



MarinTrust Standard V2

By-product Fishery Assessment

VNM07 – Alaska pollock in FAO Area 67, Bering Sea and Aleutian Islands

MarinTrust Programme

Unit C, Printworks

22 Amelia Street

London

SE17 3BZ

E: standards@marin-trust.com

T: +44 2039 780 819

Table 1 Application details and summary of the assessment outcome

Fishery Under Assessment	Species:	Alaska pollock (<i>Gadus chalcogrammus</i>)
	Geographical area:	FAO Area 67 – Bering Sea and Aleutian Islands (BSAI)
	Country of origin of the product:	USA
	Stock:	Eastern Bering Sea (EBS) pollock & Aleutian Islands (AI) pollock
Date	July 2023	
Report Code	VNM07	
Assessor	Sam Peacock	
Country of origin of the product - PASS	USA	
Country of origin of the product - FAIL	n/a	

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:		LRQA	
Assessor	Peer Reviewer	Assessment Days	Initial/Surveillance/ Re-approval
Sam Peacock	Jose Peiro Crespo	0.2	Surveillance 2
Assessment Period	July 2023 – July 2024		

Scope Details	
Main Species	Alaska pollock (<i>Gadus chalcogrammus</i>)
Stock	EBS & AI pollock
Fishery Location	FAO Area 67 - BSAI
Management Authority (Country/ State)	USA / Alaska / NPFMC
Gear Type(s)	Mid-water trawl
Outcome of Assessment	
Peer Review Evaluation	Pass
Recommendation	Pass

Table 2. Assessment Determination

Assessment Determination
<p>Alaska pollock has been categorised by the IUCN Red List as Near Threatened, and does not appear in the CITES appendices. Alaska pollock in the Bering Sea and Aleutian Islands constitutes two stocks, one in the Eastern Bering Sea (EBS pollock) and one in the Aleutian Islands (AI pollock). This assessment covers both stocks. The fishery currently holds an MSC certification.</p> <p>Both stocks were most recently subject to stock assessment in 2022. The assessment incorporated all commercial landings and multiple survey indices. In both stocks, biomass was estimated to be above the target reference point level. Therefore, this byproduct material should remain approved for use by MT certified factories.</p>
Fishery Assessment Peer Review Comments
<p>The by-product fishery under assessment is the Alaska pollock or walleye pollock (<i>Gadus chalcogrammus</i>) mid-water trawl fishery in the BSAI (FAO Area 67). The species is classified as NT in the IUCN red list. The species managed relative to biomass-based reference points.</p> <p>Both stocks Eastern Bering Sea (EBS) and the Aleutian Islands (AI) were last assessed in 2022. Those assessments indicates that SSB is above the target reference points (Bmsy and B40% respectively). Therefore, the stocks pass category C. The fisheries are also MSC certified.</p> <p>The peer review supports the auditor’s recommendation to pass the Eastern Bering Sea (EBS) and the Aleutian Islands (AI) pollock mid-water trawl fishery/ies under the Marin Trust IFFO RS v2.0 by-fishery standard for the production of fishmeal and fish oil.</p>
Notes for On-site Auditor
Empty space for notes

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
Alaska pollock	<i>Gadus chalcogrammus</i>	EBS & AI pollock	Yes	C	Near Threatened ³	No

¹ <https://www.iucnredlist.org/>

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

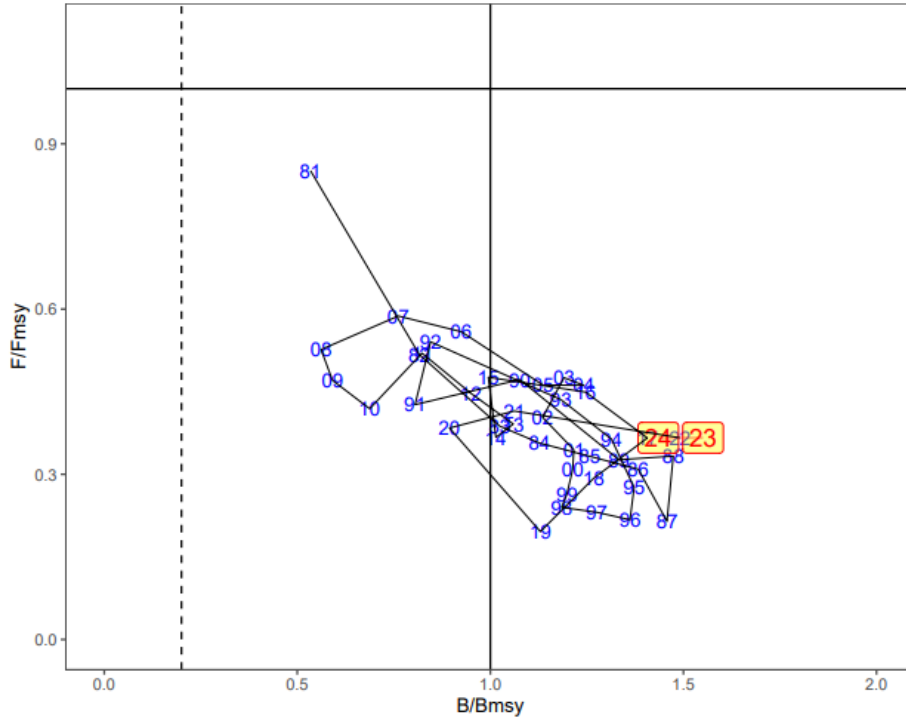
³ <https://www.iucnredlist.org/species/18258863/45097315>

