

FISHERY ASSESSMENT REPORT

IFFO GLOBAL STANDARD FOR RESPONSIBLE SUPPLY OF FISHMEAL AND FISH OIL



FISHERY:	North Sea sprat (<i>Sprattus sprattus</i>)- DENMARK
LOCATION:	ICES subarea IV (North Sea)
DATE OF REPORT:	16 th September 2014
ASSESSOR:	Sam Peacock

Global Trust Certification Ltd, 3rd Floor, Block 3, Quayside Business Park, Mill Street, Dundalk, Co. Louth, Ireland Tel: 042 932 0912 Fax 042 938 6864

Form No: 9	Report Ref:	Page 1 of 21	CCM Code:
------------	-------------	--------------	-----------

This report shall not be reproduced in full or in part without the permission of Global Trust Certification Ltd.

1. APPLICATION DETAILS AND SUMMARY OF THE ASSESSMENT OUTCOME			
Name:			
Address:			
Country:		Zip:	
Tel. No.		Fax. No.	
Email address:		Applicant Code	
Key Contact:		Title:	
Certification Body Details			
Name of Certification Body:		Global Trust Certification Ltd.	
Assessor Name	Peer Reviewer	Assessment Days	Initial/Surveillance/ Re-certification
Sam Peacock	Dave Garforth	5	Initial
Assessment Period	August – September 2014		
Scope Details			
1. Scope of Assessment		IFFO Global Standard for Responsible Supply – Issue 1	
2. Fishery		North Sea sprat (DENMARK)	
3. Fishery Location		ICES subarea IV (North Sea)	
4. Fishery Method		Small-mesh pelagic trawl	
Outcome of Assessment			
5. Overall Fishery Compliance Rating		Medium	
6. Sub Components of Low Compliance		None	
7. Information deficiency		None	
8. Peer Review Evaluation		24 th Oct 2014	
9. Recommendation		Approve fishery	

2. QUALITY OF INFORMATION	
Good; primarily ICES, EU and Denmark government websites and reports	
3. COMPLIANCE LEVEL ACHIEVED	
Medium	
Recommendation	
Approve fishery	
4. GUIDANCE FOR ONSITE ASSESSMENT	
Based on HIGH compliance findings	
Based on MEDIUM compliance findings	
Based on LOW compliance findings	
5. ASSESSMENT DETERMINATION	
<p>The North Sea sprat fishery was previously assessed against the IFFO RS standard in 2012, but was not approved due to the lack of any explicit or implicit stock management objectives. Since that time, scientific understanding of the stock has progressed to a level where ICES can provide annual quantitative advice based on the MSY approach. In other fisheries assessed under the IFFO RS scheme where there is a lack of explicit management objectives, the presence of and adherence to quantitative ICES advice has been taken as evidence of implicit management objectives. In the case of the North Sea sprat fishery, the objective is to maintain sprat SSB above 142,000t using an escapement strategy. As such, the assessment team now considers the fishery to meet the requirements of the IFFO RS standard, albeit at a medium compliance level.</p> <p>In addition to the nature of the management objectives for the fishery, there are other circumstances which have led to medium compliance ratings within this report, as follows:</p> <ul style="list-style-type: none"> • A2 – Level of discarding is not quantified nor included in the stock assessment. • A3 – Management objectives, as described above. • D1 – A discrepancy between the TAC period and ICES advice period makes comparison of the level of permitted fishing with the level of recommended exploitation difficult, and reduces the certainty with which the exploitation rate will reflect the advice in future. • D3 – As a fast-growing and numerous species, sprat is a key component of the ecosystem. Additionally, herring bycatch is a feature of the sprat fishery. 	

Global Trust Certification Ltd, 3 rd Floor, Block 3, Quayside Business Park, Mill Street, Dundalk, Co. Louth, Ireland Tel: 042 932 0912 Fax 042 938 6864			
Form No: 9	Report Ref:	Page 3 of 21	CCM Code:

In all other sections the fishery has been rated highly compliant, as management processes reflect the effective administration, monitoring and enforcement typical of most EU fisheries.
HIGH Compliance
A1, B1, B2, C1, D2, E1, E2
MEDIUM Compliance
A2, A3, D1, D3
LOW Compliance
None

Global Trust Certification Ltd, 3 rd Floor, Block 3, Quayside Business Park, Mill Street, Dundalk, Co. Louth, Ireland Tel: 042 932 0912 Fax 042 938 6864			
Form No: 9	Report Ref:	Page 4 of 21	CCM Code:

This report shall not be reproduced in full or in part without the permission of Global Trust Certification Ltd.

SUMMARY OF LEVEL OF COMPLIANCE					
	The Management Framework and Procedures	Stock assessment procedures and management advice	Precautionary approach	Management measures	Implementation
legal and administrative basis	A1				
Fisheries management should be concerned with the whole stock unit	A2				
Management actions should be scientifically based	A3				
Research in support of fisheries conservation and management should exist		B1			
Best scientific evidence available should be taken into account when designing conservation and management measures		B2			
The precautionary approach is applied in the formulation of management plans			C1		
The level of fishing permitted should be set according to management advice given by research organisations				D1	
Where excess fishing capacity exist, mechanisms should be in established to reduced capacity				D2	
Management measures should ensure that fishing gear and fishing practices do not have a significant impact on non-target species and the physical environment				D3	
A framework for sanctions of violation of laws and regulations should be efficiently exists					E1
A management system for fisheries control and enforcement should be established					E2

KEY: Low Compliance: Medium Compliance: High Compliance:

Global Trust Certification Ltd, 3 rd Floor, Block 3, Quayside Business Park, Mill Street, Dundalk, Co. Louth, Ireland Tel: 042 932 0912 Fax 042 938 6864			
Form No: 9	Report Ref:	Page 5 of 21	CCM Code:

This report shall not be reproduced in full or in part without the permission of Global Trust Certification Ltd.

6. RATIONALE OF THE ASSESSMENT OUTCOME

A. THE MANAGEMENT FRAMEWORK AND PROCEDURE

LEVEL OF COMPLIANCE

A1. The management of the fishery must include a legal and administrative basis for the implementation of measures and controls to support the conservation of the fishery.

LOW	An administrative framework that ensures an efficient management of the fishery for its conservation is not established.
MEDIUM	An administrative framework that ensures an efficient management of the fishery for its conservation is somehow established, but there is evidence of not being efficient to ensure the conservation of the stock.
HIGH	A legal and administrative framework that ensures an efficient management of the fishery for its conservation is established and works efficiently toward the conservation of the stock.

Determination: There are robust legal and administrative frameworks in place at the EU and Danish levels. H

Europe:

Denmark is a Member State of the European Union, and therefore in Community waters implements the Common Fisheries Policy (CFP). In force since 1983, the CFP aims to reconcile resource conservation with the preservation of income and jobs in coastal zones that offer few alternatives in terms of production or employment. It therefore covers not just resources but also markets and structures.

