



MarinTrust Standard V2

By-product Fishery Assessment Report Template

MarinTrust Programme

Unit C, Printworks

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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 & 77, Northwest and Eastern Central Pacific
	Country of origin of the product:	USA
	Stock:	Northeast Gulf of Alaska
Date	13/12/2021	
Report Code	BP257	
Assessor	Virginia Polonio	
Country of origin of the product - PASS	USA	
Country of origin of the product - FAIL	NA	

Application details and summary of the assessment outcome			
Name: Piyo Bhokabhan Co., Ltd, T.C. Union Agrotech Co, Ltd			
Address:			
Country: Thailand		Zip:	
Tel. No.:		Fax. No.:	
Email address:		Applicant Code:	
Key Contact:		Title:	
Certification Body Details			
Name of Certification Body:		Gloabal Trust certification	
Assessor	Peer Reviewer	Assessment Days	Initial/Surveillance/ Re-approval
Virginia Polonio	Conor Donnelly	0.5	Surveillance 1
Assessment Period	To December 2021		

Scope Details	
Main Species	Yellowfin Sole (<i>Limanda aspera</i>)
Stock	Northeast Gulf of Alaska
Fishery Location	FAO 61 & 77 Northeast 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 recommendation
Recommendation	APPROVED

Table 2. Assessment Determination

Assessment Determination
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 MARINTRUST raw material. Yellowfin sole (<i>Limanda aspera</i>) does not appear as Endangered or Critically Endangered on IUCN's Red List, nor does it appear in CITES appendices; therefore, Yellowfin sole (<i>Limanda aspera</i>) in the FAO areas 61 & 77 Gulf of Alaska is eligible for approval for use as MARINTRUST by-product raw material. Biological reference points are not available for the yellowfin sole stock in Gulf of Alaska waters. 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 In order to be approved, the stock assessed must pass the PSA; therefore, as this is the case here, Yellowfin sole (<i>Limanda aspera</i>) in the FAO areas 61 & 77 in the Gulf of Alaska, by-product covered by this report is APPROVED for the production of fishmeal and fish oil under the current MARINTRUST v2.0 by-product standard.
Fishery Assessment Peer Review Comments
Peer review confirmed that no reference points exist (https://www.fisheries.noaa.gov/species/yellowfin-sole) and the stock is therefore not subject to a species-specific management regime so it is necessary to assess under Clause D using a risk-based productivity-susceptibility analysis. Review of the productivity and susceptibility scoring confirms the PSA achieves a pass. Consequently, the peer review agrees with the recommendation to approve.
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 ¹	CITES Appendix 1 ²
Yellowfin Sole	<i>Limanda aspera</i>	FAO 61 & 77 Northwest Pacific Gulf of Alaska	North Pacific Fishery Management Council (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 make up less than 5% of landings and 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	3
	Average maximum age (years)	23.7	2
	Fecundity (eggs/spawning)	1,036,626 [295,615-3,635,108]	1
	Average maximum size (cm)	49	1
	Average size at maturity (cm)	24.8	1
	Reproductive strategy	Non guarders	1
	Mean trophic level	3.5	3
	Average Productivity Score		1.71
	Susceptibility Attribute	Value	Score
	Overlap of adult species range with fishery	>50 of the stock occurs in the area	3
	Distribution	Limited range in the region	Not scored
	Habitat	demersal	3
	Depth range	High overlap	3
	Selectivity	Species 1 to 2 times mesh size	2
	Post-capture mortality	Alive after net hauled	2
	Average Susceptibility Score		2.5
	PSA Risk Rating (From Table D3)		PASS
	Compliance rating		PASS

