



Salmon
TASMANIA



THE TASMANIAN SALMON INDUSTRY: A VITAL SOCIAL AND ECONOMIC CONTRIBUTOR



SALMONTASMANIA.AU

SALMON: TASMANIA'S LARGEST PRIMARY INDUSTRY

Salmon Tasmania has partnered with Deloitte for the first combined, comprehensive and independent analysis of the industry's economic and social contribution to the Tasmanian community.

- The Tasmanian salmon industry:
 - is the largest primary industry in Tasmania
 - is Tasmania's largest agriculture/aquaculture exporter
 - is Australia's most valuable seafood production sector.^{1,2,3,5,6}
- Tasmania's salmon industry is Australia's most valuable seafood sector, worth \$1.36 billion.⁷
- The industry predominantly supports local economies and jobs in regional Tasmania. 87% of all economic activity supported by the industry occurs in the regions. 89% of direct salmon jobs are in regional areas.
- In 2022, the industry contributed \$770 million to the Tasmanian economy and supported 5,103 full time equivalent jobs around the state. Salmon industry jobs pay 56% more than the average Tasmanian job.⁸
- The industry is Tasmania's largest agricultural/aquaculture exporter in Tasmania and accounted for 86% of Tasmania's total seafood production by value in 2020-21.
- The salmon industry is approximately double the size of the fruit and vegetable (horticulture) sector in Tasmania, and 38% larger than the red meat processing industry.^{9,10} The salmon industry represents one-fifth of the entire Tasmanian agriculture, forestry and fishing industry.¹¹
- The economic contribution of the salmon industry includes the value of its exports, and the flow-on benefits across Tasmania from the jobs and families it supports, to the provision of nutritious food. This economic contribution does not consider the auxiliary jobs figures supported by the industry – for example people working in the service industries, local health and education facilities needed to support salmon workers and their families.

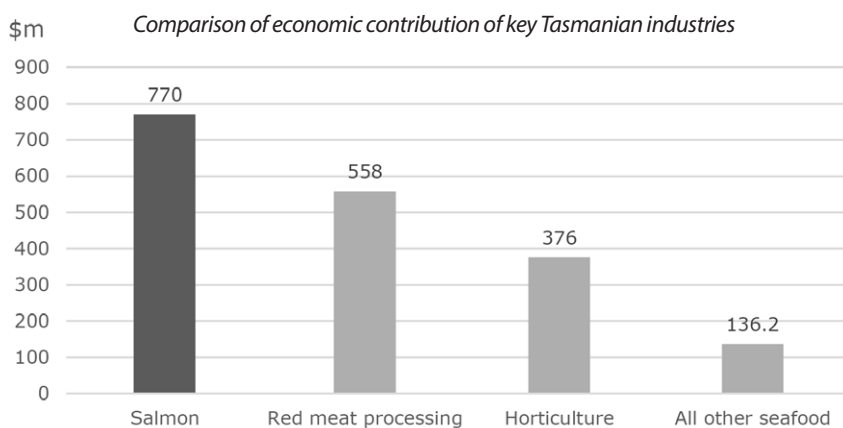
Tasmania's salmon industry is Australia's most **valuable** seafood sector, worth **\$1.36 billion**

5,103 full time equivalent jobs

Tasmania's **largest** primary industry

86% of Tasmania's total seafood production

9 out of 10 jobs in key regional areas



Source: Deloitte Access Economics, SG Heilbron Economic & Policy Consulting, Institute for Marine and Antarctic Sciences, Australian bureau of Agricultural and Research Economics and Sciences

REGIONAL CONTRIBUTION

Salmon workers live in, love and support our regions.

The \$1.36 billion salmon industry is a significant contributor to the state's economy and plays a critical role in supporting regional economies throughout Tasmania.

87% of the industry's economic activity occurs in regional areas, with nine out of ten (89.2%) of our workers in regional Tasmania.

Salmon industry jobs pay up to 73.9% more than the average job in these regions, which reflects the relatively higher skills and productivity of workers in the industry.

In the Huon Valley local government area more than one in four jobs (26%) are supported by the salmon industry. In Latrobe, Tasman and West Coast, 17% of employment is supported by the industry.