With regard to resource management, the CFP regulations comprise:

- A traditional management tool based on TACs and quotas;
- Technical measures relating to gear or catch;
- Effort-related management, based on vessel engine power and the number of days at sea.

The CFP also provides for the introduction of measures to rebuild, over a period of several years, stocks that are threatened in terms of sustainable harvesting, and for recourse to effort-related management rules to supplement TACs and quotas.

The CFP is periodically reviewed and reformed. The most recent CFP reform process was completed in 2013 and came into effect from the 1st January 2014. Key changes include:

- The introduction of an objective to ‘ensure high long-term fishing yields for all stocks by 2015 where possible, and at the latest by 2020’ (i.e. movement towards an MSY-based approach).
- The gradual (2015-2019) introduction on a fishery-by-fishery basis of a ‘landing obligation’, which effectively bans discarding.
- An overhaul of the management structure, including increased regionalisation and more extensive stakeholder consultation.

Denmark:

The responsible authority for monitoring and enforcing EU and national conservation policies is the Danish Directorate of Fisheries, which is a part of the Ministry of Food, Agriculture and Fisheries, under the 1999 Fisheries Act. The Directorate carries out inspection at sea and landings, as well as verification of EU marketing standards. The Ministry also works for Danish fisheries and aquaculture through

- Regulation and inspections of the fishing industry

Global Trust Certification Ltd, 3 rd Floor, Block 3, Quayside Business Park, Mill Street, Dundalk, Co. Louth, Ireland Tel: 042 932 0912 Fax 042 938 6864			
Form No: 9	Report Ref:	Page 6 of 21	CCM Code:

- Support for research in fisheries and aquaculture production
- Support for the development of fisheries, the fish industry, fishery harbours and aquaculture
- Fish management and fishing license arrangements for recreational fisheries

The primary provider of scientific information and advice at the national level within Denmark is the National Institute of Aquatic Resources at the Technical University of Denmark (DTU Aqua). DTU Aqua’s stated mission is to conduct research, provide advice, educate at university level and contribute to innovation in sustainable exploitation and management of aquatic resources. DTU Aqua directly advises the Danish Ministry of Food, Agriculture and Fisheries and other public authorities.

International science

Science-based fishery management advice at the international level is provided by the International Council for the Exploration of the Sea (ICES). ICES is a network of more than 1,600 scientists from 200 institutes linked by an intergovernmental agreement (the ICES Convention) to add value to national research efforts. Scientists working through ICES gather information about the marine ecosystem. Besides filling gaps in existing knowledge, this information is developed into unbiased, non-political fishery management advice. The 20 member countries that fund and support ICES use this advice to help them manage the North Atlantic Ocean and adjacent seas. ICES provides annual stock assessment and management advice in relation to the fishery.

R4 – R7

LEVEL OF COMPLIANCE

A2. Fisheries management should be concerned with the whole stock unit over its entire area of distribution and take into account fishery removals and the biology of the species.

LOW	Fisheries management is not concerned with the whole stock unit over its entire area of distribution and do not take into account any of the matters listed in ‘A1’.
MEDIUM	Fisheries management is concerned with matters listed in ‘A1’ but not entirely. Fisheries, in relation to ‘A1’ statement, should improve to ensure the long term conservation of the marine resource.
HIGH	Fisheries management should be concerned with the whole stock unit over its entire area of distribution and take into account: <ul style="list-style-type: none"> • All fishery removals • The biology of the species

Determination: Sprat in the North Sea is managed as a single stock, independent of adjacent sprat stocks. Recent research has supported the current ICES stock units, although ICES states that further work on the issue is required. Data on fishery removals across the entire geographical area are available to and considered by fishery managers; however the assessment team considers a medium compliance rating to be appropriate as discarding is known to occur but is not quantified.

