



MSC FISHERY SURVEILLANCE REPORT

Third Surveillance audit

Report for

Norges Sildesalgslag
&
Norway Seafood Council

Norway North-East Atlantic Mackerel
Pelagic-Trawl, Purse-Seine and Handline
Fishery

REPORT NO. 2012-007

REVISION NO. 01 – 21.11.2012



MSC FISHERY SURVEILLANCE REPORT

DET NORSKE VERITAS AS

DNV Business Assurance
Veritasveien 1,
1322 HØVIK, Norway
Tel: +47 67 57 99 00
Fax: +47 67 57 99 11
http://www.dnvba.com

Date of first issue: 31.07.2012	Project No.: 41921181
DET NORSKE VERITAS	Organisational unit: DNV Business Assurance Unit. Norway
Client: Norges Sildesalgslag	Client ref.: Knut Torgnes

Project Name: Report for the 3rd Surveillance audit of Norway North-East Atlantic mackerel Fishery.

Certificate no.: DNV-NOR-MSC-F-61407-2009

Certificate date: 17 September 2009

Valid until: 29 April 2014

The objective of this project has been the third surveillance audit of the Norway North-East Atlantic mackerel Fishery caught by purse-seine, pelagic trawl and hand line.

Report No.: 2012-0007	Date of this revision: 21.11.2012	Rev. No. 01	Key words:
Report title: MSC Fishery 3 rd Surveillance Audit report for Norway North-East Atlantic mackerel Fishery.			
Work carried out by: Sandhya Chaudhury, DNV Lead auditor Stephen Lockwood, Independent expert			<input checked="" type="checkbox"/> No distribution without permission from the Client or responsible organisational unit
Work verified by: Anna Kiseleva			<input type="checkbox"/> Limited distribution



MSC FISHERY SURVEILLANCE REPORT

ABBREVIATIONS

ACOM	Advisory Committee
B _{lim}	Limit Biomass
B _{msy}	Maximum Sustainable Yield Biomass
B _{pa}	Precautionary Biomass
CFP	Common Fisheries Policy
CR	Council Regulation
CRISP	Centre for Research-based Innovation in Sustainable fish capture and Pre-processing technology, at IMR, Norway
DNV	Det Norske Veritas
DoF	Directorate of Fisheries, Norway
EC	European Communities
EFF	Export Fisheries Council, Norway
eNGO	Environmental non-governmental organisation
ETP	Endangered, threatened and protected species
EU	European Union
F	Fishing mortality
F _{MSY}	Fishing mortality rate consistent with maintaining B _{MSY}
FAM	Fisheries Assessment Methodology
FD	Fisheries Directorate
ICES	International Council for the Exploration of the Sea
IMR	Institute of Marine Research, Norway
ITQ	Individual Transferable Quota
MCS	Monitoring, Control and Surveillance
MFCA	Ministry of Fisheries and Coastal Affairs
MSC	Marine Stewardship Council
NGO	Non-Governmental Organisation
NINA	Norwegian Institute for Nature Research
NSC	Norwegian Seafood Council
NSS	Norges Sildesalgslaget



MSC FISHERY SURVEILLANCE REPORT

PI	Performance Indicator
RAC	Regional Advisory Council
SG	Scoring guidepost
SSB	Spawning Stock Biomass
SSB _{MSY}	Spawning stock biomass supporting maximum sustainable yield
TAC	Total Allowable Catch
VMS	Vessel Monitoring System
WWF	World Wildlife Fund



MSC FISHERY SURVEILLANCE REPORT

TABLE OF CONTENTS

ABBREVIATIONS 3

1 GENERAL INFORMATION 6

1.1 Name and contact information for the certified fishery: 6

1.2 Norges Sildesalgslag 7

1.3 Norwegian Seafood Council 7

NSC is a public company owned by the Ministry of Fisheries and Coastal Affairs and financed by the Norwegian Seafood industry through fees levied on all exports of Norwegian Seafood. 7

2 THE ASSESSMENT PROCESS 8

2.1 Previous Assessments. 8

3 RESULTS, CONCLUSIONS AND RECOMMENDATIONS 10

3.1 Summary of the North-East Atlantic Mackerel Fishery 10

3.2 Stock Development and Fishery Management 11

3.3 Conditions and Recommendations set for the Norway North East Atlantic Mackerel Fishery 13

3.4 Audit of the North-East Atlantic Mackerel Fishery 14

3.5 ANY CONSEQUENTIAL RESCORING OF PERFORMANCE INDICATORS 22

4 CONCLUSIONS 23

5 CATCH DATA 23

5.1 TAC established for the NEA Mackerel fishery (tones) 23

5.2 Norway’s mackerel quota (tones) 23

5.3 Norges Sildesalgslag’s share of the total TAC (tones) 23

5.4 Total green weight catch taken by client (tones) 23

6 INFORMATION SOURCES 24

APPENDIX 1: LIST OF VESSELS IN COASTAL GROUP ENGAGED IN NEA MACKEREL FISHERY IN 2011 27

APPENDIX 2: LIST OF VESSELS IN PURSE SEINER GROUP ENGAGED IN NEA MACKEREL FISHERY IN 2011 39

APPENDIX 3: LIST OF VESSELS IN TRAWL GROUP ENGAGED IN NEA MACKEREL FISHERY IN 2011 42



MSC FISHERY SURVEILLANCE REPORT

1 GENERAL INFORMATION

This report contains the findings of the second surveillance audit for the Norway north-east Atlantic mackerel fishery by purse seine, pelagic trawl and handline. The client for this certification is Norges Sildesalgslag and the surveillance audits are being co-ordinated by Norwegian Seafood Export Council (EFF).

The purpose of this annual Surveillance Report is:

1. To establish and report on any material changes to the circumstances and practices affecting the original certified assessment of the fishery;
2. To monitor the progress made to comply with any Conditions raised and described in the Public Report of 30th April 2009¹ and in the corresponding Action Plan drawn up by the client;
3. To monitor any actions taken in response to any recommendations made in the Public Report;
4. To re-score any Performance Indicators (PI) where practice or circumstances have materially changed during the intervening year, focusing on those PIs that form the basis of Conditions raised.

1.1 Name and contact information for the certified fishery:

Client name **Norges Sildesalgslag**
Contact person Knut Torgnes
Address Slottsgaten 3,
 5020 Bergen, Norway
Telephone + 47 55 54 95 00
Email sildelaget@sildelaget.no

Coordinator name **Norges Sjømatråd (Norwegian Seafood Council)**
Contact person Ingrid Dahl Skarstein (NSC)
Address Strandveien 106
 Postboks 6176
 9291 Tromsø, Norway
Telephone + 47 77 60 33 33
Fax + 47 77 68 00 12
Email postmottak@seafood.no

¹ <http://www.msc.org/track-a-fishery/certified/north-east-atlantic/NE-Atlantic-mackerel-pelagic-trawl-purse-seine-handline/assessment-downloads-1/30-04-2009-Norwegian-NEA-Mackerel-Public.pdf>



MSC FISHERY SURVEILLANCE REPORT

1.2 Norges Sildesalgslag

Norges Sildesalgslag (Norwegian Fishermen’s Sales organization for pelagic species) is a sales organization for whole Norwegian fleet for pelagic fisheries and the client for certification of Norwegian spring-spawning herring fishery.

Norges Sildesalgslaget is one of Europe’s most important marketplaces for first-sale of pelagic fish caught and landed by a fleet of 800–1000 vessels comprising both Norwegian and non-Norwegian registered vessels. The marketplace is owned by Norwegian fishermen and operated by Norges Sildesalgslag. Catches are sold by electronic auction open to bids both from Norwegian and foreign buyers. Catch data (species, quantity, time, place) are reported instantly by catching vessels to Norges Sildesalgslag which immediately forwards this information to governmental bodies, providing high quality input for resource management and control purposes.

Norges Sildesalgslag represents its members in all consultations and negotiations concerning management of the fishery and provides members with up-to-date information whenever there is a change in regulations. The organization is active in a number of reference groups and takes every opportunity to contribute to further development in the relevant science, assessment and management of pelagic stocks, not least with respect to gathering and providing high-quality data. In this context, Norges Sildesalgslag works effectively with the Ministry of Fisheries and Coastal Affairs (MFCA), the Directorate of Fisheries (DoF) and the Institute of Marine Research (IMR). In particular, Norges Sildesalgslag tries to influence the government to grant more resources for stock assessments since this is crucial to the setting of quotas, and promotes the message that sustainability and accuracy is in everyone’s immediate and long-term interest, including that of the fishing industry.

1.3 Norwegian Seafood Council

NSC is a public company owned by the Ministry of Fisheries and Coastal Affairs and financed by the Norwegian Seafood industry through fees levied on all exports of Norwegian Seafood.

Each year, NSC implements around 500 marketing projects in 25 different countries all aimed at increasing demand for and consumption of Norwegian Seafood. In this context they coordinate the process of MSC Fisheries certification for the following fisheries:

- North East Arctic Cod
- North East Arctic Haddock
- **North East Atlantic mackerel;**
- North Sea and Skagerrak Herring;
- Norwegian Spring Spawning Herring
- North East Arctic Saithe
- North Sea Saithe
- North East Arctic Cold Water Prawn

NSC, in this respect represents the whole Norwegian fleet.



MSC FISHERY SURVEILLANCE REPORT

2 THE ASSESSMENT PROCESS

2.1 Previous Assessments.

2.1.1 Summary of the original assessment

The assessment process for the original certification, first annual audit and this surveillance audit followed the protocols set out in the MSC Fisheries Certification Methodology. The default assessment tree, according to the Fisheries Assessment Methodology (FAM) version 1, was used for this certification and audit.

The Norges Sildesalgslag announced its intention to gain MSC certification for its Norway NE Atlantic mackerel purse-seine, pelagic-trawl and handline fisheries in January 2008; a certificate of compliance was awarded April 2009. The original assessment was made by Moody Marine Ltd. January 2008–April 2009. Sixty-two stakeholders were identified and consulted during the assessment process.

The fishery attained a score of 80 or more against each of the MSC Principles and did not score less than 60 against any of the individual MSC Criteria. Four conditions were set at the initial certification covering all specified gears: pelagic trawl, purse seine and handline. Scope of certification is up to the point of landing and chain of custody commences from point of sale.

