



MarinTrust Standard V2

By-product Fishery Assessment

*Norway silvery cod (*Gadiculus argenteus thori*) in Norway EEZ*

MarinTrust Programme

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Table 1 Application details and summary of the assessment outcome

| | | |
|---|--|---|
| Fishery Under Assessment | Species: | Norway silvery cod (<i>Gadiculus argenteus thori</i>) |
| | Geographical area: | FAO Area 27 Atlantic, Northeast |
| | Country of origin of the product: | Norway (Flag state not provided by client) |
| | Stock: | Norwegian silvery cod stock |
| Date | 17 November 2022 | |
| Report Code | NOR11 | |
| Assessor | Matthew Jew | |
| Country of origin of the product - PASS | Norway (Flag state not provided by client) | |
| Country of origin of the product - FAIL | NA | |

| Application details and summary of the assessment outcome | | | |
|---|---------------------|----------------------------|--------------------------------------|
| Company Name(s): Not Provided by MarinTrust | | | |
| Country: Norway (Flag state not provided by client) | | | |
| Email address: | | Applicant Code: | |
| Certification Body Details | | | |
| Name of Certification Body: | | Global Trust Certification | |
| Assessor | Peer Reviewer | Assessment Days | Initial/Surveillance/ Re-approval |
| Matthew Jew | Léa Lebechnech | 0.5 | Surveillance 2 |
| Assessment Period | Up to November 2022 | | |

| Scope Details | |
|---------------------------------------|---|
| Main Species | Norway silvery cod (<i>Gadiculus argenteus thori</i>) |
| Stock | Norwegian silver cod stock |
| Fishery Location | FAO Area 27 Northeast Atlantic |
| Management Authority (Country/ State) | Norway Department of Fisheries |
| Gear Type(s) | Bottom Trawl |
| Outcome of Assessment | |
| Peer Review Evaluation | Agree with the assessor's recommendation of approval |
| Recommendation | APPROVED |

Table 2. Assessment Determination

| Assessment Determination |
|---|
| <p>If any species is categorised as Endangered or Critically Endangered on IUCN's Red List, or if it appears in the CITES appendices, it cannot be approved for use as Marin trust raw material. Norway silvery cod (<i>Gadiculus argenteus thori</i>) is not assessed on IUCN's Red List, and does not appear in CITES appendices; therefore, <i>Gadiculus argenteus thori</i> is eligible for approval for use as Marin trust by-product raw material.</p> <p>Norway silvery cod is managed by the Norwegian Department of Fisheries which does not provide stock assessments for the species nor limit/ target reference points. Thus, the stock was assessed under Category D in accordance with MarinTrust v 2.0 criteria.</p> <p>Table D1 (PSA) shows that the stock as an average productivity score of 1.29 and an average susceptibility score of 3. The PSA risk rating results (Table D3) determined that the species passes.</p> <p>Therefore, Norway silvery cod in FAO 27 northeast Atlantic is APPROVED for the production of fishmeal and fish oil under the current MarinTrust v2.0 by-products standard.</p> |
| Fishery Assessment Peer Review Comments |
| <p>The internal peer reviewer agrees with the assessor's determination, who correctly classified the Norway silver cod stock under category D, as reference points are not defined to assess status of the stock relative to.</p> <p>With an average productivity score of 1.29 and an average susceptibility score of 3, the Norway silver cod PASSES Clause D1 in accordance with Table D3.</p> <p>Therefore, the Norway silver cod stock should be approved.</p> |
| Notes for On-site Auditor |
| <p>Determine which flag states the silvery cod is being sourced from.</p> |

Species Categorisation

NB: If any species is categorised as Endangered or Critically Endangered on the IUCN Red List, or if it appears in CITES Appendix 1, it **cannot** be approved for use as an MarinTrust raw material.

IUCN Red list Category

By-product material from a species listed by IUCN (the International Union for Conservation of Nature) under the Red List for the following categories shall immediately fail the assessment;

- EXTINCT (E) AND EXTINCT IN THE WILD (EW)
- CRITICALLY ENDANGERED (CR) facing an extremely high risk of extinction in the wild.
- ENDANGERED (EN) facing a very high risk of extinction in the wild.

By-product material may be used from the following categories provided that all clauses in the MarinTrust standard are passed.