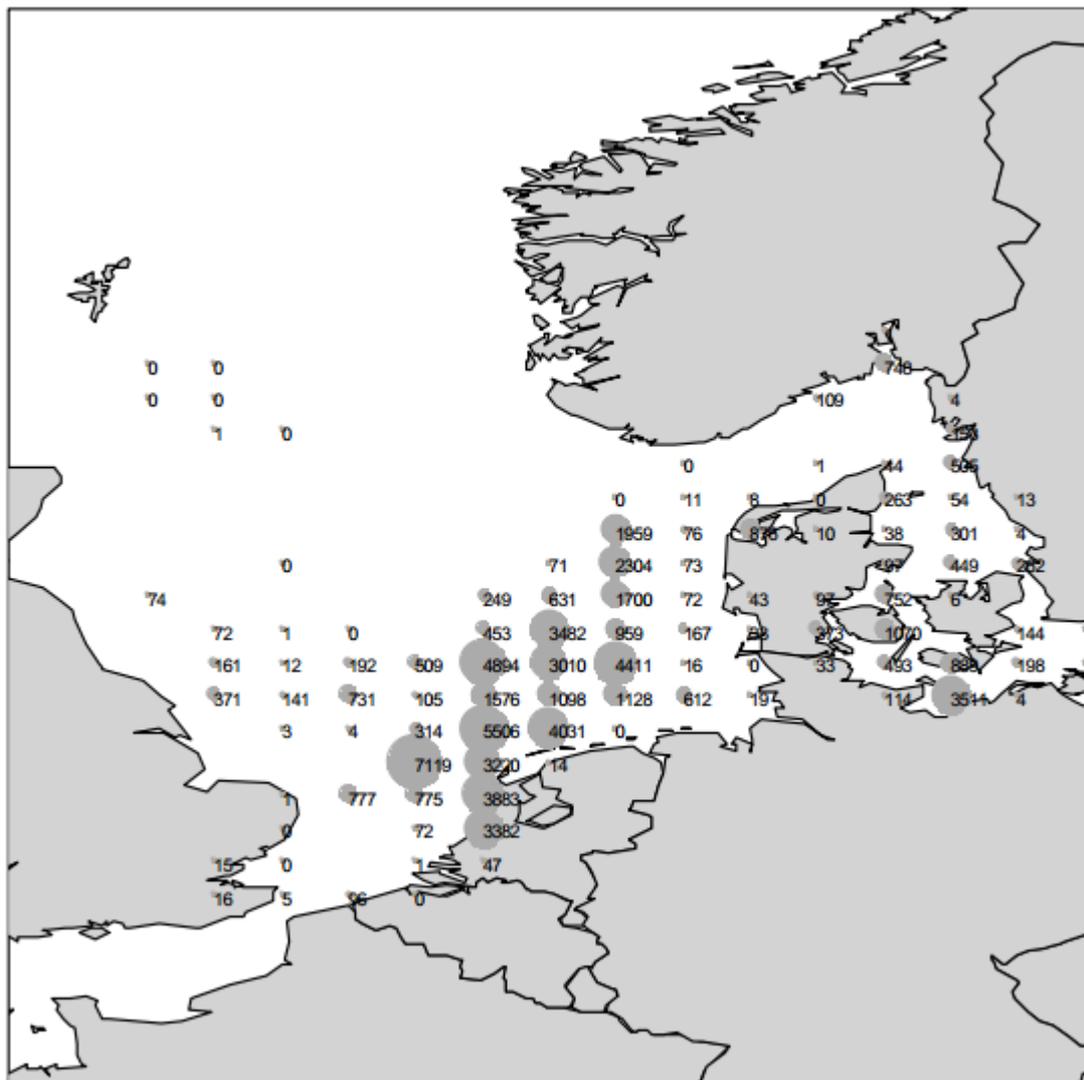
M

Sprat in the North Sea is treated as a single management unit, although recent evidence has caused some uncertainty over the biological geographic distribution of this stock and in particular the level of interaction with neighbouring stocks. The overlap between North Sea sprat and English Channel sprat is potentially considerable, whereas the overlap between North Sea sprat and Kattegat sprat is not considered as strong and varies between years.

A detailed genetic study was performed in 2009 and 2012 to analyze the population structure of sprat over large ranges, from scales of seas to regions, and partitioned the samples into groups based upon their genetic similarity. The results of the analysis support the separation of sprat into the three stocks that are

the current management and ICES advice units (i.e. subdivision VIId (English Channel), subdivision IIIa (Skagerrak/Kattegat) and division IV (North Sea). Differences in length at age and recruitment indices also support the separation of stocks in IIIa and IV, but there is some uncertainty as to whether peripheral populations (such as those in the Moray Firth and Firth of Forth) are also disconnected. However, at the time of this assessment, there is no strong evidence to suggest the introduction of additional stocks is necessary.

Landings data for this fishery includes all removals except discards, and is considered by ICES to be reliable from 1996 onwards. ICES reports that bycatch of herring in sprat landings often exceeds the 20% limit, and that until 2015 such catches are not allowed to be landed. As discarding is not quantified it is not possible to know what proportion of fishery removals are included in the ICES assessments.



North Sea sprat and IIIa sprat. Sprat catches in the North Sea and Div. IIIa (in tonnes) in 2013 by statistical rectangle. Not all landings are given by rectangle, and therefore the sum is less than total catches. From the HAWG report, North Sea sprat chapter, 2014 (R1).

R1 – R3

LEVEL OF COMPLIANCE		
<i>A3. Management actions should be based on long-term conservation objectives</i>		
LOW	Management actions are not based on long term management objectives.	
MEDIUM	Management actions are based on long term management objectives. However the actions are not scientifically formulated.	
HIGH	Management actions are based on long term management objectives, and actions are science based.	
<p><i>Determination: The fishery is subject to CFP-wide conservation objective and it is currently managed to follow the ICES advice, which is provided on an MSY basis. Therefore, there are implicit management objective for the stock. However, a medium compliance rating is considered appropriate and consistent with other, similarly managed fisheries in the IFFO RS scheme since there is no stock-specific management plan in place or under development.</i></p> <p>Fishery-specific conservation objectives</p> <p>There are no stock-specific management plans or long-term objectives for sprat in the North Sea other than through that advised by ICES. The Sustainable Fisheries Partnership (SFP), a non-governmental organisation working to improve the sustainability of many fisheries worldwide, has developed a Fishery Improvement Project (FIP) for North Sea sprat. The aim of the project is to improve several aspects of the management of the fishery, including the development of a long-term management plan, improved catch and bycatch reporting, and an increased focus on the ecosystem-wide impacts of the fishery. Although there is currently no specified time frame for the development of a management plan, other elements of the FIP (available at reference R14) have been completed.</p> <p>ICES provides annual advice for the management of the stock, which forms the basis for management decisions including the setting of TAC. In 2013 this advice was provided based on the default ICES MSY approach for short-lived species, which is an escapement strategy. However, management strategy evaluations carried out towards the end of 2013 determined that such an approach is not precautionary for the North Sea sprat stock unless an additional constraint is imposed on the fishing mortality (referred to as F_{cap}. ICES determined the optimal F_{cap} to be 1.2 (meaning that fishing mortality derived from the escapement strategy should never exceed 1.2) and provided the 2014 advice on that basis. Although ICES advice is provided for a different period to the period for which the TAC is set, the advice appears to be followed as far as is feasible under such circumstances (see section D1). Additionally, the 2014 ICES advice states that SSB has been above B_{pa} since 2005, and recruitment in 2013 was estimated to be one of the highest in the time series.</p> <p>CFP-wide conservation objectives</p> <p>The core principles on which the CFP currently rests are clearly stated in the legal text commonly known as the ‘Basic Regulation’. Since its adoption in 2002, Council Regulation (EC) No 2371/2002 on the conservation and sustainable exploitation of fisheries resources under the Common Fisheries Policy has provided the main legal basis for all subsequent fisheries legislation at EU level.</p> <p>According to this text, agreed by the Fisheries Ministers of the 15 nations who were then members of the EU, the aim of the CFP is to promote:</p> <ul style="list-style-type: none"> • Sustainable fisheries and aquaculture in a • Healthy marine environment which can support an 		M

- Economically viable industry providing employment and opportunities for coastal communities.

Fishing effort limitations, catch limits, and technical measures are all employed to ensure the long-term sustainability of European fish stocks.

ICES strategic goals

The ICES Strategic Plan sets out 6 goals relating to its over-arching mission statement. These goals include: (1) Science; Plan and implement a programme of science in partnership with member countries to deliver the needs of customers and stakeholders, and (3) Advice; Plan and implement a programme to deliver the advice decision makers need in partnership with Member Countries and Client Commissions. Thus the research conducted and advice provided by ICES to the EC is aimed at achieving the aims of the CFP.

R1 – R3, R7

B. STOCK ASSESSMENT PROCEDURES AND MANAGEMENT ADVICE

LEVEL OF COMPLIANCE

B1. Research in support of fisheries conservation and management should exist.

LOW	Research to support the conservation and management of the stock, non-target species and physical environment does not exist
MEDIUM	Research to support the conservation and the management of the stock, non-target species and physical environment exists, however research programmes could be significantly improved to decrease scientific advice uncertainty.
HIGH	Research to support the conservation and the management of the stock, non-target species and physical environment exist, and existent research is considered most adequate for the long term conservation of the target, non-target and physical environment

Determination: Both fishery-dependent and –independent data are collected to inform the management of the North Sea sprat fishery. Although ICES notes several areas in which data collection could be improved, on balance the assessment team considers a high compliance rating appropriate for the fishery.