2.1.2 The first surveillance audit in 2010

The first surveillance audit was announced on the MSC website April 2010 followed with a supporting notice to stakeholders issued by the MSC. Direct email notification was also sent to the stakeholders that had previously been identified for this fishery, inviting interested parties to contact the audit team. The audit team carried out a site visit and consulted the clients (Norges Sildesalgslag, NSC), DoF, IMR and MFCA May 2010. Notice of a successful audit and continuation of the certification was announced on the MSC website 17 September 2010.

2.1.3 The second surveillance audit in 2011

The second surveillance audit was announced on the MSC website March 2011 followed with a supporting notice to stakeholders issued by the MSC. Direct email notification was also sent to the stakeholders that had previously been identified for this fishery, inviting interested parties to contact the audit team. The audit team carried out a site visit and consulted the client, DoF, IMR and MFCA May 2011. Notice of a successful audit and continuation of the certification was announced on the MSC website 28 June 2011.

2.1.4 The third surveillance audit in 2012

The third surveillance audit was announced on the MSC website on 31st May 2012 followed with a supporting notice to stakeholders issued by the MSC on the same date. Direct email notification was also sent to the stakeholders that had previously been identified for this fishery, inviting interested parties to contact the audit team. The audit team carried out a site visit and consulted the clients (Norges Sildesalgslag, NSC), DoF, IMR and MFCA between 18th and 21st June 2012.

The inability of all states targeting North East Atlantic Mackerel to agree on quota allocations within the TAC compromises the management system such that the MSC standard is not fully



MSC FISHERY SURVEILLANCE REPORT

met. The certifications of the North East Atlantic mackerel remains suspended. Any relevant progress made against the condition as a result of the MINSA corrective action plan should be communicated to the relevant CAB representatives as soon as they are confirmed. This will allow the respective CABs to keep up to date with progress against the corrective actions proposed in order to maximize the effectiveness of the ultimate verification of conditions met and corrective actions implemented. The outcome will be evidenced by the sum of the catch allocations to all relevant fishing nations being equal to or less than the agreed TAC, and the TAC being in line with the harvest control rule, and scientific advice.

Suspension of affected fishery certificates will not be lifted until each respective CAB has verified by expedited audit that all stated goals of the corrective action plan have been fully met and the harmonized condition of certification addressed in full.



MSC FISHERY SURVEILLANCE REPORT

3 RESULTS, CONCLUSIONS AND RECOMMENDATIONS

3.1 Summary of the North-East Atlantic Mackerel Fishery

During the course of the year, the NE Atlantic mackerel stock is widely distributed and can be found from Morocco in the south to the North Cape of Norway. Spawning occurs to some extent throughout most of this distribution but the major centres of spawning are the Bay of Biscay, Celtic Sea, west of the British Isles and North Sea. During the 1940s and ‘50s there were major overwintering aggregations along the edge of the continental shelf in the northern North Sea and NW of Scotland. From the late ‘60s to the early 1980s the overwintering aggregations were mostly concentrated in the Celtic Sea area, notably off the SW of England. Since the late 1980s there has been a reversion to the overwintering pattern of the 1950s.

In late winter the mackerel begin migrating from overwintering areas towards the major spawning grounds with peak egg production in May–June in the Biscay–west of Scotland area and June–July in the North Sea. The dominant spawning ground is that in the Celtic Sea area; after spawning, most of these Western stock fish migrate northwards, along the edge of the continental shelf towards feeding grounds that stretch from the west of Scotland to northern Norway. In earlier decades, this northward spring and return migration in autumn stayed close to the European continental shelf and remained largely in EU–Norway waters, where most of the fishing activity took place. Over the past decade there has been a gradual westward expansion of this summer distribution so that mackerel are more abundant than hitherto in waters between the Faroe Islands, Iceland and Norway.

The major fisheries are with pelagic trawl and purse seine in late summer and autumn in the Norwegian Sea, northern North Sea and west of Scotland. This is the time of year that the Norwegian fleet takes the bulk of its mackerel catch in both Norwegian and northern EU waters. There is also a coastal, small-boat hook-and-line (trolling) fishery. The annual quotas taken by Norway and EU vessels have been set by an internationally agreed (EU–Faroe–Norway) management plan. Despite the Faroe Islands government being an original signatory to the plan, for the past three seasons it has taken significant quantities of mackerel in excess of its agreed management-plan quota. Additionally, as mackerel did not previously enter Icelandic waters, Iceland was not a signatory to the management plan. In recent years, however, as mackerel have been available in Icelandic waters, Icelandic vessels have taken annual catches > 100 kt, a quantity of fish in excess of the internationally agreed TAC (ACOMmack, 2011).²

The shift in the mackerel distribution means that it overlaps with that of the Norwegian spring-spawning herring distribution in the summer. This increases the risk of mixed catches in both the herring and mackerel fishery. However, this risk is minimised by the fish tending to occupy different depth strata (ACOMmack, 2010) and the combination of skippers’ expertise with their electronic aides and real-time exchange of catch information between skippers.

² ACOMmack, 2011. Ecoregion Widely Distributed and Migratory Stocks: Mackerel in the North-east Atlantic (combined Southern, Western, and North Sea spawning components). ICES Advice Book 9.4.2.
<http://www.ices.dk/committe/acom/comwork/report/2011/2011/mac-nea.pdf>



MSC FISHERY SURVEILLANCE REPORT

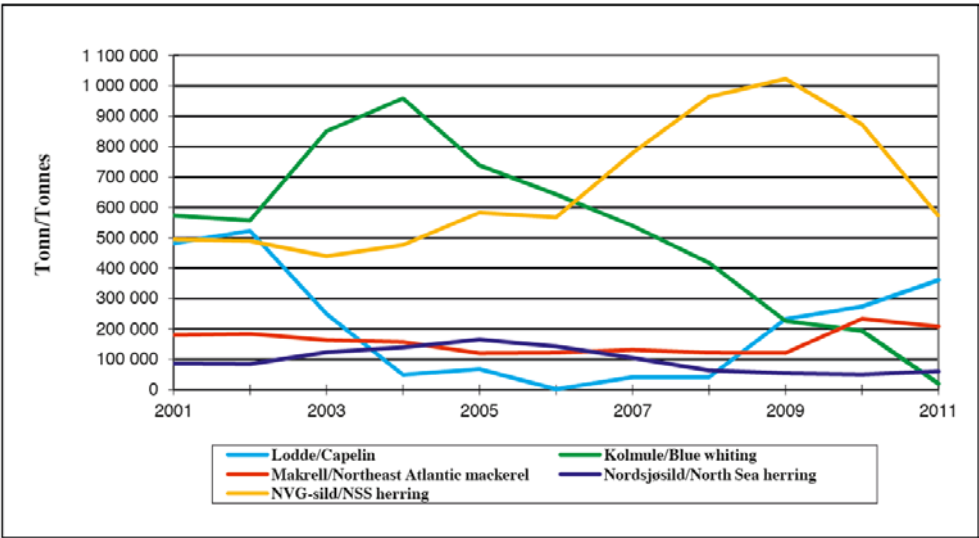


Figure 3.1a Norwegian catch (tonnes) of NE Atlantic mackerel compare to other pelagic catches. Year 2001– 2011³.

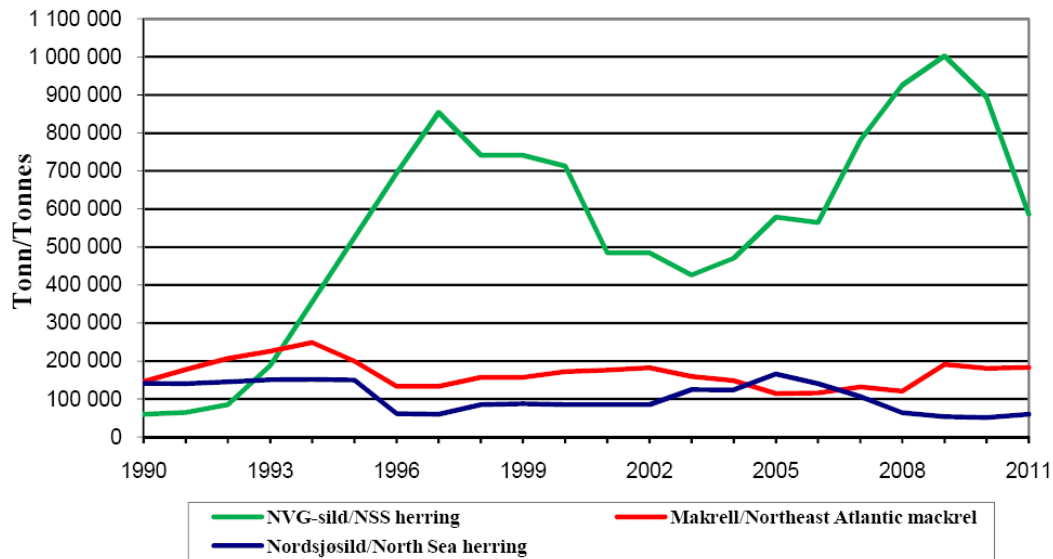


Figure 3.1.b Norwegian quota for main pelagic species. Year 1990 – 2011³

All fish caught by any vessel, Norwegian, EU or third country, in Norwegian waters must be retained and full details recorded in the vessel’s logbook to be counted against the vessel’s quota for the species. In EU waters no vessel (Norwegian, EU or third country) may retain any fish (mackerel or other species) for which they have the quota right to retain but fish excess to the vessel’s quota must be discarded.

