



**Surveillance Report
German North Sea Saithe Trawl Fishery**

Certificate No.: MML-F-031

Intertek Moody Marine Ltd.

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1. GENERAL INFORMATION

Scope against which the surveillance is undertaken: MSC Principles and Criteria for Sustainable Fishing as applied to the German North Sea Saithe Fishery

Species: Saithe (Seelachs / Köhler / Blaufisch)
(*Pollachius virens*, Linneaus 1758)

Geographical Area: North Sea ICES Sub-area IV & Division IIIa

Method of Capture: Otter trawl

Stock: North Sea

Management: Managed under EU-Norway Agreement and by Norwegian Authorities.

Date of Surveillance Visit:	17th-18th October 2012			
Initial Certification	Date: 8th October 2008		Certificate Ref: MML-F-031	
Surveillance stage	1st	2nd	3rd	4th
Surveillance team:	Lead Assessor: Jim Andrews Assessor(s): Rainer Thomas, Mike Pawson			
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2. THE CERTIFICATION / ASSESSMENT PROCESS

This report contains the findings of the fourth surveillance cycle in relation to this fishery.

The client's response to the Conditions of Certification was set out in an Action Plan, which was appended to the final certification report. Action on this was examined as a part of the first surveillance in 2010, the second audit (in March 2011), the third audit (in November 2011) and again in this October 2012 audit. For each condition, the report sets out progress to date. This progress has now been evaluated by the Moody Marine assessment team ('Observations' and 'Conclusion') against the commitments made in the Action Plan.

This assessment includes a re-evaluation of the scoring allocated to the relevant Performance Indicators in the original MSC assessment. Where the requirements of a condition are met, the Performance Indicators are re-scored and, if the score is 80 or more, then the condition is closed.

2.1 Assessment process

The assessment process for this audit followed that set out in the MSC Certification Requirements (CR) v1.2.

Notice of this surveillance audit was announced on the MSC website on 13th September 2012, with a supporting notice to stakeholders issued by the MSC on that date. Direct e-mail notification was also sent to the stakeholders that had previously been identified for this fishery on 14th September 2012, inviting interested parties to contact the audit team.

The audit team visited Cuxhaven and Hamburg over the period 17th-18th October 2012. The team met with the client, and interviewed officials at the headquarters of the German Government's fishery enforcement agency (BLE). The team also met with the German fishery scientists that participate in the monitoring and assessment of the saithe stock at vTI.

The purpose of these meetings and the assessment was:-

1. To review any changes in the management of the fishery, including stock evaluation, regulations, and changes in key management or scientific staff
2. To evaluate the progress of the fishery against any Conditions of Certification raised during the Main Assessment

2.1.1 Assessment team composition

The MSC require that surveillance audits shall be carried out by a team of two or more individuals with expertise comparable to the members of the original team (that conducted the assessment of the fishery). If different from the original assessment team, the MSC also require that the selection of individuals to conduct audits shall be justified in writing and their relevant skills and/or expertise documented. This information is documented below.

The original assessment team for the fishery comprised Graham Pilling, Ulf Löwenberg and Jim Andrews. This surveillance audit has been carried out by Jim Andrews from the original team, Mike Pawson, and Rainer Thomas, who is a German speaker. Brief résumés of the team's experience are set out below.

Jim Andrews

Jim is a marine biologist with over 20 years' experience working in marine fisheries and environmental management. He currently works as an independent fisheries and marine environmental consultant. His previous experience includes running the North Western and North Wales Sea Fisheries Committee as its Chief Executive from 2001 to 2005, and previously working as the SFC's Marine Environment Liaison Officer. During this time he was responsible for the regulation, management and assessment of inshore finfish and shellfish stocks along a 1,500km coastline. He has an extensive practical knowledge of both fisheries and environmental management and enforcement under UK and EC legislation. Jim has formal legal training & qualifications, with a special interest in the policy, governance and management of fisheries impacts on marine ecosystems. He has worked as an assessor and lead assessor on more than 20 MSC certifications within the UK, in Europe and in India since 2007. In 2008 he worked with the MSC and WWF on one of the pilot assessments using the new MSC Risk Based Assessment Framework. Jim has carried out numerous MSC Chain of Custody assessments within the UK.

Dr Michael Pawson.

Mike Pawson retired as senior fisheries advisor at Cefas, Lowestoft, after 39 years carrying out biological research and providing scientific advice to Defra, the EC and other national and international organisations on fish stock abundance (marine teleosts, elasmobranchs, salmonids and eels), technical conservation measures and fisheries management regulations, and on related monitoring, sampling, survey and research programmes. Between 1974 and 1980, he initiated and led acoustic surveys for blue whiting and mackerel and trawl surveys in the North Sea (1975-1979), and spent 1 year working as an UNESCO Expert in Ichthyology in Tripoli, Libya. From 1980 to 1990, Mike designed and managed MAFF's coastal fisheries programme, implementing biological sampling, trawl surveys, a fishermen's logbook scheme and socio-economic evaluation of sea bass fisheries, and between 1990 and 2000 he led the Cefas Western demersal team, providing analytical assessments and management advice for 12 finfish stocks, including saithe via the ICES Northern Shelf WG. During this time he was co-ordinator of the Anglo-French English Channel Fisheries Study Group (1989-1997) and chairman of the ICES Southern Shelf Demersal WG (1996-98), and subsequently chaired the ICES Seabass Study Group (2000-04) and Elasmobranch Study Group (2001-02). He has initiated and managed EU-funded multi-national projects on methods for egg-production stock biomass estimation, bio-geographical identity of English Channel fish stocks, bio-economic modelling of Channel fisheries, development of assessment methods for elasmobranchs, marine recreational fishing in Europe etc.

Mike has provided scientific evaluation, quality assurance and advice to several national and EC-funded projects on fisheries biology, monitoring and assessment, and one of his major roles over the last 20 years has been to peer-review scientific papers and technical reports, including 40+ MSC assessment reports. Since 2009, Mike has been a member of several MSC assessment teams. All of Mike's work has been published in refereed Journals, in ICES and EC working group reports, and in contract reports.

Rainer Thomas

Rainer is a fisheries biologist with over 25 years' experience in marine and freshwater fisheries research and management in Germany, Suriname, Nigeria and Indonesia. He has worked on stock assessments in the North Atlantic and Baltic Sea for both pelagic and demersal species, as well as participating in international multi-disciplinary research cruises. In Suriname, Nigeria and Indonesia he worked with universities and the national Governments to design an oceanography institute building and to develop fish stock assessment procedures, and to implement aquaculture techniques between 1981 and 1992. From 1992 until 2003 he worked on fisheries and environmental research projects (e.g. herring migration) at the University of Kiel, and lectured in training courses on fish stock assessment procedures to postgraduate students. He acted as liaison officer for the diplomatic formalities for the German Research vessels at the Institute of Marine Science (IFM Kiel today GEOMAR) and was responsible for the logistics of the research cruises. More recently he has been

working as a freelance consultant providing advice on aquaculture management within the EU and Asia.

This surveillance team has skills comparable to the original team and is appropriate for carrying out this surveillance audit.

2.2 Information Sources

The main information sources used in this audit are listed below.

Information Sources:

Meetings (NB all stakeholder from main assessment were contacted prior to the surveillance audit taking place)

1. Jörg Petersen & Kai-Arne Schmidt, Kutterfischer GmbH, 17th October 2012, Cuxhaven
2. Hans Hashagen, State Fisheries Inspector, 17th October
3. Sabine Manthey-Ehrich, BLE, 18th October 2012, Hamburg.
4. Alexander Kempf, Kai Panten, Jens Ulleweit vTI, 18th October 2012, Hamburg

Reports etc

Erzeugergemeinschaft der Hochsee - und Kutterfischer GmbH (2011). Report of progress with client action plan, November 2011.

ICES (2011a) Report of the Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak. ICES CM2011/ACOM:13.

ICES (2011b) Report of the benchmark workshop on roundfish and pelagic stocks (WKBENCH 2011) 24-31 January 2011, Lisbon, Portugal. ICES CM2011/ACOM:38.

ICES (2011c). Saithe in Sub-area IV (North Sea), Division IIIa (Skagerrak), and Sub-area VI (West of Scotland and Rockall). Advice June 2011. ICES Advice 2011, Book 6, 6.4.12, p109-119.

ICES (2011d). Saithe in Sub-area IV (North Sea), Division IIIa (Skagerrak), and Sub-area VI (West of Scotland and Rockall). Advice October 2011. ICES Advice 2011, Book 6, 6.4.12b, p109-119.

ICES (2012a). Saithe in Sub-area IV (North Sea), Division IIIa (Skagerrak), and Sub-area VI (West of Scotland and Rockall). Advice June 2012. ICES Advice 2012, Book 6, 6.4.12, 11pp. Available from: <http://www.ices.dk/committe/acom/comwork/report/2012/2012/sai-3a46.pdf>.

ICESvTI (2012b). ICES WGNSK Report 2012: 11 – Saithe in Subareas IV, VI and Division IIIa. P609-670. Available from <http://www.ices.dk/reports/ACOM/2012/WGNSK/Sec%2011%20Saithe%20in%20Subareas%20IV,%20VI%20and%20Division%20IIIa.pdf>

ICES (2012c). Cod in subarea IV (North Sea) and Divisions VIIId (Eastern Channel) and IIIa West (Skagerrak).

ICES Advice 2012, Book 6, 6.4.2. Available from: <http://www.ices.dk/committe/acom/comwork/report/2012/2012/cod-347.pdf>

ICES (2012d). North Sea Mixed-fisheries advice. ICES Advice 2012, Book 6, 6.4.25. 9pp. Available from: <http://www.ices.dk/committe/acom/comwork/report/2012/2012/mix-nsea.pdf>

vTI (2009) Fishery Observer reports for cruises aboard Erzeugergemeinschaft der Hochsee - und Kutterfischer vessels, 2010-2011: J. von Colln (33 cruises); Victoria (2 cruises); Bianca (22 cruises).

vTI (2010) Fishery Observer reports for cruises aboard Erzeugergemeinschaft der Hochsee - und Kutterfischer vessels, 2010-2011: J. von Colln (1 cruise), Seewolf (1 cruise); Victoria (3 cruises).

vTI (2011) Fishery Observer reports for cruises aboard Erzeugergemeinschaft der Hochsee - und Kutterfischer vessels, 2010-2011: J. von Colln (2 cruises), Seewolf (2 cruises); Victoria (1 cruise); Bianca (1 cruise).

vTI (2012) Fishery Observer reports for cruises aboard Erzeugergemeinschaft der Hochsee - und

Kutterfischer vessels, 2011-12: J. von Colln (3 cruises), Seewolf (2 cruises); Iris (3 cruises).

Standards and Guidelines used:

1. MSC Principles and Criteria
2. MSC Certification Requirements v1.221010 January 2012

2.3 The client fleet

The vessels in the client fleet are listed in Table 1.

Table 1: Details of client fleet.

