# MarinTrust Standard V2

# Whole fish Fishery Assessment Report Template

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# Table 1 Application details and summary of the assessment outcome

| 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:** | | **LRQA** | |
| **Assessor Name** | **CB Peer Reviewer** | **Assessment Days** | **Initial/Surveillance/ Re-approval** |
| Jose Peiro Crespo | Kate Morris | 5.5 | Initial |
| **Assessment Period** | January – February | | |
| **Scope Details** | | | |
| **Management Authority (Country/State)** | | Norway | |
| **Main Species** | | Norway pout (*Trisopterus esmarkii*)<br>Stock = Norway pout ICES Subarea 4 and Division 3a | |
| **Fishery Location** | | FAO Area 27 (Atlantic, Northeast)<br>ICES Subarea 4 and Division 3a (North Sea, Skagerrak, and Kattegat) | |
| **Gear Type(s)** | | Bottom trawl<br>Mid-water trawl | |
| **Outcome of Assessment** | | | |
| **Overall Outcome** | | Pass | |

| | |
|---|---|
| **Clauses Failed** | None |
| **CB Peer Review Evaluation** | Approve |
| **Fishery Assessment Peer Review Group Evaluation** | Approve see Annex 1 |
| **Recommendation** | Approval |

# Table 2. Assessment Determination

| **Assessment Determination** |
|---|
| This report assesses the demersal (otter) trawl) and pelagic (mid-water) trawl fishery of Norway pout (*Trisopterus esmarkii*) in ICES Subarea 4 (North Sea) and Division 3a (North Sea, Skagerrak, and Kattegat). This fishery is mainly performed by Norway and Danish vessels. The fishery targets Norway pout, which represents more than 95% of the catch, with relatively low catches of other species, such as Herring, Blue whiting, cod, haddock, saithe, whiting, anglerfish and greater silver smelt.<br><br>The Norway pout fishery in the area of operation of the fishery is managed by the Norwegian Ministry of Trade, Industry and Fisheries (Department of Fisheries and Aquaculture). The Norwegian Institute of Marine Research (IMR) is the national research body in Norway responsible for collecting fishery-related data and conduct stock assessments. At the international level, this task is performed by the International Council for the Exploration of the Sea (ICES).<br><br>In Norway, the Marine Resources Act places the overall responsibility for monitoring, control and surveillance in Norwegian fisheries with the Directorate of Fisheries. Enforcement at sea is taken care of by the Coast Guard, which is part of the Royal Norwegian Navy, but performs tasks on behalf of several ministries, including the Ministry of Trade, Industry and Fisheries. Norwegian vessels are required to have electronic catch logbooks (Electronic Reporting Systems (ERS)).<br><br>The management framework and the surveillance, control and enforcement system meet minimum requirements set by the MARINTRUST Standard, clauses M1-M2 are passed.<br><br>The assessment of the Norway pout stock considers all fishery removals and the biological characteristics of the target species. Commercial catches, including landings from Norway, the UK and the EU, are collected by the authorities. In addition to catch data, four survey indices are used to assess the stock (ICES advice 2021a). All this data is used for assessing the stock of Norway Pout, which is conducted annually by the Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak (WGNSSK). Norway pout is a short-lived species. Recruitment is highly variable and strongly influences both the spawning-stock and total biomass. ICES approach to MSY-based management for short-lived species is applied for the species in the form of an escapement strategy based on a stochastic forecast, i.e., to maintain, with 95% probability, SSB above Blim after the fishery has taken place. This includes a restricted mortality Fcap (Fbar(1–2)) = 0.7. The spawning-stock size for Norway pout is above Bpa and Blim but no reference points for fishing pressure or for MSY Btrigger have been defined.<br><br>No precautionary management plan has been agreed for Norway pout in this area. A proposed management plan from Norway and EU was evaluated by ICES and the escapement strategy was found to be precautionary (with the Fcap indicated above at or below 0.7). TACs are set by the authorities based on the ICES advice and catches of the species have not surpassed the TAC in recent years. Therefore, clauses A1 – A4 for the main target stock passes.<br><br>Category C species (<5% of the catch) include: herring (two stocks), blue whiting, cod, haddock, saithe and whiting. All species are assessed by ICES using commercial data and except the North Sea cod all the species are over the Blim. Bycatch levels in the Norway pout fishery were estimated by Nielsen 2016, cod bycatch was |

estimated at 0.01% – 0.07% of total annual landings, which would correspond to an annual catch of between 10 mt and 70 mt, which is considered negligible. Therefore, clauses C are met for all the category C species.

Category D species include anglerfish and greater silver smelt. A PSA has been conducted based on the MT standard and both species fail this analysis. However, the potential impacts of the fishery on this species are considered during the management process, measures (such as sorting grids) are taken to minimise the bycatch and there is no substantial evidence that the fishery has a significant negative impact on them. Clauses D are met.

In relation to the impact of the Norway pout on ETP species, this fishery has a very low impact on them. The only ETP species identified in the catch is spurdog and the contribution of this fishery to fishing mortality of the species seems to be low. No interactions with neither marine mammals nor seabirds have been documented for the fishery. Management measures (zero TAC) has been implemented in EU waters for spurdog. In Norway the species is protected by law and strict bycatch limits have been set. Clause F1 is passed.

In regard to impacts of the fishery on habitats, pelagic trawl gears target shoals of pelagic species, they operate in the water column or near the bottom and the impact on habitats is considered to be minimal. In the case of bottom trawl, although the impact on the seabed is higher than the pelagic fishery, bottom trawls for Norway pout are small and relatively light. The fishery mainly operates on muddy and sandy bottoms where bottom trawl impact is lower, and the areas recover more readily. A number of measures introduced by the Norwegian and EU authorities to protect VMEs in North Sea and Norwegian waters. Clause F2 is passed for both methods.

Finally, in relation to ecosystem effects of the fishery, the five most important pressures on the Greater North Sea are identified as: selective extraction of species (fishing), abrasion, substrate loss and smothering, selective extraction non-living resources. Although fisheries are the main impact on the area, fishing mortality has decreased in recent years. Norway pout is a short-lived species. With present fishing mortality levels, the status of the stock is more determined by natural processes and less by the fishery. This stock is among other an important food source for the species saithe, haddock, cod, whiting, and mackerel and predation mortality is significant. Natural mortality levels by age and season used in the stock assessment do include the predation mortality levels estimated for the stock. All the other stocks affected by the fishery (except North Sea Cod) are fished at a sustainable rate. Catches of North Sea cod in the fishery are negligible. No impacts on ETP species, such as marine mammals and seabirds have been reported. Clause F3 is passed.

Norway pout is approved by the assessment team for the production of fishmeal and fish oil under the IFFO-RS v 2.0 by-products standard.

**Fishery Assessment Peer Review Comments**

See Annex 1

**Notes for On-site Auditor**

# Table 3 General Results

| General Clause | Outcome (Pass/Fail) |
|---|---|
| M1 - Management Framework | Pass |
| M2 - Surveillance, Control and Enforcement | Pass |
| F1 - Impacts on ETP Species | Pass |
| F2 - Impacts on Habitats | Pass |
| F3 - Ecosystem Impacts | Pass |

# Table 4 Species- Specific Results

**List all Category A and B species. List approximate total percentage (%) of landings which are Category C and D species; these do not need to be individually named here**

| Category | Species | % landings | Outcome (Pass/Fail) | |
|---|---|---|---|---|
| Category A | Norway pout (*Trisopterus esmarkii*) | >95% | A1 | Pass |
| | | | A2 | Pass |
| | | | A3 | Pass |
| | | | A4 | Pass |
| Category B | NA | NA | NA | |
| Category C | Herring (*Clupea harengus*) in ICES Subarea 4 and divisions 3.a and 7.d, autumn spawners (North Sea, Skagerrak and Kattegat, eastern English Channel)<br>Herring (*C. harengus*) in ICES subareas 1, 2, and 5, and in divisions 4.a and 14.a, Norwegian spring-spawning herring (the Northeast Atlantic and the Arctic Ocean)<br>Blue whiting (*Micromesistius poutassou*)<br>Cod (*Gadus morhua*)<br>Haddock (*Melanogrammus aeglefinus*)<br>Saithe (*Pollachius virens*)<br>Whiting (*Merlangius merlangus*) | <5% | Pass | |
| Category D | Anglerfish (*Lophius budegassa, Lophius piscatorius*)<br>Greater silver smelt (*Argentina silus*) | <5% | Pass | |

# Table 5 Species Categorisation Table

| Common name | Latin name | Stock | IUCN Redlist Category[1] | % of landings | Management | Category |
|---|---|---|---|---|---|---|
| Norway pout | *Trisopterus esmarkii* | ICES Subarea 4 and Division 3a (North Sea, Skagerrak, and Kattegat). | Least concern | >95 | Norway/EU CFP | A |
| Herring | *Clupea harengus* | ICES Subarea 4 and divisions 3.a and 7.d, autumn spawners (North Sea, Skagerrak and Kattegat, eastern English Channel) | Least concern | <5 | Norway/EU CFP | C |
| Herring | *Clupea harengus* | ICES subareas 1, 2, and 5, and in divisions 4.a and 14.a, Norwegian spring-spawning herring (the Northeast Atlantic and the Arctic Ocean) | Least concern | <5 | Norway/EU CFP | C |
| Blue whiting | *Micromesistius potassou* | ICES subareas 1 – 9, 12, and 14 (Northeast Atlantic and adjacent waters) | Least concern | <5 | Norway/EU CFP | C |
| Cod | *Gadus morhua* | ICES Subarea 4, Division 7d, and Subdivision 20 (North Sea, eastern English Channel, Skagerrak) | Least concern | <5 | Norway/EU CFP | C |
| Haddock | *Melanogrammus aeglefinus* | ICES Subarea 4, Division 6.a, and Subdivision 20 (North Sea, West of Scotland, Skagerrak). | Least concern | <5 | Norway/EU CFP | C |
| Saithe | *(Pollachius virens)* | ICES subareas 4 and 6, and in Division 3.a (North Sea, Rockall and West of Scotland, Skagerrak and Kattegat) | Least concern | <5 | Norway/EU CFP | C |
| Whiting | *(Merlangius merlangus)* | ICES Subarea 4 and Division 7.d (North Sea and eastern English Channel) | Least concern | <5 | Norway/EU CFP | C |
| Anglerfish/Monkfish | *Lophius budegassa, Lophius piscatorius* | ICES subareas 4 and 6, and in Division 3.a (North Sea, Rockall and West of Scotland, Skagerrak and Kattegat) | Least concern | <5 | Norway/EU CFP | D |
| Greater silver smelt | *Argentina silus* | ICES subareas 1, 2, and 4, and in Division 3.a (Northeast Arctic, North Sea, Skagerrak and Kattegat) | Least concern | <5 | Norway/EU CFP | D |
| **Species categorisation rationale** | | | | | | |

[1] https://www.iucnredlist.org/

No catch data was provided by the client. The species categorisation has been based on the catch profile used in the previous surveillance report. That list of species was taken from Johnsen et al., (2016) and Nielsen et al., (2016). Similarly, according to ICES 2021b, a by-catch of herring, saithe, cod, haddock, whiting, and monkfish in the small, meshed fishery targeting Norway pout in the North Sea and Skagerrak has been documented (no percentages are given). By-catches of these species have been relatively low in the recent decade, and in general, the by-catch levels of these gadoids have decreased in the Norway pout fishery over the years. Catches of Norway pout seem to represent more than 95% of the total catch when the species is targeted.

Based on the description provided in ICES 2021b and the catch profile form the previous surveillance visit, the following species have been included: category C species (Herring (*Clupea harengus*) which includes two stocks in the area, Blue whiting (*Micromesistius poutassou*), Cod (*Gadus morhua*), Haddock (*Melanogrammus aeglefinus*), Saithe (*Pollachius virens*) and Whiting (*Merlangius merlangus*); and category D species: Anglerfish (*Lophius budegassa, Lophius piscatorius*) and Greater silver smelt (*Argentina silus*).

**References**

Links to the IUCN red list are provided in the table above.

ICES 2021b. Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak (WGNSSK). ICES Scientific Reports. 3:66. 1281 pp. https://doi.org/10.17895/ices.pub.8211

Johnsen, E., Misund, R., Palmason, S. R., and Blom, G. 2016. Norwegian industrial fishery for Norway pout in the North Sea in ICES. 2016. Report of the Benchmark Workshop on Norway Pout (*Trisopterus esmarkii*) in Subarea 4 and Division 3.a (North Sea, Skagerrak, and Kattegat), 23–25 August 2016, Copenhagen, Denmark. ICES CM 2016/ACOM:35. 396 pp. https://doi.org/10.17895/ices.pub.5599

Nielsen, J. R., Olsen, J., Håkonsson, K. B., Egekvist J. and Dalskov, J. 2016. Danish Norway pout fishery in the North Sea and Skagerrak in ICES. 2017. Report of the Benchmark Workshop on Norway Pout (*Trisopterus esmarkii*) in Subarea 4 and Division 3a (North Sea, Skagerrak, and Kattegat), 23–25 August 2016, Copenhagen, Denmark. ICES CM 2016/ACOM:35. 69 pp: https://doi.org/10.17895/ices.pub.5599

# MANAGEMENT

The two clauses in this section (M1, M2) relate to the general management regime applied to the fishery under assessment. The clauses should be completed by providing sufficient evidence to justify awarding each of the requirements a pass or fail rating. A fishery must meet all the minimum requirements in every clause before it can be recommended for approval.

| **M1** | **Management Framework – Minimum Requirements** | | |
|---|---|---|---|
| | **M1.1** | There is an organisation responsible for managing the fishery. | Yes |
| | **M1.2** | There is an organisation responsible for collecting data and assessing the fishery. | Yes |
| | **M1.3** | Fishery management organisations are publicly committed to sustainability. | Yes |
| | **M1.4** | Fishery management organisations are legally empowered to take management actions. | Yes |
| | **M1.5** | There is a consultation process through which fishery stakeholders are engaged in decision-making. | Yes |
| | **M1.6** | The decision-making process is transparent, with processes and results publicly available. | Yes |
| | | **Clause outcome:** | **Pass** |

**M1.1 There is an organisation responsible for managing the fishery.**

The fishery is nearly exclusively performed by Danish and Norwegian vessels using small mesh trawls (< 32 mm cod end) in the north-western North Sea, especially at the Fladen Ground and along the edge of the Norwegian Trench in the north-

eastern part of the North Sea (ICES 2021b). The fishery is jointly managed in EU (Greater North Sea region) and Norwegian waters.

In Norway, the management of fisheries falls under the jurisdiction of the Ministry of Trade, Industry and Fisheries (Department of Fisheries and Aquaculture). A Directorate of Fisheries and Aquaculture acts as the Ministry's advisory and executive body. Both Ministry and Directorate develop and apply fishery laws and regulations (https://www.regjeringen.no/en/dep/nfd/organisation/Departments/department-of-fisheries-and-aquaculture-/id706781/).

In EU waters, the management is conducted in accordance with the EU Common Fisheries Policy (CFP) (Regulation (EU) No 1380/2013). At EU level, the Directorate-general (DG) for Maritime Affairs and Fisheries (DG Mare) is the Commission department responsible for EU policy on maritime affairs and fisheries (EC 2021).

A number of specific management measures have been implemented in the Norway pout fishery, including a Total Allowable Catch (TAC), i.e., catch quotas, effort ceilings, as well as a row of technical measures and by-catch regulations. In order to protect other species (cod, haddock, saithe, whiting, and herring as well as mackerel, monkfish, squids, flatfish, gurnards, Nephrops) there is a number of technical management measures in force for the small meshed fishery in the North Sea such as area closures, minimum mesh size, selective grids/panels in the small meshed gears, as well as by-catch regulations (by-catch quotas of herring and maximum by-catch percentages for gadoids and herring) and minimum landing size regulations (Nielse et al., 2016).

There is an organisation responsible for managing the fishery. **Sub-clause M1.1 is met.**

**M1.2 There is an organisation responsible for collecting data and assessing the fishery.**

In Norway, the Institute of Marine Research (IMR), affiliated to the Ministry of Trade, Industry and Fisheries, is responsible for conducting monitoring of fisheries in Norwegian waters, research and advisory work (https://www.hi.no/en/hi/about-us).

At EU level, the EU's data collection framework (DCF) (Regulation (EU) 2017/1004) outlines the EU countries' obligations to collect, manage and make available a wide range of fisheries needed for scientific advice. This includes biological, environmental, economic, and social data. Member States' data collection activities are financially supported by the EU. Data collection needs to ensure accuracy, reliability and timeliness, safe storage and improved availability of data (EC 2021).

The International Council for the Exploration of the Sea (ICES), in the intergovernmental body that provides scientific advice for sustainable management of the fisheries and marine resources at the EU level (also for Norwegian stocks). ICES publications include advice on fishing opportunities, fisheries, and ecosystem overviews (EC 2021). Norway pout is assessed annually by the Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak (WGNSSK) using commercial catches (collected from logbooks) and four survey indices (ICES 2021a).

There are organizations responsible for collecting data and assessing the fishery. **Sub-clause M1.2 is met.**

**M1.3 Fishery management organisations are publicly committed to sustainability.**

The Norway's 2008 Marine Resources Act main aim is to ensure sustainable and economically profitable management of wild living marine resources and genetic material derived from them, and to promote employment and settlement in coastal communities. It requires that Norwegian fisheries management be guided by the precautionary approach, in line with international treaties and guidelines, and by an ecosystem approach that takes into account habitats and biodiversity (https://www.fiskeridir.no/English/Fisheries/Regulations/The-marine-resources-act).

In EU waters, the EU 2013 Common Fisheries Policy (CFP) (Regulation (EU) No 1380/2013). The CFP is to contribute to the protection of the marine environment, to the sustainable management of all commercially exploited species, and in particular to the achievement of good environmental status by 2020, as set out in Article 1(1) of Directive 2008/56/EC of the European Parliament and of the Council. The objectives of the CFP are: "*to ensure that fishing and aquaculture are environmentally*

*sustainable in the long term, to apply the precautionary approach to fisheries management and to implement the ecosystem-based approach to fisheries management*" (Regulation (EU) No 1380/2013).

Fishery management organisations are publicly committed to sustainability. **Sub-clause M1.3 is met.**

**M1.4 Fishery management organisations are legally empowered to take management actions.**

In Norway, the Directorate of Fisheries operates under the Marine Resources Act, which in chapter 3 (Catch quantities and quotas): "*The Ministry may prescribe the maximum permitted quantities (national quotas) of wild living marine resources that may be harvested, expressed in terms of; weight, volume, number of individuals, the number of days harvesting is permitted, or in other terms. A national quota shall be determined for a specific period of time. When a national quota has been determined, the total quantity of group quotas, research and training quotas and other quotas issued may not exceed the national quota.*

*The Ministry may prescribe the maximum permitted harvest for each vessel group, gear group or other defined group (group quota). A group quota shall be determined for a specific period of time (*https://www.fiskeridir.no/English/Fisheries/Regulations/The-marine-resources-act)".

In The EU, fisheries resources are subject to the CFP's rules (Regulation (EU) No 1380/2013). The CFP indicates that "*the Commission should only adopt conservation measures through implementing acts or delegated acts where all Member States concerned in a region agree on a joint recommendation. In the absence of a joint recommendation, the Commission should submit a proposal for the relevant measures pursuant to the Treaty*" and "*Member States are empowered to adopt conservation measures (not affecting fishing vessels of other Member States) that are applicable to waters under their sovereignty or jurisdiction and that are necessary for the purpose of complying with obligations under Union environmental legislation*".

Fishery management organisations are legally empowered to take management actions. **Sub-clause M1.4 is met.**

**M1.5 There is a consultation process through which fishery stakeholders are engaged in decision-making.**

In Norway, fishery stakeholders, including representatives of the fishing industry, scientific bodies and governmental authorities cooperate in the decision-making process for managing fisheries in the country.

According to Gullestard et al., 2015, the fisheries on the Norwegian share of these stocks are subject to comprehensive national regulations. The involvement of stakeholders is achieved through Advisory Meetings for Fisheries Regulations representing fishermen's associations, fishing industries, trade unions, the Sami Parliament (Indigenous population), local authorities, environmental organisations and other stakeholders. At the annual Regulatory Meeting in November, discussions with stakeholders on details of next year's regulations take place, before the Director General of Fisheries presents her final proposals for the Minister's decision. The annual regulatory cycle (see figure below) with stakeholder participation has been in place since the 1970's, its scope now broadened by the provisions of the new act to include ecosystem and biodiversity related issues.

