

MACALISTER ELLIOTT AND PARTNERS LTD

Public Certification Report

**Saithe (*Pollachius virens*) fishery
by Scapêche and Compagnie de Pêche de St. Malo**

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Report summary

This report is the public certification report of the MSC assessment of the fisheries for saithe by the French fishing companies Scapêche and Compagnie de Pêche de St. Malo under the framework of the Association Nationale des Organisations Producteurs (ANOP). The fishing companies both target saithe but have different strategies: Scapêche also targets monkfish, hake and deep-water species and lands fresh fish into Scotland, Ireland and France from nine vessels. The Compagnie de Pêche de St. Malo has only one vessel targeting saithe (the Grande Hermine) that fishes mainly in the NE Arctic, also targeting cod and haddock and landing frozen, processed product into Norway, Germany or France.

Overall, the evaluation was positive and MEP's recommendation is that both fisheries should be certified to the MSC standard. However, MEP proposes that conditions be placed on this certification for both fisheries. MEP also notes that the average score for both fisheries for Principle 2 was close to the minimum possible for certification (80) and therefore recommends more generally that each fishery conducts a general review of its activities in relation to the requirements of Principle 2.

For Scapêche, the average score for Principle 1 was 90.6 and there are no proposed conditions. For Principle 2 the average score was 81, with two PIs scoring below 80, leading to one proposed condition. For Principle 3 the average score was 88.1 with no conditions. The proposed condition relates to the potential interaction of this fishery with a protected species – the common skate *Dipturus batis*, where the team felt that information on possible catches by this fishery were not sufficient to assess fully the level of impact.

For the Compagnie de Pêche de St. Malo, the average score for Principle 1 was 90.6 and there are no proposed conditions. For Principle 2 the average score was 80, with four PIs scoring below 80, leading to three proposed conditions. For Principle 3 the average score was 88.1 with no conditions. The proposed conditions relate to i) the information available on the potential interaction of this fishery with the common skate (identical to the condition proposed for Scapêche); ii) the full implementation of current and future conservation regulations in regard to common skate; and iii) the avoidance of sensitive habitats.

Résumé du rapport

Ce rapport est le rapport de certification publique de l'évaluation MSC des pêcheries de lieu noir par les compagnies de pêche française Scapêche et la Compagnie de Pêche de Saint-Malo dans le cadre de l'Association Nationale des Organisations Producteurs (ANOP). Ces compagnies de pêche ciblent toutes les deux le lieu noir, mais ont des stratégies différentes: Scapêche cible également la baudroie, le merlu et des espèces d'eaux profondes et décharge du poisson frais en Ecosse, Irlande et en France de neuf bateaux. La Compagnie de Pêche de Saint-Malo n'a qu'un seul bateau (la Grande Hermine) ciblant le lieu noir qui pêche principalement dans le nord est de l'Arctique, ciblant également la morue et l'églefin et qui décharge des produits transformés et congelés en Norvège, en Allemagne ou en France.

Globalement, l'évaluation a été positive et la recommandation de MEP est que les deux pêcheries devraient être certifiées aux normes MSC. Toutefois, MEP propose que des conditions soient mises sur cette certification pour les deux pêcheries. MEP note aussi que le score moyen pour le Principe 2 pour les deux pêcheries a été proche du minimum possible pour la certification (80). MEP recommande donc plus généralement que chaque pêcherie procède à des révisions générales de ses activités en relation avec les exigences du Principe 2.

Pour Scapêche, le score moyen pour le Principe 1 était de 90,6 et il n'y a pas de conditions proposées. Pour le Principe 2, le score moyen était de 81, avec deux PI ayant un score en dessous de 80, entraînant une condition proposée. Pour le Principe 3, le score moyen a été de 88,1, sans conditions. La condition proposée porte sur les interactions potentielles de cette pêcherie avec une espèce protégée – le pocheteau gris *Dipturus batis*, dont l'équipe a estimé que les informations sur d'éventuelles prises par cette pêcherie ne sont pas suffisantes pour apprécier pleinement le niveau de l'impact.

Pour la Compagnie des pêches de Saint-Malo, le score moyen pour le Principe 1 était de 90,6 et il n'y a pas de conditions proposées. Pour le Principe 2, le score moyen était de 80, avec quatre PI ayant un score en dessous de 80, entraînant trois conditions proposées. Pour le Principe 3, le score moyen a été de 88,1, sans conditions. Les conditions proposées concernent: i) les informations disponibles sur les interactions potentielles de cette pêcherie avec le pocheteau gris (identique à la condition proposée pour Scapêche), ii) l'application intégrale des règles de conservation actuelles et futures concernant le pocheteau gris, et iii) éviter des habitats sensibles.

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1. Introduction

1.1 General background

The Marine Stewardship Council (MSC) is a non-profit organisation which aims to use market mechanisms to support the long-term sustainability of marine fisheries. MSC has developed a standard for well managed and sustainable fisheries, and an associated methodology for assessing individual fisheries against the standard – this collectively is now called the Fisheries Assessment Methodology (FAM) (1). The standard and methodology is periodically updated. This assessment uses version 1 of June 2008 - the current version at the time the assessment was started. Assessments are carried out by private companies (Certification Bodies – CBs) who are accredited to carrying out MSC assessments by the accreditation organisation Accreditation Services International (ASI).

This report is the public certification report for the fisheries for saithe (*Pollachius virens*) in the North Sea, West of Scotland and North Norway (ICES Subareas I, II, IIIa, IV and VI) by two fishing companies – Scapêche and the Compagnie de Pêche de St. Malo, which are linked by their membership of ANOP – the Association Nationale des Organisations Producteurs, who are the overall coordinating body for this assessment. The report has been prepared by an assessment team from the CB MacAlister Elliott and Partners Ltd. (MEP). The report has already been subject to comment, review and formal objections by the clients, peer reviewers, stakeholders and MSC, and the review and objections period is now over.

1.2 Client

The clients for this assessment are the fishing companies ‘Scapêche’, based in Lorient (Brittany, France) and ‘Compagnie de Pêche de St. Malo’, based in St. Malo (Brittany). The overall coordinating body is the Association Nationale des Organisations Producteurs (ANOP), based in Quimper (Brittany). Scapêche has nine vessels in the Unit of Certification, while the Compagnie de Pêche de St. Malo has one – details of vessels and operations are given below.

1.3 Unit of certification

The unit of certification defines exactly what is being assessed and certified. It is set out at the beginning of the assessment process (in the Notification Report to MSC).

This report covers two Units of Certification: Scapêche and the Compagnie de Pêche de St. Malo. These Units of Certification are discussed in detail below:

Scapêche: Scapêche fishes for saithe mainly in ICES Subarea VI (West of Scotland) and to a lesser extent IV (North Sea). The same stock is considered to be present in both these zones (7). Scapêche also fishes to a small extent in ICES Subarea VII (West of Ireland), and also has some quota in Subarea Vb (Faroës) although they have not visited

this area in recent years. Catches from these two Subareas have been excluded from the Unit of Certification for Scapêche because of inadequate information about and/or management of the stocks. This issue is discussed in more detail in the section on Chain of Custody below. All nine Scapêche vessels have the right to fish for saithe in the relevant areas and are therefore included in the Unit of Certification. For details on the vessels see below. Scapêche also participates in several other fisheries: targeting deep-water species, monkfish and hake in addition to saithe. The deep-water fishery never overlapped with the saithe fishery (i.e. no saithe is ever caught when deep-water species were the target) so this fishery was not considered in the assessment. However, the monkfish and hake fisheries were considered in the assessment where they overlapped with saithe (i.e. any saithe caught as retained by-catch during a tow for monkfish or hake in the relevant ICES Subareas is also included in the Unit of Certification).

Compagnie de Pêche de St. Malo: The Compagnie de Pêche de St. Malo has one vessel that fishes for saithe – the Grande Hermine (details of the vessel given below). The Grande Hermine participates in two fisheries: the North Sea saithe fishery (in ICES Subareas IIIa, IV and VI) and the Northeast Arctic cod/haddock/saithe fishery (in ICES Subareas I and II). These two fisheries target separate stocks of saithe: the North Sea stock and the Northeast Arctic stock. Both these stocks are included in the Unit of Certification.

1.4 Assessment team and peer reviewers

The assessment team was made up of three experts, each of whom have competences in fisheries assessment, marine ecology and fisheries management – i.e. in each of the three Principles of the MSC standard. All three experts therefore had equal input on the scoring of each PI in each of the three Principles. For the purpose of drafting the rationales and reporting, each member of the team took responsibility for one of the Principles, and their drafts were then reviewed and revised by the other two team members.

The assessment team was composed of the following individuals:

Prof. Jean-Claude Brêthes: Jean-Claude is professor of fisheries science at the Institut des Sciences de la Mer, Université de Québec à Rimouski and an expert in fisheries analysis and stock assessment. He has been involved in three previous MSC assessments – the Gulf of St. Lawrence northern shrimp fishery, the Euronor saithe fishery and the Mauritania mullet fishery (trial assessment), and is also involved in one other ongoing assessment – the Normandy-Jersey lobster fishery. Jean-Claude was responsible for Principle 1.

Dr. Jo Gascoigne: Jo is the Director for Fisheries Certification at MEP and a former research lecturer in marine biology at Bangor University. She has been involved in two previous assessments (Euronor saithe and Mauritania mullet trial assessment) and is involved in five ongoing assessments (UK Fisheries / DFFU / Doggerbank saithe, northern Menai Strait mussel, Normandy-Jersey lobster, SARPC toothfish and Tristan da Cunha rock lobster). Jo was responsible for Principle 2, and was the Project Manager for the assessment.

Ulf Löwenberg: Ulf is an independent fisheries consultant with many years of experience in fisheries assessment and management in Europe and West Africa. He has been involved in four MSC assessments (German Kutterfische saithe, Euronor saithe, German Baltic herring and Swedish Skagerrak and North Sea herring and sprat), and is also involved in another ongoing assessment (UK Fisheries / DFFU / Doggerbank saithe). Ulf was responsible for Principle 3.

The peer reviewers were the following individuals:

Dr Jan Hiddink: Dr Hiddink is a lecturer in Marine Ecology. School of Ocean Sciences, Bangor University, and an expert on marine and fisheries ecology; particularly the ecology of important commercial species and the ecosystem impacts of fishing activities. His publications include both modelling and field studies on various aspects of fisheries, benthic ecosystems and climate change.

Helen Davies: Helen Davies is a private consultant specialising in sustainable fisheries management and oceans governance. Helen has worked for UK Government agencies (DEFRA, English Nature and Scottish Natural Heritage) and environmental NGOs (mainly WWF) in marine resource management for over 20 years. She has also worked closely with small scale fisheries in East Africa and aquaculture operations in New Zealand.

CVs for these experts and the peer reviewers are available on the MSC website.

1.5 Report structure

The report is structured as follows:

- Section 1: Introductory material;
- Section 2: Background on the species, fishery, catches of target and by-catch species, interactions with ETP species and with other fisheries;
- Section 3: The management system;
- Section 4: Stock assessment and stock monitoring;
- Section 5: The MSC assessment process;
- Section 6: The scoring process;
- Section 7: Results of the assessment;
- Section 8: Certification recommendation and conditions;

Section 9: Chain of custody information;
 Section 10: Client Action Plan;
 Annex 1: Assessment tree;
 Annex 2: References;
 Annex 3: Summary of stakeholder comments;
 Annex 4: Peer reviewer reports and responses;
 Annex 5: MSC comments on Public Comment Draft Report (no stakeholder comments received)

2. Background to the fishery

2.1 Target species

Saithe (lieu noir, *Pollachius virens*) is a large fish in the cod family (Gadidae). It is distributed across the North Atlantic in the Barents Sea, around Greenland and Iceland, in the North Sea and as far south as the Bay of Biscay and North Carolina (although rare on the edges of this range) (2,3). It is gregarious, and is known to migrate ontogenetically and for spawning. Adult saithe are piscivorous, feeding on smaller fish (3,4).

In the eastern Atlantic, juvenile saithe are distributed in coastal waters – in the fjords on the coast of Norway, for example. They mature age around 3 years, and at the same time migrate offshore where they live as adults roughly between 200 and 400 m depth (4).

2.2 Vessels, gear and fishing operations

2.2.1 Scapêche

Scapêche has nine vessels in this fishery, as shown in Table 1.

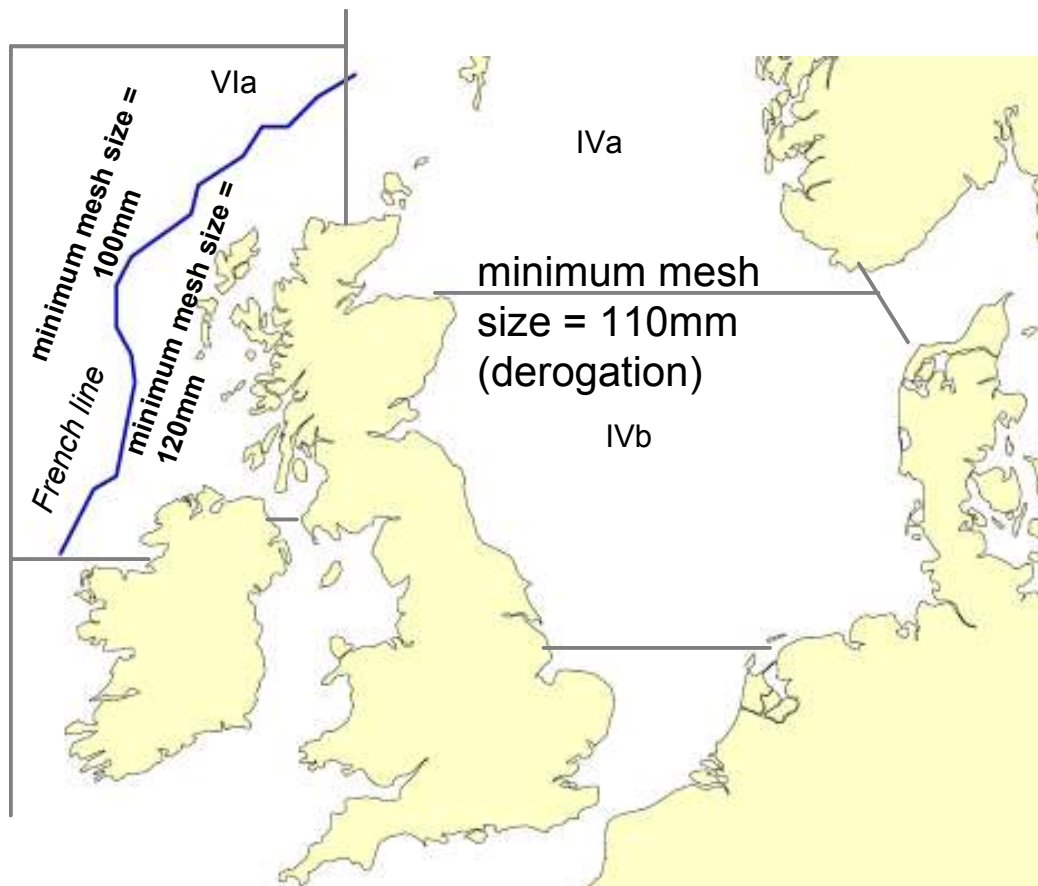
Table 1. Scapeche vessels with details of their size and operation

Vessel	Length (m)	Gear type	Home port	Main port of operation / landing
Mariette Le Roch II	46	single otter trawl	Lorient	Lochinver (Scotland)
Jean-Claude Coulon II	46	single otter trawl	Lorient	Lochinver
Jack Abry II	46	single otter trawl	Lorient	Lochinver
Héliotrope	33	single otter trawl	Lorient	Lochinver / Lorient / Killybegs (Ireland)
Claude Moinier II	33	single otter trawl	Lorient	Lochinver / Lorient/ Killybegs
Pierre Jacques Matigny	33	single otter trawl	Lorient	Lochinver / Lorient/ Killybegs
Julien Coléou	30	twin rig	Lorient	Lochinver/ Killybegs

Rossoren	28	twin rig	Lorient	Castletownbere (Ireland) / Killybegs
Fastnet	28	twin rig	Lorient	Castletownbere/ Killybegs

The three 46m vessels land most of the saithe. They operate in 9-10 day trips out of Lochinver fishing off west and north Scotland – mainly in ICES Subarea VI but also in Subarea IV. The target species of the fishery are saithe, hake, monkfish and various deep-water species are also targeted. The vessels return to Lorient once a year for maintenance. The 30m vessel works in the same way except in twin-rig. The three 33m vessels also operate in a similar way, except that they fish in Subareas VI and occasionally VII, return to Lorient every second trip and land a lower proportion of saithe. The 28m vessels fish in Subarea VII targeting monkfish and land very little saithe. The required mesh size is 110 mm in the North Sea (derogation from 120 mm). In Subarea VI the mesh size is 120 mm inside the ‘French line’ (with a square mesh panel for targeting saithe) and 100 mm outside (see Figure 1). Only one mesh size can be on board at any given time (a legal requirement), so the mesh size used varies from trip to trip.

Figure 1. Mesh size regulations for the saithe fishery in the North Sea and West of Scotland. The French line is shown in blue.



2.2.2 Compagnie de Pêche de St. Malo

The Compagnie de Pêche de St. Malo has one vessel that targets saithe – the Grande Hermine. The vessel is 60m long and fishes with a single demersal trawl, using 140 or 160 mm mesh in the Arctic, and 120 mm mesh in the North Sea. It makes 70-90 day trips, mainly in ICES Subarea I and II (Northeast Arctic) targeting cod and haddock with some saithe by-catch. It occasionally fishes in Subarea IV (northern North Sea) targeting saithe. It lands at Hammerfest, St. Malo and occasionally Cuxhaven and Bremerhaven.

2.3 Description of gear

For the Grande Hermine, the trawl is equipped with 7.20m² trawl doors weighing 2 tonnes each. The bottom line (with rockhopped disks) is 35m long, and the trawl opening is roughly 30m long by 5m high. The used in the Arctic trawl has a sorting grid with 80 mm grill (although regulations require a 55mm grill) to remove any small fish without damage.

The gear for Scapêche vessels is variable depending on the vessel and rig (twin vs. single) but is all considerably smaller than that used by the Grande Hermine.

2.4 Saithe catch

Catches of saithe for 2008 for each vessel are given in Table 2.

Table 2. Catches of saithe in tonnes in 2008 for each vessel in the Unit of Certification

Company	Vessel	Saithe catch (tonnes live weight)
Scapêche	M Le Roch II	537
	J Abry II	1343
	JC Coulon II	723
	J Coléou	3.6
	Matigny PJ	66
	Heliotrope	50
	C Moinier II	40
	Fastnet	0
	Rossoren	0.2
Compagnie de Pêche de St. Malo	Grande Hermine (NE Arctic)	115
	Grande Hermine (North Sea)	684

2.5 Retained species, by-catch and interactions with ETP species

The MSC standard distinguishes between retained species and by-catch, with retained species those that are kept and marketed along with the target species, and by-catch those that are discarded (1). This distinction is important because retained species feature in the logbooks and discarded species do not.

Retained species as listed in logbooks are given in Tables 3-5. For Scapêche, species that are never targeted with saithe (i.e. species from the deep-water trawl fishery) are not included. For the Grande Hermine, the total catch is given.

Table 3. Retained species catch by Scapêche vessels. Percentages are calculated on the basis of live weight equivalent. Species are listed in order of size of landings.

species (fr)	species (en)	species (sci.)	catch (tonnes live weight)	% catch*
lieu noir	saithe	<i>Pollachius virens</i>	2763	23.5
baudroie	monkfish	<i>Lophius piscatorius</i>	1265	10.8
lingue franche	ling	<i>Molva molva</i>	995	8.48
merlu	hake	<i>Merluccius merluccius</i>	909	7.74
mostelle	forkbeard	<i>Phycis phycis</i>	319	2.72
chimere	rabbitfish	<i>Chimaeridae</i>	275	2.34
brosme	tusk	<i>Brosme brosme</i>	170	1.45
raies	skates and rays	<i>Rajidae</i>	127	1.08
cardine	megrin	<i>Lepidorhombus whiffiagonis</i>	109	0.93
églefin	haddock	<i>Melanogrammus aeglefinus</i>	80	0.68
rascasse	scorpionfish	<i>Scorpaenidae</i>	65	0.55
cabillaud	cod	<i>Gadus morhua</i>	64	0.54
encornet	squid	<i>Loligo vulgaris</i>	45	0.39
pocheteau noir	long-nose skate	<i>Dipturus oxyrinchus</i>	11	0.1
grondin gris	grey gurnard	<i>Eutrigla gurnardus</i>	3.8	0.03

* this does not add up to 100% because species that are never caught with saithe (from the deep-water trawl fishery) have been excluded from this list.

Table 4. Catches by the Grande Hermine from logbook data from the North Sea (ICES Subareas IIa and IV) . Percentages are calculated on the basis of live weight equivalent. Species are listed in order of size of landings.

species (fr)	species (en)	species (sci.)	catch (tonnes live weight)	% catch
lieu noir	saithe	<i>Pollachius virens</i>	684	98.5
églefin	haddock	<i>Melanogrammus aeglefinus</i>	5.1	0.74
merlu	hake	<i>Merluccius merluccius</i>	3.1	0.45
lingue	ling	<i>Molva molva</i>	2.0	0.29
raie	rays	<i>Rajidae</i>	0.03	<0.01
brosme	tusk	<i>Brosme brosme</i>	0.10*	0.08*

* zero catch in 2008 – these figures from 2007

Table 5. Catches by the Grande Hermine from logbook data from the northeast Arctic (ICES Subareas I and II) . Percentages are calculated on the basis of live weight equivalent. Species are listed in order of size of landings.

species (fr)	species (en)	species (sci.)	catch (tonnes live weight)	% catch
lieu noir	saithe	<i>Pollachius virens</i>	115	4.52
cabillaud	cod	<i>Gadus morhua</i>	2143	84.5
églefin	haddock	<i>Melanogrammus aeglefinus</i>	259	10.2
sébaste	redfish	<i>Sebastes marinus / mentella</i>	13	0.50
loup	wolf fish	<i>Anarhichas lupus</i>	6.9	0.27
flétan noir	Greenland halibut	<i>Reinhardtius hippoglossoides</i>	0.37	0.01
lingue	ling	<i>Molva molva</i>	0.53	0.02
flétan de l'Atlantique	Atlantic halibut	<i>Hippoglossus hippoglossus</i>	0.11	<0.01
raie	rays	Rajidae	0.89*	0.03*

* zero catch in 2008 – these figures from 2007

There is very little discarding associated with these fisheries, particularly for the Compagnie de Pêche de St. Malo which operates most of the time in Norwegian waters where discarding is forbidden. Species discarded (by both companies) may include some small pelagics (horse mackerel, argentine) and very small numbers of rays, benthic sharks and grenadiers.

As regards endangered or protected species, the key interaction is with the common skate (*Dipturus batis*) which may occasionally be caught in these fisheries. The common skate is listed on the IUCN Red List as critically endangered (5) and is protected under EU fisheries legislation (6). The latest ICES advice recommend that target fisheries for this species should not be permitted and measures should be taken to minimize bycatch (38).

2.6 Ecosystem context

The North Sea and north / west Scotland ecosystem is relatively shallow (generally <200m) is strongly affected by both saline inflows from the north (North Atlantic Drift). It is highly productive ecosystem, with primary productivity generally highest in the south, coastal regions and at tidal fronts. A wide range of information exists on the North Sea ecosystem, including oceanography, plankton, nutrients, benthos, fish distribution and abundance, and the interactions between these components. As regards the interactions of fish species such as saithe within the North Sea ecosystem, feeding habits have been examined using stomach contents data. These studies have been used as the basis for the Multispecies VPA programme developed for the North Sea by the ICES Multispecies Assessment Working Group, which estimates the predation mortalities for nine commercially important fish stocks by key fish species, seabirds and seals. ICES takes these ecosystem-level impacts into account in fisheries assessment and advice (7,8).

The Barents Sea also has extremely high primary production and supports rich biological diversity including some of the world’s numerous colonies of seabirds such as puffin and guillemot and large stocks of demersal fish, which both feed mainly on large populations of small pelagics such as capelin and herring. Benthic ecosystems include kelp-forests and numerous deep-water coral reefs. The Barents Sea supports a wide variety of marine mammals such as walrus and polar bears and various species of cetaceans. Less information is available on the Barents Sea ecosystem than on marine ecosystems further south (9).

2.7 Interactions with other fisheries

In the North Sea, a dozen or so countries report saithe landings (7). Norwegian, German and French fleets take the majority of the catch (7; Table 6); the majority of all three fleets are already MSC certified or have certification underway (10,11,12,13). Those fleets prosecute a directed trawl fishery in deep water along the Northern Shelf edge and the Norwegian Trench. The UK fishery is also important (7) and the most important UK operator is also under assessment (13).

Table 6: Reported landings of saithe in the North Sea and West of Scotland in 2008 (7).

Country	2008 Reported landings North Sea and West of Scotland (IV and VI) (tonnes)
Denmark	8 069
France	15 302
Germany	14 141
Norway	62 055
UK	11 701
Other countries	3 249
Total	114 517

Norway’s saithe fishery is by far the most important in the Northeast Arctic (Table 7), and involves a variety of gears (trawls, purse seines, Danish seines, gillnets and handlines). There may be occasional discards in these fisheries (16). Russia also reports some saithe landings and other countries may also land limited amounts (11, Table 7).

Table 7: Reported landings of saithe in the Northeast Arctic in 2008 (8).

Country	2008 Reported landings Northeast Arctic (tonnes)
Faroe Islands	1543
France	302
Germany	2766
Norway	166 263
Portugal	335
Russia	11 577
UK	418
Other countries	372
Total	183 443

There are many other fisheries in the northern North Sea and the Arctic, but most do not interact particularly with this fishery. Incidental saithe catches occur in other demersal fisheries and discards may exist in fisheries which do not have a saithe quota (7). Overall, however, scientists consider that those discards are not significant compared to total landings (7).

In the North Sea, the most significant interaction of the saithe fishery is with cod (an important retained species under strict quota control), and the intensity of that interaction is considered by ICES as medium (7,14). In the Arctic, interaction is considered by ICES to be high with cod (target species) and medium with redfish (8,15,16,17). These fisheries are all considered in detail by the assessment. Interactions with other fisheries are considered by ICES to be low or negligible.

3. Management System

3.1 Legislative context

The fisheries take place in both EU and Norwegian waters, and are therefore managed under an international agreement between the EU and Norway, which has been in force since 1980 (18, Council Regulation 2214/1980). The EU and the Norwegian Government meet annually to review management measures for the fishery and to determine the TAC. Within the EU, the fisheries in managed under the framework of the Common Fisheries Policy (CFP). EU Regulation 2731/2002 (19) sets out the framework and objectives for the CFP, and enables the Commission regulate individual fisheries. The principal regulations relevant to the saithe fishery are i) the annual TAC and national quotas (6); ii) technical measures such maximum trawl mesh sizes and minimum landing sizes (6); and iii) those associated with the North Sea Cod Recovery Plan (20).

3.2 Organisations involved in management

Several organisations are involved in the management of this fishery :

- ICES is responsible for assessing the stock and giving scientific advice on management and the level of the TAC (see below)
- The North Sea RAC (Regional Advisory Council) is the stakeholder group for North Sea fisheries, which provides an opinion to the European Commission on management measures (see below)
- The Long Distance RAC performs the same role for the Northeast Arctic fisheries.
- The European Council of Ministers makes the final decision on the management of the fishery (TAC, regulations), based on a proposal from the European Commission, that follows prior negotiations between the Commission and Norway (shared stock)
- The Ministère de l'Alimentation, de l'Agriculture et de la Pêche is responsible for dividing up the French quota to Producer Organisations (note however that it retains ownership of the quota on behalf of the French nation)
- Compagnie de Pêche de St. Malo belongs to the Producer Organisation FROM Nord
- Scapêche belongs to the Producer Organisation Pêcheurs Manche Atlantique (PMA) (formed by the recent merging of the POs PROMA and FROM Bretagne) and the Producer Organisation OPOB in the case of the Fastnet and the Rossoren.
- Compagnie de Pêche de St. Malo obtains some North Sea saithe quota from the fishing company Euronor, via FROM Nord.

3.3 Harvest control rules and tools

The main management measure for the saithe stocks is control of harvest via an annual TAC, which is divided into quotas for each fishing company. The TAC and quotas are set as follows:

1. For each stock, ICES provides scientific advice on the status of the stock. The ICES Advisory Committee proposes a total allowable catch (TAC) selected from a range of TAC options, including those that are consistent with the precautionary approach and the EU-Norway management plan. This is done on an annual basis.
2. The final TAC is decided by the European Council of Ministers following annual negotiation between the Commission and Norway, and taking into account any implementation of the EU rule restricting the change in TAC between years to 15%. They are not obliged to follow ICES' advice; however, since 2001 the TAC for saithe has been set at or slightly below the level proposed by ICES (7,8).
3. This TAC is divided between the EU and Norway by negotiation.
4. The EU TAC is then divided between Member States. In 2009, France received a TAC of 31 035 tonnes from the EU allocation (6).
5. The French quota is divided up by the French Government (Ministère de l'Alimentation, de l'Agriculture et de la Pêche). In 2009, of the 31 035 tonne quota, 5 492 tonnes were exchanged, and the rest (25 543 tonnes) was allocated to two

Producer Organisations – FROM Nord and PMA. Scapêche gets 90% of the saithe quota allocated to PMA. The saithe quota allocated to FROM Nord (larger than that of PMA) is shared between the Compagnie de Pêche de St. Malo (who receive much of the Northeast Arctic quota) and another fishing company (Euronor in Boulogne-sur-Mer) who receive most of the North Sea quota. Some North Sea quota is subsequently reallocated to the Grande Hermine via FROM Nord, by agreement with Euronor.

There are also other management regulations on EU saithe fisheries, which are set by regulation by the EU under the framework of the CFP and the EU-Norway management plan (6). There is a minimum size limit of 35cm for saithe in EU waters and 40cm in Norwegian waters. The trawl mesh size in the North Sea (Subarea IV) must be at least 110mm (a derogation from the standard 120mm for this fishery because of low cod by-catch). In Subarea VI the minimum mesh size is 100mm to the west of the 'French line' and 120mm to the east. In the Northeast Arctic waters under Norwegian jurisdiction the minimum mesh size is 135mm.

There are also management measures in the fishery associated with the Cod Recovery Plan for Subareas IV and VI – these include quotas, capacity and effort limitations and real-time closures in areas where high juvenile cod catches or aggregation of mature cod for reproduction are reported. These last are a UK initiative applying to the UK (Scottish) part of EU waters (in the case of these fisheries, nearly all the EU waters are Scottish waters), but are now mandatory for all EU vessels.

3.4 Management plan and objectives

The North Sea / West of Scotland saithe stock has management objectives defined by a management agreement between the EU and Norway. The specific objectives defined in this plan are the following : i) spawning stock biomass (SSB) to be maintained above 106 000 tonnes ; ii) exploitation at $F = 0.3$ when the stock is above B_{pa} (7). The management plan and these objectives was evaluated by ICES in 2008 and was considered to be consistent with the precautionary approach in the short term. A review of the management plan shall take place no later than 31 December 2012 (21).

For the northeast Arctic stock, management objectives are set by the Norwegian Ministry of Fisheries and Coastal Affairs (11 - Annex). Their stated objectives for the management of this stock are to maintain i) high long-term yield, ii) year-to-year stability and iii) full utilization of all available information on the stock dynamics in the development of management strategies (22). Specifically, the plan aims to maintain target F at F_{pa} (the precautionary reference point for fishing mortality) and minimize between-year changes in the TAC to 15%, unless SSB falls below B_{pa} (precautionary reference point for SSB) in which case the management targets should be adjusted to rebuild the biomass above B_{pa} . ICES evaluated this management strategy in spring 2007 and concluded that it is consistent with the precautionary approach, as long as estimates of uncertainty are appropriate (8).

3.5 Regulation and enforcement

Management and control over the fishery is maintained by a variety of different methods:

Logbooks: The main means of keeping track of catches is via vessel logbooks, which all vessels >10m in EU and Norwegian waters are required to complete. The logbooks record all catches of all retained species on a daily basis. There are two sources of imprecision in the logbook data; firstly, weight of catches on board are usually estimated rather than measured (although some vessels are equipped with scales to weigh the catches); and secondly the weight of each species is only measured on board after the fish have been gutted, a multiplication factor being applied to correct for live weight. The first source of imprecision is corrected later using sales records, as long as the catch is sold in the EU (as it is in this case) – official EU catch statistics include this correction but the raw logbook data does not. The data given in this report includes the correction. In the second case, the multiplication factor may often be somewhat conservative, meaning that live weight of landings may be slightly overestimated.

Norwegian logbooks (required in Norwegian waters) are filled in tow by tow, but EU logbooks are filled in daily. Scapêche is involved in several fisheries (deep-water trawl, monkfish, hake and saithe) which are rather separate in terms of the depth range and hence the species involved (except for saithe and hake). However, in terms of geographic spacing, they take place relatively close to each other, because the area in question (the edge of the continental shelf off north and west Scotland and Ireland) has a steep drop-off, so that areas of different depth are relatively close. This means that during a single day (i.e. a single logbook entry) there may be tows for more than one of these fisheries. This makes it difficult to separate retained species associated with the saithe fishery from retained and target species from the other fisheries, where saithe is not involved at all (for the deep-water fishery) or only to a limited extent (for the monkfish fishery). This issue is addressed in some detail in the rationale for retained species in the assessment tree (Annex 1).

VMS: All the vessels in this fishery are tracked by a satellite vessel monitoring system which provides their position every two hours to the relevant authorities (i.e. to the Norwegian authorities in Norwegian waters and to the relevant national authority (Scotland or Ireland) plus Brussels in EU waters). These satellite tracks can be cross-referenced to the logbook data to ensure that logbooks have been completed correctly. It is possible to assess by the track (speed, changes in direction) whether or not a vessel is fishing at any given point.

Marine controls: In EU waters (Scottish or Irish mainly), the frequency of marine controls has been increasing steadily but is still at a relatively low level. In Norwegian waters, controls at sea are reported to be frequent and thorough.

VHF controls: Vessels fishing in British waters are frequently contacted via radio and are requested to transmit information on catches and fishing grounds. This information is used (among other things) to define real-time closed areas.