Name	Vessel Registration	Length (m)	Gross Tonnage	Fishing Method
Antares	SAS211	21	129	Otter trawl
Bianca	NC312	40	455	Otter trawl
Christin-Bettina	SAS111	25	152	Otter trawl
Helgoland	NC302	30	299	Otter trawl
Iris	NC300	35	425	Otter trawl
J. von Cölln	NC308	40	459	Otter trawl
Seewolf	NC309	30	261	Otter trawl
Susanne	NC120	40	492	Otter trawl
Victoria	NC315	31.2	499	Otter trawl
Westbank	SAS110	20	107	Otter trawl

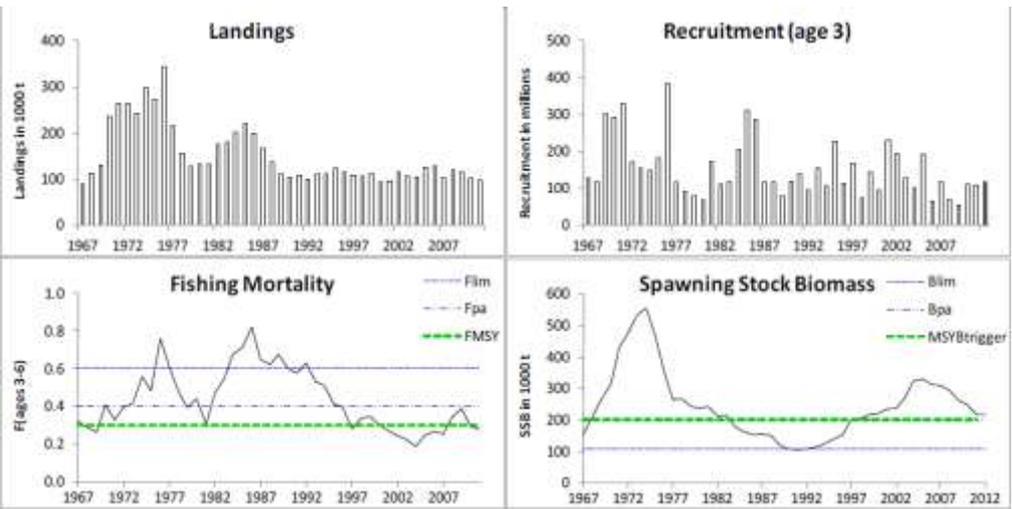
3. RESULTS, CONCLUSIONS AND RECOMMENDATIONS

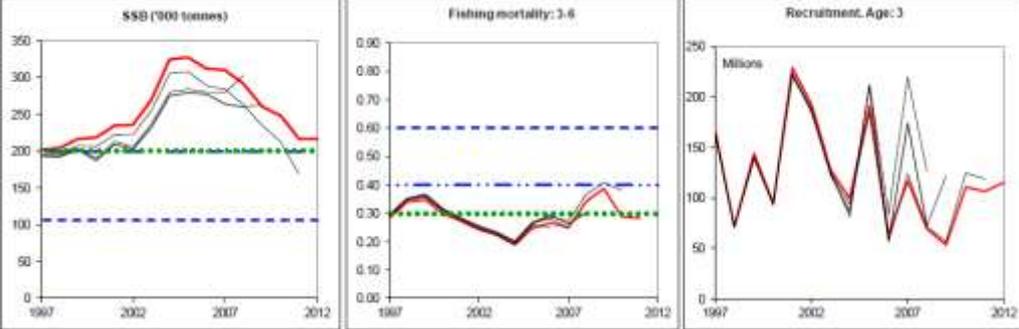
The outcome of the surveillance audit is set out below.

Item	Comments
1	Stock status and Catch Data
Previous audit findings (Year 1, 2010)	<p>The first audit found that:-</p> <p><i>In its most recent advice on this stock, ICES (2009) stated that the saithe stock for Sub-Area IV (North Sea), Division IIIa (Skagerrak) and Sub-Area VI (West of Scotland and Rockall) is at full reproductive capacity and is being harvested sustainably. Fishing mortality is felt to have been appropriate with respect to both the agreed target for the fishery and is appropriate for maintaining a high long-term yield for the stock.</i></p> <p><i>The Spawning Stock Biomass (SSB) is estimated to have been above precautionary levels (B_{pa}) of 200,000 tonnes since 2001. Fishing mortality (F) has been at or below the target level of $F=0.3$ over this period as well. These reference points are set out as clear objectives in the EU-Norway management plan for this fishery, which ICES considers to be consistent with the precautionary approach in the short term (<5 years).</i></p> <p><i>The ICES advice for 2010 identifies that if the management target of $F=0.3$ was applied to the current SSB of 235,000 tonnes, then the TAC should be reduced to 106,000 tonnes. This is a reduction of 24%, which exceeds the 15% year-to-year TAC constraint in the management plan. ICES have therefore identified that the TAC which would be consistent with the management plan in 2010 would be 118,000 tonnes. This is equivalent to $F=0.34$, and is expected to result in a 9% decline in SSB (from 235,000 tonnes to 212,000 tonnes). SSB will still, however, remain above B_{pa}, providing that F in 2010 is no more than 0.39.</i></p> <p><i>Scientific surveys of the stock are used to determine the population age structure, and catch per unit effort (CPUE) data from these surveys are used in combination with commercial CPUE data to determine stock status. ICES note that there are inherent uncertainties in the stock assessment because of the lack of information about year-class strength for ages 1-3, and because the stock estimate relies very much on commercial landings. The model used to assess the stock (XSA) is calibrated by two commercial CPUE series and two survey indices. ICES note that because recruitment at age 3 is poorly estimated in the XSA model, the size of the 2005 year class is uncertain. They do, however, consider that "only very large relative errors in the size of this year class would have a large impact on the forecast".</i></p> <p><i>A decrease in the mean weight-at-age has been observed in the past eleven years, but there is presently insufficient information to determine the cause of this. The Institute of Marine Research (IMR) in Norway have also noted a decline in CPUE data from recent research surveys, and also report that the last strong year class was 2002.</i></p> <p><i>ICES (2009) also note that:-</i></p> <p style="padding-left: 40px;"><i>"Compared to last year's assessment, SSB in 2008 has been revised downwards by 14% and F in 2007 has been revised upwards by 6%. Recruitment in 2007 has been estimated 21% lower in this year's assessment."</i></p> <p><i>ICES (2009) anticipate that natural variations in recruitment will result in SSB falling to around B_{pa} (200,000 tonnes) over the next few years, which they expect to lead to a decline in TACs. ICES considers that the current management plan will provide an appropriate response to this decline.</i></p> <p><i>Landings in the past seven years have been lower than the TAC for this stock. ICES report that this may have been due to low saithe prices combined with high fuel prices; however they also report that there are claims that saithe abundance has been reduced in the most recent years.</i></p>

<p>Previous audit findings (Year 2, March 2011)</p>	<p>The second surveillance audit found that:-</p> <p><i>The current ICES (2010) advice is that the stock in 2008 was above B_{pa} and $MSY B_{trigger}$ and that fishing mortality is below F_{msy}.</i></p> <p><i>ICES were unable to update this assessment in 2010 due to missing or incomplete data for 2009 (French CPUE data were unavailable, and the Norwegian acoustic stock survey was not conducted). Instead, ICES used the 2009 assessment as the basis for a forecast that has been extended to 4 years. ICES (2010) report that:-</i></p> <p style="padding-left: 40px;"><i>SSB is estimated to have been above B_{pa} from 2001-2008. From 2001-2008, F has been at or below the fishing mortality target of the management plan (0.3).</i></p> <p><i>The 2010 ICES advice incorporates supporting information concerning the transition to the MSY approach for this stock. F_{msy} and B_{msy} trigger have been defined. F_{msy} is 0.30, which is marginally higher than the average in recent years (0.29 for ages 3-6 between 2006-2008). $MSY B_{trigger}$ has been defined as 200,000 tonnes (the same value as B_{pa}).</i></p> <p><i>In 2008 the EU and Norway renewed the long term plan for management of the saithe stock, which came into force on 1st January 2009. This management plan states that:-</i></p> <ol style="list-style-type: none"> <i>1. Every effort shall be made to maintain a minimum level of Spawning Stock Biomass (SSB) greater than 106,000 tonnes (Blim).</i> <i>2. Where the SSB is estimated to be above 200,000 tonnes the Parties agreed to restrict their fishing on the basis of a TAC consistent with a fishing mortality rate of no more than 0.30 for appropriate age groups.</i> <i>3. Where the SSB is estimated to be below 200,000 tonnes but above 106,000 tonnes, the TAC shall not exceed a level which, on the basis of a scientific evaluation by ICES, will result in a fishing mortality rate equal to $0.30 - 0.20 * (200,000 - SSB) / 94,000$.</i> <i>4. Where the SSB is estimated by the ICES to be below the minimum level of SSB of 106,000 tonnes the TAC shall be set at a level corresponding to a fishing mortality rate of no more than 0.1.</i> <i>5. Where the rules in paragraphs 2 and 3 would lead to a TAC which deviates by more than 15 % from the TAC of 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.</i> <i>6. Notwithstanding paragraph 5 the Parties may where considered appropriate reduce the TAC by more than 15% compared to the TAC of the preceding year.</i> <i>7. A review of this arrangement shall take place no later than 31 December 2012.</i> <i>8. This arrangement enters into force on 1 January 2009.</i> <p><i>The reference points set out in this management plan are consistent with those identified by ICES for implementing the MSY approach.</i></p> <p><i>The points and the saithe management plan resulted in an ICES recommendation for a 13% reduction in the saithe TAC for 2011, to 103,000t. This recommendation has been implemented in the TAC allocated for the stock for 2011 by the EC.</i></p> <p><i>Discussions with staff at vTI provided some background and context to this ICES advice. It is understood that ICES held a benchmarking workshop for saithe in January 2011. The report of this workshop is due to be published shortly. Norwegian scientists carry out further surveys of the inshore stock (<3 years old), which will help to address the inherent uncertainties in the assessment.</i></p> <p><i>Saithe landings have been less than the TAC in recent years. This factor, combined with the trawl mesh size (>120mm) and offshore distribution of fishing effort away from the inshore areas where younger (<3 years) fish are found, helps to minimise discarding in the directed saithe fishery.</i></p>
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	<p><i>Overall, stock status is good, and management of the stock is consistent with the long term management plan and the MSY approach.</i></p>
<p>Previous audit findings (Year 3, Nov. 2011)</p>	<p><i>During 2011, ICES has issued two sets of advice for the saithe stock in for Sub-Area IV (North Sea), Division IIIa (Skagerrak) and Sub-Area VI (West of Scotland and Rockall). The original June advice was updated to include the results stock surveys during the third quarter of 2011. This updated advice was issued in November 2011.</i></p> <p><i>ICES have concluded that the stock is currently being harvested sustainably, but that the stock biomass is below trigger levels. ICES have recommended a reduction of the TAC for this saithe stock of 15%.</i></p> <p><i>The background to this advice is briefly summarised below, along with a brief explanation of why ICES has issued two sets of advice for this saithe stock.</i></p> <p><i>In January 2011, ICES held a benchmarking workshop (WKBENCH, ICES 2011b) which concluded that the influence of commercial CPUE indices in this saithe stock assessment should be reduced, and that they should be used only for tuning the older age classes (6-9) rather than for all age classes (3-9). The abundance of the younger age classes would be determined using scientific survey indices.</i></p> <p><i>The information from scientific surveys that was used to produce the June 2011 advice indicated a markedly reduced abundance of the younger year classes (3-6), which lead to a conclusion that the SSB had fallen considerably, and that F had correspondingly increased. However it was noted at that time that there was a significant discrepancy between the survey indices and commercial CPUE indices for these younger year classes.</i></p> <p><i>During summer 2011, subsequent scientific survey data became available that showed a much higher abundance of younger year classes than had been recorded earlier. At the same time, the inconsistency in the scientific survey indices resulted in a re-evaluation of the findings of the WKBENCH workshop. ICES concluded that the June 2011 advice should be re-evaluated.</i></p> <p><i>The November 2011 ICES advice differs from the June advice in two important respects. Firstly it takes account of new scientific survey indices relating to the abundance of younger (3-6) year classes. Secondly, it uses commercial CPUE data for all year classes (3-9). The result is that whilst SSB has fallen and F has risen, the changes are much less significant than previously thought.</i></p> <p><i>The November 2011 advice found that the SSB for this saithe stock has fallen below precautionary levels (B_{pa}) and MSY $B_{trigger}$ of 200,000t in 2011 for the first time in the past 10 years. Fishing mortality has been below precautionary levels (F_{pa}) of 0.3 since 1996, but has risen above management plan (F_{mp}) and F_{msy} levels since 2007.</i></p> <p><i>During discussions with vTI scientists, the assessment team noted that whilst the November stock assessment has been made on the basis of the approach used before the WKBENCH recommendations, the assessment has been repeated using the WKBENCH recommendations and the forecast has been updated with 2011 survey information following the ICES protocol on reopening advice. Both approaches resulted in the same advice. The advice is therefore considered to be robust with respect to the methodology used.</i></p> <p><i>On the basis of the revised stock assessment, ICES have recommended that the TAC for this saithe stock should be reduced by 15% in 2012. The June advice to reduce the TAC by more than 15% is no longer considered to be appropriate.</i></p> <p><i>The assessment team note that the management outcome in response to this advice will be determined under the EU-Norway management plan, and that the client (HUK) have limited capacity to influence this outcome. The client has good links with BLE and vTI, whose advice and input may influence the outcome of TAC negotiations.</i></p>

