



## MarinTrust Standard V2

# By-product Fishery Assessment, VNM11- *Pacific cod (Gadus macrocephalus)* in FAO Area - 67 Gulf of Alaska

### MarinTrust Programme

Unit C, Printworks

22 Amelia Street

London

SE17 3BZ

E: [standards@marin-trust.com](mailto:standards@marin-trust.com)

T: +44 2039 780 819

**Table 1 Application details and summary of the assessment outcome**

Fishery Under Assessment	Species:	<i>Gadus macrocephalus</i> - Pacific cod
	Geographical area:	FAO 67, Gulf of Alaska
	Country of origin of the product:	Vietnam (Flag country: USA)
	Stock:	FAO 67, Gulf of Alaska
Date	23/08/2024	
Report Code	VNM11	
Assessor	Virginia Polonio	
Country of origin of the product - PASS	Vietnam (Flag country: USA)	
Country of origin of the product - FAIL	NA	

Application details and summary of the assessment outcome			
Company Name(s): Thien Quynh Co. Ltd			
Country: Vietnam			
Email address:		Applicant Code:	
Certification Body Details			
Name of Certification Body:		LQRA	
Assessor	Peer Reviewer	Assessment Days	Initial/Surveillance/ Re-approval
Virginia Polonio	Sam Peacock	0.5	Re-approval
Assessment Period	August 2024 - August 2025		

Scope Details	
Main Species	<i>Gadus macrocephalus</i> - Pacific cod
Stock	FAO 67, Gulf of Alaska
Fishery Location	Gulf of Alaska
Management Authority (Country/ State)	Alaska Department of Fish and Game (ADF&G)
Gear Type(s)	Bottom Trawl, vertical lines, and pots
Outcome of Assessment	
Peer Review Evaluation	Agree with assessor
Recommendation	APPROVE

**Table 2. Assessment Determination**

Assessment Determination
<p>If any species is categorised as Endangered or Critically Endangered on Union for Conservation of Nature's Red List of Threatened Species - IUCN's Red List, or if it appears in the Convention on International Trade in Endangered Species of Wild Fauna and Flora - CITES appendices, it cannot be approved for use as MarinTrust raw material.</p> <p>Pacific cod (<i>Gadus macrocephalus</i>) is not categorised as Endangered or Critically Endangered on IUCN's Red List and does not appear in CITES appendices; therefore, Pacific cod (<i>Gadus macrocephalus</i>) is eligible for approval for use as Marin Trust by-product raw material.</p> <p>The Gulf of Alaska Pacific Cod stock is certified by Marine Stewardship Council - MSC since 2010, from 2020 onwards, it was assessed together with Bering Sea and Aleutian Islands. The stock has defined reference points.</p> <p>Fishery removals are included in the stock assessment and it PASSES Clause C1.1.</p> <p>The stock is considered, in its most recent stock assessment from 2023, to have biomass above the limit reference point. The stock is not being subject to overfishing, is not currently overfished, nor is it approaching a condition of being overfished. it PASSES Clause C1.2</p> <p>Therefore, <i>Pacific cod (Gadus macrocephalus)</i> in FAO Subarea 67 - Gulf of Alaska is APPROVED for the production of fishmeal and fish oil under the current MarinTrust v2.3 by-products standard.</p>
Fishery Assessment Peer Review Comments
<p>The peer reviewer agrees that this stock is eligible for MarinTrust approval, and that it should be assessed under Category C. The assessor has demonstrated, with references, that the stock is subject to a regular stock assessment which incorporates fishery removals, and that stock biomass is currently above the limit reference point level. For these reasons, the peer reviewer agrees that this byproduct should be re-approved for use as a raw material.</p>
Notes for On-site Auditor

## 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 <sup>1</sup>	CITES Appendix 1 <sup>2</sup>
Pacific cod	<i>Gadus macrocephalus</i>	Pacific cod (Gadus macrocephalus) in FAO Subarea 67 - Gulf of Alaska	Alaska Department of Fish and Game (ADF&G)	C	Not assessed	No

<sup>1</sup> <https://www.iucnredlist.org/>

<sup>2</sup> <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		Pacific cod ( <i>Gadus macrocephalus</i> ) in FAO Subarea 67 - Gulf of Alaska
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 stock assessment considers the catches and removals from the stock. In the recent stock assessment from 2023 there have been some changes in the input data and they're detailed below:

1. Federal and state catch data for 2022 were updated and preliminary federal and state catch data for 2023 were included;
2. Commercial federal and state fishery size composition data for 2022 were updated, and preliminary commercial federal and state fishery size composition data for 2023 were included;
3. AFSC longline survey Pacific cod abundance index and length composition data for the GOA for 2023 were included;
4. AFSC bottom trawl survey abundance index and length composition data for 2023 were included;
5. Commercial federal conditional age-at-length data for 2022 were included