Observers: Scapêche vessels participate in the French observer programme for the deep-water trawl fishery, which involves relatively frequent placing of observers on Scapêche vessels. Between November 2008 and April 2009, there were 8 observer trips on Scapêche vessels, include all the four fisheries in which Scapêche operates (deep-water, monkfish, hake and saithe). Scapêche vessels are also observed during one trip per year as part of the Pêche Responsable eco-certification programme (see rationale for PI 2.4.2, Annex 1). The Grande Hermine has not had formal observers on board in recent years, although they frequently welcome researchers and other interested parties on an informal basis.

Quayside controls: Vessels landing fish in the EU and Norway must submit to controls on the catch during landing. A vessel must land at a designated port and must provide 4 hours warning to authorities in the relevant port so that they can mobilise to check the catch. The Grande Hermine lands catch at St. Malo at the end of each trip, and in the middle of trips may land catch in Hammerfest (Norway) and Bremerhaven (EU). Scapêche vessels land catch at Lorient, Lochinver, Killybegs and Castletownbere (all in the EU).

4. Stock assessment

4.1 Definition of stocks and management units

Northeast Atlantic saithe populations consist of several components. For assessment and management purpose, four units (therefore considered *de facto* to be separated stocks) are considered:

- Iceland and West Greenland (ICES Division Va) (23);
- Faroe (ICES Division Vb) (24);
- Northeast Arctic (ICES Subareas I – II) (8);
- North Sea (ICES Division IIIa – Subareas IV and VI) (7,25).

The separation between the two latter is set at the latitude 62°N, even if exchanges occur between the two units.

The west of Ireland ‘stock’ (Subarea VII) is not for the moment included in the ICES assessment system, although there is a TAC for the stock. It is not clear whether it is part of the stock in Subarea IV and VI or a separate stock. The TAC apparently has ‘no scientific basis’ (26).

The Grande Hermine fishes on the Northeast Arctic and North Sea stocks. Scapêche vessels fish on the North Sea stock. They also fish to a small extent in the west of Ireland (Subarea VII) and have the right to quota for the Faroes stock (Vb). These stocks have been excluded from this assessment because of a lack of information and management (VII) or because the management system is not considered to be precautionary (Vb).

4.2 Monitoring and stock assessment system

The monitoring of stock status is based on fisheries-dependent data (Catch Per Unit Effort, CPUE) and fisheries-independent data (scientific surveys). Time series of CPUE are derived from logbook data, which are crosschecked by dockside monitoring and by sales records. For the North Sea stock, two scientific surveys are carried out (27):

1. the Norwegian acoustic survey collects data on fish with an age range of 3-6, and has been operating annually since 1995 (“NORACU”)
2. the North Sea International Bottom Trawl Survey (IBTS) collects data on fish ages 3-5, and has operated each autumn since 1991 (“IBTSq3”).

For the Northeast Arctic stock, an acoustic survey carried on by Norwegian scientists is used to validate CPUE data. This survey started in 1994 and covers fish up to age 7 (28).

Basic biological data (length, weight, otoliths for age reading) are collected from sampling of landings. Other data (i.e., age at maturity, fecundity, etc.) are gathered on a less regular basis, either during trawl surveys or with specific sampling programs.

ICES assesses the stocks using an age-based model called XSA, which is calibrated using both fisheries-dependent data (i.e. the CPUE time series) and fisheries-independent data (survey indices as above). A stock assessment is made every year by the Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak (WGNSSK) and the Arctic Fisheries Working Group (AFWG) from ICES. Assessments are peer reviewed by the ICES Review Group and the EU Scientific, Technical and Economic Committee for Fisheries (STECF). (27,28). The main limitations on the modelling process relate to the use of commercial CPUE time series, which may not track stock abundance reliably. Nonetheless, retrospective analysis suggests that the assessment for the North Sea stock is robust; there are more concerns about medium and long term forecasts for the northeast Arctic stock.

For each stock, both target and limit reference points are defined as set out in Table 8 below.

Table 8: ICES reference points and their definitions (7,8).

Reference point	Definition	Type
B_{lim}	The stock biomass (B) should be maintained above this level according to the management plan and to the precautionary approach.	limit
F_{lim}	The rate of fishing mortality that is estimated to lead to the stock biomass falling below B_{lim} in the long term	limit
B_{pa}	A precautionary reference point, from which the spawning stock biomass has only a small risk of dropping below B_{lim}	limit
F_{pa}	The rate of fishing mortality which maintains an equilibrium stock biomass greater than B_{pa} , with a probability of <10% that it will fall below B_{pa}	limit
F_{mgt}	The rate of fishing mortality defined in the management plan as the maximum permissible when the stock biomass is above B_{pa} . Assuming the stock is above B_{pa} , the current estimated stock biomass is multiplied by this rate of fishing mortality to calculate the proposed TAC ¹ .	target

An appropriate value for these reference points is re-evaluated each year by ICES, as is the status of the stock in relation to them. At present they are as follows :

Table 9: Limit and target reference points for each stock (7,8).

	North Sea / West Scotland stock	North Norway stock
B_{lim}	106 000 tonnes	136 000 tonnes
F_{lim}	0.6	0.58
B_{pa}	200 000 tonnes	220 000 tonnes
F_{pa}	0.4	0.35
F_{mgt}	0.3	0.35
most recent estimated SSB	263 377 tonnes	689 583 tonnes
most recent estimated F	0.29 (average 2006-8)	0.20 (2008)

4.3 Current status of stocks and recruitment

ICES defines the North Sea stock at present as sustainably harvested. It considers that the stock is at full reproductive capacity, and that fishing mortality is appropriate in relation to the productivity of the stock and the agreed target mortality. The stock biomass is estimated to have been above the precautionary reference point since 1998, and the fishing mortality to have been below the precautionary target reference point since 1997. The most recent estimate of spawning stock biomass (SSB) was in 2009 and the most recent estimate of fishing mortality was in 2008 (7).

¹ In fact it's a little more complicated than that, but that's the general principle.

ICES also defines the Arctic stock as sustainably harvested. It considers the stock to be at full reproductive capacity, with fishing mortality appropriate in relation to maximum yield as well as to the target mortality for the stock. Fishing mortality is stable and has been below the precautionary target reference point since 1996. The SSB has been well above the precautionary reference point since 1994 (8).

These analyses, plus the fact that juvenile saithe are not exploited due to their habitat preferences (in coastal waters such as fjords – 4), suggest that recruitment is not likely to be affected by fishing, with fluctuations in recruitment likely to be due to environmental factors (an issue with nearly all fisheries). However, the non-exploitation of juveniles, while obviously a benefit for stock conservation, means that there is no fisheries dependent data for the 1-3 year ages classes, making direct scientific assessment of recruitment difficult. The stock assessment model, however, estimates the size of each age cohort; however this is done only retrospectively once the cohort has entered the fishery (i.e. round about 4 years) (7). For the North Sea stock, the most recent cohort for which the biomass has been estimated is thus the 2004 cohort, which is considered to be among the strongest in the last 20 years; although since 1987, recruitment has been on average low (in common with other gadoid stocks) (7). It is reported (12) that recruitment in 2008 was low. For the Arctic stock, recruitment in 2002 was estimated to be the highest in the time-series, while 2003 was the lowest (8).

5. Fishery evaluation process

5.1 MSC standard and methodology

This assessment follows the Fisheries Assessment Methodology and Guidance (FAM), version 1, from June 2008 (the most recent version at the time the evaluation was started). The FAM sets out the MSC Standard against which the fishery is assessed, as well as setting out the assessment methodology and providing definitions of key terms (1).

The MSC Standard is composed of three Principles, as follows:

- **Principle 1:** A fishery must be conducted in a manner that does not lead to over-fishing or depletion of the exploited populations and, for those populations that are depleted, the fishery must be conducted in a manner that demonstrably leads to their recovery;
- **Principle 2:** Fishing operations should allow for the maintenance of the structure, productivity, function and diversity of the ecosystem (including habitat and associated dependent and ecologically related species) on which the fishery depends.
- **Principle 3:** The fishery is subject to an effective management system that respects local, national and international laws and standards and incorporates institutional and operational frameworks that require use of the resource to be responsible and sustainable.

Each Principle is divided into a series of Performance Indicators (PIs). Each PI can be either related to ‘outcome’ (i.e. the current situation in regard to the element described in the PI), ‘management’ (i.e. the management objectives, strategy or rules for that element) or ‘information’ (i.e. the available knowledge about that element). The structure of the FAM and the PIs for each Principle are shown in Table 10.

Table 10: The PIs for each Principle within the FAM (1).

Prin- ciple	Compo- nent	PI number	PI
1	Out- come	1.1.1 Stock status	The stock is at a level which maintains high productivity and has a low probability of recruitment overfishing
		1.1.2 Reference points	Limit and target reference points are appropriate for the stock
		1.1.3 Stock rebuilding*	Where the stock is depleted, there is evidence of stock rebuilding
	Manage- ment	1.2.1 Harvest strategy	There is a robust and precautionary harvest strategy in place
		1.2.2 Harvest control rules / tools	There are well defined and effective harvest control rules in place
		1.2.3 Information / monitoring	Relevant information is collected to support the harvest strategy
		1.2.4 Assessment of stock status	There is an adequate assessment of the stock status
2	Retained species	2.1.1 Outcome	The fishery does not pose a risk of serious or irreversible harm to the retained species and does not hinder recovery of depleted retained species
		2.1.2 Management	There is a strategy in place for managing retained species that is designed to ensure the fishery does not pose a risk of serious or irreversible harm to retained species
		2.1.3 Information	Information on the nature and extent of retained species is adequate to determine the risk posed by the fishery and the effectiveness of the strategy to manage retained species
	By- catch	2.2.1 Outcome	The fishery does not pose a risk of serious or irreversible harm to the by-catch species or species groups and does not hinder recovery of depleted by-catch species or species groups
		2.2.2 Management	There is a strategy in place for managing bycatch that is designed to ensure the fishery does not pose a risk of serious or irreversible harm to bycatch populations
		2.2.3 Information	Information on the nature and amount of bycatch is adequate to determine the risk posed by the fishery and the effectiveness of the strategy to manage bycatch
	ETP species	2.3.1 Outcome	The fishery meets national and international requirements for protection of ETP species. The fishery does not pose a risk of serious or irreversible harm to ETP species and does not hinder recovery of ETP species

		2.3.2 Management	The fishery has in place precautionary management strategies designed to: - meet national and international requirements; - ensure the fishery does not pose a risk of serious or irreversible harm to ETP species; - ensure the fishery does not hinder recovery of ETP species; and - minimise mortality of ETP species	
		2.3.3 Information	Relevant information is collected to support the management of fishery impacts on ETP species, including: - information for the development of the management strategy; - information to assess the effectiveness of the management strategy; and - information to determine the outcome status of ETP species	
		Habitats	2.4.1 Outcome	The fishery does not cause serious or irreversible harm to habitat structure, considered on a regional or bioregional basis, and function
		2.4.2 Management	There is a strategy in place that is designed to ensure the fishery does not pose a risk of serious or irreversible harm to habitat types	
		2.4.3 Information	Information is adequate to determine the risk posed to habitat types by the fishery and the effectiveness of the strategy to manage impacts on habitat types	
	Eco-systems	2.5.1 Outcome	The fishery does not cause serious or irreversible harm to the key elements of ecosystem structure and function	
		2.5.2 Management	There are measures in place to ensure the fishery does not pose a risk of serious or irreversible harm to ecosystem structure and function	
		2.5.3 Information	There is adequate knowledge of the impacts of the fishery on the ecosystem	
	3	Governance and policy	3.1.1 Legal / customary framework	The management system exists within an appropriate and effective legal and/or customary framework which ensures that it: - Is capable of delivering sustainable fisheries in accordance with MSC Principles 1 and 2; - Observes the legal rights created explicitly or by custom of people dependent on fishing for food or livelihood; and - Incorporates an appropriate dispute resolution framework
			3.1.2 Consultation, roles and responsibilities	The management system has effective consultation processes that are open to interested and affected parties. The roles and responsibilities of organisations and individuals who are involved in the management process are clear and understood by all relevant parties.
		3.1.3 Long term objectives	The management policy has clear long-term objectives to guide decision-making that are consistent with MSC Principles and Criteria, and incorporates the precautionary approach	
		3.1.4 Incentives for sustainable fishing	The management system provides economic and social incentives for sustainable fishing and does not operate with subsidies that contribute to unsustainable fishing	
	Fishery-specific management system	3.2.1 Fishery-specific objectives	The fishery has clear, specific objectives designed to achieve the outcomes expressed by MSC's Principles 1 and 2	
		3.2.2 Decision-making processes	The fishery-specific management system includes effective decision-making processes that result in measures and strategies to achieve the objectives	

	3.2.3 Compliance and enforcement	Monitoring, control and surveillance mechanisms ensure the fishery's management measures are enforced and complied with
	3.2.4 Research plan	The fishery has a research plan that addresses the information needs of management
	3.2.5 Management performance evaluation	There is a system for monitoring and evaluating the performance of the fishery-specific management system against its objectives. There is effective and timely review of the fishery-specific management system

* Only scored when evidence that stock is depleted – not scored in this case.

For each PI, there are three Scoring Guideposts (SGs). The lowest SG corresponds to a minimum requirement for certification, under the condition that the situation can be improved; the middle SG corresponds to a minimum requirement for certification without conditions, while the highest SG corresponds to an optimal or 'perfect' scenario. These three SGs are assigned scores of 60, 80 and 100. The consequences for each score are set out in Table 11 below.

Table 11: Categories of score for a PI, and the consequences of a given score for the overall outcome of certification (1).

Score	Consequence
< 60	If even one PI scores < 60, certification cannot be awarded
60 – 80	Certification is possible but with conditions: performance under any PI scoring between 60 and 80 must be improved to at least the 80 level within a time period specified by the assessment team
80 – 100	If all PIs score 80 or above, certification will be achieved without any conditions

Note that this assessment methodology (the FAM) differs from the methodology used in assessments prior to mid-2008, because PIs and SGs were previously defined by the CB. They are now set out in the FAM, and cannot be altered except under exceptional circumstances (they have not been altered in this case).

The full set of PIs and SGs are set out in the assessment tree for this fishery, with the scores given for each PI and a detailed rationale for each score according to the SGs. The assessment tree is provided in Annex 1 of this report. The scores are also summarised in Section 7.

5.2 Assessment process

The steps to follow in the assessment process are set out by MSC in the Fisheries Certification Methodology (most recent version Version 6, September 2006). In summary, these steps are as follows:

1. Pre-assessment
2. Full assessment step 1: Preparation. This phase forms the start of the formal assessment process, and includes i) the formal notification of the assessment to MSC,

stakeholders and public; ii) the selection and approval (including the possibility of stakeholder input) of team of experts and iii) selection of the appropriate assessment methodology (usually the FAM)².

3. Full assessment step 2: Data gathering and evaluation. In this phase the fishery is assessed using data from a variety of sources including: i) published and unpublished scientific data, reports and other similar sources; ii) a site visit by the expert team; and iii) stakeholder consultations via face-to-face interview, phone or email. On the basis of the information gathered, the fishery is scored against the standard (using the FAM). A preliminary assessment report is produced, which is reviewed by the client and by two external peer reviewers. The resulting Draft Certification Report and Draft Certification Determination is then made available for stakeholder comment.
4. Full assessment step 3: Final report and objections procedure. In this phase, the CB produces a Final Report which must present and respond in full to all comments by reviewers and stakeholders. The Final Report is made available on the MSC website, and stakeholders are given the opportunity to object formally to the determination made by the CB. If such objections are received, the CB must respond in detail to the objector and to MSC. A final determination decision is then made.
5. Ongoing review of certification. A certified fishery is audited every year and re-assessed every five years.

The publication of this Public Certification Report on the MSC website marks the end of the objections period and confirms the fishery's certification.

5.3 Assessment of Scapêche and Compagnie de Pêche de St. Malo saithe fishery

Pre-assessment: MEP prepared a pre-assessment study of the Scapêche and the Compagnie de Pêche de St. Malo saithe fisheries in July 2009. The outcome of the pre-assessment led the companies to decide to apply for MSC certification. The intention to proceed with full assessment was announced by MEP on the MSC website on 2 October 2009.

Full assessment: The proposed assessment team was nominated by MEP on the MSC website on 21 October 2009. No comment or objections were received about the composition of the team. The team concluded that it would be appropriate to use the FAM for this assessment (see above), and this was announced on the MSC website on 21 October 2009. Again, no objections or comments were received. The site visit and scoring meeting took place on 22-27 November 2009, in Lorient (22-23 November) and St. Malo (23-24 November). The peer reviewers were nominated by MEP on 12 April and approved on after 10 days. The Public Comment Draft Report was returned after review by the client on 27 May. The client action plan was received on 21 July. The peer review reports were received on August 16 and August 23. The Public Comment Draft report was published on 12 October 2010. The comment period ended on 12 November 2010. No comments were received from stakeholders, although some comments were received from MSC. The MEP Certification Committee met on the 13th December 2010

² It is possible to use an alternative assessment methodology known as the Risk-Based Framework (RBF) for some elements of the standard. The RBF was not used for this assessment.

to make the final certification determination, and decided that this fishery should be certified.

5.4 Stakeholder consultations

As well as making announcements and documents available via the MSC website, as required by the MSC assessment process, MEP made direct contact with key stakeholders, to ensure that they were aware that the assessment was taking place and that they had the opportunity to comment or object to any part of the process. This process of contact was conducted primarily by email, backed up by telephone or fax when there was difficulty in making contact by email. Contact was made with each relevant stakeholder on 26 October 2009, announcing the start of the assessment and giving details of the site visit. Key stakeholders were also informed directly when reports became available for review on the MSC website.

The following stakeholder organisations were contacted in this way:

- ICES Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak
- IFREMER (French marine science and fisheries assessment organisation)
- Norwegian Ministry of Fisheries and Coastal Affairs
- Scottish Government: Fisheries Group, Environment and Rural Affairs Department and Scottish Fisheries Protection Agency
- Comité National des Pêches Maritimes et des Elevages Marins (CNPMEM) (French national organisation representing marine fisheries and aquaculture)
- Direction des Affaires Maritimes, Ministère de l'Ecologie, de l'Energie, du Développement durable et de la Mer
- North Sea Regional Advisory Council (RAC) Secretariat (North Sea fisheries stakeholder organisation)
- FROM Nord (Producer Organisation)
- PMA (Producer Organisation)
- Union des Armateurs de Pêche Français (UAPF) (French Union of Fishing Vessel Owners)
- WWF France
- Seas at Risk (Brussels)
- The North Sea Foundation (via Seas at Risk – member organisation)

During the site visit, a series of stakeholders were met and interviewed by the team, as shown below.

- Philippe Bourhis : Scapêche
- Maëla Bourdet : Scapêche
- Patrick Soisson : Compagnie des Pêches Saint Malo (Président)
- Daniel Chatelais: Compagnie des Pêches Saint Malo (Directeur technique)

- Martine Edouard-Leborgne : Compagnie des Pêches Saint Malo (Directeur des affaires générales et communication)
- Franck Evrat : PMA
- Laurent Nicole : FROM Nord
- Thierry Olivier : Affaires Maritimes (in charge of monitoring, control and enforcement)
- Pascal Verdière: Captain of the Grande Hermine

6. Scoring

6.1 Scoring methodology

Each PI is scored with reference to the three scoring guideposts (SGs) (see above). Initially, each member of the assessment team scored each of the PIs independently, using the dossier of information provided by the client. During the site visit and scoring meeting, each PI was discussed in the light of additional information received from stakeholders during the site visit. The score and rationale put forward by each team member was considered and a joint score arrived at.

Scores between 60 and 80 or between 80 and 100 were arrived at by a semi-quantitative method. For example, if the fishery achieves all the elements set out in SG 80, but only some of the elements in SG 100, the fishery would have been scored as shown in Table 12.

Table 12: Example of how the team decided on a score between 80 and 100 (the same principle would apply to a score between 60 and 80, as well as to SG with different numbers of elements).

Number of elements in SG 100 achieved by the fishery, out of four	Score	Number of elements in SG 100 achieved by the fishery, out of five	Score
0	80	0	80
1	85	1	80
2	90	2	85
3	95	3	90
4	100	4	95
		5	100

6.2 Dealing with separate stocks and separate Units of Certification (fisheries)

This assessment covers two different fisheries (separate units of certification) which operate on two different saithe stocks – the Northeast Arctic stock (Compagnie de Pêche de St. Malo only) and the North Sea / West of Scotland stock (both companies).

Principle 1 deals with questions regarding the stock, rather than the fisheries specifically. The fishing companies (Units of Certification) have therefore been scored together, but

the stocks have been scored separately. Since Scapêche operates solely on the North Sea stock, the score for the Scapêche Unit of Assessment is the score for the North Sea stock. Since Compagnie de Pêche de St. Malo operates on both stocks (although mainly on the Northeast Arctic stock) it has been given the lower of the two scores where these are different by five points – larger differences in score between the two stocks did not occur.

Principle 2 and most of Principle 3 deals with the fisheries specifically. The two companies were therefore scored separately for these Principles, except where the discussion deals with the national or EU level, which is the same for each.

In the Assessment Tree (Annex 1), a separate score is given for each fishery even where the analysis and rationale is the same for each.

6.3 Weighting

The FAM sets out how the score of each PI should be weighted. The weighting ensures that overall scores for each Principle are equally important in the overall score. Within each Principle, each component is weighted equally. Within each component, each PI is weighted equally. The aggregate score for each Principle, and the overall score, is thus a weighted average of the scores for each PI. The overall weighting is shown in Figure 1.

Figure 1. Weighting of Principles, components and PIs in the FAM (1). The alternative weightings for Principle 1, Component 1 depend on whether PI 1.1.3 is scored or not – in this case it was not so the first alternative was used.

Principle	Weight Level 1	Component	Weight Level 2	PI No.	Performance Indicator	Weight Level 3	Weight in Principle				
One	1	Outcome	0.5	1.1.1	Stock Status	0.5	0.25	0.333	0.1667		
				1.1.2	Reference Points	0.5	0.25	0.333	0.1667		
				1.1.3	Stock Rebuilding	--	--	0.333	0.1667		
		Management	0.5	1.2.1	Harvest Strategy	0.25	0.125				
				1.2.2	Harvest Control Rules & Tools	0.25	0.125				
				1.2.3	Information & Monitoring	0.25	0.125				
				1.2.4	Assessment of Stock Status	0.25	0.125				
		Two	1	Retained species	0.2	2.1.1	Outcome	0.333	0.0667		
						2.1.2	Management	0.333	0.0667		
						2.1.3	Information	0.333	0.0667		
Bycatch	0.2			2.2.1	Outcome	0.333	0.0667				
				2.2.2	Management	0.333	0.0667				
				2.2.3	Information	0.333	0.0667				
ETP species	0.2			2.3.1	Outcome	0.333	0.0667				
				2.3.2	Management	0.333	0.0667				
				2.3.3	Information	0.333	0.0667				
Habitats	0.2			2.4.1	Outcome	0.333	0.0667				
				2.4.2	Management	0.333	0.0667				
				2.4.3	Information	0.333	0.0667				
Ecosystem	0.2			2.5.1	Outcome	0.333	0.0667				
				2.5.2	Management	0.333	0.0667				
				2.5.3	Information	0.333	0.0667				
Three	1			Governance and Policy	0.5	3.1.1	Legal/Customary Framework	0.25	0.125		
						3.1.2	Consultation, Roles & Responsibilities	0.25	0.125		
						3.1.3	Long Term Objectives	0.25	0.125		
		3.1.4	Incentives for sustainable fishing			0.25	0.125				
		Fishery Specific Management System	0.5	3.2.1	Fishery Specific Objectives	0.2	0.1				
				3.2.2	Decision Making processes	0.2	0.1				
				3.2.3	Compliance & Enforcement	0.2	0.1				
				3.2.4	Research Plan	0.2	0.1				
				3.2.5	Management	0.2	0.1				
					Performance Evaluation						

6.4 Harmonisation

This fishery overlaps with four other fisheries which are certified or in the process of becoming certified: i) Norway saithe (certified); ii) Germany Kutterfische saithe (certified); iii) Euronor saithe (certified) and iv) UK Fisheries – DFFU – Doggerbank saithe (under assessment).

Of these, the first two fisheries were assessed under the previous system (before the FAM came in), so the scores are not directly comparable. The other two fisheries have been assessed by MEP using a similar team to that used in this assessment (two out of three members the same). For these two fisheries, there are thus not likely to be any issues around harmonisation – and indeed a check suggests that the scores are consistent for these fisheries. For Principle 1, small differences in score related to the extent to which the fisheries use the two separate NE Arctic and North Sea stocks (i.e. Compagnie de Pêche de St. Malo, DFFU and Doggerbank and Euronor fish on both stocks while Scapêche and UK Fisheries Ltd. fish only on the North Sea stock). For Principle 2, scores vary depending on whether the companies have good observer data, have been shown to catch endangered species such as common skate and subscribe to the VMS feed to keep track of their vessels in relation to protected habitat areas. For Principle 3, small variations are due to differences in and changes of national and company policy on various issues.

As noted above, the other two certified fisheries are not directly comparable with the above assessments. Nonetheless, the issue of harmonisation with these assessments was reviewed and addressed. The following PIs were considered:

- PI 1.2.4 Stock assessment: In the German Kutterfisch and Norwegian assessments, a condition was placed on the fisheries to address uncertainties in the stock assessment. In this fishery, no such condition has been required. This is because MEP considers that the condition imposed on the other fisheries arose as a consequence of the previous assessment methodology – specifically, the assessment tree used for this assessment contained a PI that put heavy emphasis on sources of uncertainty in the evaluation of the stock status. The MEP team considered that SG 80 was met or exceeded for all the PIs in Principle 1 for both stocks, including the PI on stock assessment under discussion here.
- PI 2.1.3 Retained species information: For MSC certification, a condition was imposed on the German Kutterfisch and Norwegian saithe fisheries to improve their reporting of North Sea cod by-catch. In this fishery, no such condition was imposed. The MEP team notes that since these previous assessments, significant strides have been made in implementing new measures to support the recovery of North Sea cod stocks (e.g. mandatory real-time area closures, eliminator trawls or chalut à cordes, very tight TACs and quotas). In this case, the MEP team were confident that i) North Sea cod catches were low and discarding of cod minimal and ii) that the companies are operating well within their permitted cod quotas and had measures in place should the quota come close to being finished. MEP also had confidence in the data provided on cod by-catch (retained and discarded). They therefore decided that in the light of this new situation, no conditions were required.
- PI 2.2.3 By-catch information: On the German Kutterfisch and Norwegian MSC certified saithe fisheries, a condition was imposed requiring an improvement of observer data on by-catch species. In this assessment, no such condition has been imposed, as described above. In this case, while Scapêche has good observer coverage, the Grande Hermine does not. However, the team noted that to score 80

under PI 2.2.3 of the FAM (by-catch species information), it was not required that there be ‘statistically robust estimates of the by-catch of all species’ (as required in the condition imposed on the Norwegian and German certifications) – only that there be ‘qualitative and some quantitative information on the amount of main by-catch species’. The team found that this requirement was met by the existing observer programme and on this basis could not find grounds for scoring lower than 80, so no condition was imposed.

7. Assessment results

This section summarises the results of the assessment of the Scapêche and Compagnie de Pêche de St. Malo saithe fisheries. Scores are given separately for the two companies (two separate Units of Certification). The full assessment tree with scores and rationales for each PI is in Annex 1 of this report.

7.1 Overall results

The scores for each Principle (calculated as described above) for each Unit of Assessment are shown in Table 13.

Table 13: Scores for each Principle for the Scapêche saithe fishery assessment.

Principle	Aggregate score- Scapêche	Aggregate score – Compagnie de Pêche de St. Malo
Principle 1	90.6	90.6
Principle 2	81.0	80.0
Principle 3	88.1	88.1

7.2 Principle 1

The scores for each PI, and the aggregate score for each component for Principle 1 for each Unit of Assessment are shown in Table 14.

Table 14: Scores for each PI, and aggregate scores for each component for Principle 1 for the Scapêche saithe fishery.

Component	PI	Score - Scapêche	Score – Compagnie de Pêche de St. Malo
<i>Outcome</i>			
	Stock status	95	95
	Reference points	90	90

	Stock rebuilding	n/a	n/a
<i>Harvest strategy (management)</i>			
	Harvest strategy	90	90
	Harvest control rules and tools	90	90
	Information/monitoring	85	85
	Assessment of stock status	90	90

7.3 Principle 2

The scores for each PI, and the aggregate score for each component for Principle 2 for each Unit of Assessment are shown in Table 15.

Table 15: Scores for each PI, and aggregate scores for each component for Principle 2 for the Scapêche saithe fishery.

Component	PI	Score - Scapêche	Score – Compagnie de Pêche de St. Malo
<i>Retained species</i>			
	Outcome	80	85
	Management	80	85
<i>By-catch</i>	Information	80	85
	Outcome	80	80
<i>ETP species</i>	Management	85	90
	Information	80	80
<i>Habitat</i>	Outcome	75	75
	Management	80	65
	Information	65	70
<i>Ecosystem</i>			
	Outcome	80	80
	Management	85	60
<i>Ecosystem</i>	Information	85	85
	Outcome	85	85
<i>Ecosystem</i>	Management	80	80
	Information	95	95

7.4 Principle 3

The scores for each PI, and the aggregate score for each component for Principle 3 for each Unit of Assessment are shown in Table 16.

Table 16: Scores for each PI, and aggregate scores for each component for Principle 3 for the Scapêche saithe fishery.

Component	PI	Score - Scapêche	Score – Compagnie de Pêche de St. Malo
<i>Governance and policy</i>			
	Legal and/or customary framework	90	90
	Consultation, roles and responsibilities	95	95
	Long term objectives	80	80
	Incentives for sustainable fishing	80	80
<i>Fishery-specific management system</i>			
	Fishery-specific objectives	90	90
	Decision-making process	90	90
	Compliance and enforcement	100	100
	Research plan	80	80
	Monitoring and management performance evaluation	90	90

8. Certification Recommendation

8.1 Recommendation

Both fisheries have scored an average of 80 or above for each Principle, and have no scored below 60 on any PI. This means that subject to review MEP recommends that both fisheries should be certified sustainable according to the MSC standard.

8.2 Conditions

8.2.1 Scapeche

The Scapêche fishery scored below 80 on two performance indicators, both in Principle 2. These are the following:

- 2.3.1 – Outcome for ETP species (score 75);
- 2.3.3 – Information on ETP species (score 65).

For both PIs the species of concern was the common skate, *Dipturus batis*.

For both PIs, the team's main concern was that the effects of the Scapêche saithe fishery on common skate were not sufficiently well quantified. The team found that in drafting two separate conditions, the second condition (on PI 2.3.3) inevitably required a subset of the actions required under the first (on PI 2.3.1). The team therefore decided that it would be more appropriate to draft one single condition for these two PIs on Scapêche as follows:

Condition: For MSC certification to continue in the long term, Scapêche must arrive at a point where the effects of their saithe fishery on common skate can be quantified, to ensure that they comply with the outcome indicator 2.3.1 for this species. Scapêche must demonstrate that catches of common skate are accurately recorded such that i) a quantitative analysis of the impact of fishery on common skate can be carried out; and ii) trends in fishing mortality of common skate by the fishery over time can be tracked. Measures to collect information should be implemented within one year of certification.

8.2.2 Compagnie de Pêche de St. Malo

The Compagnie de Pêche de St. Malo fishery scored below 80 on four PIs, as follows :

- 2.3.1 – Outcome for ETP species (score 75);
- 2.3.2 – Management of ETP species (score 65);
- 2.3.3 – Information on ETP species (score 70);
- 2.4.2 – Management of habitats (score 60).

For the three PIs related to ETP species, the species of concern was again the common skate. It may be that catches of common skate in this fishery do not occur at all since the ranges of the species and the fishery do not overlap greatly, but this could not be confirmed on the basis of available information.

Assuming that catches may occur, the team had two concerns in regard to this species for the Compagnie de Pêche de St. Malo: i) the catches, if any, were not quantified (as for Scapêche) and ii) the EU regulations for protection of common skate were not well implemented. This led to two conditions relating to the first three PIs (following the reasoning given for Scapêche above), as follows:

Condition 1: For MSC certification to continue in the long term, the Compagnie de Pêche de St. Malo must arrive at a point where the effects of their saithe fishery on common skate can be quantified, to ensure that they comply with the outcome indicator 2.3.1 for this species. The Compagnie de Pêche de St. Malo must demonstrate that catches of common skate are accurately recorded such that i) a quantitative analysis of the impact of fishery on common skate can be carried out; and ii) trends in fishing mortality of common skate by the fishery over time can be tracked. Measures to collect information should be implemented within one year of certification.

Condition 2: For MSC certification to continue in the long term, the Compagnie de Pêche de St. Malo must ensure that all regulations regarding the conservation of common skate

(at present the EU regulations – 6) are implemented by the company and followed by the skipper and crew of the Grande Hermine. Measures should be implemented within one year of certification.

For habitats, the main concern of the team was that the Compagnie de Pêche de St. Malo lacked at least a partial strategy for controlling the impact of their fishery on sensitive habitats. Unlike Scapêche, the company is not signed up to any programmes (such as the ‘Pêche Responsable’ ecolabel) which cover habitat impacts, nor does the company keep track of its vessels by VMS. This leads to a condition as follows:

Condition 3: The company needs to develop a partial strategy to avoid fishing in sensitive habitats. The strategy should ensure that i) the company has information on fishing locations and ii) measures are in place such that the company can demonstrate that areas of sensitive habitat are avoided. Measures should be put in place within one year of certification to obtain information on locations of fishing grounds and sensitive habitats, and measures to avoid sensitive habitats should be developed and implemented within two years of certification.

9. Chain of custody

9.1 Determination of the point at which fish and fish products enter further Chain of Custody

In order for products to enter into further Chains of Custody and bear the MSC logo the Certification Body must be satisfied that the system of tracking and tracing of fish and fish products is sufficient to ensure confidence that they have indeed originated from the assessed fishery.

The vessels included in the Unit of Certification are given in Table 17 below, along with their details.

Table 17. Vessels in the Unit of Certification.