	<p>Conclusion</p> <p><i>The revised stock assessment and advice published in November 2011 indicates that, providing that there is an appropriate management response (of a 15% reduction in TAC), then the status of this stock is likely to remain compatible with the requirements of the MSC scheme.</i></p> <p><i>This situation is very different to that anticipated in June. Following the June advice, all of the CABs involved in the ongoing certification and assessment of saithe fisheries exploiting this stock wrote to their clients to raise concern about stock status, and to indicate that certification was unlikely to be able to continue without the significant TAC reduction being advised by ICES at that time. Such action no longer seems necessary, providing there is an appropriate management response under the EU-Norway management plan to the current ICES advice.</i></p>
<p>Update on Stock Status (2012)</p>	<p>Stock status</p> <p>The ICES stock assessment for saithe in Subarea IV (North Sea), Division IIIa (Skagerrak), and Subarea VI (West of Scotland and Rockall), carried out in May 2012, shows that SSB has been above Bpa since 1997 but has declined since 2005 towards Bpa. Fishing mortality has fluctuated around F_{MSY} since 1997. Recruitment has been below the long-term average since 2006.</p>  <p>The figure consists of four sub-charts:</p> <ul style="list-style-type: none"> Landings: A bar chart showing landings in 1000 t from 1967 to 2007. The y-axis ranges from 0 to 400. Landings peaked around 1975 at approximately 350,000 t and have generally declined since then. Recruitment (age 3): A bar chart showing recruitment in millions from 1967 to 2007. The y-axis ranges from 0 to 500. Recruitment peaked around 1975 at approximately 400 million and has been generally below the long-term average since 2006. Fishing Mortality: A line chart showing fishing mortality (F) from 1967 to 2007. The y-axis ranges from 0.0 to 1.0. Three lines are shown: F_{lim} (solid blue), F_{pa} (dashed blue), and F_{MSY} (dotted green). F_{MSY} is constant at approximately 0.3. F_{lim} and F_{pa} fluctuate around 0.6. Spawning Stock Biomass: A line chart showing SSB in 1000 t from 1967 to 2012. The y-axis ranges from 0 to 600. Three lines are shown: B_{lim} (solid blue), B_{pa} (dashed blue), and MSYBtrigger (dotted green). B_{pa} is constant at approximately 200. B_{lim} fluctuates around 200, and MSYBtrigger is constant at approximately 200. <p>The stock status is evaluated using an age-based assessment model (XSA) and incorporates three survey indices (two Norwegian and IBTS-Q3) and three commercial indices (from France, Germany and Norway). Discards and by catch are not included in the assessment. There are a number of sources of uncertainty in the assessment model (revised Norwegian catch age distribution for 2010; conflicting signals between the scientific surveys, which have shortcomings in depth range or coverage of adult saithe), and commercial cpue indices are used for tuning older age classes. However, the current assessment is consistent with that carried out in November 2011 and is considered to offer a more reliable assessment of stock status. During, during discussions with vTI scientists, it became apparent that the 2012 assessment makes better use of commercial data and is considered to offer a more reliable assessment. The stock assessment takes account of the potential effect of the gear and location of fishing activity in relation to the age structure in the commercial catch data, and reference points are considered to be satisfactory, though they are statistically estimated and have no explicit biological basis.</p> <p>vTI agreed with anecdotal reports from the fishing industry that there are signs of a strong year class coming through in 2012, noting that data from the Norwegian juvenile survey in coastal waters fit well with the XSA (model) output of estimates of recruits over that past 5-6 years.</p>

	 <p>ICES advice for 2013, based on the EU–Norway management plan, is that landings in 2013 should be no more than 100,684 t for the whole assessment area, in which two TACs are set: one for Division IIIa and Sub-area IV, and one for Sub-area VI. This is estimated to result in an SSB in 2014 of 252,000 t (Bpa = 200,000t).</p> <p>The current assessment estimates SSB in 2012 to be 30% higher than estimated in November 2011, and fishing mortality in 2010 is estimated to be 25% lower. The change was caused mainly by the revision of age distribution in the Norwegian catches in 2010.</p> <p>ICES also observes that the catch forecast is highly sensitive to the recruitment estimate for the terminal year, and intends to evaluate whether new survey information that becomes available in September forms a basis to update the advice. If so, new advice will be published in November 2012.</p> <p>In 2012, ICES put forward mixed-fisheries advice for the first time, in which cod is the limiting species for the North Sea demersal fisheries in 2013 (EU fleets fishing for saithe have been managed under the effort regime of the EU cod management plan since 2009). Following the ‘cod’ scenario (full implementation of the cod management plan), the saithe management plan catch options would not be fully utilized.</p>
Conclusion	<p>The assessment team concludes that:-</p> <ul style="list-style-type: none"> • The saithe stock fished by the UoC is within biologically safe limits and is being fished sustainably, • Uncertainties in the assessment have been identified and are being addressed through research and appropriate consideration in the stock model. • The concerns that were raised in the June 2011 advice were artefacts of changes in the assessment methodology, and the May 2012 assessment is consistent with that of November 2011.

Item	Comments
2	Catch Data
Total TAC in most recent fishing year	2011 TAC: 93,318t
UoC share of TAC	2011 Fishing Year EC share: 43,842t Of which German share: 9,565t
Client share of TAC	HUK Quota for 2010 fishing year: 10,839.7t HUK Quota for 2011 fishing year: 9,495.5t
Green Weight of catch taken by client group	HUK catch,2010: 10,375t HUK catch, 2011: 9,405.5t

Item	Comments
3	<p>Condition 1. Uncertainties in assessment</p> <p>Action required: The assessment was considered to display retrospective bias, recruitment is poorly estimated and there is an unknown effect of variable migration into and out of the stock. If not accounted for appropriately, these uncertainties could contribute to TACs being set above precautionary levels.</p> <p>To address these issues, the impacts of these uncertainties on the assessment should be examined, alternative assumptions and model structures explored, and the impacts of the uncertainty in inputs quantified in terms of uncertainty over the current status, projections of future stock status, and applicability of the precautionary reference point. It is acknowledged, however, that this may require extensive resource allocation (work on recruitment variability has been undertaken by IMR in the past which has failed to resolve this particular issue).</p> <p>Therefore, two options would be considered acceptable in addressing this uncertainty:</p> <ol style="list-style-type: none"> Ideally, a plan to address any areas of data collection required to quantify, reduce and/or address the uncertainty should be developed, including international partners as appropriate, within 24 months of certification. The plan should include realistic timescales for completion. Alternatively, and acknowledging the potential technical and resource difficulties in resolving the above issues, annual TAC setting should explicitly incorporate an appropriate degree of precaution (including for an evaluation of assessment uncertainty and error in light of historical patterns, and its impact on estimates of stock status). <p>Timescale: Under option (a), the initial review of the assessment and its uncertainties should be carried out within 12 months of certification. Ensuing plan development should be completed and implementation initiated within 3 years of certification. Under option b), TAC's set each year should be reviewed according to their adherence with ICES advice and a precautionary harvest strategy.</p> <p>Relevant Scoring Indicators: 1.1.5.2, 1.1.5.5, 3A.3.4</p>
Action Plan	<p>The client action plan in the 2008 Public Certification Report for this fishery set out the following actions:-</p> <p>Action 1 : Within 12 months after certification, during the 1st audit we will present the certifier with evidence of work undertaken by ourselves with relevant stakeholders / authorities to address the issues raised under Condition 1 incorporating ICES (working group) reports 2007 or later. On the basis of this, and the CB's consideration of Condition 1 in the light of new information, plans for vitalising or re-vitalising past and present work will be developed as appropriate.</p> <p>Action 2 : In light of the contents of Condition 1 and by bearing in mind the technical and resource difficulties in the issues concerned, HUK commits to an annual TAC that incorporates and appropriate degree of precaution. This shall take into account uncertainties in the assessment, errors regarding historical patterns and their impact on stock estimates through reviewing TAC's according to their adherence with ICES advice and a precautionary harvest strategy.</p>
Previous audit findings (Year 1, 2010)	<p>The first surveillance audit found that:-</p> <p>Action taken by client <i>The client initially made informal approaches to both the German and Norwegian</i></p>

	<p><i>Governments to encourage (and offer to undertake) additional survey work close to the Norwegian coast to address the limited understanding of the abundance of juvenile (1-3 year) saithe in this area, as a means of delivering option (a) of the condition and their Action 1. It did not prove to be possible to progress these proposals.</i></p> <p><i>Following discussions of the problems associated with this approach during the site visit, the client has immediately taken action to encourage the EC, German Government, and research institutions to adopt a more precautionary approach to the management of this stock. Evidence of action was provided to the assessment team (Correspondence, items 3-6).</i></p> <p><i>Interviews with the local fisheries enforcement officer confirmed that the client was meeting all of the terms of their Action 2, by complying with the TAC which meets appropriate degrees of precaution.</i></p> <p><i>The client has raised concern with the assessment team during the site visit and beforehand about the fact that the recent MSC certification of a competitor who is not bound by the same condition (see Item 8 below concerning harmonisation). The team was asked to investigate this.</i></p> <p>Commentary</p> <p><i>The client has begun to progress this issue. Their favoured course of action was to address the issue at source, by encouraging Government action to address uncertainties. The client has responded to the lack of progress that they had been able to make under their favoured course of action by switching to an approach that is consistent with section (b) of the condition.</i></p> <p><i>Past and future progress with this issue has not been assisted by the recent publication of an MSC assessment for a fishery based on the same stock which does not raise a condition relating to uncertainty. This has led the assessment team to review its understanding of the situation.</i></p> <p><i>The views of the assessment team are:-</i></p> <ol style="list-style-type: none"> <i>1. Current ICES advice, summarised above in the "Stock Status" commentary above demonstrates that uncertainties remain. This advice contains significant retrospective corrections to estimates of SSB, F and recruitment. Uncertainties have resulted in overestimates of SSB and underestimates of both F and recruitment in the years before and after the assessment site visit for this fishery in 2007.</i> <i>2. The Norwegian authorities have investigated one aspect of this uncertainty, the year-class strength of juvenile (1-3 year old) fish. An acoustic survey of the status of the saithe aged 2-4 years old along the west coast of Norway was started in 2006, but was not repeated in 2009. Some uncertainty about this aspect of the fishery therefore remains.</i> <i>3. Having considered the current stock status against the performance indicators and scoring guide posts that were used for the initial assessment of this fishery, the team have concluded that there is still a need for this condition to remain in place.</i> <i>4. The need to address uncertainties (through better understanding of the stock and / or a more precautionary approach to management) may be more pressing now than it was in 2007. SSB is currently estimated to be 263,000 tonnes and expected to decline to B_{pa} over the next few years (ICES, 2009). The 2007 SSB was estimated at 290,000 tonnes and a decline was not anticipated (ICES, 2006). It is noted, however, that ICES ACOM state "Following the management plan should provide an appropriate response".</i> <i>5. Since the initial assessment was carried out, the MSC introduced the "Fisheries Assessment Methodology" (FAM) which has standardised the performance indicators for fisheries under assessment. The FAM's requirements with respect to uncertainty are less specific than the performance indicators that were used for this assessment in 2007.</i> <p><i>In summary, there still seems to be a need for this condition, although the team acknowledge</i></p>
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	<p><i>the client's concerns about harmonisation and agreed to raise this issue with the MSC at the client's request.</i></p> <p>Conclusion <i>The client has investigated prospects for pursuing both options for addressing this issue and has finally concluded the option (b) is more likely to achieve results.</i></p> <p><i>ICES advice clearly documents the uncertainties in the assessment and highlights the need for sustained action to ensure that this issue is addressed appropriately. The performance of the management plan in the face of this uncertainty will be monitored during future audits.</i></p> <p><i>Despite the confusing background, progress has been made in line with the Action Plan. Sustained and ongoing action by the client should be maintained to address this issue.</i></p>
<p>Previous audit findings (Year 2, March 2011)</p>	<p>The second surveillance audit found that:-</p> <p><i>The key uncertainty in the assessment is the status of the inshore (<3 year old) component of the stock, and the reliance of the stock estimate on fishery-dependent data.</i></p> <p><i>It is reported (by staff at vTI) that Norwegian scientists have initiated an inshore trawl survey to provide information about the status of this component of the stock.</i></p> <p><i>ICES have also held a benchmarking workshop (currently unpublished) which has reviewed the stock assessment. It is understood that this workshop concluded that the present approach is appropriate.</i></p> <p><i>ICES have also applied the MSY approach to this stock. For this stock, the MSY approach has provided endorsement that the established management measures were appropriate and precautionary.</i></p> <p><i>The client has corresponded with vTI, the EC and BLE to encourage research into the use of a larger mesh size in trawls in this fishery and a continuation of its "Stopp Discards" project. These requests have so far been unsuccessful.</i></p> <p><i>ICES advice (summarised under item 1 above) is that stock status is good, and takes account of uncertainties. There remains, however, a retrospective bias in the assessment that has not yet been fully addressed. It is possible that the report from the assessment benchmarking workshop might address these uncertainties. In the meantime, the conclusions of the 2010 surveillance audit remain relevant, and the condition remains open.</i></p> <p><i>The TAC set for the stock is both precautionary and compatible with the MSY approach, and the client has provided evidence of good compliance with quota requirements.</i></p> <p>Conclusion <i>Evidence that would fully address the inherent uncertainties in the assessment has not been provided yet, so this condition cannot be closed.</i></p> <p><i>There is evidence of action by the client and other parties, particularly ICES and Norwegian scientists, that will address this condition.</i></p> <p><i>The next (2012) surveillance audit will have the benefit of the information in the recent benchmarking workshop, an additional year's survey data from the Norwegian sector, and (hopefully) a more complete set of CPUE data that should include French data for 2009 and 2010. With this additional information available, it may prove possible to close this condition on schedule.</i></p> <p><i>The assessment team therefore considers that progress to achieve the outcomes of this condition is on target.</i></p>