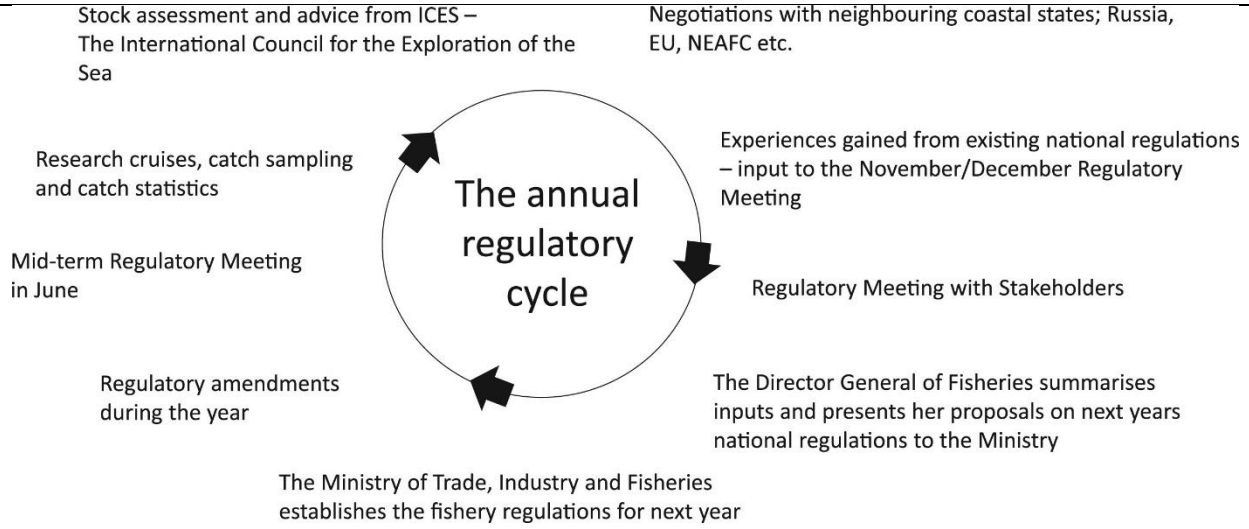



**FIGURE 1 THE ANNUAL ADAPTIVE REGULATORY CYCLE FOR QUOTA-REGULATED STOCKS – THE "TAC-MACHINE" (GULLESTAD ET AL., 2015)**

At the EU level, the CFP (Regulation (EU) No 1380/2013) states: "*Multiannual plans should be adopted in consultation with Advisory Councils, operators in the fishing industry, scientists and other stakeholders having an interest in fisheries management*".

There is a consultation process through which fishery stakeholders are engaged in decision-making. **Sub-clause M1.5 is met.**

**M1.6 The decision-making process is transparent, with processes and results publicly available.**

The Norway pout fishery is based on TAC distribution between three countries: Norway, the EU and since Brexit, the United Kingdom. Stock Assessments and advice for the fishery is publicly available on the ICES website (https://www.ices.dk/advice/Pages/Latest-Advice.aspx). Total allowable catches (TACs), or fishing opportunities are set annually for the assessed stocks based on scientific advice on the stock status from advisory bodies (ICES and STECF), agreed with non-EU countries for stocks that are shared and jointly managed and shared between EU countries in the form of national quotas (EC 2021). These quotas follow the rules of the common fisheries policy to achieve sustainable fisheries, as set in the multi-annual plans (if implemented).

In Norway, information about Norwegian fisheries and aquaculture management are made public on the Norwegian directorate's website (https://www.regjeringen.no/en/id4/).

The decision-making process is transparent, with processes (assessments, advice, quota assignation, etc) publicly available. **Sub-clause M1.6 is met.**

**References**

EC 2021. European Commission. Available at: https://ec.europa.eu/info/index_es

Gullestad, P., Abotnes, A.M., Bakke, G., Skern-Mauritzen, K., Nedreaas, K. & Søvik, G. 2015. Towards ecosystem-based fisheries management in Norway – Practical tools for keeping track of relevant issues and prioritising management efforts. Marine Policy. Volume 77, March 2017, Pages 104-110

Regulation (EU) No 1380/2013 of the European Parliament and of the Council of 11 December 2013 on the Common Fisheries Policy, amending Council Regulations (EC) No 1954/2003 and (EC) No 1224/2009 and repealing Council Regulations

| |
|---|
| (EC) No 2371/2002 and (EC) No 639/2004 and Council Decision 2004/585/EC. Official Journal of the European Union, L 354/22, 28.12.2013. 40 pp. |

| **Links** | |
|---|---|
| **MARINTRUST Standard clause** | 1.3.1.1, 1.3.1.2 |
| **FAO CCRF** | 7.2, 7.3.1, 7.4.4, 12.3 |
| **GSSI** | D.1.01, D.4.01, D2.01, D1.07, D1.04, |

| **M2** | **Surveillance, Control and Enforcement - Minimum Requirements** | | |
|---|---|---|---|
| | **M2.1** | There is an organisation responsible for monitoring compliance with fishery laws and regulations. | Yes |
| | **M2.2** | There is a framework of sanctions which are applied when laws and regulations are discovered to have been broken. | Yes |
| | **M2.3** | There is no substantial evidence of widespread non-compliance in the fishery, and no substantial evidence of IUU fishing. | Yes |
| | **M2.4** | Compliance with laws and regulations is actively monitored, through a regime which may include at-sea and portside inspections, observer programmes, and VMS. | Yes |
| | | **Clause outcome:** | **Pass** |

**M2.1 There is an organisation responsible for monitoring compliance with fishery laws and regulations.**

In Norway, the Marine Resources Act places the overall responsibility for monitoring, control and surveillance in Norwegian fisheries with the Directorate of Fisheries. Enforcement at sea is taken care of by the Coast Guard, which is part of the Royal Norwegian Navy, but performs tasks on behalf of several ministries, including the Ministry of Trade, Industry and Fisheries. Norwegian vessels are required to have electronic catch logbooks (Electronic Reporting Systems (ERS)). Norway has agreements in place with a number of other countries about exchange of ERS data, including the EU.

For all landings, the skipper and the representative of the landing site sign the sales note where the landing is reported by species. The sales notes form the basis of all official landing statistics. When the landing is controlled by the Directorate of Fisheries, the species composition (in weight) is recorded, and the skipper and the landing-site representative get access to this measured species-composition to use in the signed sales note. If the landings are not controlled, the species composition from the electronic logbook is given at the sales notes (ICES WGNSSK 2021).

According to ICES WGNSSK 2021, about 20% of all industrial fishing landings in numbers are supposed to be controlled. However, the proportion of controlled samples has decreased in the recent years, and in some quarters no controls have been carried out at all. In addition to controls at the landing site, the Norwegian Coast guard have inspection of hauls at sea. These inspections are often done in areas known to problematic with regards to by-catch of herring and juveniles of gadoids (ICES WGNSSK 2021).

At the EU level, the aim of the EU fisheries control system is to ensure that the rules of the common fisheries policy (CFP) are applied correctly (EC 2021). The principal actors in the EU fisheries control system are:

- The European Commission, which controls and evaluates the application of the rules of the CFP in Eu countries through audits and inspections (EC 2021),
- The European Fisheries Control Agency (EFCA) coordinates the implementation of specific control and inspection programmes (SCIP) in the EU,
- National authorities. Fisheries rules and control systems are agreed at EU level, but they are implemented by the EU countries through their national control systems (EC 2021).

There is an organisation responsible for monitoring compliance with fishery laws and regulations. Therefore, **sub-clause M 2.1 is met.**

**M2.2 There is a framework of sanctions which are applied when laws and regulations are discovered to have been broken.**

Chapter 11 of the Norwegian Resources Act describe coercive and infringement fines. The Ministry may impose coercive fines to ensure compliance with provisions made in or under the Act. A coercive fine is a continuous fine that becomes effective from a specified deadline for complying with an order if the deadline for compliance with the order is not met.

An infringement fine may be also imposed as a fixed penalty, or the amount may be fixed in each case. Such factors as the profit or potential profit those responsible have made through the contravention, how serious the contravention was, and the extra costs of control measures and processing the case may be taken into account in determining the amount of the fine.

Catches, gears of properties may be also confiscated by the authority https://www.fiskeridir.no/English/Fisheries/Regulations/The-marine-resources-act).

The Norwegian Directorate of Fisheries performs an annual risk review in which different aspects are taken into consideration, including the examination of the number and type of infringements by Norwegian vessels, the species (and quantities) affected and the alternative measures to minimize such damages in the future. According to DNV (2016), Norwegian enforcement authorities report the level of compliance in the fishery to be high. In 2016, the Coast Guard carried out 1,569 inspections at sea. 302 inspections (19.2 %) resulted in a warning and 74 inspections (4.7 %) in a fine or prosecution. 58 inspections were carried out in the fishery under assessment – 4 warnings (6.9 %) were issued, but no fines. The Directorate of Fisheries performed 2,919 inspections in 2016. Infringements leading up to a fine or prosecution were found in 391 inspections (13.4 %). 61 inspections of the fisheries under assessment revealed 7 infringements (11.5 %), mostly related to inaccuracies in the catch log – of these, only one vessel was fined (1.6 %). Norwegian enforcement authorities did not inform of any violations committed by the UoA fishers in waters outside Norwegian jurisdiction (no more recent data seems to be available).

At the EU level, Regulation (EC) No 1224/2009 establishes a community system for control, inspection and enforcement to ensure compliance with the rules of the common fisheries policy. EU countries must ensure that a system of inspections and enforcement measures is in place to identify infringements and sanction offenders (EC 2021). They are responsible for establishing their own sanctioning systems but to ensure a level playing field they must conform to the requirements of the EU laws. These requirements include the obligation for sanctions to be 'dissuasive, proportionate and effective', to consider the seriousness and potential economic benefit of the offence as well as the prejudice to fishing resources and marine environments (EC 2021).

Moreover, EU countries are required to have a point system to sanction fishing vessel masters and licence holders when they commit serious infringements. The number of points to be attributed for specific infringements is fixed in detailed rules. Any vessel that accumulates more than a certain number of points in a three-year period will have its fishing licence suspended for up to 12 months (EC 2021).

There is a framework of sanctions which are applied when laws and regulations are broken. **Sub-clause M2.2 is met.**

**M2.3 There is no substantial evidence of widespread non-compliance in the fishery, and no substantial evidence of IUU fishing.**

Chapter 8 of the Norwegian Marine Resources Act indicates measures against illegal, unreported and unregulated fishing, such as prohibiting landings of fisheries resources in Norway if: a) the catch is from a fish stock of joint interest to Norway and other states that is not subject to a joint management regime; b) the catch has been taken in contravention of a desired harvesting or fishing pattern, will result in a reasonable total allowable catch being exceeded, or is in contravention of international agreements; c) the flag state cannot on request confirm that the catch has been taken during fishing activities

that are in accordance with a desired harvesting or fishing pattern or that are not in contravention of rules for fishing activities that have been agreed with another country (https://www.fiskeridir.no/English/Fisheries/Regulations/The-marine-resources-act).

Norway and other states and it is not jointly managed of a blacklist of vessels engaged in IUU activities in Northeast Atlantic waters in 1994 and banned such vessels from fishing in Norwegian waters.

The EU Regulation (EC No 1005/2008) to prevent, deter and eliminate illegal, unreported and unregulated fishing (IUU) entered into force in 2010. The Commission is working actively with all stakeholders to ensure coherent application of the IUU Regulation. The fishery is not TAC-constrained in that total landings have been well below TACs in recent years such that there is no incentive for TAC-related offenses such as underreporting.

No illegal landings or other infringements have been reported in this fishery.

There is no substantial evidence of widespread non-compliance in the fishery, and no substantial evidence of IUU fishing. **Sub-clause M2.3 is met.**

**M2.4 Compliance with laws and regulations is actively monitored, through a regime which may include at-sea and portside inspections, observer programmes, and VMS.**

Chapter 7 (Control and enforcement) of the Norway Marine Resources Act indicates: "*The Directorate of Fisheries shall ensure that those to whom this Act applies comply with provisions laid down in or under the Act and with other legislation on participation in the harvesting, marketing, production, import and export of wild living marine resources"*( https://www.fiskeridir.no/English/Fisheries/Regulations/The-marine-resources-act).

The Act obliges vessel owners, when requested, to provide board and lodging at the vessel's expense and use of communication equipment without charge. the Ministry may adopt regulations relating to: a) the duties of an observer; b) which vessel groups and how many vessels are to carry an inspector or observer on board, and how these vessels are to be selected; c) that the costs of inspection and observation schemes, including wage and transport costs, are to be divided among all participating vessels in a specified vessel group, or in special cases are to be met partly or entirely by individual vessels; d) that vessels that have not paid the inspection and observation costs imposed may be refused permission to take part in harvesting operations.

VMS transmitters on Norwegian vessels must be approved by the Directorate and installed only by those authorized by the Directorate. Norwegian vessels involved in fishing operations 15m and above are required to comply with position reporting. This also includes vessels of 12m (Norway and EU) when operating in the Skagerrak area. Foreign vessels of 24m or more (15m or more in the case of EU vessels) are subject to position reporting when operating in Norwegian waters outside Skagerrak. For the Norwegian fishery, an ordinance was introduced in 2010 requiring the use of sorting grids to further reduce bycatch. This is still in force for Norwegian vessels fishing in EU waters, in the directed fishery for Norway pout.

Compliance with laws and regulations is actively monitored, through a regime which include at-sea and portside inspections, observer programmes, and VMS. **Sub-clause M2.4 is met**.

**References**

DNV 2018. Initial assessment of the Norway sandeel, pout and North Sea sprat fishery. Public certification report. DNV-GL. 358 pp.

EC 2021. European Commission. Oceans and fisheries. Available at: https://ec.europa.eu/oceans-and-fisheries/index_en

Council Regulation (EC) No 1224/2009 of 20 November 2009 establishing a Community control system for ensuring compliance with the rules of the common fisheries policy, amending Regulations (EC) No 847/96, (EC) No 2371/2002, (EC) No 811/2004,

| | |
|---|---|
| (EC) No 768/2005, (EC) No 2115/2005, (EC) No 2166/2005, (EC) No 388/2006, (EC) No 509/2007, (EC) No 676/2007, (EC) No 1098/2007, (EC) No 1300/2008, (EC) No 1342/2008 and repealing Regulations (EEC) No 2847/93, (EC) No 1627/94 and (EC) No 1966/2006. http://data.europa.eu/eli/reg/2009/1224/oj<br><br>ICES WGNSSK 2021. Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak (WGNSSK). ICES Scientific Reports. 3:66. 1281 pp. https://doi.org/10.17895/ices.pub.8211CES<br><br>https://www.fiskeridir.no/English/Fisheries/Regulations/The-marine-resources-act | |
| **Links** | |
| **MARINTRUST Standard clause** | 1.3.1.3 |
| **FAO CCRF** | 7.7.2 |
| **GSSI** | D1.09 |

# CATEGORY A SPECIES – Norway pout (*Trisopterus esmarkii*)

The four clauses in this section apply to Category A species. Clauses A1 - A4 should be completed for **each** Category A species. If there are no Category A species in the fishery under assessment, this section can be deleted. A Category A species must meet the minimum requirements of all four clauses before it can be recommended for approval. The clauses should be completed by providing sufficient evidence to justify awarding each of the requirements a pass or fail rating. The species must achieve a pass rating against all requirements to be awarded a pass overall. **If the species fails any of these clauses it should be re-assessed as a Category B species.**

| **Species Name** | | **Norway pout (*Trisopterus esmarkii*) stock - ICES subdivision 4 and 3a** | |
|---|---|---|---|
| **A1** | **Data Collection - Minimum Requirements** | | |
| | **A1.1** | Landing data are collected such that the fishery-wide removals of this species are known. | Yes |
| | **A1.2** | Sufficient additional information is collected to enable an indication of stock status to be estimated. | Yes |
| | | **Clause outcome:** | **Pass** |

**A1.1 Landing data are collected such that the fishery-wide removals of this species are known.**

In Norway a landing obligation is in place and all the catch recorded in the logbook and sent to the research and management institutions which use this data for assessing and managing purposes.

The EU's data collection framework (DCF) outlines the EU countries' obligations to collect, manage and make available a wide range of fisheries and aquaculture data needed for scientific advice.

Regulation (EU) 2017/1004 on the establishment of a Union framework for the collection, management and use of data in the fisheries sector and support for scientific advice regarding the common fisheries policy aims to establish rules on the collection, management and use of biological, environmental, technical, and socioeconomic data concerning the fisheries sector. It indicates that the Commission shall establish a multiannual Union programme for the collection and management of data.

According to ICES 2020b, the catches of Norway pout are estimated on the basis of the national official landing statistics of the countries targeting the species. Discarding and bycatch of Norway pout is considered negligible and not included in the ICES assessment. A history of catches for the period 1984 – 2021 is shown below (ICES advice 2021a):

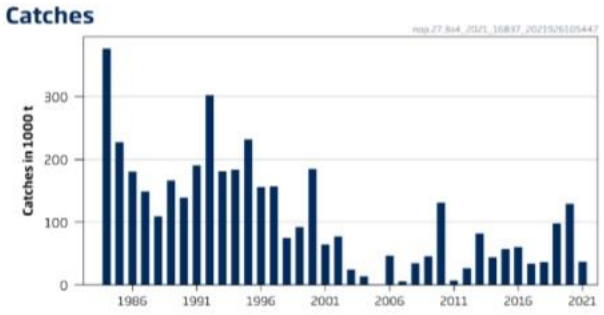



Figure of Catches in the fishery for the period 1984-2021.

Landing data is collected and used for assessing the stock, **sub-clause A1.1 is met**.

**A1.2 Sufficient additional information is collected to enable an indication of stock status to be estimated.**

In addition to commercial catch data, input data in the assessment of the stock includes four survey indices (IBTS Q1 [G1022], IBTS Q3 [G2829], EngGFS-IBTS-Q3 [G2829], and ScoGFS-IBTS-Q3 [G2829]), constant maturity data from survey estimates,

constant natural mortality estimated from survey indices (IBTS Q1&3), and constant mean weight-at-age in the stock from long-term commercial catch estimates (ICES 2021a).

Sufficient additional information is collected to enable an indication of stock status to be estimated. **Sub-clause A1.2 is met**.

**References**

Council Regulation (EC) No 1224/2009 of 20 November 2009 establishing a Community control system for ensuring compliance with the rules of the common fisheries policy, amending Regulations (EC) No 847/96, (EC) No 2371/2002, (EC) No 811/2004, (EC) No 768/2005, (EC) No 2115/2005, (EC) No 2166/2005, (EC) No 388/2006, (EC) No 509/2007, (EC) No 676/2007, (EC) No 1098/2007, (EC) No 1300/2008, (EC) No 1342/2008 and repealing Regulations (EEC) No 2847/93, (EC) No 1627/94 and (EC) No 1966/2006. https://eur-lex.europa.eu/eli/reg/2009/1224/oj/eng

Regulation (EU) 2017/1004 of the European Parliament and of the Council of 17 May 2017 on the establishment of a Union framework for the collection, management and use of data in the fisheries sector and support for scientific advice regarding the common fisheries policy and repealing Council Regulation (EC) No 199/2008. http://data.europa.eu/eli/reg/2017/1004/oj

ICES 2021a. ICES Advice on fishing opportunities, catch, and effort Greater North Sea ecoregion - Norway pout (*Trisopterus esmarkii*) in Subarea 4 and Division 3.a (North Sea, Skagerrak, and Kattegat). Published 8 October 2021. ICES Advice 2021 – nop.27.3a4 – https://doi.org/10.17895/ices.advice.7812

ICES 2021b. ICES. 2021. Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak (WGNSSK). ICES Scientific Reports. 3:66. 1281 pp. https://doi.org/10.17895/ices.pub.8211

**Links**

| | |
|---|---|
| **MARINTRUST Standard clause** | 1.3.2.1.1, 1.3.2.1.2, 1.3.2.1.4, 1.3.1.2 |
| **FAO CCRF** | 7.3.1, 12.3 |
| **GSSI** | D.4.01, D.5.01, D.6.02, D.3.14 |

| **A2** | **Stock Assessment - Minimum Requirements** | | |
|---|---|---|---|
| | **A2.1** | A stock assessment is conducted at least once every 3 years (or every 5 years if there is substantial supporting information that this is sufficient for the long-term sustainable management of the stock), and considers all fishery removals and the biological characteristics of the species. | Yes |
| | **A2.2** | The assessment provides an estimate of the status of the biological stock relative to a reference point or proxy. | Yes |
| | **A2.3** | The assessment provides an indication of the volume of fishery removals which is appropriate for the current stock status. | Yes |
| | **A2.4** | The assessment is subject to internal or external peer review. | Yes |
| | **A2.5** | The assessment is made publicly available. | Yes |
| | | **Clause outcome:** | **Pass** |

**A2.1 A stock assessment is conducted at least once every 3 years (or every 5 years if there is substantial supporting information that this is sufficient for the long-term sustainable management of the stock) and considers all fishery removals and the biological characteristics of the species.**

A stock assessment is conducted annually by the Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak (WGNSSK) using an Age-based analytical assessment (quarterly SAM model, called SESAM). In 2021, ICES used a MSY-based management for short-lived species in the form of an escapement strategy based on a stochastic forecast, i.e., to maintain, with 95% probability, SSB above Blim after the fishery has taken place. The assessment used commercial catches (quarterly catches; catch-at-age and mean weight-at-age from catch sampling from the main Danish and Norwegian fisheries), four survey indices (IBTS Q1 [G1022], IBTS Q3 [G2829], EngGFS-IBTS-Q3 [G2829], and ScoGFS-IBTS-Q3 [G2829]). Constant maturity data from survey estimates, constant natural mortality estimated from survey indices (IBTS Q1&3), and constant mean

weight-at-age in the stock from long-term commercial catch estimates (ICES 2021a). For the implementation of the escapement strategy SSB is calculated at the beginning of quarter 4 as a proxy for SSB at spawning time (quarter 1).

