By-Product assessment report

BP062

Aquaculture Resources Ltd

Report code	BP062	Date of issue	July 2025

1. Application details		
Applicant	Aquaculture Resources Ltd	
Applicant country	Malta	
2. Certification Body details		
Name of Certification Body (CB)	NSF / Global Trust Certification ltd	
Contact information for CB	fisheries@nsf.org	
Assessor name	Ana Ayres	
CB internal peer reviewer name	Léa Lebechnech	
Internal peer review evaluation	Agree with evaluation	
Number of Assessment days	0.5	
Comments on the assessment	This assessment encompasses *Thunnus thynnus* - Bluefin tuna byproduct that is farmed in Malta. The following countries were listed as flag countries: France, Italy, Morocco, Tunisia, Algeria, Libya, Turkey, Malta, Spain and Egypt. France, Italy, Morocco, Algeria, Turkey, Malta, Spain and Egypt are Medium Risk flag countries and therefore can be Approved with Caution. Tunisia, Algeria, Libya are high risk flag countries, thus Step 3 was required, and more information was required from the MarinTrust applicant. He clarified by email on 14th July 2025 that: "*we have listed the countries from where Maltese farms might purchase fish for fattening, which will ultimately end up at our plant (ABP). This does not mean that each year, Maltese farms purchase fish from all of these jurisdictions (for example, there have been limited purchases from Algeria recently). I am therefore completing the below, keeping in mind that I am addressing fish that will end up in Malta*." With the information provided, the byproduct was downgraded to Medium Risk in the Step 3 assessment, meaning it too can be Approved Source with Caution.	
3. Approval validity	Valid from 07/2025	Valid until 07/2026
4. Assessment cycle	Initial	

5. Scope Extension Assessment		
Name of Certification Body (CB)	NSF / Global Trust Certification Ltd	
Contact information for CB	Fisheries@nsf.org	
Assessor name	Ana Ayres	
CB internal peer reviewer name	Léa Lebechnech	
Internal peer review evaluation	Agree with evaluation	
Number of Assessment days	0.25	
Comments on the assessment	N/A	
6. Approval validity	Valid from 11/2025	Valid until 07/2026

7. By-product assessment outcomes		Valid From: 07/2026
By-product species name	**Flag country(ies)**	**MarinTrust approval status**
Thunnus thynnus - Bluefin tuna	France, Italy, Morocco, Algeria, Turkey, Malta, Spain	Approved source with caution
Thunnus thynnus - Bluefin tuna	Tunisia, Algeria, Libya	Approved source with caution

8. By-product assessment outcomes		Valid From: 11/2025
By-product species name	**Flag country(ies)**	**MarinTrust approval status**
Thunnus thynnus - Bluefin tuna	Egypt	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

Step 2 Assessment Outcomes

By-product species name	Flag country(ies)	IUCN Red List	CITES Appendices	Step 2 risk status	Step 3 required
Thunnus thynnus - Bluefin tuna	France, Italy, Morocco, Algeria, Turkey, Malta, Spain	Least concern	Not listed	Medium risk	No
Thunnus thynnus - Bluefin tuna	Tunisia, Algeria, Libya	Least concern	Not listed	High risk	Yes

Step 2 Assessment Outcomes – Scope Extension

By-product species name	Flag country(ies)	IUCN Red List	CITES Appendices	Step 2 risk status	Step 3 required
Thunnus thynnus - Bluefin tuna	Egypt	Least concern	Not listed	High risk	Yes

Step 3 Assessment Outcomes

By-product species name	Flag country(ies)	Fishing Area	Stock name	Category C Assessment Outcome	Traceability information	Step 3 Risk Outcome
Thunnus thynnus - Bluefin tuna	Algeria, Lybia and Tunisia	FAO 37	Eastern Atlantic and Mediterranean Bluefin Tuna	Pass	Path 2 – Yes	Risk downgraded to Medium Risk
Comments on Step 3 Assessment: When contacted for providing information to Step 3, the MarinTrust clarified by email on 14th July 2025: *"In our application, we have listed the countries from where Maltese farms might purchase fish for fattening, which will ultimately end up at our plant (ABP). This does not mean that each year, Maltese farms purchase fish from all of these jurisdictions (for example, there have been limited purchases from Algeria recently)."*						