<p>Previous audit findings (Year 3, Nov. 2011)</p>	<p><i>The key uncertainty in the assessment is the status of the inshore (<3 year old) component of the stock, and the reliance of the stock estimate on fishery-dependent data.</i></p> <p><i>The reliance of the assessment on commercial CPUE data was considered in detail by WKBENCH, and in subsequent revisions of the stock assessment by ICES.</i></p> <p><i>The WGNSSK report provides evidence that more information about juvenile stocks (as young as 2 years) is now becoming available from new Norwegian studies, and that this is being taken into account in the assessment.</i></p> <p><i>It is also reported (by staff at vTI) that Norwegian scientists are planning to investigate the movement of eggs and larvae of saithe in coastal waters.</i></p> <p><i>In addition to this a scientist from the IHF will carry out a 6 months research project which is entitled "Analysis of specific distributions of fish species in relation o the stock distribution in particular for saithe as a case study" (Chiefly in the ICES Area VI).</i></p> <p><i>Past surveillance reports have recorded the action that the client as taken to encourage and participate in research that will assist in better understanding of this stock. The client's landings are always within quota limits, and they have adopted fishing gear that exceeds minimum legal requirements in order to minimise their impact on the juvenile fish about which there is the most uncertainty. A mesh size of 125-130mm is used in the cod-end of nets by the vessels in the fleet; the legal requirement is to use a mesh size of 120mm in Norwegian waters and 110 mm in EU waters. Independent data from fishery observers confirms that this approach is effective.</i></p> <p><i>The most recent ICES stock assessment demonstrates that uncertainties are becoming better understood from improved scientific surveys and appropriate use of commercial data. These uncertainties are now being appropriately considered in the stock assessment and forecasting.</i></p> <p>Conclusion</p> <p><i>Evidence that would fully address the inherent uncertainties in the assessment has not been provided yet, so this condition cannot be closed.</i></p> <p><i>There is evidence of action by the client and other parties, particularly ICES and Norwegian scientists, that will address this condition.</i></p> <p><i>The assessment team therefore considers that progress to achieve the outcomes of this condition is on target.</i></p>
<p>Activity assessed</p>	<p>Progress with this condition was assessed through discussions with the client and with vTI staff, and reference to ICES publications from the WKBENCH workshop (ICES, 2011b) and the working group on Demersal stocks (WGNSSK, ICES, 2011a; ICES 2012b). Independent fishery observer reports from vTI for vessels in the client fleet were also examined.</p>
<p>Observations (Current audit)</p>	<p>There is evidence from the 2011 and 2012 ICES advice and working group reports (ICES, 2011a, b; ICES 2012a, b) and also from the interview with vTI staff during this site visit, that the uncertainties in the saithe stock assessment have been identified, examined, and are now addressed in the stock assessment.</p> <p>The certification condition identified two potential areas for action:</p> <ol style="list-style-type: none"> a) <i>Ideally, a plan to address any areas of data collection required to quantify, reduce and/or address the uncertainty should be developed, including international partners as appropriate, within 24 months of certification. The plan should include realistic timescales for completion.</i> b) <i>Alternatively, and acknowledging the potential technical and resource difficulties in resolving the above issues, annual TAC setting should explicitly incorporate an appropriate degree of precaution (including for an evaluation</i>

	<p><i>of assessment uncertainty and error in light of historical patterns, and its impact on estimates of stock status).</i></p> <p>There is evidence of progress in both areas, particularly option (b). It is, therefore, appropriate to re-score the performance indicators associated with this condition. Revisions to the scoring of the relevant Performance Indicators are set out below.</p>
Item	Text
1.1.5.2	Does the assessment take into account major uncertainties in data and have assumptions been evaluated?
SG60	Major uncertainties are identified. Some attempt has been made to evaluate these in the assessment.
SG80	The assessment takes into account major uncertainties in the data and functional relationships. The most important assumptions have been evaluated and the consequences are known.
SG100	The assessment addresses all significant uncertainties in the data and functional relationships and evaluates the assumptions in terms of scope, direction and bias relative to management-related quantities. The assessment model has been shown to meet sufficient levels of precision and accuracy to allow the management process to achieve its objectives.
Original Rationale	<p>Assessments are rigorously examined each year and uncertainties explored by ACFM and STECF as well as the working group. In 2007, the WG reviewed the assessment in the light of comments received from ACFM, particularly the suitability of using commercial LPUE for stock assessment and the need to investigate the decrease in weight at older ages. The retrospective bias is similar in direction to that in the NE Arctic, but lower in magnitude, and the historical forecasts suggest that past assessments have more or less been accurate. Uncertainties are presumed to be a problem within the catch at age matrix, or selectivity, but it may also be that recruitment is poorly estimated or that there is variable migration.</p> <p>The last investigation of the potential influence of migration was in the mid-1980's and estimates of annual migration between the North Sea and NE Arctic are not made and no account of them is incorporated in the assessment. (although this is probably relatively minor and restricted to the northern end of the North Sea saithe stock distribution).</p> <p>The fact that all uncertainties in the model are not explicitly considered in the provision of precautionary advice has led to the lower score here, and the assessment team feel that this should be addressed as a condition of certification.</p>
Original Score	75
Rationale	<p>The stock assessment was reviewed by WKBENCH in 2011 and is subject to ongoing scrutiny by WGNSSK.</p> <p>At the SG60 level, it is clear that the major uncertainties have been identified by ICES and evaluated. This SG is fully met.</p> <p>At the SG80 level, it is clear that ICES have identified the major uncertainties associated with the data and functional relationships for this stock (notably with respect to recruitment and reliance on fishery-dependent data), and that the assumptions in the assessment have been evaluated (by both WKBENCH and WGNSSK) and are known. The SG80 requirements are therefore fully met.</p> <p>At the SG100 level, it is clear from the actions of ICES during 2011 that the uncertainties and assumptions associated with the data for the stock were evaluated with respect to management actions (which led to advice that the</p>

	TAC should be significantly reduced for 2012 (ICES 2011c) that was subsequently replaced by revised advice (ICES 2011d). The accuracy and precision of the assessment model has been thoroughly tested and scrutinised, and appears to be appropriate to allow the management process to meet its objectives. The SG100 requirements are therefore fully met.
Current score	100
References	ICES 2011a, b, c, d; ICES 2012 a, b.
Item	Text
1.1.5.5	Does the assessment include the consequences of current harvest strategies?
SG60	The assessment makes an initial approximation of the consequences of current harvest strategies.
SG80	The assessment includes a robust approximation of the consequences of current harvest strategies. Uncertainties in the model are considered in harvest strategy evaluations.
SG100	The assessment includes the consequences of current harvest strategies, forecasts future consequences of these and evaluates stock trajectories under decision rules.
Original Rationale	<p>Advice is provided in relation to harvest strategies, and various options are presented, but all uncertainties in the model are not explicitly considered in the provision of precautionary advice (although evaluations suggest that the current management plan approach is relatively robust to such uncertainties). The current status of the stock is assumed to be known without error.</p> <p>Management advice is always presented as a series of harvest strategy options relative to precautionary limits.</p> <p>The fact that all uncertainties in the model are not explicitly considered in the provision of precautionary advice has led to the lower score here, and the assessment team feels that this should be addressed as a condition of certification.</p>
Original Score	75
Rationale	<p>During the period since the fishery was certified in 2008, ICES have revised the context of their advice to conform to the MSY approach, and the WKBENCH working group has explicitly examined the assessment of this saithe stock.</p> <p>The assessment of this stock now considers the consequences of current harvest strategies (including spatial distributions of effort as well as total harvest) and forecasts the future consequences of these strategies, taking account of uncertainties. The scope of the assessment therefore exceeds the SG60 and SG80 requirements.</p> <p>Annual ICES advice now evaluates the future stock status under different harvest strategies. The inherent uncertainties in the stock constrain long-term prediction of trajectories, however. The SG100 requirements are therefore partially met.</p>
Current score	90
References	ICES 2011a, b, c, d; ICES 2012 a, b.
Item	Text
3A.3.4	Do procedures include for a precautionary approach in the absence of sufficient information?
SG60	Measures exist to implement a precautionary approach in the absence of sufficient information. There is some evidence that this is occurring.

	SG80	Formalised measures exist to implement a precautionary approach in the development and application of operational procedures in the absence of sufficient information.
	SG100	All procedures include for evaluation of uncertainty and application of precaution at an appropriate level.
	Original Rationale	<p>The precautionary approach is formalised and implemented in the management of all major EU fish stocks and ICES advice is based on established precautionary and limit reference points. This applies to both saithe and main commercial by-catch species such as cod and haddock. As discussed under Principle 1, some uncertainties in the assessment have been identified but not yet fully investigated.</p> <p>Good information exists on ecosystem impacts (see Principle 2), suggesting that these do not raise significant concerns, but where impacts are identified for this fishery, operational procedures should be adapted so that they are addressed in a precautionary manner.</p> <p>The assessment team felt that uncertainties in the assessment of stocks should be addressed as a condition of certification of the fishery, reflecting the concerns raised elsewhere in PIs 1.1.5.2 and 1.1.5.5.</p>
	Original Score	75
	Rationale	<p>This stock is now managed in line with the ICES and EU implementation of the MSY approach. The stock assessment and management approach have been scrutinised by WKBENCH and WGNSSK in 2011 and 2012.</p> <p>There is good evidence that information (or the lack of it) has been used in a precautionary manner in the management of the saithe stock. Uncertainties are addressed in the stock assessment, and recommendations for the annual TAC take account of these uncertainties and an appropriate degree of precaution.</p> <p>The uncertainties associated with PIs 1.1.5.2 and 1.1.5.5 have now been addressed.</p> <p>The action taken to reduce the TAC in response to concerns about stock status during 2011 demonstrates clearly that the SG60, 80 and 100 requirements are fully met.</p>
	Current score	100
	References	ICES 2011a, b, c, d; ICES 2012 a, b.
Conclusion	We conclude that the SG80 requirements of the Performance Indicators associated with this condition are now fully met, and that the condition can therefore be closed.	

