of Fisheries at the time, pointed out that farmers would then claim compensation for bad weather or for similar spurious reasons (Ritzaus Bureau 2001b). She indicated that the fishers had overfished the seas and should thus be part of the process of rebuilding the stock: 'So much has been fished that the cod stock has fallen to a level where steps towards recovery have to be taken'¹⁶ (Politiken 2001a). She also referred to the EU and her powerlessness in this specific case, emphasising that she had not made the decision alone (Ritzaus Bureau 2001a).

The political opposition to the Minister of Fisheries in the Danish Parliament also entered the debate from both sides of the political spectrum. Representatives from the liberal parties on the right wing passed the buck to the centre/left wing minister for her lack of will to act in favour of the fishers. Their point was that fisheries was economically important in certain rural areas of Denmark and should thus be taken seriously. An example is a letter to Fiskeri Tidende from H.C. Nordahl Thomsen, the fisheries spokesman for the Liberal Youth of Denmark (Venstres Ungdom). In his letter, he criticised the Minister of Fisheries for her lack of will to help the fishers by compensating for their losses caused by the cod box. He claimed that the fishers had not been heard in the process, and that the political decisions directly prevented them from carrying out their job (Jyllands-Posten 2001c).

A local politician running for national parliament later in 2001, Lene Espersen, who is usually in favour of the EU, spoke the language of the fishers in the fishers' newspaper: 'The madness must stop now. The Common Fisheries Policy of the EU clearly shows these days that it cannot meet the task of ensuring a sensible stock development and a reasonable, forward-looking fisheries regulation'¹⁷ (Fiskeri Tidende 2001a). Terms such as *madness* are often used by fishers to describe the CFP.

The Minister and the EU were also the target of the other side of the parliament, the EU-critical left wing. For example, the fisheries spokesperson, Kresten Touborg from the EU-critical party, Socialistisk Folkeparti, said that in their opinion the box was not where it should have been and added: 'the box is a regular political horse trade'¹⁸ (Fiskeri Tidende 2001d). He also used the Common Fisheries Policy (CFP) and the cod box as an illustration of how bureaucratic and how distant the EU is from Denmark and from the Danes in general (Information 2001a).

Another political stakeholder was the Mayor of Hvide Sande, a fisheries dependant municipality. He stated: 'These restrictions will have serious conse-

quences for our local community and the cod box will only make the situation worse' ¹⁹ (Fiskeri Tidende 2001a).

The EU representatives refer to biological research showing the crisis in the cod stock. EU bureaucrats explain the geographical location of the closed area by saying that they cannot decide where the cod should spawn; this is for the biologists to know (Ritzaus Bureau 2001c).

The deputy-director of the Fisheries Directorate, Birgit Bolgann, said: 'I cannot say that the inspection has caught many fishers fishing illegally since the beginning of the year. But it is obvious that we can expect increased illegal fisheries; so we will increase our efforts with respect to inspection'²⁰ (Jyllands-Posten 2001a). The president of the Danish Fishermen's Association (DFA) supports this suggestion, stating: 'Laws should be complied with, no matter how ridiculous they are'. Others, for example a biologist from DFA and chairs of local fishers' associations, pointed out that the fishers were being criminalized, even though all they wanted was to be allowed to fish (Fiskeri Tidende 2001d).

A former chair in ICES and deputy director of the Danish Institute for Fisheries Research (DIFRES), Eskild Kirkegaard, made a public comment that ICES had made no recommendations to close the area for fisheries. In fact he thought that the closure would have very little, if any, effect on the stock of North Sea cod (for example Berlingske Tidende 2001b) because only fifteen percent of the spawning took place in that area (Information 2001b). This perspective was supported by the fishers, and, of course, it opened up the debate all over again.

Fisheries Conflicts as Buck-Passing

Herzfeld interprets buck-passing as passing responsibility for a situation to others or to the system as such. This interpretation is based on the tension between the idea of the faceless bureaucracy and the individual human being who does the assessments, regulations, interventions, and, sometimes, who makes mistakes. Intuitively, Herzfeld's ideas are persuasive since most of us have encountered the bureaucracy he describes.

I will argue, however, that buck-passing, in the context of the cod box debate cannot be reduced to a way of dealing with the disappointment with a system that does not do what the affected individuals had hoped for – as Herzfeld presents it. On the basis of the cod box case study, I argue that (at least a large part of) buck-passing should be viewed as rejected knowledge articulations.