The species is assessed regularly, and the assessment considers all fishery removals and biological characteristics of the species. **Sub-clause A2.1 is met.**

**A2.2 The assessment provides an estimate of the status of the biological stock relative to a reference point or proxy.**

The stock was benchmarked in 2016 (ICES 2016). ICES assesses the Norway pout stock using a MSY approach and estimates the status of the stock in reference to Bpa and Blim but no reference points for fishing pressure or for MSY Btrigger have been defined for this stock (ICES 2021a)

ICES has previously evaluated a proposed management plan from Norway and EU (ICES, 2018a, 2018b, 2018c) but it has not implemented for the fishery. ICES escapement strategy was only found to be precautionary with an Fcap (maximum fishing level) at or below 0.7 (ICES 2021a)

**TABLE 6 NORWAY POUT IN N SUBAREA 4 AND DIVISION 3A. REFERENCE POINTS, VALUES, AND THEIR TECHNICAL BASIS. WEIGHTS IN TONNES (ICES 2021A).**

| Framework | Reference point | Value | Technical basis | Source |
|---|---|---|---|---|
| MSY approach | MSY $B_{escapement}$ | Not defined* | | |
| | $F_{MSY}$ | Not defined | | |
| | $F_{cap}$ | 0.70 | A long-term mananagement strategy evaluation, indicating that an escapement strategy for Norway pout is only precautionary with the addition of an upper limit on fishing mortality = $F_{cap}$ ($F_{bar[1-2]}$) at 0.7 | ICES (2020) |
| Precautionary approach | $B_{lim}$ | 42 573 tonnes (4th quarter) | $B_{lim} = B_{loss}$, the lowest observed biomass in 2005 (as estimated in the updated benchmark assessment) | ICES (2020) |
| | $B_{pa}$ | 69 736 tonnes (4th quarter) | $B_{pa} = B_{lim}\, e^{0.3 \times 1.645}$ | ICES (2020) |
| | $F_{lim}$ | Not defined | | |
| | $F_{pa}$ | Not defined | | |
| Management plan | $SSB_{MGT}$ | Not applicable | | |
| | $F_{MGT}$ | Not applicable | | |

* MSY $B_{escapement}$ has not been defined, as the escapement strategy uses directly the 95% probability of SSB being above $B_{lim}$.

The stock assessment provides an estimate of the status of the biological stock relative to a reference point or proxy. **Clause A2.2 is met.**

**A2.3 The assessment provides an indication of the volume of fishery removals which is appropriate for the current stock status.**

The ICES advice provides an indication of the volume of fishery removals which is appropriate for the current stock status in the form of recommended catches in the coming year. In the latest advice, ICES advised that when the MSY approach is applied, catches from 1 November 2021 to 31 October 2022 should be no more than 118,273 tonnes. ICES considers that this forecast sufficiently approximates the TAC period and that it can be used directly for management purposes for the period 1 November 2021–31 October 2022. TACs are within the specified ranges set out in ICES advice and catches are within the TAC – see table below. Discarding is considered to be negligible in this fishery (ICES 2021a). The harvest strategy has been effective in maintaining the stock s above Bpa and Blim.

The assessment provides an indication of the volume of fishery removals which is appropriate for the current stock status. **Sub-clause A2.3 is met.**

**A2.4 The assessment is subject to internal or external peer review.**

The ICES Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak (WGNSSK) performs stock assessments on the main demersal stocks in the North Sea, Skagerrak, and Eastern English Channel (ICES 2021b). The assessment of the Norway pout stock is conducted annually by the group (ICES 2021a). In 2021, at least 58 scientists participated in the WGNSSK meeting, from fisheries research institutes and universities from the countries around the North Sea and Skagerrak area, including: United Kingdom, Norway, Denmark, Germany, Sweden, France, Belgium, Netherlands (ICES 2021b). It is understood that the assessment for the stock was presented at the meeting, reviewed and the results agreed by the group. When the results of the assessments are agreed by the ICES groups, they are sent the ICES Advice Drafting Group, which consists of National Experts, which review them, and they are finally reviewed by the Advisory Committee (ACOM) which delivers the ICES advice. The WGNSSK is open to observers from competent authorities (ICES 2021b).

During the benchmarked process, external experts also participate. In this case, the stock was last benchmarked in 2016 (ICES 2021a).

The assessment is subject to internal and external review. **Sub-clause A2.4 is met.**

**A2.5 The assessment is made publicly available.**

Stock Assessments and advice for this stock is publicly available on the ICES (latest advice) website (https://www.ices.dk/advice/Pages/Latest-Advice.aspx) and the ICES WGNSSK website (https://www.ices.dk/community/groups/Pages/WGNSSK.aspx).

The assessment is made publicly available. **Sub-clause A2.5 is met.**

**References**

ICES 2021a. ICES Advice on fishing opportunities, catch, and effort Greater North Sea ecoregion - Norway pout (*Trisopterus esmarkii*) in Subarea 4 and Division 3.a (North Sea, Skagerrak, and Kattegat). Published 8 October 2021. ICES Advice 2021 – nop.27.3a4 – https://doi.org/10.17895/ices.advice.7812

ICES 2021b. ICES. 2021. Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak (WGNSSK). ICES Scientific Reports. 3:66. 1281 pp. https://doi.org/10.17895/ices.pub.8211

**Links**

| | |
|---|---|
| **MARINTRUST Standard clause** | 1.3.2.1.2, 1.3.2.1.4, 1.3.1.2 |
| **FAO CCRF** | 12.3 |
| **GSSI** | D.5.01, D.6.02, D.3.14 |

| | | | |
|---|---|---|---|
| **A3** | **Harvest Strategy - Minimum Requirements** | | |
| | **A3.1** | There is a mechanism in place by which total fishing mortality of this species is restricted. | Yes |
| | **A3.2** | Total fishery removals of this species do not regularly exceed the level indicated or stated in the stock assessment. Where a specific quantity of removals is recommended, the actual removals may exceed this by up to 10% ONLY if the stock status is above the limit reference point or proxy. | Yes |
| | **A3.3** | Commercial fishery removals are prohibited when the stock has been estimated to be below the limit reference point or proxy (small quotas for research or non-target catch of the species in other fisheries are permissible). | Yes |
| | | **Clause outcome:** | **Pass** |

**A3.1 There is a mechanism in place by which total fishing mortality of this species is restricted.**

ICES evaluated a proposed management plan from Norway and EU (ICES, 2018a, 2018b, 2018c) but a precautionary management plan for Norway pout in this area has not been agreed and no reference points for fishing pressure have been defined for this stock either. However, ICES escapement strategy was found to be precautionary with an Fcap at or below 0.7. Based on the MSY approach ((escapement strategy) 95% probability of SSB being above Blim in the 4th quarter of 2022), ICES gives advice, which is used by the authorities to set a TAC for the stock. In 2021, ICES advises that when the MSY approach is applied, catches from 1 November 2021 to 31 October 2022 should be no more than 118,273 tonnes. It would correspond to a F of 0.47 (ICES 2021a) below the 0.7 limit.

Therefore, the primary mechanism by which total fishing mortality on the Norway pout stock is restricted comes in the form of Total Allowable Catches (TACs). In recent years, TAC and total catches have been below the ICES advice (see section below). Additional measures to restrict mortality include minimum mesh size, the closed Norway pout box, etc (Nielsen et al., 2016).

There is a mechanism in place by which total fishing mortality of this species is restricted. **Sub-clause A3.1 is met.**

**A3.2 Total fishery removals of this species do not regularly exceed the level indicated or stated in the stock assessment. Where a specific quantity of removals is recommended, the actual removals may exceed this by up to 10% ONLY if the stock status is above the limit reference point or proxy.**

The current strategy has been effective in maintaining the Norway pout stock above to Bpa and Blim. TACs are within the specified ranges set out in ICES advice and catches are within the TAC for recent years – see table below.

**TABLE 7 NORWAY POUT IN SUBAREA 4 AND DIVISION 3.A. HISTORY OF ICES ADVICE, AGREED TACS, OFFICIAL CATCH, AND ICES CATCH ESTIMATE. ALL WEIGHTS ARE IN TONNES. CATCH VALUES PRIOR TO 2004 ARE PRESENTED TO THE NEAREST THOUSAND TONNES (ICES 2021A).**

| Year | ICES advice | Predicted catch corresponding to advice^^ | TAC Norway | TAC EU^ | TAC UK^ | Official catch (including bycatch of other species) | ICES catch |
|---|---|---|---|---|---|---|---|
| 2012 | No fisheries | 0 | | 0 | | | |
| In-year* | No fisheries | 0 | | | | 30148 | 27073 |
| In-year** | Maintain SSB > MSY $B_{escapement}$ | < 101000 | 25000 | 70683 | | | |
| 2013 | Maintain SSB > MSY $B_{escapement}$ | < 458000 ($Catch_{2012}$ = 0) < 393000 ($Catch_{2012}$ = 101) | 157000 | 165700 | | 84969 | 82100 |
| In-year* | Maintain SSB > MSY $B_{escapement}$ | < 457000 | | | | | |
| 2014 | Maintain SSB > MSY $B_{escapement}$ | < 216000 | 108000 | 128250 | | 47120 | 44170 |
| In-year* | Maintain SSB > MSY $B_{escapement}$ | < 108000 | 123000 | | | | |
| 2015 | Precautionary considerations (F = 0.6) | < 326000 | 178000 | 150000 | | 63430 | 63400 |
| 2016 | MSY approach (escapement biomass with $F_{cap}$) | < 390000 | 210000 | 150000 | | 62770 | 63400 |
| 2017 | MSY approach (escapement strategy; probability of SSB falling below $B_{lim}$ is less than 5%) | ≤ 358471 | 204235 | 141950 | | 33847 | 33933 |
| 2018 | MSY approach (escapement strategy; probability of SSB falling below $B_{lim}$ is less than 5%) | ≤ 212531 | 90978 | 85265 | | 36060 | 36147 |
| 2019 | MSY approach (escapement strategy; probability of SSB falling below $B_{lim}$ is less than 5%) with $F_{cap}$ = 0.7 | ≤ 135459 | 82230 | 55000 | | 100094 | 97654 |
| 2020 | MSY approach (escapement strategy; probability of SSB falling below $B_{lim}$ is less than 5%) with $F_{cap}$ = 0.7 | ≤ 167105 | 98053 | 72500 | | 130432 | 129497 |
| 2021 | MSY approach (escapement strategy; probability of SSB falling below $B_{lim}$ is less than 5%) with $F_{cap}$ = 0.7 | ≤ 254038 | 127019 | 116555 | 11745 | | |
| 2022 | MSY approach (escapement strategy; probability of SSB falling below $B_{lim}$ is less than 5%) | ≤ 118273 | | | | | |

* Between 2008 and 2014, advice was provided in autumn, while the in-year advice was given in June on the basis of the first surveys and catches in the TAC year.
** Update of in-year advice in October 2012.
^ From 2018, the TAC for EU Member States and UK fishing in EU and UK waters is provided for the period 1 November of the previous year to 31 October of the current year. The EU TAC included UK up to 2020.
^^ Starting with the advice for 2016, ICES advice has been provided for the period 1 November of the previous year to 31 October of the current year.

Total fishery removals of this species do not regularly exceed the level indicated or stated in the stock assessment**. Sub-clause A3.2 is met.**

**A3.3 Commercial fishery removals are prohibited when the stock has been estimated to be below the limit reference point or proxy (small quotas for research or non-target catch of the species in other fisheries are permissible).**

The ICES approach for managing this short-lived species is a MSY-based approach where a escapement strategy is used, with a 95% probability of SSB being above Blim in the 4th quarter of the following fishing year (in this case 2022). A Fcap limit (Fbar(1–2)) of 0.7 is also set (ICES 2021a). The directed fishery for Norway pout was closed in 2005, in the first half of 2006, and in 2007 as well as in the first half of 2011 and 2012. In the periods of closures there have in some years been set by-catch quotas for Norway pout in the Norwegian mixed blue whiting fishery around 5 kt, as well as in a small experimental fishery in 2007 (1 kt) (ICES 2021b).

Therefore, it is considered that commercial fishery removals are prohibited when the stock has been estimated to be below the limit reference point history. **Sub-clause A3.3 is met.**

**References**

ICES 2021a. ICES Advice on fishing opportunities, catch, and effort Greater North Sea ecoregion - Norway pout (*Trisopterus esmarkii*) in Subarea 4 and Division 3.a (North Sea, Skagerrak, and Kattegat). Published 8 October 2021. ICES Advice 2021 – nop.27.3a4 – https://doi.org/10.17895/ices.advice.7812

ICES 2021b. ICES. 2021. Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak (WGNSSK). ICES Scientific Reports. 3:66. 1281 pp. https://doi.org/10.17895/ices.pub.8211

Nielsen, J. R., Olsen, J., Håkonsson, K. B., Egekvist J. and Dalskov, J. 2016. Danish Norway pout fishery in the North Sea and Skagerrak in ICES. 2017. Report of the Benchmark Workshop on Norway Pout (*Trisopterus esmarkii*) in Subarea 4 and Division 3a (North Sea, Skagerrak, and Kattegat), 23–25 August 2016, Copenhagen, Denmark. ICES CM 2016/ACOM:35. 69 pp: https://doi.org/10.17895/ices.pub.5599

*Standard clause 1.3.2.1.3*

| **Links** | |
|---|---|
| **MARINTRUST Standard clause** | 1.3.2.1.3, 1.3.2.1.4 |
| **FAO CCRF** | 7.2.1, 7.22 (e), 7.5.3 |
| **GSSI** | D3.04, D6.01 |

| **A4** | **Stock Status - Minimum Requirements** | | |
|---|---|---|---|
| | **A4.1** | The stock is at or above the target reference point, OR IF NOT:<br><br>The stock is above the limit reference point or proxy and there is evidence that a fall below the limit reference point would result in fishery closure OR IF NOT:<br><br>The stock is estimated to be below the limit reference point or proxy, but fishery removals are prohibited. | Yes |
| | | **Clause outcome:** | **Pass** |

**A4.1 The stock is at or above the target reference point, OR IF NOT:**

**The stock is above the limit reference point or proxy and there is evidence that a fall below the limit reference point would result in fishery closure OR IF NOT:**

**The stock is estimated to be below the limit reference point or proxy, but fishery removals are prohibited.**

Spawning stock biomass (SSB) has since 2001 decreased continuously until 2005 but has in recent years increased again due to the strong 2008, 2009, 2012, 2014, 2016-, 2018-, 2019- and 2020-year classes, and the lowered fishing mortality. The stock biomass fell to a level well below Blim in 2005 which is the lowest level ever recorded. By 1 January 2007 and 2008 the stock was at Bpa (= MSY Bescapement) (i.e., at increased risk of suffering reduced reproductive capacity), while the stock by 1 January 2009, 2010, 2011, 2012, 2014, 2015, 2016, 2017, 2018, 2019, 2020 and 2021 has been above Bpa (i.e., the stock show full reproductive capacity) (ICS 2021b).

The recruitment in 2010 was very low and at the same level as the low 2003- and 2004-year classes where these three-year classes are the lowest on record since the mid-1980s. The recruitment in 2008, 2009, 2012, 2014, 2016, 2018, 2019 and 2020 was high. Recruitment in 2011 and 2013 was also very low, and the recruitment in 2015 and 2017 was slightly below long-term average (46 billion), but because of the strong 2012, 2014, 2016-, 2018-, 2019- and 2020-year classes the SSB has been well above Bpa (= MSY Bescapement) since 2014 even with a high yearly TAC in 2014–2021 (up to 3rd quarter) considering growth, high natural mortality, and 20% maturation at age 1. The 2021 recruitment is about half (24 billion) of the long-term average (46 billion) and will reduce the stock biomass, but because of the strong 2018, 2019 and 2020 recruitment the stock is expected to remain above Bpa by the end of 2021 (ICES 2021b).

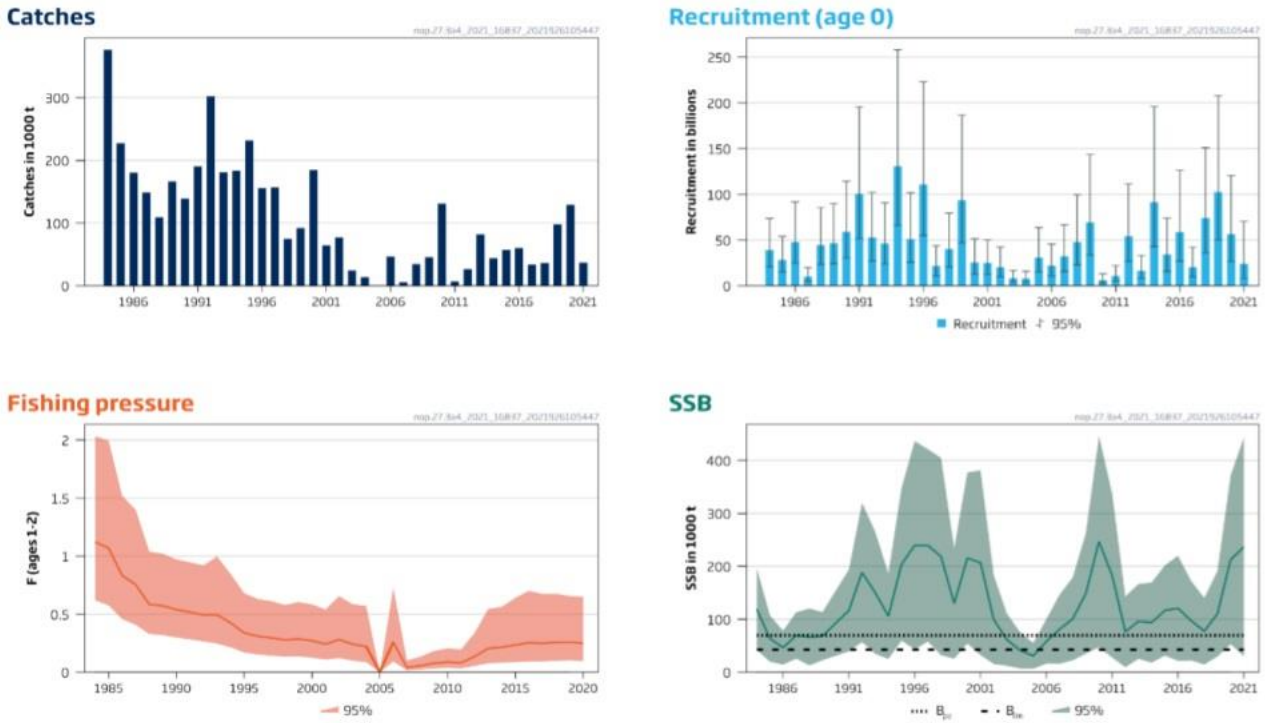



**FIGURE 2 NORWAY POUT IN SUBAREA 4 AND DIVISION 3.A. SUMMARY OF THE STOCK ASSESSMENT. CATCHES IN 2021 ARE UP TO MID-SEPTEMBER. SSB IS ESTIMATED AT THE BEGINNING OF QUARTER 4. (ICES 2021A).**

The stock is above the limit reference point. **Sub-clause A4.1 is met.**

**References**

ICES 2021a. ICES Advice on fishing opportunities, catch, and effort Greater North Sea ecoregion - Norway pout (*Trisopterus esmarkii*) in Subarea 4 and Division 3.a (North Sea, Skagerrak, and Kattegat). Published 8 October 2021. ICES Advice 2021 – nop.27.3a4 – https://doi.org/10.17895/ices.advice.7812

ICES 2021b. ICES. 2021. Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak (WGNSSK). ICES Scientific Reports. 3:66. 1281 pp. https://doi.org/10.17895/ices.pub.8211

| **Links** | |
|---|---|
| **MARINTRUST Standard clause** | **1.3.2.1.4** |
| **FAO CCRF** | **7.2.1, 7.2.2 (e)** |
| **GSSI** | **D6 01** |

# CATEGORY C SPECIES - Herring (*Clupea harengus*) - Autumn spawners

In a whole fish assessment, Category C species are those which make up less than 5% of landings, but which are subject to a species-specific management regime. In most cases this will be because they are a commercial target in a fishery other than the one under assessment.