3.2 Stock Development and Fishery Management

ICES (ACOM_{mack}, 2011) currently uses the term mackerel in the north-east Atlantic to define the mackerel present in the area extending from west of Iberia (ICES Division

³ Norwegian Directorate on Fisheries. Statistic Publications.
<http://www.fiskeridir.no/fiskeridir/statistikk/fiskeri/noekkeltall>



MSC FISHERY SURVEILLANCE REPORT

IXa to the Norwegian Sea (Div IIa), including mackerel in the North Sea (Subarea IV) and Skagerrak (Div IIIa). Catches cannot be allocated specifically on biological grounds but Southern and Western spawning stock components are separated according to the areas in which they are taken. To keep track of the development of spawning biomass in the different spawning areas, mackerel in the north-east Atlantic stock are divided into three area components: the Western spawning component, the North Sea spawning component, and the Southern spawning component (ACOM_{mack}, 2011):

Mackerel in the north-east Atlantic			
Distributed and fished in ICES Subareas and Divisions IIa, IIIa, IV, V, VI, VII, VIII, and IXa			
Spawning component	Western	Southern	North Sea
Main spawning areas	VI, VII, VIIIa, b, d, e	VIIIc, IXa	IV, IIIa

The Western component is defined as mackerel spawning in the western area (ICES Divisions and Subareas VI, VII, and VIII a,b,d,e). This component currently accounts for 78% the entire north-east Atlantic stock (ACOM_{mack}, 2011). Similarly, the Southern component is defined as mackerel spawning in the southern area (ICES Divisions VIIIc and IXa); currently this accounts for c. 20% of the entire north-east Atlantic stock (ACOM_{mack}, 2011). Although the North Sea component has been at an extremely low level since the early 1970s, ICES considers that the North Sea component still exists as a discrete unit. This component spawns in the North Sea and Skagerrak (ICES Subarea IV and Division IIIa N).

The stock is subject to an analytical, age-based annual assessment calibrated against fishery-independent triennial egg-survey indices. ICES formulates advice with respect to MSY-based reference points, which is consistent with MSC policy. This advice also follows the terms of the previously agreed management plan, a plan which ICES has endorsed as being consistent with the precautionary approach to fishery management (ACOM_{mack}, 2010), but the advice fully recognises that the plan is not currently functional due to the extra-plan catches made by Faroe and Iceland.

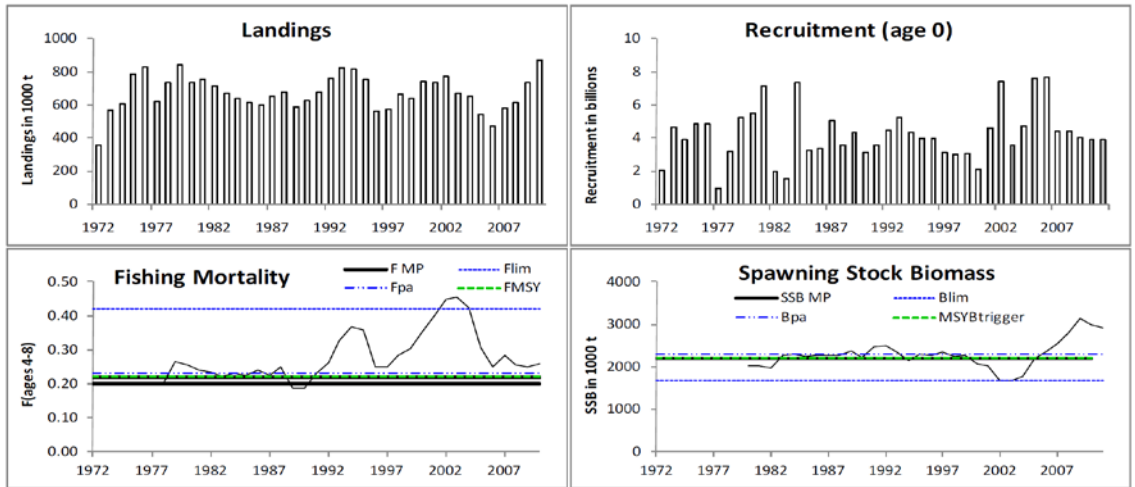


Figure 3.2 Summary of north-east Atlantic mackerel stock assessment (weights in kt). The most recent estimates of recruitment (grey bars) are the geometric mean of recruitment estimates 1972 – 2007.



MSC FISHERY SURVEILLANCE REPORT

ICES estimated the fishing mortality in 2010 to be $F = 0.26$; i.e. above both F_{msy} and F_{pa} . Fishing mortality was high during the early 2000s, then declined strongly and has been at a relatively stable level since 2006, despite the extra-management plan catches of Iceland and Faroe. SSB increased steadily from Blim in 2002 to c. 3 Mt and currently remains well above both B_{pa} and MSY Btrigger. The 2005 and 2006 year classes are the highest on record and the 2007 and 2008 year classes are about average (Figure 3.2). Currently, recruitment for 2009–10 is assumed to be equivalent to the geometric mean of estimates for 1972–2007 (ACOMmack, 2011).

There is relatively little by-catch of non-target species in the mackerel fishery but historically there has probably been an underestimate of total catches due to discarding, slipped catches and misreporting. If the catches have been consistently under represented in the assessment, then the implication is that the biomass in the assessment is an underestimate of the true stock biomass. Despite potential inaccuracies, the assessment is consistent over time, and is considered to give a robust estimate of the trend and magnitude of fishing mortality and the trend in SSB. Periodic adjustments to the F and SSB estimates can be expected given that independent egg survey results are only available every third year (ACOMmack, 2011).

Catches since 2007 have been considerably in excess of the ICES advice and this situation is expected to continue in 2011. The absence of effective international agreements on the exploitation of the stock (between all nations involved in the fishery) prevents control of the exploitation rate with inevitable implications for attaining and maintaining stock levels consistent with MSY . Thus, although ICES explicitly records that the stock is currently above the MSY and management plan level that requires specific remedial action and continues to retain full reproductive potential, the international fishery is exceeding levels of F consistent with MSY and the management plan.

3.3 Conditions and Recommendations set for the Norway North East Atlantic Mackerel Fishery

Four conditions were set at the initial certification covering specified gears: pelagic trawl, handline and purse seine. The conditions set relate to the following issues:

- 1 **Slipped catches – all gears:**
Slipped catches and subsequent mortality may be higher than currently considered by the industry.
- 2 **Record discards/slippage of mackerel in other pelagic fisheries – all gears:**
There may be slipping (and probable subsequent mortality) of mackerel in other pelagic fisheries.
- 3 **Development and implementation of appropriate stock rebuilding or sustainable harvest strategy – all gears:** Proposals have been advanced by ICES (WKHMP, 2008)⁴ for a move to an F -based management regime and

⁴ WKHMP, 2008. Report of the Workshop on Herring Management Plans (WKHMP). ICES CM 2008 (ACOM:27). <http://www.ices.dk/reports/ACOM/2008/WKHMP/WKHMP08.pdf>



MSC FISHERY SURVEILLANCE REPORT

management plan which would be precautionary under the current stock recruitment regime. These, or other appropriate precautionary proposals, should be adopted.

- 4 **By-catch – all gears:** Sampling programmes should be initiated to provide statistically robust estimates of the by-catch of all species, including estimates of discards.

No recommendations were set at the initial certification.

3.4 Audit of the North-East Atlantic Mackerel Fishery

3.4.1 Condition 1: Slipped catches and subsequent mortality may be higher than currently considered by the industry.

PI 1.1.2.1: Are all major sources of fishery related mortality recorded/ estimated, including landings, discards and incidental mortality?

PI 3B.6.1: (all gears including handlines) Do fishery operatives assist in the collection of catch, discard and other relevant data?

Action required: Slipped catches and subsequent mortality may be higher than currently considered by the industry. The practice must be actively discouraged throughout both the trawl fleet (where subsequent mortality is 100%) and the purse seine fleet (where post-slipping mortality is likely to be high). Slipped catches should be kept to as near zero as possible although it is recognized that this may be difficult to achieve for operational and safety reasons. Vessels must record all slipping events with their best estimates of the species mix, quantity released and condition of the school on release. Reporting programmes should be initiated to provide comprehensive and verifiable estimates of the extent of this form of discarding of the target species and the by-catches of other species. Information should be sufficient to allow statistically robust estimates of quantity, location and date and to allow an assessment of the effects of slipping in relation to the distribution, ecology and abundance of the populations affected,

The client should seek to cooperate with scientists in the investigation of slipped catch mortality by active support of research programmes and observer coverage.

Timescale: Reporting program protocols should be designed and initiated within 1 year (2010) of certification.

Within 2 years (2011) of certification the client should provide evidence of proactive support of research and observer monitoring of slippage.

An initial evaluation of any potential impacts completed within 3 years (2012) of certification.

Where mitigation measures are required to reduce or avoid impacts, these should be fully implemented within 5 years (2014) of certification.



MSC FISHERY SURVEILLANCE REPORT

Action Plan: During the first year of application of this certificate, NSS, on behalf of its participating vessel owners and skippers, will:

- 1 enter into discussions with Directorate of Fisheries (DOF) staff and Institute of Marine Research (IMR) staff with a view to drawing up and agreeing any necessary reporting formats for the recording of information on the nature and incidence of the slipping of catches;
- 2 within two years of certification, NSS will provide evidence of proactive support of research and observer monitoring of slippage;
- 3 within three years, NSS will provide an initial evaluation of any potential impacts of the actions taken.

Observations: Other than the ship is in imminent danger, discarding of any fish by Norwegian-registered fishing vessels fishing anywhere, and by non-Norwegian vessels fishing in Norwegian waters, is illegal. The total quantity of all fish landed is recorded by species and the quantities set against individual vessel and national quotas. Any mixed catches landed for human consumption are separated by species in processing plants; mixed catches landed for meal and oil are separated on the basis of the IMR biological sampling programme.

The Coastguard maintains a close presence with the pelagic fishing fleet throughout the season through on-board inspection, visual observation from sea and surveillance aircraft over-flights. IMR maintain a presence on up to two coastal and five reference vessels in the pelagic fleet (all members of the client fleet), primarily for the purposes of biological sampling but also recording losses through gear damage or slipping and the presence of marine mammals (Anon. 2010;⁵ Bowering *et al.*, 2011).⁶ These data are raised to estimate total losses across the fleet. Both the DoF and IMR information indicate that the frequency of slipping and the total quantities of fish slipped are low and, although the quantity remains unknown (but see below), it is too small to have a significant effect on the reliability of the annual assessment or undermine the management regime. The IMR has agreed with the Norwegian Institute for Nature Research (NINA) that IMR observers will add seabirds to their list of by-catch species to be recorded. This will improve the quality of information that is available but no organisation (ICES, NINA, Norwegian NGOs) has raised any specific concerns with respect to retained, by-catch or ETP species in this fishery. Hitherto, no birds, marine mammals or ETP species have been recorded other than in the coastal reference fleet in the pelagic fleet reference-vessel catches (Bowering *et al.*, 2011).

