



5-10 YEAR STRATEGIC WORKFORCE PROFILE

TASMANIAN SEAFOOD INDUSTRY COUNCIL

MAY 2017

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1 Introduction

The Tasmanian Seafood Industry 5 - 10 Year Strategic Workforce Profile Report has been developed in response to Action 1 of the Tasmanian Seafood Industry Workforce Plan.

Although the Seafood Industry Workforce Profile provides an up-to-date snapshot of seafood employment in 2016, there are a diverse range of factors that will influence the short term (5 years) and longer term (10 years) employment structure, need and demand within the Tasmanian seafood industry.

This 5 – 10 Year Strategic Workforce Profile Report provides an overview of the key areas of influence on the seafood industry workforce structure, need and demand, and provides insight into project workforce dynamics.

The Report has been produced using data projections from the Seafood Industry Workforce Profile and further consultation with key industry members of the Tasmanian seafood industry.

1.1 Industry structure

Much of the Tasmanian seafood industry has an aging workforce, with 26% of operators in the wild catch sector being older than 60 years of age¹.



LACK OF SUCCESSION PLANNING
BY FISHERS & QUOTA HOLDERS

For some sectors of the wild catch fishery, such as rock lobster and abalone, the capacity for younger and new entrants to invest in the industry is greatly impacted by the very high value of quota. Furthermore, quota is rarely sold by existing owners due to its high investment value and good return on investment. Instead 'retiring' fishers tend to retain their quota, leasing it out to other fishers as a form of superannuation. An increasing proportion of quota holders are purely investors, interested in a return on their investment, meaning more and more active participants are or will be lease fishers. Such dynamics create a significant separation between quota owners/investor interests and needs compared to those of active fishers/operators. At present, this separation of ownership and fishing sectors is ultimately leading to reduced margins (profit) for lease fishers, and makes many sectors an unattractive career option.

It appears that only a few older fishers and quota holders are asking the question '*who will catch my fish*' and are subsequently thinking about a succession planning.

¹ Tasmanian Seafood Industry Workforce Profile May 2017

1.2 Environmental

Populations of marine animals fluctuate in numbers naturally. This dynamic is typical for all animals, terrestrial or marine. A range of natural and human induced factors influence variability in marine populations.

A CHANGING ENVIRONMENT IS
LIMITING AVAILABILITY OF STOCK

The waters around Tasmania are warming at a rate much faster than the global average. In fact, the East Coast of Tasmania is considered an ocean warming hotspot due to the extension and strengthening of the East Australian Current, which carries warm tropical waters south along the east coast of Australia². During the summer of 2016, water temperatures off the state's East Coast were up to 4 degrees above average for more than 100 days, a phenomenon described as a "marine heatwave". This warming water brings with it a range of unwanted pests, diseases and conditions which can have a significant impact on our marine fisheries and aquaculture operations.

The increasing presence of Harmful Algal Blooms (HABs) is also having a significant impact on seafood production in Tasmania. HABs can cause closures of wild harvested seafood, and have the potential to directly influence the number of jobs available on a day to day basis.

Other human and natural influences on marine populations include terrestrial runoff, sewage spills, severe storm events and the freshwater runoff and swells they can produce, amongst many more.

Changing environments mean changing requirements for fishing and marine farming, as well as new opportunities and new challenges.

1.3 Regulatory and political

A range of State and Federal regulation and politics influence the Tasmanian seafood industry. State based regulation determines the amounts that can be harvested (Total Allowable Catch - TAC) and areas that can be farmed. TACs are set based on the best available science, with conservative and precautionary principles applied should the science be minimal or stocks deemed poor. The amount of stock available for harvest will directly influence the number of jobs available in that sector and/or the profitability in that sector.

SCIENCE BACKED TACS
AND POLITICAL PRESSURE
CAN INFLUENCE GROWTH

Wild capture seafood is a shared resource, with recreational fishers and the broader public having a significant interest in the marine space. This can create conflict, and result in political decision making outside the scope of scientific evidence. For example, commercial net fishing is being phased out of Melbourne's Port Phillip Bay to honour a promise made by both sides of politics before the 2014 Victorian state election. This removal of sustainable commercial fishing effort was part of a policy to encourage one million Victorians to recreationally fish. This recent political outcome directly impacted the number of commercial fishing jobs available in Victoria, with 42 fishing businesses (licences) being put out of

² Hobday, A. J., & Pecl, G. T. (2014). Identification of global marine hotspots: sentinels for change and vanguards for adaptation action. *Reviews in Fish Biology and Fisheries*, 24(2), 415-425.

business. In addition, establishment of marine protected areas has the potential to directly affect the amount and location of fishing activity in an area.