The authorities did not have to convince fishers that the cod stock was declining – they already knew that. I conducted fieldwork during the time of the cod box; and the fishers agreed that something had to be done in order to improve the situation of the cod stocks (Christensen 2002). The fishers' participation in the debate expresses a willingness to address and accommodate themselves to the issue. Moreover, fishers and managers have, in principle, the same intention: both fishers and managers aim for fisheries to be biologically, economically and socially sustainable. This is *in principle* because they do not agree on how biological, economic and social sustainability in fisheries are to be achieved. Hence, when

the contents of buck-passing are vital to the individual, the individual is expected to be motivated to change or solve the situation. The motivation to displace the blame and the responsibility for the situation are expected to be much weaker. As the debate over the cod box showed, agreement stopped when it came to deciding how to deal with the situation and how to ensure future fish and fisheries.

But what happens analytically to the case study if buck-passing is not only to be seen as displacement of the responsibility, but also as rejected knowledge articulations; as unsuccessful attempts to explain yourself and the situation?

Seeing buck-passing as rejected knowledge articulations would indicate that the debaters see the situation differently, both in terms of defining what is critical in the situation and in terms of proper ways to deal with it. Continuously repeated buck-passing would be an indication of a more general reluctance to recognise the other party's arguments. Neither of the involved parties accepts the other party's explanations or knowledge articulations as valid. Explaining these differences by assigning the fishers and managers different kinds of knowledge of the resource would mean overlooking important parts of the context, for instance the political and economic stakes, the institutional positioning and capabilities, *etcetera* (Butler 2006; Christensen *et al.* 2007).

Fisheries Multiple

Fishers and fisheries managers enact fisheries differently. Buck-passing shows the diverse enactments between the debaters. It should be noted that other central phenomena in the debate are multiple – for example 'cod': nobody talks of cod as a biological unit, a fish. Rather it is seen as the backbone in the community; as a fragile animal needing protection; as numbers in statistics; as something that can be managed by restricting fisheries. It also shows that the situation of the cod and the cod box are used in different respects in the public debate.

The fishers' arguments are based on their everyday lives at sea. The fishers argue that there are different causes underlying the cod situation, since they do not see fisheries as solely responsible. They argue that many things influence the situation of the cod: pollution, the oil drilling industry, water temperature, climate changes, too many herring, arbitrary bureaucracy of the ICES rectangles, *etcetera*. The fishers see these things as important to the cod stock and encourage researchers and politicians to look into these matters. Hence, to the fishers, cod is the victim of many different circumstances. The fishers argue further that cod fisheries are the mainstay of their communities on the west coast, and that the Fisheries Ministry should be held economically responsible for mismanagement of the cod.

The politicians talk of cod and the cod box from their own positions in the political field. Hence, the cod and the cod box become weapons in a political game. The politicians from the fisheries-dependent areas report the serious threats to local community livelihoods. The Minister of Fisheries refuses to discuss the assorted causes behind the situation of the cod stock, referring instead only to over-fishing. This gives her the justification for cutting back on the fisheries without giving the fishers economic compensation.

The political opposition to the government criticises the Minister by saying that she is not adequately meeting her responsibilities towards the fishers, both with regard to her participation in the decision-making process, and her unwillingness to help the fishers by compensating their losses caused by the cod box. The EU-critical left wing of the parliament uses the CFP and the cod box as illustrations of how bureaucratic and how distant the EU is to Denmark and the Danes.

The EU representatives refer to biological facts of the cod stock and explain the geographical location of the closed area by saying that they cannot influence where the cod should spawn.

When comparing the arguments of the fishers, the Ministry and other politicians (both from the Danish political opposition and the EU) the ontological differences begin to appear: the fishers argue that fishing pressure is not the reason for the decreasing cod stock; they argue that many things influence the fish stocks. Their arguments are based on their everyday life at sea. They refer to their experience with gear, vessels, particular smells and the moving deck of their fishing vessels. They further argue that fisheries are not just an activity at sea, but are omnipresent in and vital to the community. Fisheries are the foundation of their society, and hence something valuable to preserve. To the fishers the cod box is a meaningless threat to their everyday life and their community. The fishers do not deny that the cod stock is declining; but in their opinion other measures than the cod box are needed to stop the decline. The Fisheries Minister takes the fishing industry out of context, and reduces it to a manageable phenomenon. The Minister primarily sees fisheries management as a question of protecting the fish; and the cod box is a technical measure in fisheries management. As the Minister is the link between the EU and the Danish fishers, she has to explain the cod box to the fishers. She does so by explaining that the cod box is a way of reducing fishing pressure; and in that way the cod stock and the fisheries are both protected in the long run. Consequently the cod box is for the fishers' own good. Besides linking the decline in fish stock with fisheries; the cod box is another political case to the Minister; she is not willing to compensate for the fishers' losses, and she has to defend herself against the political opposition by pointing to the EU. The Fisheries Minister and the other politicians do not discuss whether the cod box is beneficial to the cod stock. Neither do they discuss knowledge articulations from the fishers – at least not in the public newspapers. They do not discuss if fisheries need to be managed in other ways in order to achieve a sustainable cod stock in the North Sea, or if other measures need to be taken to help the cod stock, for instance in relation to other industries.