During the first year of certification, NSS wrote to the Directorate of Fisheries asking that records of slipped catches be included in the e-logbooks. The Directorate has taken a policy decision not to do this but to put its weight behind elimination of the problem in preference to recording when it occurs. To this end, all (EU and Norwegian) purse seiners must now mark the purse headline with a buoy at a ‘point of no return’ that is specific to each net and at a position stipulated by DoF in consultation with IMR. During hauling, skippers visually and electronically monitor the catch to ascertain if it is the correct species, size and quantity they require. If they wish, they can slip the catch up to the point of the marker buoy, and it is assumed that the majority of the slipped fish

⁵ Anon. (2010). The Norwegian Reference Fleet – a trustful cooperation between fishermen and scientists. *Focus on Marine Research* 1-2010. Institute of Marine Research, Bergen. Available at <http://www.imr.no/filarkiv/2011/10/referencefleet.web.2010.pdf/en>
⁶ Bowering, R., Storr-Paulsen, M., Tingley, G., Bjørkan, M., Vølstad, H. H., Gullestad, P. & Lorentsen, E. (2011). *Evaluation of the Norwegian Reference Fleet*. Institute of Marine Research, Bergen. Available at http://www.imr.no/filarkiv/2011/11/hi-rapp_16-2011_norsk.pdf_1/en



MSC FISHERY SURVEILLANCE REPORT

will survive. Once the marker buoy is hauled aboard, it becomes illegal to slip the catch irrespective of the catch composition. While this is primarily a system based on trust, the marker buoys are readily seen from some distance by both the Coastguard surveillance vessels and aircraft which are able to focus attention on vessels seen to be hauling. Research into the optimum position for the marker buoy (and improved target identification) is ongoing (see below) but DoF is satisfied that it is a practical and effective method for managing this aspect of the fishery and minimising slipping and its associated mortalities (DoF, pers. comm.).

DoF and IMR confirm that NSS vessels cooperate fully with data collection, not least by embarking observers when requested and through the CRISP initiative. The Centre for Research-based Innovation in Sustainable fish capture and Pre-processing technology (CRISP) was established in 2011 as a multi-agency and industry-funded unit within IMR.⁷ The Norwegian Research Council has guaranteed 8 years of core funding and NSS has committed 500 000 NOK to CRISP 2011–2016. The CRISP programme includes *inter alia* the development and assessment of the purse-seine marker-buoy project and aspects of improved acoustic-target recognition to minimise the risk of excess capture or species misidentification.

The DoF is committed to the CRISP programme as the means to eliminating slipping and discarding from the pelagic fisheries; therefore, it is not inclined to implement a mandatory discard–slipped-catch recording system. Until such times as results from CRISP demonstrate that its objectives have been met successfully, **it is recommended** that NSS introduce their own discard–slipped-catch recording system scheme.

Conclusions:

Action 1: The client has provided documentary evidence requesting the Directorate of Fisheries to expand the electronic logbook recording system to include records of slipped catches. The DoF is not inclined to act on this request as it prefers to seek solutions to the problem (through CRISP) rather than just record it.

Action 2: In consultation with IMR and DoF, and underpinned by new fishery regulations, all client purse seines are fitted with a ‘point-of-no-return’ marker buoy as an aide to minimising slipping-related mortalities.

IMR embarks observers on a reference fleet comprising up to seven of the client’s vessels; observers undertake biological sampling and gather detailed information on catches, including slipped catches and non-commercial species. The IMR– NINA joint monitoring programme will enhance bycatch records by including seabirds.

Action 3: The DoF is satisfied that the vessels covered by this certification are fully compliant with the management of this fishery and IMR is equally satisfied with the support they receive with respect to research and development (CRISP). The data collected from NSS vessels, including the reference-fleet vessels contribute to the ICES stock assessment, which has found that, “evidence from observer programmes suggest that discarding [including slipping] of herring is not wide-spread and bycatch of sea mammals is low”. On the basis of this assessment, ICES has not identified any specific additional action is necessary with respect to discarding (or slipping). From this, it can be inferred that the requirement of action point 3 has been met.

⁷ http://www.imr.no/filarkiv/2010/08/hi_nytt_11_web.pdf/en



MSC FISHERY SURVEILLANCE REPORT

3.4.2 Condition 2: Record discards and slipped catches of mackerel in other pelagic fisheries – all gears. There may be slipping (and probable subsequent mortality) of mackerel in other pelagic fisheries, notably the herring directed fisheries.

PI 1.1.2.4 Is the target species taken in other fisheries in the area that are not subject to this certification, and are such catches recorded or estimated?

PI 1.1.5.6 How reliable has the stock assessment been historically using retrospective analysis?

Action required: It was noted that there may be slipping (and probably subsequent mortality) of mackerel in other pelagic fisheries, notably the herring fisheries. Provisions under Condition 1 should be extended to other Norwegian pelagic fisheries over the same timescale.

Timescale: Reporting protocols should be designed and initiated within 1 year (2010) of certification and an initial evaluation of any potential effects completed within 3 years of certification. Where mitigation measures are required to reduce or avoid impacts, these should be fully implemented within 5 years (2014) of certification.

Action Plan: During the first year of application of this certificate, NSS, will enter into discussions with Directorate of Fisheries (DOF) staff and Institute of Marine Research (IMR) staff to:

- 1 draw up and agree any necessary reporting formats for the recording of information on the nature and incidence of discarding and slipping of by-catches of mackerel in other pelagic fisheries, notably the herring fisheries;
- 2 within two years of certification, NSS will provide evidence of proactive support of research and observer monitoring of discarding and slipping of by-catches of mackerel in other pelagic fisheries, notably the herring fishery; within three years, NSS will provide an initial evaluation of any potential impacts of the actions taken.

Observations: As per Observations and Conclusions to Condition 1, above.

3.4.3 Condition 3: Development and implementation of appropriate stock rebuilding or sustainable harvest strategy.

PI 1.1.4.1 Is there a mechanism in place to contain harvest as required?

PI 1.1.6.1 Is the stock(s) at or above reference level for SSB?

PI 1.1.6.2 Is the stock(s) at or above reference level for F?

PI 1.2.1 If the stock is below the precautionary reference points, are measures to rebuild the stock specified?

This condition was revised at the first surveillance audit as a result of the harmonization process between Certification Bodies involved in assessing NE Atlantic mackerel fisheries to address the issue of countries exploiting NEA mackerel having accepted the same TAC, but where the sum of all allocated quota exceeds the agreed TAC.

Action required: Clear, significant progress must be shown in setting catch allocations between all relevant nations and the parties to the NEA mackerel management plan, to enable the conclusion to be drawn that “elements of the harvest strategy work together towards



MSC FISHERY SURVEILLANCE REPORT

achieving management objectives”. Resolution of this problem will also provide evidence that “decision-making processes respond to serious and other important issues in a transparent, timely and adaptive manner”.

This will be evidenced by the sum of the catch allocations to all relevant fishing nations being equal to or less than the agreed TAC, and the TAC being in line with the harvest control rule. This situation must be reached in time for the 2012 NEA mackerel fishing season (i.e. by 31/12/2011), indicating that the decision-making has proven adaptive and timely and that the harvest control rule is being implemented as intended, as part of an overall coherent management strategy. If a transition TAC is agreed in the short term which exceeds the target defined by the management plan, it will be necessary to check that the transition TAC is precautionary as defined by ICES or inferred from projections.

The harvest strategy and fishery decision-making processes will not meet future objectives unless all countries exploiting the shared NEA mackerel stock work together in the implementation of the harvest control rule, and that this be achieved in a timely manner. Decision making processes must be adaptive to new management pressures.

The stock status is currently above the precautionary level, but if current fishing patterns are continued is likely to fall below Bpa in the short-term. Only a short window of opportunity exists for an agreement to be reached before the stock is likely to decline. The short-term predictions suggest that the stock will still be above the SSB precautionary level even if there is a high fishing mortality until 2012. Thereafter, without a strong recruitment, it is likely that the stock will be at significant risk of falling below the precautionary level.

TIMESCALE:

The condition applied from the 1st March 2010, and must be addressed by 31st December 2011 – in time for the 2012 fishing season. Activities planned/performed would be followed up before 3rd surveillance audit and no later than 31st December 2011.

Observations 2011: Nationally, there is ‘a mechanism in place to contain harvest as required’ (PI 1.1.4.1) – the harvest control rule and management plan agreed by EU–Faroe–Norway in 2008. ICES endorsed the plan as being consistent with the precautionary approach; advice is given in line with this plan. From the outset, however, the plan has been thwarted by a change in the summer distribution of mackerel which means that Iceland has been taking significant mackerel catches in Icelandic waters extra to the TAC agreed by the parties to the plan. Subsequently, Faroe also has taken more fish than its plan-based quota. Nevertheless, the stock is currently ‘above reference level for SSB’ (PI 1.1.6.1) and the stock is ‘at or above reference level for F’ (PI 1.1.6.2).

Since the last surveillance audit the NSS has been in negotiations with the Norwegian authorities and Norway has been party to numerous international meetings to try and resolve the impasse affecting the effective implementation of the management plan. At the time of this audit (May 2011) there was continuing deadlock between the stock’s fishing nations with no apparent sign of breakthrough imminent.

On the 12th of April 2011 the Faroese Pelagic Organization (FPO) North East Atlantic mackerel fishery failed to achieve MSC certification after an objection process and according to the Independent Adjudicators decision. This situation presented a requirement for harmonization according to the certification methodology.

The client group for the North East Atlantic Mackerel fishery certifications called for a meeting with the three certification bodies involved in the process on the 14th of April 2011. As a client group the pelagic producer groups represented proposed a detailed justification for consideration to be given to extending this harmonised condition deadline from December 2011 by 12 months. Based on the strength of the current stock situation (P1) of the NE Atlantic mackerel stock and the fact that the current negotiations between the EU, Norway, Iceland and



MSC FISHERY SURVEILLANCE REPORT

Faroes is still technically ongoing and as such should be given the opportunity to run its course but no longer than an additional 12 months. A strong indication was given by the pelagic producers that progress is being made and that an agreement was potentially possibly over coming months.

The conclusion of the above two factors was given jointly by the three certification bodies on the 2nd of June 2011 and was as follows:

“The existing situation surrounding the North East Atlantic Mackerel Fisheries has been documented in recent surveillance audit reports; in summary, the inability of all states targeting North East Atlantic Mackerel to agree on quota allocations within the TAC compromises the management system such that the MSC standard is not fully met.