In Tasmania, AgriVision 2050 supports growth of the salmon industry³ and the state government has identified this as a priority area for jobs growth.

1.4 Economic

A diverse range of economic drivers impact the seafood industry. Competition between wild catch, aquaculture and imports see market prices fluctuate on a daily basis. In addition, market prices influence the domestic demand for locally produced and caught seafood.



BRANDING DRIVES MARKET
DEMAND AND SUBSEQUENT
GROWTH

The cost of labour in Tasmania and Australia make it difficult to compete with cheaper imports. The seafood sectors that survived the fierce pricing competition all share a common theme - the products are of higher quality, fill niche markets, and in some instances, there is extremely high demand for the 'clean green' produce from Tasmania. Seafood marketers have built a reputation for the quality standard of their product, which has historically ensured product demand and subsequent local jobs. Maintenance of this brand is *essential*.

Market access is also a big influence. The establishment of Free Trade Agreements (FTAs) will benefit market access and maximise returns to industry through the abolishment of export tariffs. Noticeably, China pays premium prices for high value product that other countries and domestic markets cannot compete with.

1.5 Social

The general public of Australia are showing a greater interest in what happens within the shared marine space. Increased awareness has come hand in hand with consumer demand for organic, clean and sustainable seafood. Despite an increasing demand for sustainably produced seafood, industry is also facing increasing opposition to seafood production.



SOCIAL MEDIA IS A
POWERFUL TOOL USED FOR
AND AGAINST THE FUTURE
OF THE INDUSTRY

Mobile apps such as the 'Sustainable Seafood Guide' drive consumer choices, even though the evaluation may not utilise all available science. Furthermore, targeted social media campaigns by Environmental Groups have the ability to turn supporters of seafood against seafood. The fact that false evidence presented on social media can hold greater weight and influence than peer reviewed science and world leading regulation presents a major challenge for the future of the seafood industry.

The impact of a 'social license' therefore has a huge potential to influence the number of jobs available in the seafood industry.

³ Cultivating Prosperity: A 2050 Vision for Agriculture 'AgriVision' and 'AgriGrowth Tasmania', 2016

2 Aquaculture Sector

Key points

1. Many factors impact the future viability of the aquaculture sector, including environmental, social and physical factors.
2. The outlook for the salmon industry workforce is positive, with expansion plans to create a significant number of new jobs.
3. The outlook for the shellfish aquaculture industry is less certain, with disease (POMS) and HABs potentially impacting employment opportunity in the short and medium term.

2.1 Salmonid Aquaculture

The farming of salmonids (Atlantic salmon and ocean trout) in Tasmania is the largest single jurisdiction seafood sector in Australia. The sector is also the largest employer within the Tasmanian seafood industry, with an estimated 2,090 people directly employed and 6,270 indirectly employed⁴. The industry accounts for 1.2% of total employment in Tasmania⁵.

Salmonid aquaculture has a current farm-gate value of \$620 million, while the processed and packaged value of salmon is estimated as \$807 million⁶. The average annual Turnover or Gross Output in 2015 was estimated as \$1.12 billion⁷.

2.1.1 A bright future?

The Tasmanian salmonid industry has the ambition of being a \$1 billion industry by 2050⁶. This will be achieved through improved efficiencies on existing farms, and via expansion of farming into new areas. In recent years there has been expansion within the Macquarie Harbour growing area, while there are further plans for expansion in the South of the state.

With this expansion will come new jobs. For example, the recent opening of a new salmon hatchery at Ranelagh near Huonville has created 10 new jobs. In particular, there will be demand for on-farm employment, such as farm hands, fish feeders, machine and maritime equipment operators etc.

It is also anticipated that there will be ongoing demand for new workers to fill vacated positions. This consistent demand to fill vacated positions is an artefact of staff movements within a company, seasonal nature of harvesting, staff movements between companies and staff moving out of the sector. Expansion into new areas will open up opportunities for employment of locals in regional communities. It is important to note there will continue to be a reliance on drive in – drive out workers for some regional areas, as the capacity and capability is not available within the local workforce.