Clause C1 should be completed for **each** Category C species. If there are no Category C species in the fishery under assessment, this section can be deleted. Where a species fails this Clause, it may be assessed as a Category D species instead, EXCEPT if there is evidence that it is currently below the limit reference point.

| **Species Name** | | **Herring (Clupea harengus) in ICES Subarea 4 and divisions 3.a and 7.d, autumn spawners (North Sea, Skagerrak and Kattegat, eastern English Channel)** | |
|---|---|---|---|
| **C1** | **Category C Stock Status - Minimum Requirements** | | |
| | **C1.1** | Fishery removals of the species in the fishery under assessment are included in the stock assessment process, OR are considered by scientific authorities to be negligible. | Yes |
| | **C1.2** | The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy), OR removals by the fishery under assessment are considered by scientific authorities to be negligible. | Yes |
| | | **Clause outcome:** | **Pass** |

**C1.1 Fishery removals of the species in the fishery under assessment are included in the stock assessment process, OR are considered by scientific authorities to be negligible.**

The EU's data collection framework (DCF) outlines the EU countries' obligations to collect, manage and make available a wide range of fisheries and aquaculture data needed for scientific advice. In Norway a landing obligation is in place and all the catch recorded in the logbook and sent to the research and management institutions which use this data for assessing and managing purposes.

Herring in ICES Subarea 4 and divisions 3.a and 7.d, autumn spawners (North Sea, Skagerrak and Kattegat, eastern English Channel) is assessed by ICES using commercial catches and five survey indices (IBTS Q1 1-ringer G1022), IBTS0 (I8304), LAI as SSB index (I2359, I9086, I2687), HERAS 1–8 ringers A5092, IBTS Q3 0–5-ringers G2829); annual maturity data from HERAS survey, natural mortalities from SMS North Sea multispecies model (ICES 2021c)

Fishery removals of the species in the fishery under assessment are included in the stock assessment process, **sub-clause C1.1 is met.**

**C1.2 The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy), OR removals by the fishery under assessment are considered by scientific authorities to be negligible**.

The latest stock assessment was undertaken in September 2021 by the Herring Assessment Working Group for the Area South of 62°N (HAWG) (ICES 2021c). An Age-based analytical assessment, Stock Assessment Model (ICES, 2021d) that uses catches in the model and the forecast was used to assess the status of the stock. The MSY approach is used as a basis for the advice and there is not any agreed precautionary management plan for herring in the area. Fishing pressure on the stock is below FMSY, Fpa, and Flim; and the spawning-stock size is above MSY Btrigger, Bpa, and Blim (ICES 2021c).

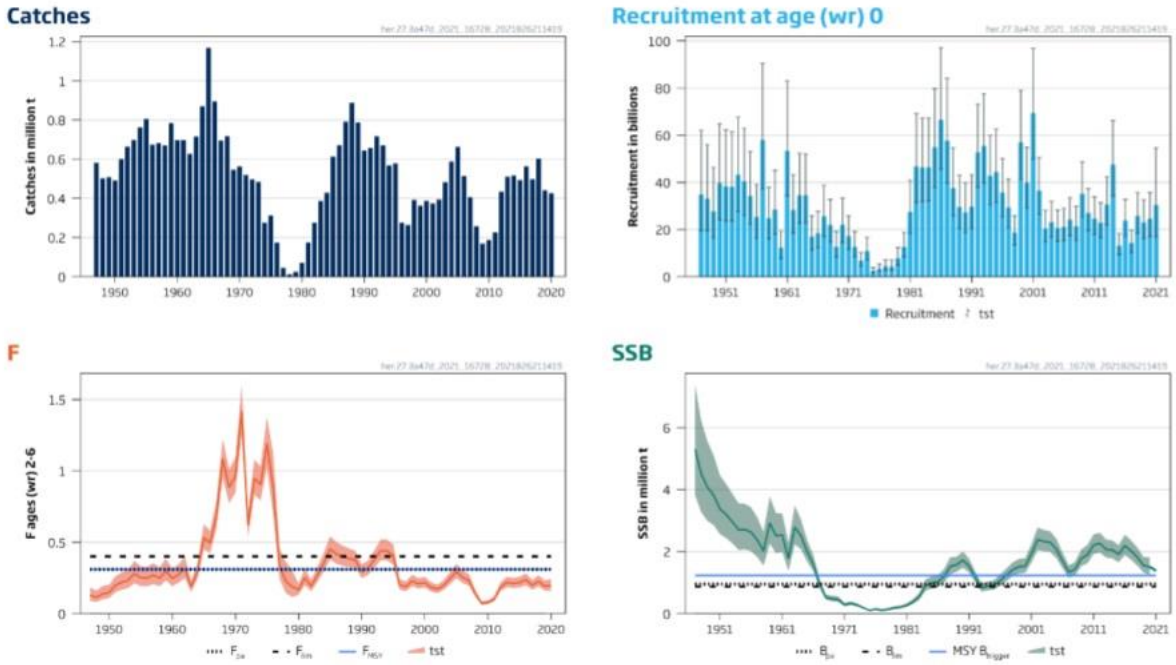



Figure 3 Herring in Subarea 4 and divisions 3.a and 7.d, autumn spawners. Summary of the stock assessment; 95% confidence intervals are shown for SSB, F, and recruitment (ICES 2021c).

The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point, **sub-clause C1.2 is met.**

**References**

ICES 2021c. Herring (*Clupea harengus*) in Subarea 4 and divisions 3.a and 7.d, autumn spawners (North Sea, Skagerrak and Kattegat, eastern English Channel). In Report of the ICES Advisory Committee, 2021. ICES Advice 2021, her.27.3a47d, https://doi.org/10.17895/ices.advice.7770

| **Links** | |
|---|---|
| **MARINTRUST Standard clause** | 1.3.2.2 |
| **FAO CCRF** | 7.5.3 |
| **GSSI** | D.3.04, D5.01 |

# CATEGORY C SPECIES - Herring (*Clupea harengus*) - Norwegian spring-spawning herring

In a whole fish assessment, Category C species are those which make up less than 5% of landings, but which are subject to a species-specific management regime. In most cases this will be because they are a commercial target in a fishery other than the one under assessment.

Clause C1 should be completed for **each** Category C species. If there are no Category C species in the fishery under assessment, this section can be deleted. Where a species fails this Clause, it may be assessed as a Category D species instead, EXCEPT if there is evidence that it is currently below the limit reference point.

| **Species Name** | | **Herring (C. harengus) in ICES subareas 1, 2, and 5, and in divisions 4.a and 14.a, (the Northeast Atlantic and the Arctic Ocean)** | |
|---|---|---|---|
| **C1** | **Category C Stock Status - Minimum Requirements** | | |
| | **C1.1** | Fishery removals of the species in the fishery under assessment are included in the stock assessment process, OR are considered by scientific authorities to be negligible. | Yes |
| | **C1.2** | The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy), OR removals by the fishery under assessment are considered by scientific authorities to be negligible. | Yes |
| | | **Clause outcome:** | **Pass** |

**C1.1 Fishery removals of the species in the fishery under assessment are included in the stock assessment process, OR are considered by scientific authorities to be negligible.**

The EU's data collection framework (DCF) outlines the EU countries' obligations to collect, manage and make available a wide range of fisheries and aquaculture data needed for scientific advice. In Norway a landing obligation is in place and all the catch recorded in the logbook and sent to the research and management institutions which use this data for assessing and managing purposes.

Herring in ICES subareas 1, 2, and 5, and in divisions 4.a and 14.a, (the Northeast Atlantic and the Arctic Ocean) is assessed by ICES using the following input data: Assessment period 1988–2020: Commercial catches-at-age (stock weight-at-age from surveys and, since 2009, from catch sampling). Three survey indices: Norwegian acoustic survey on spawning grounds in February/March (NASF; A7918, 1994–2005, 2015–2021); International Ecosystem Survey in the Nordic Seas (IESNS; A3675) covering the adult stock in the Nordic seas (1996–2021), and the juvenile stock in the Barents Sea (1991–2021). Maturity ogive variable by year-class strength. Natural mortalities are fixed values from historical analyses (age 2 = 0.9; ages greater than 2 = 0.15) (ICES 2021d). Catches of the species are shown in the figure below (ICES 2021d).

Fishery removals of the species in the fishery under assessment are included in the stock assessment process, **sub-clause C1.1 is met.**

**C1.2 The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy), OR removals by the fishery under assessment are considered by scientific authorities to be negligible**.

The latest stock assessment was undertaken in September 2021 by the Working Group on Widely Distributed Stocks (WGWIDE) (ICES 2021d). A Statistical assessment model (XSAM; ICES, 2016) that uses catches in the model and in the forecast and also includes uncertainty in catches and abundance indices is used to assess the stock. A long-term management strategy was agreed by the European Union, the Faroe Islands, Iceland, Norway, and Russian Federation in 2018 (Anon, 2018). ICES has evaluated the long-term management strategy and found it to be precautionary (ICES, 2018a).

ICES considered that fishing pressure on the stock is above FMSY and Fpa but below Flim; spawning-stock size is above MSY Btrigger, Bpa, and Blim.

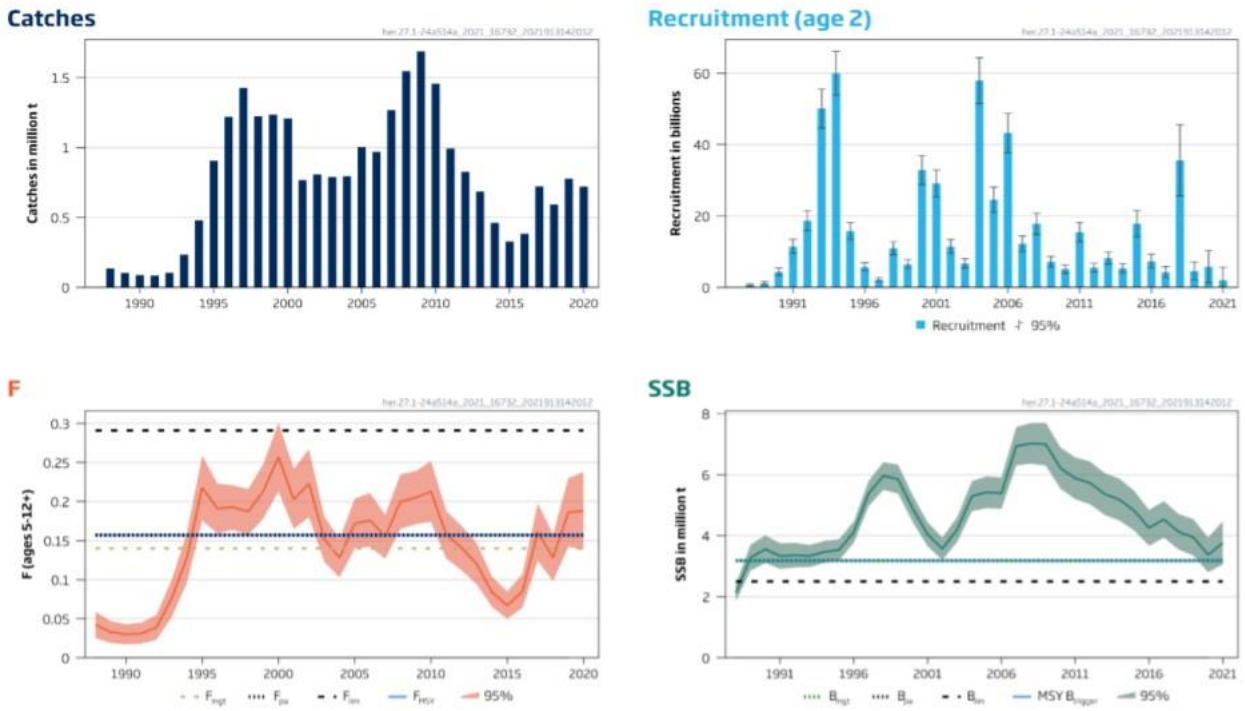



**FIGURE 4 HERRING IN SUBAREAS 1, 2, AND 5, AND IN DIVISIONS 4.A AND 14.A (NORWEGIAN SPRING-SPAWNING HERRING). SUMMARY OF THE STOCK ASSESSMENT (ICES 2021D).**

The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point, **sub-clause C1.2 is met.**

**References**

ICES 2021d. Herring (*Clupea harengus*) in subareas 1, 2, 5 and divisions 4.a and 14.a, Norwegian spring-spawning herring (the Northeast Atlantic and Arctic Ocean). In Report of the ICES Advisory Committee, 2021. ICES Advice 2021, her.27.1-24a514a. https://doi.org/10.17895/ices.advice.7765

| **Links** | |
|---|---|
| **MARINTRUST Standard clause** | 1.3.2.2 |
| **FAO CCRF** | 7.5.3 |
| **GSSI** | D.3.04, D5.01 |

# CATEGORY C SPECIES - Blue whiting (Micromesistius poutassou)

In a whole fish assessment, Category C species are those which make up less than 5% of landings, but which are subject to a species-specific management regime. In most cases this will be because they are a commercial target in a fishery other than the one under assessment.

Clause C1 should be completed for **each** Category C species. If there are no Category C species in the fishery under assessment, this section can be deleted. Where a species fails this Clause, it may be assessed as a Category D species instead, EXCEPT if there is evidence that it is currently below the limit reference point.

| **Species Name** | | **Blue whiting (Micromesistius poutassou) - ICES subareas 1 – 9, 12, and 14 (Northeast Atlantic and adjacent waters)** | |
|---|---|---|---|
| **C1** | **Category C Stock Status - Minimum Requirements** | | |
| | **C1.1** | Fishery removals of the species in the fishery under assessment are included in the stock assessment process, OR are considered by scientific authorities to be negligible. | Yes |
| | **C1.2** | The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy), OR removals by the fishery under assessment are considered by scientific authorities to be negligible. | Yes |
| | | **Clause outcome:** | **Pass** |

**C1.1 Fishery removals of the species in the fishery under assessment are included in the stock assessment process, OR are considered by scientific authorities to be negligible.**

The EU's data collection framework (DCF) outlines the EU countries' obligations to collect, manage and make available a wide range of fisheries and aquaculture data needed for scientific advice. In Norway a landing obligation is in place and all the catch recorded in the logbook and sent to the research and management institutions which use this data for assessing and managing purposes.

Blue whiting, subareas 1 – 9, 12, and 14 (Northeast Atlantic and adjacent waters) is assessed by ICES using the following input data: Commercial catches, preliminary estimate of catch-at-age in the year (Q1-Q2) in which the assessment is carried out. One survey index (International Blue Whiting Spawning Stock Survey (A1142 [IBWSS]) ages 1-8, 2004-2021, excluding 2010 and 2020). Fixed maturity estimated in 1994 by combining maturity ogives from the southern and northern areas. Natural mortality fixed at 0.2, derived in the 1980s from age compositions before the targeted fishery started (ICES 2021e).

ICES considered that fishery removals of the species in the fishery under assessment are included in the stock assessment process, **sub-clause C1.1 is met.**

**C1.2 The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy), OR removals by the fishery under assessment are considered by scientific authorities to be negligible**.

The latest stock assessment was undertaken in September 2021 by the Working Group on Widely Distributed Stocks (WGWIDE)) (ICES 2021c). An Age-based analytical assessment (SAM; ICES, 2021a) that uses catches in the model and the forecast is used to assess the stock. A long long-term management strategy was agreed by the European Union, the Faroe Islands, Iceland, and Norway in 2016 (Anon, 2016). ICES has evaluated the strategy and found it to be precautionary (ICES, 2016a).

ICES considered that fishing pressure in the stock is above FMSY and Fpa but below Flim; spawning-stock size is above MSY Btrigger, Bpa, and Blim.

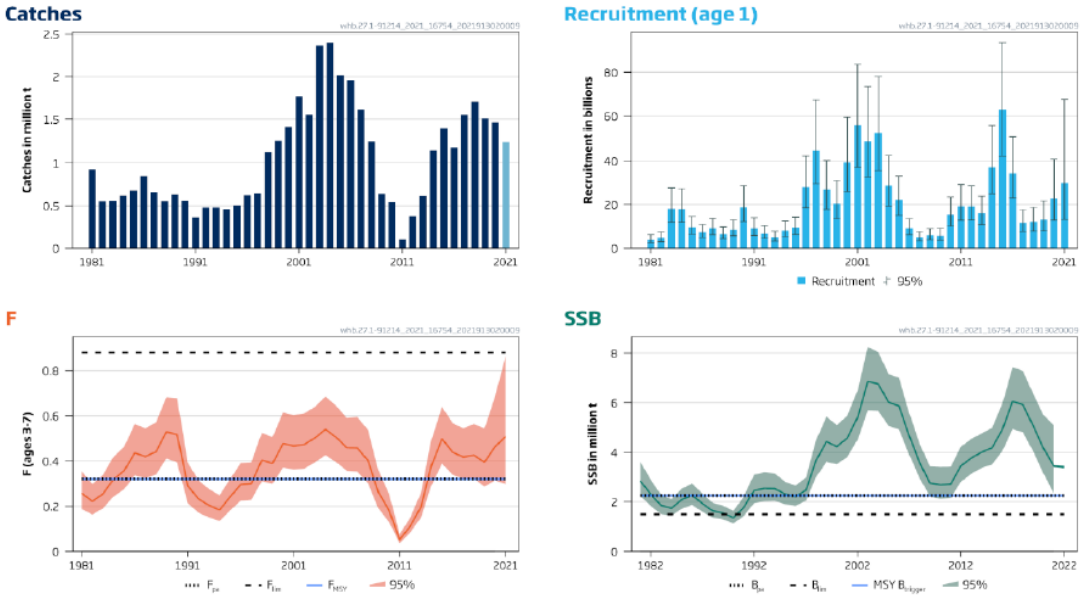



**FIGURE 4 BLUE WHITING IN SUBAREAS 1 9, 12, AND 14. SUMMARY OF THE STOCK ASSESSMENT. CATCHES FOR 2021 (PALE BLUE) ARE PRELIMINARY ESTIMATES. FOR THIS STOCK, FMGT = FMSY AND SSBMGT = BPA. (ICES 2021E).**

The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point, **sub-clause C1.2 is met.**

**References**

ICES 2021e. Blue whiting (*Micromesistius poutassou*) in subareas 1-9, 12, and 14 (Northeast Atlantic and adjacent waters). In Report of the ICES Advisory Committee, 2021. ICES Advice 2021, whb.27.1-91214. https://doi.org/10.17895/ices.advice.7883.

| **Links** | |
|---|---|
| **MARINTRUST Standard clause** | 1.3.2.2 |
| **FAO CCRF** | 7.5.3 |
| **GSSI** | D.3.04, D5.01 |

# CATEGORY C SPECIES - Cod (*Gadus morhua*)

In a whole fish assessment, Category C species are those which make up less than 5% of landings, but which are subject to a species-specific management regime. In most cases this will be because they are a commercial target in a fishery other than the one under assessment.

Clause C1 should be completed for **each** Category C species. If there are no Category C species in the fishery under assessment, this section can be deleted. Where a species fails this Clause, it may be assessed as a Category D species instead, EXCEPT if there is evidence that it is currently below the limit reference point.

| **Species Name** | | **Cod (Gadus morhua) - ICES Subarea 4, Division 7d, and Subdivision 20 (North Sea, eastern English Channel, Skagerrak)** | |
|---|---|---|---|
| **C1** | **Category C Stock Status - Minimum Requirements** | | |
| | **C1.1** | Fishery removals of the species in the fishery under assessment are included in the stock assessment process, OR are considered by scientific authorities to be negligible. | Yes |
| | **C1.2** | The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy), OR removals by the fishery under assessment are considered by scientific authorities to be negligible. | Yes |
| | | **Clause outcome:** | **Pass** |

**C1.1 Fishery removals of the species in the fishery under assessment are included in the stock assessment process, OR are considered by scientific authorities to be negligible.**

The EU's data collection framework (DCF) outlines the EU countries' obligations to collect, manage and make available a wide range of fisheries and aquaculture data needed for scientific advice. In Norway a landing obligation is in place and all the catch recorded in the logbook and sent to the research and management institutions which use this data for assessing and managing purposes.