H

Fishery-dependent data

Historical landings data are available for the fishery, but due to large and un-measured bycatches of juvenile North Sea herring in the industrial sprat fisheries prior to 1996, ICES only considers sprat landings data reliable from 1996 onwards. Commercial catches are also sampled for biological parameters by some nations; in the most recent years Denmark, Norway and Scotland have sampled their sprat catches. The sampling intensity for biological samples, i.e., age and weight-at-age is mainly performed following the EU regulation 1639/2001, requiring one sample per 2,000t.

No catch per unit effort (CPUE) data is available for the stock.

Fishery-independent data

Three surveys cover this stock. Two International Bottom Trawl Surveys (IBTS) cover the stock in the first and third quarters of the year, respectively. Additionally, the herring acoustic survey (HERAS) covers the same area during June-July.

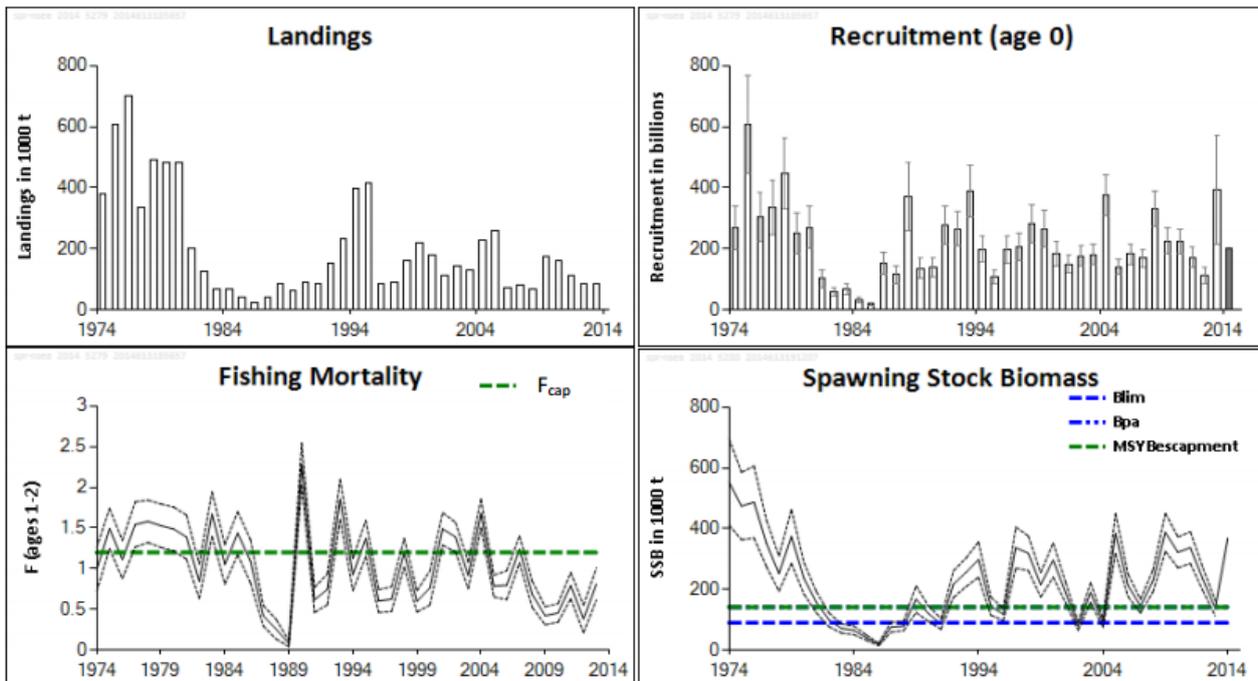
IBTS: The appropriateness of the IBTS survey for use as an estimate of the abundance of North Sea sprat was examined by ICES in 2009. The assessment concluded that that the IBTS survey, as it exists, may not be appropriate for use with sprat in the North Sea, but also that further investigation, including the addition of further data points and comparison with results from other species (e.g. herring), are required before firm conclusions can be drawn. The assessment cited the highly schooling nature of sprat as a particular

Global Trust Certification Ltd, 3rd Floor, Block 3, Quayside Business Park, Mill Street, Dundalk, Co. Louth, Ireland Tel: 042 932 0912 Fax 042 938 6864

Form No: 9	Report Ref:	Page 10 of 21	CCM Code:
------------	-------------	---------------	-----------

problem for the methodology, and recommended further work be carried out.

HERAS: The appropriateness of the herring acoustic survey has also been considered by ICES. The assessment concluded that the survey shows potential as an estimate of the abundance of sprat in the North Sea. However, the current time series is considered too short for use, and further data points are required before its potential can be fully assessed. Furthermore, problems regarding the acoustic identification of sprat and herring, and the southern boundary of the stock may severely limit the applicability of this survey.



Sprat in the North Sea. Summary of stock assessment (weights in thousand tonnes). NB: Years on the x-axes refer to the model years (i.e. 2009 corresponds to the period from July 2009 to June 2010). Predicted values are shaded. From the ICES advice, June 2014 (R3).

R1 – R3

LEVEL OF COMPLIANCE

<i>B2. Best scientific evidence available should be taken into account when designing conservation and management measures.</i>	
LOW	Scientific advice is not taken into account when designing conservation and management measures.
MEDIUM	Scientific advice is taken into account, when designing conservation and management measures. However some areas of discrepancy are identified that could have a significant impact in the long term conservation of the marine environment.
HIGH	Scientific advice is taken into account, when designing conservation and management measures, in a comprehensively manner.

Determination: ICES research and advice, specifically that produced by the Herring Assessment Working Group (HAWG), is the primary source of scientific information for developing North Sea sprat conservation and management measures. The organisations supporting the CFP are structured to ensure the inclusion of best available scientific evidence in the decision-making process.

The European Commission receives scientific advice on EU fisheries from its Scientific, Technical and Economic Committee for Fisheries (STECF). STECF is composed of independent scientists and experts representing a broad range of opinion, and is systematically consulted before any proposals are drafted. On biological issues, STECF depends to a great extent on advice from ICES for the North-East Atlantic, North

Sea and Baltic Sea. The advice provided by ICES includes the stock assessments and deeper analysis on which the Commission bases both its annual recommendations for setting TACs and quotas, and more long-term proposals on how fisheries in European waters can be managed sustainably. Increasingly ICES also provides a great deal of integrated advice at ecosystem level, in support of the shift towards a more holistic approach to managing Europe’s seas.