Item	Comments
4	<p>Condition 2. By-catches</p> <p>Action required: At present there is an observer programme providing good data on the bycatch associated with the fishery, but with limited coverage of the fleet.</p> <p>Improved data gathering procedures should be implemented to provide adequate coverage of the certified fleet as well as fishing areas and seasons, so as to provide statistically robust estimates of the by-catch of all species, including estimates of discards. Information gathered should be sufficient to allow an assessment of the impacts of by-catches in relation to the distribution, ecology and abundance of the species and populations affected (commercial and non-commercial fish, mammals and birds).</p> <p>Where assessments of impacts on by-catches are likely to be significant, and for all species identified as PET, appropriate measures to reduce by-catches to acceptable and precautionary levels shall be developed and implemented.</p> <p>For example, the client is willing to participate in an improved observer programme to monitor bycatches of commercial and non-commercial species. This could be extended to provide the data required. The client could also liaise with relevant organisations to develop additional protocols and procedures for the ongoing monitoring of bycatches and discards of commercial and non-commercial fish, mammals and birds.</p> <p>Timescale: Sampling programmes should be designed and initiated within 12 months of certification. Where mitigation measures are required to reduce or avoid impacts, these should be identified within 3 years of certification and fully implemented within 5 years of certification.</p> <p>Relevant Scoring Indicators: 2.1.2.1, 2.2.1.2, 3A.3.4</p>
Action Plan	<p>The client action plan in the 2008 Public Certification Report for this fishery set out the following actions:-</p> <p>Action 4 The “Erzeugergemeinschaft der Hochsee-und KutterfischerGmbH(HUK)” shall negotiate in 2008 with EU-commission and German authorities a prolongation of the “Stop-Discard” project for at least two more years (to extend the period of data collection to a total of three years).</p> <p>Action 5 HUK shall propose further actions and developments on an observation programme with better coverage of the fleet within 12 months after certification. This programme shall include the registration of non-target species (= non-commercial species incl. PET species that may occur and not catches of other commercial species that occur in the saithe fishery) removals in the saithe fishery.</p> <p>Action 6 Within 3 years of certification, potential impacts of the above named non-target species removals in the saithe fishery shall be assessed based on the programme mentioned in the 1stparagraph of action5. Where areas with the need of action are identified, potential measures for improvement shall be identified.</p> <p>Action 7 Within 5 years of certification, any identified necessary mitigating measures shall be identified and implemented.</p>
Previous audit	The first surveillance audit found that:-

<p>findings (Year 1, 2010)</p>	<p><i>In 2008 HUK launched a “Stopp-Discard” project with support from the EU-Commission and in cooperation with the Bundesministerium für Ernährung, Landwirtschaft und Verbraucherschutz (BMELV). The scientific monitoring of the project was provided by the Institute of Sea Fisheries of the vTI. The final report has been made available to the assessment team (Stansky et al, 2009).</i></p> <p><i>One fishing operation per quarter was defined as scientific investigation in order to allow landing of the entire catch of TAC-regulated species/stocks, i.e. retaining on board and landing of undersized fish or the landing of fish species for which the vessel had no assigned specific quotas (potential discards). The fishing operations were accompanied by one or two scientific observers.</i></p> <p><i>The analyses of the catches by species weight showed that the landing proportion of the target species saithe was in all cruises more than 90%. The proportions of other landed species were negligible. The total proportion of discards was approximately 0.1 % (variation by trip between 0 and 1%) of the total catch. They consisted mostly of undersized TAC regulated fish. This discard is stipulated by European minimum landing sizes. Only very few specimens of the target species were discarded, mostly due to quality reasons.</i></p> <p><i>HUK has asked to Commission for a prolongation of the project for 2009 and 2010 but the Commission did refuse the proposal because “scientific projects on discards should be based on fisheries where discards are an issue”. For the EU Commission the saithe fishery has no discard problem, even more when codend mesh sizes (> 120mm) are used that are larger than the legal minimum mesh sizes commonly used in the commercial fishery. (Correspondence, Items 1 & 2).</i></p> <p><i>In order to address action 5, HUK has asked the Institute of Sea Fisheries (vTI) for a better observer coverage of its fleet. Since this is not possible – the Institute samples 30-35 trips a year all fleets combined – HUK offered to pay the salary of an observer who would then be available mainly for their fleet. This was refused because the salary agreement of the German Civil Service does not allow for such arrangements. Also the attempt to make a similar agreement with an university or research laboratory proved to be impracticable, since the collection of fisheries data is part of the responsibilities of public administration. Data sampled by other institutions will therefore not be accepted by the vTI.</i></p> <p>Conclusion</p> <p><i>Discards have been investigated and are not a problem in the saithe fishery, especially when codend mesh sizes larger than legally stipulated are used (> 120mm). This has been the result of all observer reports available for the HUK-fleet and also of the “Stop Discard”-project carried out in 2008. This has also been stated by the EU Commission in a letter addressed to HUK in April 2009.</i></p> <p><i>HUK has done everything in its power to improve observer coverage but has not been successful due to constraints imposed by limited staff in the Institute of Sea Fisheries and German law.</i></p> <p><i>This condition has several different requirements. The client has achieved the set timescale for the first steps set out in the condition. The condition should remain open until all of its other requirements have been met, which is expected to take 3-5 years.</i></p>
<p>Previous audit findings (Year 2, March 2011)</p>	<p>The second surveillance audit found that:-</p> <p><i>HUK have continued to seek further support for their “Stopp Discard” project, as well as for trials of larger mesh trawls in this fishery. These efforts have not yet been successful.</i></p> <p><i>HUK have also taken practical action to improve understanding of bycatch and discards from the fishery.</i></p> <p><i>Information has been provided from independent fishery observer trips aboard 3 of the HUK</i></p>

	<p><i>trawlers (a total of 5 trips). This information demonstrates that the saithe fishery is clean, with a low bycatch of other species (these are mainly cod and haddock, which are retained on board and landed). Discarding rates are low, typically less than 1.5% of the total catch.</i></p> <p><i>Neither the client nor independent observers report any capture of ETP species (birds or marine mammals) in this fishery.</i></p> <p><i>There are no reports of capture or discarding of common skate (Dipturusbatis) or spurdog (Squalusacanthias) from observer reports. These species have been the subject of conditions in recent MSC assessments of other saithe trawl fisheries in the unit of certification area. There is no evidence that similar concerns apply to this fishery.</i></p> <p><i>HUK are working with vTI to trial the use of closed circuit television (CCTV) aboard 3 of their vessels, including the Victoria, which is part of the Unit of Certification fleet. It is hoped that this approach will provide better data coverage for both bycatch and discarding. There is some uncertainty how this CCTV information will be evaluated if the programme is expanded, and the trial will assist with evaluation of this.</i></p> <p><i>The client has also carried out gear trials to investigate and improve selectivity. Larger mesh panels are now used as standard in the top sheet of HUK trawls, and cod-end mesh sizes are now in the range 125-127mm, a response to concerns about the accuracy of the new EC "Omega" fish gauge.</i></p> <p><i>Discussions with vTI have also confirmed the findings of the previous (2010) audit, with respect to the use of non-vTI observers aboard fishing vessels. In brief, any data gathered by such observers would not be considered eligible for use in formal management of the fishery.</i></p> <p>Conclusion <i>Progress with this condition remains on-target, and in many respects the client's actions exceed initial expectations.</i></p> <p><i>There are several aspects to this condition, and the overall timescale for completion is 3-5 years, so this condition remains open.</i></p>
<p>Previous audit findings (Year 3, Nov. 2011)</p>	<p><i>The client has previously demonstrated a long-term commitment to reduce the bycatch (discards) from its vessels.</i></p> <p><i>In 2008 HUK launched a "Stopp-Discard" project with support from the EU-Commission and in cooperation with the Bundesministerium für Ernährung, Landwirtschaft und Verbraucherschutz (BMELV). The scientific monitoring of the project was provided by the Institute of Sea Fisheries of the vTI. The final report has been made available to the assessment team (Stransky et al, 2009). Funding constraints prevented further work on this.</i></p> <p><i>Fishery observer reports for vessels in the client fleet consistently indicate very low levels of discarding, typically less than 1% of catches (a range of 0.12-1.7%). This pattern has been consistently seen throughout the period of certification since 2008.</i></p> <p><i>Neither the client nor independent observers report any capture of ETP species (birds or marine mammals) in this fishery. There are no reports of capture or discarding of common skate (Dipturusbatis) from observer reports. Just 3 spurdog (Squalusacanthias) were recorded. These species have been the subject of conditions in recent MSC assessments of other saithe trawl fisheries in the unit of certification area. There is no evidence that similar concerns apply to this fishery.</i></p> <p><i>The client attributes these low discard rates to several factors. Firstly the saithe fishery is inherently "clean". Secondly the client fleet has quota allocations for the main non-target species that are inevitably caught with saithe, so these can be landed rather than discarded for regulatory reasons. Finally the client fleet has invested in fishing gear that is both more selective and more efficient: the trawls have larger mesh sizes throughout (125-130mm in the cod-end and 220mm in the top sheet of the net (an increase from 160mm in 2009)); and</i></p>