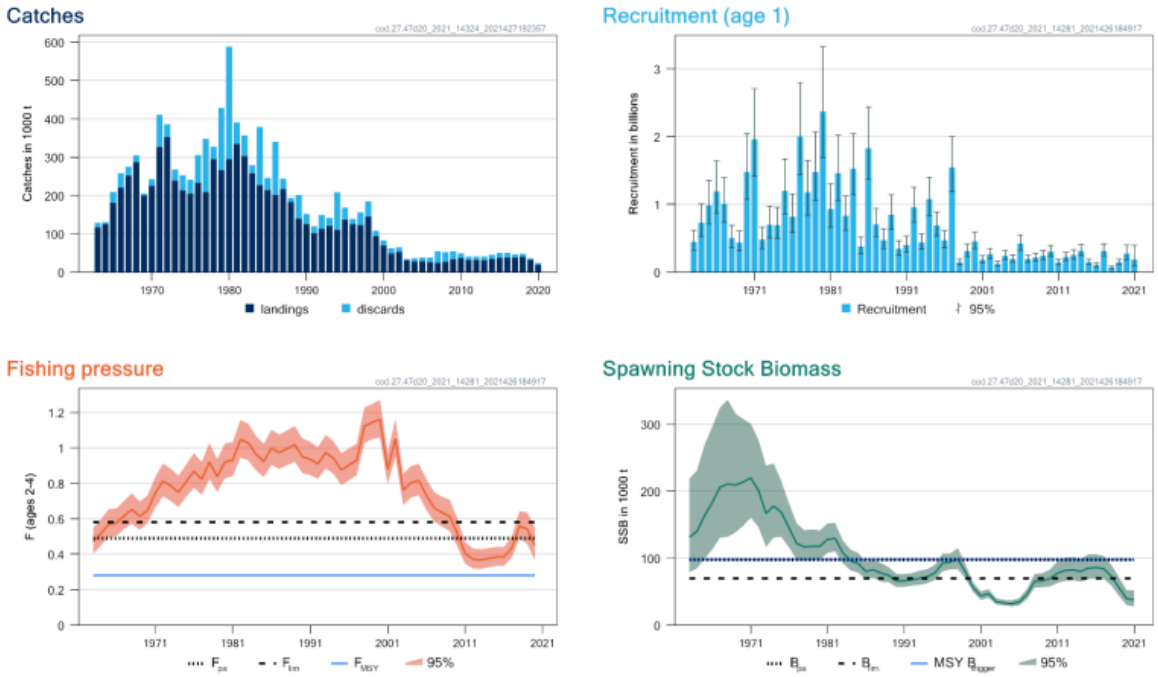
According to ICES it is assessed using the following input data: Commercial catches (international catches and ages from catch sampling by métier), two survey indices (IBTS Q1 [G1022] and IBTS Q3 [G2829]) derived by a Delta–GAM approach; a third index for recruits is derived from the same IBTS Q3 Delta-GAM approach. Annually varying maturity data from IBTS Q1 ([G1022]; 1978–2021). Annually varying natural mortalities from multispecies model (1974–2019) with an ad hoc adjustment to mimic emigration of 3+ cod out of the assessment area from 2011 (ICES 2021f).

Fishery removals of the species in the fishery under assessment are included in the stock assessment process, **sub-clause C1.1 is met.**

**C1.2 The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy), OR removals by the fishery under assessment are considered by scientific authorities to be negligible**.

The latest stock assessment was undertaken in June 2021 by the Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak (WGNSSK) (ICES 2021c). ICES is aware of the EU multiannual management plan (MAP) that has been agreed for this stock (EU, 2018) and considers it to be precautionary. There is no agreement with Norway and the UK regarding this plan, and it is not used as the basis of the advice for this shared stock. ICES provides catch scenarios consistent with the FMSY ranges in the MAP. ICES considered that fishing pressure on the stock is above FMSY but below Fpa and Flim; spawning-stock size is below MSY Btrigger, Bpa, and Blim.

**FIGURE 5 COD IN SUBAREA 4, DIVISION 7.D, AND SUBDIVISION 20. SUMMARY OF THE STOCK ASSESSMENT (ICES 2021F)**




According to the most recent review of the Norway pout fishery, by-catch of herring, saithe, cod, haddock, whiting, and anglerfish at various levels in this small-meshed fishery. By-catches of these species have been relatively low in the recent decade, and in general, the by-catch levels of these gadoids have decreased in the Norway pout fishery over the years (ICES 2021b). Review of scientific documentation show that gear selective devices can be used in the Norway pout fishery, significantly reducing by-catches of juvenile gadoids, larger gadoids, and other non-target species. Sorting grids are at present used in the Norwegian and Danish fishery (partly implemented as management measures for the larger vessels), but modification of the selective devices and their implementation in management is still ongoing (ICES 2021b).

Nielsen et al., 2016 presents bycatch levels in the period 2002 – 2015 by species in the Danish and Norwegian small meshed industrial trawl fishery targeting Norway pout in the North Sea and Skagerrak. In that review, cod bycatch was estimated at 0.01% – 0.07% of total annual landings (Nielsen et al., 2016). Based on average annual Norway pout landings, this would suggest that cod removals by the Norway pout fishery are between 10 mt and 70 mt annually which, when considered in the context of total removals from the North Sea cod stock (17,192 mt of cod were landed in 2020), may be considered negligible.

Removals of cod by the fishery under assessment are considered to be negligible. **Sub-clause C1.2 is met.**

**References**

ICES 2021f. Cod (Gadus morhua) in Subarea 4, Division 7.d, and Subdivision 20 (North Sea, eastern English Channel, Skagerrak). In Report of the ICES Advisory Committee, 2021. ICES Advice 2021, cod.27.47d20. https://doi.org/10.17895/ices.advice.7746

Nielsen, J.R., Olsen, J., Håkonsson, K.B., Egekvist, J., and Dalskov, J. 2016. Danish Norway pout fishery in the North Sea and Skagerrak. Working Document 2, ICES WKPOUT 2016. ICES CM 2016 / ACOM:35, 81 pp.

| **Links** | |
|---|---|
| **MARINTRUST Standard clause** | 1.3.2.2 |
| **FAO CCRF** | 7.5.3 |
| **GSSI** | D.3.04, D5.01 |

# CATEGORY C SPECIES – Haddock (*Melanogrammus aeglefinus*)

In a whole fish assessment, Category C species are those which make up less than 5% of landings, but which are subject to a species-specific management regime. In most cases this will be because they are a commercial target in a fishery other than the one under assessment.

Clause C1 should be completed for **each** Category C species. If there are no Category C species in the fishery under assessment, this section can be deleted. Where a species fails this Clause, it may be assessed as a Category D species instead, EXCEPT if there is evidence that it is currently below the limit reference point.

| **Species Name** | | **Haddock (Melanogrammus aeglefinus) - ICES Subarea 4, Division 7d, and Subdivision 20 (North Sea, eastern English Channel, Skagerrak)** | |
|---|---|---|---|
| **C1** | **Category C Stock Status - Minimum Requirements** | | |
| | **C1.1** | Fishery removals of the species in the fishery under assessment are included in the stock assessment process, OR are considered by scientific authorities to be negligible. | Yes |
| | **C1.2** | The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy), OR removals by the fishery under assessment are considered by scientific authorities to be negligible. | Yes |
| | | **Clause outcome:** | **Pass** |

**C1.1 Fishery removals of the species in the fishery under assessment are included in the stock assessment process, OR are considered by scientific authorities to be negligible.**

The EU's data collection framework (DCF) outlines the EU countries' obligations to collect, manage and make available a wide range of fisheries and aquaculture data needed for scientific advice. In Norway a landing obligation is in place and all the catch recorded in the logbook and sent to the research and management institutions which use this data for assessing and managing purposes.

According to ICES 2021 it is assessed using the following input data: Commercial catches (international landings, ages from catch sampling), two survey indices: IBTS Q1 (G1022), IBTS Q3 (G2829). Maturity data are assumed fixed over time and knife-edged at age 3, while natural mortality data vary with age and over time (estimates updated in ICES [2019]) (ICES 2021g)

Fishery removals of the species in the fishery under assessment are included in the stock assessment process, **sub-clause C1.1 is met.**

**C1.2 The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy), OR removals by the fishery under assessment are considered by scientific authorities to be negligible**.

The latest stock assessment was undertaken in June 2021 by the Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak (WGNSSK) (ICES 2021). An EU multiannual management plan (MAP) has been agreed by the EU for this stock (EU, 2018). However, there is no agreement with Norway regarding this plan, and it is not used as the basis of the advice for this shared stock. ICES was requested by the EC and UK to provide advice based on the MSY approach, and to include FMSY ranges in the catch scenarios (ICES 2021g).

Fishing pressure on the stock is below FMSY and spawning-stock size is above MSY Btrigger, Bpa, and Blim.

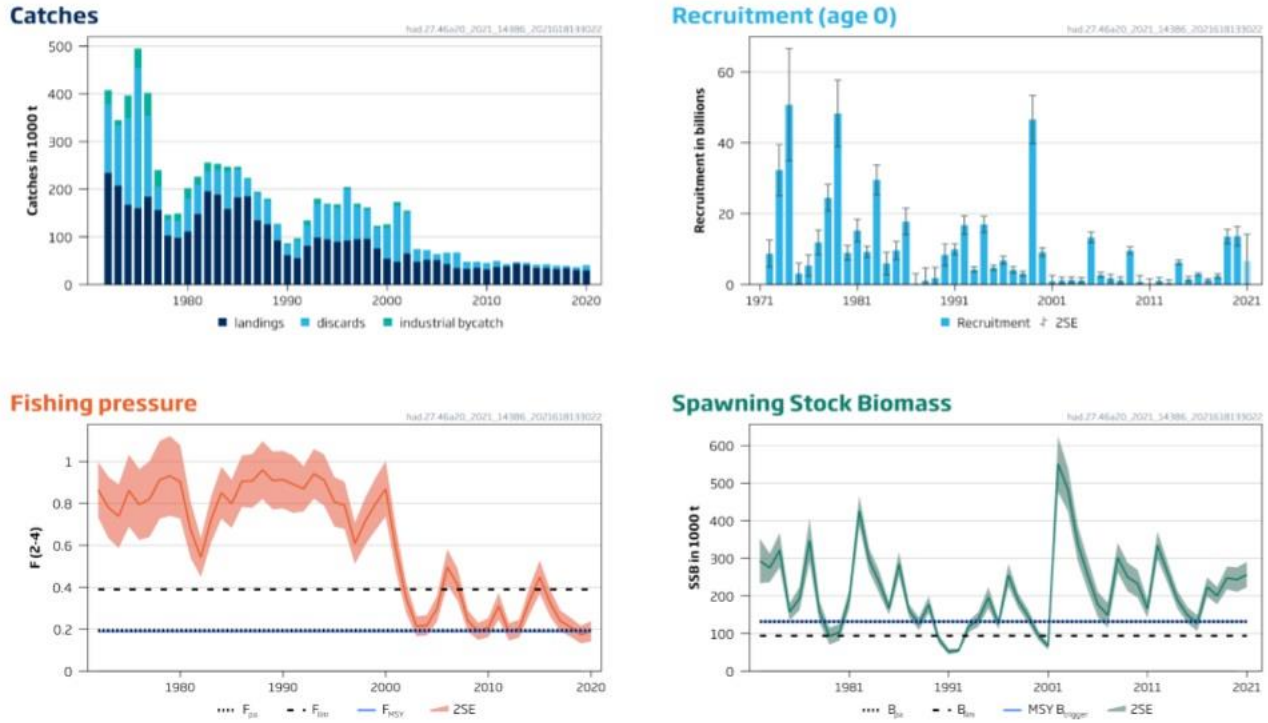



**FIGURE 6 HADDOCK IN SUBAREA 4, DIVISION 6.A, AND SUBDIVISION 20. SUMMARY OF THE STOCK ASSESSMENT. THE ASSUMED RECRUITMENT VALUE FOR 2021 IS SHADED IN A LIGHTER COLOUR (ICES 2021G)**

The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point, **sub-clause C1.2 is met.**

**References**

ICES 2021g. Haddock (*Melanogrammus aeglefinus*) in Subarea 4, Division 6.a, and Subdivision 20 (North Sea, West of Scotland, Skagerrak). In Report of the ICES Advisory Committee, 2021. ICES Advice2021, had.27.46a20. https://doi.org/10.17895/ices.advice.7759.

| **Links** | |
|---|---|
| **MARINTRUST Standard clause** | 1.3.2.2 |
| **FAO CCRF** | 7.5.3 |
| **GSSI** | D.3.04, D5.01 |

# CATEGORY C SPECIES – Saithe (*Pollachius virens*)

In a whole fish assessment, Category C species are those which make up less than 5% of landings, but which are subject to a species-specific management regime. In most cases this will be because they are a commercial target in a fishery other than the one under assessment.

Clause C1 should be completed for **each** Category C species. If there are no Category C species in the fishery under assessment, this section can be deleted. Where a species fails this Clause, it may be assessed as a Category D species instead, EXCEPT if there is evidence that it is currently below the limit reference point.

| **Species Name** | | **Saithe (*Pollachius virens*) - ICES subareas 4 and 6, and in Division 3.a (North Sea, Rockall and West of Scotland, Skagerrak and Kattegat)** | |
|---|---|---|---|
| **C1** | **Category C Stock Status - Minimum Requirements** | | |
| | **C1.1** | Fishery removals of the species in the fishery under assessment are included in the stock assessment process, OR are considered by scientific authorities to be negligible. | Yes |
| | **C1.2** | The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy), OR removals by the fishery under assessment are considered by scientific authorities to be negligible. | Yes |
| | | **Clause outcome:** | **Pass** |

**C1.1 Fishery removals of the species in the fishery under assessment are included in the stock assessment process, OR are considered by scientific authorities to be negligible.**

The EU's data collection framework (DCF) outlines the EU countries' obligations to collect, manage and make available a wide range of fisheries and aquaculture data needed for scientific advice. In Norway a landing obligation is in place and all the catch recorded in the logbook and sent to the research and management institutions which use this data for assessing and managing purposes.

According to ICES 2021h it is assessed using the following input data: Commercial catches (international landings, BMS landings, discards, and age frequencies from catch sampling); survey index (IBTS Q3 [G2829], ages 3–8); combined commercial index scaled to the exploitable biomass (French, German, and Norwegian trawler fleets). Maturity-at-age and natural mortality are assumed to be constant. Stock weights are catch weights.

Fishery removals of the species in the fishery under assessment are included in the stock assessment process, **sub-clause C1.1 is met.**

**C1.2 The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy), OR removals by the fishery under assessment are considered by scientific authorities to be negligible**.

The latest stock assessment was undertaken in June 2021 by Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak (WGNSSK) (ICES 2021). An EU multiannual management plan (MAP) has been agreed by the EU for this stock (EU, 2018). There is no agreement with Norway regarding this plan, and it is not used as the basis of the advice for this shared stock. ICES was requested by EC and UK to provide advice based on ICES MSY approach,and to include FMSY ranges in the catch scenarios (ICES 2021h).

ICES considered that fishing pressure on the stock is above FMSY but below Fpa and Flim; spawning-stock size is below MSY Btrigger and between Bpa and Blim.

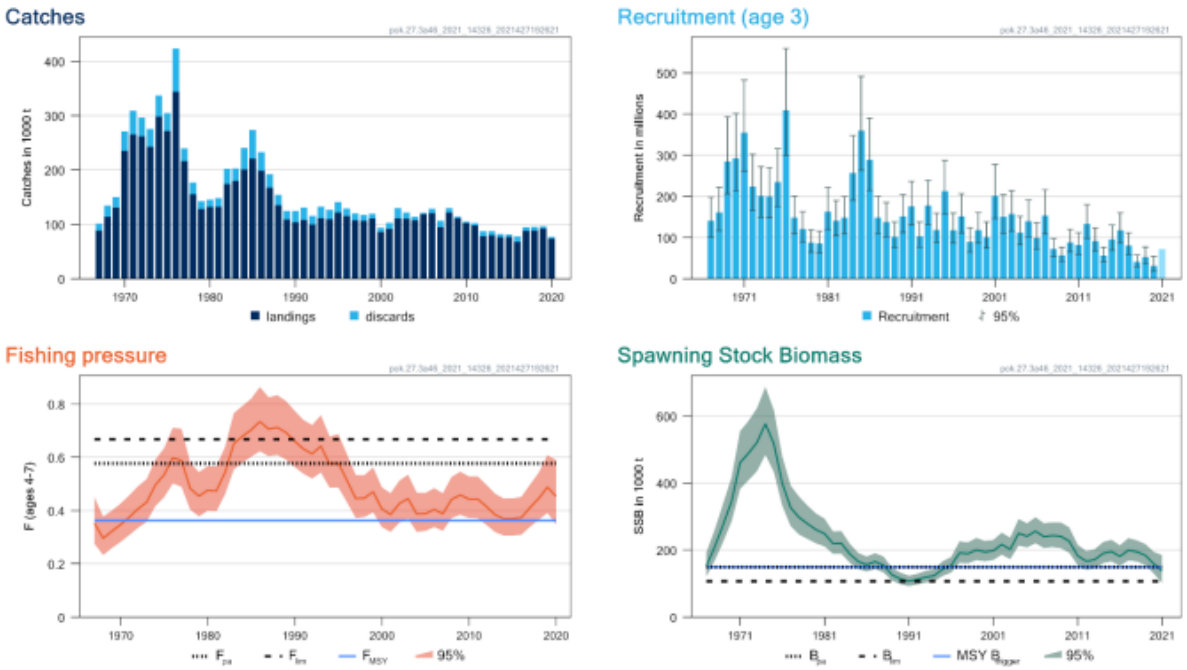



**FIGURE 7 SAITHE IN SUBAREAS 4 AND 6, AND IN DIVISION 3.A. SUMMARY OF THE STOCK ASSESSMENT. THE ASSUMED RECRUITMENT VALUE FOR 2021 IS SHADED IN A LIGHTER COLOUR. LANDINGS AND DISCARDS ARE FOR AGES 3–10+ ONLY, AS USED IN THE ASSESSMENT (ICES 2021H).**

The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point, **sub-clause C1.2 is met.**

**References**

ICES 2021h. Saithe (*Pollachius virens*) in subareas 4 and 6, and in Division 3.a (North Sea, Rockall and West of Scotland, Skagerrak and Kattegat). In Report of the ICES Advisory Committee, 2021. ICES Advice 2021, pok.27.3a46. https://doi.org/10.17895/ices.advice.7827

| **Links** | |
|---|---|
| **MARINTRUST Standard clause** | 1.3.2.2 |
| **FAO CCRF** | 7.5.3 |
| **GSSI** | D.3.04, D5.01 |

# CATEGORY C SPECIES – Whiting (Merlangius merlangus)

In a whole fish assessment, Category C species are those which make up less than 5% of landings, but which are subject to a species-specific management regime. In most cases this will be because they are a commercial target in a fishery other than the one under assessment.

Clause C1 should be completed for **each** Category C species. If there are no Category C species in the fishery under assessment, this section can be deleted. Where a species fails this Clause, it may be assessed as a Category D species instead, EXCEPT if there is evidence that it is currently below the limit reference point.

| **Species Name** | | **Whiting (*Merlangius merlangus*) - ICES Subarea 4 and Division 7.d (North Sea and eastern English Channel)** | |
|---|---|---|---|
| **C1** | **Category C Stock Status - Minimum Requirements** | | |
| | **C1.1** | Fishery removals of the species in the fishery under assessment are included in the stock assessment process, OR are considered by scientific authorities to be negligible. | Yes |
| | **C1.2** | The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy), OR removals by the fishery under assessment are considered by scientific authorities to be negligible. | Yes |
| | | **Clause outcome:** | Pass |

**C1.1 Fishery removals of the species in the fishery under assessment are included in the stock assessment process, OR are considered by scientific authorities to be negligible.**

The EU's data collection framework (DCF) outlines the EU countries' obligations to collect, manage and make available a wide range of fisheries and aquaculture data needed for scientific advice. In Norway a landing obligation is in place and all the catch recorded in the logbook and sent to the research and management institutions which use this data for assessing and managing purposes.

According to ICES 2021i it is assessed using the following input data: Commercial catches (international catches, ages from catch sampling by métier, since 1978), two survey indices (NS-IBTS Q1 [G1022] & Q3 [G2829]; ages 0 to 5; since 1983); time-varying maturity estimated from NS-IBTS Q1 data; time-varying natural mortalities from the SMS multispecies model (ICES, 2021d).

Fishery removals of the species in the fishery under assessment are included in the stock assessment process, **sub-clause C1.1 is met.**

**C1.2 The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy), OR removals by the fishery under assessment are considered by scientific authorities to be negligible**.

The latest stock assessment was undertaken in June 2021 by the Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak (WGNSSK) (ICES 2021). An EU multiannual management plan (MAP) has been agreed by the EU for this stock (EU, 2018). There is no agreement with Norway regarding this plan, and it is not used as the basis of the advice for this shared stock. ICES was requested by EC and UK to provide advice based on the MSY approach and to include FMSY ranges in the catch scenarios (ICES 2021i).