Company	Vessel	Length (m)	Gear type	Home port	Main port of operation / landing
Scapêche	Mariette Le Roch II	46	single otter trawl	Lorient	Lochinver
	Jean-Claude Coulon II	46	single otter trawl	Lorient	Lochinver
	Jack Abry II	46	single otter trawl	Lorient	Lochinver
	Héliotrope	33	single otter trawl	Lorient	Lochinver / Lorient / Killybegs
	Claude Moinier II	33	single otter trawl	Lorient	Lochinver / Lorient / Killybegs
	Pierre Jacques	33	single otter	Lorient	Lochinver / Lorient/

	Matigny		trawl		Killybegs
	Julien Coléou	30	twin rig	Lorient	Lochinver/ Killybegs
	Rossoren	28	twin rig	Lorient	Castletownbere / Killybegs
	Fastnet	28	twin rig	Lorient	Castletownbere/ Killybegs
Compagnie de Pêche de St. Malo	Grande Hermine	60	single otter trawl	St. Malo	St. Malo, Hammerfest, Cuxhaven, Bremerhaven

The tracking and tracing system and possible risks to this are now discussed below.

Compagnie de Pêche de St. Malo: The ‘Grande Hermine’ is the only vessel operated by Compagnie de Pêche de St. Malo that is covered under this unit of Certification. All saithe caught by the ‘Grande Hermine’ will be certified MSC so the issue of separating certified and non-certified same species product does not arise here.

The Grande Hermine processes saithe on board. The fish are filleted and then frozen either in 1kg or 7kg packs. Saithe are not mixed with any other species in any product. There is other processing methods available on board (e.g. vacuum packing) but these are not used for saithe.

Tracking and tracing of certified saithe will be guaranteed via the following system;

1. Logbooks and VMS will allow the tracing of catch back to the location and date of landing;
2. All saithe product on board will be MSC and so no need for separation of MSC and non-MSC product by date will be required;
3. Outgoing documentation (invoices) to state MSC and the fishery certificate number.

Certified saithe may be landed either at St Malo, Hammerfest, Cuxhaven or Bremerhaven. Should product be sold directly to clients, its transportation shall be completed by an approved sub-contractor and this shall be covered within the scope of the fishery certificate.

Scapêche: Scapêche operate nine vessels which are covered by the unit of certification for this assessment. These vessels land fresh, gutted saithe but without additional processing. The vessels however also fish for two saithe stocks which are excluded from this assessment: stocks in ICES Subareas Vb and VII. For Subarea Vb, Scapêche has a right to quota for saithe, although this right has not been exercised in recent years. However, Scapêche wishes to retain this right. For Subarea VII, Scapêche has caught a small amount of saithe in this area in recent years, and landed it into Castletownbere. This means that the Scapêche vessels may have both MSC and non-MSC saithe on-board the vessels at the same time. This issue is further discussed in the risk assessment below.

9.2 Risk Assessment to the Chain of Custody

MEP identified the main risks to product entering future chains of custody as follows;

1. Mixing of MSC and non-MSC product on board the vessel.

Compagnie de Pêche de St. Malo: For Compagnie de Pêche de St. Malo, the scope of this certification covers all saithe currently caught by the Grand Hermine. Should this vessel increase its effort to areas not included in this assessment, it is likely that chain of custody would be required.

MEP highlights that any changes to the vessel's effort would need to be evaluated and approved by the CB prior to the commencement of fishing for saithe by the vessels in Table 22 in areas not covered by this certification.

Scapêche: As highlighted earlier, Scapêche vessels may catch saithe from non-certified as well as certified saithe stocks. This presents a high level of risk to product entering further chains of custody.

In response to this concern the client has proposed a system by which whenever a boat fishes within the uncertified waters of Zone VII, at any point in the trip, the total landings of saithe from that trip will not be MSC. This will be confirmable through the declaration of landings (logbook) and the note of sale filled out by the buyer or processor. Furthermore, product will be labelled with the Zone of landing in all sold product.

It is therefore concluded that Scapêche vessels carrying only MSC certified product will be eligible to enter into further chains of custody as long as the system highlighted above remains in place.

9.3 Chain of Custody Determination

MEP concludes that saithe landed by the 'Grand Hermine' operated by **Compagnie de Pêche de St. Malo** shall be eligible to enter into further chains of custody and be eligible to carry the MSC logo. The point at which product will be required to enter further chains of custody shall be the first point of sale, which may be at auction or through direct purchase from buyers.

Saithe landed by the vessels of **Scapêche** will be eligible to enter into further chains of custody or carry the MSC logo providing the vessel has only caught MSC certified saithe (due to the risk of mixing MSC and non-MSC product on board). Should the vessel catch saithe from non-certified areas the whole catch will no longer be eligible to enter further chains of custody. This system will be fully assessed during the annual surveillance audits and any evidence of incorrect labelling or mixing of MSC and non-MSC certified product

shall result in the suspension of the right for **Scapêche** product to enter further chains of custody.

9.4 Target eligibility date

The target eligibility date for this fishery shall be the date of certification.

10. Client Action Plan

CLIENT ACTION PLAN FOR SCAPECHE AND COMPAGNIE DES PÊCHES ST MALO

1. Condition on common skate applying to both Scapeche and Compagnie des pêches St Malo

Condition 1: For MSC certification to continue in the long term, Scapêche / Compagnie des pêches St Malo must arrive at a point where the effects of their saithe fishery on common skate can be quantified, to ensure that they comply with the outcome indicator 2.3.1 for this species. Scapêche / Compagnie des pêches St Malo must demonstrate that catches of common skate are accurately recorded such that i) a quantitative analysis of the impact of fishery on common skate can be carried out; and ii) trends in fishing mortality of common skate by the fishery over time can be tracked.

2. Condition on common skate applying to Compagnie des pêches St Malo only

Condition 2: For MSC certification to continue in the long term, the Compagnie des Pêches de St. Malo must ensure that all regulations regarding the conservation of common skate (at present the EU regulations) are implemented by the company and followed by the skipper and crew of the Grande Hermine.

3. Joint response on common skate from both companies (for translation see below)

1. Conformément à la réglementation en vigueur, nous n'avons pas de pocheteau gris (*Dipturus batis*) en vente. S'il arrivait d'en pêcher, il serait rejeté à la mer vivant, le plus rapidement possible. A ce propos, l'organisation de producteurs PMA a rédigé, et mis à disposition de l'ensemble des navires de Scapêche, un livret récapitulant notamment les différentes espèces de raies en distinguant les espèces commercialisables des autres.

2. Scapêche a fait parvenir le détail de ses ventes en criée de pocheteau. Vous remarquerez qu'il n'y a que du pocheteau noir, et pas de pocheteau gris.

3. Scapêche et Compagnie des Pêche St Malo se proposent de mettre en place un suivi des captures de pocheteau gris.

Pour Scapêche, un suivi des captures de pocheteau gris, rejetés vivants à la mer, sera mis en place à bord de ses navires à partir du mois d'Août2010. Il se présentera sous la forme

d'un cahier, signalant les présences éventuelles de pocheteau gris lors de pêche ciblée au lieu noir (sondes spécifiques à lieu noir). Ces données seront récupérées à chaque arrêt technique annuel du navire.

De plus, lors d'embarquement d'observateurs, à bord des navires Scapêche, la présence de pocheteau gris sera analysée.

Le plan d'action pour Scapêche sera donc le suivant :

année 1 (2010) : mise en place du cahier de suivi à bord de chaque navire,

année 2 (2011) : récolte des suivis effectués à bord, et exploitation,

année 3 (2012) : suivi de cet enregistrement et aménagements éventuels.

Pour Compagnie des Pêches St Malo, cela s'effectuera selon un protocole d'auto-échantillonnage pour les sélaciens, validé par l'IFREMER (« fiche de captures accidentelles »).

Le protocole d'auto-échantillonnage a été implémenté de la façon suivante, en liaison avec Ifremer :

dossier d'auto-échantillonnage à renseigner par le navire lors de chaque capture accidentelle de sélacien (pièce jointe n°1) ;

demande d'explications complémentaires de Compagnie des Pêches St-Malo à l'Ifremer, par l'intermédiaire de l'Organisation de Producteur (From Nord) et réponse d'Ifremer (pièce jointe n°2) ;

instructions au capitaine dans le cadre des instructions habituelles pour chaque campagne de pêche (pièce jointe n°3). Il est précisé au capitaine dans les instructions de mai 2010 que cette action d'auto-échantillonnage concerne non seulement les pêches en Mer du Nord mais aussi toutes les autres zones de travail du navire y compris Mer de Norvège et Svalbard (pour Compagnie des Pêches St Malo).

L'action d'auto-échantillonnage pour Compagnie des Pêches St Malo sera poursuivie en 2010 et 2011 avec renouvellement des instructions au capitaine à chaque campagne de pêche, transmission des données collectées après chaque campagne au From Nord afin que ce dernier les saisissent dans le logiciel adhoc fourni par l'Ifremer pour analyse par celui-ci.

4. Compagnie des pêches Saint Malo s'engage à appliquer intégralement les règles de conservation actuelles concernant le pocheteau gris.

4. Joint response on common skate (English translation)

NOTE: various documents were provided by the two companies as outlined below – these have not been included in the report for brevity and because they are in French, but are available on request to MEP

1. In line with current regulations, we do not sell common skate (*Dipturus batis*). If any is fished, it would be discarded alive, as quickly as possible. On this subject, the producer

organisation PMA has prepared a booklet showing the different ray species, and distinguishing the species that can be sold from the others; this booklet has been put at the disposal of all the Scapeche boats (document attached).

2. Scapeche has provided full details of our sale of 'pocheteau' rays by auction. You will notice that this only includes 'pocheteau noir' (long-nosed skate) and no 'pocheteau gris' (common skate) (document attached).

3. Scapêche and Compagnie des Pêche St Malo propose to implement a data-gathering survey of catches of common skate discarded alive from our vessels, starting in June 2010. This will follow the self-sampling protocol for elasmobranchs which has been approved by Ifremer.

1. **For Scapêche**, a data-gathering protocol for common skate, rejected alive by our vessels, will be put in place on board all vessels starting in August 2010. It takes the form of a logbook where catches of common skate will be recorded for all gear deployments targeting saithe. The data will be gathered and evaluated during the annual maintenance break for each vessel.

In addition, the observers on board Scapêche vessels will record and analyse catches of common skate.

2. **For Compagnie des Pêches St Malo**, the sampling will follow the self-sampling protocol for elasmobranchs which has been approved by Ifremer ('logbook for accidental catches').

The self-sampling protocol will be implemented as follows, in discussion with Ifremer:

self-sampling logbook, to be filled out by the vessel after every accident catch of an elasmobranch species (documents attached – a blank logsheet and sample logsheets filled out);

request for more detailed explanations made by the Compagnie de Pêche de St. Malo via their producer organisation (FROM Nord), with the response from Ifremer (document attached);

Instructions to the captain, given as part of the usual instructions for each fishing trip (document attached – instructions to skipper of Grande Hermine). It is made clear in the instructions for May 2010 that this sampling is required not only for the North Sea but also for all other fishing areas, including the Norwegian Sea and Svalbard.

5. Condition on habitat applying only to the Compagnie de Pêche de St. Malo

Condition 3: The company needs to develop a partial strategy to avoid fishing in sensitive habitats. The strategy should ensure that i) the company has information on fishing locations and ii) measures are in place such that the company can demonstrate that areas of sensitive habitat are avoided.

6. Response from the Compagnie de Pêche de St. Malo (for translation see below)

Le plan prévu visant à éviter les interactions de Grande Hermine avec les habitats sensibles est le suivant :

- Année 1 (2010)

Juillet - Août 2010 : Identification des sources d'information existantes sur les habitats sensibles, à consulter régulièrement pour confirmer leur localisation et l'évolution possible de celles-ci.

Septembre –Décembre 2010 (pas de campagne de pêche de Grande Hermine, sauf éventuellement en Mer du Nord) : Identification des plus récentes délimitations des habitats sensibles. Acquisition d'un logiciel Vessel Monitoring System permettant à l'armement de suivre la route de Grande Hermine.

- Année 2 (2011)

Janvier : Vérification avec le capitaine des interactions éventuelles de la pêche de Grande Hermine avec les habitats sensibles. Mise en place d'une stratégie de limitation des impacts éventuels, inscrite dans les instructions au capitaine pour chaque campagne de pêche.

1^{er} semestre 2011 : Suivi des routes du navire sur VMS.

Août 2011 - Décembre 2011 (pas de campagne de pêche de Grande Hermine, sauf éventuellement en Mer du Nord) : Bilan des actions de pêche du 1^{er} semestre en ce qui concerne les interactions éventuelles de Grande Hermine avec les habitats sensibles. Fixation d'objectifs et de moyens pour réduire ces interactions éventuelles.

- Année 3 (2012)

Janvier : Inscription dans les instructions au capitaine pour chaque campagne de pêche des objectifs et des moyens définis au semestre précédent pour réduire les interactions éventuelles.

1^{er} semestre 2012 : Suivi des routes du navire sur VMS.

Août 2012 - Décembre 2012 : Vérification des résultats. Bilan du plan d'action concernant les habitats sensibles.

7. Response from the Compagnie de Pêche de St. Malo (English translation)

The following plan has been developed to avoid interactions of the Grande Hermine with sensitive habitats:

Year 1 (2010)

July-August 2010: Identification of existing sources of information on sensitive habitats; these will be consulted regularly to confirm their location and any changes;

September-December 2010 (no fishing by the Grande Hermine, except possibly in the North Sea): Identification of the most recent mapping of sensitive habitats. Acquisition of Vessel Monitoring System software allowing the fishing company to track the position of the Grande Hermine.

Year 2 (2011)

January: Discussion with the captain to identify any possible interactions of the Grande Hermine's fishing activity with sensitive habitats. Development of a strategy to limit possible impacts, written into the captain's instructions for each fishing campaign.

First half of 2011: Tracking of the Grande Hermine with VMS

August-December 2011 (no fishing by the Grande Hermine, except possibly in the North Sea): review of fishing activities of the first 6 months in regard to possible interactions of the Grande Hermine with sensitive habitats. Definition of objectives and mechanisms to reduce any possible interactions.

Year 3 (2012)

January: Objectives and mechanisms identified during 2011 written into the captain's instructions for each fishing campaign.

First half of 2012: Tracking of the Grande Hermine with VMS

August-December 2012: Review and verification of outcome of the action plan for sensitive habitats.

Annex 1 – Assessment tree

Principle 1

A fishery must be conducted in a manner that does not lead to over-fishing or depletion of the exploited populations and, for those populations that are depleted, the fishery must be conducted in a manner that demonstrably leads to their recovery.

1.1 Outcome

1.1.1 Stock status

The stock is at a level which maintains high productivity and has a low probability of recruitment overfishing

SG 60: It is likely that the stock is above the point where recruitment would be impaired.

SG 80: It is highly likely that the stock is above the point where recruitment would be impaired. The stock is at or fluctuating around its target reference point

SG 100: There is a high degree of certainty that the stock is above the point where recruitment would be impaired. There is a high degree of certainty that the stock has been fluctuating around its target reference point, or has been above its target reference point, over recent years.

Score

	North Sea / W. Scotland stock (IIIa-IV-VI)	Arctic stock (I-II)	Global score
Co. Pêche St. Malo	95	95	95
Scapêche	95	-	95

Rationale

1. Definition of stocks

The two fisheries under certification operate on two different stocks: North Sea stock (ICES Division IIIa, Subareas IV and VI – Skagerrak, North Sea and NW Scotland) and the North-East Arctic stock (ICES areas I and II). The status, management and monitoring of both these stocks therefore needs to be assessed.

The Scapêche saithe fishery operates on different stocks of saithe. The catches under certification come from a directed saithe fishery on the North Sea stock (ICES Division

IIIa, Subareas IV and VI – Skagerrak, North Sea and NW Scotland) (7). Most of the catches come from areas IVa and VIa (Table 1).

Table 1. Scapêche saithe landings from 2007 to 2009 (tonnes) (7)

ICES Areas	2007	2008	2009 ^a
IVa	252.1	273.1	523.8
VIa	3209.8	2510.7	1115.1
VIb	0.0	0.0	0.5
Total	3461.9	2783.8	1639.4
Landings from other areas	54.7	13.5	13.0
Total landings	3516.5	2797.3	1652.3

a – From 01-01-2009 to 14-09-2009

The Comapêche saithe fishery operates on the North Sea stock and on the North-East Arctic stock (8). The vessel under certification, La Grande Hermine, fishes in the Norwegian waters (areas I and II), where she targets cod, and in areas IIa and IV (European Union waters), where she targets saithe (Table 2)

Table 2: Saithe landings of the Grande Hermine (Comapêche), 2006-2008 (tonnes) (8)

ICES areas	2006	2007	2008
North Sea (IIa and IV EU waters)	505,3	116,4	683,7
I and II (Norwegian waters)	183,8	267,7	114,6
Total	689,0	384,1	798,3

2. North Sea stock

The status of the stock is assessed every year by ICES (see 1.2.4 below) (7). Reference points consider both the spawning stock biomass (*SSB*) and the fishing mortality (*F*).

For *SSB* two reference points are defined:

- B_{lim} , (limit reference point) below which the reproductive capacity of the stock is reduced and where the risk of collapse is high (recruitment overfishing);
- B_{pa} , (precautionary reference point) – the stock should remain above this reference point so that the risk of reaching B_{lim} is low, taking uncertainties into consideration.

In the same manner, ICES has set two reference points for *F*:

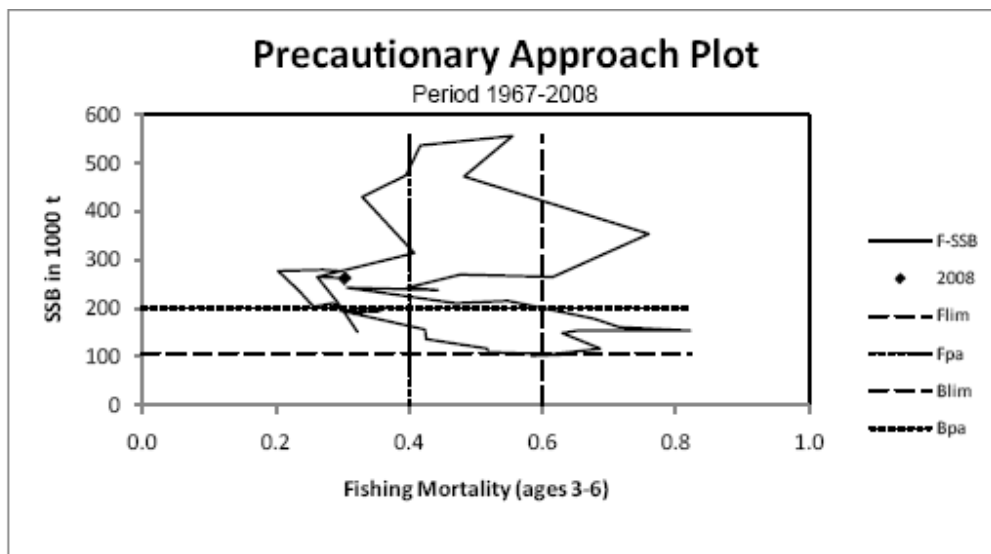
- F_{lim} is the limit fishing mortality above which the exploitation becomes unsustainable;
- F_{pa} is the precautionary level of mortality that should not be exceeded so that the risk of reaching F_{lim} is low, taking uncertainties into account.

Therefore, if $SSB > B_{pa}$, the stock is at its full reproductive capacity, and if $F < F_{pa}$, exploitation is considered sustainable.

For the North Sea saithe stock (ICES Division IIIa, Subareas IV and VI – Skagerrak, North Sea and NW Scotland), reference points have been set at the following values (7):

Type	Value	
Precautionary approach	B_{lim}	106 000 t
	B_{pa}	200 000 t
	F_{lim}	0.6
	F_{pa}	0.4

For this stock, the projected biomass for 2011, with 2010 landings of 118 000 t (in agreement with the management plan), is 212 000 t. The calculated *SSB* has been above 200 000 t since 1999 and *F* has been below F_{pa} since 1997. In 2009, the *SSB* is estimated to be $1.3 * B_{pa}$ (i.e. 30% higher than the precautionary reference point). The average fishing mortality for the period 2006-2008 is estimated at 0.29, i.e. below F_{pa} and close to the management plan target rate expected to lead to high long-term yields ($F = 0.3$). The stock is therefore considered to be above precautionary reference points with a high degree of certainty. Since 2003, stocks have been in this “safe” zone of the precautionary approach plot ($SSB * F$) – see Figure below from ICES advice 2009 (7).



There are a few concerns, however. ICES considers that productivity of the North Sea saithe stock has declined, due to recent reductions in recruitment levels and growth rates. ICES advice on this stock in 2008 (29) states: *The influence on the maturity ogive from the observed decrease in the weight at age is unknown, but it is reasonable to believe that the spawning capacity of the stock will be affected.* The ICES review group also raised this issue of possible changes in the maturity ogive for this stock. While ICES are aware of the issue and are able to incorporate new data into future stock assessments, the team considered that for this reason a full score of 100 was not justified, although the requirements of SG 100 are broadly met.

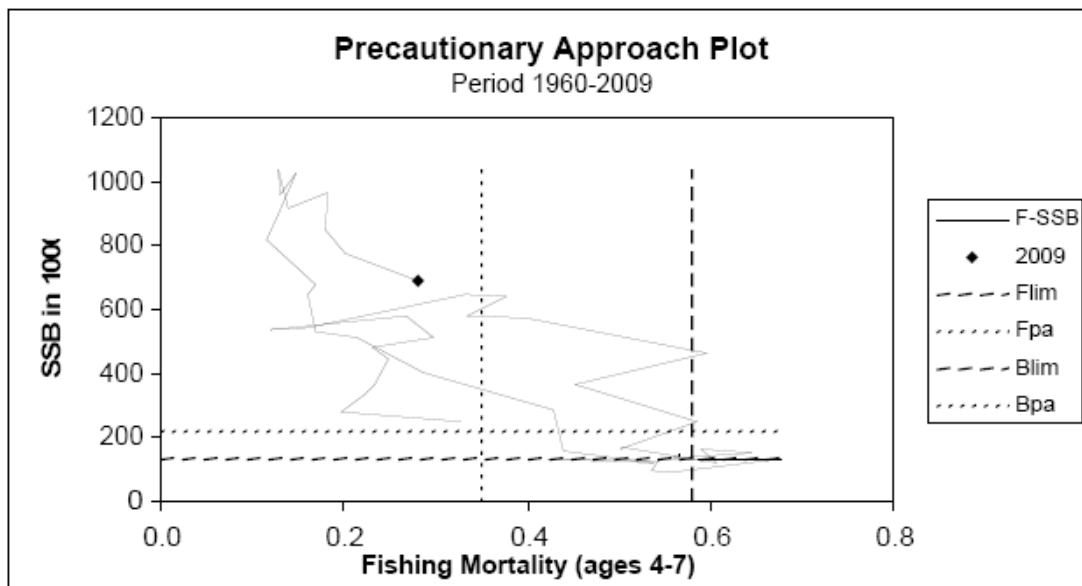
3. North-East Arctic stock

For the North-East Arctic saithe stock (ICES Subareas I and II) reference points have been set as follows (8):

Type	Value	
Precautionary approach	B_{lim}	136 000 t
	B_{pa}	220 000 t
	F_{lim}	0.58
	F_{pa}	0.35

For that stock, the projected biomass for 2010, with 2009 catches of 225 000 t (agreed TAC), is 569 000 t, which would lead to $F = 0.29$. The calculated SSB has been above 275 000 t since 1994 and F has been below F_{pa} since 1995 (8).

Since the mid 90's, this stock has been in the “safe” zone of the precautionary approach plot ($SSB * F$) – see Figure below from ICES advice 2009.



According to those data, it is almost certain that the stock is above the point where recruitment would be impaired over the short term (<5 years). There is also a high degree of certainty that the stock has been above its target reference point, and that fishing mortality has been below target reference points, over recent years. For this stock, too, however, there are uncertainties that could have an effect on the stock status: a bias exists in the initial stock size and assumptions on incoming year classes induce uncertainties in the forecast; trends observed in the assessment do not correspond well with the indices; there is a lack of reliable recruitment indices. Therefore, the full 100 was not given (8).

1.1.2 Reference points

Limit and target reference points are appropriate for the stock.
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SG 60: Generic limit and target reference points are based on justifiable and reasonable practice appropriate for the species category.

SG 80: Reference points are appropriate for the stock and can be estimated. The limit reference point is set above the level at which there is an appreciable risk of impairing reproductive capacity. The target reference point is such that the stock is maintained at a level consistent with B_{MSY} or some measure or surrogate with similar intent or outcome. For low trophic level species, the target reference point takes into account the ecological role of the stock.

SG 100: Reference points are appropriate for the stock and can be estimated. The limit reference point is set above the level at which there is an appreciable risk of impairing reproductive capacity following consideration of relevant precautionary issues. The target reference point is such that the stock is maintained at a level consistent with B_{MSY} or some measure or surrogate with similar intent or outcome, or a higher level, and takes into account relevant precautionary issues such as the ecological role of the stock with a high degree of certainty.

Score

	North Sea / W. Scotland stock (IIIa-IV-VI)	Arctic stock (I-II)	Global score
Co. Pêche St. Malo	90	95	90
Scapêche	90	-	90

Rationale

For both stocks (North Sea and Eastern Arctic), reference points are derived from biological assessment by the ICES Working Groups (27,28).

1. North Sea stock

For the North Sea stock, reference points were established in 1998. B_{lim} was defined from a recruitment-stock relationship and B_{pa} was derived from the value of B_{lim} . Fishing mortality (F_{lim}) was defined from a yield-per-recruit analysis based on B_{lim} (27). Simulations were carried on to assess the effect of those scenarios (27). This approach is classical in fisheries science, is recognized worldwide and appears to be generally successful (30). The approach has some shortcomings, however: i) simulations assume

that current productivity levels are constant; ii) discards and highgrading are not taken into account in the simulations (27). In this case, however, these shortcomings are considered as minor compared to the official landings and should not therefore affect the output of the analytical models. Biologists are concerned that the productivity of the stock has declined, and uncertainties about recruitment and weight at age remain issues (7,8). Fecundity with size has been adequately established but does not appear to be under regular review to detect trends and shifts. The assessment uses a single maturity ogive and natural mortality of 0.2 (27). Experiences from other fisheries show that those parameters may change over time, due to exploitation or natural factors. Those parameters are key elements and may add uncertainty to the simulations.

Even if not formally revised, the reference points are tested each year along with the new assessment. Scientists consider that they are still valid in the medium term (<5 years) (27).

The team considered that the reference points are appropriate for the stock and that they should provide a safe means to protect the stocks' reproductive capacity. However, the team considered that the concerns raised about the productivity of the North Sea stock, as well as the ecological role of the species, are not taken into account in the definition of the reference point with a high degree of certainty, as required for a score of 100.

2. North-East Arctic stock

For the Arctic stock, reference points have recently been re-estimated by the 2005 ICES Working Group. They appear to be consistent with the precautionary approach (28).

As for the previous stock, the team considered that the reference points are appropriate for both stocks and that they should provide a safe means to protect the stocks' reproductive capacity. There are no particular concerns raised about the productivity of the stock, and the maturity ogive is recalculated periodically. This warrants a higher score than for the North Sea stock. However, as the ecological role of the species is not taken into account in the definition of the reference point with a high degree of certainty, the full 100 is not met.

3. Reference points in relation to the MSY approach

Comments received from MSC on the public comment draft report required us to revise our evaluation of reference points giving greater consideration to the relationship of the target reference point B_{MSY} or some proxy. In general, we note that ICES has not in the past taken an 'MSY' approach to providing advice on the level of target biomass and fishing mortality reference points – these have instead been set at a 'precautionary' level based on the probability of the stock biomass falling below a certain level. However, in the last couple of years, ICES has started to review all their stock assessments with the objective of moving towards an approach based on stock productivity as well as probability of collapse. Nonetheless, for most stocks, this process is still in its early stages. Here we consider the process in detail as it applies to the two saithe stocks in

assessment here. Note that this element of the rationale was composed after the other rationales in Principle 1 for this assessment, and uses more recent information – the ICES North Sea and Skaggeiak demersal fisheries working group report 2010 (77) and the ICES Arctic Fisheries Working Group report 2010 (78).

North Sea stock: Initial work was done by the North Sea and Skaggeiak demersal fisheries working group in 2010 (77) to estimate F_{MSY} using a variety of methods (two models, three stock recruit curves and different ways of treating the input data and the bootstrapping). The outcome was sensitive to some of these variations, so that more work remains to be done to get a robust estimate of F_{MSY} . The most robust methodology was considered to be the CEFAS ADMB model with a hockey stick recruitment curve. This gave a median bootstrap estimate of 0.3 (5% percentile 0.13, 95% percentile 0.54). Thus while work clearly remains to be done, the best estimate of F_{MSY} at present is identical to the level of fishing mortality already enshrined in the management plan. Equilibrium landings were also estimated, and overall, the ICES working group considered that *'the stock is currently harvested at an optimal level'*. The figure below is taken from the working group report (Figure 11.9.4b), and shows equilibrium landings in relation to fishing mortality rates, calculated from the above modeling exercise. While there is clearly considerable uncertainty in the data and modeling at present, it is clear that $F=0.3$ appear appropriate from the point of view of maximising stock productivity (equilibrium landings) as well as for minimising risk.

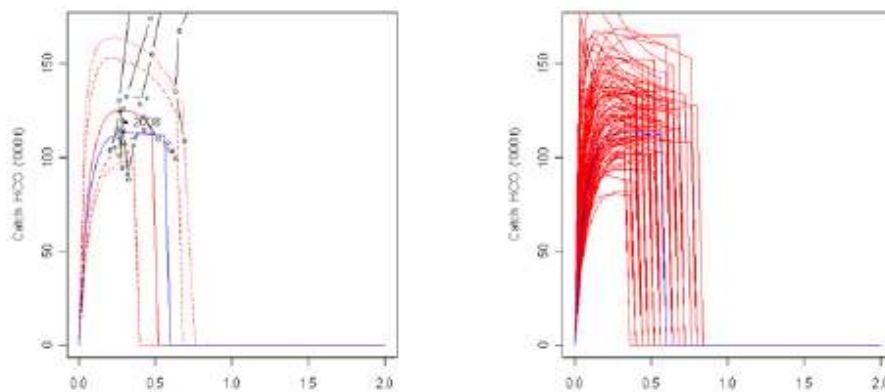


Figure 1. Reference 77, Figure 11.9.4b, showing estimates of equilibrium landings (y-axis) in relation to fishing mortality rates (x-axis). The left-hand figure shows the median of 1000 resamples in blue, with percentiles in red, plus the actual assessment data points in black, while the right-hand figure shows 100 illustrative resamples.

Northeast Arctic stock: Work on the MSY approach for the northeast Arctic stocks is less well advanced, and has up till now focussed on the cod stock (by far the largest stock and fishing in the area) (see 78). Work on the cod stock has found that long-term equilibrium yield from this stock is more or less stable for a range of fishing mortality rates from 0.25 to 0.6 (due to strong density-dependent effects including from cannibalism). We note that saithe are also a cannibalistic species so a similar range for F_{MSY} may apply, although saithe biomass may be more dependent on cod biomass (due to predation) than on population-level density-dependent effects (as is known for haddock in the same area).

For the saithe stock itself, no explicit work on determining appropriate levels for MSY-based reference points has yet been done. However, the harvest control rules has been assessed in terms of long-term equilibrium yield, which was obtained at $F=0.32$. This is certainly consistent with the current F_{pa} under the management plan, which is set at 0.35.

4. Conclusions

Overall, the team considered that the reference points are appropriate for both stocks and that they should provide a safe means to protect the stocks' reproductive capacity. Following the second review, the team was also happy that the reference points are consistent with maintaining high stock productivity as well as reducing risk. However, the team considered that the concerns raised about the productivity of the North Sea stock is not taken into account in the definition of the reference points with a high degree of certainty, as required for a score of 100. The ecological role of the stock is not taken into account with a high degree of certainty for either stock. This leads to a score of 90 for the North Sea stock and 95 for the Arctic stock.

1.1.3 Stock rebuilding

Where the stock is depleted, there is evidence of stock rebuilding
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NOT REQUIRED TO BE SCORED

1.2 Harvest strategy (management)

1.2.1 Harvest strategy

There is a robust and precautionary harvest strategy in place

SG 60: The harvest strategy is expected to achieve stock management objectives reflected in the target and limit reference points. The harvest strategy is likely to work based on prior experience or plausible argument. Monitoring is in place that is expected to determine whether the harvest strategy is working.

SG 80: The harvest strategy is responsive to the state of the stock and the elements of the harvest strategy work together towards achieving management objectives reflected in the target and limit reference points. The harvest strategy may not have been fully tested but monitoring is in place and evidence exists that it is achieving its objectives.

SG 100: The harvest strategy is responsive to the state of the stock and is designed to achieve stock management objectives reflected in the target and limit reference points. The performance of the harvest strategy has been fully evaluated and evidence exists to show that it is achieving its objectives including being clearly able to maintain stocks at target levels. The harvest strategy is periodically reviewed and improved as necessary.

Score

	North Sea stock (IIIa-IV-VI)	Arctic stock (I-II)	Global score
Co. Pêche St. Malo	90	95	90
Scapêche	90	-	90

Rationale

1. North Sea stock

For the North Sea stock (Division IIIa, Subareas IV and VI), the EU and Norway agreed in 2004 to implement a long-term management plan for the saithe stock, consistent with the precautionary approach (1):

- Spawning stock biomass should be $> 106\,000$ t (B_{lim});
- If $SSB > 200\,000$ t (B_{pa}), fishing mortality should not exceed 0.3;
- If $SSB > B_{lim}$ and $< B_{pa}$, fishing mortality should be < 0.3 ;
- If $SSB < B_{lim}$, fishing mortality should not exceed 0.1.

The management plan also includes a TAC constraint : *if the application of the preceding rules leads to a TAC which deviates by more than 15% from the TAC the preceding year the Parties shall fix a TAC that is no more than 15% greater or 15% less than the TAC of the preceding year (7).*

This management plan was partially revised by ICES in 2008 (27).

Since 1987 in Division IIIa and Subarea IV (23 years of assessment), the decision on the level of the TAC has followed scientific advice (i.e. same level as advised or below) on 16 occasions; while on seven occasions, the agreed TAC has been higher than recommended. The divergence was generally less than 10% apart from a notable exception in 1994 (35 %). Since 2003, management decisions appear to have been more in line with science – this may be due to the 2004 Management Plan) (7).