STECF plays a leading role in helping the Commission to formulate policies ranging from long-term plans to emergency closures, by providing an authoritative and highly targeted scientific opinion which goes well beyond the purely biological dimension and can be made available at short notice. It also provides extensive economic and social advice, not only on the impact of policy proposals, but also as a support for better management (for instance, on the impact of discarding), or on fleet dynamics and economic performance. STECF is therefore the key organisation ensuring that all the Commission’s proposals are based on sound scientific data and sound reasoning.

Specific technical measures in place in the North Sea sprat fishery include gear restrictions, prescribed fishing seasons, a ‘sprat box’ within which sprat fishing is not permitted at any time of year (with the intended purpose of protecting juvenile and spawning herring), and bycatch limits, both on the amount of sprat which can be landed in other fisheries and the amount of herring which can be landed in the sprat fishery.

R1 – R3

C. THE PRECAUTIONARY APPROACH

LEVEL OF COMPLIANCE

C1. The precautionary approach is applied in the formulation of management plans.

LOW	The precautionary approach is not applied in the formulation of management plans.
MEDIUM	The precautionary approach is applied, however not all uncertainties are taken into account.
HIGH	The precautionary approach is applied, taking into account uncertainties relating to the dynamic of fish population (recruitment, mortality, growth and fecundity), and the impact of the fishing activities, such as discards and by-catch of non-target species as well as on the physical environment (Habitats).

Determination: The precautionary approach is encoded into the CFP and the methodology by which ICES provides advice, which together form the basis for the management of the stock. Additionally, there is evidence that while the stock was data-deficient, ICES employed a precautionary approach to provide advice. Finally, a recent review of the ICES management approach for the stock led to a change in methodology specifically to ensure the recommendations adhere to the precautionary approach.

H

The CFP is committed not only to sustainability and to applying the precautionary principle to fisheries management, but also to an ‘ecosystem-based approach’. This is laid down in the Basic Regulation, and echoes international commitments under the Convention on Biological Diversity (CBD) and the Johannesburg Declaration of the 2002 World Summit on Sustainable Development. Under these international agreements, the EU shares with many other nations the objective of pursuing an ecosystem-based approach not only in European waters, but worldwide. The approach the EU follows in putting this into practice was outlined in a Communication from the Commission published in April 2008.

Between 2008 and 2013, ICES was unable to provide an analytical assessment of the North Sea sprat stock due to insufficient data, and the fishery was considered data deficient. During this period the ICES advice reflected the way in which ICES aims to support the CFP commitment to the precautionary approach. In 2013 the TAC recommendation was based on an escapement strategy. However, at the end of 2013 ICES

determined this to not adhere to the precautionary approach, and immediately implemented an additional restriction on fishing mortality for the 2014 advice.

The reference points defined for the stock include biomass target and limit reference points based on the precautionary approach. B_{pa} is 142,000t, which is the equal to $MSY B_{escapement}$. The additional constraint on fishing mortality is set at 1.2 – i.e. the maximum fishing mortality resulting from the ICES advice should be 1.2. MSY-based and precautionary-approach-based fishing mortality target reference points are not defined for the stock.

R1 – R3

D. MANAGEMENT MEASURES

LEVEL OF COMPLIANCE

D1. The level of fishing permitted should be set according to management advice given by research organisations.

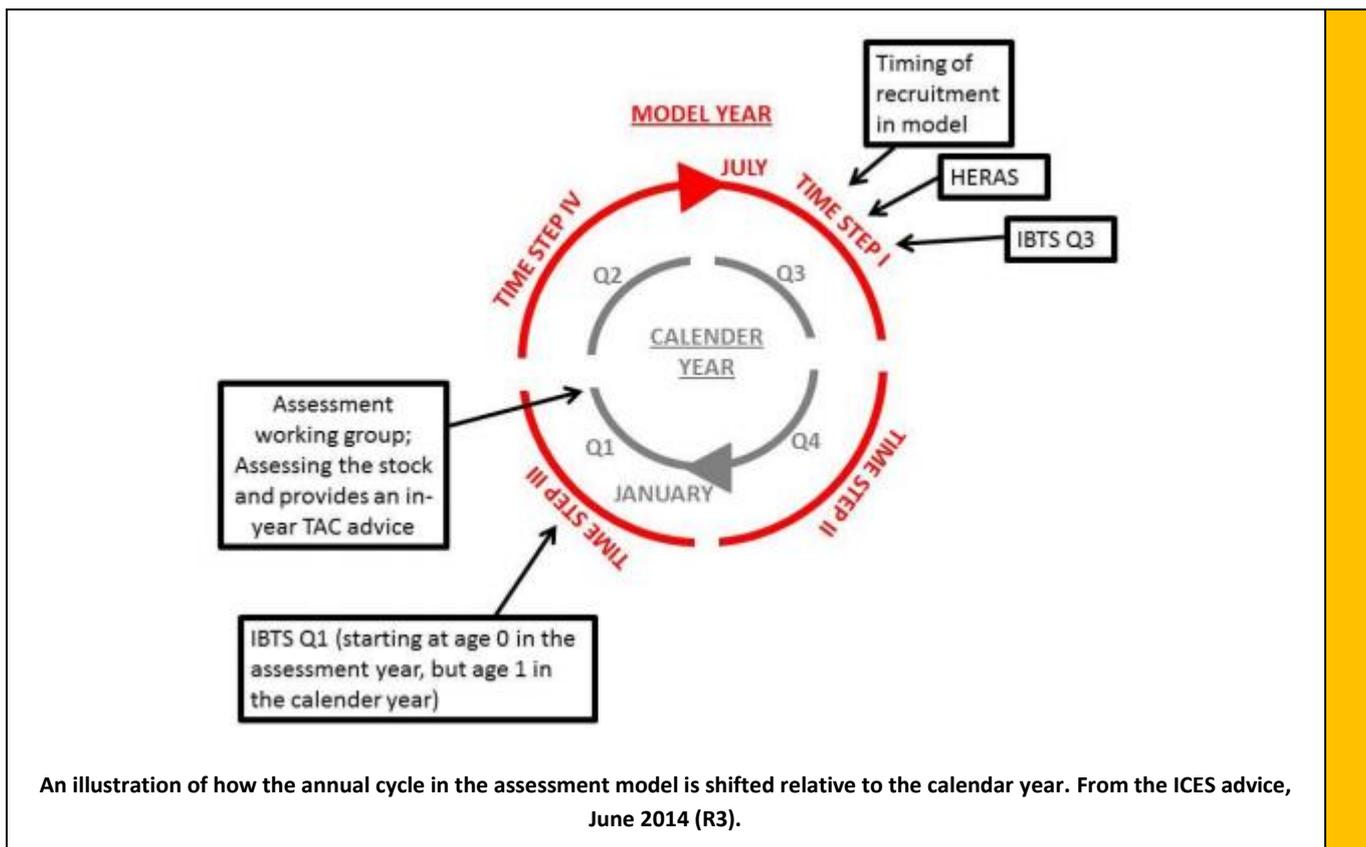
LOW	The level of fishing permitted is not set according to management advice given by research organisations.
MEDIUM	The level of fishing permitted is higher than management advice given by research organisations. However, the difference is not considered to have a significant impact of the sustainability of the stock
HIGH	The level of fishing permitted is set according to management advice given by research organisations.