ICES considered that fishing pressure on the stock is below FMSY and spawning-stock size is above MSY Btrigger, Bpa, and Blim

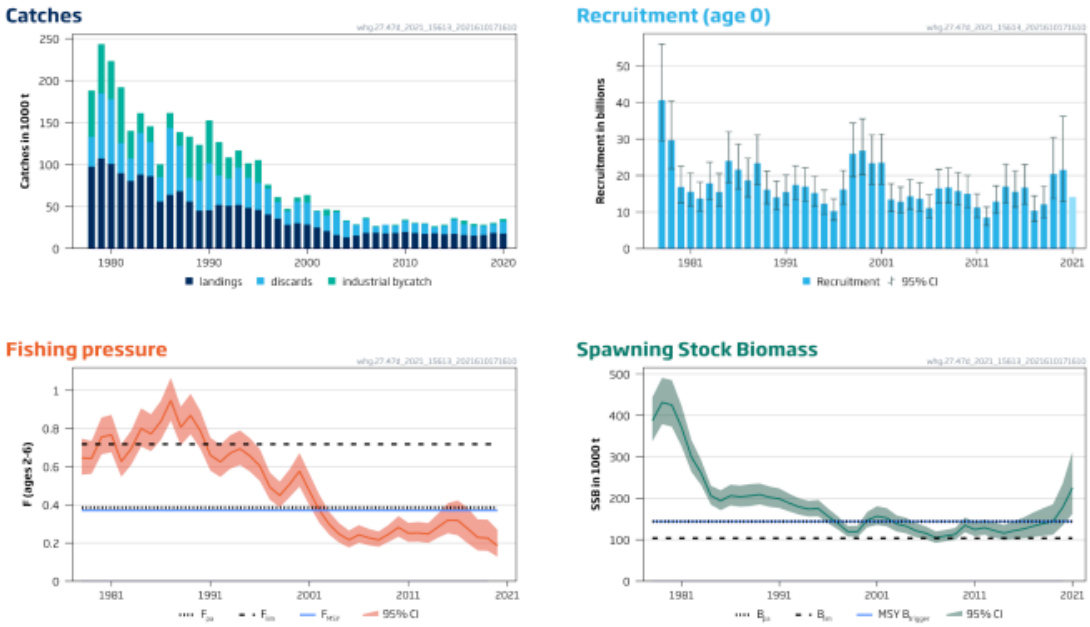



**FIGURE 8 WHITING IN SUBAREA 4 AND DIVISION 7.D. SUMMARY OF THE STOCK ASSESSMENT. THE ASSUMED RECRUITMENT VALUE FOR 2021 IS SHADED IN A LIGHTER COLOUR. (ICES 2021I)**.

The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point, **sub-clause C1.2 is met.**

**References**

ICES 2021i. Whiting (Merlangius merlangus) in Subarea 4 and Division 7.d (North Sea and eastern English Channel). In Report of the ICES Advisory Committee, 2021. ICES Advice 2021, whg.27.47d. https://doi.org/10.17895/ices.advice.7885

| **Links** | |
|---|---|
| **MARINTRUST Standard clause** | 1.3.2.2 |
| **FAO CCRF** | 7.5.3 |
| **GSSI** | D.3.04, D5.01 |

# CATEGORY D SPECIES - Anglerfish (*(Lophius budegassa, Lophius piscatorius*)

| D1 | Species Name | Anglerfish (Lophius budegassa, Lophius piscatorius) | |
|---|---|---|---|
| | **Productivity Attribute** | **Value** | **Score** |
| | Average age at maturity (years) | 4.5-14 | 3 |
| | Average maximum age (years) | 24 | 2 |
| | Fecundity (eggs/spawning) | 1,000,000 for each female | 1 |
| | Average maximum size (cm) | 100 | 2 |
| | Average size at maturity (cm) | 35-60 | 2 |
| | Reproductive strategy | Demersal spawner | 2 |
| | Mean trophic level | 4.5 | 3 |
| | | **Average Productivity Score** | **2.14** |
| | **Susceptibility Attribute** | **Value** | **Score** |
| | Overlap of adult species range with fishery | Distribution Eastern Atlantic south-western Barents Sea to Strait of Gibraltar including, Mediterranean and Black Sea, Iceland and Mauritania<br><25% of stock occurs in area fished | 1 |
| | Distribution | Throughout region | 1 (not used) |
| | Habitat | Bathydemersal | 2 (not used) |
| | Depth range | 20 - 1000 m | 3 |
| | Selectivity | Species > 2 times | 3 |
| | Post-capture mortality | Retained species | 3 |
| | | **Average Susceptibility Score** | **2.5** |
| | | **PSA Risk Rating (From Table D3)** | **TABLE D4** |
| | | **Compliance rating** | **TABLE D4** |

**References**

Froese, R. and D. Pauly. Editors. 2021.FishBase. World Wide Web electronic publication. www.fishbase.org, (02/2021).) Anglerfish (*Lophius budegassa, Lophius piscatorius*) . Available at: https://www.fishbase.de/Summary/SpeciesSummary.php?ID=716&AT=anglerfish

*Standard clauses 1.3.2.2*

Category D species are those which make up less than 5% of landings and are not subject to a species-specific management regime. In the case of mixed trawl fisheries, Category D species may make up the majority of landings. The comparative lack of scientific information on the status of the population of the species means that a risk-assessment style approach must be taken.

| D4 | Species Name | Anglerfish (*Lophius budegassa, Lophius piscatorius*) | |
|---|---|---|---|
| | **Impacts On Species Categorised as Vulnerable by D1-D3 - Minimum Requirements** | | |
| | **D4.1** | The potential impacts of the fishery on this species are considered during the management process, and reasonable measures are taken to minimise these impacts. | Pass |
| | **D4.2** | There is no substantial evidence that the fishery has a significant negative impact on the species. | Pass |

| | Outcome: | Pass |
|---|---|---|

**Evidence**

**D4.1: The potential impacts of the fishery on this species are considered during the management process, and reasonable measures are taken to minimise these impacts.**

These species area assessed as a complex applying the ICES framework for category 3 stocks was applied. The Scottish Irish Anglerfish and Megrim Industry–Science Survey in Subarea 6 and Division 4.a (SIAMISS-Q2) is used as the index of stock development. However, this survey was cancelled in 2020 because of the COVID-19 pandemic. The advice is based on the ratio of the mean of the last two index values (Index A, with 2020 treated as missing) and the mean of the three preceding values (Index B), multiplied by the recent advised catch. No reference points are defined for the stock (ICES 2021j).

An EU multiannual management plan (MAP) has been agreed by the EU for this stock (EU, 2018). The MAP stipulates that when the FMSY ranges are not available, fishing opportunities should be based on the best available scientific advice. However, there is no agreed shared management plan with the UK or Norway for this stock, and ICES provides advice according to ICES precautionary approach.

Under the landing obligation, all catches must be recorded and landed. Therefore, catches are known.

The potential impacts of the fishery on this species are considered during the management process. **Sub-clause D4.1 is met.**

**D4.2 There is no substantial evidence that the fishery has a significant negative impact on the species.**

In recent years, landings have been below the agreed TAC which has been in line with ICES advice. Bycatch limits have been set for some species (Johnsen et al., 2016). Maximum bycatch of monkfish is 0.5% and landing of monkfish by trip should not exceed 500 kg. The recorded bycatch of the fishery is low. Therefore, it is considered that there is no substantial evidence that the fishery has a significant negative impact on the species. **Sub-clause D4.2 is met.**

**References**

ICES 2021j. Anglerfish (*Lophius budegassa, Lophius piscatorius*) in Subareas 4 and 6, and Division 3.a (North Sea, Rockall and West of Scotland, Skagerrak and Kattegat). In Report of the ICES Advisory Committee, 2021. ICES Advice 2021, anf.27.3a46. https://doi.org/10.17895/ices.advice.7723.

Johnsen, E., Misund, R., Palmason, S.R. & Blom, G. 2016. Norwegian industrial fishery for Norway pout in the North Sea. Working document to WKPOUT 2016.

| **Links** | |
|---|---|
| **MARINTRUST Standard clause** | 1.3.2.2, 4.1.4 |
| **FAO CCRF** | 7.5.1 |
| **GSSI** | D.5.01 |

| D1 | Species Name | Greater silver smelt (Argentina silus) | |
|---|---|---|---|
| | **Productivity Attribute** | **Value** | **Score** |
| | Average age at maturity (years) | 5-9 | 3 |
| | Average maximum age (years) | 35 | 3 |
| | Fecundity (eggs/spawning) | >10,000 based on other similar species | 1 |
| | Average maximum size (cm) | 70 | 2 |
| | Average size at maturity (cm) | 26 | 1 |
| | Reproductive strategy | Broadcast spawner | 1 |
| | Mean trophic level | 3.3 | 3 |
| | | **Average Productivity Score** | **2** |
| | **Susceptibility Attribute** | **Value** | **Score** |
| | Overlap of adult species range with fishery | Eastern Atlantic, deeper parts of North Sea and across the Wyville Thomson ridge to Denmark Strait. Western Atlantic: Davis Strait to George's Bank in Canada. Arctic Ocean: east to Finnmark, Norway, Barents Sea <25% of stock occurs in area fished | 1 |
| | Distribution | Global distribution/Throughout region | 1 (not used) |
| | Habitat | Close to the seabed (moderately likely to encounter the gear) | 2 (not used) |
| | Depth range | 140-1440 | 2 |
| | Selectivity | Species > 2 times | 3 |
| | Post-capture mortality | Retained species | 3 |
| | | **Average Susceptibility Score** | **2.25** |
| | | **PSA Risk Rating (From Table D3)** | **TABLE D4** |
| | | **Compliance rating** | **TABLE D4** |

**References**

Froese, R. and D. Pauly. Editors. 2021.FishBase. World Wide Web electronic publication. www.fishbase.org, (02/2021). Greater silver smelt (*Argentina silus*). Available at: https://www.fishbase.de/summary/Argentina-silus.html

*Standard clauses 1.3.2.2*

# CATEGORY D SPECIES – Greater silver smelt (Argentina silus)

Category D species are those which make up less than 5% of landings and are not subject to a species-specific management regime. In the case of mixed trawl fisheries, Category D species may make up the majority of landings. The comparative lack of scientific information on the status of the population of the species means that a risk-assessment style approach must be taken.

| D4 | Species Name | Greater silver smelt (*Argentine silus*) | |
|---|---|---|---|
| | **Impacts On Species Categorised as Vulnerable by D1-D3 - Minimum Requirements** | | |
| | **D4.1** | The potential impacts of the fishery on this species are considered during the management process, and reasonable measures are taken to minimise these impacts. | Pass |
| | **D4.2** | There is no substantial evidence that the fishery has a significant negative impact on the species. | Pass |
| | | **Outcome:** | **Pass** |

**Evidence**

**D4.1: The potential impacts of the fishery on this species are considered during the management process, and reasonable measures are taken to minimise these impacts.**

Official landings of the species have decreased in recent years. However, bycatch of greater silver smelt in the industrial fisheries in Subarea 4 and Division 3.a have been increasing rapidly since 2012, and now almost half of the total catches of this stock are taken as bycatch in these industrial fisheries. No reference points have been defined for the stock (the ICES framework for category 3 stocks is applied) but according to ICES 2021, fishing pressure on the stock is below FMSY. A TAC is annually set for the EU (in subareas 1 and 2, and 3 and 4) and Norway in subareas 1 and 2. ICES indicates that managers should be aware that this ICES advice relates to all catches from this stock (ICES 2021k).

Under the landing obligation all catches must be recorded and landed. Therefore, landings of the fishery are known. In the Norwegian fishery, from 2010, selection grids have been used to reduce the by-catch of larger gadoids. Bycatch limits have been also set for some species (Johnsen et al., 2016). The maximum bycatch of cod, haddock and saithe in industrial trawling in the North Sea is maximum 20% in weight by haul and by landing. The bycatch of herring is maximum 10%. Any bycatch of herring is taken from the vessel quota. The bycatch of greater argentine is maximum 10%. Maximum bycatch of monkfish is 0.5% and landing of monkfish by trip should not exceed 500 kg. Only vessels with quota of blue whiting are allowed to conduct small meshed industrial trawling.

**The fishery meets sub-clause D4.1.**

**D4.2 There is no substantial evidence that the fishery has a significant negative impact on the species.**

ICES does not express particular concern about the impacts of the Norway pout fishery on greater silver smelt. Catches of this species in the assessed fishery are low. Fishing pressure on the stock is below FMSY. **The fishery meets sub-clause D4.2.**

**References**

ICES 2021k. Greater silver smelt (*Argentina silus*) in subareas 1, 2, and 4, and in Division 3.a (Northeast Arctic, North Sea, Skagerrak and Kattegat). In Report of the ICES Advisory Committee, 2021. ICES Advice 2021, aru.27.123a4. https://doi.org/10.17895/ices.advice.7726

Johnsen, E., Misund, R., Palmason, S.R. & Blom, G. 2016. Norwegian industrial fishery for Norway pout in the North Sea. Working document to WKPOUT 2016.

Nielsen, J. R., Olsen, J., Håkonsson, K. B., Egekvist J. and Dalskov, J. 2016. Danish Norway pout fishery in the North Sea and Skagerrak in ICES. 2017. Report of the Benchmark Workshop on Norway Pout (*Trisopterus esmarkii*) in Subarea 4 and Division 3a (North Sea, Skagerrak, and Kattegat), 23–25 August 2016, Copenhagen, Denmark. ICES CM 2016/ACOM:35. 69 pp: https://doi.org/10.17895/ices.pub.5599

| **Links** | |
|---|---|
| **MARINTRUST Standard clause** | 1.3.2.2, 4.1.4 |
| **FAO CCRF** | 7.5.1 |
| **GSSI** | D.5.01 |

# Table D2 - Productivity / Susceptibility attributes and scores.

| Productivity attributes | Low productivity/ High risk | Medium productivity/ Medium risk | High productivity/ Low risk |
|---|---|---|---|
| | Score 3 | Score 2 | Score 1 |
| Average age at maturity (years) | >4 | 2 to 4 | <2 |
| Average maximum age (years) | >30 | 10 to 30 | <10 |
| Fecundity (eggs/spawning) | <1 000 | 1 000 to 10 000 | >10 000 |
| Average maximum size (cm) | >150 | 60 to 150 | <60 |
| Average size at maturity (cm) | >150 | 30 to 150 | <30 |
| Reproductive strategy | Live bearer, mouth brooder or significant parental investment | Demersal spawner "berried" | Broadcast spawner |
| Mean trophic level | >3.25 | 2.5–3.25 | <2.5 |

| Susceptibility attributes | | High susceptibility/ High risk | Medium susceptibility/ Medium risk | Low susceptibility/ Low risk |
|---|---|---|---|---|
| | | Score 3 | Score 2 | Score 1 |
| Availability | 1) Overlap of adult species range with fishery | >50% of stock occurs in the area fished | Between 25% and 50% of the stock occurs in the area fished | <25% of stock occurs in the area fished |
| | 2) Distribution | Only in the country/ fishery | Limited range in the region | Throughout region/ global distribution |
| Encounterability | 1) Habitat | Habitat preference of species make it highly likely to encounter trawl gear (e.g. demersal, muddy/sandy bottom) | Habitat preference of species make it moderately likely to encounter trawl gear (e.g. rocky bottom/reefs) | Depth or distribution of species make it unlikely to encounter trawl gear (e.g. epi-pelagic or meso-pelagic) |
| | 2) Depth range | High overlap with trawl fishing gear (20 to 60 m depth) | Medium overlap with trawl fishing gear (10 to 20 m depth) | Low overlap with trawl fishing gear (0 to 10 m, >70 m depth) |
| Selectivity | | Species >2 times mesh size or up to 4 m length | Species 1 to 2 times mesh size or 4 to 5 m length | Species <mesh size or >5 m length |
| Post capture mortality | | Most dead or retained Trawl tow >3 hours | Alive after net hauled Trawl tow 0.5 to 3 hours | Released alive Trawl tow <0.5 hours |

**Note:** Availability 2 is only used when there is no information for Availability 1; the most conservative score between Encounterability 1 and 2 is used.

| D3 | | Average Susceptibility Score | | |
|---|---|---|---|---|
| | | 1 - 1.75 | 1.76 - 2.24 | 2.25 - 3 |
| Average Productivity Score | 1 - 1.75 | PASS | PASS | PASS |
| | 1.76 - 2.24 | PASS | PASS | TABLE D4 |
| | 2.25 - 3 | PASS | TABLE D4 | TABLE D4 |

# FURTHER IMPACTS

The three clauses in this section relate to impacts the fishery may have in other areas. A fishery must meet the minimum requirements of all three clauses before it can be recommended for approval.

| F1 | Impacts on ETP Species - Minimum Requirements | | |
|---|---|---|---|
| | F1.1 | Interactions with ETP species are recorded. | Yes |
| | F1.2 | There is no substantial evidence that the fishery has a significant negative effect on ETP species. | Yes |
| | F1.3 | If the fishery is known to interact with ETP species, measures are in place to minimise mortality. | Yes |
| | | **Clause outcome:** | **Pass** |

**F1.1 Interactions with ETP species are recorded.**

All commercial species caught in Norwegian waters must be retained (a landing obligation is implemented since 1984), recorded in the electronic logbook and landed. Interaction with ETP species also must be recorded. There is rigorously enforced discard ban on all Norwegian vessels regardless of the area jurisdiction and on all foreign vessels fishing within Norwegian waters. A Norwegian reference fleet is also used by the Institute of Marine Research (IMR) to collect data on interactions with bycatch and ETP species (which includes vessels targeting Norway pout for reduction purposes) in order to assess the impact of Norwegian fisheries on those species (IMR 2021).

At the EU level, Council Regulation (EC) No 812/2004 lays down measures aimed at mitigating incidental catches of cetaceans by fishing vessels. Data collected under Regulation 812/2004 are submitted to the ICES group Working group on bycatch of protected species (WGBYC) through their annual data call. These data are most linked to at-sea observations carried out for fisheries monitoring following the EU Data Collection Framework Regulation 2017/1004 (DCF) (ICES WGBYC 2020).

The fishery is nearly exclusively performed by Danish and Norwegian vessels using small mesh trawls (< 32 mm cod end) in the north-western North Sea, especially at the Fladen Ground and along the edge of the Norwegian Trench in the north-eastern part of the North Sea (ICES 2021b).

A Norwegian reference fleet is used by the Institute of Marine Research (IMR) to collect data on interactions with bycatch and ETP species in order to assess the impact of Norwegian fisheries on those species (IMR 2021). For the larger vessels (>28m vessel length) the fisheries prioritised in the High-seas Reference Fleet include, among others, the industrial trawl fisheries targeting sandeel, Norwegian pout and blue whiting for fish-meal production. Landing data for that fleet operating to the south of latitude 62°N and in the North Sea, is provided by the IMR for the period 2015-2018. The only ETP species identified in the catch of this fishery is spurdog (IMR 2021). Complete information from the reference fleet including vessel selection, sampling protocol and data handling can be found on: https://www.hi.no/hi/nettrapporter/rapport-fra-havforskningen-en-2020-8

Interactions with ETP species are recorded. **Sub-clause F1.1 is met**.

**F1.2 There is no substantial evidence that the fishery has a significant negative effect on ETP species.**

According to ICES 2021, the available monitoring data for 2017–2020 used to highlight species, métiers, and ecoregions where bycatch may be of particular concern, indicate that the average bycatch rate of marine mammals and seabirds in the entire ICES area was 0.03 and 0.1 specimens per monitored day-at-sea respectively. However, bycatch rates of these species were mainly recorded in other gears and areas. No specific reference is made to trawl fisheries in the North Sea or the Norwegian Sea (ICES 2021). No interactions with marine mammals or protected seabirds have been reported by this specific fishery either.

Spurdog (Squalus acanthias)

In 2007, Norway introduced a general ban on target fisheries for spurdog in the Norwegian economic zone and in international waters of ICES subareas 1–14, with the exception of a limited fishery for small coastal vessels. Bycatch could be landed and

sold as before. All directed fisheries were banned from 2011, although there is still a bycatch allowance. From October 2011, bycatch should not exceed 20% of total landings on a weekly basis. Since 4 June 2012, bycatch must not exceed 20% of total landings over the period 4 June–31 December 2012. Norwegian Regulation J-250-2013 specifically protects basking sharks, spurdogs, portbeagle and silky sharks (From 1 January 2013, bycatch must not exceed 15% of total landings on a half calendar year basis. Live specimens can be released, whereas dead specimens must be landed. From 2011, the regulations also include recreational fisheries. Norway has a 70 cm minimum landing size (first introduced in 1964).

