



By-Product assessment report

BP005

Harinas Patagonicas s.r.l.

Report code	BP005	Date of issue	27 September 2024
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1. Application details		
Applicant	Harinas Patagonicas s.r.l	
Applicant country	Argentina	
2. Certification Body details		
Name of Certification Body (CB)	NSF / Global Trust Certification Ltd	
Contact information for CB	NSF-MarinTrust@nsf.org	
Assessor name	Ana Elisa Almeida Ayres	
CB internal peer reviewer name	Matthew Jew	
Internal peer review evaluation	Agree with evaluation	
Comments on the assessment	<p>The MarinTrust applicant has initially submitted a request for assessing 3 stocks. The step 2 indicated that the flag state responsible for catching the source material for the byproducts under assessment have a high IUU risk level.</p> <p>When the MarinTrust applicant was contacted for providing traceability information for step 3, they said that Harinas Patagonicas s.r.l does not work with Argentine hake/merluza (<i>Merluccius hubbsi</i>) in FAO 41, N of 41°S, thus there is no traceability information for this stock and they requested the removal of it from the assessment. However, the assessment team considered that it was too late for this request as the assessment had already started. Although the Argentine hake/merluza (<i>Merluccius hubbsi</i>) in FAO 41, N of 41°S stock has passed in Category C, in the lack of its traceability information for step 3, this stock remained with a high risk status and the assessment failed as according to orientation from MarinTrust By-Product assessment criteria Version 3.1: <i>“If the by-product passes the Category C assessment but has high-risk traceability information (Path 2), it remains high risk and is Not Approved.”</i></p>	
3. Approval validity		
	Valid from 09/2024	Valid until 09/2025

4. By-product assessment outcomes		
By-product species name	Flag country(ies)	MarinTrust approval status
Argentine hake/ <i>merluza</i> (<i>Merluccius hubbsi</i>) in FAO 41, N of 41°S	Argentina	Not approved
Argentine red shrimp (<i>Pleoticus muelleri</i>)	Argentina	Approved source with caution
Argentine hake/ <i>merluza</i> (<i>Merluccius hubbsi</i>) in FAO 41, S of 41°S	Argentina	Approved source with caution

Guidance for on-site auditor

For the audit, the auditor will check how the facility manages by-products deemed medium risk. Any by-products downrated from high to medium risk will require additional due diligence checks.

It is important that facilities check all raw materials from and verify their suppliers especially if there is a perceived risk of sourcing from known or suspected IUU fishing activity. This requires checking supplier records or procedures in place to understand how the supplier can ensure there is no IUU in the raw material they provide. For raw materials risk rated medium, additional or more frequent checks may be required until the facility is certain that the raw materials are not from IUU fishing activity.

The audit requirements are covered in clause 2.11.3 of the MarinTrust Global Standard for Responsible Supply of Marine Ingredients (the MarinTrust Standard) and associated interpretation guidance.

Approved by-products

- No further checks are required beyond those included in the MarinTrust Standard.

Additional checks of Approved Source with Caution by-products

- Review supplier records or procedures in place.

Additional checks of by-products Approved Source with Caution via Step 3 assessment

- In addition to checks for medium risk Approved Source with Caution by-products, by-products that have had risk downgraded from high to medium at Step 3 (use **Appendix 1** to identify these by-product species), confirm that the relevant traceability information continues to be collected for this by-product. During the audit, a traceability check on any by-products downgraded from high to medium risk shall be included as part of the required traceability checks (Section 4).

Guidance for the applicant/certificate holder

The applicant/certificate holder is responsible for ensuring the relevant actions are taken to comply with the MarinTrust Standard.

The certificate holder is responsible for communicating any changes to the by-products sourced by submitting a scope extension request through the MarinTrust online Application Portal.