Determination: The level of fishing has been set broadly in line with management advice, although there are some discrepancies arising from the different accounting periods. Until the level of fishing is more absolutely reflective of scientific advice, the assessment team considers a medium compliance rating appropriate.

The ICES quota advice is provided for the period July-June, whereas the North Sea sprat TAC is set against the calendar year. ICES has advised that the TAC year and advice year should be synchronised to ensure that exploitation is consistent with stock status. As such, any comparison of the ICES advice with actual TACs, as listed in the table below, must be interpreted with the discrepancy in mind. Additionally, fishery managers recognise that in recent years, the total annual catch of North Sea sprat has been limited by restrictions on the permitted level of herring bycatch, which is also subject to a TAC. Thus although a direct comparison of advice and TAC in 2013 suggests that the quota was set 20,000t higher than advised, in reality the TAC was set at a time when the ICES advice stated “No increase in catches (2011)”. As can be seen, in combination with the herring bycatch quota, the 2013 TAC of 162,000t did indeed lead to final landings lower than in 2011. Similarly, the 2014 TAC is substantially lower than the ICES advice because it was set at a time when only the 2013 advice was available.

As stated by ICES, the advice and TAC periods should be reconciled to ensure sustainable exploitation in future; however, based on the information available, the assessment team concludes that the level of fishing permitted is set in line with the management advice to the extent that the difference in periods permits.





Global Trust Certification Ltd, 3 rd Floor, Block 3, Quayside Business Park, Mill Street, Dundalk, Co. Louth, Ireland Tel: 042 932 0912 Fax 042 938 6864			
Form No: 9	Report Ref:	Page 14 of 21	CCM Code:

This report shall not be reproduced in full or in part without the permission of Global Trust Certification Ltd.

Year	ICES Advice	Predicted catch corresp. to advice	Agreed TAC ¹	Official catches	ICES landings
1987	Catch at lowest practical level	0	57	78	32
1988	TAC < recent catches, preferably zero	0	57	93	87
1989	No advice	-	59	50	63
1990	No advice	-	59	49	73
1991	No advice	-	55	92	112
1992	No advice	-	55	72	124
1993	No advice	-	114	127	200
1994	No advice for sprat; maintain bycatch regulations	-	114	184	320
1995	No advice	-	175	190	357
1996	No advice	-	200	141	136
1997	Enforce by-catch regulations	-	150	123	103
1998	Limited by restrictions on juvenile herring	-	150	175	163
1999	Limited by restrictions on juvenile herring	-	225	167	188
2000	Limited by restrictions on juvenile herring	-	225	208	196
2001	Catch prediction	225	225	180	170
2002	Catch prediction	160	232	167	144
2003	Catch prediction	175	257	201	177
2004	Catch prediction	171	257	208	194
2005	Catch prediction	244	257	242	206
2006	Catch predictions	< 250	175	135	114
2007	Catch prediction	< 195	175	99	84
2008	Catch prediction	< 170	170	75	61
2009	No advice	-	170	140	133
2010	No advice	-	170	155	143
2011	Reduce catches	-	170	143	134
2012	Reduce catches	-	162	95	86
In year	No increase in catches (2011)	< 134			
2013*	MSY approach (catches)	< 144	162	70.6	66
2014*	MSY approach (wanted catch)	< 227	123		

Weights in thousand tonnes.

¹ TACs are set for January–December whereas the advice since 2013 has been given for July (of the TAC year) to June of the next year.

* Advice for 1 July to 30 June.

Sprat in Subarea IV (North Sea), ICES advice, management, catch, and landings. From the ICES advice, June 2014 (R3).

R1 – R3

LEVEL OF COMPLIANCE

D2. Where excess fishing capacity exist, mechanisms should be in established to reduced capacity to allow for the recovery of the stock to sustainable levels.

LOW	Mechanisms to allow for recovery of the stock to sustainable levels are not established.
MEDIUM	Mechanisms to allow for recovery of the stock to sustainable levels are somehow established. However there is no evidence of the efficiency of the methods used.
HIGH	Mechanisms are established to reduce capacity to allow for the recovery of the stock to sustainable levels and there are evidences of recovery.

Determination: Annual quotas limit the total amount of fishing effort applied to the stock each year, and in addition the EU has a well-established mechanism for restricting and reducing capacity across all fisheries. The official TAC has not been exceeded, or even met, in any year since 1998, and there is no evidence to suggest that there is currently excess fishing capacity in this fishery.

H

Global Trust Certification Ltd, 3rd Floor, Block 3, Quayside Business Park, Mill Street, Dundalk, Co. Louth, Ireland Tel: 042 932 0912 Fax 042 938 6864

Form No: 9	Report Ref:	Page 15 of 21	CCM Code:
------------	-------------	---------------	-----------

This report shall not be reproduced in full or in part without the permission of Global Trust Certification Ltd.

The entry-exit regime, which applies to the majority of EU Member State vessels, is one of the main pillars of the European-wide fishing capacity management system. The entry-exit regime applies separately to the capacity measured in terms of tonnage and power. Any entry of capacity into the fleet of a Member State has to be compensated by the previous exit of at least the same amount of capacity. As a general rule, the capacity of the national fleets cannot increase with respect to its levels on 1 January 2003, for 'EU 15' Member States and on the accession date for Member States which acceded to the Community after 2003. The second pillar of the fishing capacity management system is the rule that capacity leaving the fleet with public aid cannot be replaced. Such capacity, expressed both in tonnage and power, is subtracted directly from the maximum fleet capacity of each Member State. Capacity reductions supported with public aid are therefore permanent.

In 2007 a new quota regulation for the Danish vessels was implemented and realized from 2008 onwards. The regulation gives quotas to the vessel, but these can be traded or sold. A large number of small vessels have been taken out of the fishery and their quotas sold to larger vessels. Today the Danish fleet is therefore dominated by large vessels.

The table in section D1 shows quotas and landings in the fishery since 1987. Landings have been less than the maximum permitted by quota in every year since 1998; this is most likely because of limits on herring bycatch imposed from 1996 onwards. There is no evidence that there is currently excess fishing capacity in this fishery.

R3, R5

LEVEL OF COMPLIANCE

D3. Management measures should ensure that fishing gear and fishing practices do not have a significant impact on non-target species and the physical environment.