A zero TAC for spurdog for EU vessels was introduced in 2011. Since 2011 the annual Norwegian landings, which land significantly more spurdog than other countries, have been fluctuating between 217–370 tonnes. However, reported landings of spurdog from Norwegian fisheries were 409 tonnes in 2020. In 2020, ICES advised that "*when the precautionary approach is applied, there should be no targeted fisheries on this stock in 2021 and 2022. Based on medium-term projections, annual catches at the recent assumed level (2,468 tonnes) would allow the stock to increase at a rate close to that estimated with zero catches. Any possible provision for the landing of bycatch should be part of a management plan, including close monitoring of the stock and fisheries*".

Low mortality has been reported for spurdog caught by trawl when tow duration was <1 h, with overall mortality of about 6% (ICES 2018b). Alive individuals must be released. Post-release survival of elasmobranch species is high.

In conclusion, there is no substantial evidence that the fishery has a significant negative effect on ETP species. **Sub-clause F1.2 is met.**

**F1.3 If the fishery is known to interact with ETP species, measures are in place to minimise mortality**.

As indicate above, measures to reduce the bycatch of spurdog has been set in the area, including a zero TAC in all EU regulated waters. All alive individuals must be released. According to the ICES, the annual catches at the recent assumed level would allow the stock to increase at a rate close to that estimated with zero catches. Therefore, it is considered that the management measures are being effective in maintaining the stock. **Sub-clause F1.3 is met**

**References**

ICES WGBYC 2020. Working Group on Bycatch of Protected Species (WGBYC). ICES Scientific Reports. 2:81. 209 pp. http://doi.org/10.17895/ices.pub.7471

Norwegian Regulation J-250-2013

Regulation (EU) 2019/1241 of the European Parliament and of the Council of 20 June 2019 on the conservation of fisheries resources and the protection of marine ecosystems through technical measures, amending Council Regulations (EC) No 1967/2006, (EC) No 1224/2009 and Regulations (EU) No 1380/2013, (EU) 2016/1139, (EU) 2018/973, (EU) 2019/472 and (EU) 2019/1022 of the European Parliament and of the Council, and repealing Council Regulations (EC) No 894/97, (EC) No 850/98, (EC) No 2549/2000, (EC) No 254/2002, (EC) No 812/2004 and (EC) No 2187/2005.

| **Links** | |
|---|---|
| **MARINTRUST Standard clause** | 1.3.3.1 |
| **FAO CCRF** | 7.2.2 (d) |
| **GSSI** | D4.04, D.3.08 |

| **F2** | **Impacts on Habitats - Minimum Requirements** | | |
|---|---|---|---|
| | **F2.1** | Potential habitat interactions are considered in the management decision-making process. | Yes |
| | **F2.2** | There is no substantial evidence that the fishery has a significant negative impact on physical habitats. | Yes |

| | | | |
|---|---|---|---|
| | **F2.3** | If the fishery is known to interact with physical habitats, there are measures in place to minimise and mitigate negative impacts. | Yes |
| | | **Clause outcome:** | **Pass** |

**F2.1 Potential habitat interactions are considered in the management decision-making process.**

In Norway, a number of regulations have been set to protect marine habitats, including habitat closures (see F2.3). The fishery is conducted with a relatively light gear.

Several regulations have been also set at the EU and regional level aimed at the protection of the seabed in the area of operation of the fishery:

- The aim of the Natura 2000 network, designated under the EU Habitats and Birds Directives, (92/43/EEC, 2009/147/EC) is to maintain and restore habitats that support a number of species that form qualifying features to these designations. The habitat directive states: "*This network, composed of sites hosting the natural habitat types listed in Annex I and habitats of the species listed in Annex II, shall enable the natural habitat types and the species' habitats concerned to be maintained or, where appropriate, restored at a favourable conservation status in their natural range*" (article 3) and further: "*For special areas of conservation, Member States shall establish the necessary conservation measures involving, if need be, appropriate management plans specifically designed for the sites or integrated into other development plans, and appropriate statutory, administrative or contractual measures which correspond to the ecological requirements of the natural habitat types in Annex I and the species in Annex II present on the sites*" (article 6).
- Regulation (EU) 2019/1241 on the conservation of fisheries resources and the protection of marine ecosystems through technical measures also contemplates in its article 21 the introduction of measures to minimise the impacts of fishing gear on sensitive habitats.

Moreover, when providing advice, ICES publishes an ecosystem overview for the main ecosystems in European waters, including the Greater North Sea area and Norway, in which the Key signals within the environment and the ecosystem are listed.

Therefore, potential habitat interactions are considered in the advice and in the management decision-making process. **Sub-clause F2.1 is met.**

**F2.2 There is no substantial evidence that the fishery has a significant negative impact on physical habitats.**

Pelagic trawls are designed to catch shoals of pelagic species, including Norway pout, they operate in the water column, and they do not contact the seabed. The BENTHIS project assessed the impacts of European fisheries on the seabed, concluding that physical impacts of pelagic fisheries were insignificant (Eigaard et al., 2013).

In the case of the bottom trawl fishery, abrasion occurs from towed bottom-contacting gear with some damage to benthic organisms and habitats. The extent, magnitude and impact of the bottom gear on the benthic habitats can be assessed using vessel monitoring system (VMS) and logbook data. It varies geographically across the Norwegian Sea and the Greater North Sea area. Using vessel monitoring system (VMS) and logbook data ICES estimates that mobile bottom trawls used by commercial fisheries in the 12 m+ vessel category have been deployed over approximately 490,185 km2 of the ecoregion in 2018, corresponding to ca. 73.1 % of the ecoregion's spatial extent (ICES ecosystem overview 2021). However, it is important to highlight that figure refers to the whole North Sea, and bottom trawl is not permitted in Norwegian waters (<12 mn) where the fishery operates (NOTE: the Norwegian Sea ecoregion used by ICES refers to the Northern waters of Norway, the assessed fishery occurs to the south of the country).

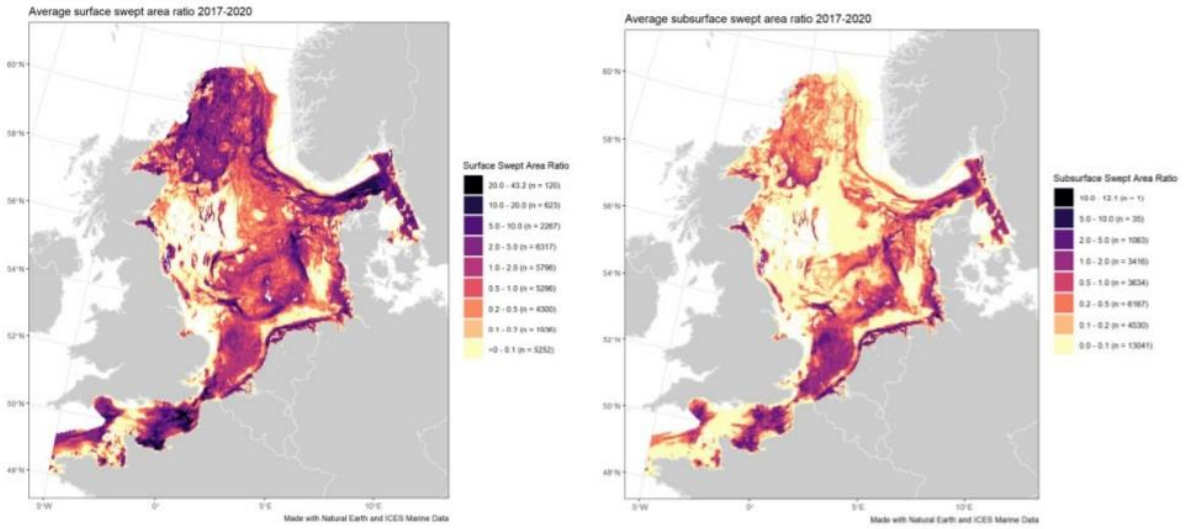



**FIGURE 5 AVERAGE ANNUAL SUBSURFACE (LEFT) AND SURFACE (RIGHT) DISTURBANCE BY MOBILE BOTTOM CONTACTING FISHING GEAR (BOTTOM OTTER TRAWLS, BOTTOM SEINES, DREDGES, BEAM TRAWLS) IN THE GREATER NORTH SEA DURING 2017-2020 (WITH AVAILABLE DATA), EXPRESSED AS AVERAGE SWEPT AREA RATIOS (SAR)(ICES ECOSYSTEM OVERVIEW 2021).**

The fishery for Norway pout is conducted with a relatively light gear. North Sea benthic substrates are characterised by soft sediments with sediments from mobile muds to coarse sands present throughout the region and gravel beds mainly distributed in the English Channel and the southern North Sea. Limited biogenic and geogenic reefs are found in the area, except for patches of *Sabellaria spinulosa* reefs and scattered boulder fields and oysters and sea grass which were common long ago in the central part of the North Sea have mostly disappeared. These habitats are now protected, and the fishery does not operate in those areas. However, the fishery could overlap with some areas where seapens are present (DNV 2016).

Several closed areas are also in place that serve to limit the extent, and therefore the potential habitat impacts, of the fishery under assessment. The "Norway pout box" is a large spatial closure in the Northwest North Sea established in 1977 where fishing with small meshed trawls is banned while additional spatial closures specifically targeted at the Norway pout fishery in Norwegian waters include the Patch Bank (closed to industrial trawling since 2002) and the Egersund Bank (closed in one form or another since 2003 with a current closed season of 01 October – 31 May). The Central Fladen Nature Conservation MPA has been designed to protect seapens and burrowing megafauna. The Directorate of Fisheries does not report any infringements regarding the fleet entering MPA (DNV 2016). Elsewhere, and outside the area of operations of the fishery under assessment, bottom trawling is regulated along the Norwegian continental slope through closed areas to avoid damaging fragile and vulnerable benthic communities and reef-building organisms with regulations established in 2011 having restricted the use of bottom trawls in areas with coral reefs and at depths exceeding 1,000 m.

Finally, targeted trawling for Norway pout is prohibited north of 62°N as the Norwegian regulations prohibit trawling with small meshed trawls for species such as cod, haddock, whiting and saithe north of this latitude. Therefore, the Norwegian industrial trawling for Norway pout can be carried out in Skagerrak and south of 64°N in the North Sea.

Bottom trawls for Norway pout are small and relatively light. The fishery mainly operates on muddy and sandy bottoms. Kaiser et al. (2006) concluded that impacts on muddy and sandy bottoms are lighter than on harder bottoms, and the areas recover more readily. According to Meenakumari et al (2008), and Gordon et al (2002) sandy habitats can recover after trawling disturbance in less than 5 years. A number of measures introduced by the Norwegian and EU authorities to protect

VMEs in North Sea and Norwegian waters,including seapens. It is understood therefore that is there is no substantial evidence that the fishery has a significant negative impact on physical habitats. **Sub-clause F2.2 is met for both gears**.

**F2.3 If the fishery is known to interact with physical habitats, there are measures in place to minimise and mitigate negative impacts.**

A number of management measures have been established in Norwegian water to protect the habitat:

- Norwegian regulation J-61-2019 regulating bottom gears to protect vulnerable marine ecosystems (https://fiskeridir.no/Yrkesfiske/Regelverk-og-reguleringer/J-meldinger/Kommende-J-meldinger/J-61-2019)
- Trawling is forbidden within the majority of the 12 nautical mile limit from Norwegian baselines (in some instances, this limit is set at 6 nautical miles). Much of the cold-water coral reefs are located within this limit.
- Norwegian Regulation J-40-2016 – which applies to all the Norwegian EEZ establishes in its article 2 that when a trawl vessel catches more than 30 kgs of coral or 400 kg of sponges in a single haul, the vessel shall stop fishing and move position at least 2 nautical miles in order to avoid such catches. The incident must be reported to the Directorate of Fisheries.
- Regulation J-40-2016 requires that when fishing in a "new fishing area" in the Norwegian EEZ or the Svalbard, vessels must have a special permit from the Directorate of Fisheries.
- Fishing below 1000 m within the Norwegian EEZ is banned in order to protect deep-water sensitive habitats and species.

Existing EU technical measures such as the closed Norway pout box, minimum mesh size in the fishery, and by-catch regulations to protect other species have been maintained for all directed fishing in EU waters. Norwegian vessels fishing for the stock in EU and Norway waters are obliged to use a sorting grid to reduce unwanted by catch and discarding of juvenile Norway pout. The closed Norway pout box will guarantee no vessel (trawler or pelagic gear) will interact with the seabed as all fishing operations are prohibited when the box is closed. Therefore, **sub-clause F2.3.**

**References**


Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora. http://data.europa.eu/eli/dir/1992/43/oj

Eigaard et al., 2013. Benthic impact from the perspective of the fisheries. Deliverable 1.1 b. Available at: https://www.benthis.eu/en/benthis/Results.htm

ICES. 2021. Greater North Sea Sea Ecoregion – Ecosystem overview. In Report of the ICES Advisory Committee, 2021. ICES Advice 2021, Section 9.1, https://doi.org/10.17895/ices.advice.9434.

Norwegian regulation J-61-2019 (https://fiskeridir.no/Yrkesfiske/Regelverk-og-reguleringer/J-meldinger/Kommende-J-meldinger/J-61-2019))

Norwegian Regulation J-40-2016


| **Links** | |
|---|---|
| **MARINTRUST Standard clause** | 1.3.3.2 |
| **FAO CCRF** | 6.8 |
| **GSSI** | D.2.07, D.6.07, D3.09 |

| **F3** | **Ecosystem Impacts - Minimum Requirements** | | |
|---|---|---|---|
| | **F3.1** | The broader ecosystem within which the fishery occurs is considered during the management decision-making process. | Yes |

| | | | |
|---|---|---|---|
| | **F3.2** | There is no substantial evidence that the fishery has a significant negative impact on the marine ecosystem. | Yes |
| | **F3.3** | If one or more of the species identified during species categorisation plays a key role in the marine ecosystem, additional precaution is included in recommendations relating to the total permissible fishery removals. | Yes |
| | | **Clause outcome:** | Pass |

**F3.1 The broader ecosystem within which the fishery occurs is considered during the management decision-making process.**

Environmental issues are managed by Norwegian agencies and through OSPAR, with advice on ecosystem and fisheries issues provided by ICES. The ICES fisheries overview 2021 indicates: "*In terms of weight of catch, fish stocks harvested from the North Sea are being fished at levels consistent with achieving good environmental status (GES) under the EU's Marine Strategy Framework Directive; however, the reproductive capacity of the stocks has not generally reached this level. Almost all the fisheries in the North Sea catch more than one species; controlling fishing on one species therefore affects other species as well. ICES has developed a number of scenarios for fishing opportunities that take account of these technical interactions. Each of these scenarios results in different outcomes for the fish stocks. Managers may need to take these scenarios into account when deciding upon fishing opportunities. Furthermore, biological interactions occur between species (e.g., predation) and fishing on one stock may affect the population dynamics of another. Scenarios that take account of these various interactions can be used to evaluate the possible consequences of policy decisions*".

A number of management measures which take into consideration the full ecosystem are in place in the fishery, including: the closed Norway pout box, minimum mesh size in the fishery, and by-catch regulations to protect other species and the marine habitat.

Moreover, ICES has created a number of working groups, including the Working group on Multispecies Assessment Methods (WGSAM), and the ICES Working group on Mixed Fisheries (WGMIXFISH) with the objective of implement the ecosystem-based approach to fisheries (ICES 2021b). The specific objectives of this last group for example, are:

- Synthesize and evaluate existing ecosystem-based advice frameworks, including MSEs,
- Evaluate existing proposals on ecosystem aspects, including MSFD descriptors that can be included in the stock assessments and advice,
- Synthesize existing and develop new ecosystem - based indicators for the Baltic Sea, which can be used to adjust advice on future fishing opportunities.

Fisheries in the area are managed according to a MSY approach strategy (in this particular case using a escapement strategy, see section A for more information) where key trophic interactions are incorporated (predation mortality, etc) (ICES 2021b). Therefore, the ecosystem approach is embedded in the legislation managing the fishery and some aspects of the broader ecosystem are already incorporated in the advice (although more work needs to be done). **Sub-clause F3.1 is met**.

**F3.2 There is no substantial evidence that the fishery has a significant negative impact on the marine ecosystem.**

The Greater North Sea ecoregion includes the North Sea, English Channel, Skagerrak, and Kattegat. It is a temperate coastal shelf sea with a deep channel in the northwest, a permanently thermally mixed water column in the south and east, and seasonal stratification in the north (ICES ecosystem overview 2021). The main pressures (human activities) in the area are: fishing and oil and gas production, shipping, ports, wind farms, and aggregate (sand and gravel) extraction (ICES ecosystem overview 2021).

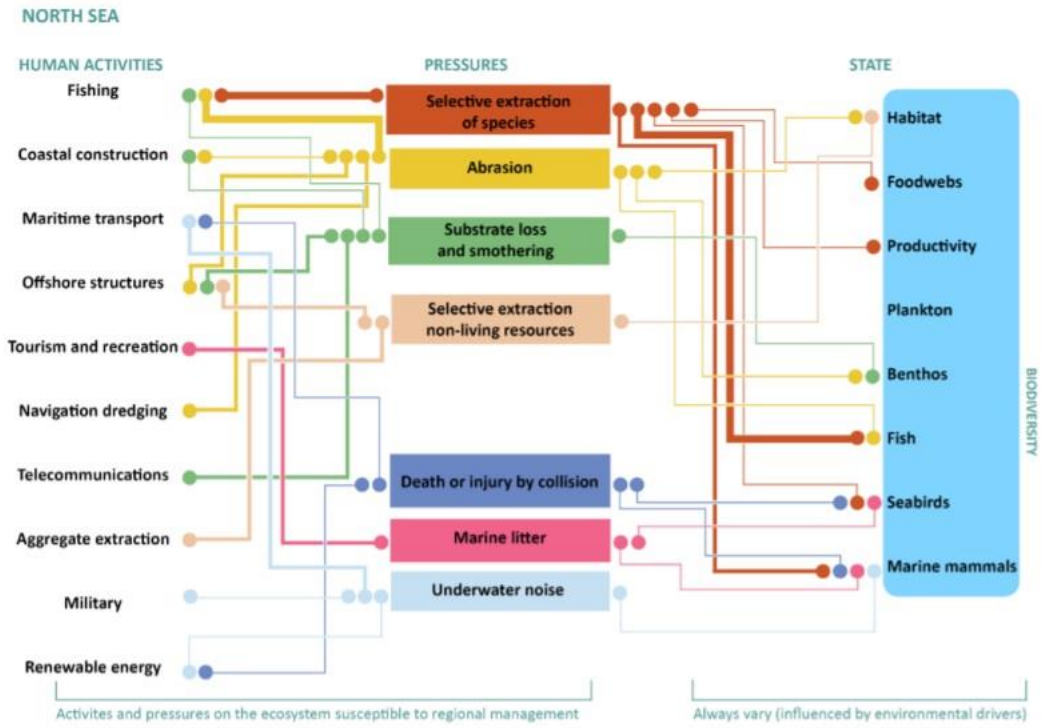



**FIGURE 6 GREATER NORTH SEA ECOREGION OVERVIEW WITH THE MAJOR REGIONAL PRESSURES, HUMAN ACTIVITIES, AND ECOSYSTEM STATE COMPONENTS. THE WIDTH OF LINES INDICATES THE RELATIVE IMPORTANCE OF MAIN INDIVIDUAL LINKS (THE SCALED STRENGTH OF PRESSURES SHOULD BE UNDERSTOOD AS A RELEVANT STRENGTH BETWEEN THE HUMAN ACTIVITIES LISTED AND NOT AS AN ASSESSMENT OF THE ACTUAL PRESSURE ON THE ECOSYSTEM). CLIMATE CHANGE AFFECTS HUMAN ACTIVITIES, THE INTENSITY OF THE PRESSURES, AND SOME ASPECTS OF STATE, AS WELL AS THE LINKS BETWEEN THESE (ICES ECOSYSTEM OVERVIEW 2021).**

Fishing has reduced the number of large fish in the North Sea ecosystem (mostly cod *Gadus morhua,* saithe *Pollachius virens,* ling *Molva molva,* sturgeon *Acipenser sturio*, and some elasmobranchs). In historical times, the large whale populations of the North Sea were depleted or extirpated by hunting. Whilst the impact of these removals on the ecosystem functioning is not clearly understood, it should be assumed that the North Sea ecosystem is currently in a perturbed state. Several of these elasmobranch species are now considered threatened or endangered by OSPAR and IUCN and are still caught as bycatch in fisheries. However, it is clear that fishing effort has reduced in the North Sea in recent years (since the 2002 CFP reforms); this can now be detected in the reduction of fishing mortality in most assessed fish stocks and an increase in the amount of larger fish present. The majority of assessed fish stocks are now fished at or below MSY fishing mortality targets (FMSY) (ICES ecosystem overview 2021).