The Persistence of Conflicts

Conflicts between fishers and managers like the one presented in this paper have been starting and stopping since the introduction of the CFP in the 1970s. One could be tempted to see the relations between fishers and managers as a classic hierarchy triangle with managers above the fishers implementing and enforcing rules on their everyday life. In principle, this makes sense: in principle, managers can lower the TAC and catches decline – this is ensured by the hierarchical relationship and through enforcement. Yet, as we have seen, in the real world, fishers

and managers live in different worlds with different practices and with different understandings of what is important and what is less important. This is in line with Mol's concepts of multiplicity and enactment. Remembering their different rationalities, values, and political agendas is important when asking the question, why do the conflicts persist over such a long time?

I argue that the reason the conflicts persist is that the relations between fishers and managers are not of classic hierarchical kind; rather they are hierarchical in the sense that Dumont (1966) offers: he argues that hierarchies cannot be understood from the principles of pyramidal hierarchy: some factors and phenomena make sense in some contexts, but not in others. And some factors have social capital in some contexts while not in other contexts. He calls this *the encompassment of the contrary*, which is defined as: 'The element belongs to the set and is in this sense consubstantial or identical with it; at the same time, the element is distinct from the set or stands in opposition to it' (Dumont 1966:240). Hence, he understands that positions in a hierarchy are socially relative: using the caste system in India as an example, a person of low caste can have high status within his/her own caste owing to social capital within the caste. This hierarchy within the caste does not reduce the authority or the overall hierarchy of the caste system in the overall community (Dumont 1966).

Translating *encompassment of the contrary* to the relations between the fishers and fisheries managers, this picture of the hierarchy between them would emerge: the fishers live with and enact fisheries in their way, and managers in another. Their worlds are rarely forced to meet. But when they do; the differences in their enactments of fisheries show more clearly. Hence, in their every day worlds both parties can justify their own understandings of fisheries and dismiss each other's understandings by disputing the other's enactment of fisheries. For instance, when fishers are in their own world they can argue that people in the fisheries management system do not know the fisheries, because they have not been out to sea fishing. Meanwhile, fisheries managers can argue that fishers act short-sightedly and want to maximise their own benefit from fisheries, so they do not understand the broader implications of fisheries management. Biologists may claim that fishers do not use standard scientific research methods, so how can their knowledge be anything but anecdotal? According to politicians, they are the ones who make the best decisions to ensure that fisheries are biologically, economically and socially sustainable over time by balancing the socio-economic factors with biological conditions. The EU sceptics illustrate their concerns; the local politicians show the fishers how they could represent them in parliament; and the political opposition ensures that the government stays alert. The fishers communicate their disagreement on fisheries issues in the public debate. Everybody deals with the situation according to his or her position in the debate. And since they are rarely forced to meet, the fishers and the managers can live parallel to each other, rejecting each other's knowledge articulations over time, and, hence, the conflicts persist.

Concluding Remarks

In this paper, I have argued that by seeing fisheries conflicts through a lens of buck-passing, the conflicts can be seen as an expression of rejected knowledge articulations. I have also argued that the persistence of conflicts, in the form of continued rejection of knowledge articulations, is based on a fundamental ontological difference between fishers, managers, biologists and others. That is, the conflicts are not simply about different interpretations of one and the same situation. Instead, they come about because these actor groups participate in and enact different kinds of fisheries. The key objects of conflict are *multiple*. Such multiplicity becomes clearer in situations of crisis and is essential in understanding the persistence of conflicts.