Since 2003, stocks have been in the “safe” zone of the precautionary approach plot ($SSB * F$) (1 - see also PI 1.1.1).

There are, however, some questions about these management strategies: i) Over the short term, EU regulation authorizes Member States to ask for a quota increase if 75% is reached by October. This may lead to a quota overrun, although it should be deducted from next year’s quota. ii) There is some possible concern about the 15% TAC constraint since it reduces the possibility of taking drastic measures should they be necessary; however if the management plan specifies that this constraint can be modified if necessary. For instance, for the North Sea stock at the 2009 SSB level, F should be no more than 0.3 to be in accordance with the management plan. This would give a 24% reduction in the TAC for 2010 (7). With this TAC constraint, this corresponds to landings of 118 000 t in 2010 and a F above the precautionary reference point of 0.3.

(In response to one of the peer reviews, we revisited this point, and found that the 2010 TAC was set at 107 000 t – i.e. the TAC constraint was not applied and the fishing mortality was kept below the precautionary reference point (75).)

The team concluded that the harvest strategy for this stock is responsive to the state of the stock and is designed to achieve stock management objectives reflected in the target and limit reference points. Also, evidence exists to show that they are achieving their objectives including being clearly able to maintain stocks at target levels (see rationale for 1.1.1). SG 80 is thus met. The harvest strategies are periodically reviewed but have not been fully evaluated. This, plus the minor concerns over the TAC constraint, with the potential for temporary increases in F above target levels, as discussed above, preclude a score of 100.

2. North-East Arctic stock

For the Arctic stock (Subareas I-II), there is no formally agreed management plan. However, since 1998, the agreed TAC has been consistent with scientific advice (equal or lower) except in 1994 and 1995. However, landings generally exceeded TACs until 2000 (generally <10% greater) but since then have been constantly below. Since 1995, stocks are in the “safe” zone of the precautionary approach plot ($SSB * F$). However, discards remain an issue for this stock (8).

Overall, the team concluded that the harvest strategy for each stock is responsive to the state of the stock and is designed to achieve stock management objectives reflected in the target and limit reference points. Also, evidence exists to show that they are achieving their objectives including being clearly able to maintain stocks at target levels (see rationale for 1.1.1). SG 80 is thus met. The harvest strategies are periodically reviewed but has not been fully evaluated. This, plus the minor concerns discussed above preclude a score of 100.

1.2.2 Harvest control rules and tools

There are well defined and effective harvest control rules in place

SG 60: Generally understood harvest control rules are in place that are consistent with the harvest strategy and which act to reduce the exploitation rate as limit reference points are approached. There is some evidence that tools used to implement harvest control rules are appropriate and effective in controlling exploitation.

SG 80: Well defined harvest control rules are in place that are consistent with the harvest strategy and ensure that the exploitation rate is reduced as limit reference points are approached. The selection of the harvest control rules takes into account the main uncertainties. Available evidence indicates that the tools in use are appropriate and effective in achieving the exploitation levels required under the harvest control rules.

SG 100: Well defined harvest control rules are in place that are consistent with the harvest strategy and ensure that the exploitation rate is reduced as limit reference points are approached. The design of the harvest control rules take into account a wide range of uncertainties. Evidence clearly shows that the tools in use are effective in achieving the exploitation levels required under the harvest control rules.

	North Sea / W. Scotland stock (IIIa-IV-VI)	Arctic stock (I-II)	Global score
Co. Pêche St. Malo	90	95	90
Scapêche	90	-	90

Rationale

For both areas, harvest control rules are based on a TAC, but also include various technical measures including minimum mesh size, minimum landing size, bycatch regulations, area closures, and other area and seasonal restrictions (6,7,8). The main harvest control tool, however, is the TAC.

1. North Sea stock

TAC: a TAC is calculated such that fishing mortality does not exceed F_{pa} or SSB drop below B_{pa} (1 - see above). For the North Sea stock, TACs are suggested by ICES and set by the European Council of Fisheries Ministers. Harvest control rules are defined in the management plan (see above). Agreed TACs are then divided by member state, each implementing its own sharing system.. The ICES Working Group recommends that there be no limitation in TAC reduction (i.e. the 15% rule) if the biomass is below B_{pa} (see PI 1.1.2 above).

Minimum landing size: For the North Sea stock, the minimum landing size is 35 cm.

Minimum mesh size: In the North Sea there is a minimum mesh size in the cod-end of 110 mm (derogation from 120mm).

Closed areas: Areas in Scottish waters in the North Sea may be closed at very short notice (hours) if high catches of juvenile cod are reported, or large aggregations of mature cod observed. At present, only UK fleets are obliged to comply, but next year it will be required for all fleets. Scapêche already complies with these closures (they do not apply to the Compagnie de Pêche de St. Malo).

A concern remains with the 15% TAC constraint (see 1.2.1). Also, it is important to note that even if uncertainties are built in the definition of the precautionary reference points (F_{pa} , B_{pa}), it is not possible to say that the design of the harvest control rules take into account a wide range of uncertainties such as environment or stock productivity. Those uncertainties are raised in the assessment but are not formally incorporated in the design of control harvest rules. Thus SG 100 was not fully met.

2. North-East Arctic stock

TAC: For the Arctic stock, the TAC is calculated as a simulated average for the 3 coming years, based on F_{pa} . If the biomass is below B_{pa} , the TAC should be based on a fishing mortality that is linearly reduced from F_{pa} (2). Therefore, the 15% constraint observed for the North Sea stock does not exist there.

Minimum landing size: In Norwegian waters the minimum landing size is 45 cm for trawl and conventional gears, and to 42 cm (north of Lofoten) and 40 cm (between 62°N and Lofoten) for purse-seine, with an exception for the first 3000 t purse-seine catch between 62°N and 65°30'N, where the minimum landing size remains at 35 cm (6).

Minimum mesh size: In Norwegian waters north of 62 degrees N, the minimum mesh size is 135 mm (6). La Grande Hermine uses 140 mm mesh size. This mesh size is to be increased to 160 mm.

Closed areas: real time closures are regularly implemented in Norwegian waters.

Other measures: In the Norwegian fishery, quotas may be transferred between fleet. Sorting grids are mandatory in the trawl fishery to eliminate undersized fish from the trawl with a minimum of damage and maximum survival. The Grande Hermine uses 80 mm mesh size on the grid, instead of the compulsory 55 mm. Discarding is illegal.

It appears obvious that well defined harvest control rules are in place, that are consistent with the harvest strategy. Evidence clearly shows that the tools in use are effective in achieving the exploitation levels required under the harvest control rules (scientific advice vs TAC; TAC vs landings, see above).

Also, it is important to note that even if uncertainties are built in the definition of the precautionary reference points (F_{pa} , B_{pa}), it is not possible to say that the design of the harvest control rules take into account a wide range of uncertainties such as environment or stock productivity. Those uncertainties are raised in the assessment but are not formally incorporated in the design of control harvest rules. Conversely to the North Sea stock, there are clear harvest rules if the biomass falls below B_{pa} . This point allows a higher score even if SG 100 was not fully met.

1.2.3 Information / monitoring

Relevant information is collected to support the harvest strategy

SG 60: Some relevant information related to stock structure, stock productivity and fleet composition is available to support the harvest strategy. Stock abundance and fishery removals are monitored and at least one indicator is available and monitored with sufficient frequency to support the harvest control rule

SG 80: Sufficient relevant information related to stock structure, stock productivity, fleet composition and other data is available to support the harvest strategy. Stock abundance and fishery removals are regularly monitored at a level of accuracy and coverage consistent with the harvest control rule, and one or more indicators are available and monitored with sufficient frequency to support the harvest control rule. There is good information on all other fishery removals from the stock.

SG 100: A comprehensive range of information (on stock structure, stock productivity, fleet composition, stock abundance, fishery removals and other information such as environmental information), including some that may not be directly relevant to the current harvest strategy, is available. All information required by the harvest control rule is monitored with high frequency and a high degree of certainty, and there is a good understanding of the inherent uncertainties in the information [data] and the robustness of assessment and management to this uncertainty.

Score

	North Sea / W. Scotland stock (IIIa- IV-VI)	Arctic stock (I-II)	Global score
Co. Pêche St. Malo	85	85	85
Scapêche	85	-	85

Rationale

1. Information on fisheries removals

Boats are clearly identified and recorded through the licensing system. On board, catches are recorded in compulsory logbooks. They are cross-checked with sale-slips on landings. The producer organizations (PMA – Pêcheurs Manche-Atlantique – for Scapêche, FROM-Nord for Comapêche) have the mandate to verify landings and have permanent inspectors on the quaysides at Lorient and Saint-Malo. Sale slips and logbooks are gathered and verified by the French Administration, which centralizes all landings data. A difference of around 20 % between logbooks and sale slips is tolerated; in case of divergence, the highest value is kept on record. Occasional controls on landing and logbook data are also made by the French Gendarmerie Maritime, the Maritimes Affairs, the service of fraud repression (Direction Générale de la Concurrence, de la Consommation et de la Répression des Fraudes , DGCCRF) and EU inspectors.

Scapêche - Four vessels are based in Scotland. They fish mainly in area VI and, less, in area IV. Landings are made in a designated port (as imposed by EU regulation) and recorded there (in this case Lochinver). Three trawlers are based in Lorient. They also operate in area VI. One fishing trip out two, they land in Scotland (Lochinver), the other in Lorient. Two vessels land in Ireland (Castletownbere) and fish mainly in areas VI and VII. All the vessels return to Lorient minimum once per year. Landings are controlled at the quayside in all three countries. Data from Scotland and Ireland are sent to the French administration. Fish landed in these countries is placed in sealed trucks until arrival in France, where it enters the French system. Other types of controls are frequent on quayside.

At sea activities are controlled mainly through the VMS system. On board controls occur occasionally. Scapêche participates in an observer program and around 10 trips per year are observed, mainly for the deep water fishery.

Comapêche – When La Grande Hermine is fishing in Norwegian waters, fish is landed in St. Malo or Hammerfest. When she is fishing in the North Sea, fish is landed in Bremerhaven or Cuxhaven (Germany). Landings are controlled on port and then sent to France by truck.

At sea activities are controlled through the VMS system and by radio. On board controls occur four or five times in a fishing trip. There are no at sea observers. The vessel may also be obliged to stop in Bergen for further controls.

The German and Norwegian fleets, which along with the French fleet represent the majority of saithe catches, are also well monitored. Discards are not considered to be a problem in any of these fleets (10,11,12). Discards may be more important in the Scottish fleets (27) but are nonetheless considered minor compared to total catches.

2. Biological data

The general aspects of saithe biology are well known and documented (e.g. 2,3,4,7,8). IFREMER is the French research institute in charge of gathering biological data in the French ports.

In Lorient, technicians collect basic data (length, weight) and otoliths for age determination on the quayside from Scapêche round fish landings. As fish are gutted at sea, no other biological data are recorded. In Saint-Malo, as landings correspond to processed fish, biological data cannot be collected.

For ICES Subarea I and II, Norwegian scientists gather biological data from Norwegian landings³. A few countries also supply some additional data.

Weight-at-age is regularly recorded and can be formally incorporated into ICES assessments (7,8). Norwegian scientists also collect other biological information such as maturity at age, which is also incorporated in the assessment (7,8).

3. Fisheries-independent stock data

Aside from CPUE, stock abundance data and biological data are also gathered by annual scientific surveys (see rationale for 1.2.4 for details).

4. Uncertainties in data

North Sea Stock: Maturity and fecundity-at-age are not regularly monitored. This is important because the maturity ogive may have changed (see 1.1.1 for more details). North Sea stock productivity is declining and remains an issue. Large uncertainties also exist in the prediction of the recruitment, because surveys have had difficulty in evaluating year classes 0-3 (29).

North-East Arctic stock: Discarding is illegal, but is known to occur in some fisheries. There are no estimates of discarding available for assessment.

³ ICES. 2009. AFWG report. Annex 5: Northeast Arctic Saithe.

5. Summary

For both stocks, there is monitoring of environmental parameters; however this is independent from the stock assessments, and the effect of the environment on stock productivity is not formally considered in the assessment (7,8).

It is not possible to say that we have "a comprehensive range of information". Also, all information required by the harvest control rule is neither monitored with high frequency nor with a high degree of certainty. Most of the criteria for SG 100 are thus not fully met.

1.2.4 Assessment of stock status

There is an adequate assessment of the stock status

SG 60: The assessment estimates stock status relative to reference points. The major sources of uncertainty are identified.

SG 80: The assessment is appropriate for the stock and for the harvest control rule, and is evaluating stock status relative to reference points. The assessment takes uncertainty into account. The stock assessment is subject to peer review.

SG 100: The assessment is appropriate for the stock and for the harvest control rule and takes into account the major features relevant to the biology of the species and the nature of the fishery. The assessment takes into account uncertainty and is evaluating stock status relative to reference points in a probabilistic way. The assessment has been tested and shown to be robust. Alternative hypotheses and assessment approaches have been rigorously explored. The assessment has been internally and externally peer reviewed.

Score

	North Sea / W. Scotland stock (IIIa-IV-VI)	Arctic stock (I-II)	Global score
Co. Pêche de St. Malo	90	90	90
Scapêche	90	-	90

Rationale

ICES working groups use two series of indices in the assessment: commercial fisheries catches per unit effort (CPUE) and scientific surveys (7,8).

For the North Sea stock, the 2009 assessment incorporates CPUEs from the French bottom trawl fishery (age range: 3-9, year range 1990-2008 – « FRATRIB ») and the German bottom trawl fishery (age range: 3-9, year range 1995-2008 – « GEROTB »). The Norwegian trawl fishery CPUEs were discarded in 2007 and again in 2009 (27,28).

Scientific surveys include the Norwegian acoustic survey (age range 3-6, year range 1995-2008 – « NORACU ») and the bottom trawl survey IBTS (IBTS quarter 3, age range: 3-5, year range 1991-2008 – « IBTSq3 ») (27,28).

Landings at age data by fleet are routinely supplied by Denmark, Germany, France, Norway, UK (England), and UK (Scotland) for Subarea IV and by the UK (Scotland) for Subarea VI. This provides a reliable time series, incorporated in the analytical assessment (27).

For the North-East Arctic stock, the assessment uses the CPUE data from the Norwegian trawl fisheries (started 1994, age range 4-8) and the Norwegian acoustic survey (started 1994, age range 3-7) (28).

Both stocks are assessed with a Sequential Population Analysis model (« XSA ») (1,2). Results are discussed in the ICES Working Groups on the assessment on demersal stocks, North-Sea and Skagerrak (WGNSSK) and Arctic Fisheries Working Group (AFWG). Alternative tools and approaches are tested and discussed. Results are further peer reviewed by a Review Group, the Scientific, Technical and Economic Committee for Fisheries (STECF) composed of external scientists (27,28).

The assessments provide a comprehensive vision of the stocks' trends : spawning stock biomass, recruitment-stock relationships, fishing mortality. Data are related to the accepted reference points, in an analytical way. Despite the concerns raised, the analyses appear robust.

Assessments are limited by the use of commercial CPUEs, which may fail to track population trends. Catch rates may remain high even if the population is declining as fishers are able to detect fish concentrations.

For the North-Sea stocks, retrospective patterns in the analytical assessment remain low, which gives faith in the results. Uncertainties are related to the poor reliability of the recruitment data (age 3) (7). According to scientists, the quality of 2009 assessment is strongly affected by the uncertainty about the size of the strong 2004 year class (27). There is also reported to be questions around the assessment of longer-term trends in recruitment (see Peer Review Reports above). Discards are not considered as a major problem in that area (7). In 2007, external reviewers raised the concern that measurement or implementation errors were insufficiently included within the analyses (27).

For the North-Eastern Arctic, retrospective pattern is high, even if the assessment appears to be more stable since 2007 (28). The forecast is biased by the assumptions on initial stock size and on incoming year classes and also by the lack of reliable recruitment indexes. The trends in the assessment do not correspond well with the survey indexes. Discards are also considered to be important in that fishery and is not incorporated in the assessment (28).

No probabilistic approaches, such as risk analyses, are used in both assessment. Biological characteristics are considered in the analysis but not formally incorporated in the assessment.

The team considered that all the criteria in SG 80 were met. For SG 100, some of the additional criteria were met – the assessment is regularly tested and the North Sea assessment has been shown to be robust (the Arctic assessment less so). The assessments are regularly reviewed internally and externally. Overall, the team considered that 90 was an appropriate score for both stocks.

Principle 2

Fishing operations should allow for the maintenance of the structure, productivity, function and diversity of the ecosystem (including habitat and associated dependent and ecologically related species) on which the fishery depends.

2.1 Retained species

2.1.1 Outcome status

The fishery does not pose a risk of serious or irreversible harm to the retained species and does not hinder recovery of depleted retained species.

SG 60: Main retained species are likely to be within biologically based limits or if outside the limits there are measures in place that are expected to ensure that the fishery does not hinder recovery and rebuilding of the depleted species. If the status is poorly known there are measures or practices in place that are expected to result in the fishery not causing the retained species to be outside biologically based limits or hindering recovery.

SG 80: Main retained species are highly likely to be within biologically based limits, or if outside the limits there is a partial strategy of demonstrably effective management measures in place such that the fishery does not hinder recovery and rebuilding.

SG 100: There is a high degree of certainty that retained species are within biologically based limits. Target reference points are defined and retained species are at or fluctuating around their target reference points.

Score Compagnie de Pêche de St. Malo : 85

Score Scapêche : 80

Rationale

1. Scoring the Units of Assessment

Unlike Principle 1, which refers to the stock of the target species, Principle 2 refers to the specific fisheries under assessment. Thus for the PIs in Principle 2, the two Units of Assessment (i.e. the two fishing companies) are scored separately.

2. 'Retained' species vs. by-catch species

The FAM (1) makes a distinction between 'retained species' (species which are not targeted but if caught are retained and sold), and 'by-catch' species (species which are discarded if caught). In practice, in this fishery, the same species may sometimes be retained and at other times discarded. This may happen if, for example, there is a minimum size limit (e.g. cod, haddock). A very small catch from one tow (one or a few

individuals) may be discarded, while a larger catch from one tow may be retained, for practical reasons. However, the FAM defines all species which are ever retained as ‘retained species’ (i.e. these species are considered under PIs 2.1.1, 2.1.2 and 2.1.3) and defines only those few species which are never retained as ‘by-catch’ (i.e. to be considered under PIs 2.2.1, 2.2.2 and 2.2.3 below).

3. Definition of ‘main retained species’

Scoring guideposts 60 and 80 make reference to ‘main retained species’. The FAM defines ‘main retained species’ as follows:

‘a species that comprises less than 5% of the catch by weight may normally be considered to be a minor species, i.e., not ‘main’, in the catch, unless it is of high value to the fisher or of particular vulnerability, or if the total volume of the fishery is large, in which case even 5% may be a considerable catch.’ (1)

4. Scapêche

As set out in the report above, Scapêche vessels are actually involved in four different directed fisheries: deep-water trawl, monkfish, hake and saithe. For the latter, saithe is obviously the target species. However, according to observer reports, saithe is also caught (in relatively small quantities) when monkfish and hake are the target species. This means that species caught in these two fisheries also need to be considered as ‘retained species’ of the saithe fishery. It is never caught in the deep-water trawl fishery, so this element of Scapêche’s fishing activities were excluded from the assessment.

However, Scapêche vessels may participate in all these fisheries in a single fishing trip, or even in a single day⁴. This means that in Scapêche catch data, catches from the various fisheries are not easily separated. However, the fishery is relatively closely observed, and eight recent (less than one year old) observer reports were provided to the team (31). From these reports, the team was able to cross-reference the list of species from the catch data with the species observed to be taken with saithe (either when saithe is the main target species or when saithe is a retained by-catch species). This results in the list of retained species given in Table 3.

⁴ This is possible despite the fact that the fisheries are rather separate because they operate at different depths and the area in which Scapêche operates (to the northwest of Scotland) is on the edge of the continental slope with a relatively steep depth gradient – i.e. areas of dramatic different depth are relatively close to each other.

Table 3. Retained species taken by Scapêche in 2008 in conjunction with saithe – either when saithe is the target species, or when saithe is a by-catch of the monkfish or hake fishery (data from Scapêche reported landings and from 31).

species (fr)	species (en)	species (sci.)	catch (kg live weight)	% catch*
lieu noir	saithe	<i>Pollachius virens</i>	2763038	23.5
baudroie	monkfish	<i>Lophius piscatorius</i>	1264777	10.8
lingue franche	ling	<i>Molva molva</i>	995424	8.48
merlu	hake	<i>Merluccius merluccius</i>	908527	7.74
mostelle	forkbeard	<i>Phycis phycis</i>	319286	2.72
chimere	rabbitfish	<i>Chimaeridae</i>	274827	2.34
brosme	tusk	<i>Brosme brosme</i>	169664	1.45
raies	skates and rays	<i>Rajidae</i>	126555	1.08
cardine	megrin	<i>Lepidorhombus whiffiagonis</i>	109452	0.93
églefin	haddock	<i>Melanogrammus aeglefinus</i>	80035	0.68
rascasse	scorpionfish	<i>Scorpaenidae</i>	64587	0.55
cabillaud	cod	<i>Gadus morhua</i>	63954	0.54
encornet	squid	<i>Loligo vulgaris</i>	45336	0.39
pocheteau noir	long-nose skate	<i>Dipturus oxyrinchus</i>	11364	0.1
grondin gris	grey gurnard	<i>Eutrigla gurnardus</i>	3761	0.03

* this does not add up to 100% because species that are never caught with saithe (from the deep-water trawl fishery) have been excluded from this list.

SGs 60 and 80 require us to define ‘main’ retained species as set out above. Three species (excluding saithe) make up more than 5% of Scapêche’s total catch are monkfish (~11%), hake and ling (~8%). Other species may also be considered on the basis of value or vulnerability. The team decided on this basis to consider the catch of rays. These species were therefore considered in more detail.

Monkfish: Monkfish is a separate target species for Scapêche with a separate fishery – generally operating somewhat deeper than the saithe fishery, although not as deep as the deep-water trawl fishery. From the observer reports (31), the team noted that the overlap between the two fisheries is relatively small. Around 12% of the monkfish catch comes from trawl tows in which saithe is also caught. When only trawls in which saithe were caught were considered, monkfish represented only 3% of the retained catch. The team therefore decided that monkfish should not be considered a ‘main’ retained species of the Scapêche saithe fishery.

Ling: Ling is not a target species for Scapêche but is minor component of the catch in the hake, monkfish and saithe fisheries. Again, the observer reports (31) suggest that the overlap with the saithe fishery is low. When only trawls in which saithe were caught were considered, ling represented 1.3% of the retained catch. Again, the team therefore decided that ling should not be considered a ‘main’ retained species.

Hake: Hake, like monkfish, is a separate target species for Scapêche with a separate fishery. However, the overlap between the two fisheries is somewhat greater than for the

monkfish fishery. From observer reports (31), 43% of the hake catch comes from trawl tows in which saithe is also caught. When only trawls in which saithe were caught were considered, hake represented nearly 12% of the retained catch. The team therefore decided hake should be considered a 'main' retained species.

Rays: Until 2009 it was not obligatory for rays to be separated by species in logbooks (this has now changed). One species of rays was separated, however – the long-nose skate (*Dipturus oxyrinchus* – pocheteau noir). Observer reports (31) suggest that the catches of 'raie' (rays excluding *D. oxyrinchus*) is made up largely or entirely of thornback ray (*Raja clavata* – raie bouclée). *D. oxyrinchus* is listed by IUCN 'near-threatened' while *R. clavata* is listed as 'lower risk' (32,33). Observer reports (31) suggest that neither of these species overlap much with the saithe fishery, with the long-nose skate making up ~0.03% of the catch from tows when saithe is also taken, and the thornback ray making up ~0.02%. On this basis, the team decided that neither should be considered 'main' retained species.

The team decided that SG 100 could not be met in any of its points because of its requirement for the status of all retained species to be understood. This is not possible in this case for two reasons: i) for species with small catches, it is not possible to assess reliably the extent to which the catches overlap with the saithe fishery; and ii) most of these species are not well-known and are not assessed by ICES. Some, such as the rays, have not until recently been properly identified in logbooks.

SG 80 requires consideration of 'main' retained species only – i.e. in this case hake. ICES divides northeast Atlantic hake into a northern and a southern stock, and the northern stock is relevant here (34). Based on estimates of spawning stock biomass from 2009 and estimates of fishing mortality from 2008, ICES considers that this stock is at full reproductive capacity and is sustainably harvested, with SSB just above the precautionary reference point and F around the precautionary reference point since 2001. Recruitment appears to have been relatively stable over the last decade (34).

On this basis, the team decided that SG 80 was met for Scapêche for this PI.

5. *Compagnie de Pêche de St. Malo*

The Compagnie de Pêche de St. Malo participates in two fisheries : the North Sea saithe fishery and the Northeast Arctic cod fishery (with saithe as a retained by-catch species). Retained catches from these two fisheries for 2008 are given in Tables 4 and 5 below.

Table 4. Catches by the Grande Hermine from logbook data from the North Sea (ICES Subareas IIa and IV)

species (fr)	species (en)	species (sci.)	catch (kg live weight)	% catch
lieu noir	saithe	<i>Pollachius virens</i>	683741	98.5
eglefin	haddock	<i>Melanogrammus aeglefinus</i>	5135	0.74
merlu	hake	<i>Merluccius merluccius</i>	3111	0.45
lingue	ling	<i>Molva molva</i>	2029	0.29
raie	rays	Rajidae	32	<0.01
brosme	tusk	<i>Brosme brosme</i>	97*	0.08*

* zero catch in 2008 – these figures from 2007

Table 5. Catches by the Grande Hermine from logbook data from the northeast Arctic (ICES Subareas I and II)

species (fr)	species (en)	species (sci.)	catch (kg live weight)	% catch
lieu noir	saithe	<i>Pollachius virens</i>	114600	4.52
cabillaud	cod	<i>Gadus morhua</i>	2142538	84.5
églefin	haddock	<i>Melanogrammus aeglefinus</i>	258677	10.2
sébaste	redfish	<i>Sebastes marinus / mentella</i>	12621	0.50
loup	wolf fish	<i>Anarhichas lupus</i>	6915	0.27
flétan noir	Greenland halibut	<i>Reinhardtius hippoglossoides</i>	372	0.01
lingue	ling	<i>Molva molva</i>	530	0.02
flétan de l'Atlantique	Atlantic halibut	<i>Hippoglossus hippoglossus</i>	113	<0.01
raie	rays	Rajidae	885*	0.03*

* zero catch in 2008 – these figures from 2007

From the above catch data, the only 'main' retained species are cod and haddock from the northeast Arctic stock. Redfish was reviewed carefully by the team on the basis that the stock status is unknown with recruitment considered likely to be low; however the team considered that 0.5% of the catch (12.6 tonnes) was not significant enough to be considered a 'main' retained species even on this basis.

Cod: Northeast Arctic cod was considered to meet SG 80, because it was considered highly likely to be within biologically-based limits. ICES considers that the biomass is above B_{pa} and the fishing mortality is at F_{pa} - i.e. the stock is within precautionary reference points (15).

Haddock: Based on the most recent estimates of SSB (in 2009) and fishing mortality (in 2008), ICES classifies the northeast Arctic haddock stock as having full reproductive capacity and being harvested sustainably. SSB has been above B_{pa} since 1989 and F has been around F_{pa} since 2002 – i.e. the stock is within precautionary reference points (35).

For SG 100, all retained species should be within biologically based limits or should be subject to a partial strategy. The full list of retained species from logbook data is given below with stock status if known (Table 6).

Table 6. Retained species from the Grande Hermine from 2007 and 2008, with ICES advice on stock status if there is any.

Species / stock	Stock status according to ICES	refs
North Sea haddock	Sustainably harvested	36
hake northern stock	Sustainably harvested	34
ling	CPUE at reduced level	37
North Sea rays	Variable – mainly unknown; some depleted	38
tusk	Unknown	39
redfish	Unknown. <i>'significant, but unquantifiable, spawning biomass in the Norwegian Sea. There are indications, however, that recruitment in the next 12-15 years will be low.'</i>	16,17
wolf fish	No ICES advice	
Greenland halibut	Uncertain. <i>'The stock has remained at a relatively low size in the last 25 years'</i>	40
Atlantic halibut	No advice	
Arctic rays	Unknown	

For haddock and hake, and for Northeast Arctic cod and haddock (discussed above), SG 100 is met because the stock status is known and overall catch rates are considered by ICES to be sustainable (15,34,35,36). For the other species, SG 100 is not met. This gives an overall score of 85.

2.1.2 Management strategy

There is a strategy in place for managing retained species that is designed to ensure the fishery does not pose a risk of serious or irreversible harm to retained species.

SG 60: There are measures in place that are expected to maintain the main retained species at levels which are highly likely to be within biologically based limits, or to ensure the fishery does not hinder their recovery and rebuilding. The measures are considered likely to work, based on plausible argument (eg, general experience, theory or comparison with similar fisheries/species).

SG 80: There is a partial strategy in place that is expected to maintain the main retained species at levels which are highly likely to be within biologically based limits, or to ensure the fishery does not hinder their recovery and rebuilding. There is some objective

basis for confidence that the partial strategy will work, based on some information directly about the fishery and/or species involved. There is some evidence that the partial strategy is being implemented successfully

SG 100: There is a strategy in place for managing retained species. The strategy is mainly based on information directly about the fishery and/or species involved, and testing supports high confidence that the strategy will work. There is clear evidence that the strategy is being implemented successfully, and intended changes are occurring. There is some evidence that the strategy is achieving its overall objective.

Score Compagnie de Pêche de St. Malo : 85

Score Scapêche : 80

Rationale

1. Main retained species

For definition of ‘main retained species’ see rationale for PI 2.1.1. Main retained species have been defined by the team as hake for Scapêche and cod and haddock (Arctic stock) for Compagnie de Pêche de St. Malo (see rationale for PI 2.1.1 above).

2. Scapêche

The main retained species (hake) was considered to meet SG 80 because a management plan is in place for the stock, reference points have been defined and the stock is considered by ICES to be healthy and sustainably fished (34). However, SG 100 was not met because the data presented to the team did not even permit a firm identification of which species were fished with saithe and which were not – i.e. the full range of retained species was not completely identified.

3. Compagnie de Pêche de St. Malo

The Arctic stocks of cod and haddock (ICES Subareas I and II) are both subject to management plans, with reference points identified and the stock status above precautionary reference points. The main retained species thus meet SG 80.

For the other retained species, management plans are in place for North Sea haddock and for hake (northern stock) (15,34,35,36). For the other retained species, either there is not a management strategy in place, or there is no evidence about whether the management plan is working (i.e. no stock assessment), or in the case of Greenland halibut the management strategy is not been properly implemented (catches are above the ICES advised level - 40). Thus SG 100 is only met for a minority of all the retained species, giving an overall score of 85.

2.1.3 Information / monitoring

Information on the nature and extent of retained species is adequate to determine the risk posed by the fishery and the effectiveness of the strategy to manage retained species
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SG 60: Qualitative information is available on the amount of main retained species taken by the fishery. Information is adequate to qualitatively assess outcome status with respect to biologically based limits. Information is adequate to support measures to manage main retained species

SG 80: Qualitative information and some quantitative information are available on the amount of main retained species taken by the fishery. Information is sufficient to estimate outcome status with respect to biologically based limits. Information is adequate to support a partial strategy to manage main retained species. Sufficient data continue to be collected to detect any increase in risk level (e.g. due to changes in the outcome indicator scores or the operation of the fishery or the effectiveness of the strategy).

SG 100: Accurate and verifiable information is available on the catch of all retained species and the consequences for the status of affected populations. Information is sufficient to quantitatively estimate outcome status with a high degree of certainty. Information is adequate to support a comprehensive strategy to manage retained species, and evaluate with a high degree of certainty whether the strategy is achieving its objective. Monitoring of retained species is conducted in sufficient detail to assess ongoing mortalities to all retained species

Score Compagnie de Pêche de St. Malo : 85

Score Scapêche : 80

Rationale

For the definition of ‘main retained species’ see rationale for PI 2.1.1 above.

1. Source of information

Quantitative information on catches of most retained species by Scapêche and Compagnie de Pêche de St. Malo is available from logbooks. The logbook data is verified by quayside inspections, at sea inspections, observers and VMS, and was considered by the team likely to be accurate and verifiable. For Scapêche there is a difficulty associated with separating out species associated with different fisheries, but this does not affect any ‘main retained species’. In addition, some groups of species have not in the past been properly identified to species in the logbooks (see rationales for PIs 2.1.1 and 2.1.2 above) – again this does not apply to any ‘main retained species’.

2. Scapêche

For the main retained species (hake northern stock), the information was sufficient for a full stock assessment by ICES, with reference points allowing the stock status to be

judged against biologically-based limits. This information is used to support a management strategy (34). Annual revisions of the stock assessment allow increased risk to be detected relatively quickly. SG 80 is therefore met.

No part of SG 100 can be met due to issues with identification of all the retained species, as outlined above and in the rationales for PIs 2.1.1 and 2.1.2.

3. Compagnie de Pêche de St. Malo

For the main retained species (cod and haddock Arctic stock), the information was sufficient for a full stock assessment by ICES, with reference points allowing the stock status to be judged against biologically-based limits. This information is used to support a management strategy. Annual revisions of the stock assessment allow increased risk to be detected relatively quickly (15,35). SG 80 is therefore met.

SG 100 was only met for the main retained species discussed above, and for hake and North Sea haddock (34,36). For the other species, there is no or limited information (see rationale for PI 2.1.1 above). Some species (rays) have not been properly identified to species. The overall score is thus 85.

2.2 By-catch

2.2.1 Outcome status

The fishery does not pose a risk of serious or irreversible harm to the by-catch species or species groups and does not hinder recovery of depleted by-catch species or species groups.

SG 60: Main by-catch species are likely to be within biologically based limits, or if outside such limits there are mitigation measures in place that are expected to ensure that the fishery does not hinder recovery and rebuilding. If the status is poorly known there are measures or practices in place that are expected result in the fishery not causing the by-catch species to be biologically based limits or hindering recovery

SG 80: Main by-catch species are highly likely to be within biologically based limits or if outside such limits there is a partial strategy of demonstrably effective mitigation measures in place such that the fishery does not hinder recovery and rebuilding

SG 100: There is a high degree of certainty that by-catch species are within biologically based limits

Score Compagnie de Pêche de St. Malo : 80

Score Scapêche : 80

Rationale

1. Definition of 'by-catch species' and 'main by-catch species'

As described in the rationale for PI 2.1.1, species which are sometimes retained and sometimes discarded have been defined here as 'retained species'. The only species discussed here are therefore those which are always discarded. Data on these species are not included in logbooks.