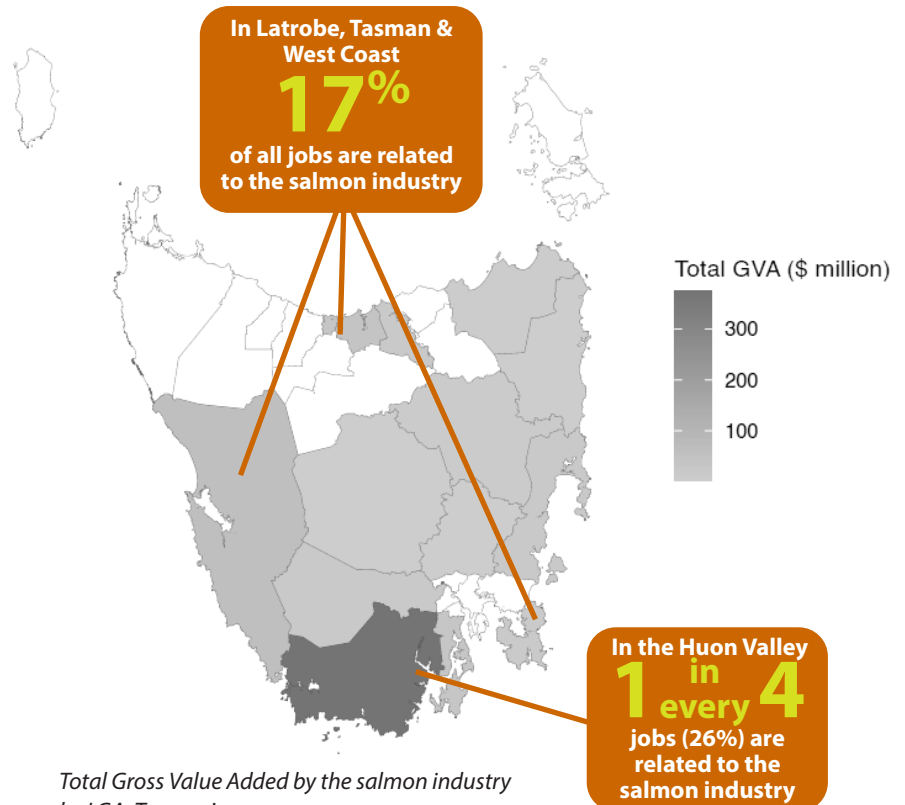
Without the jobs and investment the salmon industry provides, there would be significant impact on small regional communities across the state.



87%
of our economic activity
is regionally focussed

9 out of 10
of our workers are in
regional Tasmania

Employment opportunities
pay up to
73.9%
more than the average job
in these regions



Total Gross Value Added by the salmon industry by LGA, Tasmania

TASMANIAN JOBS

Most Tasmanians know a salmon worker, or someone who depends on the industry's viability.

The Tasmanian salmon industry supports 5,103 full time equivalent jobs across Tasmania. In 2022, Salmon Tasmania members invested more than 55,000 hours and \$8.5 million into training their staff.

91.3% of salmon industry workers are employed full time, compared with 63.7% statewide. This provides permanent workers with greater certainty over their work hours, allows employees to work a full-time load without working multiple jobs, and enables financial security.

The economic benefits generated for other businesses in the region are in addition to the direct and indirect benefits included in this report.

Tasmania's salmon industry employs
5,103
full time equivalent Tasmanians

\$8.5 million
invested into staff training in 2022

91.3%
of salmon industry jobs are full time
(the state average is 63.7%)

WE EMPLOY



Food processing and packaging teams



Hatchery technicians & freshwater managers



Farm workers & marine operators



Environmental & marine scientists



Veterinarians & fish health technicians



Office staff, managers & leadership teams

OUR COMMUNITIES

The salmon industry invests in regional communities and local people.

The economic activity of the 5,103 FTE jobs the industry creates provides the following benefits to Tasmania:

- **Research and development** – The Tasmanian salmon industry invested more than \$75 million into research and development in 2022. In the ten years to 2022, the industry invested a total of \$681 million.
- **Grants, donations and community investment** – In 2022, Salmon Tasmania members and staff invested 3,730 hours and \$1.6 million into local programs.
- **Export revenue** – The salmon industry also plays a significant role in supporting Tasmania's trade balance through its exports. Salmon is Tasmania's largest agriculture/aquaculture export.
- **Supporting local businesses through employee spending** – Salmon employees spend locally and grow their regional communities.