- VULNERABLE (VU) facing a high risk of extinction in the wild.
- NEAR THREATENED (NT) does not qualify for above now, but is close or is likely to qualify for, a threatened category in the near future.
- LEAST CONCERN (LC) Widespread and abundant.
- DATA DEFICIENT (DD) and NOT EVALUATED (NE)

Table 3 Species Categorisation Table


| Common name | Latin name | Stock | Management | Category | IUCN Red List Category ¹ | CITES Appendix 1 ² |
|--------------------|----------------------------------|--------------------------|------------------------------------|----------|-------------------------------------|-------------------------------|
| Norway silvery cod | <i>Gadiculus argenteus thori</i> | Norway silvery cod stock | Norwegian Department for Fisheries | D | NE | No |

¹ <https://www.iucnredlist.org/>

² <https://cites.org/eng/app/appendices.php>

CATEGORY D SPECIES

Category D species are those which 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.

| | | | |
|----|--|--|-------|
| D1 | Species Name | Silvery cod (<i>Gadiculus argenteus thori</i>) | |
| | Productivity Attribute | Value | Score |
| | Average age at maturity (years) | 1.6/1.2 | 1 |
| | Average maximum age (years) | 5.6/4.1 | 1 |
| | Fecundity (eggs/spawning) | >20,000 | 1 |
| | Average maximum size (cm) | 15.3/15 | 1 |
| | Average size at maturity (cm) | 10.2/9.8 | 1 |
| | Reproductive strategy | Open water spawn | 1 |
| | Mean trophic level | 3.6/3.5 | 3 |
| | Average Productivity Score | | 1.29 |
| | Susceptibility Attribute | Value | Score |
| | Availability (area overlap) | >30% | 3 |
| | Encounterability (the position of the stock/species within the water column relative to the fishing gear) | Target species | 3 |
| | Selectivity of gear type | Mature and immature individuals are caught in trawl nets | 3 |
| | Post-capture mortality | Retained | 3 |
| | Average Susceptibility Score | | 3 |
| | PSA Risk Rating (From Table D3) | | PASS |
| | Compliance rating | | PASS |
| | Further justification for productivity scoring (where relevant) Values are shown for both species in the form “ <i>argenteus/thori</i> ”. For example, the value expressed for <i>Average age at maturity</i> is “1.6/1.2”. This indicates that the average age at maturity for <i>G. argenteus</i> is 1.6 year and the age for <i>G. thori</i> is 1.2 years. | | |
| | Further justification for susceptibility scoring (where relevant) <ul style="list-style-type: none">- According to the distribution map below, it can be considered that greater than 30% of stock occurs in the Norwegian EEZ. <div></div> <ul style="list-style-type: none">- The species is a species that is found over muddy bottoms feeding on small crustaceans and worms. The fishing gears used are mainly bottom trawls which indicates there is high encounterability with the species.- Traditional bottom trawl nets have cod-end mesh size that is less than 10cm (approximate average size at maturity for both species) and individuals less than half the size at maturity are retained by the gear. | | |
| | References | | |

Froese, R. and D. Pauly. Editors. 2022. FishBase. *Gadiculus argenteus* Guichenot, 1850 Silvery Pout. World Wide Web electronic publication: <https://www.fishbase.se/summary/Gadiculus-argenteus.html>.

Froese, R. and D. Pauly. Editors. 2022. FishBase. *Gadiculus thori* Schmidt, 1913 Silvery cod. World Wide Web electronic publication: <https://www.fishbase.se/summary/Gadiculus-thori.html>.

Standard clauses 1.3.2.2

Table D2 - Productivity / Susceptibility attributes and scores.

| Productivity attributes | High productivity (Low risk, score = 1) | Medium productivity (medium risk, score = 2) | Low productivity (high risk, score = 3) |
|--------------------------|--|---|--|
| Average age at maturity | <5 years | 5-15 years | >15 years |
| Average maximum age | <10 years | 10-25 years | >25 years |
| Fecundity | >20,000 eggs per year | 100-20,000 eggs per year | <100 eggs per year |
| Average maximum size | <100 cm | 100-300 cm | >300 cm |
| Average size at maturity | <40 cm | 40-200 cm | >200 cm |
| Reproductive strategy | Broadcast spawner | Demersal egg layer | Live bearer |
| Mean Trophic Level | <2.75 | 2.75-3.25 | >3.25 |

| Susceptibility attributes | Low susceptibility (Low risk, score = 1) | Medium susceptibility (medium risk, score = 2) | High susceptibility (high risk, score = 3) |
|---|--|---|---|
| Areal overlap (availability) Overlap of the fishing effort with the species range | <10% overlap | 10-30% overlap | >30% overlap |
| Encounterability The position of the stock/species within the water column relative to the fishing gear, and the position of the stock/species within the habitat relative to the position of the gear | Low overlap with fishing gear (low encounterability). | Medium overlap with fishing gear. | High overlap with fishing gear (high encounterability). Default score for target species |
| Selectivity of gear type Potential of the gear to retain species | a Individuals < size at maturity are rarely caught | a Individuals < size at maturity are regularly caught. | a Individuals < size at maturity are frequently caught |
| | b Individuals < size at maturity can escape or avoid gear. | b Individuals < half the size at maturity can escape or avoid gear. | b Individuals < half the size at maturity are retained by gear. |
| Post-capture mortality (PCM) The chance that, if captured, a species would be released and that it would be in a condition permitting subsequent survival | Evidence of majority released post-capture and survival. | Evidence of some released post-capture and survival. | Retained species or majority dead when released. |

| 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 |