2. Scapêche

Scapêche has extensive information on discarded by-catch species from observer reports (31). The full list of by-catch species (i.e. species that were always discarded) is given in Table 7, along with their estimated percentage contribution to the catch.

Table 7. By-catch species from the Scapêche saithe fishery (i.e. species recorded as discarded in all tows where saithe formed any part of the catch).

Species (scientific)	Species (english)	Species (french)	% of catch for that tow
<i>Argentina sphyraena</i>	argentine	argentine	1.49
<i>Dipturus batis</i>	common skate	pocheteau gris	0.29
<i>Trachurus trachurus</i>	horse mackerel	chinchard	0.22
<i>Rajidae</i>	rays and skates	raies	0.11
<i>Scyliorhinus canicula</i>	small-spotted catshark	roussette	0.10
<i>Malacocephalus laevis</i>	softhead grenadier	grenadier barbu	0.09
<i>Hexanchus griseus</i>	bluntnose six-gilled shark	requin gris	0.05
<i>Malcocephalus</i> sp.		grenadier joues rudes	0.04

The team decided on the basis of this data that there were no main by-catch species in this fishery. This means that SG 80 is automatically met. However, for most of the above species there is no management advice or plan, therefore no part of SG 100 is met.

Note that the common skate is discussed further under PIs 2.3.1-2.3.3 (ETP species) below.

3. Compagnie de Pêche de St. Malo

The Grande Hermine fishes almost exclusively in Norwegian waters, where discarding is forbidden. Helicopter and marine patrols search for evidence of discarding (i.e. dead fish on the surface of the water) and the team were confident given the level of controls that violators would be likely to be arrested. However, discarding is not forbidden in the North Sea, where the Grande Hermine fishes occasionally.

There are no observer reports on the Grande Hermine, so the only sources of information available to the team were anecdotal reports by the captain. He stated that catches of unusual or unmarketable species were usually kept for the crew to eat (the Grande Hermine has a crew of 38). The species in question were for the Arctic monkfish (baudroie), blue whiting (merlan bleu) and whiting (merlan) and for North Sea small-spotted catshark (roussette) and rays. The team were convinced that by-catch is a trivial amount relative to catch, but information provided was not good enough to say exactly what species are involved on an occasional basis.

On this basis, the team concluded that there were no main by-catch species (i.e. SG 80 is automatically met) but no higher score could be given.

2.2.2 Management strategy

There is a strategy in place for managing bycatch that is designed to ensure the fishery does not pose a risk of serious or irreversible harm to bycatch populations.

SG 60: There are measures in place, if necessary, which are expected to maintain main bycatch species at levels which are highly likely to be within biologically based limits or to ensure that the fishery does not hinder their recovery. The measures are considered likely to work, based on plausible argument (e.g. general experience, theory or comparison with similar fisheries/species).

SG 80: There is a partial strategy in place, if necessary, for managing bycatch that is expected to maintain main bycatch species at levels which are highly likely to be within biologically based limits or to ensure that the fishery does not hinder their recovery. There is some objective basis for confidence that the partial strategy will work, based on some information directly about the fishery and/or the species involved. There is some evidence that the partial strategy is being implemented successfully.

SG 100: There is a strategy in place for managing and minimising bycatch. The strategy is mainly based on information directly about the fishery and/or species involved, and testing supports high confidence that the strategy will work. There is clear evidence that the strategy is being implemented successfully, and intended changes are occurring. There is some evidence that the strategy is achieving its objective.

Score Scapêche : 85

Score Compagnie de Pêche de St. Malo : 90

Rationale

1. Definition of 'by-catch species' and 'main by-catch species'

For definition of 'main by-catch species' see 2.2.1. There were no main by-catch species for either company.

2. *Scapêche*

The team considered that SG 80 was met because there are no main by-catch species and because all necessary actions to minimise by-catch were in place (mesh size, sorting grid where necessary), that the outcome was successful and that based on by-catch levels this fishery was highly unlikely to have any impact on populations of by-catch species. For SG 100, the team considered in general terms that there was a strategy for managing by-catch - the gear type (100mm or 135mm mesh size) and the fishing technique (7) means that by-catch levels are minimal. However, the strategy is general, rather than based on the particular fishery and species involved here, and it does not have particular objectives, nor has it been specifically tested. Therefore, only one element of SG 100 is met. This gives a maximum score of 85.

3. *Compagnie de Pêche de St. Malo*

In this fishery, the strategy to minimise by-catch goes above the requirements of the regulations (larger mesh size in nets and sorting grid); discarding is also illegal in Norwegian waters and the team were confident that this is implemented successfully because controls are very strict. However, little objective information is available on rates of by-catch because there are no observer reports for this fishery. Overall the team considered that SG 80 is met (because there are no 'main' by-catch species) but only two points of 100, leading to an overall score of 90.

2.2.3 Information / monitoring

Information on the nature and amount of bycatch is adequate to determine the risk posed by the fishery and the effectiveness of the strategy to manage bycatch
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SG 60: Qualitative information is available on the amount of main bycatch species affected by the fishery. Information is adequate to broadly understand outcome status with respect to biologically based limits. Information is adequate to support measures to manage bycatch

SG 80: Qualitative information and some quantitative information are available on the amount of main bycatch species affected by the fishery. Information is sufficient to estimate outcome status with respect to biologically based limits. Information is adequate to support a partial strategy to manage main bycatch species. Sufficient data continue to be collected to detect any increase in risk to main bycatch species (e.g. due to changes in the outcome indicator scores or the operation of the fishery or the effectiveness of the strategy).

SG 100: Accurate and verifiable information is available on the amount of all bycatch and the consequences for the status of affected populations. Information is sufficient to quantitatively estimate outcome status with respect to biologically based limits with a high degree of certainty. Information is adequate to support a comprehensive strategy to manage bycatch, and evaluate with a high degree of certainty whether a strategy is achieving its objective. Monitoring of bycatch data is conducted in sufficient detail to assess ongoing mortalities to all bycatch species.

Score Compagnie de Pêche de St. Malo : 80
Score Scapêche : 80

Rationale

1. Scoring against SG 100

SG 100 requires that accurate and verifiable information is available on all by-catch in this fishery and on its consequences for population status. This is not the case: catch which is discarded (i.e. ‘by-catch’ according to the MSC definition) is not required to be noted in logbooks, so the only information comes from observer reports for Scapêche (31) and anecdotal information for Compagnie de Pêche de St. Malo.

In addition, the population status of all by-catch species is not known accurately – e.g. for small pelagic species where stock assessment is difficult or for rays where catch data is lacking because of difficulties in identification by fishermen. SG 100 is therefore not met in its main elements, and the team considered that the highest possible score was 80.

2. Scapêche

SG 80 is met because there are no main by-catch species.

3. Compagnie de Pêche de St. Malo

SG 80 is met because there are no main by-catch species.

2.3 ETP species

2.3.1 Outcome status

<p>The fishery meets national and international requirements for protection of ETP species. The fishery does not pose a risk of serious or irreversible harm to ETP species and does not hinder recovery of ETP species.</p>
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SG 60: Known effects of the fishery are likely to be within limits of national and international requirements for protection of ETP species. Known direct effects are unlikely to create unacceptable impacts to ETP species

SG 80: The effects of the fishery are known and are highly likely to be within limits of national and international requirements for protection of ETP species. Direct effects are highly unlikely to create unacceptable impacts to ETP species. Indirect effects have been considered and are thought to be unlikely to create unacceptable impacts

SG 100: There is a high degree of certainty that the effects of the fishery are within limits of national and international requirements for protection of ETP species. There is a high

degree of confidence that there are no significant detrimental effects (direct and indirect) of the fishery on ETP species

Score Compagnie de Pêche de St. Malo : 75

Score Scapêche : 75

Rationale

1. Definitions

ETP species are defined by MSC as follows: *Endangered, threatened or protected species are those that are recognised by national legislation and/or binding international agreements (e.g. CITES) to which the jurisdictions controlling the fishery under assessment are party.*

2. Species coming under the above definition

Table 8 below shows the species that might be relevant, according to the above definition. These are species which are present in the areas in which Scapêche and the Compagnie de Pêche de St. Malo operate, and which are protected in some way. The sources of protection considered were i) EU legislation; ii) national legislation (Norway, UK, France); iii) binding international agreements (OSPAR, CITES)

Species were selected by the team to be relevant if there was any possibility of overlap with the Scapêche or Compagnie de Pêche de St. Malo fishing operations by i) geographic distribution only (for terrestrial or pelagic species) or by i) geographic distribution and depth (for marine benthic species).

Table 8. ETP species considered as part of this assessment.

Species	Source of protection
Ocean quahog <i>Arctica islandica</i>	OSPAR (41)
Cold water coral <i>Lophelia pertusa</i>	OSPAR (42 - note: considered a habitat type), EU and Norwegian legislation (6)
Basking shark <i>Cetorhinus maximus</i>	OSPAR, UK legislation (43)
Common skate <i>Dipturus batis</i>	OSPAR
Whales (any species)	CITES (44)
Common or harbour seal <i>Phoca vitulina</i>	French legislation (45)
Grey seal <i>Halichoerus grypus</i>	French legislation
Bottlenose dolphin <i>Tursiops truncatus</i>	French legislation, CITES
Harbour porpoise <i>Phocoena phocoena</i>	French legislation, CITES, OSPAR
Roseate tern <i>Sterna dougallii</i>	French legislation
Razor bill <i>Alca torda</i>	French legislation
Common guillemot <i>Uria aalge</i>	French legislation
Puffin <i>Fratercula arctica</i>	French legislation

3. Cetaceans, seals, seabirds and basking shark

The fishing companies report that cetaceans and seabirds are seen while fishing, but that there are never any negative interactions (death, injury or disturbance). Seal are not reported to be seen. A basking shark has never been caught or landed on board. For Scapêche, observer reports likewise report no interactions with the above species, but these cover only a minority of fishing trips (31). According to Defra (46), cetaceans are not considered to be at risk from bottom trawling, and it is not clear by what mechanism negative interactions could occur. This scoring element scored 100 for both companies.

4. Common skate

The common skate is a demersal species that lives mainly between 0 and 200 m depth, although it is occasionally found down to 600 m (47). The saithe fishery operates at a depth of 160-300 m (31) – i.e. the fishery overlaps in depth range with the common skate. The geographic range of the common skate overlaps with the North Sea, west of Scotland and west of Ireland fisheries but not the Arctic (48).

For Scapêche, the total catch of rays in 2008 was 127 tonnes, excluding long-nose skate (pocheteau noir) which are recorded separately. It is not clear the extent to which this catch overlaps with the saithe fishery – much of it may come from the deep water trawl fishery. Rays are not well distinguished to species in catch data or in observer data. One observer report (onboard the JC Coleou, Feb. 09) shows catches of common skate in two tows where small amounts of saithe was also caught, although the target species was monkfish. Scapêche provides clear instructions to vessel captains about how to distinguish rays to species, and they are also informed that the common skate (and other species) must be discarded quickly and if possible alive. Overall, the team considered that Scapêche were now behaving correctly to minimise impacts on common skate, although up till 2009 this was not required. This means that information was not sufficient to be completely certain about the impacts of the Scapêche fishery on common skate, so SG 80 was not met for this species.

For Compagnie de Pêche de St. Malo, logbooks show a very low catch of rays (maximum catch 0.8 tonnes in the Arctic in 2008 but usually of the order of a few kilos). (Note that catches of ray in the Arctic are not likely to be common skate since the range reportedly does not extend that far north – 48). The captain reports that occasional catches of rays are usually fed to the crew. Rays not distinguished to species in catch data, but the team considered it highly unlikely common skate was caught in significant quantities. The captain of the Grande Hermine was not aware of the regulations requiring certain rays (including common skate) to be discarded, or requiring rays to be identified to species in logbooks.

Overall, the team was basically satisfied that neither fishery was having a major impact on the common skate – i.e. SG 60 is met for both companies. However for both companies SG 80 is not met. Firstly, the impacts of the fishery on common skate are not

fully known because rays are not always included in logbooks (if discarded) and in any case they not identified to species (until recently for Scapêche). Secondly, the Compagnie de Pêche de St. Malo is not fully meeting its international obligations as regards full identification and rapid discarding of common skate. The team scored Scapêche 70 and Compagnie de Pêche de St. Malo 60 for this scoring element.

5. *Ocean quahog (Arctica islandica)*

There is evidence that this species has been reduced in the southern North Sea due to beam trawling (12). However, the team also notes that populations of *Arctica* in the northern North Sea are considered high (49) – particularly in the Fladen Ground which is a very important area for *Nephrops* trawling. The team therefore felt that there was no strong evidence that otter trawling posed a significant threat to this species. However, information put forward by peer reviewer 1 suggests that it is not possible to say with a high degree of confidence that there are no impacts (as would be required for a score of 100). This scoring element therefore scores 80.

6. *Lophelia pertusa*

Lophelia pertusa is considered by OSPAR as a threatened habitat rather than a protected species. However, it is protected in some areas of Norwegian and Scottish waters by a ban on trawling (6) which is respected by both companies. The team followed the lead of OSPAR in considering the wider distribution of *Lophelia* under habitats below. This scoring element scores 100.

7. *Scoring*

Both companies had one scoring element that scored <80, while the others scored 100. This gives an overall score of 75 for both companies.

8. *Conditions*

The same condition is applied to the certification of both companies. Each company needs to arrive at a point where the effects of their saithe fishery on common skate can be quantified, to ensure that they comply with SG 80. This means that each company must demonstrate i) that catches of common skate are accurately recorded and ii) that international requirements for the protection of common skate (6) are followed at all times. For conditions see Section 8 of the main report.

2.3.2 Management strategy

The fishery has in place precautionary management strategies designed to: - meet national and international requirements; - ensure the fishery does not pose a risk of serious or irreversible harm to ETP species; - ensure the fishery does not hinder recovery of ETP species; and - minimise mortality of ETP species.
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SG 60: There are measures in place that minimise mortality and injury, and are expected to achieve the ETP Outcome PI 80 level of performance or above. The measures are

considered likely to work, based on plausible argument (e.g. general experience, theory or comparison with similar fisheries/species).

SG 80: There is a strategy in place for managing the fishery's impact on ETP species, including measures to minimise mortality, that is designed to achieve the ETP Outcome PI 80 level of performance or above. There is an objective basis for confidence that the strategy will work, based on some information directly about the fishery and/or the species involved. There is evidence that the strategy is being implemented successfully.

SG 100: There is a comprehensive strategy in place for managing the fishery's impact on ETP species, including measures to minimise mortality, that is designed to achieve above the ETP Outcome PI 80 level of performance. The strategy is mainly based on information directly about the fishery and/or species involved, and a quantitative analysis supports high confidence that the strategy will work. There is clear evidence that the strategy is being implemented successfully, and intended changes are occurring. There is evidence that the strategy is achieving its objective.

Score Compagnie de Pêche de St. Malo : 65
Score Scapêche : 80

Rationale

1. Key ETP species

A full list of relevant ETP species is given in the rationale for 2.3.1 above. From PI 2.3.1 above, the key species is the common skate. Impacts of the fisheries under assessment on other ETP species were zero or negligible. The team decided that the most important component was common skate and it was not justified to amend the score based on other ETP species where basically no management strategy was required. The overall scores given were thus the scores for common skate.

2. Scapeche – common skate

As of 2009, a strategy for the management of this species in the fishery has been put in place at EU level (6). The elements of the strategy are as follows:

- All rays and skate brought on board are required to be identified in logbooks to species level.
- Three species, including the common skate, are required to be discarded alive as far as possible. Crews should take measures to maximise survival; i.e. rapid discarding in a careful fashion.

The team considered that this regulation comprised a strategy as defined in SG 80, and that there was an objective basis to think that it would work – rays and other elasmobranchs are usually regarded as quite robust (see below).

Scapêche has made all its vessels aware of these requirements, and evidence suggests that it is being implemented successfully. A risk with the strategy is the (mis)identification of

skates and rays in the by-catch. To help with this, Ifremer has created laminated identification sheets for the main species of rays caught by French fisheries, including the common skate. These have been issued to Scapêche vessels. In addition, the post-capture survival of common skate in this fishery is not known. A study on trawl fisheries in the Bristol Channel (50) suggested a mean survival rate of just over 50 % for rays (mixed species) caught in trawl tows of commercial duration, but it is not clear how applicable this is to these fisheries (different species, different fishery, different location). Overall, however, the team decided that SG 80 was met, because the strategy is i) in place, ii) being implemented and iii) seemed likely to minimise mortality of common skate in this fishery.

3. Compagnie de Pêche de St. Malo – common skate

The team considered that there were ‘measures in place’ to minimise mortality of common skate in this fishery, to the extent that the fishery does not overlap much with the geographic range of common skate (except in North Sea), meaning that it is not likely to have a significant impact on the population. The team considered that there was thus an objective basis for considering that these ‘measures’ would work. However, the team did not consider that the measures comprised a ‘strategy’, since the above EU rules have not been properly implemented by the Compagnie de Pêche de St. Malo. This means that only one part of SG 80 is met and the overall score was thus 65.

4. Condition

This condition applies to the Compagnie de Pêche de St. Malo. The company must implement the management strategy for common skate. This must be in conformance with EU regulations although the company may include other elements as it considers may be required to meet SG 80. They must provide evidence that they are complying with the regulations for this species. For conditions see Section 8 of the main report.

2.3.3 Information / monitoring

Relevant information is collected to support the management of fishery impacts on ETP species, including: - information for the development of the management strategy; - information to assess the effectiveness of the management strategy; and - information to determine the outcome status of ETP species.

SG 60: Information is adequate to broadly understand the impact of the fishery on ETP species. Information is adequate to support measures to manage the impacts on ETP species. Information is sufficient to qualitatively estimate the fishery related mortality of ETP species.

SG 80: Information is sufficient to determine whether the fishery may be a threat to protection and recovery of the ETP species, and if so, to measure trends and support a full strategy to manage impacts. Sufficient data are available to allow fishery related mortality and the impact of fishing to be quantitatively estimated for ETP species.

SG 100: Information is sufficient to quantitatively estimate outcome status with a high degree of certainty. Information is adequate to support a comprehensive strategy to

manage impacts, minimize mortality and injury of ETP species, and evaluate with a high degree of certainty whether a strategy is achieving its objectives. Accurate and verifiable information is available on the magnitude of all impacts, mortalities and injuries and the consequences for the status of ETP species.

Score Compagnie de Pêche de St. Malo : 70
Score Scapêche : 65

Rationale

A list of relevant ETP species is given in the rationale for 2.3.1 above. The common skate was considered to be the key ETP species for both fisheries.

1. Species other than common skate

For all species except the common skate, the team was confident that, given the nature of the fishery and the species involved, the level of fishing mortality and the nature of the threat posed by this fishery could be confidently and quantitatively predicted. The team further considered that outcome status with regard to this fishery could be estimated with a high degree of certainty and that impacts could be minimised with a high degree of certainty. For these species quantitative information is not required because interactions with the fishery are negligible and/or benign.

2. Common skate - Scapeche

Semi-quantitative information on catches of common skate is available from observer reports, allowing an estimate of the impact of the fishery, i.e. SG 60 is met. However, this information is not sufficient to assess fishing mortality in a quantitative way, or to track trends, so only the first part of SG 80 is met.

3. Common skate – Compagnie de Pêche de St. Malo

It is known that the total catch of rays is low in this fishery, and it is known that there is limited geographic overlap between the fishery and the distribution of common skate. The team considered that this information sufficient to assess the impact of the fishery on common skate as low or negligible, so SG 60 is met. For SG 80 the first part is met, but a quantitative assessment of fishing mortality and impacts is not possible. This gives an overall score of 70.

4. Condition

The condition applies to both fishing companies. The companies must provide sufficient information on common skate so that i) a quantitative analysis of the impact of fishery on common skate can be carried out; and ii) trends in fishing mortality of common skate by the fishery over time can be tracked. For conditions see Section 8 of the main report.

2.4 Habitat

2.4.1 Outcome status

The fishery does not cause serious or irreversible harm to habitat structure, considered on a regional or bioregional basis, and function.

SG 60: The fishery is unlikely to reduce habitat structure and function to a point where there would be serious or irreversible harm.

SG 80: The fishery is highly unlikely to reduce habitat structure and function to a point where there would be serious or irreversible harm.

SG 100: There is evidence that the fishery is highly unlikely to reduce habitat structure and function to a point where there would be serious or irreversible harm.

Score Compagnie de Pêche de St. Malo : 80

Score Scapêche : 80

Rationale

1. Gear - action on bottom

The gear used by the fishery is a demersal ‘rockhopper’ otter trawl with large, heavy otter boards. The gear operates on or near the bottom, and may thus *a priori* be predicted to cause some damage to benthic habitats. The rockhopper type gear reduces damage relative to a simple tickler chain, but the contact of the trawl doors with the bottom causes a clear trail which can be seen, for example, using side-scan sonar (51). Rockhopper gear also permits trawling in areas too rough for standard trawls. Demersal otter trawling is known to cause damage to benthic habitats (e.g. 52), and ICES estimate that otter trawling in the northern North Sea removes or kills approximately 25% of the standing crop biomass annually (53).

2. Scapêche fishing area

The main fishing area for Scapêche vessels for saithe is shown in the map below (redrawn from confidential data provided Scapêche).



3. Compagnie de Pêche de St. Malo fishing area

The Compagnie de Pêche de St. Malo does not subscribe to the VMS feed from its vessels, so does not have maps such as the one above. We have drawn the map below after discussions with the captain of the Grande Hermine. Note that the map delineates the general areas fished and is not precise. The delineated area includes some closed areas for protection of cold water corals and some demersal fish species - this map should not be taken to mean that the Grande Hermine fishes in these areas.



4. Distribution of sensitive habitats in relation to fishing activity

Information on sensitive habitats in the Northeast Atlantic is available from OSPAR (42). Maps are available showing areas where a variety of threatened or declining habitats have been found to occur. These maps were examined by the team for possible overlap with the map above. Possible sensitive habitats that were examined were i) carbonate mounds; ii) deep-sea sponges; iii) *Lophelia pertusa* reefs; iv) *Modiolus* reefs, v) seamounts and vi) seapens and burrowing megafauna. These habitats are considered in Table 9 below. Habitats with any overlap are discussed in more detail below.

Table 9. OSPAR sensitive habitats in relation to Scapêche and Compagnie de Pêche de St. Malo fishing activity. Information from OSPAR (42).

Habitat	Geographic distribution in NE Atlantic	Depth range	Overlap with Scapêche saithe fishery	Overlap with Com. Pêche St. Malo saithe fishery
carbonate mounds	Off the west coast of Scotland and Ireland	Deeper than 500 m	No – too deep	No – too deep
deep-sea sponges	Norwegian coast, north Norway, Svalbard	250 – 1300 m	No – different area	Yes – geographic overlap and small depth overlap.
<i>Lophelia pertusa</i> reefs	West Ireland, west and north Scotland, Norway*	200 – 2000 m	Yes – geographic and some depth overlap	Yes – geographic and some depth overlap
<i>Modiolus</i> reefs	North Norway, coastal Scotland and Shetland	Recorded down to 280 m but usually shallower than 70 m	No – no geographic overlap	Yes – geographic overlap and small depth overlap
seamounts	Offshore North Atlantic and Arctic oceans		No geographic overlap	No geographic overlap
seapens and burrowing megafauna	Inshore west Scotland and Fladen Ground in North Sea		No geographic overlap	No geographic overlap

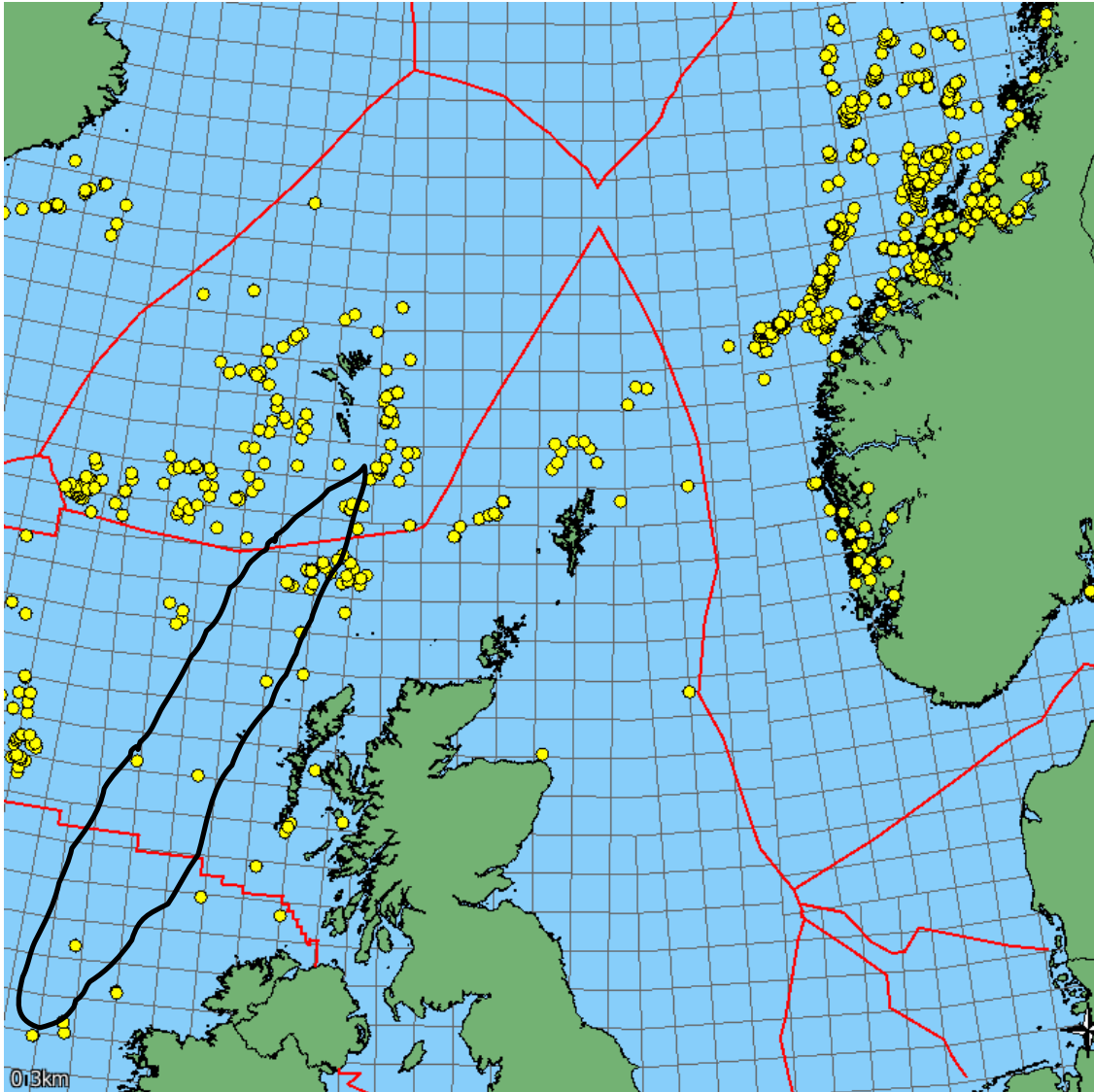
* NE Atlantic globally significant for this species (76)

Relevant habitats are therefore: i) *Lophelia* reefs (both); ii) deep-sea sponges; and iii) *Modiolus* reefs (Compagnie de Pêche de St. Malo only).

5. *Lophelia* reefs

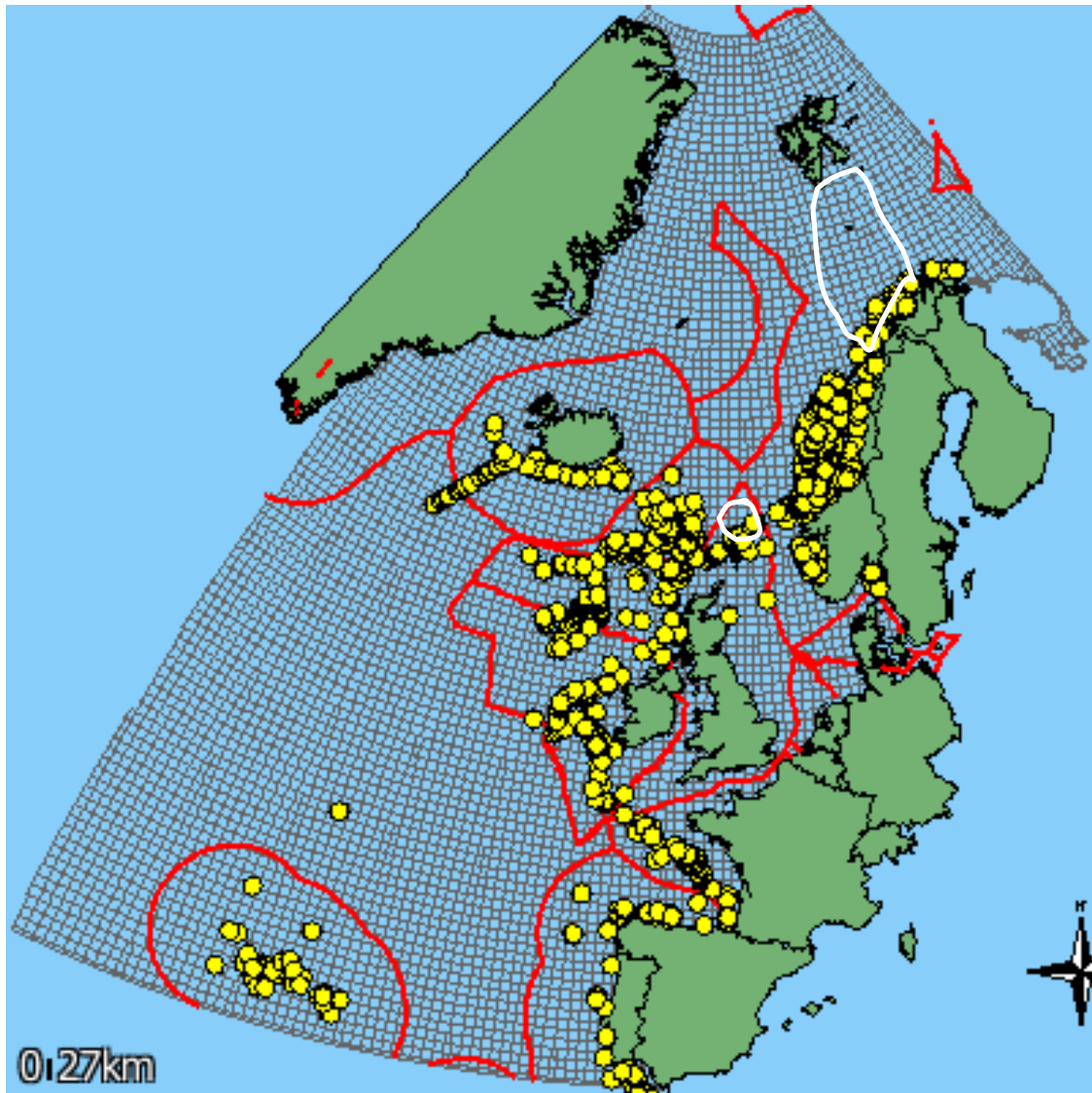
From Table 9, the possible relevant habitat for Scapêche is *Lophelia* reefs. According to OSPAR (42), the depth distribution of *Lophelia pertusa* is from 200 m to 2000 m (they can occur more shallowly, but rarely).

The distribution of *Lophelia* in the Scapêche fishing area is given in the map below (42), with the Scapêche fishing area drawn on approximately in black from the team's review of VMS data (confidential and not given here).



It is clear that there is some overlap between the Scapêche fishing area and records of Lophelia, but that it is not great, and avoids the main concentrations of Lophelia in this part of the Northeast Atlantic. If we add to that the fact that the fishery overlaps with approximately 5% of the depth range of the habitat, the team decided that the serious or irreversible harm from the fishery was highly unlikely. However evidence of habitat impacts (or lack of impacts) is lacking, so the score could be no higher than 80.

The known distribution of Lophelia in the Grande Hermine fishing area is given in the map below (42), with the area fished by the Grande Hermine drawn on in white.

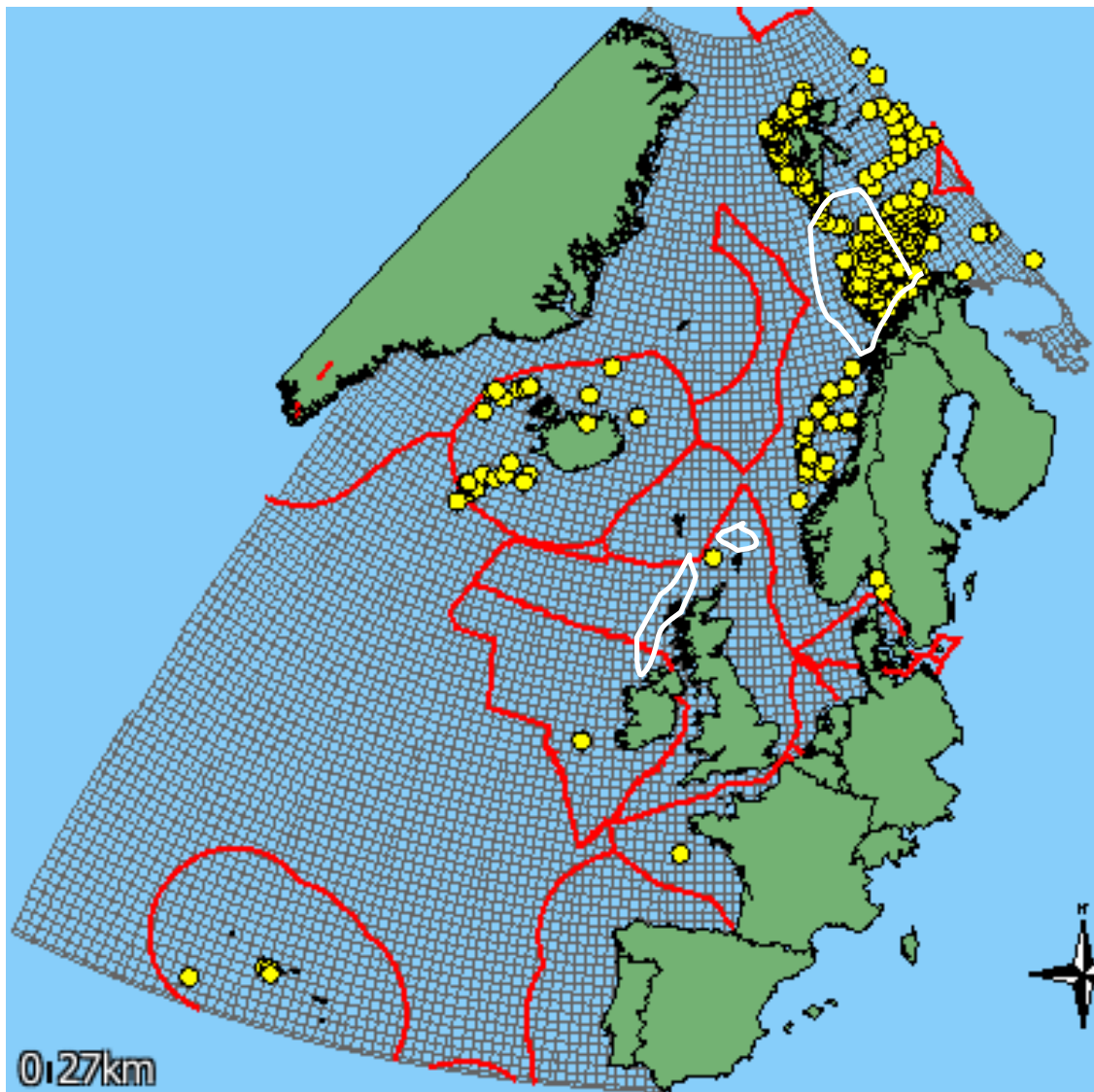


As for Scapêche, there is some overlap but it is not thought to be great. In addition, the team noted that the area in north Norway includes several closed areas to protect *Lophelia* habitats, which the Grande Hermine avoids.