Appendix 1 – assessment outcomes

By-product species name	Flag country(ies)	IUCN Red List	CITES Appendices	Step 2 risk status	Step 3 required	Step 3 risk Outcome
Argentine hake/ <i>merluza</i> (<i>Merluccius hubbsi</i>) in FAO 41, N of 41°S	Argentina	Not Evaluated	Not listed	High risk	Yes	Remains high risk
Argentine red shrimp (<i>Pleoticus muelleri</i>)	Argentina	Not Evaluated	Not listed	High risk	Yes	Risk downgraded to Medium risk
Argentine hake/ <i>merluza</i> (<i>Merluccius hubbsi</i>) in FAO 41, S of 41°S	Argentina	Not Evaluated	Not listed	High risk	Yes	Risk downgraded to Medium risk

Appendix 2 – detailed assessment outcomes (step 2 and step 3 if applicable)

Step 2 outcomes

Assessor note: Copy and paste from Spreadsheet.

Flag state	Risk rating	Flag score	Port score	General score	Flag State is contracting party or cooperating non-contracting party to all relevant RFMOs	'Carded' under EU Carding system	Flag state party to PSMA	Flag state mandatory vessel tracking for commercial seagoing fleet	WGI Governance rank
Argentina	High	1.1	1.86	2.19	1	1	-	1	25.94%

Step 3 outcomes

Category C assessment

Species name		Argentine hake/merluza (<i>Merluccius hubbsi</i>)	
Fishing area and stock		FAO 41, N of 41°S	
C 1	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

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.

The last stock assessment was performed using statistical catch of age models with the platform AD-Model Builder using data from 1986-2021 period. Catches of Uruguay, Brazil and Argentina are represented in Figure 1.

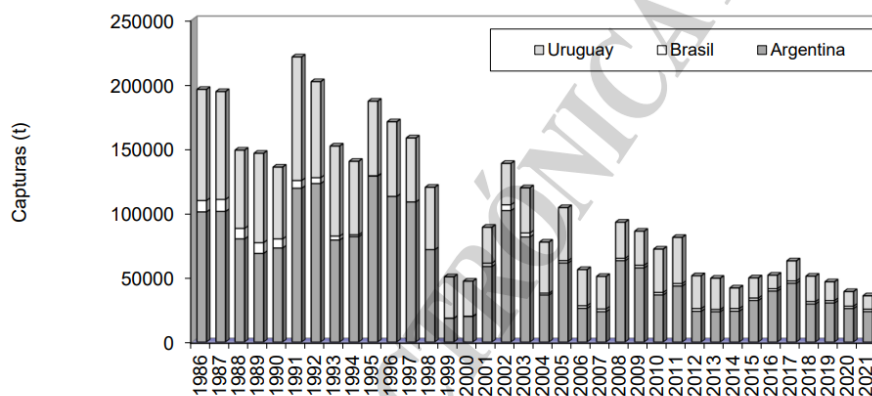


Figure 1. Commercial catches from 1986 to 2020 for each flag state for the hake stock north of 41°S (Irusta et al., 2022).

Fishery removals of the species in the fishery under assessment are included in the stock assessment process, C1.1 is met.

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.

Models 2 and 3 of the last stock assessment indicated that the reproductive biomass (BR) was below the target reference point and very close to the limit reference point LRP. While model 1 showed that BR was above the LRP and the target reference point (Irusta et al. 2022; Figure 2).