Step 3 Assessment Outcomes – Scope Extension

By-product species name	Flag country(ies)	Fishing Area	Stock name	Category C Assessment Outcome	Traceability information	Step 3 Risk Outcome
Thunnus thynnus - Bluefin tuna	Egypt	FAO 37	Eastern Atlantic and Mediterranean Bluefin Tuna	Pass	Path 2 – Yes	Risk downgraded to Medium Risk
Comments on Step 3 Assessment: When contacted for providing information to Step 3, the MarinTrust clarified by email on 19th November 2025: *"Port state: For ABT that is farmed in Malta, it would be Malta. Coastal state: Typically Egypt. Fishing area: Central and Eastern Mediterranean FAO 37. Typically 37.2 and 37.3".*						

Appendix 2 – detailed assessment outcomes

(step 2 and step 3 if applicable)

Step 2 outcomes

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
Algeria	High	2.17	3.06	2.58	1	1	5		14.15%
France	Medium	3.17	2.39	1.67	1	1	1	1	85.38%
Italy	Medium	2.54	2.17	1.73	1	1	1	1	68.87%
Libya	High	3	1.67	2.79	1	1	1		1.42%
Malta	Medium	1.83	2.61	2	1	1	1	1	73.11%
Morocco	Medium	2.29	1.78	2.17	1	1	1	1	49.06%
Spain	Medium	3.21	3.39	2.03	1	1	1	1	75.94%
Tunisia	High	2.54	2.89	2.23	1	1	5	1	37.26%
Turkey	Medium	2.21	1.89	2.77	1	1	1	1	43.40%
Egypt	High	2.58	2.89	2.63	1	1	5		24.53%

Step 3 outcomes

Category C assessment

Species name		***Thunnus thynnus* – Bluefin tuna**	
Fishing area and stock		**Central Mediterranean (FAO 37)**	
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

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 stock assessment conducted by the International Commission for the Conservation of Atlantic Tunas (ICCAT) takes all fishery removals into account. The assessment of East Atlantic and Mediterranean bluefin tuna has benefited from major improvements in data, though gaps in size and catch-effort information remain, particularly for some Mediterranean fisheries before stereo-video cameras were introduced. Historic catch at size (CAS) and catch-at-age (CAA) of the not elsewhere included NEI catches (1998–2007) were revised for the latest stock assessment. Between 2019 and 2023 (data up to September 2024), catches in the East Atlantic and Mediterranean were 31,136 t, 35,048 t, 35,097 t, 35,110 t and 39,247 t, respectively. Of these, 22,092 t, 24,174 t, 24,789 t, 24,632 t and 28,250 t corresponded to catches from the Mediterranean for the same years (ICCAT 2024-2025). The Committee notes the existence of ongoing, unquantified illegal, unreported and unregulated (IUU) catches, which pose a major obstacle to accurately assessing stock productivity and to formulating robust TAC advice.

Catches are shown below in Figure 1.

