



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:	Pacific Thread Herring, Pinchagua (<i>Opisthonema spp</i>)
	Geographical area:	FAO Area 77– Pacific Eastern Central and FAO 87 – Pacific Southeast
	Country of origin of the product:	Ecuador
	Stock:	Pacific Thread Herring also called Pinchagua (<i>Opisthonema spp.</i>) in FAO 77– Pacific Eastern Central and FAO 87 – Pacific Southeast
Date	April 2021	
Report Code	BP56	
Assessor	Virginia Polonio	
Country of origin of the product - PASS	Ecuador	
Country of origin of the product - FAIL	NA	

Application details and summary of the assessment outcome			
Name:			
Address:			
Country: Ecuador		Zip:	
Tel. No.:		Fax. No.:	
Email address:		Applicant Code:	
Key Contact:		Title:	
Certification Body Details			
Name of Certification Body:		Global Trust Certification	
Assessor	Peer Reviewer	Assessment Days	Initial/Surveillance/ Re-approval
Virginia Polonio	Geraldine Criquet	0.5	Surveillance
Assessment Period	To April 2021		

Scope Details	
Main Species	Pacific Thread Herring, <i>Opisthonema spp</i>
Stock	Ecuadorian waters
Fishery Location	Pacific Thread Herring also called Pinchagua (<i>Opisthonema spp.</i>) in FAO 77– Pacific Eastern Central and FAO 87 – Pacific Southeast
Management Authority (Country/ State)	Subcomponent of pelagic fishery INP and MAP Ecuador - Managed by INP and MAP Ecuador
Gear Type(s)	Purse Seine
Outcome of Assessment	
Peer Review Evaluation	Agree with assessor’s determination
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 MarinTrust raw material. Pacific Thread Herring, <i>Opisthonema spp</i> does not appear as Endangered or Critically Endangered on IUCN’s Red List, nor does it appear in CITES appendices, therefore Pacific Thread Herring, <i>Opisthonema spp</i> is eligible for approval for use as MarinTrust by-product raw material.</p> <p>Pacific thread herring (<i>Opisthonema spp.</i>; locally known as "pinchagua") refers to three different species in Ecuador: <i>Opisthonema bulleri</i>, <i>O. libertate</i> and <i>O. medirastre</i>. There is no information on stock structure of any of the three species in Ecuador; however, for assessment purposes, <i>Opisthonema spp.</i> off Ecuador is considered a single and independent stock. <i>Opisthonema spp.</i> is one of the main species group targeted by the fishery of small pelagic in Ecuador.</p> <p>The stock is subject to a specific management regime and reference points are defined. Therefore it was assessed under Category C.</p> <p>Fishery removals of the stock are considered in the various stock assessment processes so the stock PASSES Clause C1.1. For Pinchagua in the assessment area, the most recent estimated spawning stock biomass (SSB) is above Blim therefore, the stock PASSES Clause C1.2.</p> <p>In order to be approved, the stock assessed must achieve a pass in both clauses C1.1 and C1.2. Therefore, Pacific Thread Herring, <i>Opisthonema spp</i> is APPROVED by the assessor for the production of fishmeal and fish oil under the current Marin Trust v 2.0 by-products standard.</p>
Fishery Assessment Peer Review Comments
<p>The assessor correctly classified Pacific thread herring in FAO Areas 77 and 87 as category C, this stock is managed and reference points are defined.</p> <p>Fishery removals are considered in the stock assessment process. The most recent stock assessment shows that the stock is well above the limit reference point.</p> <p>The Pacific thread herring in FAO Areas 77 and 87 stock passes both Clauses C1.1 and C1.2 and is therefore approved under the Marin Trust v 2.0 by-products standard.</p>

Notes for On-site Auditor

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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 Redlist 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
Pacific thread herring	<i>Opisthonema spp</i>	Pacific thread herring in Ecuadorian waters	INP and MAP Ecuador	C	LC	No

¹ <https://www.iucnredlist.org/>

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

CATEGORY C SPECIES

In a whole fish assessment, Category C species are those which make up less than 5% of landings, but which are subject to a species-specific management regime. In most cases this will be because they are a commercial target in a fishery other than the one under assessment.

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 may be assessed as a Category D species instead, EXCEPT if there is evidence that it is currently below the limit reference point.

Species Name		Pacific thread herring, <i>Opisthonema spp</i>	
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
<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>The most recent stock assessment for Pacific thread herring in Ecuador was conducted in 2020 by Canales et. al., 2020 using three methods/models: Length Based pseudo-cohort analysis (LBPA), Schaefer dynamic biomass (MBD) and an age-based statistical model (MESTOCKL).</p> <p>In the last assessment of 2020, catch data (landings from 1975-2016), landing site information (e.g. number of hauls proportion of small pelagic species), biological information such as weight, sex and size, catch per unit effort, acoustic survey information until 2019, as well as available life history information has been used.</p> <p>Therefore, fishery removals are considered in the stock assessment and it PASSES clauses C1.1.</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> <p>Both spawning biomass and fishing mortality were contrasted with respect to values relative to virgin biomass (B₀). A Biological Reference Point of 40% of B₀ was considered objective, while the maximum fishing mortality level was estimated as that generated in the long term 40% of B₀ (F_{40%}). The variation of the spawning biomass was then contrasted based on two indicators of spawning potential; a dynamic one which corresponds to the ratio between biomass and virgin biomass given the value annual private recruitment, and another long term, which is the ratio between the annual biomass and the virgin biomass B₀ estimated from recruitments.</p> <p>Spawning biomass is currently estimated at around 82 thousand tons and slightly above of the reference value/point of 40% B₀ in most cases analysed. The precision in these estimates is considered high, which is reflected in coefficients of variation below 20% and confidence intervals closely adjusted to the main trendline. The position relative biomass and fishing mortality in the Kobe diagram, shows that the Pinchagua would not show symptoms of overfishing, while the risk of overfishing would reach 10% (Figure 1). Fishing mortality is less than half of the maximum value F_{40%}, reason for which the population recovery should be accentuated with% B₀ higher than 40%.</p> <p>Therefore, the stock is considered, in its most recent stock assessment, to have a biomass above the limit reference point, it PASSES clauses C1.2.</p>			