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		Alaska pollock																																																																																												
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.	PASS																																																																																											
	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.	PASS																																																																																											
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.																																																																																														
<p>This fishery is currently MSC certified, with the most recent surveillance assessment report published in April 2023. The most recent stock assessment for both pollock stocks was carried out in 2022. Both assessments incorporated all catch data, plus survey indices and sampling data from the National Marine Fisheries Service (NMFS) bottom trawl survey and acoustic-trawl survey. Regular stock assessment are conducted and considered reliable, and C1.1 is met.</p>																																																																																														
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.																																																																																														
<p>The most recent stock assessments concluded that the biomass of both stocks was above the target reference point level. In the EBS pollock stock assessment, SSB was projected to be 4,171,000t in 2023, relative to a B_{msy} of 2,674,000t. In the AI pollock stock assessment, SSB was projected to be 78,628t in 2023, relative to a B_{msy} of 69,687t. C1.2 is met.</p>																																																																																														
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Quantity</th> <th colspan="2">As estimated or <i>specified</i> last year for:</th> <th colspan="2">As estimated or <i>recommended</i> this year for:</th> </tr> <tr> <th>2022</th> <th>2023</th> <th>2023</th> <th>2024</th> </tr> </thead> <tbody> <tr> <td>M (natural mortality rate, ages 3+)</td> <td>0.3</td> <td>0.3</td> <td>0.3</td> <td>0.3</td> </tr> <tr> <td>Tier</td> <td>1b</td> <td>1b</td> <td>1a</td> <td>1a</td> </tr> <tr> <td>Projected total (age 3+) biomass (t)</td> <td>6,839,000 t</td> <td>6,969,000 t</td> <td>12,389,000 t</td> <td>11,445,000 t</td> </tr> <tr> <td>Projected female spawning biomass (t)</td> <td>1,881,000 t</td> <td>1,905,000 t</td> <td>4,171,000 t</td> <td>3,944,000 t</td> </tr> <tr> <td>B_0</td> <td>5,575,000 t</td> <td>5,575,000 t</td> <td>6,653,000 t</td> <td>6,653,000 t</td> </tr> <tr> <td>B_{msy}</td> <td>2,220,000 t</td> <td>2,220,000 t</td> <td>2,674,000 t</td> <td>2,674,000 t</td> </tr> <tr> <td>F_{OFL}</td> <td>0.392</td> <td>0.415</td> <td>0.491</td> <td>0.491</td> </tr> <tr> <td>$maxF_{ABC}$</td> <td>0.334</td> <td>0.353</td> <td>0.434</td> <td>0.434</td> </tr> <tr> <td>F_{ABC}</td> <td>0.296</td> <td>0.314</td> <td>0.365</td> <td>0.365</td> </tr> <tr> <td>OFL</td> <td>1,469,000 t</td> <td>1,704,000 t</td> <td>3,381,000 t</td> <td>4,639,000 t</td> </tr> <tr> <td>$maxABC$</td> <td>1,251,000 t</td> <td>1,451,000 t</td> <td>2,987,000 t</td> <td>4,099,000 t</td> </tr> <tr> <td>ABC</td> <td>1,111,000 t</td> <td>1,289,000 t</td> <td>1,688,000 t</td> <td>1,815,000 t</td> </tr> <tr> <td>Status</td> <td>2020</td> <td>2021</td> <td>2021</td> <td>2022</td> </tr> <tr> <td>Overfishing</td> <td>No</td> <td>n/a</td> <td>No</td> <td>n/a</td> </tr> <tr> <td>Overfished</td> <td>n/a</td> <td>No</td> <td>n/a</td> <td>No</td> </tr> <tr> <td>Approaching overfished</td> <td>n/a</td> <td>No</td> <td>n/a</td> <td>No</td> </tr> </tbody> </table>						Quantity	As estimated or <i>specified</i> last year for:		As estimated or <i>recommended</i> this year for:		2022	2023	2023	2024	M (natural mortality rate, ages 3+)	0.3	0.3	0.3	0.3	Tier	1b	1b	1a	1a	Projected total (age 3+) biomass (t)	6,839,000 t	6,969,000 t	12,389,000 t	11,445,000 t	Projected female spawning biomass (t)	1,881,000 t	1,905,000 t	4,171,000 t	3,944,000 t	B_0	5,575,000 t	5,575,000 t	6,653,000 t	6,653,000 t	B_{msy}	2,220,000 t	2,220,000 t	2,674,000 t	2,674,000 t	F_{OFL}	0.392	0.415	0.491	0.491	$maxF_{ABC}$	0.334	0.353	0.434	0.434	F_{ABC}	0.296	0.314	0.365	0.365	OFL	1,469,000 t	1,704,000 t	3,381,000 t	4,639,000 t	$maxABC$	1,251,000 t	1,451,000 t	2,987,000 t	4,099,000 t	ABC	1,111,000 t	1,289,000 t	1,688,000 t	1,815,000 t	Status	2020	2021	2021	2022	Overfishing	No	n/a	No	n/a	Overfished	n/a	No	n/a	No	Approaching overfished	n/a	No	n/a	No
Quantity	As estimated or <i>specified</i> last year for:		As estimated or <i>recommended</i> this year for:																																																																																											
	2022	2023	2023	2024																																																																																										
M (natural mortality rate, ages 3+)	0.3	0.3	0.3	0.3																																																																																										
Tier	1b	1b	1a	1a																																																																																										
Projected total (age 3+) biomass (t)	6,839,000 t	6,969,000 t	12,389,000 t	11,445,000 t																																																																																										
Projected female spawning biomass (t)	1,881,000 t	1,905,000 t	4,171,000 t	3,944,000 t																																																																																										
B_0	5,575,000 t	5,575,000 t	6,653,000 t	6,653,000 t																																																																																										
B_{msy}	2,220,000 t	2,220,000 t	2,674,000 t	2,674,000 t																																																																																										
F_{OFL}	0.392	0.415	0.491	0.491																																																																																										
$maxF_{ABC}$	0.334	0.353	0.434	0.434																																																																																										
F_{ABC}	0.296	0.314	0.365	0.365																																																																																										
OFL	1,469,000 t	1,704,000 t	3,381,000 t	4,639,000 t																																																																																										
$maxABC$	1,251,000 t	1,451,000 t	2,987,000 t	4,099,000 t																																																																																										
ABC	1,111,000 t	1,289,000 t	1,688,000 t	1,815,000 t																																																																																										
Status	2020	2021	2021	2022																																																																																										
Overfishing	No	n/a	No	n/a																																																																																										
Overfished	n/a	No	n/a	No																																																																																										
Approaching overfished	n/a	No	n/a	No																																																																																										
Reference points, stock status and catch recommendations for EBS pollock (Ianelli et al 2022)																																																																																														