References

<https://www.fishbase.de/summary/Limanda-aspera.html>

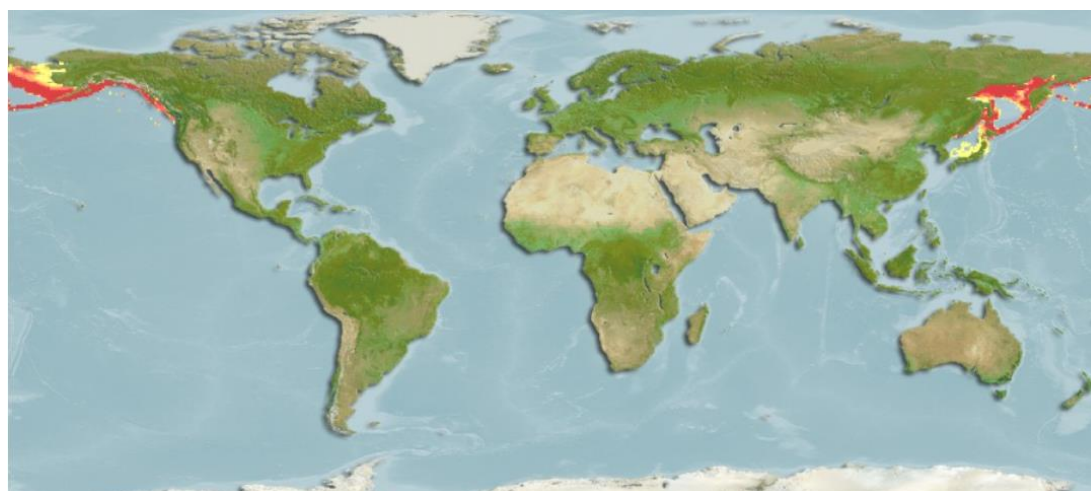


Figure 1. Distribution maps for *Limanda aspera* (Yellowfin sole), with modelled year 2050 native range map based on IPCC RCP8.5 emissions scenario. Retrieved from <https://www.aquamaps.org>.
https://www.aquamaps.org/receive.php?type_of_map=regular

Table D2 - Productivity / Susceptibility attributes and scores.

Productivity attributes	Low productivity/ High risk	Medium productivity/ Medium risk	High productivity/ Low risk
	Score 3	Score 2	Score 1
Average age at maturity (years)	>4	2 to 4	<2
Average maximum age (years)	>30	10 to 30	<10
Fecundity (eggs/spawning)	<1 000	1 000 to 10 000	>10 000
Average maximum size (cm)	>150	60 to 150	<60
Average size at maturity (cm)	>150	30 to 150	<30
Reproductive strategy	Live bearer, mouth brooder or significant parental investment	Demersal spawner "berried"	Broadcast spawner
Mean trophic level	>3.25	2.5–3.25	<2.5

Susceptibility attributes		High susceptibility/ High risk	Medium susceptibility/ Medium risk	Low susceptibility/ Low risk
		Score 3	Score 2	Score 1
Availability	1) Overlap of adult species range with fishery	>50% of stock occurs in the area fished	Between 25% and 50% of the stock occurs in the area fished	<25% of stock occurs in the area fished
	2) Distribution	Only in the country/ fishery	Limited range in the region	Throughout region/ global distribution
Encounterability	1) Habitat	Habitat preference of species make it highly likely to encounter trawl gear (e.g. demersal, muddy/sandy bottom)	Habitat preference of species make it moderately likely to encounter trawl gear (e.g. rocky bottom/reefs)	Depth or distribution of species make it unlikely to encounter trawl gear (e.g. epi-pelagic or meso-pelagic)
	2) Depth range	High overlap with trawl fishing gear (20 to 60 m depth)	Medium overlap with trawl fishing gear (10 to 20 m depth)	Low overlap with trawl fishing gear (0 to 10 m, >70 m depth)
Selectivity		Species >2 times mesh size or up to 4 m length	Species 1 to 2 times mesh size or 4 to 5 m length	Species <mesh size or >5 m length
Post capture mortality		Most dead or retained Trawl tow >3 hours	Alive after net hauled Trawl tow 0.5 to 3 hours	Released alive Trawl tow <0.5 hours

Note: Availability 2 is only used when there is no information for Availability 1; the most conservative score between Encounterability 1 and 2 is used.

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			
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 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.			
References			
Links			
MARINTRUST Standard clause		1.3.2.2, 4.1.4	
FAO CCRF		7.5.1	
GSSI		D.5.01	