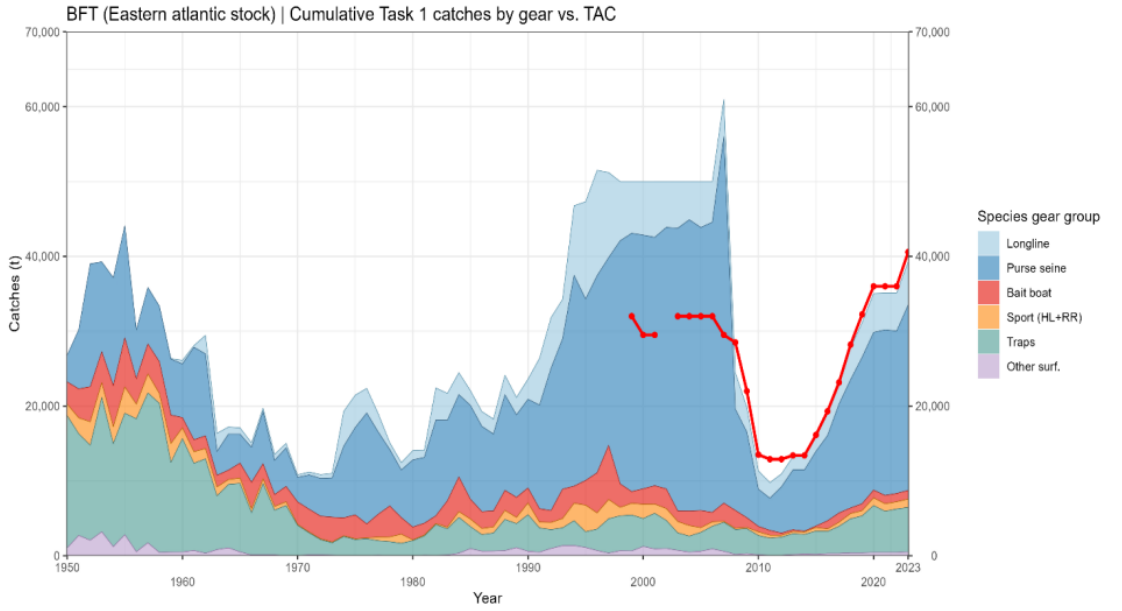

Figure 1. in geographic areas (top panel) and by gears (bottom panel) together with unreported catch estimated by the Committee from 1998 to 2007 and TAC levels since 1998 (red dotted lines) (ICCAT 2024-2025).

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.

In 2022, three assessment models were applied (virtual population analysis - VPA, stock synthesis-SS and age-structured assessment programme - ASAP, which all showed similar trends in spawning stock biomass (SSB): a long decline from the 1970s until the 2006 Recovery Plan, followed by a strong increase since the late 2000s, though the magnitude of this increase differs among models and remains uncertain. The most recent stock assessment does not refer to biomass-based reference points; however, the 2017 stock assessment established a value for BMSY of 270,000t and most of the models showed biomass above that in recent years (Figure 2). Estimates in recent years indicate a clear increase in recruitment (Figure 13), although there is uncertainty as to the magnitude of this increase, reflected by the differences between the three models and the variability of each model. Moreover, ICCAT (2024) pointed that Maltese bluefin tuna farms concentrate a very large biomass of adult tuna (>12,000 t) in a small area around Malta, creating a valuable opportunity to collect genetic material. These production cages, whose fish originate from widely distributed Mediterranean fisheries, also hold a large spawning biomass that may influence population genetics. Since 2019, projects on tuna domestication have allowed the collection of large numbers of eggs and larvae around the cages.

Fishing mortality on ages 2–5 and 10+ rose from the 1970s but has dropped sharply since 2006; it has recently increased again, but is still, on average across models, below the target level. Recruitment estimates are highly uncertain and variable, with generally low recruitments before 1990 and higher ones thereafter. Overall, the different models give a wide range of stock-status

estimates relative to the $F_{0.1}$ reference point, but when integrated, they indicate that current fishing mortality (F_CURR) is below $F_{0.1}$ and that the stock is not overfished, with fishing mortality now much lower than in 1998–2007 (Table 1, ICCAT 2024-2025).