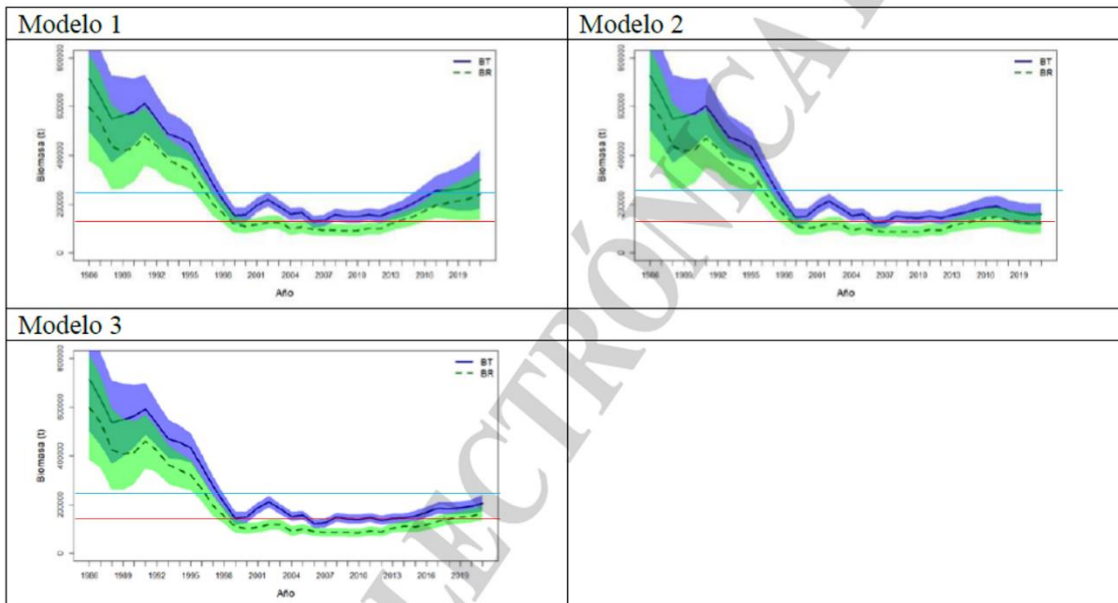


Figure 2. Long term trends for total biomass (BT) and reproductive biomass (BR) from 1986 to 2021. The horizontal lines represent the limit reference point (LRP) [red; 150,000 tonnes] and target reference point (blue; 230,000 tonnes) for the reproductive biomass indicators. Adapted from Irusta et al (2022).

The species is considered, in its most recent stock assessment, to have a biomass above the limit reference points (or proxy), C1.2 is met.

References

Irusta, C.G., Di Marco, E. y Wohler O.C. 2022. Evaluación de la abundancia del efectivo Norte de 41° S de la merluza (*Merluccius hubbsi*). Estimación de la captura biológicamente aceptable para el año 2023. Informe Técnico Oficial. N°54/2022. <https://marabiertonew.inidep.edu.ar/server/api/core/bitstreams/e51159d9-ea68-4921-b954-21224cb7e949/content>

Species name		Argentine red shrimp (<i>Pleoticus muelleri</i>)	
Fishing area and stock		FAO 41	
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 Argentine red shrimp has a relatively short lifespan of about 2 years, characterized by highly variable growth rates depending on time and location, leading to an almost complete renewal of biomass within that period. Abundance estimates and population monitoring are obtained from shrimp assessment campaigns, carried out in different months of the year (INIDEP, 2022 and 2024). According to the results of the scientific campaigns, closures are established aimed at protecting juveniles and reproductive stages and recommendations for when and where to start the fishery season are made (MBA, 2021, INIDEP, 2024).</p> <p>In the last stock assessment, the estimation of biomass and number of individuals for the total evaluation area were calculated using Stratified Random Sampling methodology and data from the catches obtained during the scientific campaign (Catch Per Unit Effort – CPUE, density, number of individuals and weight of the catches). The information from 2024 campaign was compared with the reported landings from 2019 to 2023, and a positive correlation was found, with the model showing a fit of 66% ($R^2=0.66$). Based on this model, it was estimated that the biomass available for fishing between March and December 2024 could reach 209,000 tons and when combined with landings from January and February 2024, the total for the 2024 season was predicted to reach 245,000 tons (INIDEP, 2024).</p> <p>According to the MarinTrust By-Product assessment criteria Version 3.1, “Species must be subject to a species-specific management regime” and for this clause, “the assessor must look for evidence such as management measures being implemented for stock rebuilding and that the management measures are not contradicting scientific advice.”</p> <p>Given the particular characteristics of the population dynamics of the resource, considering that the species is closely monitored through scientific assessment campaigns, management measures are implemented based on scientific advice and the size of the population and landing data are used to estimate the biomass of the species for the fishery assessment, the assessors team concludes that the fishery removals of the species in the fishery under assessment are included in the stock assessment process and C.1.1 is met.</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>			

Given the particular characteristics of the shrimp population dynamics, it is challenging to define traditional biological reference points. Estimates of abundance and population tracking are derived from shrimp assessment campaigns, conducted at various times throughout the year.

The results of the 2024 campaign showed an increase in both biomass and the number of individuals in the total assessment area compared to previous years. The estimated values suggest that the 2024 fishing season could outperform recent years and be similar to the 2018 season (Table 1). It was concluded that based on the estimated biomass and population structure, there would be no biological issues in starting exploratory fishing in May 2024 (INIDEP, 2024).