Industry returns to the community.

- Two major whale rescue missions in 2020 and 2022, saving more than 150 whales.
- Significant marine rescues of boaters, fishers, divers and surfers.
- Sponsoring the Stay Afloat program, dedicated to improving the mental health and wellness of the Tasmanian seafood industry.
- Supporting the Working on Water (WoW) program to introduce students from Years 9 and 10 to a wide range of career opportunities available on, in and around the marine environment.

55,000

hours invested into staff training

\$681 million

invested in research and development in the last 10 years

\$1.6 million

spent in 2022 on grants, donations and community investment



HELPING HANDS

Education

- \$10,000 contributed by Huon Aquaculture for the University of Tasmania PhD Harry King Scholarship to guide the next generation of aquaculture researchers.
- School Breakfast Club programs run by both Tassal and Huon Aquaculture enable all students at school to enjoy a nutritious breakfast, allowing them to engage and participate fully in all the educational and social opportunities that school offers. Breakfast programs operate at schools across regional Tasmania.
- All companies provide support for facility tours, work placements and in-classroom presentations at schools.

Environment

- Huon Aquaculture is delivering a program to raise Giant Freshwater Crayfish in freshwater hatcheries to boost their numbers in the wild in partnership with renowned Tasmanian ecologist and conservationist Todd Walsh.
- Huon Aquaculture is working with the Blue Economy CRC project to establish offshore giant kelp aquaculture and restoration.
- All salmon companies collaboratively perform thousands of kilometers of marine debris and shoreline cleanups, with most of the rubbish collected not generated by aquaculture. This includes working with local organisations, such as Tassal's partnership with First Nation's social enterprise, Pakana services.

Social and sporting clubs

- Providing children living in Strahan with access to free influenza vaccines for three winters, as part of Petuna's employee vaccine drive.
- Helping tackle food insecurity in Tasmania through regular donations of Petuna and Tassal salmon to statewide emergency food provider, Loaves and Fishes, which distributes emergency food relief across the state. Collectively, Huon Aquaculture and Petuna have donated more than \$750,000 worth of product to Foodbank Australia to help those most vulnerable in the community. FoodBank, redistributes surplus produce to more than 2,400 charities and community organisations across Tasmania and Australia.
- Petuna provides funding to a wide range of regional sporting and community groups in the North and North-West of the state, through sponsorships and in-kind support.
- Huon Aquaculture is a major sponsor of the Southern Football League, contributing to nine men's football clubs and 14 women's football clubs across regional southern Tasmania.
- \$270,000 in direct community support provided by Tassal in 2021-22 – including sponsoring the Kingborough Tigers Football and the Huon Valley Netball Association.

On the water

- Workers in the salmon industry spend more time on the water than most, and are proud to often act as the ocean's first responders. All farm and dive crews participate in rescues and provide assistance to boats, jet skis, ferries, and kayaks when they're in trouble. In the 2022 reporting period, Tassal workers alone participated in 13 marine rescues and vessel assists and at the halfway mark of 2023, have already been involved in 22 rescues.



OUR VALUES

Salmon is vital for our nation's food security, and we understand the responsibility of looking after our waterways.

Tasmania's salmon industry is governed by strenuous environmental regulations and farming processes developed by world-leading scientists.

Tens of millions of dollars have been invested in research and development programs that make us better farmers as well as contributing important scientific research that benefits the broader community. These include:

- Sea surface temperature tracking conducted in Tasmania's south east with CSIRO for several years. This program has been so successful there are plans to extend it across the state to move with changing weather and sea current patterns.
- World-leading biogeochemical modelling that monitors water flows, nutrients and temperatures around the state and has shared the benefits with the broader community, working alongside researchers at IMAS and CSIRO.
- Ongoing investment into pen technology so our marine farms can withstand more exposed and offshore locations as well as technical improvements that help to circulate cooler bottom waters during times of water temperature fluctuation to build further resilience in our operations.
- \$100 million dollars invested in world leading, wildlife excluding pens, which has significantly decreased our interactions with seals while keeping people safe.
- Fish breeding programs that have resulted in temperature tolerance traits and improved genetics to ensure we are breeding future stocks of strong, healthy and resilient fish.
- Sophisticated data and real-time forecasting management tools to prepare for changes in weather, responding with modifications to diets and different husbandry practices.
- Real-time environmental monitoring and water quality programs help us to adapt to changing weather patterns and to understand the systems that support the production of the world renowned and high-quality product we farm here in Tasmania.