On this basis, the team decided that the serious or irreversible harm from the fishery was highly unlikely; however again evidence of habitat impacts (or otherwise) is lacking, so the score for this element is 80.

6. Deep-sea sponges

According to OSPAR (42), deep-sea sponge habitats occur below 250 m. The map below shows the known distribution of this habitat type, with the fishing areas for both companies in white (Scapêche for information only).



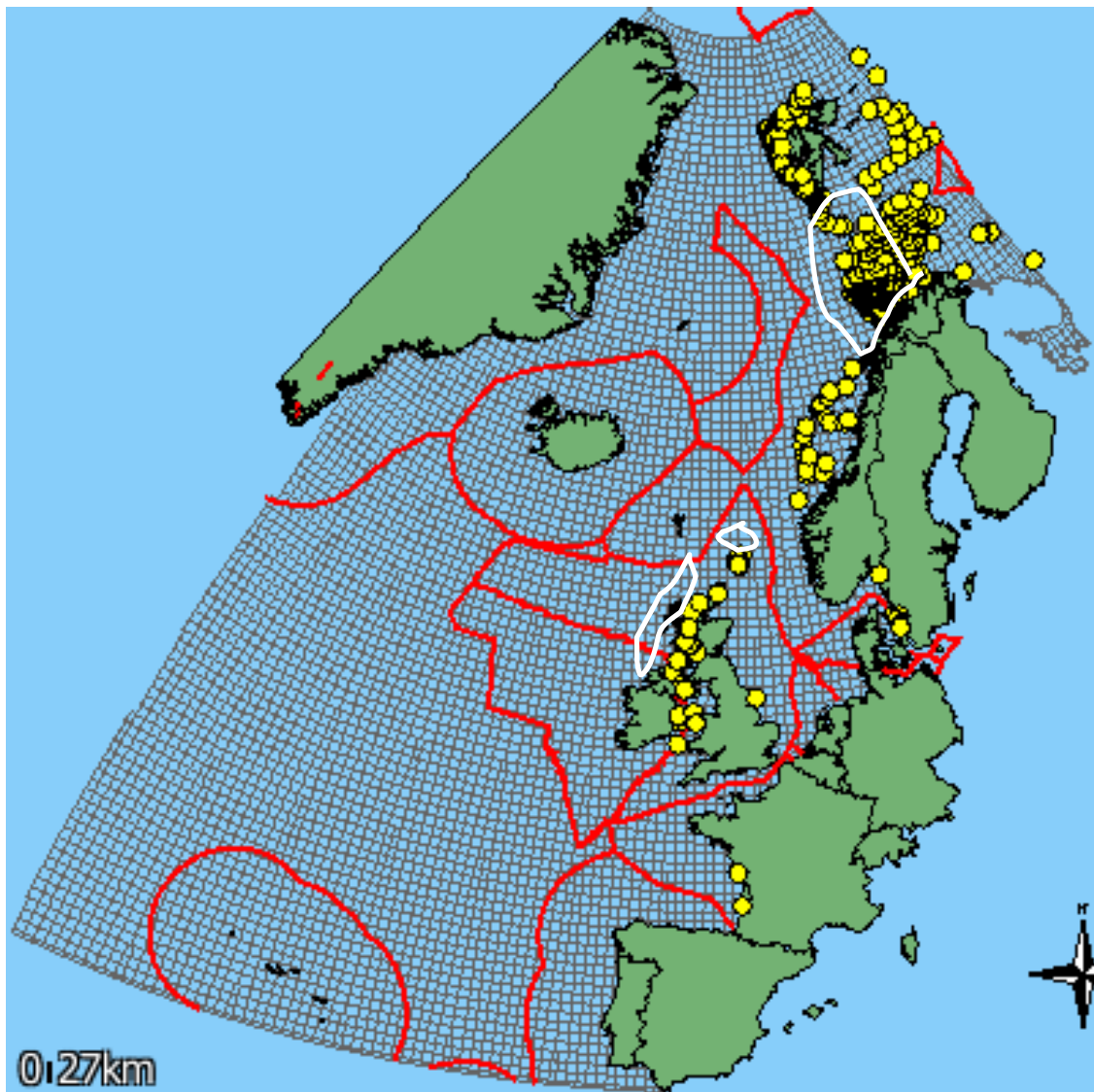
The Grande Hermine does fish in areas in north Norway where there are known to be deep sea sponges. However, the team considered that i) the depth overlap between the fishery and the habitat was small (particularly since the Grande Hermine is mainly targeting cod and haddock and therefore fishes usually somewhat shallower than a typical saithe vessel, although they can fish down to 300 m); and ii) there are protected areas in this region for benthic habitats, which are of course avoided by the Grande Hermine (verification with the Norwegian authorities showed no breaches of fishing regulations by the Grande Hermine).

On this basis, the team decided that the serious or irreversible harm from the fishery was highly unlikely, hence SG 80 was met. However, evidence of habitat impacts is lacking, so no part of SG 100 is met.

7. *Modiolus reefs*

While *Modiolus* may occur as deep as 280 m (54), it is usually found in much shallower areas – even occasionally in the intertidal.

The geographical distribution of *Modiolus* reefs is given in the map below (42), with the approximate fishing areas in white. Geographically, *Modiolus* is mainly found in more coastal areas than is usual for this fishery, although there is some overlap for the Grande Hermine in north Norway. Again, the team decided that the serious or irreversible harm from the fishery was highly unlikely; however evidence of habitat impacts is lacking, so the score for this element is 80



.This gives an overall score for both companies of 80.

2.4.2 Management strategy

There is a strategy in place that is designed to ensure the fishery does not pose a risk of serious or irreversible harm to habitat types.
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SG 60: There are measures in place, if necessary, that are expected to achieve the Habitat Outcome 80 level of performance. The measures are considered likely to work, based on plausible argument (e.g general experience, theory or comparison with similar fisheries/habitats).

SG 80: There is a partial strategy in place, if necessary, that is expected to achieve the Habitat Outcome 80 level of performance or above. There is some objective basis for confidence that the partial strategy will work, based on some information directly about the fishery and/or habitats involved. There is some evidence that the partial strategy is being implemented successfully.

SG 100: There is a strategy in place for managing the impact of the fishery on habitat types. The strategy is mainly based on information directly about the fishery and/or habitats involved, and testing supports high confidence that the strategy will work. There is clear evidence that the strategy is being implemented successfully, and intended changes are occurring. There is some evidence that the strategy is achieving its objective.

Score Compagnie de Pêche de St. Malo : 60

Score Scapêche : 85

Rationale

The team noted that there are several measures in place to avoid trawling by these fisheries in sensitive habitat areas. Areas with carbonate mounds have been closed to all bottom trawling (6), and the tracking of fishing vessels by VMS (position given every two hours) make it highly unlikely that these rules are being breached.

Both companies have signed up to the French government ‘contrat bleu’ programme to promote responsible fishing. This includes agreements to protect habitats such as not trawling close to shore.

Scapêche has also signed up to the ‘Pêche Responsable’ programme, which includes measures specifically designed to avoid all accidental catches of cold water corals and gorgonians. This programme is controlled by an annual audit, including an observer trip. The team considered that this comprises a strategy to manage and control habitat impacts. On this basis, the team considered that two elements of SG 100 were met – there is a strategy in place, with clear evidence that the strategy is being implemented successfully (annual audit and observer trip). However, the other elements are not met (the strategy is generic rather than based on the fishery and habitats in question, there is no testing and

there is not ‘clear evidence’ that change are occurring to benthic habitats). This gives an overall score of 85.

For the Compagnie de Pêche de St. Malo, the team considered that given that SG 80 is met for PI 2.4.1 above, SG 60 is met. However, the company has not signed up to Pêche Responsable, and the company does not keep track of vessels by VMS, so the team considered that there was no ‘partial strategy’ specifically aimed at avoiding damage to sensitive habitats. Thus the overall score was 60.

Condition

This condition applies to the Compagnie de Pêche de St. Malo only. The company needs a partial strategy to avoid fishing in sensitive habitats. This should include i) collecting better information on fishing locations and ii) putting measures in place based on this information such that the company can demonstrate that sensitive areas are avoided.

2.4.3 Information / monitoring

Information is adequate to determine the risk posed to habitat types by the fishery and the effectiveness of the strategy to manage impacts on habitat types.

SG 60: There is a basic understanding of the types and distribution of main habitats in the area of the fishery. Information is adequate to broadly understand the main impacts of gear use on the main habitats, including spatial extent of interaction.

SG 80: The nature, distribution and vulnerability of all main habitat types in the fishery area are known at a level of detail relevant to the scale and intensity of the fishery. Sufficient data are available to allow the nature of the impacts of the fishery on habitat types to be identified and there is reliable information on the spatial extent, timing and location of use of the fishing gear. Sufficient data continue to be collected to detect any increase in risk to habitat (e.g. due to changes in the outcome indicator scores or the operation of the fishery or the effectiveness of the measures).

SG 100: The distribution of habitat types is known over their range, with particular attention to the occurrence of vulnerable habitat types. Changes in habitat distributions over time are measured. The physical impacts of the gear on the habitat types have been quantified fully.

Score Compagnie de Pêche de St. Malo : 85

Score Scapêche : 85

Rationale

Habitats are fairly well mapped for the whole area in which both fisheries operate (e.g. maps in 42) – although maps of sampling density (42) show that in general the Arctic area is somewhat less well-known than the North Sea and west of Scotland.

The impacts of otter trawls on benthic habitats are well known (e.g. 51,52). The timing, location and spatial extent of the use of fishing gear is known from VMS and logbook data. Increases in risk to habitat are considered by the team to be unlikely, but could be inferred from changes in fishing operations. ICES collects information on habitat impacts of fisheries on an ongoing basis (55).

Overall, the team considered that SG 80 is met from habitat maps, VMS data and information on impacts of gears. Part of SG 100 is met (the distribution of habitats is known over their range), but the lack of quantitative information on gear impacts or and on changes in habitat distribution over time leads to an overall score of 85 for both companies.

2.5 Ecosystem

2.5.1 Outcome status

The fishery does not cause serious or irreversible harm to the key elements of ecosystem structure and function.
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SG 60: The fishery is unlikely to disrupt the key elements underlying ecosystem structure and function to a point where there would be a serious or irreversible harm.

SG 80: The fishery is highly unlikely to disrupt the key elements underlying ecosystem structure and function to a point where there would be a serious or irreversible harm.

SG 100: There is evidence that the fishery is highly unlikely to disrupt the key elements underlying ecosystem structure and function to a point where there would be a serious or irreversible harm.

Score Compagnie de Pêche de St. Malo : 85

Score Scapêche : 85

Rationale

1. Trophic interactions with saithe

The role of saithe in the ecosystem is relatively well understood. Adult saithe are predators of other smaller fish – i.e. have a high trophic level (3,4). They are not major prey for any other predators, although they may be a minor component of the diet of sperm whales in some areas (they probably live too deep to be important prey for seals and small cetaceans). The fishery is quite monospecific, and the saithe stocks in question are in good condition (7,8), although saithe has declined in the North Sea over the last 120 years, according to CEFAS (56).

The team considered that because the target stocks are in good condition, and the stocks of main retained and by-catch species are also in good condition, these stocks should be able to fulfil their ecological role without impacts from this fishery.

2. Main retained and by-catch species

For the Arctic fishery, the stocks of main retained species (cod and haddock) are also in good condition (15,35). For the North Sea fishery, cod stocks are, however, not in good condition (14), and cod is thus unlikely to be fulfilling its historic ecological role in the ecosystem. However, the by-catch of cod from this fishery is relatively low – as witness the derogation as to mesh size that the fishery enjoys in the North Sea.

3. Habitat impacts

It is clear that benthic trawling has had major impacts on the North Sea ecosystem over a century or more (see references given by peer reviewer 1). The team decided, however, that impacts should be considered on a fishery-by-fishery basis rather than considering fisheries impacts on the ecosystem as a whole. Habitat impacts were assessed to be at acceptable levels overall, although improved information on habitat impacts has been required in the case of the Grande Hermine.

4. Conclusions

Overall, the team considered that the fisheries were highly unlikely to disrupt key elements of ecosystem structure and function; i.e. that SG 80 was met. There is some evidence in support of this (as set out above), but the conclusion in the main comes from inference – i.e. SG 100 is not met in full. The team awarded an overall score of 85 for both companies.

2.5.2 Management strategy

There are measures in place to ensure the fishery does not pose a risk of serious or irreversible harm to ecosystem structure and function.

SG 60: There are measures in place, if necessary, that take into account potential impacts of the fishery on key elements of the ecosystem. The measures are considered likely to work, based on plausible argument (eg, general experience, theory or comparison with similar fisheries/ ecosystems).

SG 80: There is a partial strategy in place, if necessary, that takes into account available information and is expected to restrain impacts of the fishery on the ecosystem so as to achieve the Ecosystem Outcome 80 level of performance. The partial strategy is considered likely to work, based on plausible argument (eg, general experience, theory or comparison with similar fisheries/ ecosystems). There is some evidence that the measures comprising the partial strategy are being implemented successfully.

SG 100: There is a strategy that consists of a plan, containing measures to address all main impacts of the fishery on the ecosystem, and at least some of these measures are in

place. The plan and measures are based on well-understood functional relationships between the fishery and the Components and elements of the ecosystem. This plan provides for development of a full strategy that restrains impacts on the ecosystem to ensure the fishery does not cause serious or irreversible harm. The measures are considered likely to work based on prior experience, plausible argument or information directly from the fishery/ecosystems involved. There is evidence that the measures are being implemented successfully.

Score Compagnie de Pêche de St. Malo : 80
Score Scapêche : 80

Rationale

There are a series of measures in place which consider the impacts of fisheries on ecosystem structure and function, which the team considered comprised a 'partial strategy'. This includes i) a consideration of ecosystem elements in ICES assessments and advice, as required by the Common Fisheries Policy (e.g. 7); and ii) other legislation such as the OSPAR Convention and the Habitats Directive (57,58). The team considered that this strategy was likely to work in avoiding significant ecosystem impacts of these fisheries, and that there was evidence that the strategy is being implemented (e.g. closed areas in sensitive habitats (6), ICES advice is being followed).

SG 100 requires a strategy for the fishery based on well-understood functional relationships. The team considered that this did not exist, therefore SG 100 is not met and 80 is the maximum possible score.

2.5.3 Information / monitoring

<p>There is adequate knowledge of the impacts of the fishery on the ecosystem. Information is adequate to identify the key elements of the ecosystem (e.g. trophic structure and function, community composition, productivity pattern and biodiversity).</p>

SG 60: Main impacts of the fishery on these key ecosystem elements can be inferred from existing information, but have not been investigated in detail.

SG 80: Information is adequate to broadly understand the functions of the key elements of the ecosystem. Main impacts of the fishery on these key ecosystem elements can be inferred from existing information, but may not have been investigated in detail. The main functions of the Components (i.e. target, by-catch, retained and ETP species and habitats) in the ecosystem are known. Sufficient information is available on the impacts of the fishery on these Components to allow some of the main consequences for the ecosystem to be inferred. Sufficient data continue to be collected to detect any increase in

risk level (e.g. due to changes in the outcome indicator scores or the operation of the fishery or the effectiveness of the measures).

SG 100: Information is adequate to broadly understand the key elements of the ecosystem. Main interactions between the fishery and these ecosystem elements can be inferred from existing information, and have been investigated. The impacts of the fishery on target, by-catch, retained, ETP and habitats are identified and the main functions of these Components in the ecosystem are understood. Sufficient information is available on the impacts of the fishery on the Components and elements to allow the main consequences for the ecosystem to be inferred. Information is sufficient to support the development of strategies to manage ecosystem impacts.

Score Compagnie de Pêche de St. Malo : 95

Score Scapêche : 95

Rationale

The team considered that information, as outlined above (see rationale for 2.5.1 and 2.5.2) is sufficient to understand key elements of ecosystem structure and function, and that the impacts of the fishery on these key elements can be inferred. The role of main retained and by-catch species in the ecosystem, and the impacts of the fishery on these, as well as on ETP species and habitats, is also broadly understood (see for example ICES advice for main retained and by-catch species – 15,34,35,36). The team considered that this information was sufficient to infer the ecosystem-level impacts of the fishery, and to support a strategy to manage these impacts. Most of the elements of SG 100 are thus met, except that the interactions of the fishery with key ecosystem elements have not been specifically investigated. The team therefore gave a score of 95 for both companies.

Principle 3

The fishery is subject to an effective management system that respects local, national and international laws and standards and incorporates institutional and operational frameworks that require use of the resource to be responsible and sustainable

3.1 Governance and policy

3.1.1 Legal and/or customary framework

The management system exists within an appropriate and effective legal and/or customary framework which ensures that it: - Is capable of delivering sustainable fisheries in accordance with MSC Principles 1 and 2; - Observes the legal rights created explicitly or by custom of people dependent on fishing for food or livelihood; and - Incorporates an appropriate dispute resolution framework.

SG 60: The management system is generally consistent with local, national or international laws or standards that are aimed at achieving sustainable fisheries in accordance with MSC Principles 1 and 2. The management system incorporates or is subject by law to a mechanism for the resolution of legal disputes arising within the system. Although the management authority or fishery may be subject to continuing court challenges, it is not indicating a disrespect or defiance of the law by repeatedly violating the same law or regulation necessary for the sustainability for the fishery. The management system generally recognises and respects the legal rights created explicitly or by custom of people dependent on fishing for food or livelihood in a manner consistent with the objectives of MSC Principles 1 and 2.

SG 80: The management system is generally consistent with local, national or international laws or standards that are aimed at achieving sustainable fisheries in accordance with MSC Principles 1 and 2. The management system incorporates or is subject by law to a transparent mechanism for the resolution of legal disputes which is considered to be effective in dealing with most issues and that is appropriate to the context of the fishery. The management system or fishery is attempting to comply in a timely fashion with binding judicial decisions arising from any legal challenges. The management system observes the legal rights created explicitly or by custom of people dependent on fishing for food or livelihood in a manner consistent with the objectives of MSC Principles 1 and 2.

SG 100: The management system is generally consistent with local, national or international laws or standards that are aimed at achieving sustainable fisheries in accordance with MSC Principles 1 and 2. The management system incorporates or is subject by law to a transparent mechanism for the resolution of legal disputes that is appropriate to the context of the fishery and has been tested and proven to be effective. The management system or fishery acts proactively to avoid legal disputes or rapidly implements binding judicial decisions arising from legal challenges. The management system is formally committed to the legal rights created explicitly or by custom on people dependent on fishing for food and livelihood in a manner consistent with the objectives of MSC Principles 1 and 2.

Score : 90

Rationale

The overarching framework for the governance of each fishery is the same, so the Units of Assessment are scored together for this PI.

The fishery is managed through the Common Fisheries Policy of the EU in accordance with the basic fisheries regulation (2371/2002) (19). The objective of the CFP is to “*to provide for sustainable exploitation of living aquatic resources and of aquaculture in the context of sustainable development, taking account of the environmental, economic and social aspects in a balanced manner.*” (19). This objective is clearly aimed at achieving sustainable fisheries in accordance with MSC Principles 1 and 2.

The EC CFP is consistent with the FAO Code of Conduct (59) and all other international conventions dealing with fishing. The fishery is fundamentally managed under an international agreement between the EU and Norway (21,60). European Union Member States and Norway ratified the 1982 UN Convention of the Law of the Sea in the latter part of the 1990s; the European Union ratified the Convention in 1998. Since this date the European Union has played an active part in the development of three new instruments that supplement and add further detail to the provisions established by the Convention on the Law of the Sea, namely:

- the Agreement to promote compliance with international conservation and management measures by fishing vessels on the high seas, adopted by the FAO in 1993 (61),
- the Code of Conduct for Responsible Fisheries, adopted by the FAO Conference in November 1995, following on from the Cancun Declaration of 1992 (59),
- the Agreement for the implementation of the provisions of the United Nations Convention on the Law of the Sea relating to the conservation and management of fish stocks found both inside and outside exclusive economic zones (straddling stocks) and highly migratory fish stocks, known as the "New York Agreement", adopted in 1995 (62).

The annual fishing opportunities for saithe are determined by the international agreement, between the EC and Norway (21). The EC CFP is consistent with this agreement.

This management system is supported by a transparent mechanism for the resolution of legal disputes that is tried and tested. The rules relating to the fishery are clearly set out and communicated to the participants in the fishery (6). Non-compliance with rules is dealt with through established enforcement mechanisms, such as financial penalties and confiscation of illegal fishing gear and catch. Legal proceedings are carried out through the justice system, which provided the opportunity for defence against allegations and appeal against rulings through domestic courts and ultimately the European Court of Justice.

The Common Fisheries Policy sets out a formal commitment to the legal and customary rights of people dependent on fishing: “*In view of the precarious economic state of the fishing industry and the dependence of certain coastal communities on fishing, it is necessary to ensure relative stability of fishing activities by the allocation of fishing opportunities among the Member States, based upon a predictable share of the stocks for each Member State.*” (19).

Scientific research and assessment is carried out by ICES. Advice is provided through the Advisory Committee on Fisheries Management (ACFM) which draws on the ongoing work of international scientists from relevant research laboratories and institutions on the stock biology and marine science on the status of target and non-target stocks to the European Commission. ICES advice, via Commission proposals, informs the annual EU Council of Ministers regulation establishing management measures, in particular TACs and quotas (see e.g. 7,8,14,15,16,17,26,27 etc.).

At the national level in France, the “Direction des Pêches Maritimes et de l’Aquaculture (DPMA)” of the “Ministère de l’Alimentation de l’Agriculture et de la Pêche” is the government authority responsible for the implementation of the CFP and a range of management and regulatory duties, including management of fleet activity, management of national quota, monitoring and control of all fisheries occurring within national jurisdiction, collection, collation and transmitting of key fishery data.

There is clear and evident division of responsibility between EU, ICES (ACFM) and national institutions and authorities. On-going evolution of these structures can be seen as a result of the regular monitoring and revision of responsibilities and interactions, leading to improved clarity, but also to improved integration.

The European Union is also a member of a range of Regional Fisheries Organisations (RFOs), created to guarantee the conservation and sustainable exploitation of fish resources in the open seas, play a key role in combating illegal, unreported and unregulated fishing (IUU) and destructive fishing practices, which damage fragile habitats, in particular seamounts and cold water corals (see 6).

The management system is considered to be entirely consistent with the multi-national nature, scale and intensity of the fishery.

The management system for the fishery is well established, transparent, tried and tested, and meets therefore all of the SG80 requirements and the first two of the SG100. But the management system does not act proactively and is not formally committed to the legal rights on people depending in fishing this indicator gets a score of 90.

3.1.2 Consultation, roles and responsibilities

<p>The management system has effective consultation processes that are open to interested and affected parties. The roles and responsibilities of organisations and individuals who are involved in the management process are clear and understood by all relevant parties.</p>
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SG 60: Organisations and individuals involved in the management process have been identified. Functions, roles and responsibilities are generally understood. The management system includes consultation processes that obtain relevant information from the main affected parties, including local knowledge, to inform the management system.

SG 80: Organisations and individuals involved in the management process have been identified. Functions, roles and responsibilities are explicitly defined and well understood for key areas of responsibility and interaction. The management system includes consultation processes that regularly seek and accept relevant information, including

local knowledge. The management system demonstrates consideration of the information obtained. The consultation process provides opportunity for all interested and affected parties to be involved

SG 100: Organisations and individuals involved in the management process have been identified. Functions, roles and responsibilities are explicitly defined and well understood for all areas of responsibility and interaction. The management system includes consultation processes that regularly seek and accept relevant information, including local knowledge. The management system demonstrates consideration of the information and explains how it is used or not used. The consultation process provides opportunity and encouragement for all interested and affected parties to be involved, and facilitates their effective engagement.

Score: 95

Rationale

The overarching framework for the governance of each fishery is the same, so the Units of Certification are scored together for this PI.

The management system for this fisheries involves scientists, stakeholders and fisheries managers in a consultative process that explicitly defines and explains the respective roles of all parties in all areas of responsibility.

Scientific advice from ICES forms the core of the management system. At a European level, key institutions are the Advisory Committee on Fisheries and Aquaculture (ACFM) - which comprises a contact group at the European level for all stakeholders at national and regional levels – and the Regional Advisory Councils (RACs) – which comprise a contact group dealing with particular fisheries at the regional level (19).

The outcome of meetings of the Council of Ministers clearly demonstrates that all of this information is taken into account, and explains how the information is used (63,64). The annual consultation process for TACs and the decadal consultation on the review of the CFP provide opportunities for stakeholders to engage directly in the management process, and this involvement is facilitated at the EC and national level (19).

At a national level, administrations operate formal consultation procedures. The French quota belongs to the state and is distributed among the POs based on customary rights. They have the right to distribute their quota among their member vessels. While quotas can be changed between members of a PO, this is not the case if quotas are to be changed between POs (within France or between member states). Such transfers have to be channelled through the Direction des Pêches Maritimes et de l'Aquaculture (DPMA) of the “Ministère de l'Alimentation de l'Agriculture et de la Pêche”

The management system meets all of the SG80 and most of the SG 100 requirements. The management system does, however, not explain how information from the consultation process is used or not used (2nd guidepost) and can therefore not score more than 95.

3.1.3 Long term objectives

The management policy has clear long-term objectives to guide decision-making that are consistent with MSC Principles and Criteria, and incorporates the precautionary approach

SG 60: Long-term objectives to guide decision-making, consistent with MSC Principles and Criteria and the precautionary approach, are implicit within management policy.

SG 80: Clear long-term objectives that guide decision-making, consistent with MSC Principles and Criteria and the precautionary approach, are explicit within management policy.

SG 100: Clear long-term objectives that guide decision-making, consistent with MSC Principles and Criteria and the precautionary approach, are explicit within and required by management policy

Score: 80

Rationale

The overarching framework for the governance of each fishery is the same, so the Units of Assessment are scored together for this PI.

The management system contains overarching environmental management objectives arising from international agreements (such as the UN Convention on the Law of the Sea, and Convention on Biological Diversity), and EC legislation (the CFP (36) and EC environmental Directives (e.g. the Habitats Directive – 35)). These objectives are measured by a range of performance indicators.

Long-term objectives for the saithe the North Sea and the Northeast Arctic saithe are set out in a management plans. The one for the North Sea was agreed by the EU and Norway in 2004 (7,21). This management plan is an integral part of the EU-Norway agreement (60). The management plan for the Northeast Arctic was implemented in 2007 (8). Both plans set long-term objectives for the target species and also imposes constraints on management measures (such as a limit on the amount that the TAC may be increased annually). ICES takes ecosystem-level questions into account in its stock assessments for these stocks, to the extent that this is possible (7,8).

At an operational level short-term objectives are represented by annual TACs. Achievement against these annual targets is monitored at national level on a monthly basis. The ICES ACFM presents advice on stock management based on its current understanding of the state of stocks. It also advises on what TACs should be set for the coming year for those stocks that it has been requested to advise on – taking into consideration its knowledge of the stocks and any decision-control rules that have been adopted for these stocks (7,8).

The team holds the view that long-term objectives and the precautionary approach are explicit within the management policy but they are not required by it. The indicator therefore meets only the SG80 requirements.

3.1.4 Incentives for sustainable fishing

The management system provides economic and social incentives for sustainable fishing and does not operate with subsidies that contribute to unsustainable fishing

SG 60: The management system provides for incentives that are consistent with achieving the outcomes expressed by MSC Principles 1 and 2.

SG 80: The management system provides for incentives that are consistent with achieving the outcomes expressed by MSC Principles 1 and 2, and seeks to ensure that negative incentives do not arise

SG 100: The management system provides for incentives that are consistent with achieving the outcomes expressed by MSC Principles 1 and 2, and explicitly considers incentives in a regular review of management policy or procedures to ensure that they do not contribute to unsustainable fishing practices.

Score: 80

Rationale

The overarching framework for the governance of each fishery is the same, so the Units of Assessment are scored together for this PI.

Economic and social incentives are provided by the management regime through the allocation of resources (quota) at a level compatible with sustainable fishery management (7,8). These measures are supported by a legal regime that provides an additional incentive to comply with management requirements, through the penalties that can be imposed for non-compliance with the CFP. Administrative, technical and quota-related offences can all result in legal action, prosecution and fines. These measures all contribute to sustainable fishing and ecosystem management, and are regularly reviewed as part of the ongoing process of fisheries management established by the CFP.

The EC and Member States provide funding to the fishing industry. Until recently this was provided via the Financial Instrument for Fisheries Guidance (FIFG), which was superseded by the European Fisheries Fund (EFF) in 2007 (65). Concerns have been raised by some NGOs that FIFG represented a subsidy to the industry (66,67). However the actual aims of FIFG were to “achieve a balance between fisheries resources and their exploitation” (65). The purpose of the EFF is to both support the industry as it adapts its fleet to make it more competitive and promote measures to protect and enhance the environment. One of the main objectives of the EFF is “promoting environmentally-friendly fishing and production methods”. It is therefore clear that the objectives of both FIFG and EFF are consistent with MSC Principles.

As regards Principle 2 specifically, the management system provides significant incentives, both positive and negative, for reducing impacts to the wider ecosystem. For example, these fisheries have a derogation as to trawl mesh size in EU waters (from 120 mm to 110 mm) because of the low cod by-catch. Maintaining this derogation, plus tight quotas, has provided an incentive for saithe fisheries to work hard on reducing cod by-

catch. The management system also provides for areas of important habitat (such as carbonate mounds) to be closed to trawling (6).

Some commentators (68) have considered that the system of ‘red diesel’ (low tax diesel) available to fishing, farming and some other industries in the EU constitutes a subsidy that would encourage unsustainable fishing. This point is arguable (many NGOs agree – 69) but MSC convention to date has been that red diesel does not constitute a subsidy to fisheries – this argument is reasonable as long as the cost of fuel is not supported by the government such that it is sold to fishermen at below cost price. In France in 2009, high fuel prices led to promises by the French government for temporary support to the industry to reduce fuel costs – arguably this would have constituted a subsidy and was in fact contrary to EU law; however the collapse in the oil price later in the year meant that these proposed subsidies were never put into operation.

Although the management system “provides incentives that are consistent with achieving the outcomes expressed by MSC Principles 1 and 2, and seeks to ensure that negative incentives do not arise” it does not “explicitly consider incentives in a regular review of management policy or procedures”. This indicator therefore cannot be scored more than 80.

3.2 Fishery-specific management system

3.2.1 Fishery-specific objectives

The fishery has clear, specific objectives designed to achieve the outcomes expressed by MSC’s Principles 1 and 2.
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SG 60: Objectives, which are broadly consistent with achieving the outcomes expressed by MSC’s Principles 1 and 2, are implicit within the fishery’s management system.

SG 80: Short and long term objectives, which are consistent with achieving the outcomes expressed by MSC’s Principles 1 and 2, are explicit within the fishery’s management system.

SG 100: Well defined and measurable short and long term objectives, which are demonstrably consistent with achieving the outcomes expressed by MSC’s Principles 1 and 2, are explicit within the fishery’s management system

Score: 90

Rationale

The overarching framework for the governance of each fishery is the same, so the Units of Assessment are scored together for this PI.

The overall objectives for managing these fisheries are set out in the EC Common Fisheries Policy and the bilateral agreement between the EC and Norway for managing the fisheries in the North Sea (19,21). Fishery-specific management measures for the

North Sea and Northeast Arctic saithe stocks are established under the CFP. These measures define the annual TAC for the fishery (7,8,29,70).

Harvest controls rules are in place in form of management plans, which entered into force in 2004 (North Sea) and 2007 (Northeast Arctic) respectively and which are consistent with a precautionary approach and designed to ensure a rational exploitation pattern and provide for stable and high yields. The North Sea management plan is updated during the annual EU-Norwegian consultations and will be reviewed before end of 2012 (27,28).

The TACs for 2009 are entirely consistent with the ICES advice and are thus appropriate for the current stock (7,8). The team and one of the peer reviewers was a bit concerned about the TAC constraint, which risks setting a TAC above the sustainable level in the short-term. However, the team notes that the ICES advice for 2010 (75 - consulted after the peer review) suggests that the TAC constraint will not necessarily be applied if a larger reduction in fishing mortality is required.

This fishery interacts with the North Sea cod fishery, and management objectives therefore have to be sustainable for this fishery as well, even though retained by-catch of cod is small (hence the mesh size derogation). It is reported by peer reviewer 2 that in the near future, North Sea / West of Scotland saithe quotas will have to be reduced to keep F for cod within the target range. This is an issue that will need to be reviewed in future assessments.