The facts considered by all affected CBs and assessment teams in respect to this situation, and resulting actions, are as follows:

1. The decision of the Independent Adjudicator (IA) in the case of the Faroese mackerel fishery was that this fishery should not be certified as there was not *"an agreed TAC allocation key for all the coastal states..."*. Normally under MSC TAB Directive 15 v2 (Harmonisation of assessments), this harmonisation directive would require that all certificates for fisheries operating on the same stock would be withdrawn at the next audit. The IA also noted that *"this decision only concerns the fishery in question and does not directly apply to other certified fisheries subject to the same harmonised condition. It has been no part of this process to consider the wider position in relation to those other fisheries..."*.
2. MSC have clarified in this situation that *"MSC is not assuming that the failure of the Faroese fishery will automatically and immediately result in the failure of the other fisheries due to harmonisation"*.
3. In this circumstance, the CBs affected have agreed that the existing harmonised condition would continue to apply until the currently agreed date (31/12/11).
4. If the existing Harmonised Condition is not resolved within the specified timeframe (i.e. by 31/12/11), then each CB concerned will necessarily notify all clients concerned of a harmonised intention to initiate suspension of certificates related to this fishery within 90 days (by 30/3/12).
5. If the issue is not resolved within this time, then all certificates will be suspended for a further period of 90 days (until 29 June 2012). If the issue is not resolved at this time, then all certificates will be withdrawn.

The effect of this is that mackerel caught before 30 March 2012 (with relevant CoC to confirm date of capture) can still be marketed as MSC-certified. Mackerel caught while a certificate is suspended cannot be marketed as MSC-certified, but lifting of the suspension would mean immediate reinstatement of the certificates. If certificates are withdrawn (at 29 June 2012) then fisheries would need to be recertified to allow resumption of use of the MSC ecolabel on NEA mackerel.”

Observations 2012: The existing harmonized condition, brought into force to address the inability of all states targeting North East Atlantic Mackerel to agree on quota allocations within the TAC, has not been closed and thus all MSC North East Atlantic Mackerel fishery certificates are suspended until further notice.

Mackerel caught before the 30th of March 2012 can be marketed as MSC-certified, subject to CAB confirmation that the fishery client can clearly segregate fish based on date of capture.



MSC FISHERY SURVEILLANCE REPORT

Beyond this, no claims of MSC certification may be made from this date until the suspension is lifted.

Mackerel Industry Northern Sustainability Alliance (MINSAs), which is a collaboration of:

- 1. SPSG Western Mackerel, Scotland and N Ireland;
- 2. NE Atlantic Mackerel, Norway;
- 3. PFA Mackerel, Netherlands, Germany, France, England;
- 4. DPPO NEA Mackerel, Denmark;
- 5. IPSG Western mackerel, Ireland; IPSA Western mackerel, Ireland;
- 6. SPPO NEA mackerel, Sweden

presented a corrective action plan in May 2012. The plan is based on five elements: lobbying, science, industry liaison, trade-related measures and media interaction and is valid from 30 April 2012 until 20 January 2014. The earliest expiry date for an existing certificate is 21 January 2014.

The relevant CABs (DNV, IMM and FCI) have together reviewed the Corrective Action Plan put forward by MINSAs in response to the harmonized condition of certification. The CABs consider that the proposed Corrective Action Plan represents a significant commitment by MINSAs to achieve the required outcome through the main mechanisms available to them.

On 26th June 2012 a harmonized letter was sent to the fishery clients stating that while the MINSAs Action Plan has been accepted by the relevant CABs, the withdrawal of the current suspension is ultimately dependent upon achievement of the outcome specified by the harmonized condition. This outcome will be evidenced by the sum of the catch allocations to all relevant fishing nations being equal to or less than the agreed TAC, and the TAC being in line with the harvest control rule, and scientific advice.

Conclusions of the surveillance assessment team: Although the stock is not yet giving cause for immediate concern and a need for stock rebuilding measures, it is clear that there is no effective management of the international fishery at present and the terms of this condition are not being met.

The relevant CABs have requested that any relevant progress made against the conditions as a result of the MINSAs corrective action plan should be communicated to the relevant CAB representatives as soon as they are confirmed. This will allow the respective CABs to keep up to date with progress against the corrective actions proposed in order to maximize the effectiveness of the ultimate verification of conditions met and corrective actions implemented. Suspension of affected fishery certificates will not be lifted until each respective CAB has verified by expedited audit that all stated goals of the corrective action plan have been fully met and the harmonized condition of certification addressed in full.

3.4.4 Condition 4: By-catch sampling programmes should be initiated to provide statistically robust estimates of the by-catch of all species, including estimates of discards.

Purse seine & pelagic trawl

- PI 2.1.2.2:** Is information available on the extent of discard and slippage (the proportion of the catch not landed)?
- PI 2.2.1.2:** Are interactions of the fishery with such species adequately determined?

All gears including handlines



MSC FISHERY SURVEILLANCE REPORT

- PI 3A.3.4:** Do procedures include for a precautionary approach in the absence of sufficient information?
- PI 3B.1.1:** Do measures, principally through the use of gear and other fishing practices, include avoidance of impacts on non-target species and inadvertent impacts upon target species? These would include by-catch, discard, slippage and high grading.
- PI 3B.6.1:** Do fishery operatives assist in the collection of catch, discard and other relevant data?

Action required: Sampling programmes should be initiated that provide statistically robust estimates of the by-catch of all species, including estimates of discards. Information should be sufficient to allow an assessment of the effects of by-catch in relation to the distribution, ecology and abundance of the species and populations affected (commercial and non-commercial fish, mammals and birds). The potential effect of non-target species removals on the populations affected and the wider ecosystem should be evaluated.

Where assessments of effects of by-catch are shown to be significant, and for all species identified as PET, appropriate measures to reduce by-catch to acceptable and precautionary levels shall be developed and implemented.

Timescale: Sampling programmes should be designed and initiated within 12 months (2010) of certification.

An initial evaluation of any potential effects completed within 2 years (2012) of certification.

Where mitigation measures are required to reduce or avoid adverse effects, these should be identified within 3 years (2012) of certification and fully implemented within 5 years (2014) of certification.

Action Plan: By the time of the first surveillance audit, NSS will provide the Certification Body with evidence that it has co-operated with the Norwegian Fishermen’s Association and Directorate of Fisheries to design and initiate regular sampling programmes of NE Atlantic mackerel catches to provide statistically robust estimates of the by-catch of all species.

Within three years, NSS will provide an initial evaluation of the effect of the actions taken.

Observations/Conclusions: As per Observations and Conclusions to Condition 1, above.



MSC FISHERY SURVEILLANCE REPORT

3.5 ANY CONSEQUENTIAL RESCORING OF PERFORMANCE INDICATORS

PI	Condition	Gears	Rescoring
1.1.2.1	1	All	Not rescored
3B.6.1	1	All	Not rescored
1.1.2.4	2	All	Not rescored
1.1.5.6	2	All	Not rescored
1.1.4.1	3	All	Not rescored
1.1.6.1	3	All	Not rescored
1.1.6.2	3	All	Not rescored
1.2.1	3	All	Not rescored
2.1.2.2	4	Purse seine & pelagic trawl	Not rescored
2.2.1.2	4	Purse seine & pelagic trawl	Not rescored
3A.3.4	4	All	Not rescored
3B.1.1	4	All	Not rescored
3B.6.1	4	All	Not rescored



MSC FISHERY SURVEILLANCE REPORT

4 CONCLUSIONS

Norges Sildesalgslag has taken appropriate measures to address the conditions of certification raised during the MSC certification assessment. However, in regards to condition 3, at the time of this audit (June 2012) there was continuing deadlock between the stock’s fishing nations with no apparent sign of breakthrough imminent. Although the mackerel stock is not yet giving cause for immediate concern or in need of stock rebuilding measures, it is clear that there is no effective management of the international fishery at present (see § 3) and **the terms of condition 3 are not being met.**

With respect to other criteria, the fishery remains complaint with its MSC certification and MSC Certification could be reinstated once MSC is satisfied that the international management of the fishery has been normalised and is compliant once more with MSC criteria.

- 1. Conditions where requirements are deemed to have been met on target but which will be reviewed at the next surveillance audit prior to closure.

Condition: 1, 2, 4.

- 2. Conditions which are considered to be on-target and which will be subject to full review in future surveillance audits

Conditions: None.

- 3. Conditions where work is currently falling behind target and which will be subject to full review at the next surveillance audit.

Conditions: 3

5 CATCH DATA

5.1 TAC established for the NEA Mackerel fishery (tones)⁸

2011	-
2012	-

5.2 Norway’s mackerel quota (tones)⁹

2011	183 069
2012	181 085

5.3 Norges Sildesalgslag’s share of the total TAC (tones)

2011	186 560
2012	180 843

5.4 Total green weight catch taken by client (tones)

2011	196 860
------	---------

^{8 8} Coastal States were unable to conclude annual fisheries consultations on mackerel stock in the North East Atlantic and agree on TAC for 2011 and 2012.
^{9 9} Even though mackerel TACs for 2012 and 2011 were not agreed, in accordance with the arrangement on the long-term management of mackerel stock, the Delegations of EU and Norway agreed to recommend catch limits for mackerel in the respective years.