Multiplicity is essential in understanding the persistence of fisheries conflicts. The argument is twofold. On one hand, the multiplicity of the objects of conflicts makes the focus of the debate unclear, since the debaters assign different meanings to the key issues, which are the cod and the cod box. On the other hand, given the differences in enactments, fishers and fisheries managers can justify their own understanding and thus dismiss each other's arguments by disputing the other's enactment of fisheries. For instance, the fishers can argue that fisheries managers and politicians do not know the fisheries, as they have not been out at sea fishing. Fisheries managers and responsible politicians can argue that fishers act short-sightedly and want to make the most of the fisheries, so they do not understand the broader implications of fisheries. Politicians in opposition to the government argue according to their position in Parliament – either by arguing the fishers' case or just against the capability of the Minister to set her foot down in the EU. Or the biologists can argue that fishers do not use the research methods we all agree upon, so their knowledge can only be anecdotal. Given that fishers and fisheries management enact fisheries differently, and that these enactments produce different perceptions of the world, these perceptions can justify the dismissal of each other's arguments. This is a circular effect, leaving little space for resolution of the conflict.

The cod box area re-opened for fishing after ten weeks in mid-May 2001, and the debate between fishers and authorities fell silent for a while. The fishers were too busy fishing to demonstrate and write letters to the editor. Their organisation, the Danish Fishermen's Association, continued doing their regular lobby-work in Brussels and their work on the advisory boards for the Danish Minister of Fisheries; but all this work took place outside the public media.

The cod box was later named the first step of the cod recovery plan. The second step of this plan came in June 2002, when a number of technical measures were introduced. In particular, mesh sizes were increased. This step caused little debate, because the Danish fishers, who usually start the debate, are generally in favour of bigger mesh sizes.

January 1st 2003 was the deadline for the reform of the Common Fisheries Policy of the EU. The most important change for the demersal fishers in Denmark was that in addition to the traditional quota system, a system of days-at-sea was introduced for all fishers in the EU. The Danish demersal fishers were initially given

nine days-at-sea per month. Until this point, the Danish demersal fishers had not been subjected to serious effort limitations, and the conflicts and buck-passing started all over again.

If fisheries are multiple, how can conflicts be resolved? The conflicts between fishers and fisheries management are not going to solve themselves. Can fisheries conflicts be understood through a lens of multiplicity per se? Mol says: 'Presenting the body multiple as the reality we live with is not a solution to a problem but a way of changing a host of intellectual reflexes' (Mol 2002:7). However, following the idea of multiplicity, a common object of conflicts needs to be constructed, which is a more demanding process than sharing perspectives. What does *construction of a common object* mean? Well, fishers and managers need to agree on what they disagree on. This would require awareness from both parties of the multiplicity in their object of conflict.

To come to this awareness is a challenge for research. In my forthcoming PhD dissertation, I argue for the importance of inter-disciplinarity within fisheries sciences. However, inter-disciplinarity is tricky. Multiplicity of fisheries exists not only between fishers and fisheries managers. It also exists between fisheries researchers. Many disciplines feel that they have input to the solution of the conflicts within fisheries, and the various disciplines enact fisheries differently through their various methods and theories (Degnbol *et al.* 2006). Since no discipline can make exclusive, empirical claims to fisheries, a number of parallel disciplines work on finding a solution to the problems in fisheries. While doing this they disregard the multiplicity of the objects and the research of other disciplines. As thorough understanding of fisheries conflicts and their complexity is needed in order to solve them, researchers are obliged to work together in understanding the fisheries conflicts.