Salmon farming is one of the fastest growing food production sectors globally and utilises some of the most understood and advanced farming methods in the world.

The salmon industry is critical to ensuring food security and sustainable food production to feed the growing global population in a responsible, ethical, and collaborative way both now and into the future.

More than
\$100 million
invested in wildlife exclusion to
minimise interactions and
ensure staff safety

Sea surface
temperature tracking
investment
with CSIRO

**World
leading**
biogeochemical modelling
alongside IMAS & CSIRO

Development for the
environment
such as Recirculating Aquaculture
Systems for water recycling and
Pellet Detection Systems to keep
feed off the seafloor.



Ocean-based salmon
emits less than
half
the emissions of
land-based protein

Tasmania grows
90%
of Australia's salmon

83%
of Tasmania's farmed
salmon is consumed in
Australia

OUR ROLE IN GLOBAL PROTEIN & SUSTAINABLE FOOD PRODUCTION

Tasmania's salmon industry is dedicated to locking-in Australia's food security, producing a high quality, highly nutritious, sustainable protein without putting pressure on depleting wild fish stocks or natural resources.

Salmon has one of the lowest carbon footprints of any livestock industry. In terms of carbon emissions, ocean-based salmon farms emit less than half the emissions of land-based protein.

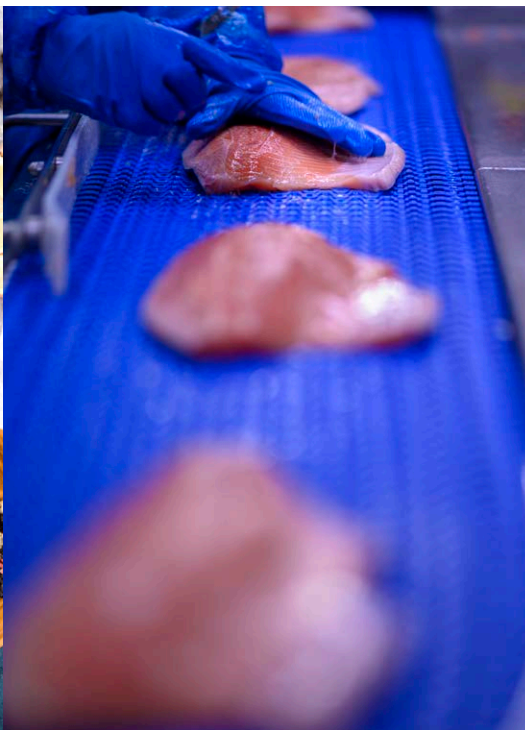
Estimates show ocean-based salmon farms emit only 2.2 kilograms of carbon dioxide for every kilogram of edible fish produced.

By comparison, land-based farms produce 5.1 kilograms of carbon for every kilogram of chicken, 6.4 kilograms for pork and 37.2 kilograms for beef.

Tasmania grows 90% of Australia's salmon and 83% of that is consumed domestically. This is a key ingredient to reducing pressure on limited wild fish stocks by producing locally grown protein that has a lower carbon footprint. Tasmania's cooler waters mean it is more suitable than other Australian jurisdictions.

We are focused on informing local communities about the contribution the salmon industry makes to Tasmania and educating consumers both here and overseas about our high quality, sustainably produced salmon.

Tasmania's salmon industry is an important part of the state's farming sector and has an even more important role to play in the future.



CASE STUDY: PORT HUON TRADING POST

Owners: Brett and Ros Hickey

Location: Port Huon

Open: 7 days a week

Employees: 14

Aquaculture workers are some of the Port Huon Trading Post café and takeaway store's best customers.

Patronage at the family-run business in the Huon Valley is an example of the flow-on benefits salmon farming provides to regional Tasmanian communities.

Owners Brett and Ros Hickey say 80% of their customers between 5am and 8am are workers from nearby salmon production sites run by Huon Aquaculture and Tassal.

At lunchtime aquaculture employees account for up to 70% of customers.

They also regularly receive large catering orders from the nearby aquaculture operations.