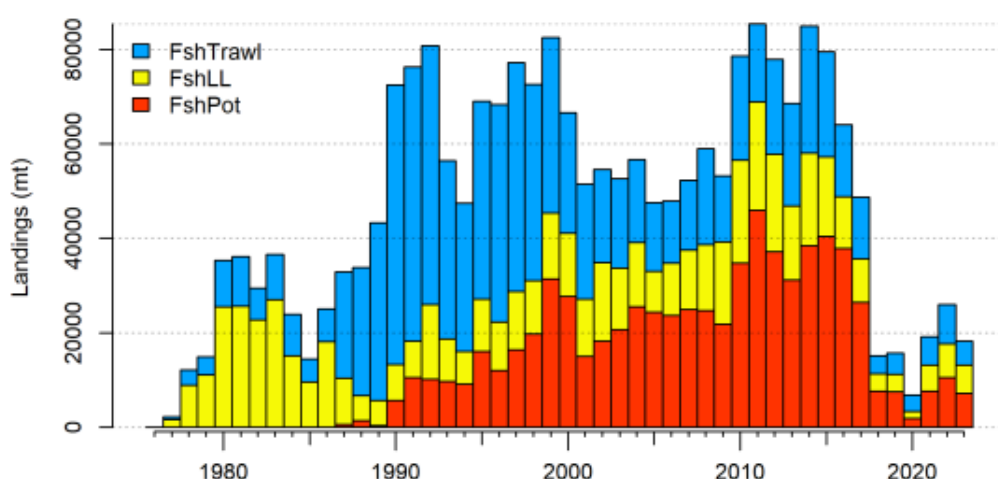


Figure 1. Commercial catch (mt) of Pacific cod in the GOA in trawl (FshTrawl), longline (FshLL), and pot (FshPot) gear from 1977-2023. Note that 2023 catch was through October 16. (Source: Hulson et al. 2023).

Therefore the stock meets 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.**

The model used for the 2023 stock assessment (Model 19.1b) is essentially the same as the 2022 model (Model 19.1a), with one minor adjustment: the conditional age-at-length minimum sample size was changed from 1 to 0.001. This means that the model's sensitivity to age-at-length data was slightly increased. No other changes were made to the model for the 2023 assessment.

According to Model 19.1b, the Pacific cod stock in the Gulf of Alaska remains at low levels but is above the biological reference point B20% (20% of the unfished biomass). For 2024, the stock is estimated to be at B29.7%, which is below B40% but above B20%, placing it in sub-tier "b" of Tier 3.

For the 2024 fishery, the recommended maximum allowable ABC is 32,272 tonnes. This is a 31% increase from the 2023 ABC of 24,634 tonnes. The increase is due to higher population estimates from the AFSC bottom trawl survey (53% larger in 2023 compared to 2021) and the AFSC longline survey Relative Population Number index (32% larger in 2023 compared to 2022). Additionally, the 2024 ABC is 42% larger than the ABC projected for 2024 in the previous year's assessment.

The stock is not being subject to overfishing, is not currently overfished, and is not approaching an overfished condition. This indicates that the current management measures are effective in maintaining the stock at sustainable levels and therefore the stock meets the clause C1.2.

#### References

Peter-John F. Hulson, Steven J. Barbeaux, Bridget Ferriss, Katy Echave, Julie Nielsen, S. Kalei Shotwell, Ben Laurel, and Ingrid Spies. November 2023. Assessment of the Pacific cod stock in the Gulf of Alaska. [Assessment of the Pacific cod stock in the Gulf of Alaska \(noaa.gov\)](https://www.noaa.gov/media/assessments/assessment-of-the-pacific-cod-stock-in-the-gulf-of-alaska)

#### Links

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

## 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

<b>D1</b>	<b>Species Name</b>			
	<b>Productivity Attribute</b>	<b>Value</b>	<b>Score</b>	
	Average age at maturity (years)			
	Average maximum age (years)			
	Fecundity (eggs/spawning)			
	Average maximum size (cm)			
	Average size at maturity (cm)			
	Reproductive strategy			
	Mean trophic level			
	<b>Average Productivity Score</b>			
	<b>Susceptibility Attribute</b>	<b>Value</b>	<b>Score</b>	
	Availability (area overlap)			
	Encounterability (the position of the stock/species within the water column relative to the fishing gear)			
	Selectivity of gear type			
	Post-capture mortality			
	<b>Average Susceptibility Score</b>			
	<b>PSA Risk Rating (From Table D3)</b>			
	<b>Compliance rating</b>			
	<b>Further justification for susceptibility scoring (where relevant)</b> <i>For susceptibility attributes, please provide a brief rationale for scoring of parameters where there may be uncertainty affecting your decision</i>			
	<b>References</b>			
<i>Standard clauses 1.3.2.2</i> taken.				

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

<b>D4</b>	<b>Species Name</b>		
	<b>Impacts On Species Categorised as Vulnerable by D1-D3 - Minimum Requirements</b>		
	<b>D4.1</b>	The potential impacts of the fishery on this species are considered during the management process, and reasonable measures are taken to minimise these impacts.	
	<b>D4.2</b>	There is no substantial evidence that the fishery has a significant negative impact on the species.	
			<b>Outcome:</b>
<b>Evidence</b> <b>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.</b>  <b>D4.2 There is no substantial evidence that the fishery has a significant negative impact on the species.</b>			
<b>References</b>			
<b>Links</b>			
<b>MarinTrust Standard clause</b>		1.3.2.2, 4.1.4	
<b>FAO CCRF</b>		7.5.1	
<b>GSSI</b>		D.5.01	