Both fishing companies committed themselves to support sustainable fisheries.

Scapêche has signed an agreement for a responsible fishery and a sustainable development with Bureau Veritas. The compliance with this agreement is annually verified. Scapêche has also signed a “contrat bleu” concerning the reduction of fuel consumption.

Also, the Compagnie des Pêches de Saint-Malo has signed a “contrat bleu” binding it to go beyond statutory regulations. In order to reduce discards and by-catch of non-target species Compagnie des Pêches de Saint-Malo has decided to use bigger meshes in the cod end and, in Norwegian waters, sorting grids with bigger distance between the bars than required by European and Norwegian laws.

Short and long term objectives are explicit within the fisheries management system but they are not in either case “measurable” and “demonstrably consistent”. The SG80 requirements are fully met but only a part of the SG100 requirements. Therefore a score of 90 has been fixed.

3.2.2 Decision-making processes

The fishery-specific management system includes effective decision-making processes that result in measures and strategies to achieve the objectives
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SG 60: There are informal decision-making processes that result in measures and strategies to achieve the fishery-specific objectives. Decision-making processes respond to serious issues identified in relevant research, monitoring, evaluation and consultation,

in a transparent, timely and adaptive manner and take some account of the wider implications of decisions

SG 80: There are established decision-making processes that result in measures and strategies to achieve the fishery-specific objectives. Decision-making processes respond to serious and other important issues identified in relevant research, monitoring, evaluation and consultation, in a transparent, timely and adaptive manner and take account of the wider implications of decisions. Decision-making processes use the precautionary approach and are based on best available information. Explanations are provided for any actions or lack of action associated with findings and relevant recommendations emerging from research, monitoring, evaluation and review activity

SG 100: There are established decision-making processes that result in measures and strategies to achieve the fishery-specific objectives. Decision-making processes respond to all issues identified in relevant research, monitoring, evaluation and consultation, in a transparent, timely and adaptive manner and take account of the wider implications of decisions. Decision-making processes use the precautionary approach and are based on best available information. Formal reporting to all interested stakeholders describes how the management system responded to findings and relevant recommendations emerging from research, monitoring, evaluation and review activity

Score: 90

Rationale

The overarching framework for the governance of each fishery is the same, so the Units of Assessment are scored together for this PI.

Both the EC's CFP and the EC-Norway Agreement represent established decision making processes that could result in measures and strategies that deliver fishery specific objectives – such as setting annual TACs that are compatible with precautionary reference points (19,21). This process is based upon the best available information, provided by ICES and stakeholder groups.

Performance of the fishery relative to these objectives is measured on a monthly basis through landings data, which provides near real-time recording of catch levels and quota uptake. ICES reports on performance of the fishery relative to SSB and F annually, as well as reporting on unrecorded mortality.

The decision making process provides a mechanism for responding to all relevant issues, through opportunities for stakeholder engagement, and through a broad suite of management objectives that are set out in the CFP. Tried and tested procedures exist to reduce harvest in response to annual scientific advice and ongoing monitoring results.

These measures can be quickly implemented. As well as adjusting quota, the EC and national administrations can restrict fishing activity in particular areas to address management issues if necessary.

The outcome of meetings of the Council of Ministers clearly demonstrates that all of this information is taken into account, and explains the basis for management actions. This information is formally reported and readily accessible on the EC website (63,64).

The decision-making process is well established and uses the precautionary approach. It does, however, not respond to all issues identified nor is it guaranteed that all interested stakeholders get a formal report on how the management system responded. Thus the score cannot pass 90.

3.2.3 Compliance and enforcement

Monitoring, control and surveillance mechanisms ensure the fishery's management measures are enforced and complied with.
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SG 60: Monitoring, control and surveillance mechanisms exist, are implemented in the fishery under assessment and there is a reasonable expectation that they are effective. Sanctions to deal with non-compliance exist and there is some evidence that they are applied. Fishers are generally thought to comply with the management system for the fishery under assessment, including, when required, providing information of importance to the effective management of the fishery

SG 80: A monitoring, control and surveillance system has been implemented in the fishery under assessment and has demonstrated an ability to enforce relevant management measures, strategies and/or rules. Sanctions to deal with non-compliance exist, are consistently applied and thought to provide effective deterrence. Some evidence exists to demonstrate fishers comply with the management system under assessment, including, when required, providing information of importance to the effective management of the fishery. There is no evidence of systematic non-compliance

SG 100: A comprehensive monitoring, control and surveillance system has been implemented in the fishery under assessment and has demonstrated a consistent ability to enforce relevant management measures, strategies and/or rules. Sanctions to deal with non-compliance exist, are consistently applied and demonstrably provide effective deterrence. There is a high degree of confidence that fishers comply with the management system under assessment, including, providing information of importance to the effective management of the fishery. There is no evidence of systematic non-compliance.

Score Compagnie de Pêche de St. Malo: 100
Score Scapêche: 100

Rationale

In this case, the enforcement regime is slightly different for each fishery (because they land at different ports in different Member States). The fisheries are therefore scored separately.

It is the responsibility of the EU Member States to make sure that the rules agreed under the CFP are enforced. Fisheries controls play a central role in encouraging compliance, deterring fraud and ensuring sustainable fishing. To make sure that all national enforcement authorities apply the same standards of quality and fairness in their enforcement, there is also an EU Inspectorate. To strengthen controls, it was decided in the 2002 reform of CFP to set up an EU fisheries control agency. The Community Fisheries Control Agency (CFCA) became operational in 2007. It will strengthen the uniformity and effectiveness of enforcement by pooling EU and national means of inspection and control, and will coordinate enforcement activities (71). In 2008, the Commission proposed a reform of the EU fisheries control system, to foster a culture of compliance with fisheries rules and create a level playing field for Europe's fishermen.

There are systems in place for imposing corrective actions. Non-compliance is dealt with by the relevant national authorities through their criminal justice systems, and using agreed and tested procedures. Compliance with management measures is reported on the EC website (72).

Enforcement includes use of satellite VMS und VHF-communication, patrol vessels and aerial surveillance, checked against data and log book and landings records. While patrols on sea are very rigid in Norwegian waters there are fewer controls in British waters.

Landings are generally inspected by fisheries inspectors at the point of landing in Scotland or Ireland where Scapêche vessels land their catch, and in St. Malo, Germany and Norway, landing sites of Compagnie des Pêches de Saint-Malo. The assessment team interviewed local administrators responsible for fisheries inspection in France and contacted the relevant institutions in the other countries where the catches are usually landed (see above). For both companies there is no evidence whatsoever of systematic non-compliance.

There is a comprehensive MCS system that has demonstrated its ability to enforce management measures, sanctions exist and have demonstrated their dissuasive effect, and fishers comply with the system. Enforcement and compliance are without a doubt meeting all requirements for SG100.

3.2.4 Research plan

The fishery has a research plan that addresses the information needs of management
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SG 60: Research is undertaken, as required, to achieve the objectives consistent with MSC's Principles 1 and 2. Research results are available to interested parties.

SG 80: A research plan provides the management system with a strategic approach to research and reliable and timely information sufficient to achieve the objectives

consistent with MSC's Principles 1 and 2. Research results are disseminated to all interested parties in a timely fashion

SG 100: A comprehensive research plan provides the management system with a coherent and strategic approach to research across P1, P2 and P3, and reliable and timely information sufficient to achieve the objectives consistent with MSC's Principles 1 and 2. Research plan and results are disseminated to all interested parties in a timely fashion and are widely and publicly available.

Score : 80

Rationale

The principal marine research institute in France is IFREMER, with 4 centres and 13 stations along the Atlantic and Mediterranean coast (and another centre with 4 stations overseas) (73). The Lorient station's activity is centred on fishing. The coastal laboratory of the Fishery Resources Department monitors fisheries in the area and increases available fishery statistics on the national level. The trawl testing pool of the Marine Technology and Information Systems Division is a platform for technical development used to improve fishery gear. The Saint-Malo station has recently moved to Dinard. A laboratory of the Environment and Aquaculture Resources Department is located in Dinard. It is involved in monitoring marine environment quality, monitoring the quality of aquaculture products and providing expert advice to local decision makers.

IFREMER participates in the IBTS program and takes samples at different landing sites as in Boulogne, Lorient and others. There is no information whether samples are taken also in Saint-Malo. The Institute also participates in different ICES Working groups.

While there is a number of reports of scientific observers aboard of Scapêche vessels (31), there are no such reports for the "Grande Hermine" of Compagnie des Pêches de Saint-Malo. However, the reason for this is not because observers are not welcome aboard of "Grande Hermine" but most probably the long and far distance trips this vessel is undertaking making it difficult to board. Both fishing companies are ready to accept (more) observers aboard of their vessels.

Research is principally coordinated by ICES through ACOM, and its various working and study groups. The ICES working groups routinely gather and analyse information on stock status, and also investigate specific issues such as recruitment and larval survival. The ICES working groups also develop and review assessment methodologies used in the fishery. Other commercial fish species, including those identified as main retained and by-catch species, are treated in the same way. Other issues such as climate change, associated changes to plankton, habitats and ecosystem effects of fisheries are also investigated by ICES study groups and workshops (see www.ices.dk).

ICES reports identify the current status of fish stocks and also identify areas requiring further investigation (e.g. 27,28). The annual publication of these reports provides a strategic framework for coordinating fisheries research plans.

All of the results of ICES research are disseminated to interested parties in a timely fashion through reports and publications, all of which are readily available from the ICES website.

A research plan provides the management system with reliably and timely information and the results are published on the ICES website. Thus all of the SG80 requirements are met. But since there is no comprehensive research plan covering all principals and neither the plan nor the results are disseminated to all interested parties or widely publicly available none of the SG100 requirements is met. This indicator therefore scores 80.

3.2.5 Monitoring and management performance evaluation

There is a system for monitoring and evaluating the performance of the fishery-specific management system against its objectives. There is effective and timely review of the fishery-specific management system.

SG 60: The fishery has in place mechanisms to evaluate some parts of the management system and is subject to occasional internal review.

SG 80: The fishery has in place mechanisms to evaluate key parts of the management system and is subject to regular internal and occasional external review.

SG 100: The fishery has in place mechanisms to evaluate all parts of the management system and is subject to regular internal and external review.

Score: 90

Rationale

The management regime for this fishery incorporates measures that allow for review of both the agreement between the EU and Norway, as well as for the EC Common Fisheries Policy. This occurs at every level of the system with policy documents formulated at a European Commission level as a result of initiatives at national, sub-national and European levels. These policies and resulting operational plans and practices are then subject to wide consultation before ratification, and prescribed monitoring and evaluation processes after ratification. These systems also include formal consultation and review processes involving all EC Member State fisheries administrations, and committees such as ACOM (the body through which ICES provides formal advice), STECF (the committee by which the European Commission seeks expert opinion on fisheries), the ACFM (dealing with industry concerns at a European / “horizontal” level), and the Regional Advisory Councils (RACs) dealing with regionally specific technical issues (of which the body specifically incorporating the industry interests is the North Sea RAC) (19,74).

There is also on-going and extensive review of stock assessment and data gathering methodologies at ICES level and at the level of the contributing laboratories and research institutions. Within ICES, a methods working group keeps methods for fish stock assessment under regular review. In addition, other study and working groups exist to

review herring surveys, the precautionary approach, discards, biological sampling, reference points, and recruitment variability.

Formal external review of the management system is rather more limited. ICES can, and does, involve external scientists in extensive review of its methodologies if considered necessary. However there is no clear external review of all management systems; although external audits do take place at CFP level. The inclusion of review clauses in other CFP legislation is commonplace. The RACs also provide an opportunity for review.

The next major opportunity for external participation in the review of the management system will occur in the lead-up to the review of the CFP in 2012. When the CFP was last reviewed in 2002, the review was preceded by formal consultations and regional 'roadshows' that provided many opportunities for external involvement in the review of the management system.

On balance, management plans are modified on an annual basis, and the various review processes do ensure that systems adapt to changing circumstances, and are subject to critical inspection. There are various checks and balances of the management system in place, but it has to be said that this is not always a regular, rapid or formalised process. It should also be noted that there are recommendations emanating from ICES Working Group reports that are not always implemented.

Each member state must also report annually on control matters. EC fishery inspectors monitor national enforcement activity. EC data collection requirements, carried out by member states, are reviewed each year. Within nation states, internal audits also occur, reviewing the nature and efficacy of control measures.

The fishery has in place mechanisms to evaluate key parts but not all parts of the system, but there is a regular internal and external review. This results in a score of 90.

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Annex 3 – Summary of stakeholder comments

No comments were received by stakeholders about this fishery except where directly solicited by the team for the purpose of obtaining information about the fishery. No stakeholders expressed interest in attending the site visit or meeting the team, or provided unsolicited comments. Aside from those individuals met during the site visit (listed in the report), the team made contact with the enforcement authorities in Scotland, Ireland, Norway, Germany and France. In all cases, these authorities reported that there were no issues pending against any Scapêche vessels or against the Grande Hermine, nor, as far as they were aware were had there been any issues in the past.

Annex 4 - Peer reviewer reports

Note: Comments and responses by the MEP team are given throughout the text in boxes.

Review of Public Comment Draft Report saithe (*Pollachius virens*) fishery by Scapeche and Compagnie de Peche de St. Malo.

Peer Reviewer 1

Overall, this is a thorough report that gives a good idea about the stock, ecosystem impacts and management of the saithe fishery. In general, this report is well presented and well argued. Most relevant information is present, and the scoring in Annex 1 is clearly justified. The scoring of the different principles seems generally fair. There are however also several parts of the reports where the amount of information that is presented is not enough to justify the scorings.

In the first part of the report the fishing gear and method is not described in enough detail. In particular, I think it is important to clearly state if this otter trawl is fished on the bottom or pelagically, what the size and weight of the doors are, the size of the bobbins etc. This information is currently only partly given and quite late in the report, but it is essential to allow the assessment of the scores under principle 2.

Added.

The report discusses a sorting grid, but does not explain where this is found and what it is used for.

Added.

On page 9 it is stated that ‘only one mesh size be on board at any given time’. Is this a practical or legal limitation?

Legal limitation – this has been added.

Discarding is illegal in Norway, but it is inevitable that non-quota and undersized fish are caught. What happens to these undersized and non-quota fish in this fishery? The report states that the crew eats these fish, but even a crew of 38 cannot eat much more than 100 kg of fish a day, so this would not really contribute significantly to avoiding a discarding problem, or at least this cannot be assumed unless information about the amount of fish that is by-caught is actually given.

The whole catch has to be retained full stop. This is one of the reasons why there is a big incentive to use big mesh sizes on trawl and sorting grids in the Norwegian zone – to avoid catching undersized fish and undesirable small species that would otherwise have to be kept on board.

Non-quota species can be legally retained without any limit – presumably this comment refers to species for which the quota has been used up. In this case, normally the fishery would be closed, and this would include fisheries that habitually take a large by-catch of the species in question. This has not, however, been done for any of the three target species in this fishery, (although we note that according to the ICES advice for 2010, the haddock TAC for 2009 was exceeded somewhat).

The Norwegian authorities check up on discarding in controls at sea in two main ways: i) there must not be a discrepancy between what is noted in logbooks as the catch comes in and what is recorded as stored in the hold; and ii) helicopter overflights check of evidence of discarding (floating dead fish). We checked with the Norwegian authorities whether any contraventions (of any kind) were reported for the Grande Hermine, but her record is clean.

The first part of the report hints at that some fish are discarded in Norwegian waters anyway (page 49), but this information does not appear in the scoring under principle 1 or 3. This issue needs to be discussed clearly and upfront, and needs to be identified under the relevant scorings.

We checked back on the comment on page 49 and note that it is not referenced and we cannot track down its source. In any case, it does not apply to Comapêche because they have quota for cod, haddock and saithe (the three main quota species). On this basis, we have removed this comment.

Page 13. Why is no table on the landings for the west of Scotland fishery given?

Good point. The landings for North Sea actually include the West of Scotland – advice and data were combined by ICES in 2009. The legend and column headings have been edited in several tables to make this clear.

Page 15. It would be useful to give a map with the ICES areas and overlaid onto that the different regulations about mesh sizes. For example, I have no idea where the French line is, and readers should not be forced to find this information externally.

Added – Figure 1.

Just to recap, the mesh size regulations are as follows:

The trawl mesh size in the North Sea (Subarea IV) must be at least 110mm (a derogation from the standard 120mm for this fishery because of low cod by-catch). In Subarea VI the minimum mesh size is 100mm to the west of the ‘French line’ and 120mm to the east. In the Northeast Arctic waters under Norwegian jurisdiction the minimum mesh size is 135mm.

Page 47, 4th paragraph. The last part of this paragraph is not clearly formulated. Repeat what the TAC constraint is in the last sentence to make clear what you mean.

Revised.

Scoring of the principles

The most important issues that I identify below generally concern the lack of the provision of the information that is required to make an informed decision.

I did not identify any problems in the scorings for **Principle 1**.

Principle 2.

Definition of Retained & by-catch species

I have a problem with the operational definition of the main retained species and main by-catch species. The MSC guidance defines ‘main’ species as generally making up >5% of the catch and the certification report sticks strictly to this. This definition properly assesses the contribution of these species to the catches, and I agree that species that make up less than 5% of the catch are not ‘main’ species. In my view, there is however another component to determining whether the catch of a species is important, and that depends on how much of the stock is caught in a year by the fishery. The catch of a species may only make up a small proportion of the catch, but if this small proportion of the catch is a large proportion of the population of this species, the effect of the fishery on these species is still likely to be large. The information that the report currently contains is not sufficient to be able to assess if such low proportional catches are in any way important parts of the stocks of the rarer fishes. For species like *Dipturus oxyrinchus*, *Brosme brosme*, *Chimaeridea* and *Hexanchus griseus* a small fraction of the catch could still make up significant fraction of their stock, but it may not. I would therefore like to see a calculation of how many tons of all species are caught per year (simply the fraction of the catch x the total catch), and see a comparison with the actual spawning stock biomass. Without this information it is not possible to assess if there is a significant catch of these species from the point of view from these fish stocks. This point is relevant for **2.1.1** and **2.2.1**.

This is a nice idea in theory, but the problem is that the spawning stock biomass is not estimated for most of these species, or where it is the area over which it is estimated is highly variable. We tried calculating catches as a proportion of total catches, but again the problem is that information on total catch is not available for all species, and again where it is available it is added up over different areas (e.g. IV and VI, VI, VIa, ‘other areas’, ‘northern stock’), meaning that the figures are not comparable with each other. This is true for retained species and even more for discarded species.

On this basis, we concluded that it was not appropriate to include this information, since it gives an incomplete and potentially misleading picture of the situation. However, as part of the review process, we did review all this information and it is cited in the relevant rationales.

By-catch species

2.2.2. What are ‘all necessary actions to minimize by-catch’? This needs to be specified here.

We meant the legal requirements for reducing / eliminating bycatch – mesh size, sorting grid etc. This has been added in the text.

2.2.3 The lack of quantitative records on the by-catches of the Grand Hermine means that there is no basis on which to make decisions about what the main by-catch species are. I do therefore not agree with the score of 80 for Compagnie de Peche de St. Malo, as I think we lack the information to decide whether there are any main by-catch species. ‘Anecdotal information’ to me seems inadequate to justify a score of 80, as no *quantitative* information is available. The absence of detailed information on impacts seems to be treated as an absence of an effect here, which can be correct, but only if this lack of detailed information results in a lower score in the ‘information/monitoring’ rating.

This is true – but bear in mind that the majority of catches by the Grande Hermine (78.5% in 2008) are taken in Norwegian waters where discarding is forbidden and enforcement is strict. The team were confident that discarding is at worst rare in this fishery.

Furthermore, no mention of by-catches of invertebrate species are made in this report. It seems unlikely that no invertebrates are ever caught, and therefore to me this seems to be a lack of even qualitative information on the amount of by-catch. This information needs to be included in the report or the scores adapted.

The gear used is an otter trawl with large rockhopper disks. The disks roll along the bottom and the footrope of the trawl is held tens of cm above the bottom. This does not of course mean that there are no impacts on benthic fauna, but it does mean that by-catch of benthic invertebrates is quite unlikely in this type of fishery. As regards impacts on benthic invertebrates, the team decided to deal with this issue under ‘habitats’ rather than bycatch – bycatch of invertebrates such as sponges and coral act as an indicator for vulnerable habitats.

ETP species

2.3.1. Similarly to the point made for **2.1.1** and **2.2.1**, the reader needs to know how many tons of common skates are caught by this fishery per year, and how large the actual stock of common skate is. Without this information, it is impossible to assess if the catches of skate by these fisheries are significant or not.

This would be nice, but again this information does not exist, unfortunately.

For the Compagnie de Peche de St. Malo the lack of information on by-catches is hampering the assessment here again. Logbooks may show low catches of rays, but species that are not retained (i.e. the by-catch species) will not have been recorded. These logbook records do therefore not tell us anything about what the by-catch of this fishery,

including the common skate, is. That means that the score for **2.3.3** for this fishery needs to be lowered because of the information available is not sufficient to determine whether the fishery may be a threat to skates and any other ETP species that may be by-caught.

This is true – particularly since common skate is required to be discarded. However, the observer data (the usual record of by-catch) is not really sufficient for a quantitative estimate of the biomass or number of common skate discarded, as we found with Scapêche – even though their observer data is pretty good. This is because catches of common skate are quite rare and very sporadic, so any exercise of scaling up from observed trips to all trips is going to be pretty dodgy. SG 60 requires that the team can make a qualitative estimate of the level of fishing mortality imposed by the fishery. The team considered that for Comapêche, the information about the geographical overlap between the fishery and the range of common skate (which is small because common skate does not occur in the Arctic) and their background knowledge about common skate bycatch in demersal trawl fisheries in the North Sea meant that this was possible. We note, however, that both fisheries scored <80 for this PI, and the implementation of the Client Action Plan will mean that quantitative data on all catches of common skate should be available for both fisheries starting soon.

The discussion of the impact of the fishery on *Arctica islandica* could have been more detailed. I would like to see a proper distribution map of *Arctica* (e.g. using records from the NBN gateway) overlaid on a map of the distribution of the fishery. The existing literature shows that two passes of an otter trawl cause an 8% mortality of *Arctica islandica* on silty sediment (Bergman & van Santbrink, 2000). Whether this 8% mortality is a significant threat depends on the overlap of the fishery with the bivalves. As these bivalves can be very long-lived (>400 years), even a low additional mortality may cause population declines, but without some population dynamic analyses using the actual trawling frequency of the fishery it is not possible to ascertain that a significant threat does not exist. I think that therefore a score of 100 is too generous.

The other peer reviewer also requested better maps in this section, and these have been added.

As noted above, given the gear type, we felt that significant impacts on *Arctica* from this fishery were not likely – however as you point out, it is perhaps too much to suggest that there is a ‘high degree of confidence’ as required by SG 100. The score has been reduced to 80.

Habitat

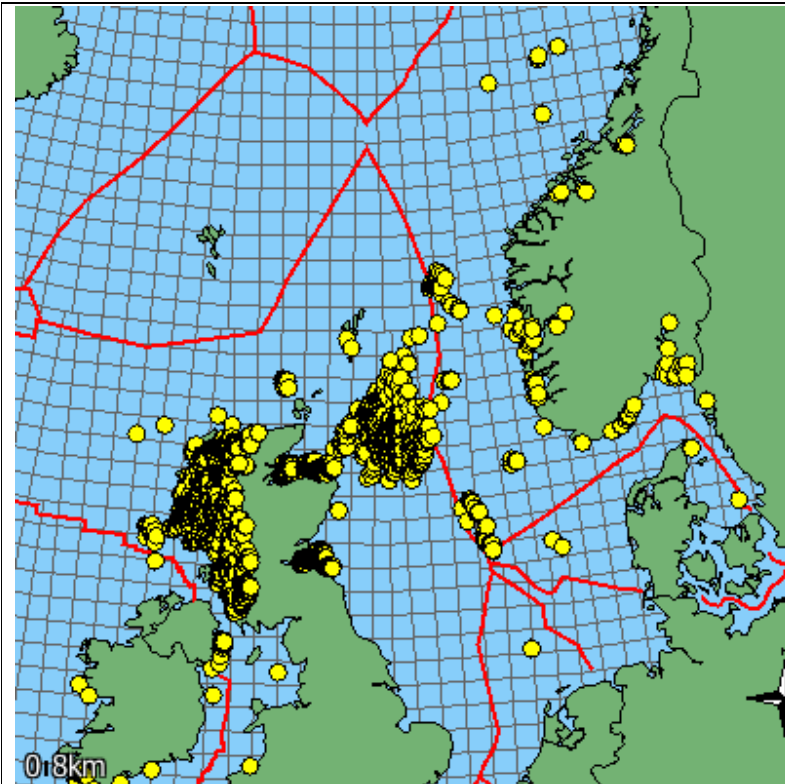
2.4.1 I do not find the current approach where the overlap of the fishery with the habitat is estimated from depth ranges very satisfactory. The current description of the geographic distribution in a table is not sufficient to allow an assessment of the potential overlap of the fishery with these habitats. For a proper assessment of the habitat impacts of this fishery, maps of the distribution of all sensitive habitats need to be given, and the amount of overlap with the fishery shown on these maps.

The maps of the distribution of the fishing activity are not very precise, and this means that the analyses suggested above is going to be overestimating any impacts of the fishery on these habitats. I think it may therefore be in the interest of the fishery to supply more detailed maps of their fishing activities as I think that otherwise the score for **2.4.3** needs to be lowered to reflect this uncertainty (i.e. there is no evidence to show that no fishing occurs on *Lophelia* reefs for Grand Hermine apart from the assurances of the captain).

Scapêche supplied VMS maps of fishing activity to the team, but requested that they not be included in the report. Comapêche do not have such maps as they have not up till now subscribed to the VMS feed from the Grande Hermine (this will change when the Client Action Plan is implemented). However, OSPAR habitat maps have been added to the relevant section, and we have revised the analyses as you suggest. We have also revised the rationale for 2.4.3 to include much better information on habitat distributions and in particular the distribution of protected areas. We would also note that the Client Action Plan requires Comapêche to provide much better information about habitat impacts of the Grande Hermine, so the outcome scores can be reviewed on re-assessment on the basis of much better information.

Thirdly, what is meant by ‘burrowing megafauna’? Burrowing megafauna in its widest sense will occur in any sediments, so if the OSPAR definition is more precise this needs to be given here. If it is not more precise, an extensive overlap of these fisheries with these habitats exist, and the current assessment is incorrect.

OSPAR have a habitat type called ‘seapens and burrowing megafauna’ – the distribution map for which is given below.



The habitat type is defined as follows (see ref 42):

Plains of fine mud, at water depths ranging from 15-200m or more, which are heavily bioturbated by burrowing megafauna with burrows and mounds typically forming a prominent feature of the sediment surface. The habitat may include conspicuous populations of seapens, typically *Virgularia mirabilis* and *Pennatula phosphorea*. The burrowing crustaceans present may include *Nephrops norvegicus*, *Calocaris macandreae* or *Callinassa subterranea*. In the deeper fiordic lochs which are protected by an entrance sill, the tall seapen *Funiculina quadrangularis* may also be present. The burrowing activity of megafauna creates a complex habitat, providing deep oxygen penetration. This habitat occurs extensively in sheltered basins of fjords, sea lochs, voes and in deeper offshore waters such as the North Sea and Irish Sea basins.

We have not included these habitat definitions in the report (for brevity), but they are cited.

Ecosystem

2.5.1. Demersal otter trawl have been shown to cause a significant mortality of benthic invertebrates on the seabed (Kaiser et al., 2006) and this causes changes in the functioning of benthic ecosystems, for example a reduce secondary production (Hiddink et al., 2006b) and reduced bioturbation rates (Widdicombe et al., 2004). The extent to which this fishery is likely to cause serious and irreversible harm to these ecosystem functions depends on the sensitivity of the habitats fish and the trawling frequency in these habitats (Hiddink et al., 2006a). This information needs to be included here and the

scores adapted accordingly. If this information cannot be given, the score for 2.5.3 needs to be lowered to represent this.

The rationale for PI 2.5.1 has been considerably reviewed and expanded. We have tried to address these points better.

It is hard to know (as the reviewer notes above) the extent to which a given fishery should be penalised for the actions of other fisheries in the same area, or (in this case) actions over previous decades. So, for example, the North Sea has famously been trawled intensively for more or less 100 years now, and its ecosystem is clearly going to be dramatically altered as a result – in terms of benthos, fish species composition, the nature and energy flow through food webs etc. etc. On the one hand, this is not the fault of UK Fisheries Ltd., DFFU and Doggerbank, operating now. On the other hand, the logical end point of this position is that cumulative and long-term ecosystem impacts are ignored.

For better or worse, the team has chosen to take a rather more reductive view of ‘ecosystem impacts’ than implied above – this is following the precedent of other MSC assessments. So, rather than asking the question implied by the reviewer: ‘have there been any ecosystem changes for which fishing (in general) could be a cause?’ we have asked the question: ‘are there any ecosystem changes likely to be associated with the current fishery of which these companies are a part?’. On this basis, we considered questions such as whether there are trophic interactions which are threatened by the fishery, whether the gear has particular impacts that other fisheries don’t have, and so on.

The team still considered that relative to most marine areas, the ecosystem information available in the area of this fishery was pretty good. We therefore did not reduce the score for 2.5.3.

I did not identify any problems in the scorings for **Principle 3**.

The report contains a few small errors and omissions, which are listed below.

- Page 6: ‘REF’
- Page 11 & 59. *Lepidorhombus* is not Greenland halibut.
- Page 25: ‘objective’
- Page 41. Tonnages are ambiguous because of the use of commas instead of a decimal point.

These changes have been made. *Lepidorhombus whiffiagonis* is megrim. Greenland halibut is *Reinhardtius hippoglossoides*. Whoever named the poor beasts was having an off day.

If the additional information that I have asked for can be provided, I expect that some of the scores may need to be lowered. If the information cannot be provided, it may be necessary to set some additional conditions that require the collection of this information. In my opinion, the conditions that have already been set are fair.

In the team's view, the major information gaps identified by this peer review (and the other one) – i.e. on sensitive species and habitat impacts – is already addressed by the existing conditions. While it would be preferable to have better population information on the retained species, the team needs to stick to the MSC criteria as regards defining 'main' retained species – i.e. the proportion of the species in the catch or the vulnerability or value of the species. The MSC standard does not allow for a requirement to put conditions on retained or by-catch species which have not been identified as 'main'. However, much of the missing information identified by this reviewer (such as more detailed habitat maps) is available and has been added, and some (more detailed maps of fishing locations for Scapêche) has been reviewed by the team although is not included in the report. The majority of the remainder will be collected as part of the client action plan.

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Peer Reviewer 2

Summary of comments

These comments are based on the Public Comment Draft Report Saithe (*Pollachius virens*) fishery by Scapêche and Compagnie de Pêche de St. Malo (Aug 2010) and other literature cited below.

The Team has produced a comprehensive report which is well presented. Decisions concerning scoring have been clearly articulated but lack sufficient justification in places. **Principle 1.** Stock assessments from ICES indicate that the risk to the stocks from fishing are low in the short term i.e. < 4yrs (ICES suggested very low but cautioned that due to errors in the assessment, the risk has been underestimated). ICES appeared confident in their short term assessment of the stocks in relation to fishing mortality but less so about the sustainability of current fishing levels in the longer term, given the errors in the assessment and low productivity of the species. They recommended that a further assessment of the harvest control rule will be needed but this appears to have not yet taken place. The EU Norway management was reviewed in 2008 but this did not, as far as I can tell, include a specific review of the HCR. However, my main concerns relate to **Principle 2.**

a) Reported catches of common skate although accidental, do pose a threat to this species which is protected under national and international fisheries and nature conservation legislation, due to the risk of extinction. I agree that if carried out diligently by both Companies, the measures proposed in the Client Action Plan should ensure that legislative requirements are met i.e. 'that reasonable steps have been taken' to reduce fishing mortality, but inevitably losses will occur. I am concerned that insufficient justification has been presented as to the acceptability of this 'impact to an ETP species', as defined by SG80 2.3.1. It is unclear if legal compliance alone enables the capture of ETPs to be defined as acceptable by the MSC. Given that the common skate population has been reduced to very low levels, I think it reasonable to request that further justification be provided that the fisheries pose 'no risk of serious or irreversible harm' or a 'hindrance to recovery' to this species.

b) The bycatch of skates and rays and uncertainties in identification may mean that catches (which may include common skate) are higher than the report suggests. This means that vulnerable species which the team concludes, do not qualify as main retained species, may be given insufficient consideration within this and later stages of the assessment. Ref p61 "the full range of retained species was not completely identified". The fact that discards are not recorded is also of concern.

c) The potential damage to sensitive habitats is difficult to assess on the basis of the information provided i.e. the maps included in the PCDR. However, from maps provided by OSPAR there does appear to be considerable overlap between trawling activity and the distribution of *Lophelia* reefs and deep sea sponges, suggesting higher levels of exposure to damage by trawling, than the report suggests. The physical

damage to deep sea habitats from trawling and the slow growth rates of many component species is relatively well described and the rich biodiversity of limited areas of many deep sea habitats, particularly along the edge of shelf areas, is becoming known. Ref p16 “because the area in question (the edge of the continental shelf off north and west Scotland and Ireland) has a steep drop-off, so that areas of different depth are relatively close”. These are the locations which are occupied by sensitive deep water habitats. Further, their proximity to other less sensitive habitats may make it difficult for vessels to avoid damage during normal fishing operations.

Team’s response is given under the comments below, which flesh out the above in more detail.

More detailed comments

1a) In relation to the Client Action Plan I would suggest that all catches of common skate be recorded and submitted to an external body which will assist management authorities in determining the status of this species and evaluating management measures.

This is what is proposed in the Client Action Plan – the relevant external body for France is Ifremer. Ifremer are the national marine science organisation in France, and their role is to collect data, evaluate stocks, provide management advice and represent France in similar bodies on a European level (i.e. ICES).

1b)With regard to the evaluation of the current measures, OSPAR cautions “The adoption of some management measures in 2009, including mandatory release of by-catch in EU fisheries, is too recent to have had any impact upon overall status.” http://www.ospar.org/documents%5Cdbase%5Cpublications%5CP00477_common_skate.pdf.

This is certainly true – Fishbase suggests a minimum population doubling time for common skate of ~14 years. The situation regarding common skate will have to be kept under review in future audits and re-assessments of this fishery.

