



# Verifying the provenance of Australian Wild Prawns

August 2023

## PROGRAM BRIEF

**Australian Council of Prawn Fisheries (ACPF) is committed to making fished prawns here in Australia one of the most trusted seafood purchases for Australian consumers by:**

- Scientifically verifying labelling claims of Australian wild prawns to offer reassurance to consumers.
- Connecting consumers to where their prawns are sustainably fished through provenance verification.

**Source Certain, in partnership with ACPF is supporting the development of this high integrity supply chain program by:**

- Providing verification of authenticity of provenance claims (Australian, MSC Certified, Wild etc.)
- Identifying substitution through covert surveillance or via stakeholder led verification activities.
- Working with stakeholders to proactively to fix identified issues.

To support the value and premium position of Australian prawns the industry has implemented a supply chain integrity service by Source Certain.

Through forensic provenance technology it is now possible to confirm the provenance of an Australian wild prawn.

COMMERCIAL PARTNER



PROJECT PARTNERS



## WHO WE ARE

**At Source Certain we endeavour to build a better world through making accessible and transformative science. Science is our toolkit for solving complex problems that the modern world presents to the businesses and people that we work with.**

Our scientific excellence, curious thinking and aptitude for problem-solving has made us leaders in provenance, analytical and forensic sciences. Our capabilities also extend into the postgraduate education, mineral and exploration, pharmaceutical, food and beverage and agricultural sectors and we offer a range of services including customised research and development programs.

**We rely on an extensive combination of theory and practice to deliver excellent results across all services we offer.**



## OUR EXPERTISE

**The Source Certain technical team comprises forensic scientists, analytical chemists and geochemistry specialists. Our scientists are all regarded as leaders in their field.**



All are highly experienced having worked in a complex scientific investigation area for over 10 years. They are actively involved in cutting-edge scientific research and education, and collectively hold over 300 peer-reviewed publications.

Our experts have published extensively in the disciplines of forensic science, analytical chemistry, geochemistry, forensic chemistry, food science and forensic entomology.

**The technical team pioneered and commercialised provenance science and over the past forty years have published scientific articles on the provenance of:**

Meat

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Dairy

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Fruit and vegetables

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Australian native fruits

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Art media and artwork

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Diamonds

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Textiles

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Seafood

Precious metals including gold

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Cannabis

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Tea

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Coffee

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Chocolate

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Ceramics

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Glass

## OUR PROVENANCE SCIENCE SERVICE

**Consumers value where their products come from and how they are made.**

**The product origin and its production claims, like sustainable and ethical sourcing, are vital information to consumers. It's not just the product that matters but also the promise. These promises are becoming as important, in some examples, more important than price, other product features and brand recognition.**

These promises influence consumer purchasing decisions. There is a growing need to connect the product with its promise – this is why provenance matters. Whether it be the end consumer, supply chain stakeholders or the brands that deliver these products to consumers, there is an expectation for accurate and verifiable information to support product origin claims.

**We provide a service that is used to verify product provenance via scientific analysis. This scientific analysis is very sensitive and enables us to verify provenance to a specific location like a specific mine, farm, fishery or plantation of origin.**

The technology we use, TSW Trace®, analyses naturally occurring markers in a physical product sample taken from a known source location. It allocates a unique chemical fingerprint that acts as a reference fingerprint to that specific source. We then take product samples from within the market, analyse them and compare their chemical fingerprint to that of the reference fingerprint. If they match it means they have come from the same specific source and the product (and associated production claims) is authentic. If they do not match it may indicate a case of substitution, counterfeit or dilution that warrants further investigation.

We implement TSW Trace as part of a comprehensive Supply Chain Integrity Program that takes into account multiple segments of the client's supply chain.

## HOW DOES TSW TRACE WORK?



The image shows a YouTube video player thumbnail. The background is dark blue. In the top left corner, there is a small circular logo with a white 'A' and a green checkmark, followed by the text 'Source Certain TSW Trace® Provenance Verification Solution'. In the center, the SourceCertain logo (a green square with a white 'A' and a green checkmark) is followed by the word 'SourceCertain' in white. Below the logo is a red YouTube play button icon. At the bottom left, there is a black button with the text 'Watch on YouTube' and the YouTube logo. On the right side of the thumbnail, there is a vertical video frame showing a person in a white lab coat and blue gloves working with raspberries on a white surface. A 'Share' icon is visible in the top right corner of the video frame.

Watch this video on YouTube

<https://youtu.be/T4w3o-BdDUc>

# THE SOURCE CERTAIN PROGRAM

Our standard program consists of four stages.



**STAGE 1**  
**PROVENANCE DATABASE**

 **COMPLETED**



**STAGE 2**  
**MARKET TESTING**  
**(IN-MARKET SURVEILLANCE)**

 **ONGOING**



**STAGE 3**  
**IDENTIFICATION**  
**OF SUBSTITUTION**

 **ONGOING**



**STAGE 4**  
**COMMUNICATION**

 **ONGOING**

STAGE 1

# PROVENANCE DATABASE

- Our analysis of Australian wild prawns identifies multi-element compositions that are visually reproduced as separate clusters on a graph, each representing a disparate source of origin.
- This data allows us to discriminate between sources of origin of Australian wild prawns and identify false provenance claims.
- The Provenance Database is updated regularly to account for natural variations and maintain a high level of accuracy.

### WILD FISHERIES

- Spencer Gulf
- Exmouth
- NPF
- Shark Bay
- West Coast
- Group Centroid





## STAGE 2 MARKET TESTING

- Source Certain completed in-market testing of prawns carrying Australian origin claims in early 2023.
  - Source Certain conducted sampling activity in each Australian state.
  - A total of 253 covertly obtained samples were tested as part of this exercise
- Prawn samples were purchased from all major retailers and tested against the Provenance Database to identify any substitutions.
- Additional, in-market testing is planned for 2023.

**We invite Australian Prawn supply chain stakeholders to join the program.**

Stakeholders can participate by accessing verification tests to confirm the provenance of claimed Australian wild prawns. You can help us secure the Australian prawn supply chain, all the way to the end consumer.



## STAGE 3

## IDENTIFICATION OF SUBSTITUTION

- The scientific testing methods used by Source Certain are well established and have been used extensively as part of forensic investigations. They have been used over the past 20 years to help identify and prosecute fake provenance claims across numerous food and non-food products.
- These established scientific methods are used to verify the authenticity of the provenance claims associated with Australian wild prawns.
- We are committed to making sure when consumers pay for Australian wild prawns that they are getting the real thing.



## STAGE 4

## COMMUNICATION

- The Source Certain program is designed to protect the integrity of Australian wild prawns. Communicating the program to supply chain partners and consumers is a critical component of delivering on this objective.
- To achieve this, Source Certain has worked with ACPF to develop an ongoing communication strategy with supply chain partners to ensure all retail and distribution partners are aware of the program and have the ability to participate in the market testing component.
- By participating in the program they are actively supporting the protection of their product by providing samples from the market for testing against the Source Certain Provenance Database.
- This communication will also act as a deterrent to businesses attempting to sell falsely claimed prawns and dilute the value of the Australian seafood market.





**To learn more or get involved in the Program please contact us at  
[info@sourcecertain.com](mailto:info@sourcecertain.com)**

**[www.sourcecertain.com](http://www.sourcecertain.com)**

