



MarinTrust Standard V2

By-product Fishery Assessment

Drums in FAO Area 87 – Ecuador EEZ

MarinTrust Programme

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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 Area 87
	Country of origin of the product:	Ecuador
	Stock:	Ecuador EEZ
Date	February 2023	
Report Code	ECU09	
Assessor	Sam Peacock	
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			
Country:			
Email address:		Applicant Code:	
Certification Body Details			
Name of Certification Body:		LRQA	
Assessor	Peer Reviewer	Assessment Days	Initial/Surveillance/ Re-approval
Sam Peacock	Kate Morris	0.2	Initial
Assessment Period	February 2023 – February 2024		

Scope Details	
Main Species	Drums (<i>Larimus spp</i>)
Stock	Ecuador EEZ
Fishery Location	FAO Area 87
Management Authority (Country/ State)	Ecuador
Gear Type(s)	Pelagic gears
Outcome of Assessment	
Peer Review Evaluation	Pass
Recommendation	Pass

Table 2. Assessment Determination

Assessment Determination
<p>This byproduct is not identified to species level. Four species of <i>Larimus</i> were identified by the assessor as potentially present in Ecuadorian waters: Shining drum, <i>Larimus effulgens</i>; Pacific drum, <i>L. pacificus</i>; steeplined drum, <i>L. acclivis</i>; and silver drum, <i>L. argenteus</i>. All four species are categorised by the IUCN as Least Concern, and none appears in the CITES appendices.</p> <p>There is no species-specific management in place for any of the four species, and no reference points are established. For this reason, the byproduct was assessed under Category D. The most conservative value across all four species was used to determine Productivity and Susceptibility scores. Drums in the Ecuadorian EEZ were awarded a Productivity score of 1.33 and a Susceptibility score of 2.25, leading to a Pass rating on Table D3. The byproduct should therefore be approved for use as a raw material.</p>
Fishery Assessment Peer Review Comments
<p>The by-product fishery under assessment here is a drum (<i>Larimus spp</i>) fishery, pursued by vessels in FAO fishing area 87. The specific species of drum was not provided by the applicant; therefore, the auditor has precautionarily assessed all species of drum with species ranges overlapping with the Ecuador EEZ. Within the Ecuador EEZ no species of drum is managed by international or state regulations. Therefore, for this Marin Trust assessment, the drum stocks are scored against Category D.</p> <p>The species PSA scoring table has been completed by the auditor with sufficient evidence presented to support their final determination. References appear correct and well presented in the PSA table.</p> <p>The peer review supports the auditor’s recommendation to pass the FAO 87, Drum stocks pursued by the fishery under the Marin Trust IFFO RS v2.0 by-fishery standard to produce fishmeal and fish oil.</p>
Notes for On-site Auditor
<p>The auditor should seek out any further information available to indicate the specific species of drum used to produce this byproduct.</p> <p>If this is not possible, the auditor should enquire as to why the catch is unidentifiable and what are the potential risks to MT certification.</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
Drums	<i>Larimus spp</i>	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/183386/131014288>

⁴ <https://www.iucnredlist.org/species/183380/131015357>

⁵ <https://www.iucnredlist.org/species/184032/131013210>

⁶ <https://www.iucnredlist.org/species/183471/131014088>

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:
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.			
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	
	Productivity Attribute	Value	Score
	Average age at maturity (years)	1.6 years (4)	1
	Average maximum age (years)	6.3 years (4)	1
	Fecundity (eggs/spawning)	Unknown	-
	Average maximum size (cm)	36.1 (4)	1
	Average size at maturity (cm)	21.7cm (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 (1-4)	1
	Encounterability (the position of the stock/species within the water column relative to the fishing gear)	Medium overlap (neritic)	2
	Selectivity of gear type	Retained	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>		
	The species of drum utilised by the applicant were not provided. The assessor identified four species potentially present in Ecuadorian waters: Shining drum, <i>Larimus effulgens</i> ; Pacific drum, <i>L. pacificus</i> ; steeplined 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; the species to which the score relates is indicated above.		
References			
(1) Fishbase, Shining drum: https://www.fishbase.se/summary/Larimus-effulgens.html			
(2) Fishbase, Pacific drum: https://www.fishbase.se/summary/Larimus-pacificus.html			
(3) Fishbase, steeplined drum: https://www.fishbase.se/summary/Larimus-acclivis.html			
(4) Fishbase, silver drum: https://www.fishbase.se/summary/Larimus-argenteus.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

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	