⁴ Tasmanian Salmonid Growers Association, History (<http://www.tsga.com.au/history/>)

⁵ DPIPWE, Salmon Industry Changes FAQs (<http://dPIPWE.tas.gov.au/sea-fishing-aquaculture/marine-farming-aquaculture/changes-to-salmon-industry-regulation/salmon-industry-changes-faqs>)

⁶ Tasmanian Agri-Food ScoreCard Snapshot 2014-15 - <http://dPIPWE.tas.gov.au/Documents/Tasmanian%20Agrifood%20ScoreCard%20Snapshot%202014-15.pdf>

⁷ KPMG – Economic Impact Assessment – Tasmanian Aquaculture Industry <http://www.tsga.com.au/wp-content/uploads/2014/11/TSGA15-Economic-Impact-Report.pdf>

2.1.2 Employer of choice

It is the salmon industries ambition to be an employer of choice. This will be achieved through providing an excellent working environment and excellent remuneration to all staff members.

Making the salmon industry an employer of choice will also be achieved through promoting the industry as an employment opportunity within the school environment. There are a number of ways to approach this task, and can be achieved through active participation at school expo events, as well as through programs such as the TSIC Working on Water program.

Furthermore, salmon farm companies will continue to engage with schools, providing Schools Based Apprenticeship opportunities.

2.1.3 Community acceptance – a threat to growth?

Conflict over impacts of salmon aquaculture has created problems for the industry in recent years. Media campaigns led by Environmental Groups have reported that a portion of the general public have a low level of trust in the regulator (government) and the science. Trust will be a key factor in determining the number of jobs in this sector in the near future.



**SUSTAINABLE FARMING MUST
BE BACKED BY PUBLIC TRUST
FOR GROWTH**

For example, public distrust in the regulators ability to control expansion plans has resulted in delays in the planning process, for example, Tassal's plan to expand its farming operations into Oakhampton Bay on the East Coast. Such delays put potential job growth in regional areas on hold and creates logistical difficulties for strategic planning for industry growth and training needs.

2.1.4 Negative impacts from a changing marine environment

The Tasmanian marine environment has been subjected to significantly changed conditions over the last 5 – 10 years. Of particular note, there has been a warming of coastal waters during the summer period statewide. Salmon growth is influenced by water temperatures, so a warming environment will impact productivity.

A changing marine environment has also impacted on dissolved oxygen (DO) levels in Macquarie Harbour. The Harbour has naturally depleted DO levels, which can be exacerbated by freshwater flow, other organic inputs and infrequent DO recharge events in the Harbour (i.e. mixing of open ocean waters into the harbor through North West storm events)⁸. During the 2015-16 summer period, the harbour saw increasingly low DO levels. This has resulted in an altered benthic community below and near salmon pens, as well as other areas of the Harbour. This has resulted in the need to destock and fallow some areas.

Both warming water and low DO levels in Macquarie Harbour could impact productivity. A continuation of water temperature increases would further reduce productivity and influence DO. Less productivity could result in a reduced need for workers in this region. In turn, local employees will need re-skilling and training to take up work in other sectors.

⁸ Macquarie Harbour Status Report Update April 2016, page 9 - <http://dpi.pwe.tas.gov.au/Documents/2016%20Update%20to%20the%20Macquarie%20Harbour%20Status%20Report.pdf>

2.1.5 Workforce outlook

The workforce scenarios identified in this section leads to a forward projection for workforce development that follows two polarised trajectories.

1. Continuation and growth of industry: Currently over 8,000 jobs (direct and indirect), with the prospect of future growth,
2. Closure or significant retraction of industry: Zero or low jobs, with up to 5,000 directly unemployed in this sector. Closure/retraction would require mass re-skilling of employees to another sector.

The Workforce Profile identified the aquaculture sector being the largest employer of young Tasmanians, with the majority of the workforce being aged 20-29. A continuation of the current workforce will see minimal retirees in the short to medium term, however, natural dynamics will see some staff elevate to new positions within their own or another company structure.

Furthermore, the wider aquaculture industry is supported by a whole range of third party and peripheral service providers. Growth in the aquaculture industry will have flow on effects for expansion in these areas such as regulation, marine police, feed suppliers, transport and logistics. Skills needed in these third party sectors will grow in addition to workforce expansion and job creation.

2.2 Shellfish Aquaculture

Farming of Pacific oysters and blue mussels provides significant employment in regional communities, with an estimated 520 individuals (445 FTEs) directly employed on farms.

The sector has been relatively stable in value (approx. \$24 million) and employment size for some time.