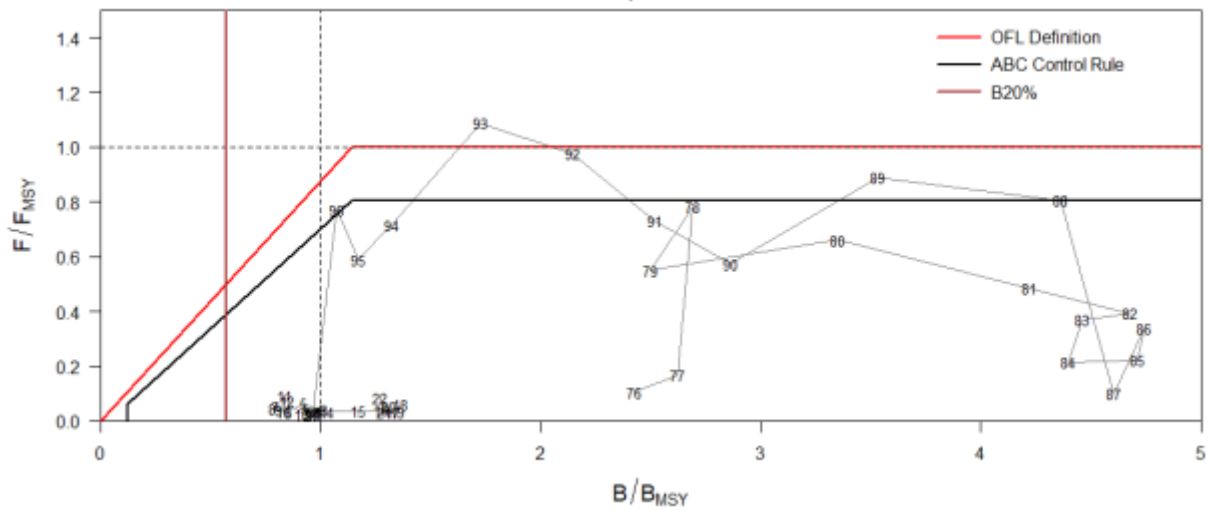
EBS pollock, estimated spawning biomass relative to annually estimated F_{MSY} values and fishing mortality rates (Ianelli 2022)