MSC FISHERY SURVEILLANCE REPORT

2012 per 19.06.2012	4 059
---------------------	-------

6 INFORMATION SOURCES

Field Inspections:

Name	Affiliation	Date	Key Issues
Ingrid Skarstein/ NSC Beate Nørvåg/ Fiskebåt Jan Ivar Maråk/ Fiskebåt	Norwegian Seafood Council (Norges Sjømatråd)	18 June 2012	Same as key issues for Norges Sildesalgslag.
Sverre Johansen Marie Bjørland	Ministry of Fisheries and coastal Affairs, Norway	19 June 2012	<ul style="list-style-type: none">- Fisheries Management (Harvest Strategy) and TACs- Changes/additions/deletions to regulations for fisheries under surveillance- Strategy for minimising or eliminating ETP by-catch- Strategy in scientific research. Research programmes for fisheries under surveillance- Strategy and plans for protection of sensitive habitats- Status on negotiations for NEA mackerel
Knut Torgnes Sales Director	Norges Sildesalgslag's representatives	20 June 2012	<ul style="list-style-type: none">- Quotas in 2011, 2012/ Catches in 2011, 2012- Number, type of vessels, points of landing- Disputes with national/ international authorities in 2011/2012. Cases of non-compliance, penalties.- By-catch: registration of by-catches (species compositions, quantities) in 2011, 2012.- By-catch of marine mammals in 2011/2012.- Slipping: accidents of slipping in 2011, 2012.- Changes in fishing patterns .- Conditions from full assessment – status
Aksel R. Eikemo/ Director of Department Thorbjørn Thorvik, Senior Advisor Åse Berge/ Senior Advisor	Norwegian Directorate of Fisheries	21 June 2012	<ul style="list-style-type: none">- Changes in control, surveillance and monitoring routines/regulations in Norway since 2011- Electronic Logbooks: recording of non-commercial species- Significant discrepancies found at landing control for fisheries under surveillance in 2011/2012.- Total TACs, Norwegian TACs and level of catches for fisheries under surveillance in 2011, 2012.- Update on Norwegian fleet (type/number of vessels) targeting species under surveillance.- Changes in fishing patterns.- Level of slipping/discards in fisheries under surveillance- Fishermen's compliance with laws and regulations.- Abandoned fishing gear recovery program.
Asgeir Aglen/ Scientist Cecilie Kvamme/ Scientist Asgeir Aglen/ Scientist Gert Endre Dingsør/ Scientist Tore Jacobsen/ Senior scientist Svein A. Iversen/ Scientist	Institute of Marine Research, Norway	21 June 2012	<ul style="list-style-type: none">- Changes to the scientific base of information in regards to stocks under surveillance- Level of slipping/discards in fisheries under surveillance.- Results from biological sampling programs conducted by IMR in 2011/2012 in regards to fisheries under surveillance. Level of by-catch- Status on reference fleet program and development of all inclusive, gear specific catch recording of all species taken in white fish fisheries. What progress has been made and what are the results.- Extent of North Sea cod catches in the NS saithe fisheries.- Development of rigorous monitoring program for ETP species - Status. Can extent of interactions with ETP species be quantified?- Coral-reef mapping program – status regarding assessment

Report N.	2012-0007	Revision	01 – Date 21.11.2012	Pag 24 of 42
-----------	-----------	----------	----------------------	--------------



MSC FISHERY SURVEILLANCE REPORT

Irene Huse/ scientist			of fishing effort and effects of fishing gear on protected areas.
Aud Vold/ scientist			

Standards and Guidelines used:

- 1. MSC Principles and Criteria for Sustainable Fishing
- 2. MSC Certification Requirements, Version 1.2, 10 January, 2012
- 3. Guidance to MSC Certification Requirements, Version 1.2, 10 January, 2012

Submitted documents:

Agreed Record of conclusions of Fisheries consultations between the European Union and Norway on the management of mackerel in the North-East Atlantic for 2012.

Agreed Record of conclusions of Fisheries consultations between the European Union and Norway on the management of mackerel in the North-East Atlantic for 2011.

ICES, 2009. Mackerel in the Northeast Atlantic (combined Southern, Western, and North Sea spawning components). ICES Advice, Book 9: 9.4.2.
<http://www.ices.dk/products/icesadvice.asp>

ICES, 2010. Mackerel in the Northeast Atlantic (combined Southern, Western, and North Sea spawning components). ICES Advice, Book 9: 9.4.2.
<http://www.ices.dk/products/icesadvice.asp>

ICES, 2011. Mackerel in the Northeast Atlantic (combined Southern, Western, and North Sea spawning components). ICES Advice, Book 9: 9.4.2.
<http://www.ices.dk/products/icesadvice.asp>

Catch and quota overview 2011.

Catch and quota overview 2012.

Electronic log-book for pelagic fisheries – Example.

Institute of Marine Research. Evaluation of the Norwegian Reference Fleet (Final Draft). 30 June 2011.

List of vessels in coastal group engaged in NEA mackerel fishery in 2011.

List of vessels in purse seiner group engaged in NEA mackerel fishery in 2011.

List of vessels in trawl group engaged in NEA mackerel fishery in 2011.

Norges Sildesalgslag. Annual report 2011.

Norges Sildesalgslag. Sample of Sales note. 2012



MSC FISHERY SURVEILLANCE REPORT

Norwegian Directorate of Fisheries. Regulation regarding amendment of regulation on fisheries management of mackrel in 2011.[Forskrift om endring av forskrift om regulering av fisket etter makrell i 2011. Bergen, 06 October 2011.

Norwegian Directorate of Fisheries. Regulation on fisheries management of mackrel in 2012.[Forskrift om regulering av fisket etter makrell i 2012]. Bergen, 20 April 2012.

Norwegian Directorate of Fisheries. National Strategic Risk evaluation. Control of marine resources 2012 – 2013.[Nasjonal strategisk risikovurdering. Ressurskontrollen 2012-2013]. 9 January 2012.

Norwegian Directorate of Fisheries. Regulation regarding amendment of regulation on fisheries practices in the sea.[Forskrift om endring av forskrift om utøvelse av fisket i sjøen]. Bergen, 30 March 2012.

<http://www.fiskeridir.no/fiske-og-fangst/j-meldinger/gjeldende-j-meldinger/j-123-2012>

Norwegian Directorate of Fisheries. Regulation regarding amendment of regulation on position reporting and electronic reporting for Norwegian fishing vessels [Forskrift om endring av forskrift om posisjonsrapportering og elektronisk rapportering for norske fiske- og gangstfartøy]. Bergen, 20 January 2011

<http://www.fiskeridir.no/fiske-og-fangst/j-meldinger/gjeldende-j-meldinger/j-34-2012>

Norwegian Directorate of Fisheries. <http://www.fiskeridir.no/fiske-og-fangst/aktuelt/2012/0112/godt-sildefiske-krev-ekstra-aktsemd>

Norwegian Directorate of Fisheries. Summary notes on “Changes in control, surveillance and monitoring routines/ regulations in Norway since 2011.

Norwegian Directorate of Fisheries. Summary notes on “Significant discrepancies found at landing control for fisheries under surveillance in 2011/2012”.

Overview of NEA mackerel as a target specie with by-catches, 2012.

Overview of NEA mackerel as by-catch species in the main pelagic fisheries, 2012.



MSC FISHERY SURVEILLANCE REPORT

APPENDIX 1: LIST OF VESSELS IN COASTAL GROUP
ENGAGED IN NEA MACKEREL FISHERY IN 2011¹⁰

Number of vessels in the Coast Group: 503

Vessel name	Registration N
Båtnavn	Registermerke
Kjell	ZZ-1160-ZZ
Jostein	ZZ-1130-ZZ
Leiv Harald	ZZ-1133-ZZ
Ove Aagnar	ZZ-1401-ZZ
Cuba	ZZ-1133-ZZ
Tina	VA-0193-F
Zander Boy	H -0065-AV
Klabb	ZZ-1133-ZZ
Lyngnes	H -0002-FS
Fisk	M -0016-VA
Anne Line	H -0017-ØN
Vågagutt	ZZ-1146-ZZ
Mi17	TK-0001-P
Stripen	ZZ-1134-ZZ
Bogen	H -0077-S
Morten	H -0007-R
Romi	H -0005-R
Sotragutt	H -0111-F
Eva Karin	SF-0137-A
Gjelsviken	SF-0029-A
Teige	M -0038-HØ
A-Bas	NT-0301-NR
Rodian	R -0014-SD
Oscar	ZZ-0105-ZZ
Rondholm	H -0182-B
Glompen	ZZ-1134-ZZ
Valhall	SF-0089-F
Miki	H -0067-AV

¹⁰ Reservation: The Norwegian Fishermen’s sales organisation for pelagic fish publishes this information with reservations for any errors or defects in the information caused by technical or human error. If you suspect errors or lack of information, please contact Norges Sildesalgslag.



MSC FISHERY SURVEILLANCE REPORT

Øyvær	ZZ-1438-ZZ
Rask	H -0071-B
Hardhaus	H -0113-B
Grøningen	H -0063-B
Notabåten	H -0147-B
Oddmar	H -0080-FJ
Kvoten	H -0123-B
Ewy K	ZZ-1101-ZZ
Nyvåg	H -0077-B
Aktiv II	H -0045-FS
Svinten	R -0007-ST
Fjordgutt	V -0027-S
Krakk	R -0017-TV
Labrus	R -0004-HM
Randi II	AA-0040-L
Bogagutt	H -0007-S
Gentic	M -0032-HØ
Therese	H -0035-S
Jadar	H -0150-S
Leo	TK-0028-BL
Silden	R -0008-SD
Håkon	A -0001-F
Eik	VA-0029-LD
Ole	H -0007-FS
Pilsenfjord	H -0037-MF
Torøy	H -0129-S
Tressgutt	H -0019-F
Mareis	R -0018-HM
Tor	H -0120-B
Silje	A -0013-F
Nesøy	R -0014-TV
Svano	H -0084-B
Nesvik	ZZ-1133-ZZ
Sæther Junior	SF-0015-N
Tin	H -0306-B
Øyfisk	H -0011-O
Randi	ZZ-0111-ZZ
Tim	H -0077-T
Tekla	R -0186-ES
Normann	R -0001-SD
Sjøsprøyt	R -0075-F
Buster	AA-0084-L
Havella	Ø -0060-H
Vestmøy	R -0002-V
Skagafisk	H -0019-S



MSC FISHERY SURVEILLANCE REPORT

Buster	Ø -0005-H
Ternen	H -0047-SO
Vestbris I	H -0008-AM
Certina	VA-0036-K
Kari	TK-0038-BL
Busen	Ø -0009-R
Lomvi	R -0056-V
Real	SF-0023-H
Gullbas	H -0102-B
Vikholmen	ZZ-1439-ZZ
Øybris	M -0093-HØ
Ringholm	H -0116-AV
Austfjordgut	H -0006-L
Baus	AA-0005-R
Måken	Ø -0003-R
Trio	H -0068-AV
Arita	M -0156-HØ
Anna	Ø -0188-H
Øynes	M -0024-HØ
Ida	M -0011-HØ
Siv	ST-0016-R
Tulla	H -0001-FS
Mini Irene II	V -0015-L
Tærna	A -0005-F
Vindrosa	TK-0063-BL
Ravna	ST-0019-R
Vesterøy	VA-0051-K
Tova	H -0046-B
Lotte	H -0035-O
Fjordgutt	R -0082-TV
Maks	M -0159-HØ
Anglevik	H -0030-B
Notøybuen	M -0119-HØ
Ruggen	Ø -0056-H
Gry Marita	H -0027-B
Nyskjær	R -0070-ES
Fisker`n	Ø -0012-R
Bøtind	M -0084-HØ
Teddy	Ø -0008-F
Njåfisk	H -0025-AV
Mokstein	H -0114-AV
Nyvåg	H -0044-B
Britt Evelyn	H -0001-T
Skårungen	H -0034-S
Sifro	SF-0090-N