2.2.1 A harsh operational environment

In early February 2016, high oyster mortality events observed at Pitt Water in Tasmania's SE were linked to the Pacific Oyster Mortality Syndrome (POMS). POMS is a devastating disease affecting Pacific oysters (*Crassostrea gigas*). It is caused by the virus *Ostreid herpesvirus-1 microvariant* (OsHV-1 μ Var).

The disease is associated with high mortality events, with losses in the magnitude of 100% of stock not uncommon. The virus is inactive in cooler water (below about 17° C). POMS has since spread or been detected (but with no signs of disease) to all oyster growing regions apart from the far North West and Port Sorell. Many growers believe it is inevitable that POMS will spread to all growing areas in the near future.



POMS AND HARMFUL ALGAL BLOOMS, A DEADLY COMBINATION

The impact of POMS is intensified by closures resulting from Harmful Algal Blooms (HABs). Biotoxin creating algae have caused problems along Tasmania's East and South East Coasts since 2012, with the most recent bloom in 2016 being the most widespread and long lasting to date. HAB events result in extended closures of farms.

The future spread and impact of POMS and the future existence of HABs within Tasmanian waters will in large dictate the short to medium term future of the Tasmanian shellfish industry. This is because the industry is heavily reliant on cash flow from sales. Cash is used to pay staff and purchase new stock. Without a cash flow (sales) staff cannot be retained. Both POMS and HABs impact sales and therefore cash-flow.

For example, after the POMS event in the summer of 2016, the industry saw a significant number of staff 'laid off'. A survey conducted by TSIC suggested that over 120 casual, part-time and full time staff lost their jobs. Although some companies have begun to reemploy, the future of the industry and the survival of businesses within the industry will be in large dictated by the scale and magnitude of any POMS outbreak and HAB events during the following two to three years.

2.2.2 Workforce Outlook

It is anticipated that the Tasmanian oyster industry is could be subjected to a number of workforce scenarios anytime in both the short to longer term.

The key potential scenarios are:

1. Industry manages to work around POMS and HABs. Small family business structures survive. Employment demand remains strong, with seasonal fluctuations.
2. A consolidation of existing farms resulting in less companies. May require less workers to operate the same number of farms under such a structure. May provide greater security in a volatile environment.
3. Industry (either family farm or a consolidated industry with less companies) learn to live with POMS and HABs. Demand for product combined with value adding

and diversification of species, amongst other strategies, sees a revitalised and larger scale industry.

4. POMS and HABS have significant impact on farms. Demand for product diminishes, cost of operation increases and capacity for value add and diversification are stonewalled. The financial capacity for businesses to trade becomes unfeasible. Many farms shut down and remain closed indefinitely.

Scenario four would require significant investment for reskilling and integrating shellfish workers into other industries.

2.3 Abalone Farming

Abalone farming in Tasmania is a relatively small sector, valued at \$2.54 million. There are five active farms in Tasmania, which employ an estimated 30 FTEs. Of these farms, two have been reactivated (re-farmed) in recent months.

2.3.1 An increasing demand for product

There appears to be increasing demand for farmed abalone product, potentially as a consequence of decreased supply from wild capture fisheries worldwide. This demand could see further capital investment in the expansion of existing abalone farms, or even the development of new abalone farms in Tasmania.



DEMAND COULD DRIVE
EXPANSION

2.3.2 Workforce outlook

Expansion or development of new farms in Tasmania would create new employment opportunities.

2.4 Aquaculture Sector Summary

Although there are significant social and environmental challenges, the salmonid farming industry has a bright future. This future will see increased demand for new employment, along with continued demand for filling vacancies. In contrast, shellfish farming faces a much more uncertain prospect.

The shellfish aquaculture sector may be at the liberty of environmental change, but this also presents opportunities for entrepreneurs to find solutions for adaptation.

The short term future of the Tasmanian shellfish farming industry depends on the upcoming summer season and the presence of POMs and HABs and the industry's ability to evolve and respond to the changes in climate and presence of HABs and POMs.

Whilst 67% of the aquaculture workforce is employed full time, a large portion is employed seasonally for harvest processing. There is increased need for streamlining transient workforce access to jobs and training, which could be achieved through contemporary online platforms.