A significant presence of recruits was noted in the campaign of March 2024, which would contribute a higher number of shrimp in this season compared to previous years. Additionally, due to the higher percentage of mature and fertilized females observed, and assuming favourable environmental conditions, recruitment levels for the 2025 season are expected to surpass those of prior seasons.

Table 1. Estimated number of individuals and total biomass (t), with their coefficients of variation and 95% confidence intervals, for the years 2021, 2022, 2023 and 2024 (INIDEP, 2024).

	Numerosidad total	C.V.	I.C. inf.	I.C. sup.	Biomasa total (t)	C.V.	I.C. inf.	I.C. sup.
2021	4.826.970	0,164	3.210.466	6.443.475	107.450	0,148	75.633	139.267
2022	4.197.872	0,154	2.899.993	5.547.066	104.236	0,152	72.415	136.058
2023	3.233.261	0,165	2.171.951	4.294.570	72.905	0,196	44.542	101.268
2024	7.825.370	0,130	5.790.221	9.860.519	171.392	0,137	124.525	218.258

According to the MarinTrust By-Product assessment criteria Version 3.1, “The stock should be assessed in terms of the overall outcome objectives i.e to pass this clause there should be evidence that the stock status is above the point at which there is an appreciable risk that recruitment is impaired and will be at or above Blim”.

Due the particular characteristics of the shrimp population dynamics, considering the current high biomass level, the size of the population and the indications of high recruitment levels for 2024, the assessors team concludes that **the species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy) and C.1.2 is met.**

References

INIDEP. 2022. ESTADO DE LOS RECURSOS PESQUEROS BAJO ADMINISTRACION EXCLUSIVA DE LA REPUBLICA ARGENTINA. APORTES PARA EL INFORME SOFIA 2022. Available at: https://www.magyp.gob.ar/sitio/areas/pesca_maritima/informes/pesquerias/archivos/000001_Generales/220202_Informe%20sobre%20el%20estado%20de%20los%20recursos%20-%20Adm.%20Argentina%20%E2%80%93%202022.pdf

INIDEP. 2024. Evaluación de langostino (*Pleoticus muelleri*). Estimación de la biomasa, numerosidad de individuos, estructura poblacional y estado reproductivo en el golfo San Jorge, litoral norte de Chubut y aguas nacionales adyacentes. Campaña BS-2024/01. <https://marabiertonew.inidep.edu.ar/server/api/core/bitstreams/f681f33a-84e4-48c1-8317-91d0f23b3d08/content>

MarinTrust By-Product assessment criteria Version 3.1 Issued July 2024 – Effective 18 July 2024.
<https://www.marin-trust.com/sites/marintrust/files/2024-07/STG-008%20-%20MarinTrust%20By-Product%20Assessment%20Criteria%20V3.1.pdf>

MBA. 2021. Argentine Red Shrimp. Argentina - Southwest Atlantic Bottom trawls. Seafood Watch Consulting Researcher. Published September 4, 2018, Updated October 6, 2021. Available at <https://www.seafoodwatch.org/recommendation/shrimp/argentine-red-shrimp-34630?species=271>

Species name		Argentine hake/merluza (<i>Merluccius hubbsi</i>)	
Fishing area and stock		FAO 41, S of 41°S	
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 last stock assessment used two models: a statistical model structured by age (ECE) and the analysis of virtual populations with survivor estimate (APV – XSA)[Santos and Villarino, 2022]. Both models incorporate commercial landings from 1986-2021 into the model and forecast. The reported catches were corrected with information obtained by fishing research assistants and included the discard estimates of hake in the hake and lobster fleets. The catches of the foreign fleet that operates outside the exclusive economic zone and that which is carried out illegally near 48°S was also added. Landings are represented in Figure 3.</p>			