MSC FISHERY SURVEILLANCE REPORT

Fromar	M -0071-HØ
Brandy	ST-0080-R
Viva	M -0075-HØ
Dennis	AA-0085-L
Alex	M -0095-HØ
Radin	M -0020-SM
Lamo	R -0018-ST
Forsøk	SF-0035-F
Monica M	AA-0001-L
Flipper	VA-0084-S
Vesleper	V -0026-L
Viktor	H -0022-O
Sørland	VA-0085-S
Dønning 2	VA-0168-M
Ådland Junior	H -0003-FS
Fiskur	SF-0021-S
Skippy	A -0002-F
Jono	R -0131-K
Constance	A -0010-F
Lyn	R -0162-K
Skarten	H -0053-AV
Betzy	VA-0264-K
Siggen	R -0023-TV
Nesbuen	H -0007-L
Faxen	H -0048-B
Sørwaag	H -0023-B
Per Åge	ZZ-1130-ZZ
J.R. Marita	SF-0002-F
Lotta	VA-0051-S
Lindisfarne	SF-0033-S
Måsafinn	R -0011-SD
Diana	Ø -0155-H
Havleik	M -0210-HØ
Kastevik	H -0081-B
Knutebas	H -0036-S
Karo	M -0039-HØ
Stålholm	SF-0062-S
Tempo	H -0019-E
Strandbuen	VA-0148-M
Øytind	M -0049-HØ
Pelikan Syd	H -0003-KM
Sagabris	SF-0230-S
Laffen	M -0006-VN
Øygutt	N -0202-ME
Remi Junior	H -0074-K



MSC FISHERY SURVEILLANCE REPORT

Evitor	H -0050-B
Mostrabuen	H -0181-B
Cako	M -0248-HØ
Øygutt	SF-0007-SU
Øygutt	SF-0007-SU
Brandsøy	ST-0010-R
Vesthav	M -0010-U
Vestfisk	R -0140-K
Geir-Erik	H -0044-O
Seigutt	H -0040-F
Selvik Junior	SF-0308-A
Havglans II	H -0100-AV
Tinus	H -0141-AV
Apollo II	H -0047-AV
Høvdingen	ST-0006-R
Voldsund	M -0088-HØ
Hopholm	R -0040-K
Baracuda	H -0024-ØN
Vessibuen	R -0014-F
Monsegutt	H -0060-AV
Fjordglans	H -0098-O
Petterson	M -0100-SM
Njågutt	H -0017-AV
Sørvik	M -0105-AV
Marielle	M -0114-HØ
Libero	R -0011-H
Susann	VA-0038-FS
Kilværfjord	N -0079-VR
Janvi	VA-0066-K
Sangolt	H -0058-S
Øyestein	R -0054-ES
Valø Senior	NT-0002-V
Alda	SF-0016-F
Kvik 2	H -0016-B
Janson	M -0096-HØ
Martin	M -0051-K
Havøy	R -0044-H
Hovland	R -0096-ES
Lien Junior	H -0012-SR
Odin	M -0030-H
Skagen	ST-0018-R
Solfuglen	VA-0076-M
Morild	AA-0128-L
Langøysund	M -0147-AV
Mot	N -0015-MS



MSC FISHERY SURVEILLANCE REPORT

Leinefisk	M -0025-HØ
Horntind	N -0090-ME
Viknafisk	NT-0180-V
Veni Activ	V -0016-S
Fredøy	M -0007-HØ
Vester Junior	SF-0110-V
Knut Olav	H -0086-B
Rival	H -0133-B
Jim	R -0146-K
Havsula Junior	H -0100-B
Egilson	N -0311-V
Malin	M -0001-VS
Brott	N -0085-B
Sjøsprøyt	VA-0005-LS
Hovden	H -0008-F
Krolei	R -0003-TV
Høvik	ST-0070-O
Norbris	M -0218-HØ
Hosøybuen	H -0055-L
Marianne	N -0079-VV
Sigjo	VA-0033-K
Gulliver	V -0018-L
Frøyabuen	SF-0014-B
Øymon	R -0071-H
Solagutt	R -0012-SO
Nærøybuen	M -0055-HØ
Silver	VA-0014-K
Sjøflu	SF-0139-A
Moen	ST-0029-R
Jojo	H -0222-AV
Fjordbuen	H -0010-KM
Vikagutt	SF-0076-F
Anny Lovise	M -0072-AE
Siglodden	H -0011-FJ
Strilajento II	H -0031-S
Idsegutt	R -0017-ST
Frøyværing	ST-0003-F
Odin	N -0223-BR
Ytterøy	SF-0040-F
Vestrevåg	H -0083-O
Karino	R -0001-ST
Tono	M -0015-HØ
Arsbuen	R -0003-B
Laura	H -0050-BN
Tin	SF-0011-V



MSC FISHERY SURVEILLANCE REPORT

Vito	R -0013-TV
Cilius	V -0011-S
Anna Christine	R -0041-K
Rørstad	M -0134-H
Havørn I	H -0121-B
Røksund	H -0002-B
Antilde	VA-0001-M
Utrygg	M -0004-AE
Vassøygutt	R -0003-S
Øragutt	Ø -0017-R
Mona	ST-0015-R
Helena	R -0078-K
Tressnes	H -0011-F
Bærøybuen	H -0069-B
Bønes	M -0182-HØ
Jan Åge	M -0021-EE
Tor Magnus	H -0131-AV
Sandøyjenta	AA-0003-T
Peragutt	H -0005-O
Vikagutt	ST-0046-R
Pion	VA-0043-M
Stødig	N -0132-LN
Buerøy	V -0006-S
Vikabas	ST-0049-R
Håtind	H -0091-F
Feirvik	M -0118-HØ
Solfisk	H -0150-B
Kurti	R -0001-SO
Erato	N -0100-B
Vågan	R -0021-SD
Saturn	M -0029-AV
Øyskjær	H -0111-B
Spjæril	Ø -0123-H
Bergblom	H -0085-B
Bogafisk	H -0011-S
Radar	R -0042-H
Karoline	M -0074-HØ
Mortsundværingen	N -0096-VV
Bårabuen	F -0159-L
Reimegutt	TK-0008-BL
Børre	Ø -0014-H
Heimdal	R -0002-SD
Kystliner	SF-0073-B
Alvøy	H -0006-ØN
Lobster	R -0180-K



MSC FISHERY SURVEILLANCE REPORT

Nordvest	H -0184-AV
Sandsbuen	R -0033-SK
Eltvik	M -0060-S
Per-Egil	N -0337-SG
Eldorado	VA-0097-FS
Nøstbakken	H -0117-B
Jenny	ST-0185-R
Oma	H -0052-AV
Toreson	H -0039-K
Sklinnabuen	NT-0009-V
Falcon	VA-0039-FS
Havsund	VA-0080-F
Fjordbuen	VA-0011-F
Diann	R -0038-K
Fløtind	M -0060-U
Havstein	M -0050-HØ
Nybøen	M -0150-AV
M-Svendsen	N -0071-G
Zander	H -0043-AV
Vesleper	M -0566-HØ
Solglytt	R -0025-K
Siwa	M -0015-NL
Havmann	H -0005-BN
Hartho	H -0015-K
Blue Bird II	VA-0174-FS
Marina	R -0026-ES
Idse Jr	R -0014-ST
Marøyskjær	NT-0072-NR
Fjordbas	ST-0060-R
Molinergutt	R -0011-K
Joton	H -0010-SO
Skogsøyjenta	VA-0134-M
Akono	M -0030-HØ
Nybris	M -0027-HØ
Valøy	M -0006-AE
Merethe	VA-0014-F
Brattholm	VA-0071-M
Øyasund	N -0069-RT
Håbrand	H -0143-AV
Øyasund	N -0069-RT
Feskargutten	N -0158-VV
Marthe	M -0057-G
Grønholm	M -0178-HØ
Ben Hur	T -0042-BG
Kåpa	ST-0027-R



MSC FISHERY SURVEILLANCE REPORT

Vågavik	R -0151-K
Diola	VA-0280-F
Storstein	ST-0096-AA
Notøygutt	M -0100-HØ
Meløysund JR	N -0040-ME
Stig Tommy	N -0036-G
Karmøyfisk	R -0030-K
Fugløyfisk	N -0086-B
Elias	H -0002-O
Vikstjerna	N -0045-SG
Hanne Marie	M -0066-AE
Haugen Junior	M -0058-VN
Havleik	H -0088-B
Katrine	N -0042-VV
Neptun	VA-0009-S
Randi-Anita	N -0010-B
Bøfjord	M -0396-HØ
Muløybuen	M -0214-HØ
Boie	R -0038-SO
Varna	ST-0044-T
Pirholm	H -0062-BN
Aursøy	ST-0711-F
Sandy	M -0295-HØ
Ranita	M -0200-HØ
Dansar	SF-0010-SU
Vestri	R -0016-HA
Steinsvær	M -0067-SM
Havstein	SF-0039-F
Spjæringen	Ø -0083-H
Rosøy	N -0042-RT
Risholm	R -0014-V
Jarstein	R -0058-B
Ventura	M -0034-HØ
Hopvåg	R -0055-K
Sjørøsa	ST-0023-F
Bris Senior	VA-0001-S
Horisont	N -0240-B
Svendsen Senior	N -0050-G
Vaaghav	H -0007-K
Janne Karina	NT-0070-NR
Barstein	SF-0069-SU
Martin-Marie	N -0044-VR
Signal	M -0057-HØ
Tonny Marie	N -0001-BR
Haugen	M -0003-VN