The post office, café and takeaway store specialises in homemade pies, coffee, and hot meals.

The Hickeys say they're big supporters of Tasmania's aquaculture industry.



CASE STUDY: INNOVATION OPENS-UP NEW EXPORT TRADE

A collaborative effort between the Tasmanian salmon industry and its feed suppliers to achieve continual improvement in both products and environmental outputs has opened up new export opportunities for the state.

The application of world-leading research and innovation undertaken jointly by the industry and suppliers has focused on lowering carbon emissions, applying more circular and restorative raw materials, and minimising the use of feed ingredients derived from wild fish stocks.

The results have already attracted buyers from interstate and overseas, as aquaculture companies outside Tasmania recognise the exceptional quality of feed produced for the industry right here.

Skretting

The recent expansion of Skretting's Westbury mill – combined with the charter of a purpose-built vessel to deliver product to customers in regional Queensland and New Zealand – demonstrates the company's long term commitment to the production of high-quality feed for the local industry as well as the export market.

The company, which has been providing nutritional feed solutions and services to the salmon industry for almost

20 years, is keenly focused on working with industry to achieve continual product improvements through research and innovation as well as in the reduction of carbon emissions.

Biomar and De Bruyn's Transport

Biomar and De Bruyn's have been part of the Tasmanian salmon industry supply chain network for many years, and have teamed up with export shipping companies, Move Oceans and Qube, to enable Biomar fish feed to be exported direct from Devonport to both New Zealand and Indonesia.

Tasmanian fish feed is now one of the state's largest exports to New Zealand.

As many as 75 staff from Tasmanian family-owned De Bruyn's Transport work directly with the salmon industry across the multi-million dollar export sector, which now includes fish feed as well as the state's highly prized Atlantic salmon.

This collaboration is a prime example of the opportunities the industry provides its valued, regional supply chain across the state.



ABOUT US



Salmon
TASMANIA

Salmon Tasmania represents a modern, sophisticated aquaculture industry with a diverse workforce that plays an integral role in feeding the world sustainably.

Our three member companies, Huon Aquaculture, Tassal and Petuna, farm healthy, nutritious protein and are all focused on sustainable and ethical production. We know we are stewards of the waterways we farm, and the only way we can, and do, operate is by ensuring our marine environment can be enjoyed and farmed for generations to come.



Huon Aquaculture was founded by Peter and Frances Bender, following initial trials as an offshoot of the family's farming business in 1986. Huon produces both salmon and ocean trout and operate in the Huon River and at D'Entrecasteaux Channel, where the business was founded, at Macquarie Harbour in the west of Tasmania, and offshore in Storm Bay. Their other sites include:

- two jointly owned hatcheries (with Saltas)
- the Port Huon Wharf where the company builds the watercraft it requires
- six wholly owned hatcheries in Whale Point (salmon nursery), Springfield, Bridport, Millybrook, Lonnvale, and Forest Home, and associated facilities
- a processing facility and smokehouse in Parramatta Creek, a factory for major retail customers in Ingleburn, New South Wales.

All aspects of production, including processing, are undertaken within Huon's own vertically integrated production facilities.

In November 2021, global meat processing company JBS acquired 100% of Huon Aquaculture.



Tassal is Tasmania's largest producer of Atlantic salmon. It began operations in 1986 with a small farm at Dover and a hatchery in the central highlands. Tassal produces Atlantic salmon and operates in D'Entrecasteaux Channel, Huon River & Dover, Okehampton Bay & Port Arthur, Nubeena & West of Wedge and Macquarie Harbour. Their other sites include:

- three hatcheries, Russell Falls and Karanja Mount Field, Rookwood 1 and 2 at Ranelagh, and a future development in Hamilton, together capable of growing nearly ten million smolt each year
- three processing facilities at Huonville, Margate and Dover
- a rendering facility at Triabunna.

Tassal sells salmon under their main Tassal brand, and also produces salmon & seafood under a range of additional brands, including Superior Gold, Tasmanian Smokehouse and De Costi Seafoods. In 2018, Tassal acquired Fortune Group prawn farms, diversifying into Australian Tiger Prawn farming and processing.

In November 2022, Canadian seafood company Cooke Inc. purchased 100% of Tassal.