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Notes

- 1 Jyllands-Posten, 2001b.
- 2 The term 'fishermen' in this paper refers to the demersal fishermen on the west coast of Jutland. These fishermen are not a homogeneous group (Christensen and Raakjær 2006) as they may appear in this paper, but they all seemed to agree on the matter of the cod-box.
- 3 Translated from: 'Torskekassen'.
- 4 The first six months of 2001 was by far the most intensive period because of the cod-box.
- 5 Mainly politicians with pro-fisheries perspectives find their way to Fiskeri Tidende.
- 6 Brussels is the city where the EU has its headquarters.
- 7 Skagerrak is mentioned here to show that the North Sea fishermen had no easy alternatives to the North Sea cod, as the situation in Skagerrak, to which they would normally switch, was quite similar to the one in the North Sea in terms of TACS on cod.
- 8 Given the development in prices in general, it is in reality a price reduction.
- 9 The prices peaked in 2003 at 20.63 Danish Kroner (Danish Directorate of Fisheries 2007).
- 10 All figures from the annual report of the local fisheries organisation in Thorsminde.
- 11 Figures obtained from the Mayor's office.
- 12 Translated from: 'Fra vantro til elementær, voldsom vrede'.
- 13 Translated from: 'Fiskeri forbudt? Det er da noget, man skriver på molerne, når man ikke vil have lystfiskerne stående med deres stang'.
- 14 Translated from: 'Nordsøen er i dag spækket med så mange sild, at torskens rogn bliver ædt. Så det hjælper ikke en pind at stoppe og nedskære fiskeriet'.
- 15 Translated from: 'Det er kun rimeligt, for det er systemets skyld. Der er ikke fisket mere, end politikerne har vedtaget, og vi har rettet os efter biologernes rådgivning, efter kommissionen og den danske regering'.
- 16 Translated from: 'Man har fisket så meget, at torskebestanden er nået så langt ned, at der må foranstaltninger til, så den kan genoprettes'.
- 17 Translated from: 'Nu må galskaben høre op. EU's fælles fiskeripolitik demonstrerer med al tydelighed i disse dage, at man hverken er sig sit ansvar voksent om at sikre en fornuftig bestandsudvikling, eller sikre en forsvarlig, fremadrettet fiskeriregulering'.
- 18 Translated from: 'Kassen er en regulær politisk studehandel'.
- 19 Translated from: 'De restriktioner, der er gennemført, får betydelige konsekvenser for vort lokalsamfund, og det torskestop, der nu er kommet, vil blot forværre situationen'.
- 20 Translated from: 'Jeg kan ikke sige, at Fiskerikontrollen har taget mange i at begå ulovligt fiskeri siden nytår. Men det er nærliggende at vente et øget ulovligt fiskeri, og derfor skærper vi indsatsen'.

References

- Anderson, L.G.
1991 A note on market power in ITQ fisheries. *Journal of Environmental Economics and Management* 21:291-296.
- Arnason, R.
1984 *Efficient Harvesting of Fish Stocks: The Case of Icelandic Demersal Fisheries (Mimeograph)*. Vancouver, University of British Columbia.
- Barth, F.
2002 An Anthropology of Knowledge. *Current Anthropology* 43(1):1-11.

- Berkes, F.
1993 Traditional Ecological Knowledge in Perspective. In: Julian T. Inglis (Ed.), *Traditional Ecological Knowledge – Cases and Concepts*. International Program on Traditional Ecological Knowledge and International Development Research Center, Canada.
- Berkes, F., D. Feeny, B.J. McCay, J.M. Acheson
1989 The benefit of the commons. *Nature* 340:91-93.
- Berlingske Tidende
2001a January 25th: Fiskere rasende over torskestop.
2001b February 17th: Biolog-kritik af fiskestop.
- Brox, O.
1990 The Common Property theory: Epistemological status and analytical utility. *Human Organization* 49(3):277-235.
- Butler, C.
2006 Understanding the Coho Crisis: Political Knowledge in a Fractured Salmon Fishery. *MAST* 4(2):73-92.
- Charles, A.T.
1992 Fishery conflicts: A unified framework. *Marine Policy* 16(5):379-393.
- Christensen, A.-S.
2002 *You can always eat fish*. Combined field report and master project. Department of Ethnography and Social Anthropology, University of Aarhus [Danish].
- Christensen, A.-S., J. Raakjær
2006 Fishermen's tactical and strategic decisions – A case study of Danish demersal fisheries. *Fisheries Research* 81:258-267.
- Christensen, A.-S., J. Raakjær, T. Olesen
2007 The voices of Danish fishermen in resource management – An examination of the system of negotiated economy. *Ocean and Coastal Management* 50(2007):551-563.
- Clark, C.W.
1985 *Bioeconomic modelling and fisheries management*. New York: Wiley Interscience.
- Danish Directorate of Fisheries
2007 www.fd.dk.
- Degnbold, P., H. Gislason, S. Hanna, S. Jentoft, J.R. Nielsen, S. Sverdrup-Jensen, and D.C. Wilson
2006 Painting the floor with a hammer: Technical fixes in fisheries management. *Marine Policy* 30(5):534-543.
- Delaney, A.E., A. McLay, W. van Densen
2007 Influences of Public Discourse on Decision-making in EU Fisheries Management: The Case of North Sea Cod (*Gadus morhua*). *ICES Journal of Marine Science* 64(4):804-810.