MSC FISHERY SURVEILLANCE REPORT

Havøy	H -0064-B
Lofothav	N -0054-VV
Karianne	N -0417-B
Hans R	M -0150-AE
Ny-Viking	M -0110-SM
Repsøy	R -0072-K
Seafast	SF-0010-FL
Kiro	M -0016-HØ
Poseidon	VA-0024-S
Bogaskjær	H -0062-S
Vestfisk	M -0078-HØ
Eros	N -0096-B
Star Viking	N -0119-VR
Williksen Senior	NT-0070-V
Bjørnholm Senior	M -0103-AE
Tenholmskjær	Ø -0009-H
T.A. Senior	F -0070-H
Frøkna	N -0006-SF
Argo	M -0017-HØ
Trio	R -0060-ST
B.M. Drivenes	H -0223-AV
Kaba	H -0033-O
Flora	M -0001-S
Værøybuen	N -0121-VR
Elvira III	R -0052-K
Flander	H -0158-B
Gangstad	M -0024-MD
Gangstad	M -0024-MD
Edna Synnøve	ST-0018-F
Stokkøy	H -0098-B
Sheik	VA-0055-S
Sjonglør	SF-0051-SU
Myntevik	R -0058-ES
Sæviktrål	R -0233-K
Bogasund	H -0021-S
Scombrus	R -0001-H
Meløypynt	ST-0002-R
Tilje	SF-0082-B
Fiskøy	N -0067-VV
Æsøybuen	SF-0008-F
Fyrholm	H -0010-B
Storegg	M -0095-A
Nystrand	N -0015-RT
Sjohav	H -0004-K
Vestervik	H -0010-K



MSC FISHERY SURVEILLANCE REPORT

Dypfjord	F -0010-B
Arnøyfjord	NT-0050-NR
Gould Dollar	SF-0300-A
Olagutt	N -0007-SO
Topas	M -0124-G
Veagutt	R -0001-K
Kvatro	M -0055-F
Kingsholm	M -0033-SJ
Hovda	R -0006-F
Bluefin	SF-0012-F
Albacore	SF-0018-F
Skarholmen	N -0001-BØ
Hillersøy	SF-0220-A
Svebas	SF-0008-SU
Kystfisk	SF-0003-V
Vikanøy	N -0210-BØ
Sulebas	SF-0030-SU
Sørøyfisk	M -0003-A
Frøybas	SF-0075-B
Vibeke Helene	SF-0033-G
Atløybuen	SF-0033-A
Sklinnabanken	N -0250-BR
Støttfjord	N -0001-ME
Radek	H -0008-AV
Tunfisk	H -0260-K
Radek	H -0008-AV
Paul Senior	M -0174-AV
Vestbas	M -0066-HØ
Ballstadøy	N -0185-VV
Tojako	M -0070-AV
Einarson	T -0005-LK
Brattskjær	NT-0345-V
Buefjord	SF-0147-A
Harto	M -0061-SØ
Stokke Senior	M -0012-U
Gularøy	M -0005-AV
Vestbris	SF-0050-G
Orfjord	M -0008-AV
Einar Erlend	N -0045-ME
Ambassador	R -0126-K
Liaholm	M -0071-AV
Sulehav	SF-0001-SU
Ocean	M -0004-A
Ocean	M -0014-A
Bøen	R -0085-ES



MSC FISHERY SURVEILLANCE REPORT

Trønderkari	NT-0200-V
Slettholmen	N -0110-L
Sildaskjær	SF-0001-V
Ringbas	SF-0006-V
Kamøyfisk	H -0180-AV
Gunnar K	N -0246-Ø
Sjarmør	SF-0017-SU
Vestervon	SF-0011-A
Hepsøhav	ST-0001-O
Sjøglans	SF-0002-A
Hovden Viking	SF-0004-S
Skulbaren	T -0111-T
Jøkul	M -0108-HØ
Skagøysund	T -0023-T
Julianne III	N -0021-LN
Salvøy	R -0012-K
Lønnøy Junior	H -0097-B
Kathrin G	M -0001-SJ
Kathrin G	M -0001-SJ
Staaløy	H -0095-AV
Krossøy	H -0034-BN
Havbas	T -0071-T
Artus	M -0079-HØ
Bømmelfjord	H -0083-B
Nyskjer	M -0072-MD



MSC FISHERY SURVEILLANCE REPORT

APPENDIX 2: LIST OF VESSELS IN PURSE SEINER GROUP
ENGAGED IN NEA MACKEREL FISHERY IN 2011¹¹

Number of vessels in Purse seiner Group: 82

Vessel name	Registration N	Length
Båtnavn	Registermerke	Lengde
Straumberg	N -0002-LF	38,32
Liafjell	H -0087-F	38,8
Dyrnesvåg	M -0435-SM	41,65
Stormfuglen	M -0038-AV	42
Bjarne Nilsen	F -0004-H	44,35
Harmoni	T -0074-T	44,65
Ketlin	N -0119-SO	48,2
Ingrid Majala	F -0225-M	49,9
Havsnurp	M -0095-MD	51,9
Siglar	H -0035-F	52,04
Vestfart	SF-0005-B	52,2
Inger Hildur	M -0101-F	53,9
Odd Lundberg	T -0111-G	54,2
Frantsen Junior	T -0025-I	54,27
Norafjell	N -0034-LN	55,1
Fiskebas	SF-0208-F	56,2
Kanstadfjord	N -0189-LN	57,45
Fonnes	H -0010-AM	57,5
Roaldsen	R -0080-ES	58,92
Havglans	H -0001-ØN	59,19
Røttingøy	H -0004-O	59,2
Havstål	M -0260-A	59,25
Vea	R -0007-K	60,4
Elisabeth	H -0140-B	60,9
Havdrøn	H -0081-BN	60,9
Rogne	M -0004-HØ	61,4
Stålringen	N -0075-DA	61,54
Harvest	H -0003-AV	61,75
Austerfjord	H -0084-AV	61,75
Austerfjord	H -0084-AV	61,75
Ordinat	H -0090-AV	61,82
Krossfjord	H -0069-S	61,88
Vestviking	H -0012-AV	61,9

¹¹ Reservation: The Norwegian Fishermen’s` sales organisation for pelagic fish publishes this information with reservations for any errors or defects in the information caused by technical or human error. If you suspect errors or lack of information, please contact Norges Sildesalgslag.



MSC FISHERY SURVEILLANCE REPORT

Havglans	H -0005-ØN	62,6
Senior	N -0200-B	62,71
Haugagut	H -0050-AV	63,5
Nordfisk	N -0001-B	64
Endre Dyrøy	H -0015-F	64
Svanaug Elise	ST-0019-F	64
Leinebjørn	M -0003-HØ	64
Norderveg	H -0179-AV	64
Talbor	H -0074-AV	64
Gerda Marie	H -0032-AV	65
Rav	ST-0008-O	65
Sæbjørn	M -0027-VD	65,7
Ligrunn	H -0001-F	65,71
Fiskeskjer	M -0525-H	67,4
Havskjer	M -0200-A	67,4
Slaatterøy	H -0010-AV	67,4
Nordervon	H -0181-AV	67,4
Selvåg Senior	N -0024-ME	67,4
Strand Senior	M -0425-H	67,4
Åkerøy	N -0300-DA	67,9
Tromsbas	T -0009-T	68,1
Hargun	H -0001-O	68,1
Smaragd	M -0064-HØ	68,1
Vendla	H -0040-AV	68,1
Østerbris	H -0127-AV	68,1
Trønderbas	NT-0500-V	68,25
Herøyhav	M -0520-HØ	68,3
Torbas	SF-0099-V	68,3
Birkeland	H -0087-AV	68,8
H. Østervold	H -0088-AV	68,8
H. Østervold	H -0088-AV	68,8
Hardhaus	H -0120-AV	68,85
Manon	H -0026-AV	70
Sjøbris	M -0122-HØ	70,4
Storeknut	H -0380-AV	70,6
Gunnar Langva	M -0139-A	71,1
Knester	H -0009-AV	71,1
Herøy	M -0620-HØ	73,3
Kings Bay	M -0021-HØ	74,6
Rødholmen	N -0118-LN	75
Brennholm	H -0001-BN	75,4
Teigenes	M -0001-HØ	75,4
Eros	M -0060-HØ	75,9
Nybo	M -0056-MD	78,39



MSC FISHERY SURVEILLANCE REPORT

Christina E	M -0150-HØ	80,4
Gardar	H -0011-AV	83,8
Gardar	H -0011-AV	83,8
Kvannøy	N -0400-B	83,8
Libas	H -0005-F	94,32



MSC FISHERY SURVEILLANCE REPORT

APPENDIX 3: LIST OF VESSELS IN TRAWL GROUP ENGAGED IN NEA MACKEREL FISHERY IN 2011¹²

Number of vessels in Trawl Group: 27

Vessel name	Registration N	Length
Båtnavn	Registermerke	Lengde
Hellevig	VA-0015-S	26,2
Håflu	R -0035-B	30,56
Sille Marie	VA-0010-S	33,17
Mostein	H -0569-B	34,02
Piraja	VA-0095-K	38,7
Shannon	R -0031-K	40,05
Skude Senior	R -0006-K	40,31
Lønningen	H -0200-B	41,72
Cetus	R -0094-K	41,8
Fiskebank	M -0022-SM	42,5
Svanavåg	R -0003-ES	47,16
Trygvason	H -0718-B	48,3
Leik	R -0044-K	51,35
Gollenes	M -0040-HØ	51,9
Herøyfjord	M -0010-HØ	53
Traal	R -0015-K	53
Quo Vadis	R -0086-K	56,05
Johan Feyer	R -0004-ES	57,3
Magnarson	H -0079-AV	57,6
Østanger	H -0148-AV	58,66
Bømmelbas	H -0444-B	59,19
Fagervoll	M -0074-A	60,33
Sævikson	M -0072-HØ	61,75
Gollenes	M -0031-HØ	62,6
Lønnøy	H -0007-B	65,61
Østanger	H -0148-AV	65,69
Morten Einar	H -0005-AV	67,5
Morten Einar	H -0005-AV	67,5

¹² Reservation: The Norwegian Fishermen’s sales organisation for pelagic fish publishes this information with reservations for any errors or defects in the information caused by technical or human error. If you suspect errors or lack of information, please contact Norges Sildesalgslag.