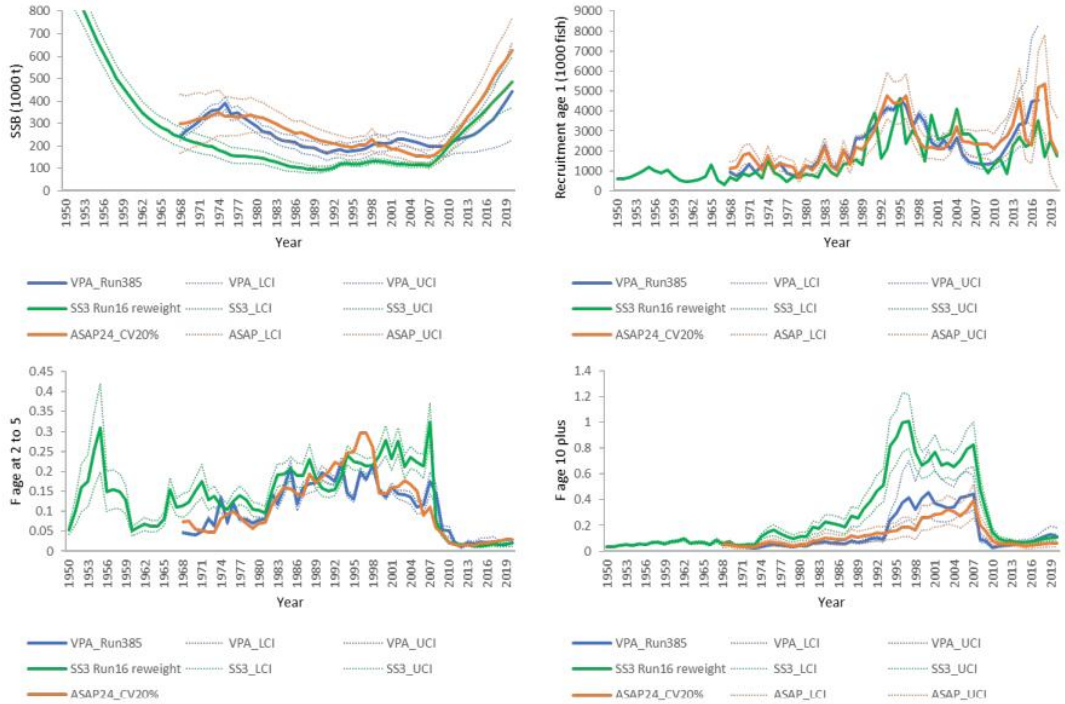

Figure 2. Comparisons of the trends in estimated spawning stock biomass (SSB), recruitment (age 1), F at age 2 to 5, and F at age 10 plus group between base cases by model platform: VPA (blue lines), Stock Synthesis (green lines), and ASAP (orange lines). The time series of recruitments for the VPA have the terminal three years removed as it is standard practice not to consider these due their estimates being unreliable (ICCAT 2024-2025).

Table 1. Summary of East Atlantic and Mediterranean bluefin tuna status. (ICCAT 2024-2025).

EAST ATLANTIC AND MEDITERRANEAN BLUEFIN TUNA SUMMARY	
Current reported catch (2023)	39,247 t*
$F_{CURRENT}/F_{0.1}$[1] (2020)	0.81 (0.48-1.62)[2]
Stock Status (2020)[3]	Overfishing: No
TAC 2023-2025	40,570 t

[1] $F_{CURRENT}$ refers to the geometric mean of the estimates (a proxy for recent F levels) for 2017-2020 for VPA, and for 2018-2020 for ASAP and SS. For the VPA and ASAP, F is measured as apical F, for SS F is exploitation rate in biomass.
[2] Mean and approximate 95% CI from integrating across the uncertainty for each model.
[3] Biomass reference points to determine stock status were not estimated since the 2017 assessment due to uncertainty in recruitment potential.
* As of September 2024.

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

ICCAT (2024). Report of the 2024 ICCAT Intersessional Meeting of Bluefin Tuna Species Group (BFTSG). https://www.iccat.int/Documents/SCRS/DetRep/BFT_ENG.pdf

ICCAT 2024-2025. ICCAT REPORT 2024-2025 I. BFT - Atlantic bluefin tuna. https://www.iccat.int/Documents/SCRS/ExecSum/BFT_E_ENG.pdf

Traceability information

Information provided for Step 3 Path 1 or Path 2

Species name		Bluefin tuna (*Thunnus thynnus*)		
Path 1		Yes ☐ No ☒		
Confirm all KDEs are provided		Yes ☐ No ☐		
Path 2	Yes ☒ No ☐ *If yes for Path 2, complete the next section*			
Path 2 outcome	**Flag country**	**Coastal score**	**Port score**	**Risk outcome**
	Tunisia	Medium risk (Tunisia)	Medium risk (Malta)	Downgraded to medium risk
	Algeria	Medium risk (Algeria)	Medium risk (Malta)	Downgraded to medium risk
	Libya	Medium risk (Libya)	Medium risk (Malta)	Downgraded to medium risk

Traceability information – Scope Extension

Species name		Bluefin tuna (*Thunnus thynnus*)		
Path 1		Yes ☐ No ☒		
Confirm all KDEs are provided		Yes ☐ No ☐		
Path 2	Yes ☒ No ☐ *If yes for Path 2, complete the next section*			
Path 2 outcome	**Flag country**	**Coastal score**	**Port score**	**Risk outcome**
	Egypt	Medium risk (Egypt)	Medium risk (Malta)	Downgraded to medium risk

Guidance for Applicants/Certificate holders on improved traceability

When by-product origin cannot be made more granular than major FAO Areas, or when the source fishery is taking place in the High Seas (i.e. outside of EEZs of all relevant nations), an assessor must evaluate the Coastal and Port scores for each nation that straddles that FAO Area. This may lead to higher risk outcomes for an applicant. To mitigate that risk, better practice involves securing KDEs from the source fishery of the by-products, thereby meeting Path 1 instead of Path 2.

What does better practices look like?
Comprehensive data collection and sharing: Collect detailed information using Key Data Elements (KDEs) including vessel identification and authorisation, species, catch areas, fishing method and dates. These are defined in the MarinTrust Standard clauses 2.11.2.2 and 3.2.5.

Supply chain transparency: Maintain detailed records at each step of the supply chain, from capture to final sale, to ensure traceability.

Interoperable systems and technologies to support the collection and transfer of this information.