1c) Greater use of on board observers will also be required especially by **Compagnie de Pêche de St. Malo**. Ref: “There are no observer reports on the Grande Hermine, so the only sources of information available to the team were anecdotal reports by the captain”.

Scapêche have good observer coverage – the team were supplied with eight recent observer reports covering six months of fishing. The Grande Hermine, however, hardly ever has observers on board, not because of a lack of willingness, but rather because the fishing trips are long (around 90 days), making recruitment of observers extremely difficult. This does not necessarily mean that the team should not require observers to be on board the Grande Hermine (since logistical difficulties are not, in the end, our problem). However, the team took the view that since the Grande Hermine does the vast majority of her fishing in Norwegian waters, where i) discarding is illegal, ii)

enforcement is very rigorous and iii) common skate do not occur, the lack of observer reports for this fishery was not a major issue.

Recently, however, in response to the MSC process, the Compagnie de Pêche de St. Malo has managed to arrange for an observer on board the Grande Hermine for her next trip (which will start in November 2010).

ETP Species

2a) My concern about the mis-identification and the exclusion of species from certain stages of the assessment are based on the following “Observer reports suggest that neither of these species overlap much with the saithe fishery, with the long-nose skate making up ~0.03% of the catch from tows when saithe is also taken, and the thornback ray making up ~0.02%”. Actual weights presented in Table 7 would add clarity.

The problem with this is that the observer reports only provide a snap-shot of a subset of tows. The percentages given in Table 7 are much greater than the actual percentages of these species in the catch overall, because we have selected tows where this species is discarded, and recorded the percentage of the catch for that tow. Thus tows with zero catch of that species, according to the observers, are not included in the data given in Table 7, which is (if you like) a ‘worst case scenario’.

The only way we could scale the observer data up to estimate total catch of these species would be to add up the total observed catch and multiply this figure by a factor representing the percentage of tows which were observed over a given time period. However, catches of these species tend to be highly variable – i.e. the majority of tows have a zero catch, with a very few tows accounting for a high percentage of the catch. This massive variability means that a total catch estimate via this sort of scaling up exercise risks being extremely inaccurate. The team considered that it would be potentially misleading to make these kinds of extrapolations.

The net result of this decision is that only common skate has been considered to any real degree within the assessment whereas other species may also be worthy of consideration. For example, ICES advice for mixed demersal fisheries for in Division IIIa (Skagerrak–Kattegat) in Subarea IV (North Sea), and in Division VIIId (Eastern Channel) in 2009 was “no landings of angel shark and minimum bycatch of spurdog, porbeagle, and common skate and undulate ray. Celtic Seas - minimal catch of common skate and undulate ray;

Hexanchus griseus Six-gilled shark - Annual sampling recommended by ICES

Dipturus oxyrinchus Long-nose skate Annual sampling recommended by ICES

Raja clavata Thornback ray in V1a no advice given, [due to lack of data]

These species can be considered in two ways in the MSC assessment process: i) as ETP species (with more stringent requirements as to impacts) and ii) as retained or by-catch species (with less stringent requirements). We note that MSC is strict about the definition of an ETP species – it must be legally protected by some national or

international legislation in the area in question – i.e. ICES advice and IUCN listings are not sufficient. If the team is concerned about catches of a vulnerable species that is not covered under this definition of an ETP species, it can be considered as a ‘main’ by-catch or retained species, even if catches are low.

On this basis, the team re-reviewed the available data following the above comment. For Scapêche, observer reports showed that the catch labelled as ‘rays’ in the logbooks was composed of *D. oxyrinchus* and *R. clavata*, with other species (such as *D. batis* and *H. griseus*) caught only very occasionally. Neither *D. oxyrinchus* or *R. clavata* are protected and as noted above, ICES and IUCN do not express major concern about either. *R. clavata* is listed by OSPAR, but only for the North Sea, where a relatively small proportion of the catches of this fishery occur. On this basis, the team concluded that the catch rate was too low (~1.2% of catch, ~0.4% of discards across all species) for them to merit consideration as ‘main’ retained and bycatch species, despite the fact that they are undoubtedly among the more vulnerable part of the catch. For Comapêche, catch rates of rays are even lower, reflecting their generally lower abundance in the Arctic. The captain of the Grande Hermine reported that the occasional catch of rays usually went to feed the crew! Obviously the implementation of the Client Action Plan should put a stop to this as far as *D. batis* is concerned, although we note that the overlap between the fishing area of the Grande Hermine and the range of *D. batis* is actually rather limited.

From all the available data presented to us, we could find no evidence that the other species mentioned above (spurdog, porbeagle and undulate ray) are caught in this fishery. Neither logbook data nor observer reports mention any catches of sharks (as opposed to rays) apart from *H. griseus*, except in the deep-water fishery for Scapêche which is excluded from this assessment. According to Fishbase (see <http://www.fishbase.org/Summary/SpeciesSummary.php?ID=7617>) the range of undulate ray does not overlap at all with this fishery.

For accuracy, the protection/management measures for all habitats and species should be referenced correctly throughout the report, such as those identified below.

The six gilled shark is listed as Near Threatened on IUCN’s redlist, unmanaged but covered in UK waters by UNFSA.

As noted above, this species is caught in this fishery only very occasionally.

The Thornback ray is also described by JNCC as being classified by IUCN as Near Threatened and severely depleted [in certain areas].

A classification by IUCN is not sufficient for inclusion on the list of ETP species, and OSPAR consider the species to be depleted only in the North Sea – as is likewise reported by Fowler et al. 2004 cited below. We note that there is a considerable directed fishery for *R. clavata* in the North Sea - ICES estimate landings in 2006 (the last year for which good data appears to be available) as 2800 tonnes. The most recent ICES advice for North Sea rays is that the (sub)population in IVc and VIId is stable/increasing, while the situation in IVa and b is unknown.

ICES 2009. 6.4.30 - Demersal elasmobranchs in the North Sea (Subarea IV), Skagerrak (Division IIIa), and eastern English Channel (Division VIIId)

The Common skate, endemic to the north east Atlantic is described as severely declining in shelf seas by JNCC, endangered globally and critical in shelf seas, by IUCN. Its protection is provided for in UK national legislation (schedule 5) of the Wildlife and Countryside Act, its listing under OSPAR, the Barcelona Convention and the UK Biodiversity Action Plan.

This species is classified here as an ETP species.

The long nose skate is listed in the JNCCs report 360 and given a Priority 1 requiring urgent assessment. It is has been proposed for scheduling under the Wildlife and Countryside Act quinquennial review.

As far as we can find out, the long-nose skate has not up till now been listed under the Wildlife and Countryside Act (see ref below). This means that it is not protected and cannot therefore be considered under ETP species. We reviewed the catch information to see whether *D. oxyrinchus* should be considered a 'main retained species' on the basis of its vulnerability – this would be for Scapêche since Comapêche do not appear to catch any. The problem is with Scapêche catch data that there are several fisheries mixed up together, and we are only assessing one of them here (the saithe fishery). Overall, in 2008, Scapêche caught 11 tonnes of long-nosed skate, which is certainly not trivial. However, when we look at observer reports, which break down the catch tow by tow, the overlap between the saithe fishery and long-nosed skate catch is very small. Since we are not assessing the other fisheries in which Scapêche participates, we cannot take into account by-catch associated with these other fisheries. On this basis, the team agreed that it should not be considered as a 'main' retained species.

Fish on schedule 5 of the Wildlife and Countryside Act listed here:
<http://www.naturenet.net/law/sched5.html#Fish>

Fowler S., Mogensen C., Blasdale T. 2004. Plan of Action for the Conservation and Management of Sharks in UK waters. JNCC report 360.

OSPAR includes the common skate as Priority List of Threatened and Endangered Species..."stakeholders should also be encouraged to report released by-catch. *D. batis* is a Biodiversity Action Plan (BAP) species in the British Isles, where the species has been proposed for strict protection".

http://www.ospar.org/documents%5Cdbase%5Cpublications%5CP00477_common_skate.pdf

Under the Client Action Plan, the fishery has agreed to release and report all by-catch of common skate, and to report catches of all ray species (whether released or retained) to species.

National and International management measures/legislation should be referenced appropriately throughout the document e.g. the FAO's IPOA for Sharks, The EC's Community Action Plan for Sharks, Natura 2000 and RAMSAR. Habitats and species covered by UK legislation also need to be referenced (table 8). Norwegian legislation relating to discards and *Lophelia* should also be included. This is important not only as a correct source of information for Companies using this report but also in relation to the management measures evaluated in the next section.

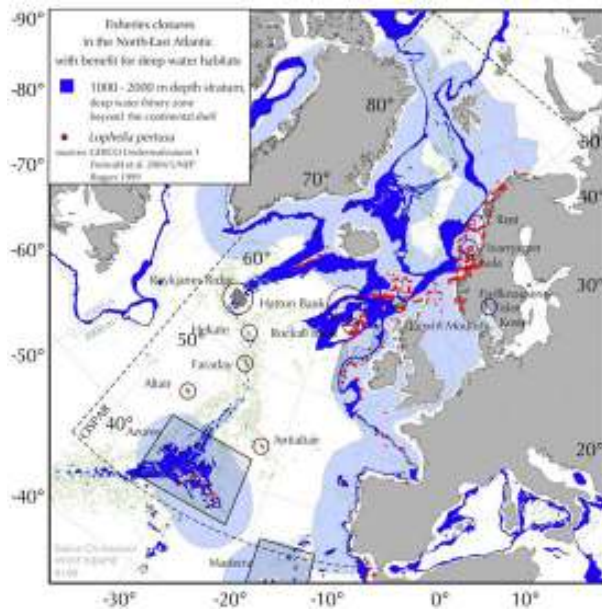
As noted above, under the MSC definition ETP species need to be formally protected rather than just listed (it might be better if they were termed 'protected species'). This means that sources in Table 8 need to comprise national or international legislation, which is not the case for e.g. the FAO IPOA or the EU Community Action Plan – these would be translated into legislation at national level. Also, Table 8 only covers ETP (protected) species – habitats are considered below. We made the decision to follow OSPAR in considering *Lophelia* as a protected habitat rather than a protected species. There are no RAMSAR or Natura 2000 sites of relevance to this assessment (see references below).

<http://ramsar.wetlands.org/GISMaps/RamsarSitesinGoogleEarth/tabid/944/language/en-US/Default.aspx>

<http://www.eea.europa.eu/data-and-maps/figures/distribution-of-natura-2000-sites-across-eu-member-states>

2b) Sensitive habitats

The map below is taken from WWF leaflet, Restoring the Balance. This is an example of level of detail required and the type of map that should be used. Further information on sensitive habitats may be available from NEAFC and its contracting parties especially Norway.



In relation to *Lophelia*, it might be useful to include the following assessment of its status “Regarding the global scale of all records known so far, there is an overwhelming concentration in the North East Atlantic giving the OSPAR area global significance of this species.” Dinter. 2001. Biogeography of the OSPAR Maritime Area. BfN. Germany.

The other peer reviewer also objected to the lack of maps in the habitats outcome rationale. We have revised it considerably to include the habitat maps and the above reference.

2b)On deep sea sponges the Royal Commission on Environmental Pollution. 2004. Turning the Tide reports that “Deep sea sponge aggregations are also known to support a rich, diverse epibenthic (...) fauna. Dense aggregations are known to occur in various places the north east Atlantic, from a depth of 250-500m close to the shelf break. It has been reported that one study off the coast of Northern Norway took samples from an area of less than 3m², yielding 4,000 sponge specimens belonging to 206 species, 26 of which had not been previously described.” Therefore the assessment report’s assertion that small areas of affected habitat are not significant may not hold true. The status of small areas of habitat are highlighted in UK case law in relation to development proposals in Natura 2000 sites in which the inspector concluded that there was nothing in law that suggested that the limited scale of an impact was a material consideration.

This applies only to Comapêche, and they report that it is relatively rare that they fish below 250m (the upper limit of the depth distribution for this habitat type). While directed saithe fisheries may fish somewhat deeper (down to 300m), the main target species for the Grande Hermine in Subareas I and II (where the deep-sea sponge aggregations occur according to OSPAR) are cod and haddock, which have their core depth distribution above 200m (see Fishbase). On this basis, the team considered that the

probability of impact would actually be quite low – the 5% figure we give in the report is a ‘worst case’ figure assuming fishing effort down to 300m and an even distribution of the habitat across the whole depth range. We take your point about small or rare impacts still being significant, but the MSC criterion of ‘series or irreversible harm’ implies some kind of semi-quantitative judgment about the level of likely damage. In any case, the conditions on Comapêche for habitat management and information will make the situation more clear, and allow the issue to be considered on the basis of better data in future audits and re-assessments.

It is noted that the ‘in combination effects’ of trawling over sensitive habitats (by different fisheries trawling over the same period) and cumulative impacts (by the same or different fisheries trawling over a period of time) do not appear to be catered for within the MSC scheme.

This is true – MSC operates on a fishery-by-fishery basis.

2c) The effects on ecosystem structure and function may also be implicated by information presented in ICES Advice book 6 2008 in which it says that “In the northern North Sea the impact of otter trawling is less severe [...than in other areas], with an estimate of the benthic invertebrate annual mortality due to fishing representing approximately 25% of the standing-crop biomass (Greenstreet *et al.*, in press). Although not yet quantified in terms of long term or wider ecosystem impacts, this evidence should according to the precautionary principle, warrant further consideration.

Good point. The rationale for 2.5.1 has been expanded to consider these issues. The other peer reviewer also requested similar consideration to this kind of issue.

2d) Retained species. The fact that the North Sea fishery qualifies for a reduced mesh size because of its low cod bycatch does to a certain extent justify its exclusion from the list of main retained species. However ICES report that ‘the cod management plan requires a 30 % reduction of saithe quotas to reach the target F for cod (ICES 2009)’ in WGNSSK report 2010. A discussion of this point would be helpful in the final section on management, Principle 3.

Good point. The ICES advice for North Sea and West of Scotland cod for 2010 (note – not available when the scoring of this fishery was done) stresses that current demersal quotas in general do not appear to be compatible with the success of the Cod Recovery Plan. However, the main culprits seem to be *Nephrops* fisheries and other small mesh fisheries, as well as directed fisheries for haddock and whiting. However, in scoring this fishery we are constrained to consider the catches of this fishery in particular, not demersal or even saithe fisheries in general. We have added a more detailed discussion of this point as suggested.

3a) Management and information

In relation to the question of subsidies which has also been a cause for concern in reviews of the Euronor saithe fisheries, I was disappointed that the issue had not been

fully clarified within this assessment report. Evidence from a recent report from Poseidon suggests that the firms in question may have been in receipt of capacity building subsidies. "Approx 25% of the French fleet were in receipt of 9% of FiFG funds in 2000-6, about 20% of which could have contributed to increased fishing effort. Across the board, about 40% of the Community's FiFG budget (2000-6) was spent in modernising or constructing vessels engaged in bottom otter trawling activity."

Cappell, R., T. Huntington and G. Macfadyen (2010). 'FIFG 2000-2006 Shadow Evaluation'. Report to the Pew Environment Group.

The issue was raised in one of the reviews of the Euronor fishery in regard to fuel subsidies specifically. There were two issues: i) the general issue of 'red diesel' (low tax fuel for commercial fisheries and other activities such as agriculture) which some NGOs regard as a subsidy; and ii) specific actions proposed by the French government in reaction to protests over high fuel prices in early 2009. In the case of low-tax diesel, the team considered in relation to Euronor that this was not a subsidy, because diesel was not supplied at below cost price – just with less tax. In relation to the proposed subsidies on fuel, they never actually took place because the fuel price dropped soon after they were proposed. All this took place before the assessment of this fishery started, and is not therefore really relevant here.

As regards the use of FIFG funds for vessel construction / modernisation, the above report notes that in France this was largely focussed on two fleets: the Channel demersal trawl fleet and the tuna purse seine fleet (based mainly in the Indian Ocean). In any case, the reference below suggests that aid for the construction of new vessels finished in December 2004. Subsidies for modernisation are intended for i) more selective gear; ii) improved health and safety; iii) improved processing / handling and iv) installation of VMS. Increased vessel capacity and gear replacement are both explicitly excluded. In any case, neither Comapêche nor Scapêche reported receiving any FIFG funds.

Financial Instrument for Fisheries Guidance – Instructions for use. See http://ec.europa.eu/fisheries/documentation/publications/ifop03_en.pdf

3b) Governance- "The overarching framework for the governance of each fishery is the same, so the Units of Assessment are scored together for this PI". Given the rules on discarding, mesh sizes and differences in the degree of enforcement in Norwegian and EU waters there seems to be a case for assessing them separately. The application of the 15% rule to TACs may also differ. Ref p47 "For instance, for the North Sea stock at the 2009 SSB level, F should be no more than 0.3 to be in accordance with the management plan. This would give a 24% reduction in the TAC for 2010 (7). With this TAC constraint, this corresponds to landings of 118 000 t in 2010 and a F above the precautionary reference point of 0.3". Further comment on the application of this rule would be useful in the evaluation of management.

The question of governance is intended to take account of more general issues than mesh size, discarding etc. Even though the Grande Hermine fishes mainly in Norwegian

waters, because it is an EU vessel and because it fishes on stocks which are jointly managed, it is difficult to separate out 'EU' from 'Norwegian' management in this context.

The point about the TAC constraint is a good one. Since this report was written, ICES advice for 2010 for the North Sea stock has become available, and this shows that the TAC for 2010 was agreed to be 107000 tonnes – i.e. the rate of fishing mortality was kept below the 0.3 management plan level. A comment has been added to this effect.

ICES 2010. Advice 6.4.12. Saithe in Subarea IV (North Sea), Division IIIa (Skagerrak) and Subarea VI (West of Scotland and Rockall).

August 22nd 2010.

Annex 5 – Stakeholder comments on the PCDR

The only comments received on the PCDR were from MSC.

Comments received from MSC on 11 November 2010, with response from MEP

Condition wording does not follow the narrative of the performance indicator or scoring guidepost.

Conditions were the following:

1. Condition for PIs 2.3.1 and 2.3.3 for both companies

Condition 1: For MSC certification to continue in the long term, Scapêche / Compagnie de Pêche de St. Malo must arrive at a point where the effects of their saithe fishery on common skate can be quantified, to ensure that they comply with the outcome indicator 2.3.1 for this species. Scapêche / Compagnie de Pêche de St. Malo must demonstrate that catches of common skate are accurately recorded such that i) a quantitative analysis of the impact of fishery on common skate can be carried out; and ii) trends in fishing mortality of common skate by the fishery over time can be tracked.

SG 80 for these PIs are as follows:

PI 2.3.1 SG 80: The effects of the fishery are known and are highly likely to be within limits of national and international requirements for protection of ETP species. Direct effects are highly unlikely to create unacceptable impacts to ETP species. Indirect effects have been considered and are thought to be unlikely to create unacceptable impacts.

PI 2.3.3 SG 80: Information is sufficient to determine whether the fishery may be a threat to protection and recovery of the ETP species, and if so, to measure trends and support a full strategy to manage impacts. Sufficient data are available to allow fishery related mortality and the impact of fishing to be quantitatively estimated for ETP species

Comments: We chose to write one single condition for both these PIs, because when we attempted to draft the conditions separately, it became clear that any condition for PI 2.3.3 would just require a subset of what was already required under the condition for PI 2.3.1, and would therefore be redundant. We decided that amalgamating these two conditions would make the preparation of the client action plan and the subsequent audit of the fishery more clear and straightforward, because the actions required would not be duplicated across two separate condition. However, we note that this is not explained in Section 8.2, and we have added a paragraph to clarify our decision-making process and explain clearly why there is just one condition corresponding to two scores <80.

2. Condition for PI 2.3.2 for Compagnie de Pêche de St. Malo

Condition 2: For MSC certification to continue in the long term, the Compagnie de Pêche de St. Malo must ensure that all regulations regarding the conservation of common skate (at present the EU regulations – 6) are implemented by the company and followed by the skipper and crew of the Grande Hermine.

SG 80: There is a strategy in place for managing the fishery's impact on ETP species, including measures to minimise mortality, that is designed to achieve the ETP Outcome PI 80 level of performance or above. There is an objective basis for confidence that the strategy will work, based on some information directly about the fishery and/or the species involved. There is evidence that the strategy is being implemented successfully.

Comment: The EU regulations for common skate were considered by the team to constitute a 'partial strategy' that was sufficient to meet the requirements of SG 80 for this PI. However, we did not make this completely clear in the rationale for this PI – the rationale has been amended accordingly. We assume that the conditions are read in conjunction with the rationale (although they are summarised in the main report for convenience). We therefore have not changed the wording of the condition.

3. Condition for PI 2.4.2 for Compagnie de Pêche de St. Malo

Condition 3: The company needs to develop a partial strategy to avoid fishing in sensitive habitats. The strategy should ensure that i) the company has information on fishing locations and ii) measures are in place such that the company can demonstrate that areas of sensitive habitat are avoided.

SG 80: There is a partial strategy in place, if necessary, that is expected to achieve the Habitat Outcome 80 level of performance or above [The fishery is highly unlikely to reduce habitat structure and function to a point where there would be serious or irreversible harm]. There is some objective basis for confidence that the partial strategy will work, based on some information directly about the fishery and/or habitats involved. There is some evidence that the partial strategy is being implemented successfully.

Comment: As the rationale for this PI makes clear, both companies have measures in place to avoid habitat impacts – the question was whether these measures constitute a credible 'partial strategy'. For Compagnie de Pêche de St. Malo, the MEP team highlighted two gaps in the partial strategy which it considered led to a score <80. These were i) the company does not know where the Grande Hermine is in any detail while she is out fishing; and ii) the company does not have a mechanism for identifying sensitive areas and ensuring that the Grande Hermine avoids them (in contrast to Scapêche who has signed up to a 'Pêche Responsable' observer programme that deals specifically with habitat issues, among other things). The condition highlights specifically these two shortcomings. The narrative of the rationale makes clear the logic behind this, in relation to the SG 80 scoring guidepost. The team felt that no change was needed to the condition.

A timeframe for the client to meet these conditions must be specified. While timeframes are noted in the Client Action Plan by the client in this report, these must also be included in the conditions themselves to ensure auditability.

The team considered, after review of the Client Action Plans, that the proposed timeframes were appropriate, and would clearly provide the basis for annual audits. We have reiterated these time frames in Section 8.2 as requested.

The Client Action Plan for Condition 2 must address the second part (ii) of the condition, i.e. Trends in fishing mortality of common skate by the fishery over time can be tracked

The team felt that the Client Action Plan addressed this element appropriately and sufficiently, and therefore did not require any changes to the Client Action Plan as a result of this comment. Part of the Client Action Plan (English translation) is quoted below, with the relevant sections in bold:

1. In line with current regulations, we do not sell common skate (*Dipturus batis*). If any is fished, it would be discarded alive, as quickly as possible. On this subject, the producer organisation PMA has prepared a booklet showing the different ray species, and distinguishing the species that can be sold from the others; this booklet has been put at the disposal of all the Scapeche boats (document attached).

2. Scapeche has provided full details of our sale of 'pocheteau' rays by auction. You will notice that this only includes 'pocheteau noir' (long-nosed skate) and no 'pocheteau gris' (common skate) (document attached).

3. Scapêche and Compagnie des Pêche St Malo propose to implement a data-gathering survey of catches of common skate discarded alive from our vessels, starting in June 2010. This will follow the self-sampling protocol for elasmobranchs which has been approved by Ifremer.

1. For Scapêche, a data-gathering protocol for common skate, rejected alive by our vessels, will be put in place on board all vessels starting in August 2010. It takes the form of a logbook where catches of common skate will be recorded for all gear deployments targeting saithe. The data will be gathered and evaluated during the annual maintenance break for each vessel.

In addition, the observers on board Scapêche vessels will record and analyse catches of common skate.

2. For Compagnie des Pêches St Malo, the sampling will follow the self-sampling protocol for elasmobranchs which has been approved by Ifremer ('logbook for accidental catches'). [Various documents provided to MEP to show how the protocol works and how it is being implemented on the Grande Hermine.]

Since this fishery overlaps with other MSC certified saithe fisheries (e.g. Norway saithe, Euronor saithe), TAB D-015 on harmonisation will apply, and it is not clear in PI rationales whether harmonization was taken into account. Additionally the MSC recommends including mention of harmonization in this section.

This fishery overlaps with four other fisheries which are certified or in the process of becoming certified: i) Norway saithe (certified); ii) Germany Kutterfische saithe (certified); iii) Euronor saithe (certified) and iv) UK Fisheries – DFFU – Doggerbank saithe (under assessment).

Of these, the first two fisheries were assessed under the previous system (before the FAM came in), so the scores are not directly comparable. The other two fisheries have been assessed by MEP using a similar team to that used in this assessment (two out of three members the same). For these two fisheries, there are thus not likely to be any issues around harmonisation – and indeed a check suggests that the scores are consistent for these fisheries. For Principle 1, small differences in score related to the extent to which the fisheries use the two separate stocks (i.e. Compagnie de Pêche de St. Malo, DFFU and Doggerbank and Euronor fish on both stocks while Scapêche and UK Fisheries Ltd. fish only on the North Sea stock). For Principle 2, scores vary depending on whether the companies have good observer data, have been shown to catch endangered species such as common skate and subscribe to the VMS feed to keep track of their vessels in relation to protected habitat areas. For Principle 3, small variations are due to differences in and changes of national and company policy on various issues.

As noted above, the other two certified fisheries are not directly comparable with the above assessments. Nonetheless, the issue of harmonisation with these assessments was extensively reviewed and addressed in relation to the Euronor assessment. Below we quote from this report as to the issues we identified and our response to them:

1.2.4 Stock assessment

Both the German and Norwegian saithe fisheries, operating on the same stocks, are certified MSC. In these assessments, a condition was placed on the fisheries to address uncertainties in the stock assessment. In this fishery, no such condition has been required – the MEP team wish to note why this apparent discrepancy has occurred.

MEP considers that the condition imposed on the other fisheries arose as a consequence of the previous assessment methodology – specifically, the assessment tree used for this assessment contained a PI that put heavy emphasis on sources of uncertainty in the evaluation of the stock status. Under the system used for the Euronor assessment (the FAM version 1), there is no PI in exactly that form, and the MEP team considered that SG 80 was met or exceeded for all the PIs in Principle 1 for both stocks, including the PI on stock assessment under discussion here. Therefore, no condition was put on the Euronor fishery [or this fishery] to improve the stock assessment. In addition it is worth noting that recent ICES advice (2009 – not of course available for the previous assessments) for the NE Arctic stock suggests that the problem of retrospective bias has been to some extent addressed and improved, while for the North Sea the problem of retrospective bias is not considered significant.

2.1.3 Retained species information

For MSC certification, a condition was imposed on the German and Norwegian saithe fisheries to improve their reporting of North Sea cod by-catch. In this fishery, no such condition was imposed. The MEP team notes that since these previous assessments, significant strides have been made in implementing new measures to support the recovery of North Sea cod stocks (e.g. mandatory real-time area closures, eliminator trawls or chalut à cordes, very tight TACs and quotas). These measures appear to have been successful in that the early signs of recovery noted by the German saithe assessment team have continued and accelerated. In the case of Euronor, the MEP team were confident that i) North Sea cod catches were low and discarding of cod minimal and ii) that Euronor was operating well within its permitted cod quotas and had measures in place should the quota come close to being finished [note: the same applies to this fishery]. MEP also had confidence in the data provided by Euronor on cod by-catch (retained and discarded) [note: the same applies to this fishery]. They therefore decided that in the light of this new situation, no conditions were required.

2.2.3 By-catch information

On the German and Norwegian MSC certified saithe fisheries, a condition was imposed requiring an improvement of observer data on by-catch species. In this assessment, no such condition has been imposed, as described above, despite the fact that the observer programme which includes Euronor (run on behalf of the French national marine science institute Ifremer) provided up till the point of scoring significantly less coverage than the equivalent German or Norwegian programmes (although the team notes that since the scoring meeting coverage of Euronor has improved and this extra data was used to produce this revised Public Comment Draft report). [Note: Scapêche has better observer coverage than Euronor, while for Compagnie de Pêche de St. Malo it is worse – but they operate mainly in an area where discarding is forbidden. In both cases, however, no ‘main by-catch species’ was identified, unlike for Euronor.] However, the team noted that to score 80 under PI 2.2.3 of the FAM (by-catch species information), it was not required that there be ‘statistically robust estimates of the by-catch of all species’ (as required in the condition imposed on the Norwegian and German certifications) – only that there be ‘qualitative and some quantitative information on the amount of main by-catch species’. Since for this fishery there are no main by-catch species, the team found that this requirement was met and on this basis could not find grounds for scoring lower than 80, so no condition was imposed.

PI 1.1.2: No justification is provided in the rationale for how TRP is such that “the stock is maintained at a level consistent with BMSY or surrogate with similar intent or outcome” as required by SG80. Please see PA12 for further detail

PA12 came out after the scoring of this fishery, but nonetheless requires that scores are retrospectively re-assessed to consider more explicitly the relationship of the target reference point to B_{MSY} . We therefore reviewed the scoring of this PI for both stocks in this light. For this, we used the 2010 ICES advice, which was not available at the time of initial scoring but which has been produced since.

In general, we note that ICES has not in the past taken an ‘MSY’ approach to providing advice on the level of target biomass and fishing mortality reference points – these have instead been set at a ‘precautionary’ level based on the probability of the stock biomass falling below a certain level. However, in the last couple of years, ICES has started to review all their stock assessments with the objective of moving towards an approach based on stock productivity as well as probability of collapse. Nonetheless, for most stocks, this process is still in its early stages. Here we consider the process in detail as it applies to the two saithe stocks in assessment here:

North Sea stock: Initial work was done by the North Sea and Skaggeiak demersal fisheries working group in 2010 to estimate F_{MSY} using a variety of methods (two models, three stock recruit curves and different ways of treating the input data and the bootstrapping). The outcome was sensitive to some of these variations, so that more work remains to be done to get a robust estimate of F_{MSY} . The most robust methodology was considered to be the CEFAS ADMB model with a hockey stick recruitment curve. This gave a median bootstrap estimate of 0.3 (5% percentile 0.13, 95% percentile 0.54). Thus while work clearly remains to be done, the best estimate of F_{MSY} at present is identical to the level of fishing mortality already enshrined in the management plan. Equilibrium landings were also estimated, and overall, the ICES working group considered that *‘the stock is currently harvested at an optimal level’*. The figure below is taken from the working group report (Figure 11.9.4b), and shows equilibrium landings in relation to fishing mortality rates, calculated from the above modeling exercise. While there is clearly considerable uncertainty in the data and modeling at present, it is clear that $F=0.3$ appear appropriate from the point of view of maximising stock productivity (equilibrium landings) as well as for minimising risk.

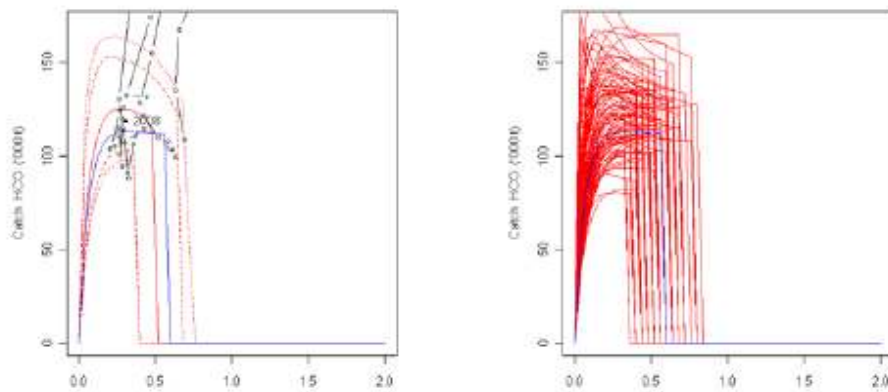


Figure 1. Figure 11.9.4b from ICES North Sea and Skaggeiak demersal fisheries working group report 2010, showing estimates of equilibrium landings (y-axis) in relation to fishing mortality rates (x-axis). The left-hand figure shows the median of 1000 resamples in blue, with percentiles in red, plus the actual assessment data points in black, while the right-hand figure shows 100 illustrative resamples.

Northeast Arctic stock: Work on the MSY approach for the northeast Arctic stocks is less well advanced, and has up till now focussed on the cod stock (by far the largest stock and fishing in the area) (see ICES Arctic Fisheries Working Group report 2010). Work on the

cod stock has found that long-term equilibrium yield from this stock is more or less stable for a range of fishing mortality rates from 0.25 to 0.6 (due to strong density-dependent effects including from cannibalism). We note that saithe are also a cannibalistic species so a similar range for F_{MSY} may apply, although saithe biomass may be more dependent on cod biomass (due to predation) than on population-level density-dependent effects (as is known for haddock in the same area). For the saithe stock itself, no explicit work on determining appropriate levels for MSY-based reference points has yet been done. However, the harvest control rules has been assessed in terms of long-term equilibrium yield, which was obtained at $F=0.32$. This is certainly consistent with the current F_{pa} under the management plan, which is set at 0.35.

Overall, the team was happy from this review that the reference points are consistent with maintaining high stock productivity as well as reducing risk. The team felt that there was thus no need to change the scores given to each stock for PI 1.1.2. However, the rationale was amended to reflect this review, as given below (new elements are underlined). However, the rationale for PI 1.1.2 has been revised to include the above analysis. Two new references (the two 2010 ICES working group reports) have also been added to the reference list.

The assessment team has not described the system of tracking and tracing of fish and fish products in the fishery

The Traceability section of the report (Section 9) has undergone a large number of modification including the addition of a description of the tracking and tracing system in place for the fishery.

The traceability section of the report is ambiguous with regard to where Chain of Custody starts (on vessels or at first point of sale). The section contains ambiguity regarding the separation of non certified saithe. 'Non certified saithe has to be kept separate from certified saithe on board and during transport.'

The traceability section has been amended and reworded to clearly specify the points at which further CoC is required for both companies involved in certification. Ambiguity has been removed regarding separation of MSC and non-MSC product.

The point to which product from the fishery can be traced should not be open to interpretation and therefore the use of "is likely to" shall not be used

The Traceability section of the report (Section 9) has undergone a large number of modifications including rewording to avoid any opportunity for interpretation as to the point at which product from the fishery can be traced.

Check use of MCS vs. MSC

This has been reworded as necessary