Petuna is a Tasmanian success story, established by Peter and Una Rockliff in 1949. Originally a fishing company, they diversified into aquaculture in 1990.

In 2020, Peter and Una sold their remaining 50 per cent shareholding to their existing business partner, New Zealand company Sealord.

Sealord's Māori origins – with a focus on preservation of the sea – made it a natural partner for Petuna, allowing the company to grow while staying true to its heritage.

Today Petuna's core values draw from this heritage, recognising that aquaculture should complement and co-exist with wild catch activities, both respecting the longevity of the natural environment in which they operate.

REFERENCES

- 1 'Australian fisheries and aquaculture outlook 2022', Australian Bureau of Agricultural and Resource Economics <https://www.agriculture.gov.au/abares/research-topics/fisheries/fisheries-economics/fisheries-forecasts>.
- 2 Deloitte calculations based on Department of Natural Resources and the Environment <https://nre.tas.gov.au/agriculture/facts-figures/tasmanian-agri-food-scorecards>.
- 3 'Draft Tasmanian Salmon Industry Plan', Department of Natural Resources and Environment Tasmania (November 2022) <https://nre.tas.gov.au/aquaculture/salmon-farming/new-salmon-plan>.
- 4 'Sustainable Industry Growth Plan for the Salmon Industry (2017)', Department of Natural Resources and Environment Tasmania (2017) <https://nre.tas.gov.au/aquaculture/salmon-farming/sustainable-industry-growth-plan-for-the-salmon-industry>.
- 5 'Structural change in the Tasmanian economy', Department of Treasury and Finance, Tasmania (April 2013) <https://www.treasury.tas.gov.au/economy/economic-data/structural-change-in-the-tasmanian-economy>.
- 6 'Salmonid aquaculture', Environment Protection Authority Tasmania [https://epa.tas.gov.au/business-industry/regulation/salmon-aquaculture#:~:text=The%20Tasmanian%20finfish%20industry%20has,rainbow%20trout%20\(Oncorhynchus%20mykiss\)](https://epa.tas.gov.au/business-industry/regulation/salmon-aquaculture#:~:text=The%20Tasmanian%20finfish%20industry%20has,rainbow%20trout%20(Oncorhynchus%20mykiss)).
- 7 Australian Bureau of Statistics, Australian National Accounts: State Accounts, 2021-22 financial year (Catalogue No. 5220.0, 18 November 2022)
- 8 Australian Bureau of Statistics, Labour Force Australia, December 2022 (Catalogue No. 6202.0, 16 March 2023). Department of Premier and Cabinet (Tas).
- 9 Institute for Marine and Antarctic Studies (IMAS) of University of Tasmania and BDO EconSearch, Tasmanian Fisheries and Aquaculture Industry 2018/19: Economic Contributions – Key sectors (report funded by the Sustainable Marine Research Collaboration Agreement, August 2021) https://www.imas.utas.edu.au/_data/assets/pdf_file/0007/1471381/Economic-ContributionTasmanian-Key-Sectors-2018-2019-SNAPSHOT.pdf.
- 10 Deloitte Access Economics, The economic contribution of the Tasmanian fresh produce sector, (report commissioned by the Australian Fresh Produce Alliance, December 2020) http://freshproduce.org.au/_static/56d61c078f0cba28131d8a2d1574c340/the-economic-contribution-of-the-tasmanian-fresh-produce-sector.pdf?dl=1.
- 11 SG Heilbron Economic & Policy Consulting, Evaluating the socio-economic benefit of the red meat processing industry in regional Australia (report commissioned by Australian Meat Processor Corporation, September 2020) https://www.ampc.com.au/getmedia/84a40ca5-f7b5-4007-b76b-13179adec19a/AMPC_EvaluatingTheSocioEconomicBenefitOfTheRedMeatProcessingIndustryInRegionalAustralia_FinalReport.pdf?ext=.pdf.
- 12 'Our Operations', Huon Aquaculture <https://www.huonaqua.com.au/our-approach/our-operations/>.
- 13 'About Us', Tassal <https://www.tassal.com.au/about/>.
- 14 'About Petuna', Petuna <https://petuna.com.au/who-we-are/about>.



Salmon
TASMANIA

85 SALAMANCA PLACE, BATTERY POINT, 7005
ADMIN@SALMONTAS.AU
SALMONTASMANIA.AU