LOW	There are no management measures to prevent the impact of the fishing methods and fishing practices on non-target species and the physical environment.
MEDIUM	There are management measures to prevent the impact of the fishing methods and fishing practices on non-target species and the physical environment. However it is not science based.
HIGH	There are management measures to prevent the impact of the fishing methods and fishing practices on non-target species and the physical environment. Measures are based on scientific information.

As a low-trophic-level species, sprat plays an important role in the North Sea ecosystem. Additionally, the similarity between sprat and juvenile herring behaviour and habitat has historically led to substantial herring bycatch in the sprat fishery. ICES assessments are implicitly affected by the scientific understanding of the ecosystem importance of the species, and efforts have been made to reduce herring bycatch; indeed, the annual landings for the fishery are more often restricted by the herring bycatch quota than by the sprat quota. However, the assessment team does not consider that the non-target species impacts of the fishery are sufficiently negated by management measures to justify a high compliance rating. The adoption of an ecosystem-based management approach and further efforts to reduce herring bycatch could improve this rating. Additional information is also required on the potential impacts of this fishery on PET species.

M

Direct impacts – non-target species

Herring bycatch is historically a major issue for this fishery. To reduce this bycatch, an area closed to the sprat fishery (the “sprat box”) was established off the western coast of Denmark in October 1984. It was estimated that about 90% of the by-catches of juvenile herring in the industrial fisheries was taken within

this box, and the intention of the sprat box was thus to reduce this juvenile herring by-catch.

Despite the establishment of this sprat box, the juvenile herring bycatches increased in the early 1990's, partly because of larger incoming year classes having a wider distribution. It was concluded that there was no clear connection between the sprat box and the decrease in herring by-catches in the period 1984-1996. The sprat box is still in operation.

After 1996, the bycatch mortality of juvenile herring was reduced. This coincided with the introduction of a by-catch limit on herring in the industrial fisheries and improvements in the catch sampling. A combined herring bycatch quota is set for ICES areas IIa, IV and VIId. Fishery documentation implies that when the herring bycatch quota is reached the North Sea sprat fishery is closed for the remainder of the season; on-site visits will confirm this to be the case.

The by-catches in the Danish industrial small-meshed trawl fishery for sprat (1998-2009) have been estimated from samples of the commercial catches. The major bycatches are herring (4.2-11.1% by weight), horse mackerel (0.0-1.6%), whiting (0.2-1.5%), haddock (0.0-0.1%), mackerel (0.2-2.2%), cod (<0.0%), sandeel (0.0-10.0%) and other (0.3-2.4%). Although these catches are relatively small by weight, due to the nature of the fishery they are often juveniles, and therefore can represent a significant number of individuals. There exists no information about the by-catches of the other fleets.

Direct impacts – PET species

Information on the frequency of occurrence of endangered species bycatch in the North Sea sprat fishery was not available to the assessment team. Several studies have reported the interaction of dolphins with midwater/pelagic trawl fisheries in the NE Atlantic, and a European Commission study group considered monitoring for cetacean by-catch to be a priority issue in other pelagic fisheries. The information on the overall impact of this fishery on PET species is still insufficient, although marine mammals and seabirds in EU waters are currently protected by a set of directives, conventions (e.g. Bern Convention and the Habitats Directive) and multilateral agreements between countries

Direct impacts – physical environment

Pelagic trawl gear is not considered by ICES to have a significant effect on the physical environment.

Indirect (ecosystem) impacts

Many predators in the North Sea feed extensively on sprat, including predatory fish, marine mammals and seabirds. Its role in the ecosystem has been evaluated in stomach sampling programs conducted in 1981 and 1991. Predation was strongest from whiting and mackerel. Predation from cod on sprat have been suggested to have increased since the last sampling campaign in 1991 as sandeel and Norway pout stocks have decreased.

Sprat can be very important for breeding seabirds in southern areas of the North Sea. Estimates from 1985 have shown that the total seabird consumption in the North Sea could be on the same level as the fisheries. In winter, when sandeel are not available to most seabirds (because they are buried in the sand), many of the seabirds that overwinter in the North Sea take sprat as part of their diet. However, it is uncertain whether sprat abundance in the North Sea will affect seabird breeding success or overwinter survival.

Global Trust Certification Ltd, 3 rd Floor, Block 3, Quayside Business Park, Mill Street, Dundalk, Co. Louth, Ireland Tel: 042 932 0912 Fax 042 938 6864			
Form No: 9	Report Ref:	Page 17 of 21	CCM Code:

Minke whales were found to predate mostly on sandeels, but sprat were the second most common species identified in the stomachs. Sprat was also found to be less important in the diets of harbour porpoise or bottlenose dolphin. Finally, a similar picture emerges for both grey and common seals. However, the majority of the seal and cetacean diet work has been conducted in the north western North Sea, where sprat are found in relatively low abundance. The picture is likely to be different in other areas where sprat is more abundant.

Attempts have previously been made to include sprat in the Multi-Species Virtual Population Analysis (MSVPA) in the North Sea; as no single species assessment on North Sea sprat has been performed, sprat was not included explicitly in the MSVPA. Sprat was therefore treated in the recent model as ‘other food’, and is thus included in the model indirectly as a prey organism. Unfortunately this method does not allow for an estimate on the predation mortality on sprat. Historically, MSVPA runs have included sprat by which it was found that the predation mortality on the species exceeds the fishing mortality.

R1 – R3

E. IMPLEMENTATION

LEVEL OF COMPLIANCE

E1. There should be a framework for sanctions of violation of Laws and regulations.

LOW	A framework for sanctions of violation of Laws and regulations do not efficiently exist.
MEDIUM	A framework for sanctions of violation of Laws and regulations do exist but do not work efficiently.
HIGH	A framework for sanctions of violation of Laws and regulations exists and is proven to be efficient.

Determination: There are effective frameworks for sanctions of violations of laws and regulations at both the Danish and European levels.

H

To ensure that fishing rules are applied in the same way in all member countries, and to harmonise the way infringements are sanctioned, the EU has established a list of serious infringements of the rules of the common fisheries policy. EU countries must include in their legislation effective, proportionate and dissuasive sanctions, and ensure that the rules are respected.

As from 1 January 2012, EU countries should have introduced a point system for serious infringements. Under the scheme, national authorities will:

- assess alleged infringements involving vessels registered under its flag, using standard EU definitions
- impose a pre-set number of penalty points on vessels involved in serious infringements (points are recorded in the national registry of fisheries offences)
- suspend the vessel’s licence for 2, 4, 8 or 12 months when a pre-set number of points have been accumulated in a 3-year period.

