

Traceability analysis

Murray cod from Aquna to Vietnam

1 Scope

Vietnamese consumers love Australian food products. Their excellent quality and high standards make them a highly desired commodity in Vietnam. However, they often come at a premium, so there is a lot of temptation to pass non-authentic produce as high-quality, premier Australian products. Vietnamese consumers paying the price have a right and Australian producer an interest to protect their goods from fraud.

The project “Evaluation and resource development to advance Australian agriculture export traceability: A study of seafood and horticulture trade with Vietnam” wishes to address this issue by piloting traceability of exports from Australia to Vietnam. The project is carried out by Griffith University under the leadership of Professor Robin E Roberts with funding from the Commonwealth Standard Grant Agreement between Department of Agriculture, Fisheries and Forestry.

This document describes the export/import process of frozen Murray cod frozen degutted or fillets, from Australia to Vietnam. In particular, it looks at exports of high-value Murray cod fillets to Vietnamese restaurants and other HORECAs (hotels, restaurants and caterers).

The document details the traceable resource units (TRUs), the critical tracking events (CTE) and the key data elements (KDEs) which form the specification of the traceability system to be implemented by [TraceVerified](#), the traceability system provider chosen for this project.

This document was elaborated by [Dr Heiner Lehr](#), independent traceability expert based on visits conducted between 19-22 January, 2025.

2 About Aquna Murray cod

Aquna Sustainable Murray Cod (www.aquna.com), located in the Riverina region of New South Wales, is an enterprise specializing in the sustainable farming of premium Murray cod. The company has embraced innovation to refine natural aquaculture processes, producing high-quality fish in their native habitat within open pond systems on the Murray-Darling Basin. The company targets the high-end HORECA market.

The Murray cod (*Maccullochella peelii*) is Australia’s largest freshwater fish and a native species of the Murray-Darling Basin. Renowned for its delicate, white flesh and clean flavour, it has a long history as an iconic culinary and cultural symbol. Wild populations are protected due to overfishing and habitat loss, making

sustainably farmed Murray cod a key to its preservation. The species thrives in aquaculture, offering a premium, environmentally responsible alternative for seafood lovers.

The company's name reflects its commitment to progress and sustainability, drawing inspiration from the Aboriginal word "Akuna," meaning "the way forward" and "flowing water." The company is listed on the Australian Securities Exchange since 2011 (MCA:ASX).

Their mission emphasizes environmental responsibility and community engagement, with a vision to establish sustainably farmed Murray cod as a preferred choice in Australasia and beyond.

3 Overview over the export/import process

Error! Reference source not found. describes the export chain of Murray cod from Australia to Vietnam.

Fish are typically farmed in two to three stages: the hatchery uses parent stock to create small fry which is then transported to nurseries where the fish is grown to a certain size. These fingerlings are then brought to grow-out in ponds from which they are subsequently harvested.

In the specific implementation, high-quality Murray cod is grown out in open ponds (or dams) on the Murray-Darling Basin river system – the fish's native environment. It takes about 18 months to produce table-ready cod.

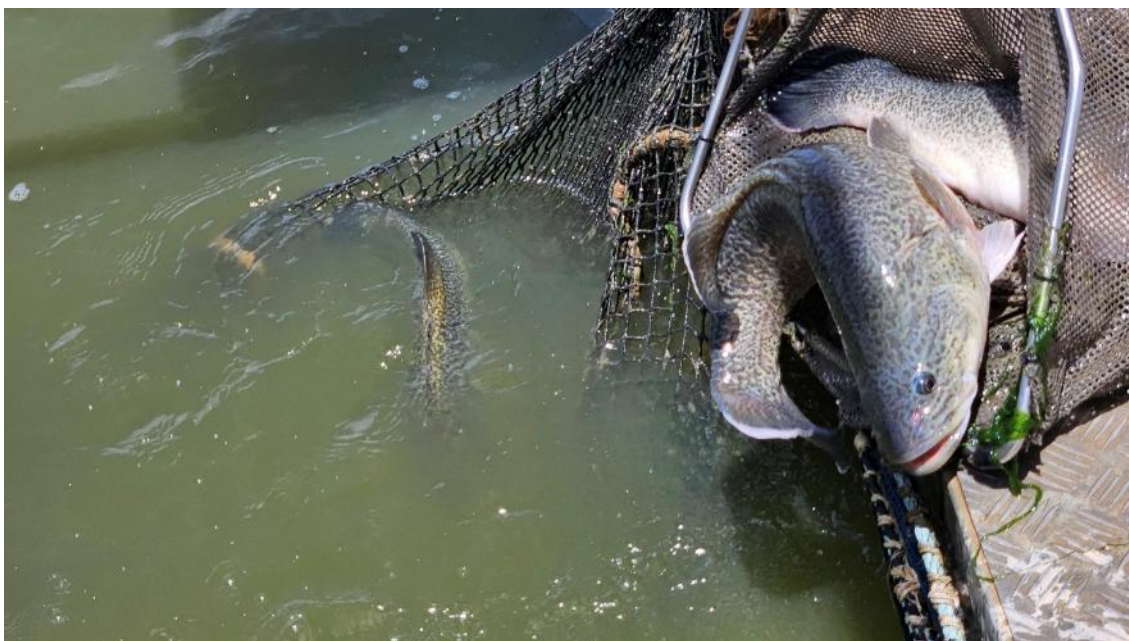


Figure 1 Grown-out Murray cod at Aquana grow-out farm

For Aquana, fish welfare is very important. For this reason, fish is harvest and then immediately bled before being transported to the processing facilities.

3.1 Key data elements (KDEs)

We also propose to restrict the collection of information to those necessary to “prove” the Australian provenance of the Murray cod fillets in HORECAs and some of the well-known important attributes of fish products, in particular the origin and the harvest date (related to freshness). The KDEs for each CTE are detailed in [Annex I: Traceability system specification](#), but in general consist of a combination of the following fields:

<i>Field</i>	<i>Datatype</i>	<i>Nature</i>	<i>Comment</i>
Date	date	Mandatory	The defining date for the despatch process necessary to access internal documents which would be needed in an audit. This could be the date when the picking process for a shipment is started or when the shipment is released.
ClientID	string	Mandatory	A unique reference for the client, such as a client number. Basic information about the client should be available; in an ideal case, this would be a GLN.
Harvest date	date	Mandatory	The date the fish was harvested
OriginID	string	Mandatory	Location where the fish was extracted. Normally this would be the pond number. Ideally, this would be a GLN.
BatchID	string	Mandatory	The processors batch identification
Product	string	Mandatory	Identification of the trade item; ideally this would be a GTIN, but it can also be a product name (including primary packaging)
DeliveryID	string	Mandatory	An identifier that identifies uniquely the delivery. For the pilot, this will be the scanned TraceVerified code.

Quantity	float	Recommended	Quantity in the same unit used in all the system (e.g. nets, cartons or pallets)
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