Año	Argentina SAGPyA	Argentina Corr. DE	Otros países	Argentina Corr.+OP	CMP (t)
1986	147.908	197.210	15.657	212.867	
1987	207.220	276.293	42.308	318.601	
1988	234.358	312.477	64.759	377.237	
1989	225.823	301.097	64.472	365.569	
1990	278.147	347.684	96.576	444.260	
1991	289.476	361.846	89.597	451.443	
1992	251.836	314.796	68.382	383.177	
1993	362.961	453.701	29.566	483.267	
1994	363.270	454.087	35.254	489.341	
1995	455.124	568.905	40.099	609.004	
1996	485.174	606.467	30.597	637.064	
1997	475.340	594.175	22.282	616.457	
1998	386.495	483.119	19.328	502.446	
1999	292.714	365.893	22.315	388.207	
2000	172.006	215.008	21.757	236.765	
2001	190.009	237.511	25.419	262.930	210.000
2002	256.718	320.898	15.045	335.943	250.000
2003	252.502	315.627	6.114	321.741	300.000
2004	380.251	475.313	19.117	494.430	330.000
2005	300.592	375.739	17.497	393.236	310.000
2006	327.198	408.998	20.584	429.582	309.400
2007	276.031	345.038	12.486	357.524	262.000
2008	200.180	250.225	16.271	266.496	207.000
2009	223.083	256.417	19.584	276.001	207.000
2010	245.094	275.386	27.022	302.408	290.000
2011	244.316	284.088	24.328	308.416	273.000
2012	230.154	258.600	30.965	289.565	273.000
2013	250.227	287.617	48.334	335.951	277.000
2014	232.947	250.481	57.731	308.212	290.000
2015	229.334	243.972	52.233	296.205	290.000
2016	240.124	252.762	57.237	309.999	290.000
2017	234.181	251.808	55.295	307.103	290.000
2018	231.656	254.567	77.962	332.529	290.000
2019	272.535	286.879	118.305	405.184	280.000
2020	239.752	257.798	87.333	345.131	290.000
2021	262.356	279.102	102.819*	381.921	305.000
2022	242.800**	261.000**	102.819*	363.819	298.000

Figure 3. Landings (t) of Argentinian hake in the south of 41° S (1986 - 2021) according to official statistics, corrected for erroneous declaration (DE) and from other countries (OP) and Acceptable Biological Catch (CMP). *Data estimated as average of the last two values reported by FAO. **Preliminary estimate with information on landings until September 2022 and projected at the end of the year considering the last quarter as the average of the last five years (Santos and Villarino, 2022).

Fishery removals of the species in the fishery under assessment are included in the stock assessment process, C1.1 is met.

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.

The Target Biological Point (PBO) established for the southern stock is the point where the Reproductive Biomass (BR) is greater than or equal to 600,000 t, which was the estimate stock biomass in the 1990's. The current BR, estimated in 2021, is around 713,000t, being above the PBO (Santos and Villarino, 2022).

The species is considered, in its most recent stock assessment, to have a biomass above the limit reference points (or proxy), C1.2 is met.

References

Santos B.A., Villarino M.F. 2022. Evaluación del estado de explotación del efectivo sur de 41° S de merluza (*Merluccius hubbsi*) y estimación de la captura biológicamente aceptable para 2023 (Informe Técnico Oficial, No. 53). Instituto Nacional de Investigación y Desarrollo Pesquero (INIDEP). <https://marabierto.inidep.edu.ar/items/8e07d497-b991-4b41-a018-8006250bd081>

Traceability information

Information provided for Step 3 Path 1 or Path 2

Species name		Argentine hake/merluza (<i>Merluccius hubbsi</i>) in FAO 41, N of 41°S		
Path 1		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Confirm all KDEs are provided		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Path 2	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Path 2 outcome	Flag country	Coastal score	Port score	Risk outcome
	Unknown	Unknown	Unknown	Remains high risk
				Choose an item.

Species name		Argentine red shrimp (<i>Pleoticus muelleri</i>)		
Path 1		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Confirm all KDEs are provided		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Path 2	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
Path 2 outcome	Flag country	Coastal score	Port score	Risk outcome
				Choose an item.
				Choose an item.

Species name		Argentine hake/merluza (<i>Merluccius hubbsi</i>) in FAO 41, S of 41°S		
Path 1		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Confirm all KDEs are provided		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Path 2	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
Path 2 outcome <i>Countries may be different for Coastal State and Port State.</i>	Flag country	Coastal score	Port score	Risk outcome
				Choose an item.
				Choose an item.