Points are attributed to the fishing licence that is linked to a vessel, so they will stay with the vessel even when it is sold on to a new owner. Monitoring the number of cases detected and the nature and the level of the sanctions imposed is a key part of the Commission's task of ensuring a level playing field for all EU fishers. 2008 Council Regulation (EC) No 1005/2008 established a Community system to prevent, deter and eliminate illegal, unreported and unregulated fishing. Through EU Fishery Policy and Regulations, Member States must apply effective, proportionate and dissuasive sanctions against natural or legal persons engaged in IUU activities. A maximum sanction of at least five times the value of the fishery products

obtained is provided for with regard to the committing of the said infringement.

In the event of a repeated infringement within a five-year period, the Member States shall impose a maximum sanction of at least eight times the value of the fishery products obtained by committing the serious infringement.

Infringements of CFP rules are dealt with by the Member State concerned, and the Danish Directorate of Fisheries is the competent authority with responsibility of enforcement of sanctions and penalties with respect to the prosecution of fishery rules.

R10 – R13

LEVEL OF COMPLIANCE	
<i>E2. A management system for fisheries control and enforcement should be established.</i>	
LOW	A management system for fisheries control and enforcement is not established.
MEDIUM	A management system for fisheries control and enforcement is established but do not work efficiently.
HIGH	A management system for fisheries control and enforcement is established and work efficiently.

Determination: Fisheries control and enforcement is supported by control systems at the European and Danish levels, and is implemented in port and at sea by the Danish Directorate of Fisheries. Site visits will ascertain the extent to which these systems are effective in this fishery.

H

Fisheries rules and control systems are agreed on at EU level, but implemented by the member states through their national authorities and inspectors.

Control systems

To ensure that the rules of the CFP are followed in practice, the policy also includes a control system with the necessary tools to enforce them. This system is designed to:

- ensure that only the allowed quantities of fish are caught
- collect the necessary data for managing fishing opportunities
- clarify the roles of EU countries and the Commission
- ensure the rules are applied to all fishers in the same way, with harmonised sanctions across the EU
- ensure that fisheries products can be traced back and checked throughout the supply chain, from net to plate

The system is laid down in the Control Regulation, available at reference 23, which entered into force on 1 January 2010 and which thoroughly modernised the EU's approach to fisheries control.

Implementation

The Danish Directorate of Fisheries, part of the Ministry of Food, Agriculture and Fisheries, was established in its present form in 1995 and is the competent authority with responsibility of enforcement of the CFP and fishery management measures in Danish waters. The Directorate examines vessels at sea and in port, and considers both fishery management requirements (such as gear restrictions and quotas) and hygiene requirements. This is achieved by examining papers, licenses and logbooks, a physical inspection of fishing gear (mesh size, sorting panels and the like), and catch composition.

The Danish fishing control system applies EU access regulations in combination with regulations of the total

Global Trust Certification Ltd, 3rd Floor, Block 3, Quayside Business Park, Mill Street, Dundalk, Co. Louth, Ireland Tel: 042 932 0912 Fax 042 938 6864

Form No: 9	Report Ref:	Page 19 of 21	CCM Code:
------------	-------------	---------------	-----------

fleet capacity measured by tonnage and engine power. Vessels must be registered and authorised through individual licensing. Legal instruments are brought into force through Ministerial Orders and largely reflect EU Regulations within the CFP framework.

R10 – R13

7. KEY STAKEHOLDERS

8. REFERENCES

R1 – ICES HAWG report 2014, Sprat in the North Sea:

<http://www.ices.dk/sites/pub/Publication%20Reports/Expert%20Group%20Report/acom/2014/HAWG/10%20HAWG%20Report%20-%20Sec%2008%20Sprat%20in%20the%20North%20Sea.pdf>

R2 – ICES HAWG report 2014, Stock annex: Sprat in the North Sea:

<http://www.ices.dk/sites/pub/Publication%20Reports/Expert%20Group%20Report/acom/2014/HAWG/25%20HAWG%20Report%20-%20Annex%2009%20Stock%20Annex%20-%20Sprat%20in%20the%20North%20Sea.pdf>

R3 – ICES advice, Sprat in the North Sea, June 2014:

<http://www.ices.dk/sites/pub/Publication%20Reports/Advice/2014/2014/spr-nsea.pdf>

R4 – European Parliament Directorate-General for Internal Policies, Policy Department B, “Fisheries in Denmark”, September 2013:

[http://www.europarl.europa.eu/RegData/etudes/etudes/JOIN/2013/513972/IPOL-PECH_ET\(2013\)513972_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/etudes/JOIN/2013/513972/IPOL-PECH_ET(2013)513972_EN.pdf)

R5 – EU Common Fisheries Policy overview: http://ec.europa.eu/fisheries/cfp/index_en.htm

R6 – EU Common Fisheries Policy reform: http://ec.europa.eu/fisheries/reform/index_en.htm

R7 – ICES, “Who we are”: <http://www.ices.dk/explore-us/who-we-are/Pages/Who-we-are.aspx>

R8 – DTU Aqua, “Mission, vision and tasks”: http://www.aqua.dtu.dk/english/About/Mission_vision

R9 – Maps of ICES statistical and fishery management areas, FAO website:

<http://www.fao.org/fishery/area/Area27/en#NB04F5>

R10 – CFP control and enforcement overview: http://ec.europa.eu/fisheries/cfp/control/index_en.htm

R11 – Danish Directorate of Fisheries, Control: <http://naturerhverv.fvm.dk/kontrol.aspx?ID=16792>

R12 – CFP Infringements and Sanctions:

http://ec.europa.eu/fisheries/cfp/control/infringements_sanctions/index_en.htm

R13 – CFP Control Regulation: [http://eur-](http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:343:0001:0050:EN:PDF)

[lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:343:0001:0050:EN:PDF](http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:343:0001:0050:EN:PDF)

R14 – North Sea Sprat FIP: <https://www.sustainablefish.org/fisheries-improvement/small-pelagics/north-sea-sprat>

R15 - Sustainable Fisheries Partnership North Sea sprat white paper, March 2011:

[http://sfpcms.sustainablefish.org.s3.amazonaws.com/2011/08/15/SFP%20Whitepaper%20North%20Sea%20Sprat%20March%202011%20\(1\)-1a087d53.pdf](http://sfpcms.sustainablefish.org.s3.amazonaws.com/2011/08/15/SFP%20Whitepaper%20North%20Sea%20Sprat%20March%202011%20(1)-1a087d53.pdf)

Global Trust Certification Ltd, 3rd Floor, Block 3, Quayside Business Park, Mill Street, Dundalk, Co. Louth, Ireland Tel: 042 932 0912 Fax 042 938 6864

Form No: 9	Report Ref:	Page 21 of 21	CCM Code:
------------	-------------	---------------	-----------

This report shall not be reproduced in full or in part without the permission of Global Trust Certification Ltd.