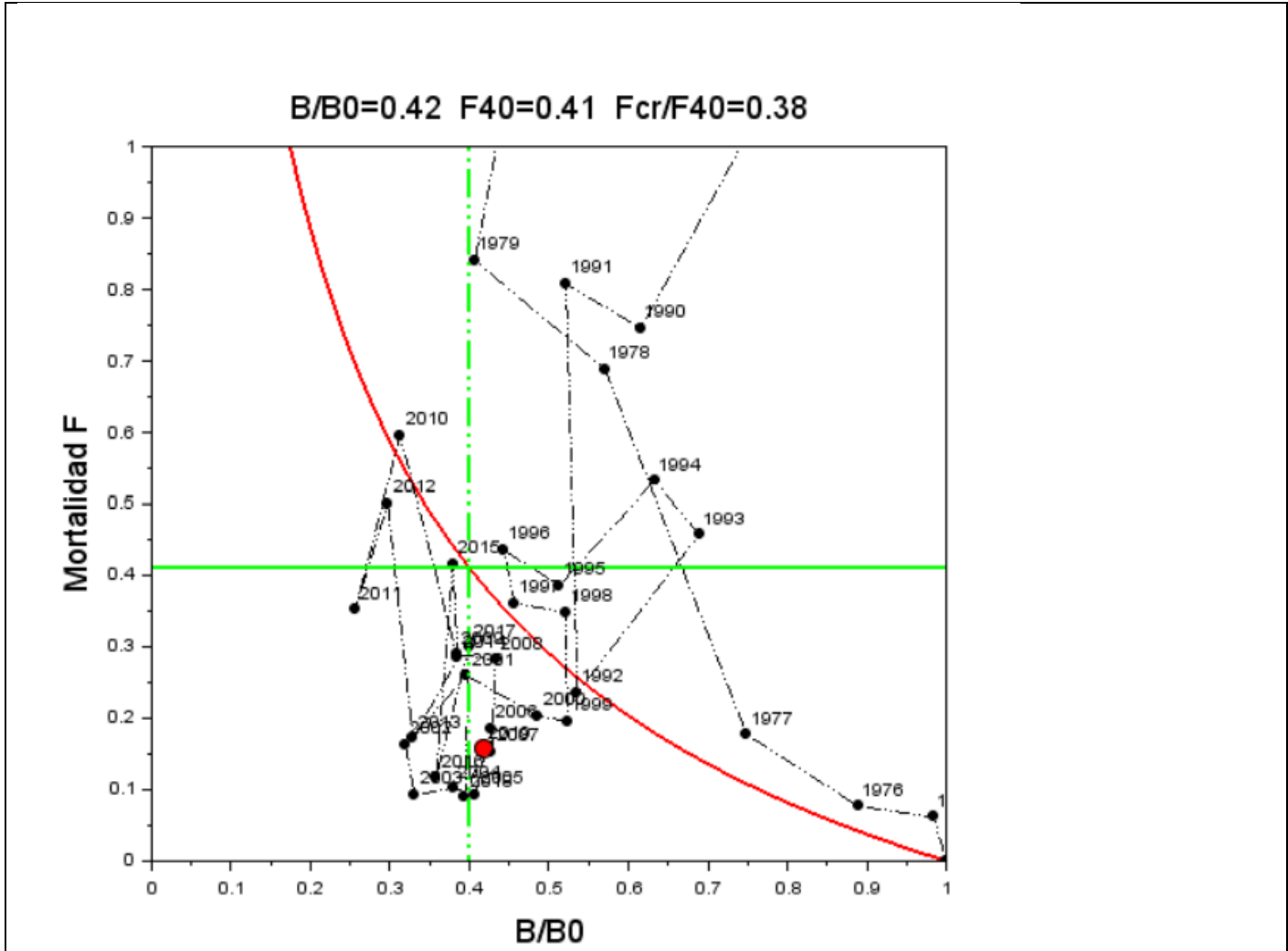


Figure 1. Kobe plot for Pacific Thread Herring, Pinchuagua, in the last stock assessment of 2020. The red circle shows the current situation of the stock. Sources. Canales et al. 2020

References

Canales, C. M., Jurado, V., Peralta, M., Chicaiza, D., Elías, E., Preciado, M., Hurtado, M., Landívar, E., Alemán, C., Sandoval, G. (2019). Evaluación de stock de peces pelágicos pequeños en la costa continental ecuatoriana. Cadenas Mundiales Sostenibles—Informe Científico No. 1. Honolulu: Sustainable Fisheries Partnership Foundation & Instituto Nacional de Pesca. 82 pp

Canales, C. M., Jurado, V., Peralta, M., Chicaiza, D., Elías, E., Preciado, M., Hurtado, M., Landívar, E., Alemán, C., Sandoval, G. (2020). Evaluación de stock de peces pelágicos pequeños en la costa continental ecuatoriana. Cadenas Mundiales Sostenibles—Informe Técnico.

Links

MARINTRUST Standard clause	1.3.2.2
FAO CCRF	7.5.3
GSSI	D.3.04, D5.01