



MarinTrust Standard V2

By-product Fishery Assessment

Drums (Larimus ssp.)

FAO 87- Southeast Pacific, Ecuador EEZ

MarinTrust Programme

Unit C, Printworks

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Table 1 Application details and summary of the assessment outcome

Fishery Under Assessment	Species:	Drums (<i>Larimus spp.</i>)
	Geographical area:	FAO 87
	Country of origin of the product:	Ecuador
	Stock:	Southeast Pacific – Ecuador EEZ
Date	February 2024	
Report Code	ECU09	
Assessor	Blanca Gonzalez	
Country of origin of the product - PASS	Ecuador	
Country of origin of the product - FAIL	None	

Application details and summary of the assessment outcome			
Company Name(s): Fortidex SA			
Country: Mexico			
Email address:		Applicant Code:	
Certification Body Details			
Name of Certification Body:		LRQA	
Assessor	Peer Reviewer	Assessment Days	Initial/Surveillance/ Re-approval
Blanca Gonzalez	Sam Peacock	0.5	Surveillance 1
Assessment Period	February 2024 – February 2025		

Scope Details	
Main Species	Drums (<i>Larimus spp.</i>)
Stock	Southeast Pacific – Ecuador EEZ
Fishery Location	FAO 87
Management Authority (Country/ State)	Ecuador
Gear Type(s)	Purse seine
Outcome of Assessment	
Peer Review Evaluation	Agree with recommendation
Recommendation	PASS

Table 2. Assessment Determination

Assessment Determination
<p>No information was provided at the species level; thus, the assessment includes four species of the genus <i>Larimus</i> that can be found in Ecuadorian waters: Shining drum (<i>L. effulgens</i>), Pacific drum (<i>L. pacificus</i>), steep-lined drum (<i>L. acclivis</i>), and silver drum (<i>L. argenteus</i>). All the four species are categorised by the IUCN as Least Concern, none appear in the CITES appendices, and there is no species-specific management in place or established reference points for any of them. Thus, they were assessed under Category D.</p> <p>For this assessment the most conservative value across all four species was used to produce each Productivity and Susceptibility score in the Productivity-Susceptibility Analysis (PSA). Drums awarded an average productivity score of 1.33 and an average susceptibility score of 2.25 passing against Table D3, indicating these stocks are not vulnerable to the fisheries in the Ecuadorian EEZ.</p> <p>The drums by-product meets the Marin Trust requirements and it should be remained approved for use as a raw material.</p>
Fishery Assessment Peer Review Comments
<p>As in previous MT assessments of this byproduct, the assessor has identified four drum species within scope. The peer reviewer agrees with the conclusion that all four species should be assessed under Category D. The combined approach of conducting one PSA for all four species using the most conservative productivity and susceptibility score against each criterion matches previous MT assessment approaches. The peer reviewer agrees with the scores assigned, and also agrees that the byproduct should remain 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 ¹	CITES Appendix 1 ²
Drums	<i>Larimus spp.</i>	Southeast Pacific – Ecuador EEZ	No	D	Least Concern 3,4,5,6	No

¹ <https://www.iucnredlist.org/>

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

³ <https://www.iucnredlist.org/species/184032/131013210>

⁴ <https://www.iucnredlist.org/species/183471/131014088>

⁵ <https://www.iucnredlist.org/species/183386/131014288>

⁶ <https://www.iucnredlist.org/species/183380/131015357>

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		N/A	
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.	
	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.	
			Clause outcome:
<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>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>			
References			
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		Drums (<i>Larimus spp.</i>)	
	Productivity Attribute	Value	Score	
	Average age at maturity (years)	1.6 ⁴	1	
	Average maximum age (years)	6.3 ⁴	1	
	Fecundity (eggs/spawning)	Unknown	-	
	Average maximum size (cm)	36.1 ⁴	1	
	Average size at maturity (cm)	21.7 ⁴	1	
	Reproductive strategy	Broadcast spawner ¹⁻⁴	1	
	Mean trophic level	4.5 ²	3	
	Average Productivity Score		1.33	
	Susceptibility Attribute	Value	Score	
	Availability (area overlap)	<10 % overlap ⁵⁻⁶	1	
	Encounterability (the position of the stock/species within the water column relative to the fishing gear)	Medium overlap ⁹	2	
	Selectivity of gear type	Individuals < size at maturity are frequently caught ¹¹	3	
	Post-capture mortality	Retained	3	
	Average Susceptibility Score		2.25	
	PSA Risk Rating (From Table D3)		PASS	
	Compliance rating		PASS	
	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>			
	<p>The species of drum utilised by the applicant were not provided. The assessor identified four species potentially present in Ecuadorian waters: Shining drum (<i>L. effulgens</i>), Pacific drum (<i>L. pacificus</i>), steplined drum (<i>L. acclivis</i>), and silver drum (<i>L. argenteus</i>). For the purposes of completing this Category D assessment, the most conservative value across all four species was used to produce each Productivity and Susceptibility score.</p>			
	<p>Area overlap: The fishery occurs in the Exclusive Economic Zone from Ecuador and the drums species distribute in coastal waters from Mexico to Ecuador, and in some cases to Peru (Figure 1).</p>			
	<p>Encounterability: Drums are associated species to the small pelagic fish fishery in Ecuador. Associated species are those which inhabit or are linked to the seabed and due to their migrations in the water column, are accessible to interact with the purse seine at the time of their fishing operation. The Drums catch in the small pelagic fish fishery activity from 2015 to 2022 represents from 0.11% to 6.42% of the total catch.⁹</p>			
	<p>Selectivity of gear type: Individuals < size at maturity are frequently caught, since fishing regulations in Ecuador states that small pelagic fish fisheries should use a minimum mesh size of 1 1/8" (2.85 cm).¹⁰</p>			



Figure 1. map distributions of *Larimus* species that can be found in Ecuadorian coastal waters⁵⁻⁶.

References

- 1 Fishbase 2023. Shining drum. <https://www.fishbase.se/summary/Larimus-effulgens.html>
- 2 Fishbase 2023. Pacific drum <https://www.fishbase.se/summary/Larimus-pacificus.html>
- 3 Fishbase 2023. steplined drum. <https://www.fishbase.se/summary/Larimus-acclivis.html>
- 4 Fishbase 2023. silver drum. <https://www.fishbase.se/summary/Larimus-argenteus.html>
- 5 IUCN 2023. Shining drum. <https://www.iucnredlist.org/species/183386/131014288>
- 6 IUCN 2023. steplined drum. <https://www.iucnredlist.org/species/183380/131015357>
- 7 IUCN 2023. steplined drum. <https://www.iucnredlist.org/species/184032/131013210>
- 8 IUCN 2023. silver drum. <https://www.iucnredlist.org/species/183471/131014088>
- 9 <https://institutopesca.gob.ec/wp-content/uploads/2023/05/Capturas-pela%CC%81gicos-pequen%CC%83os-2015-2022.pdf>
- 10 Acuerdo N° MRCEIP-SRP-2019-0160-A – Medidas de ordenamiento, regulación y control para las embarcaciones pesqueras industriales provistas de redes de cerco de jareta que capturan peces pelágicos pequeños. <https://faolex.fao.org/docs/pdf/ecu196232.pdf>

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			
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	