	<p><i>demersal trawls are no longer used, having been replaced with much lighter benthic-pelagic gear, so incidental capture of benthic species is at a very low level, and interactions with the seabed are minimised.</i></p> <p><i>During the course of the current audit it became apparent that the client fleet do not actually discard the commercial fish species that are recorded as “discards” in observer reports. Instead, any undersized or damaged are landed against the vessels’ quota and sent for conversion into fishmeal rather than for direct human consumption. Overall discard levels are therefore much lower than the figures suggest.</i></p> <p><i>During the current audit and previous audits, the assessment team has discussed the opportunities for improved observer coverage in the saithe fishery with the client and with vTI. The level of coverage is limited by resources, and while alternative options (such as the use of students as observers) have been explored, none have been viable. However vTI report that the pattern of observer coverage is under review at present and might direct more effort towards this fishery.</i></p> <p><i>The enthusiasm of the client fleet to participate with independent observers is illustrated by their recent collaboration with Greenpeace and WWF, who recently put an observer on one of the HUK fishing cruises.</i></p> <p>Conclusion <i>Progress with this condition remains on-target, and in many respects the client’s actions exceed initial expectations.</i></p> <p><i>There are several aspects to this condition, and the overall timescale for completion is 3-5 years, so this condition remains open.</i></p>												
Activity assessed	Progress with this condition was assessed through discussions with the client, BLE and vTI staff. Independent fishery observer reports from vTI for vessels in the client fleet were also examined.												
Observations (current audit)	<p>Further information on the low level of capture of non-target species was presented at this audit. The client fleet has consistently demonstrated a high level of cooperation with the fishery observers from vTI, and a consistently low catch of non-target species in the saithe fishery.</p> <p>The client reports that their fleet uses nets with a cod-end mesh of between 125 and 128mm (the legal requirement being 120mm); and this practice was confirmed by the local fishery officer who has inspected the fishing gear used by the Kutterfisch vessels in theUoC. Records gathered by vTI confirm that a mesh size of 120mm is used by the client fleet.</p> <p>The assessment team has re-scored the Performance Indicators relevant to this condition below:-</p> <table border="1" data-bbox="421 1601 1442 2033"> <thead> <tr> <th>Item</th> <th>Text</th> </tr> </thead> <tbody> <tr> <td>2.1.2.1</td> <td>Is information available on the nature and extent of by-catch (capture of non-target species)?</td> </tr> <tr> <td>SG60</td> <td>The main non-target species affected have been identified and qualitative information is available on significant by-catch.</td> </tr> <tr> <td>SG80</td> <td>Information is available on non-target species directly affected by the fishery including their distribution and/or ecology. Quantitative information is available on significant by-catch. If obtained by sampling, this is considered sufficient to provide adequate information.</td> </tr> <tr> <td>SG100</td> <td>Information is available on all non-target species directly affected by the fishery including the distribution and ecology. Accurate records are kept on the nature and extent of all by-catch species including species size and sex composition.</td> </tr> <tr> <td>Original</td> <td>Information on bycatch levels is available from observer trips on board</td> </tr> </tbody> </table>	Item	Text	2.1.2.1	Is information available on the nature and extent of by-catch (capture of non-target species)?	SG60	The main non-target species affected have been identified and qualitative information is available on significant by-catch.	SG80	Information is available on non-target species directly affected by the fishery including their distribution and/or ecology. Quantitative information is available on significant by-catch. If obtained by sampling, this is considered sufficient to provide adequate information.	SG100	Information is available on all non-target species directly affected by the fishery including the distribution and ecology. Accurate records are kept on the nature and extent of all by-catch species including species size and sex composition.	Original	Information on bycatch levels is available from observer trips on board
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	Rationale	<p>German vessels within the saithe fleet. From available observer data, saithe represents between 78 and 99% of the catch (overall, 96%, with levels indicated to be lower in the summer). In the North Sea and Norwegian Sea, haddock represents the majority of "by- catch" in the saithe fishery (1.8% of total catch from available observer data). Whiting and cod have been found in very low proportions in catches (cod between 0% and 4.1%, overall 0.9%), and hence vessels targeting saithe qualify for no restriction on fishing days at sea, available to vessels with a cod by-catch of <5%). The vessels fishing for saithe have quotas for cod and haddock and so these species will be landed by the vessels and counted against the vessels' quotas for these species.</p> <p>On a relatively small scale, the observer data indicate that vessels may also catch other types of fish as by catch in the saithe fisheries. This b-by catch consists of pelagic species, ling, pollack, and a variety of other commercial and non-commercial species. This information allows estimates of bycatch levels to be developed.</p> <p>However, the limited observer coverage does not allow the question of whether bycatch levels show year effects and/or vessel effects, and hence whether the bycatch patterns seen are representative of the fleet as a whole. For this reason, the assessment team felt that action to address this information shortfall should be a condition of certification of the fishery.</p> <p>Bycatches of PET species are considered elsewhere (section 2.2.1).</p>
	Original Score	75
	Rationale	<p>Over the period of certification, data from 26 independent observer trips have been provided, covering 5 of the vessels in the client fleet of 7. The observers have recorded all of the species caught during these trips from sub-samples of fish landed on deck.</p> <p>The overall pattern is that the saithe trawl catches are very "clean", with relatively few other species recorded, and with numbers of individuals of each non-target species also very low (the most abundant non-target species typically make up less than 1% of the catch).</p> <p>The information available about non-target from these observer trips exceeds the SG60 requirements (because quantitative data are available), and meets the SG80 requirements, because the distribution and / or ecology of all of the species recorded in the catch are also known.</p> <p>It is understood that whilst the identity and abundance of all species in the catch are recorded, biological measurements are only made for certain key species (the target species, and also for cod (<i>Gadu smorhua</i>) and haddock (<i>Melanogrammus aeglefinus</i>.) Thus the SG100 requirement is only partially met.</p>
	Current score	90
	References	vTI, 2009, 2010, 2011, 2012.
	Item	Text
	2.2.1.2	Are interactions of the fishery with such [Endangered, Threatened & Protected (ETP)] species adequately determined?
	SG60	The main interactions directly related to the fishery are known.
	SG80	Quantitative estimates are made of the effects of interactions directly related to the fishery.
	SG100	Reliable quantitative estimates are made of the interactions of all populations directly related to the fishery, and qualitative information is available on

		indirect impacts. Incidental mortalities are recorded and reported.
	Original Rationale	<p>There are several programmes of data collection and review in the North Sea, particularly for Marine Mammals the NAMMCO annual reviews and for birds the ICES Working Group on Seabird Ecology. The majority of studies on cetacean by-catch in the North Sea have been performed by the UK, Germany and Denmark, and hence largely concentrate on different areas to those in which the German fleet operates, but there are also several additional Norwegian studies. Several EU fleets have observer programmes which monitor seabirds and cetacean interactions in addition to fish by-catch. Furthermore, the likelihood of by-catch is strongly influenced by the location of fishing – for example near-shore fishing being more likely to result in by-catch than that offshore.</p> <p>EU regulations currently require the reporting of mammal catches (Council Regulation (EC) 812/2004) and are likely to require reporting of seabird deaths from 2009.</p> <p>Sufficient information on sensitive/rare sea bed communities (cold water corals) is available to identify no areas of significant interaction with fishing gear in areas where the German saithe fleet operates in the North Sea.</p> <p>Interactions of trawl gear with sea mammals is reported to be very limited. Observer programmes on EU vessels have operated on different gear types, including trawls. Pelagic trawl observations (more of a worst-case than demersal trawls) were considered to have negligible effects on sea mammal populations. Evidence therefore supports estimation that the occasional interaction could occur, but very rarely.</p> <p>Direct interactions of seabirds and trawls has not been directly estimated for the German saithe fleet. However, several other observer programmes do operate in the North Sea with other, comparable fleets and issues associated with various gear types (including trawls) have been considered. Interactions of seabirds are reported as being very rare in trawls, with occasional birds being caught in nets. However, numerical estimates and observer protocols are not available to support this observation.</p> <p>German observer programme data indicate rays and skates (identified as <i>Raja radiata</i>) to be a small by-catch in the saithe directed demersal trawl fishery in the North Sea. For example, a total of 73.4kg of thorny skate were recorded as discarded across the 13 trips, representing ~0.01% of the total catch weight, but biological information on these limited number of animals was not collected. The ICES WG on Elasmobranch Fish Fisheries has collected landings information for the North Sea. ICES advised that target fisheries for common skate <i>R. batis</i> and thornback ray <i>R. clavata</i> should not be permitted, and by-catch in mixed fisheries should be reduced to the lowest possible level. Length frequency distributions of discarded and retained elasmobranchs, covering the period from 1998 to 2006, are available from the UK, but observations of discard rates between different gear types (e.g. otter trawls, beam trawls etc.) are limited to the results of observer programmes and ad-hoc specific studies.</p> <p>In summary, existing information from trawl fisheries in the North Sea and the existing observer programme on German vessels indicates that most interactions are negligible. However, the extent of by-catch level of species such as skates and rays (and possibly other non-commercial PET fish, bird, and sea mammal species) has not been quantified. Condition 2 has been raised to address this.</p>
	Original Score	75
	Rationale	Over the period of certification, data from 26 independent observer trips have been provided, covering 5 of the vessels in the client fleet of 7. The observers have recorded all of the species caught during these trips from sub-samples of fish landed on deck.

	<p>The overall pattern is that the saithe trawl catches are very “clean” with relatively few other species recorded, and with numbers of individuals of each non-target species also very low (the most abundant non-target species typically make up less than 1% of the catch).</p> <p>Catches of ETP species in the saithe trawl fleet during these observer trips have been negligible. The recent record from an observer trip of 3 Twaite Shad (<i>Alosa fallax</i>), which are listed in Annex V of the Habitats Directive, gives an indication of both the low level of incidental capture of ETP species in this fishery and also confidence that the observers are likely to detect even minor interactions with ETP species.</p> <p>vTI scientists have confirmed that they have no records of capture of cetaceans, marine birds or other marine mammals in the saithe trawl fishery.</p> <p>The SG60 and SG80 requirements are fully met. The SG100 requirement is only partially met because quantitative estimates of the impact of this fishery on ETP species have not been met, even though incidental mortalities are recorded and reported.</p>
Current score	90
References	vTI, 2009, 2010, 2011, 2012.
Item	Text
3A.3.4	Do procedures include for a precautionary approach in the absence of sufficient information?
SG60	Measures exist to implement a precautionary approach in the absence of sufficient information. There is some evidence that this is occurring.
SG80	Formalised measures exist to implement a precautionary approach in the development and application of operational procedures in the absence of sufficient information.
SG100	All procedures include for evaluation of uncertainty and application of precaution at an appropriate level.
Original Rationale	<p>The precautionary approach is formalised and implemented in the management of all major EU fish stocks and ICES advice is based on established precautionary and limit reference points. This applies to both saithe and main commercial by-catch species such as cod and haddock. As discussed under Principle 1, some uncertainties in the assessment have been identified but not yet fully investigated.</p> <p>Good information exists on ecosystem impacts (see Principle 2), suggesting that these do not raise significant concerns, but where impacts are identified for this fishery, operational procedures should be adapted so that they are addressed in a precautionary manner.</p> <p>The assessment team felt that uncertainties in the assessment of stocks should be addressed as a condition of certification of the fishery, reflecting the concerns raised elsewhere in PIs 1.1.5.2 and 1.1.5.5.</p>
Original Score	75
Rationale	<p>This stock is now managed in line with the ICES and EU implementation of the MSY approach. The stock assessment and management approach have been scrutinised by WKBENCH and WGNSSK in 2011 and 2012.</p> <p>There is good evidence that information (or the lack of it) has been used in a precautionary manner in the management of the saithe stock. Uncertainties are addressed in the stock assessment, and recommendations for the annual</p>

		<p>TAC take account of these uncertainties and an appropriate degree of precaution.</p> <p>The uncertainties associated with PIs 1.1.5.2 and 1.1.5.5 have now been addressed.</p> <p>The action taken to reduce the TAC in response to concerns about stock status during 2011 demonstrates clearly that the SG60, 80 and 100 requirements are fully met.</p>
	Current score	100
	References	ICES 2011a, b, c, d; ICES 2012 a, b.
Conclusion	We conclude that the SG80 requirements of the Performance Indicators associated with this condition are now fully met, and that the condition can therefore be closed.	

Item	Comments
5	<p>Condition 3. North Sea Cod Bycatches</p> <p>Action required: Interactions occur between the fishery and North Sea cod populations. North Sea cod is recognised as being in a depleted state and MSC-certified fisheries are required to be prosecuted so as to promote rebuilding of depleted target and by-catch species.</p> <p>It is recognised that rebuilding measures (the cod recovery plan) have been implemented for North Sea cod. There are indications in the North Sea that the decline in cod stock status has recently stabilized, and that the recent year class could promote stock recovery if recruited into the fishery. Nevertheless, the significance of the issue in German saithe fisheries should be identified, measures should be identified and implemented to minimise catches of North Sea cod, and future catches should be reported in relation to the proportion of cod in saithe catches, data from previous years and the relative status of the cod stock. Measures should remain in force until cod recovery has been achieved.</p> <p>Timescale: The magnitude of the issue in German saithe fisheries should be identified, and appropriate measures to minimise cod bycatches in the saithe directed fishery identified within 6 months of certification. Testing of measures should take place within 2 years of certification. Effective measures to reduce cod bycatch should be fully implemented within 3 years of certification.</p> <p>Relevant Scoring Indicators: 2.3.1.2, 2.3.1.3, 3A.3.4</p>
Action Plan	<p>The client action plan in the 2008 Public Certification Report for this fishery set out the following actions:-</p> <p>Action 8: Within 6 months after the final certification HUK shall further assess the magnitude of cod bycatches in German saithe directed fishery and identify any measures necessary for reducing them.</p> <p>Action 9 If necessary, measures for further reductions of cod bycatches in the German saithe fishery shall be tested within 2 years of certification.</p> <p>Action 10 Identified necessary mitigation measures should be introduced within 3 years of certification.</p>
Previous audit findings (Year 1, 2010)	<p>The first surveillance audit found that:-</p> <p><i>Saithe is a very clean fishery with little by-catch. Data collected by observers (see item 3 above) show clearly that the landing proportion of the target species saithe is 96% on an average. The proportion of landed cod is only 1.1% and therefore below the 1.5% limit that allows for the exemption of the days-at-sea regulations.</i></p> <p>Conclusion <i>HUK has continued to allow observers on board of its vessels in order to investigate the composition of the catch throughout the year.</i></p> <p><i>The cod bycatch is on a very low level and has not changed since the fishery has been certified. Thus no measures were necessary to reduce it.</i></p> <p><i>This condition has several different requirements. The client has achieved the set timescale for the first steps set out in the condition. The condition will remain open until all of its other requirements have been met, which is expected to take 3-5 years.</i></p>
Previous audit	The second surveillance audit found that:-

