



MarinTrust Standard V2

By-product Fishery Assessment Yellowfin sole (*Limanda aspera*) 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:	Yellowfin sole, <i>Limanda aspera</i>
	Geographical area:	FAO 61 & 67 Northwest Pacific Ocean, Gulf of Alaska
	Country of origin of the product:	Thailand (flag state(s) not provided by client)
	Stock:	Yellowfin sole in FAO 61 & 67 Northwest Pacific Ocean, Gulf of Alaska
Date	9 December 2022	
Report Code	THA36	
Assessor	Matthew Jew	
Country of origin of the product - PASS	Thailand (flag state(s) not provided by client)	
Country of origin of the product - FAIL	NA	

Application details and summary of the assessment outcome			
Company Name(s): Golden Prize Canning Co Ltd; Asian Alliance International Co., Ltd; Jana Fish Industries Limited; Piyo Bhokabhan Co., Ltd.; S.P.A International Food Group Co.,Ltd; Sirisaengarumpee Co. Ltd.; South East Asian Packaging and Canning Ltd; T.C. Union Agrotech Co, Ltd; Thai Union Ingredients 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	Reapproval
Assessment Period	Up to December 2022		

Scope Details	
Main Species	Yellowfin sole, <i>Limanda aspera</i>
Stock	Yellowfin sole in FAO 61 & 67 Northwest Pacific Ocean, Gulf of Alaska
Fishery Location	FAO 61 & 67 Northwest Pacific Ocean, Gulf of Alaska
Management Authority (Country/ State)	North Pacific Fishery Management Council (NPFMC) and Magnuson-Stevens Act
Gear Type(s)	Otter trawls
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. Yellowfin sole (<i>Limanda aspera</i>) is not assessed on IUCN’s Red List, and does not appear in CITES appendices; therefore, <i>Limanda aspera</i> is eligible for approval for use as Marin trust by-product raw material.</p> <p>Yellowfin sole is managed as part of the Gulf of Alaska Shallow Water Flatfish Complex, but has not been assessed. The complex is not overfished based on the stock assessment of Northern rock sole (2017 stock assessment) and rock sole (2017 stock assessment), which are regarded as the primary indicator species in this complex. The stock complex is not subject to overfishing based on 2021 catch data. Overfishing limits (OFL) for the stock has been used as advised TAC, while Acceptable Biological Catch (ABC) limit has been used as Assigned TAC for this stock. Therefore, there is not a species-specific management system and the species has been assessed under Category D.</p> <p>Table D1 (PSA) shows that the stock as an average productivity score of 1.57 and an average susceptibility score of 3. The PSA risk rating results (Table D3) determined that the species passes.</p> <p>Therefore, yellowfin sole in the FAO 61 & 67 Northwest Pacific Ocean (Gulf of Alaska) 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 yellowfin sole (<i>Limanda aspera</i>) in FAO 61 & 67 Northwest Pacific Ocean (Gulf of Alaska) under Category D, as there is no specific management regime in place for this stock.</p> <p>The species passed the Table D1 (PSA).</p> <p>Therefore, yellowfin sole (<i>Limanda aspera</i>) in FAO 61 & 67 Northwest Pacific Ocean (Gulf of Alaska), is APPROVED.</p>
Notes for On-site Auditor
<p>Determine which flag state(s) the species is being sources 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 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
Yellowfin sole	<i>Limanda aspera</i>	Gulf of Alaska (FAO 61 & 67)	NPFMC and Magnuson-Stevens Act	D	LC	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	Yellowfin sole (<i>Limanda aspera</i>)	
	Productivity Attribute	Value	Score
	Average age at maturity (years)	5.7	2
	Average maximum age (years)	23.7	2
	Fecundity (eggs/spawning)	1,036,626 [295,615 to 3,635,108]	1
	Average maximum size (cm)	49.0	1
	Average size at maturity (cm)	24.8	1
	Reproductive strategy	Non-guarders	1
	Mean trophic level	3.5	3
	Average Productivity Score		1.57
	Susceptibility Attribute	Value	Score
	Availability (area overlap)	>30% of the stock occurs in the area	3
	Encounterability (the position of the stock/species within the water column relative to the fishing gear)	High overlap	3
	Selectivity of gear type	Mature and immature individuals are frequently caught and retained by the gear	3
	Post-capture mortality	Retained	3
	Average Susceptibility Score		3
	PSA Risk Rating (From Table D3)		Pass
	Compliance rating		Pass
	Further justification for susceptibility scoring (where relevant)		
	 <ul style="list-style-type: none"> - The native range of the species spans the northeast and northwest Pacific Ocean. The Gulf of Alaska stock is greater than 30% of the geographic range of the Gulf of Alaska. - Yellowfin sole is demersal by nature and thus has high encounterability with demersal otter trawls. - Standard otter trawl mesh size does not allow for the escapement of individuals less than half the size-at-maturity (12 cm). - Yellowfin sole are retained, so the PCM is rated as high susceptibility. 		
References			
NOAA. 2022. Yellowfin sole. https://www.fisheries.noaa.gov/species/yellowfin-sole#seafood			
Froese, R. and D. Pauly. Editors. 2022. FishBase. Yellowfin sole, <i>Limanda aspera</i> . World Wide Web electronic publication: https://www.fishbase.se/summary/Limanda-aspera.html			
<i>Standard clauses 1.3.2.2</i>			

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