Quantity	As estimated or specified last year for:		As estimated or recommended this year for:	
	2022	2023	2023	2024*
M (natural mortality rate)	0.21		0.21	
Tier	3a		3a	
Total (age 1+) biomass (t)	308,525	330,375	264,173	281,618
Female spawning biomass (t)				
Projected	89,516	87,650	78,628	80,432
$B_{100\%}$	185,475		174,218	
$B_{40\%}$	74,190		69,687	
$B_{35\%}$	64,916		60,976	
F_{OFL}	0.390	0.390	0.380	0.380
$maxF_{ABC}$	0.313	0.313	0.305	0.305
F_{ABC}	0.313	0.313	0.305	0.305
OFL (t)	61,264	61,379	52,383	52,043
maxABC (t)	50,752	50,825	43,413	43,092
ABC (t)	50,752	50,825	43,413	43,092
Status	As determined this year for:		As determined this year for:	
	2020	2021	2021	2022
Overfishing	no	no	no	n/a
Overfished	n/a	n/a	n/a	no
Approaching overfished	n/a	n/a	n/a	no

* Projection based on estimated catches of 3,000 t for 2022 and 1,670 t for 2023, the five-year average F (2017-2021) of 0.026, used in place of maximum permissible ABC.

** Long-term equilibrium F_{OFL} and F_{ABC} were 0.380 and 0.305, respectively.

Reference points, stock status and catch recommendations for AI pollock (Barbeaux *et al* 2022)



AI pollock SSB relative to B_{msy} and full-selection fishing mortality relative to F_{msy} , 1978-2024 (Barbeaux *et al* 2022)

References

Barbeaux, S, Ianelli, J, Ortiz, I, Laman, N (2022). Chapter 1A: Assessment of the pollock stock in the Aleutian Islands, December 2022. AFSC, NMFS. https://apps-afsc.fisheries.noaa.gov/Plan_Team/2022/Alpollock.pdf

Ianelli, J, Stienessen, S, Honkalehto, T (2022). Chapter 1: Assessment of the Walleye Pollock Stock in the Eastern Bering Sea, December 2022. AFSC, NMFS. https://apps-afsc.fisheries.noaa.gov/Plan_Team/2022/EBSPollock.pdf

MRAG (2023). Bering Sea and Aleutian Islands and Gulf of Alaska Pollock, 2nd surveillance report. April 17, 2023. <https://fisheries.msc.org/en/fisheries/bsai-and-go-a-alaska-pollock/@assessments>

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 taken.

D1	Species Name	n/a	
	Productivity Attribute	Value	Score
	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		
	Average Productivity Score		
	Susceptibility Attribute	Value	Score
	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		
	Average Susceptibility Score		
	PSA Risk Rating (From Table D3)		
	Compliance rating		
	Further justification for susceptibility scoring (where relevant) <i>For susceptibility attributes, please provide a brief rationale for scoring of parameters where there may be uncertainty affecting your decision</i>		
	References		
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

D4	Species Name	n/a	
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.		
D4.2	There is no substantial evidence that the fishery has a significant negative impact on the species.		
			Outcome:
Evidence			
<p>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.</p> <p>D4.2 There is no substantial evidence that the fishery has a significant negative impact on the species.</p>			
References			
Links			
MarinTrust Standard clause		1.3.2.2, 4.1.4	
FAO CCRF		7.5.1	
GSSI		D.5.01	