<p>findings (Year 2, March 2011)</p>	<p><i>Evidence from the data collected by independent observers (see item 3 above) confirms that the saithe fishery remains clean. The German saithe fishery is restricted to a cod bycatch of 1.5% per year (equivalent to 150t). Compliance with this requirement is monitored by independent observers and inspections at sea by fishery patrols in the EU and Norwegian sectors.</i></p> <p><i>The 2010 observer data include records for the fishing vessel Victoria, which has a cod quota of 323.6t. One fishing trip (of three observed) took place in July – August 2010, and landings from that trip were 31.8% cod, 29.3% saithe and 32.9% haddock. Fishing trips later in the year by that vessel showed landings of 80-90% saithe and around 5-12% cod, depending on area.</i></p> <p><i>All of these cod landings were made in accordance with quota and days at sea restrictions. Observed discard levels of cod both aboard the Victoria and other vessels (with smaller cod quotas of 25 and 38t) were very low, and generally well under 1% of catch.</i></p> <p><i>HUK have provided information about quota allocations and landings for their vessels during 2010 which demonstrate compliance with regulations in place to protect cod stocks.</i></p> <p><i>As well as using a large cod-end mesh size (typically 125-127mm), the HUK fleet trialled and then adopted a larger mesh size in the top sheet of its trawls during 2010 to make the gear more selective. Other increases to mesh size in nets have also been trialled in the fleet but have not been adopted because of their impact on catches of target species. The results of the introduction of this gear should be apparent in the 2011 observer reports which will be available for the next surveillance audit (in 2012).</i></p> <p>Conclusion <i>The client has made significant progress to address this issue. Progress is on schedule.</i></p> <p><i>When the results of 2011 observer data are available it will be possible to determine whether or not this condition can be closed.</i></p>
<p>Previous audit findings (Year 3, Nov. 2011)</p>	<p>The client has made significant progress to address this issue. Progress is on schedule.</p> <p>When the results of 2011-12 observer data are available it will be possible to determine whether or not this condition can be closed.</p>
<p>Activity assessed</p>	<p>Progress with this condition was assessed through discussions with the client, BLE and vTI staff. Independent fishery observer reports from vTI for vessels in the client fleet were also examined.</p>
<p>Observations</p>	<p>Observer reports from Kutterfisch saithe trawlers throughout the past 4 years of certification indicate that cod form a consistently small proportion of the catch. All of this catch is landed, and landings are made within the small (150t) cod quota allocated to the Kutterfisch vessels. Kutterfisch vessels continue to use large (125-128mm) mesh sizes, and to fish in the area north of 56°N as required by the cod recovery plan.</p> <p>In 2012, ICES put forward mixed-fisheries advice for the first time, in which cod is the limiting species for the North Sea demersal fisheries in 2013 (EU fleets fishing for saithe have been managed under the effort regime of the EU cod management plan since 2009). Following the ‘cod’ scenario (full implementation of the cod management plan), the saithe management plan catch options would not be fully utilized. It was noted that, if / as cod stocks improve, the % by catch of cod could become more of an issue in relation to days-at-sea allowances.</p> <p>The total Kutterfisch cod quota is 150t per year, and is generally not fully utilised. Total international landings of cod from the North Sea in 2011 were 34,983t, of which the Kutterfisch quota thus represents around 0.4%.</p> <p>The assessment team has reviewed the Performance Indicators associated with this condition in the light of this information. The results of this review are set out below.</p>

Item	Text
2.3.1.2	Are management measures in place to modify fishery practices in light of the identification of unacceptable impacts?
SG60	A mechanism exists for the modification of fishing practices in light of the identification of unacceptable impacts.
SG80	Effective and timely management measures are in place to modify fishery practices in light of the identification of unacceptable impacts.
SG100	Monitoring programs are in place within the management system to allow modification of fishery practices in light of the identification of unacceptable impacts. Objectives and limits for environmental change are used to guide operational practices. It is demonstrated that these are effective.
Original Rationale	<p>For North Sea cod, a recovery plan is in force including annual stock assessments and limits on exploitation, setting objectives and limits guiding operational practices. Cod by-catch landings from the saithe directed fisheries are set against the TAC for North Sea cod. Cod landings made up 0.9% of the total landed weight of all fish landed in 13 observed saithe fishing trips (5.7t of cod). All German vessels operating in the saithe directed fishery have a specific cod quota in the North Sea reserved for by-catches. Additional management measures can be implemented under the terms of the EU-Norway agreement within Norwegian waters.</p> <p>Discard levels of cod are generally low, cod discarding was observed on just six of the thirteen trips. A maximum of 3.1% of the caught cod was discarded (by weight) across the observed trips. In total, this observed discarding amounted to 35.8kg.</p> <p>Cod is a recognised depleted species and while evidence suggests that bycatch in the saithe fishery is low, any available means of minimising cod bycatches should be explored and implemented.</p> <p>Condition 3 has been raised to address this.</p>
Original Score	75
Rationale	<p>The North Sea Cod Recovery Plan remains in force and constrains the activity of the saithe trawl fleet. The fleet is required to fish in areas north of 56°N, and to operate within the constraints of a small cod quota. There is evidence from ICES that the cod recovery plan is starting to work, with levels of F continually falling and the SSB increasing from a low point in 2008.</p> <p>The fleet employs various measures to reduce their impacts on cod. The trawls are reported to have a mesh size of 125-128mm, which exceeds legislative requirements and reduces the catch of juvenile fish; and Kutterfisch also launched their own “Stopp Discard” project, which has eliminated discarding from this fleet. All cod that are caught by the Kutterfisch vessels, including any unfit for human consumption that might otherwise be discarded, are landed against the vessel cod quota.</p> <p>The total Kutterfisch cod quota is 150t per year, and is generally not fully utilised. Total international cod landings from the North Sea in 2011 were 34,983t. The Kutterfisch quota thus represents around 0.4% of cod landings.</p> <p>Fish landings in Germany are closely monitored by BLE to ensure compliance with quota allocations and conformity with the “catch plan” that vessels are required to prepare each year.</p> <p>BLE report that, in late 2007 (prior to certification of the fishery,) the saithe trawl fishery was closed late in the year because the projected cod by-catch</p>

	<p>from ongoing saithe trawling was likely to exceed the German cod quota for that year. This was the only occasion that such action has been required.</p> <p>There is thus clear evidence that the fishery meets the SG60 and SG80 requirements fully, because there are management measures in place that will modify fishing practices if unacceptable impacts are identified.</p> <p>The SG100 requirements are met because there is evidence of monitoring of impacts (in this case cod quota uptake) relative to objectives and limits; and also evidence of management intervention when the limits are at risk of being exceeded, which demonstrates that this part of the management system is operating effectively.</p>
Current score	100
References	vTI, 2009, 2010, 2011, 2012. Interview 3 (BLE).
Item	Text
2.3.1.3	Do management measures allow for recovery of affected populations?
SG60	Rebuilding measures exist and are fully implemented. Measures may not have been tested.
SG80	Appropriate rebuilding measures are being implemented. Measures have been tested and can be shown to be promoting the rebuilding of affected populations.
SG100	Appropriate rebuilding measures are being implemented to promote recovery as quickly as is possible. Additional measures are being implemented to prevent problems in the future.
Original Rationale	Rebuilding measures (the cod recovery plan) have been implemented for North Sea cod. There are indications in the North Sea that the decline in stock status has recently stabilized, and that the recent year class could promote stock recovery if recruited into the fishery. It is recognised that the saithe directed fisheries represent only a minor component of total fishing pressure, and the German by-catch quota has proportionally reduced with reductions in the TAC. Nevertheless, North Sea cod remains depleted and appropriate measures to minimise by-catches from the German saithe fishery are therefore required as a condition of certification for the fishery to ensure that it does not jeopardize recovery of this stock.
Original Score	70
Rationale	<p>ICES (2012c) report that:-</p> <p><i>There has been a gradual improvement in the status of the stock over the last few years. SSB has increased from the historical low in 2006, but remains just below Blim. Fishing mortality declined from 2000 and is now below Fpa, but is estimated to be well above FMSY. Recruitment since 2000 has been poor. The proportion of discards is still high relative to the historical period.</i></p> <p>and</p> <p><i>The EU–Norway agreement management plan was updated in December 2008 (Annex 6.4.2), and will be re-considered during 2012. The EU has adopted a long-term plan for this stock with the same aims (Council Regulation (EC) 1342/2008). ICES evaluated the plans in 2009 and concluded that they are both in accordance with the precautionary approach if implemented and enforced adequately</i></p>

		<p>It has been noted from observer reports that the by-catch of cod by Kutterfisch vessels is very low; that these vessels are committed to their own “Stopp Discard” plan; that all cod caught by Kutterfisch vessel are landed against a quota that is set under the terms of the cod recovery plan; and that there have been no instances under which the Kutterfisch vessels have exceeded their quota allocations. The cod landings from Kutterfisch vessels are reported to be around 90t per year, representing less than 1% of their total landings of saithe.</p> <p>The total Kutterfisch cod quota is 150t per year, and is generally not fully utilised. Cod landings from the North Sea in 2011 were 34,983t. The Kutterfisch quota thus represents around 0.4% of cod landings.</p> <p>ICES has recently presented mixed fishery advice for the North Sea demersal fisheries and concludes that cod are the limiting species in this model. Using this approach it is clear that the recovery plan that would lead to the most rapid recovery of the cod stock would prevent full utilization of the saithe catch quota.</p> <p>The SG60 and SG80 requirements are met because appropriate recovery measures are being implemented and have been tested, and there is evidence that they are helping to promote the rebuilding of the affected populations.</p> <p>The SG100 requirements are not met because it is clear from ICES advice on mixed fisheries that recovery of the cod stock could proceed faster if additional measures were implemented. It is not clear whether such measures are likely to be implemented at present.</p>												
Current score	80													
References	vTI, 2009, 2010, 2011, 2012. ICES, 2012a, ICES 2012c													
		<table border="1"> <thead> <tr> <th data-bbox="427 1193 579 1216">Item</th> <th data-bbox="587 1193 1445 1216">Text</th> </tr> </thead> <tbody> <tr> <td data-bbox="427 1216 579 1272">3A.3.4</td> <td data-bbox="587 1216 1445 1272">Do procedures include for a precautionary approach in the absence of sufficient information?</td> </tr> <tr> <td data-bbox="427 1272 579 1328">SG60</td> <td data-bbox="587 1272 1445 1328">Measures exist to implement a precautionary approach in the absence of sufficient information. There is some evidence that this is occurring.</td> </tr> <tr> <td data-bbox="427 1328 579 1429">SG80</td> <td data-bbox="587 1328 1445 1429">Formalised measures exist to implement a precautionary approach in the development and application of operational procedures in the absence of sufficient information.</td> </tr> <tr> <td data-bbox="427 1429 579 1485">SG100</td> <td data-bbox="587 1429 1445 1485">All procedures include for evaluation of uncertainty and application of precaution at an appropriate level.</td> </tr> <tr> <td data-bbox="427 1485 579 1977">Original Rationale</td> <td data-bbox="587 1485 1445 1977"> <p>The precautionary approach is formalised and implemented in the management of all major EU fish stocks and ICES advice is based on established precautionary and limit reference points. This applies to both saithe and main commercial by-catch species such as cod and haddock. As discussed under Principle 1, some uncertainties in the assessment have been identified but not yet fully investigated.</p> <p>Good information exists on ecosystem impacts (see Principle 2), suggesting that these do not raise significant concerns, but where impacts are identified for this fishery, operational procedures should be adapted so that they are addressed in a precautionary manner.</p> <p>The assessment team felt that uncertainties in the assessment of stocks should be addressed as a condition of certification of the fishery, reflecting the concerns raised elsewhere in PIs 1.1.5.2 and 1.1.5.5.</p> </td> </tr> </tbody> </table>	Item	Text	3A.3.4	Do procedures include for a precautionary approach in the absence of sufficient information?	SG60	Measures exist to implement a precautionary approach in the absence of sufficient information. There is some evidence that this is occurring.	SG80	Formalised measures exist to implement a precautionary approach in the development and application of operational procedures in the absence of sufficient information.	SG100	All procedures include for evaluation of uncertainty and application of precaution at an appropriate level.	Original Rationale	<p>The precautionary approach is formalised and implemented in the management of all major EU fish stocks and ICES advice is based on established precautionary and limit reference points. This applies to both saithe and main commercial by-catch species such as cod and haddock. As discussed under Principle 1, some uncertainties in the assessment have been identified but not yet fully investigated.</p> <p>Good information exists on ecosystem impacts (see Principle 2), suggesting that these do not raise significant concerns, but where impacts are identified for this fishery, operational procedures should be adapted so that they are addressed in a precautionary manner.</p> <p>The assessment team felt that uncertainties in the assessment of stocks should be addressed as a condition of certification of the fishery, reflecting the concerns raised elsewhere in PIs 1.1.5.2 and 1.1.5.5.</p>
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SG80	Formalised measures exist to implement a precautionary approach in the development and application of operational procedures in the absence of sufficient information.													
SG100	All procedures include for evaluation of uncertainty and application of precaution at an appropriate level.													
Original Rationale	<p>The precautionary approach is formalised and implemented in the management of all major EU fish stocks and ICES advice is based on established precautionary and limit reference points. This applies to both saithe and main commercial by-catch species such as cod and haddock. As discussed under Principle 1, some uncertainties in the assessment have been identified but not yet fully investigated.</p> <p>Good information exists on ecosystem impacts (see Principle 2), suggesting that these do not raise significant concerns, but where impacts are identified for this fishery, operational procedures should be adapted so that they are addressed in a precautionary manner.</p> <p>The assessment team felt that uncertainties in the assessment of stocks should be addressed as a condition of certification of the fishery, reflecting the concerns raised elsewhere in PIs 1.1.5.2 and 1.1.5.5.</p>													