As indicated in previous sections, the target and the majority of the species caught by the fishery are over Blimit and Fmortality is $F_{MSY}$. In the case of the North Sea cod, the impact of the fishery is considered negligible. Interactions with ETP specie is also low. In order to protect other species (cod, haddock, whiting, saithe and herring as well as mackerel, squids, flatfish, gurnards, Nephrops) there is a row of technical management measures in force for the small meshed fishery in the North Sea such as the closed Norway pout box, by-catch regulations, minimum mesh size, and minimum landing size (Nielsen et al., 2016).

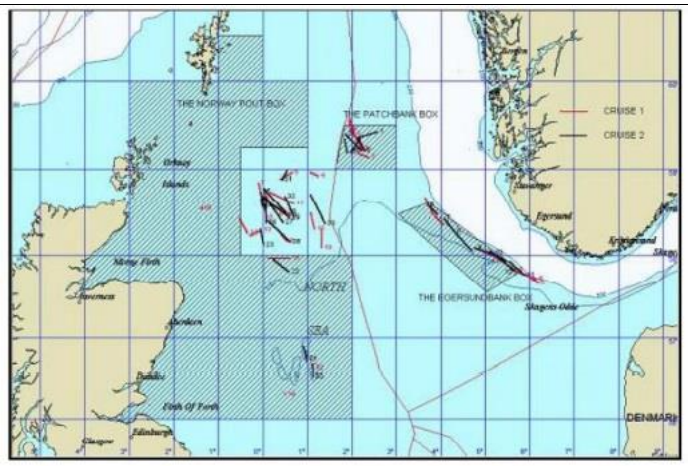



**FIGURE 7 CLOSED AREAS IN THE AREA OF OPERATION OF THE FISHERY (NIELSEN ET AL., 2016)**

There is no substantial evidence that the fishery has a significant negative impact on the marine ecosystem. **Sub-clause F3.2 is met.**

**F3.3 If one or more of the species identified during species categorisation plays a key role in the marine ecosystem, additional precaution is included in recommendations relating to the total permissible fishery removals.**

ICES WGNSSK 2021 indicates: "*Norway pout is a short-lived species and most likely a one-time spawner. The population dynamics of Norway pout in the North Sea and Skagerrak are very dependent on changes caused by recruitment variation and variation in predation or other natural mortality. Recruitment is highly variable and influences SSB and total stock biomass (TSB) rapidly because of the short life span of the species. Only limited knowledge is available on the influence of environmental factors, such as temperature, on the recruitment (Nielsen et al., 2016). Norway pout natural mortality is likely influenced by spawning and maturity having implications for its age specific availability to predators in the ecosystem and the fishery (Nielsen et al., 2012). With present fishing mortality levels in recent years the status of the stock is more determined by natural processes and less by the fishery, and in general the fishing mortality on 0-group Norway pout is low.*

*This stock is among other an important food source for the species saithe, haddock, cod, whiting, and mackerel and predation mortality is significant. Especially the more recent high abundance of saithe predators and the more constant high stock level of northern mackerel as likely predators on smaller Norway pout are likely to significantly affect the Norway pout population dynamics. Interspecific and intraspecific density patterns in Norway pout mortality and maturity has been documented. Natural mortality levels by age and season used in the stock assessment do include the predation mortality levels estimated for the stock, and in the 2012 Inter-benchmark assessment revised values for natural mortality have been used based on the results from Nielsen et al. (2012).*

*Biological interactions with respect to intra-specific and inter-specific relationships for Norway pout stock dynamics and important predator stock dynamics have been also reviewed".*

And conclude: "*There is a need to ensure that the stock remains high enough to provide food for a variety of predator species*".

The key role of the species is taking into consideration when recommending total permissible fishery removals. Therefore, **sub-clause F3.3 is met.**

**References**

| |
|---|
| ICES 2021. Greater North Sea ecoregion – Fisheries overview In Report of the ICES Advisory Committee, 2021. ICES Advice 2021, section 9.2. https://doi.org/10.17895/ices.advice.9099.<br><br>ICES WGNSSK 2021. Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak (WGNSSK). ICES Scientific Reports. 3:66. 1281 pp. https://doi.org/10.17895/ices.pub.8211CES<br><br>Nielsen, J.R., Olsen, J., Håkonsson, K.B., Egekvist, J., and Dalskov, J. 2016. Danish Norway pout fishery in the North Sea and Skagerrak. Working Document 2, ICES WKPOUT 2016. ICES CM 2016 / ACOM:35, 81 pp. |

| **Links** | |
|---|---|
| **MARINTRUST Standard clause** | 1.3.3.3 |
| **FAO CCRF** | 7.2.2 (d) |
| **GSSI** | D.2.09, D3.10, D.6.09 |

# SOCIAL CRITERION

In addition to the scored criteria listed above, applicants must commit to ensuring that vessels operating in the fishery adhere to internationally recognised guidance on human rights. They must also commit to ensuring there is no use of enforced or unpaid labour in the fleet(s) operating upon the resource.

# Appendix A - Determining Resilience Ratings

The assessment of Category B species described in this assessment report template utilises a resilience rating system suggested by the American Fisheries Society. This approach was chosen because it is also used by FishBase, and so the resilience ratings for many thousands of species are freely available online. As described by FishBase, the following is the process used to arrive at the resilience ratings:

"*The American Fisheries Society (AFS) has suggested values for several biological parameters that allow classification of a fish population or species into categories of high, medium, low and very low resilience or productivity (Musick 1999). If no reliable estimate of $r_m$ (see below) is available, the assignment is to the lowest category for which any of the available parameters fits. For each of these categories, AFS has suggested thresholds for decline over the longer of 10 years or three generations. If an observed decline measured in biomass or numbers of mature individuals exceeds the indicated threshold value, the population or species is considered vulnerable to extinction unless explicitly shown otherwise. If one sex strongly limits the reproductive capacity of the species or population, then only the decline in the limiting sex should be considered. We decided to restrict the automatic assignment of resilience categories in the Key Facts page to values of K, $t_m$ and $t_{max}$ and those records of fecundity estimates that referred to minimum number of eggs or pups per female per year, assuming that these were equivalent to average fecundity at first maturity (Musick 1999). Note that many small fishes may spawn several times per year (we exclude these for the time being) and large live bearers such as the coelacanth may have gestation periods of more than one year (we corrected fecundity estimates for those cases reported in the literature). Also, we excluded resilience estimates based on $r_m$ (see below) as we are not yet confident with the reliability of the current method for estimating rm. If users have independent $r_m$ or fecundity estimates, they can refer to Table 1 for using this information*."

| Parameter | High | Medium | Low | Very low |
|---|---|---|---|---|
| Threshold | 0.99 | 0.95 | 0.85 | 0.70 |
| $r_{max}$ (1/year) | > 0.5 | 0.16 - 0.50 | 0.05 - 0.15 | < 0.05 |
| K (1/year) | > 0.3 | 0.16 - 0.30 | 0.05 - 0.15 | < 0.05 |
| Fecundity (1/year) | > 10,000 | 100 - 1000 | 10 - 100 | < 10 |
| $t_m$ (years) | < 1 | 2 - 4 | 5 - 10 | > 10 |
| $t_{max}$ (years) | 1 - 3 | 4 - 10 | 11 - 30 | > 30 |

[Taken from the FishBase manual, "Estimation of Life-History Key Facts", http://www.fishbase.us/manual/English/key%20facts.htm#resilience]

# Glossary

**Non-target**: Species for which the gear is not specifically set, although they may have immediate commercial value and be a desirable component of the catch. OECD (1996), Synthesis report for the study on the economic aspects of the management of marine living resources. AGR/FI(96)12

**Target:** In the context of fishery certification, the target catch is the catch of stock under consideration by the unit of certification – i.e. the fish that are being assessed for certification and ecolabelling. (GSSI)

# Annex 1

## MarinTrust Fishery Assessment Peer Review Template

This section comprises a summary of the fishery being assessed against version 2 of the MarinTrust Standard.

| | |
|---|---|
| **Fishery under assessment** | Norway pout (*Trisopterus esmarkii*)<br>Stock = Norway pout ICES Subarea 4 and Division 3a |
| **Management authority (Country/State)** | Norway |
| **Main species** | Norway pout (*Trisopterus esmarkii*) |
| **Fishery location** | FAO Area 27 (Atlantic, Northeast)<br>ICES Subarea 4 and Division 3a (North Sea, Skagerrak, and Kattegat) |
| **Gear type(s)** | Bottom trawl<br>Mid-water trawl |
| **Overall recommendation. (Approve/ Fail)** | Approve |

**Summary: in this section, provide any additional information about the fishery that the reviewers feel is significant to their decision.**

The assessors have provided a detailed examination of the fishery with appropriate levels of evidence, and which follows the standards required.

The following comments are noted for consideration:

- A summary comment from the internal peer review could be included.
- Is there evidence of the scale of portside and at sea inspections in this fishery and also percent of observer coverage? Is there any information regarding assets available for enforcement?
- Is there evidence of a precautionary management plan for Norway pout being further developed?
- Evidence from 2002-2005 showed very low by-catch of cod – is there any more recent data from observers on current levels of by-catch especially given spawning stock below MSY Btrigger?
- The DNV-GL report "Assessment of the Norway sandeel, pout and North Sea sprat fishery against MSC Fisheries Standards v2.0." highlighted an area of concern that "The Norway pout fishery VMS records overlap with an area were seapens are abundant. As the Norway pout fishery includes two different UoC, with pelagic gear and also bottom trawl gear, it could be the case of intense trawling on top of those seapens." It would be useful if the assessor could add comments on this and whether this has been addressed.
- Is there any evidence of control measures in place to reduce landings of the two Category D by-catch species?
- Could the assessor provide details of any observer programme or the scale of the reference fleet and the level of coverage?
- Could the assessor provide details of the average tow length given the information that spurdog by-catch survival is high when tow <1h?
- Is there any evidence of mitigation measures e.g. escape panels, bird scaring lines and net cleaning between hauls to reduce bycatch? Any evidence of crew training on regulations and release of captured species?

**General Comments on the Draft Report provided to the peer reviewer**

A well-presented review with good level of references and detail.

## Summary of Peer Review Outcomes

Peer reviewers should review the fishery assessment report with the primary objective of answering the key questions listed in the table below. Where the situation is more complicated, reviewers may instead answer "See Notes".

| | YES | NO | See Notes |
|---|---|---|---|
| **A – Fishery Assessment** | | | |
| | | | |
| 1. Has the fishery assessment been fully completed, using the recognised MarinTrust fishery assessment methodology and associated guidance? | Yes | | |
| 2. Does the Species Categorisation section of the report reflect the best current understanding of the catch composition of the fishery? | Yes | | |
| 3. Are the scores in the following sections accurate (i.e. do the scores reflect the evidence provided)? | Yes | | |
| Section M - Management | Yes | | |
| Category A Species | Yes | | |
| Category B Species | N/A | | |
| Category C Species | Yes | | |
| Category D Species | Yes | | |
| Section F – Further Impacts | Yes | | |
| | | | |

## Detailed Peer Review Justification

Peer reviewers should provide support for their answers in the boxes provided, by referring to specific scoring issues and any relevant documentation as appropriate.

Detailed justifications are only required where answers given are one of the 'No' options. In other (Yes) cases, either confirm 'scoring agreed' or identify any places where weak rationales could be strengthened (without any implications for the scores).

Boxes may be extended if more space is required.

| 1. Is the scoring of the fishery consistent with the MarinTrust standard, and clearly based on the evidence presented in the assessment report? |
|---|
| The scoring is consistent with the MT standard and the appropriate evidence is provided within the assessment report. |
| Certification body response |
| Thanks. |

| 2. Has the fishery assessment been fully completed, using the recognised MARINTRUST fishery assessment methodology and associated guidance? |
|---|
| The fishery assessment has been fully completed following the MARINTRUST methodology and notwithstanding the remarks in this peer review report (see summary and below).<br><br>An internal review of the assessment has been conducted, it would be useful to have a summary comment from the internal peer reviewer documented including their thoughts on accuracy of the assessment decision. |

| |
|---|
| Certification body response |
| Thanks, included. |

| 3. Does the Species Categorisation section of the report reflect the best current understanding of the catch composition of the fishery? |
|---|
| The species categorisation section (see Table 5) indicates the catch composition is made up of >95% Norway pout. There are seven category C species (Herring in ICES Subarea 4, Herring in ICES subareas 1, 2, and 5, Blue whiting, Cod, Haddock, Saithe and Whiting) and two Category D species (Anglerfish and Greater silver smelt (although these species are incorrectly marked as Category C in Table 5) |
| Certification body response |
| Anglerfish and Greater silver smelt categories have been corrected in table 5. Thanks. |

| 3M. Are the scores in "Section M – Management" clearly justified? | |
|---|---|
| The scores in this section are clearly justified by the assessor with detailed responses and supported by links to references and a useful figure detailing the annual regulatory cycle and showing stakeholder consultations.<br><br>Comment:<br><br>Section M1.1 Is there evidence that the Ministry and Directorate are responsible for monitoring and surveillance and administration and training as well as developing and apply fishery laws and regulations (as stated by the assessor)?<br><br>Section M2.2 Of the 74 inspections that led to a fine or prosecution – is there evidence of the level of non-compliance and the value of these fines and that these were set at an appropriately effective scale?<br><br>Section M2.3 Is there any evidence of fishers providing additional information to managers to support the effective management of the fishery? i.e voluntarily carrying observers, recording bycatch data, reporting suspected illegal activity, providing operational or economic data?<br><br>Section M2.4 – in section 2.1 the assessor has identified that "the proportion of controlled samples of industrial fisheries landings has decreased in the recent years, and in some quarters no controls have been carried out at all." Is there evidence of the scale of portside and at sea inspections in this fishery and also percent of observer coverage? Is there any information regarding assets available for enforcement? | |
| Certification body response | |
| M1.1. In Norway, the management of fisheries falls under the jurisdiction of the Ministry of Trade, Industry and Fisheries (Department of Fisheries and Aquaculture). A Directorate of Fisheries and Aquaculture acts as the Ministry's advisory and executive body. Both Ministry and Directorate develop and apply fishery laws and regulations. The Marine Resources Act places the overall responsibility for monitoring, control and surveillance in Norwegian fisheries with the Directorate of Fisheries I am not sure which kind of evidence the peer review asks for. A link to the website of the directorate has been included where explains the role of the directorate of fisheries. | |

M2.2 This information was taken from the DNV 2016 report. In the assessed fishery, 58 inspections were carried out with only 4 warnings (6.9 %) issued, but no fines. So, the level of non-compliance seems to be very low.

M2.3 Not sure if the peer review comment really refers to this point. But yes, catch and by-catch data is recorded in logbooks. No other additional information has been found.

M2.4 This comment really refers to M2.1. This is a weakness identified in this fishery. It seems that the 20% observer coverage target level has not been reached recently, but inspections are carried out by the Norwegian coast guard in areas known to be problematic.

| 3A. Are the "Category A Species" scores clearly justified? |
|---|
| The scores in this section are clearly justified by the assessor, with appropriate references given.<br><br>The assessor has identified that ICES assesses the Norway pout stock using a MSY approach and estimates the status of the stock in reference to Bpa and Blim. While fishing mortality is restricted using TACs, mesh size restrictions and closed areas there is still no precautionary management plan for Norway pout in this area- is there evidence that this is being developed further? |
| Certification body response |
| No, the most recent ICES advice for the species does not give further information about the development of the management plan. |

| 3B. Are the "Category B Species" scores clearly justified? |
|---|
| No Category B species were identified. |
| Certification body response |
| |

| 3C. Are the "Category C Species" scores clearly justified? |
|---|
| The scores in this section are clearly justified by the assessor, with evidence of stock assessments for each species (although Norway has not agreed with the EU multiannual management plan for all species) and that for most the biomass is above the limit reference point.<br><br>For cod the assessor noted that "ICES considered that fishing pressure on the stock is above FMSY but below Fpa and Flim; spawning-stock size is below MSY Btrigger, Bpa, and Blim." Evidence from 2002-2005 showed very low by-catch of cod – is there any more recent data from observers/catch logs on current levels of by-catch especially given spawning stock below MSY Btrigger?<br><br>For Saithe the assessor noted "ICES considered that fishing pressure on the stock is above FMSY but below Fpa and Flim; spawning-stock size is below MSY Btrigger and between Bpa and Blim." Is there data from observers/catch logs of the current level of saithe by-catch in the fishery? |
| Certification body response |
| Thanks for your comments. |

For cod, there was a typo in the report, the data on bycatch presented from Nielsen 2016, refers to the period 2002-2015. It has been corrected now. The report also indicates that in general, the bycatch levels of these gadoids (including also saithe) have decreased in the Norway pout fishery over the years to a present very low level of bycatch of other species (5–10%).

3D. Are the "Category D Species" scores clearly justified?

The scores in this section are accurate for both species.

Comments:
Is there any evidence of control measures in place to reduce landings of these two by-catch species?

The assessor reports "Bycatch limits have been also set for some species (Nielsen et al., 2016). It would be helpful to list which species these limits have been set for

Certification body response

Thanks for your comment. More information included now: "Under the landing obligation all catches must be recorded and landed. Therefore, landings of the fishery are known. In the Norwegian fishery, from 2010, selection grids have been used to reduce the by-catch of larger gadoids. Bycatch limits have been also set for some species (Johnsen et al., 2016). The maximum bycatch of cod, haddock and saithe in industrial trawling in the North Sea is maximum 20% in weight by haul and by landing. The bycatch of herring is maximum 10%. Any bycatch of herring is taken from the vessel quota. The bycatch of greater argentine is maximum 10%. Maximum bycatch of monkfish is 0.5% and landing of monkfish by trip should not exceed 500 kg. Only vessels with quota of blue whiting are allowed to conduct small meshed industrial trawling".

3F. Are the scores in "Section F – Further Impacts" clearly justified?

The DNV-GL report "Assessment of the Norway sandeel, pout and North Sea sprat fishery against MSC Fisheries Standards v2.0." highlighted an area of concern that "The Norway pout fishery VMS records overlap with an area were seapens are abundant. As the Norway pout fishery includes two different UoC, with pelagic gear and also bottom trawl gear, it could be the case of intense trawling on top of those seapens." It would be useful if the assessor could add comments on this and whether this has been addressed.

The MSc assessment recommendation states "assessment team recommends that systems are put in place to ensure that all interactions with ETP species are recorded on log books irrespective of whether they are landed or discarded and that the captures of all ETP species are mapped." Is there evidence that the discarded ETP species are also recorded?

Could the assessor provide details of any observer programme or the scale of the reference fleet and the level of coverage?

Could the assessor provide details of the average tow length given the information that spurdog by-catch survival is high when tow <1h?

Is there evidence of compliance levels of no fishing in the closed Norway Pout box?

Is there any evidence of mitigation measures e.g. escape panels, bird scaring lines and net cleaning between hauls to reduce bycatch? Any evidence of crew training on regulations and release of captured species?

Certification body response

Information about seapens and the Central Fladen Nature Conservation MPA has been now included. The impact of the fishery on those areas seems to be limited.

All commercial species caught in Norwegian waters must be retained (a landing obligation is implemented since 1984), recorded in the electronic logbook and landed. Interaction with ETP species, included discarded species, also must be recorded.

The IMR reference fleet includes vessels from this fishery. Complete information from the reference fleet including vessel selection, sampling protocol and data handling can be found on: https://www.hi.no/hi/nettrapporter/rapport-fra-havforskningen-en-2020-8 (this information is also included now in the report).

A complete description of the fishery in Denmark and Norway can be found in Nielsen et al., 2016 and Johnsen et al., 2016 respectively but no information about the average tow length seems to be available.

Effectivity of the Norway pout box is assessed in https://stecf.jrc.ec.europa.eu/documents/43805/44876/07-09_SG-MOS+07-03+-+Evaluation+of+closed+areas+II.pdf . As indicated in the monitoring section, in the assessed fishery, 58 inspections were carried out with only 4 warnings (6.9 %) issued, but no fines were received (DNV 2016). Compliance seems to be adequate, I understand it also refers to fishing in prohibited areas (also remember that all vessels are equipped with VMS).

Sorting grids are used in the fishery to reduce the catch of big gadoids (see my previous answer) but no other mitigation measures seem to be in place, although interaction with seabirds, which would justify the use of bird scaring lines, have not been reported.

Optional: General comments on the Peer Review Draft Report

The fishery meets the standards and has been correctly reviewed by the assessor with a good level of detail provided and useful references. While the implementation of management plans in the fishery and further detail regarding ETP impacts (specifically on seapens) could be provided, there is confidence in the assessment report evidence and outcome.

Certification body response

Thanks for your comments.