- Delaney, A.E., J. Hastie
2007 Lost in Translation: Differences in Role Expectations and Identities between Fisheries Scientists and Managers. *Ocean & Coastal Management* 50(8):661-682.
- Dumont, L.
1966 *Homo Hierarchicus: The Caste System and Its Implications*. Chicago: The University of Chicago Press.
- Ellingson, T.
2001 *The Myth of the Noble Savage*. Berkeley, California: University of California Press.
- Eythorsson, E.
1993 Sami Fjord Fishermen and the State: Traditional Knowledge and Resource Management in Northern Norway. In: J.T. Inglis (Ed.), *Traditional Ecological Knowledge – Concepts and Cases*. Ottawa: Canadian Museum of Nature: 133-142.
- Feeny, D., F. Berkes, B.J. McCay, J.M. Acheson
1990 The Tragedy of the Commons: Twenty-two years later. *Human Ecology* 18(1):1-19.
- Fiskeri Tidende
2001a January 25th.
2001b February 1st.
2001c February 8th.
2001d February 15th.
2001e March 1st.
- Glaser, B.G., A.L. Strauss
1967 *The Discovery of Grounded Theory: Strategies for Qualitative Research*. Chicago: Aldine Publishing Company.
- Hardin, G.
1968 The Tragedy of the Commons. *Science* 162:1243-1248.
- Herzfeld, M.
1993 *The Social Production of Indifference – Exploring the Symbolic Roots of Western Bureaucracy*. Chicago, The University of Chicago Press.
- Holm, P.
2003 *Folk knowledge according to science. Submitted to Canadian Journal of Sociology*. Tromsø: Norwegian College of Fishery Science.
- Information
2001a March 1st: Nettet strammes.
2001b February 24th: Hvide Sande: Før kunne vi fiske os ud af sorgerne.
- Jentoft, S.
2000 Legitimacy and disappointment in fisheries management. *Marine Policy* 24(2000):141-148.

- Johannes, R.E., M.M.R. Freeman, R.J. Hamilton
2000 Ignore fishers' knowledge and miss the boat. *Fish and Fisheries* 1(3):257-271.
- Johnson, M.
1992 *LORE: Capturing Traditional Environmental Knowledge*. Yellowknife: Dene Cultural Institute, International Research Center.
- Jyllands-Posten
2001a January 24th: Mere ulovligt fiskeri.
2001b January 25th: Færre fisk end frustrationer.
2001c February 6th: Ritt B. skader dansk fiskeri.
- Mackinson, S.
2001 Integrating Local and Scientific Knowledge: An Example in Fisheries Science. *Environmental Management* 27(4):533-545.
- McGoodwin, J.R.
2006 Integrating fishers' knowledge into science and management – possibilities, prospects and problems. In: Charles R. Menzies (Ed.), *Traditional Ecological Knowledge and Natural Resource Management*. Lincoln, University of Nebraska Press:175-192
- Menzies C.R., C. Butler
2006 Introduction – Understanding Ecological Knowledge. In: Charles R. Menzies (Ed.), *Traditional Ecological Knowledge and Natural Resource Management*. University of Nebraska Press:1-17.
- Mol, A.
2002 *The body multiple: Ontology in medical practice*. Duke University Press, Durham.
- Nadasdy, P.
1999 The politics of TEK: Power and the 'integration' of knowledge. *Arctic Anthropology* 36(1-2):1-18.
- Neis, B. and L. Felt (Eds.)
2000 *Finding our sea legs: linking fishery people and their knowledge with science and management*. St. John's, Newfoundland: Institute of Social and Economic Research.
- Politiken
2001a January 25th: Mere kontrol med fiskere.
2001b January 30th: Overfiskning bag stop for torsk.
2001c March 17th: Olieudslip kan skade torsk.
2001d April 4th: Depression på dækket.
- Ritzaus Bureau
2001a January 24th: Ritt skeptisk overfor kompensation.
2001b January 24th: Rulle: Fiskeristop på et lille lands bekostning.
2001c January 24th: Midlertidigt stop for fiskeri.
- Sejrsen, F.
2002 *Local knowledge, Sustainability and Visionscapes in Greenland*. Eskimologis Skrifter number 17, University of Copenhagen.

- Smith, M. E.
1991 Chaos in Fisheries Management. *MAST* 3(2):1-13.
- Schwach, V. *et al.*
2007 Policy and knowledge in fisheries management: a policy brief.
ICES Journal of Marine Science 64(4):798-803.
- Turnbull, D.
1997 Reframing Science and Other Local Knowledge Traditions.
Futures 29(6):551-562.