	Original Score	75
	Rationale	<p>The saithe stock is now managed in line with the ICES and EU implementation of the MSY approach. The stock assessment and management approach have been scrutinised by WKBENCH and WGNSSK in 2011 and 2012.</p> <p>There is good evidence that information (or the lack of it) has been used in a precautionary manner in the management of the saithe stock. Uncertainties are addressed in the stock assessment, and recommendations for the annual TAC take account of these uncertainties and an appropriate degree of precaution.</p> <p>The uncertainties associated with PIs 1.1.5.2 and 1.1.5.5 have now been addressed.</p> <p>The action taken to reduce the TAC in response to concerns about stock status during 2011 demonstrates clearly that the SG60, 80 and 100 requirements are fully met.</p>
	Current score	100
	References	ICES 2011a, b, c, d; ICES 2012 a, b.
Conclusion	We conclude that the SG80 requirements of the Performance Indicators associated with this condition are now fully met, and that the condition can therefore be closed.	

Item	Comments
6	Any complaints against the certified operation; recorded, reviewed and actioned
	<p>The certified fishery There have been no complaints about the compliance of the certified vessels with the rules and regulations in force for this fishery.</p> <p>WWF Complaint about stock status In May 2011, Intertek Moody Marine received a complaint from WWF, raising concerns about the status of the North Sea Saithe stock, and asking IMM to take action (such as re-scoring Performance Indicators and generating conditions) in order to address this situation. The WWF complaint is attached at Appendix 1 to this report.</p> <p>The assessment team have reviewed the 2011 and 2012 ICES advice, and discussed the stock status and management with vTI scientists at this surveillance audit.</p> <p>We can find no basis for re-scoring any of the Performance Indicators relating to the stock status for this fishery (which has been consistently evaluated as sustainable in the last two ICES assessments), and consider that the issues raised in the WWF complaint require no further action at this point in time.</p>

Item	Comments
7	Any relevant changes to legislation or regulation.
	None

Item	Comments
8	Any relevant changes to management regime.
	None.

Item	Comments
9	Overall Conclusions
	<p>This has been a successful and productive surveillance audit. The assessment team has met with the client fishery, fishery regulator, fishery manager and fishery scientists.</p> <p>We have concluded that the requirements of all of the conditions of certification that were set when the fishery was certified in 2008 are now met. This is due to the considerable efforts that the client has made (through, for instance, utilisation of fishing gear that exceeds the requirements of fishery regulations); the progress that has been made by fishery scientists; and also the sustained healthy status of the saithe stock and improving status of the cod stock in the North Sea.</p> <p>We therefore recommend that MSC Certification of the German North Sea Saithe Trawl Fishery should continue, with audits annually.</p>

Acronyms & Abbreviations

BLE	Bundesanstalt für Landwirtschaft und Ernährung (Federal Institute for Agriculture & Food). Haubachstr. 86, 22765 Hamburg
DFFU	Deutsche Fischfang Union GmbH
DFPO	Danske Fiskeres Producent Organisation
ENGO	Environmental Non Governmental Organisation
ETP	Endangered, Threatened and Protected species.
HUK	Erzeugergemeinschaft der Hochsee - und Kutterfischer GmbH (the client).
ICES	International Council for the Exploration of the Sea
IHF	Institute for Fisheries and Hydrobiology, University of Hamburg, Olbersweg 24, 22767 Hamburg
IMM	Intertek Moody Marine
IMR	Norwegian Institute of marine Research, Nordnesgaten 50 5005 Bergen, Norwegen
vTI	Johann Heinrich von Thünen-Institut (former Bundesforschungsanstalt), Palmaille 9, 22767 Hamburg
WWF	World Wildlife Foundation

Appendix 1 – Stakeholder Comments about the certified fishery



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To:

Accreditation Services International
 Intertek Moody Marine Ltd
 MacAlister Elliott and Partners Ltd

CC Food Certification International Ltd
 Det Norske Veritas AS

15 May 2012

Formal complaint following: Audit North Sea Saithe fisheries

Dear Sir, Madam

WWF actively engages as a stakeholder in a number of Marine Stewardship Council (MSC) fishery assessments and audits to improve fisheries sustainability. With this letter we want to express our concern about the status of North Sea saithe and the lack of action in response to the International Council for the Exploration of the Sea's (ICES) advice of November 2011.

The status of the saithe stock in the North Sea has deteriorated in the last few years. Spawning stock biomass (SSB) has declined and is now below Maximum Sustainable Yield (MSY) and precautionary target levels and fishing mortality has increased to above management plan levels and MSY. Six North Sea saithe fisheries are currently MSC certified:

- [DFPO Denmark North Sea & Skagerrak saithe](#) (FCI)
- [Euronor saithe](#) (MEP)
- [Germany North Sea saithe trawl](#) (MML)
- [Norway North Sea saithe](#) (DNV)
- [Scapeche and Compagnie de Peche de St Malo saithe](#) (MEP)
- [UK Fisheries/DFFU/Doggerbank Group saithe](#) (MEP)

The ICES advice from June 2011 was quite alarming. It seemed that certification was unlikely to continue without significant Total Allowable Catch (TAC) reduction being advised by ICES. The June advice has been re-evaluated and in November ICES published a revised advice, which was less dramatic: SSB was higher than estimated in June, but below precautionary biomass (B_{pa}), fishing mortality was lower than estimated in June, but above MSY. ICES recommended a reduction of the TAC of 15%. The mean age in the catches has decreased in the last year. The management outcome in response to this advice will be determined under the EU-Norway management plan.

President: Yolanda Kabaodes
 Director General: James P. Leape
 President Emeritus: HRH The Duke of Edinburgh
 Founder President: HRH Prince Bernhard of the Netherlands

Registered as: WWF - World Wide Fund for Nature, WWF - Fonds Mondial pour la Nature
 WWF - Fondo Mundial para la Naturaleza, WWF - Fondo Mundial pour la Nature
 WWF - Welt Natur Fonds. Also known as World Wildlife Fund
 100% recycled paper

Conformity Assessment Bodies (CABs) with North Sea saithe fisheries were required to review the latest ICES advice and rescore PI 1.1.1 and PI 1.1.3. WWF has carefully considered the surveillance reports that have been published since the November advice. WWF was expecting to see a low (60) scores for stock status and a condition raised to ensure the stock is at a level which maintains high productivity. However the Germany North Sea saithe trawl fishery, the Scapeche and Compagnie de Peche de St Malo saithe fishery, the UK Fisheries/DFFU /Doggerbank Group saithe fishery and the Euronor saithe fishery have no condition in place. MacAlister Elliott and Partners Ltd. (MEP) claims that the certified fisheries cannot do anything about the stock status and the EU Norway management plan is considered the *de facto* condition. According to Moody 'the management outcome in response to the ICES advice is determined under the EU-Norway management plan and the client has limited capacity to influence this outcome'.

The CABs are required to raise a condition and the clients are required to develop a client action plan to produce evidence that shows that it is highly likely that the stock is above the point where recruitment would be impaired. Simply declaring the EU Norway management plan as the *de facto* condition is not in line with the certification requirements. CABs are required to set one or more auditable and verifiable conditions for continuing certification if the fishery achieves a score of less than 80 for any individual PI (CR 27.11.1). CABs are required to review any potential changes to the scientific base of information, including stock assessments (27.22.5.3. d), re-score PIs where the information base for the score has changed and if scoring is less than 80, define a condition and client actions according to the requirements (27.22.5.4)

ICES clearly states that the management plan needs to be re-evaluated. *The HCRs in the management plan are not clear enough when the stock falls below the SSB of 200 000 t. The change in fishery distribution and stock productivity (lower growth and recruitment) imply that a re-evaluation of the management plan is needed. SSB at the beginning of 2011 (169 000 t) is below the B_{pa} of 200 000t. The HCRs in the management plan are not clear enough and may not result in improved performance to at least the 80 level (27.11.1.3).*

In December last year WWF contacted Food Certification International Ltd. (FCI), the CAB assessing the DFPO Denmark North Sea and Skagerrak saithe, to understand how the CABs were planning to deal with the ICES November advice. FCI replied that *harmonized outcomes and actions were anticipated*. Five of the six certified saithe fisheries have just been audited and we are surprised by the lack of harmonized action in response to the ICES advice. So far, only FCI raised a condition in response to the lowered score on 1.1.1. We had hoped that all CABs involved in the saithe certifications would carefully consider the November advice and revise P1 scores and raise a condition in response.

In the DFPO Denmark North Sea and Skagerrak Saithe Fishery surveillance report FCI refers to 'harmonized CAB action 2012' and 'harmonized CAB condition 2012' as the source of information (page 7-9). We urge MEP and Moody to use this source and raise a condition to ensure that the saithe stock is at or fluctuating around the target reference point.

Suggested Action by FCI:

Clear evidence that the stock is rebuilding is required. The client is expected to request and support actions that will achieve this outcome. These would include:

- Information on expected rebuilding times for the stock under different basic recruitment scenarios
- Precautionary reductions in TAC that may go beyond the current Management Plan until the stock is clearly beginning to rebuild
- An evaluation of the management plan, particularly to assess whether adjustments are required in target fishing mortality and/or the 15% limit on TAC change to make them compatible.

MEP claims that the certified fisheries 'cannot do anything about stock status'. MML states that 'the client has limited capacity to influence the outcome'. This is unreasonable considering the total landings of saithe by certified vessels. The vast majority of the TAC for North Sea saithe is allocated to the certified fisheries, the certified vessels *do have* the capacity to influence the outcome and the clients must jointly request and support actions that ensure stock rebuilding.

WWF points out that all CABs with North Sea saithe fisheries are required to raise a condition for PI 1.1.1 and to draft annual milestones that spell out the measurable improvements and outcomes expected each year (Table GC2) to ensure the stock is at a level which maintains high productivity and has a low probability of recruitment overfishing. At present MEP and MML do not comply with the certification requirements related to condition setting and surveillance audits.

Looking forward to hearing from you.

Sincerely,



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