



MarinTrust Standard V2

By-product Fishery Assessment *Northern Rock Sole (*Lepidopsetta polyxystra*) in FAO 61 & 67 (Gulf of Alaska)*

MarinTrust Programme

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Table 1 Application details and summary of the assessment outcome

Fishery Under Assessment	Species:	Northern rock sole (<i>Lepidopsetta polyxystra</i>)
	Geographical area:	FAO 61 & 67 northeast Pacific
	Country of origin of the product:	Thailand (flag state(s): USA)
	Stock:	Northern rock sole in Gulf of Alaska (GOA)
Date	5 May 2023	
Report Code	THA08	
Assessor	Matthew Jew	
Country of origin of the product - PASS	Thailand (flag state(s): USA)	
Country of origin of the product - FAIL	NA	

Application details and summary of the assessment outcome			
Company Name(s): Piyo Bhokabhan Co. Ltd			
Country: Thailand			
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 1
Assessment Period	Up to May 2023		

Scope Details	
Main Species	Northern rock sole (<i>Lepidopsetta polyxystra</i>)
Stock	Northern rock sole in Gulf of Alaska (GOA)
Fishery Location	FAO 61 & 67 northeast Pacific
Management Authority (Country/ State)	North Pacific Fisheries Management Council
Gear Type(s)	Bottom Trawl
Outcome of Assessment	
Peer Review Evaluation	Agree with the assessor's determination
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. Northern rock sole (<i>Lepidopsetta polyxystra</i>) does not appear as Endangered or Critically Endangered on IUCN’s Red List, and does not appear in CITES appendices; therefore, <i>Lepidopsetta polyxystra</i> is eligible for approval for use as Marin trust by-product raw material.</p> <p>This stock is managed by the North Pacific Fisheries Management Council (NPFMC) with stock assessment carried out by National Marine Fisheries Service (NMFS) with reference points defined for GOA northern rock sole. As there is a management regime in place and reference points are defined, this stock is assessed under category C.</p> <p>Fishery removals are included in the stock assessment and it PASSES Clause C1.1. The stock is considered, in its most recent stock assessment, to have biomass above the limit reference point, it PASSES Clause C1.2.</p> <p>Therefore, northern rock sole in the Gulf of Alaska (GOA) is APPROVED for the production of fishmeal and fish oil under the current MarinTrust v2.0 by-products.</p>
Fishery Assessment Peer Review Comments
<p>The internal peer reviewer agrees with the assessor’s determination, who correctly classified and approved the stock of northern rock sole in the Gulf of Alaska (GOA) under Category C. Fishery removals are included in the stock assessment and the stock is considered, in its most recent stock assessment, to have biomass above the limit reference point, so it PASSES Clauses C1.1 and C1.2.</p> <p>Therefore, northern rock sole in the Gulf of Alaska (GOA) is APPROVED for the production of fishmeal and fish oil under the current MarinTrust v 2.0 by-products standards.</p>
Notes for On-site Auditor
<p>N/A</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 a 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
Northern rock sole	<i>Lepidopsetta polyxystra</i>	Northern rock sole in Gulf of Alaska (GOA)	NPFMC	C	LC	No

¹ <https://www.iucnredlist.org/species/158631806/158638021>

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

CATEGORY C SPECIES

In a by-product assessment, Category C species are those which are subject to a species-specific management regime and are usually targeted species in fisheries for human consumption.

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 should be assessed as a Category D species instead.

Species Name		Northern rock sole (<i>Lepidopsetta polyxystra</i>)	
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
<p>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.</p> <p>The max allowable biological catch (ABC) for GOA Northern rock sole 2023 is 12,551 tons.</p> <p>GOA northern rock sole is assessed using Stock Synthesis 3 (SS3). This model covers ages 0 to 30, is sex-specific, and started in 1977. The model incorporates fishery catch (retained catch and discards) but is reported as undifferentiated rock sole. Annual total catch was split evenly between norther and southern rock sole and included I the mode as the catch time-series.</p> <p>Long term catches for GOA rock sole are given below:</p>			

Year	Catch (t)
1993	8112.12
1994	3008.11
1995	3923.91
1996	6595.32
1997	5466.78
1998	2532.34
1999	1765.35
2000	5386.69
2001	4771.73
2002	5564.29
2003	3554.64
2004	2216.74
2005	4130.50
2006	5763.28
2007	6727.40
2008	7269.09
2009	6538.69
2010	3570.64
2011	3237.93
2012	2923.49
2013	4199.96
2014	3645.50
2015	2863.09
2016	3166.62
2017	2116.89
2018	2106.35
2019	2171.89
2020	3175.48
2021	1367.46*

Figure 1. Long-term catches (in tons) for GOA rock sole from 1993 to 2021.
Source: Bryan and Palsson, 2021.

Therefore, fishery removals of the species in the fishery under assessment are included in the stock assessment process and therefore the stock PASSES clause C1.1.

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.

Northern and southern rock sole in the Gulf of Alaska is conducted on a four-year cycle with the most recent assessment taking place in 2021.

The northern rock sole models estimate an increasing trend in total and spawning biomass and relatively low fishing mortality rates in recent years. The 2021 northern rock sole SSB estimates were above B35% and the 2021 fishing mortality estimates were below F35%. The southern rock sole models estimate the start of an increasing trend in total biomass and SSB, and fishing mortality rates have remained relatively low. The 2021 southern rock sole SSB estimates were above B35% and the fishing mortality estimates were below F35%.

The stock did not experience overfishing in 2019 nor 2020 and it was not considered overfished (or approaching overfishing) in 2020 or 2021.

Quantity	As estimated or specified last year for:		As estimated or recommended this year for:	
	2021	2022	2022+	2023+
<i>M</i> (natural mortality rate; female, male)	0.2, 0.253*	0.2, 0.253*	See area specific estimates	
Tier	3a	3a	3a	3a
Projected total (age 0+) biomass (t)	94,612	94,614	98,387	100,919
Projected Female spawning biomass (t)	47,694	46,330	35,474	39,682
<i>B</i> _{100%}	51,387	51,387	See area specific estimates	
<i>B</i> _{65%}	20,555	20,555		
<i>B</i> _{35%}	17,985	17,985		
<i>F</i> _{0%}	0.462	0.462		
<i>maxF</i> _{ABC}	0.382	0.382		
<i>F</i> _{ABC}	0.382	0.382		
OFL (t)	21,080	21,191	14,027	14,810
maxABC (t)	17,756	17,851	11,882	12,551
ABC (t)	17,756	17,851	11,882	12,551
Status	As determined last year for:		As determined this year for:	
	2019	2020	2020	2021
Overfishing	No	n/a	No	n/a
Overfished	n/a	No	n/a	No
Approaching overfished	n/a	No	n/a	No

Figure 2. GOA northern rock sole summary of the stock assessment.

Source: Bryan and Palsson, 2021.

Therefore, the species is considered, in its most recent stock assessment, to have a biomass above the limit reference point and it PASSES clause C1.2.

References

Bryan, M., and Palsson, W. 2021. Assessment of Northern and Southern rock sole (*Lepidopsetta polyxstra* and *bilineata*) stocks in the Gulf of Alaska. North Pacific Fishery Management Council. Plan Team for the Groundfish Fisheries of the Gulf of Alaska. Gulf of Alaska Stock Assessments. <https://apps-afsc.fisheries.noaa.gov/refm/docs/2021/GOAnsrocksole.pdf>

Links

MarinTrust Standard clause	1.3.2.2
FAO CCRF	7.5.3
GSSI	D.3.04, D5.01