3 Wild catch Sector

Key points

1. Many factors could influence the future of the Tasmanian wild catch sector.
2. The outlook for the rock lobster and abalone sector would suggest a decline in employment over the next 5 to 10 years but high demand for new workers to fill remaining jobs.
3. The outlook for other wild catch sectors would also suggest a retraction in size.
4. There could be opportunities available into the future for upskilling and training deckhands to fill skipper roles.

3.1 Abalone (wild) fishery

At present there are approximately 121 Fishing License Abalone Diver (FLADs) and 109 active divers. There is an estimated 170 workers in the dive sector.

3.1.1 Industry dynamics

There is a distinct separation of the investment sector and catching sector of the wild caught Tasmanian abalone industry. This has created a level of conflict, with specific reference to the beach price paid to investors, the catch price paid to divers (\$/kg rate), and the excess capacity (number of divers) to catch a declining TAC. Relatively low profitability for some divers has made the abalone dive sector a relatively unattractive employment option in recent years⁹



A NEED FOR
RATIONALISATION OF THE
ABALONE DIVE SECTOR

Such dynamics have led many within the industry to believe there is an urgent need to rationalise or reduce the number of active divers within the industry. There is suggestion that the future industry would only require between 70 and 80 divers to catch the current / future TAC. Such rationalisation in the abalone industry structure would have obvious negative impacts on employment. In turn, there would be a need to support and reskill / retrain some of the abalone workforce.

3.1.2 Industry demographics

The abalone dive sector has an aging demographic, with the average age of divers being 47 years old. As such, many abalone dive entitlement owners/operators are fast approaching retirement age. The physical requirements of diving for abalone amplifies this issue.

There is an opportunity for new divers to enter the industry and take over from the current aging workforce, however, the current attractiveness to enter the industry is low.

Review of Tasmanian abalone dive rates, Knucky and Sen, 2017.

3.1.3 A changing environment impacting stocks

Poor recruitment, warming water and influences such as long spined urchins has resulted in poor abalone stocks in many parts of Tasmania, especially on the East Coast. In response, the abalone industry has supported significant quota cuts over recent years. Despite such cuts, the value of the fishery has remained relatively stable.

3.1.4 Reliance on a single market

The abalone industry also rely on the South East Asian market, with majority of product ending up in the Chinese market. Factors such as market access and the ChAFTA could improve market access and the market price of abalone. Given the separation of the ownership and dive sector, flow on financial benefits to divers is not guaranteed.

3.1.5 Workforce outlook

The industry push to rationalisation of the abalone dive sector will ultimately result in the loss of 40 – 50 divers from the industry.

Despite this retraction of divers, the aging workforce will see demand for new divers to enter the industry over the following 10 years.

3.2 Commercial Dive

The commercial dive sector is a relatively new sector in Tasmania. The target species being urchins and periwinkles. Another potential target species is the invasive long-spined sea urchin. There are currently 32 active divers and approximately 55 people employed in the sector.



COMMERCIAL DIVERS COULD
UTILISE AN INVASIVE SPECIES

3.2.1 Industry dynamics

Many operators within the Commercial Dive sector supplement their income through operations in other sectors, most notably the abalone dive sector. Some members of the industry suggest that there are currently too many dive entitlements (active and latent - 46) relative to available resources, and that some rationalization to the current number of active licences (32) is required.

3.2.2 A changing environment could create opportunity

As a consequence of warming waters on the Tasmanian east coast, the urchin species *Centrostephanus rodgersii* has extended its range down the East Coast of Tasmania. Forming dense urchin barrens, this invasive species is impacting habitat and populations of other wild catch species, notably abalone and rock lobster.

There is potential for a market for 'Centro' roe, which if developed could open up a solution to the urchin barren problem. A proposed new urchin processing facility in Tasmania could see an increase in diving effort for this species, and in the short term at least, a bright future for this sector.

3.2.3 Workforce outlook

Opportunities provided by harvest of the invasive Centro urchin could provide opportunity for new jobs within the commercial dive sector (i.e. activation of latent commercial dive entitlements), in addition to factory processing positions.

3.3 Rock lobster fishery

At present there are approximately 200-205 active vessels and 383 people directly employed in the rock lobster wild catch sector.

3.3.1 Industry dynamics

There is a distinct separation of the investment sector and catching sector of the wild caught Tasmanian rock lobster industry. This has created a level of concern and conflict between fishers paying high lease prices per quota unit to investors, at a time where market dynamics have led to a decline in the beach price paid to fishers. This dynamic has greatly limited the return (or profit) to active fishers, and made the industry an unattractive employment option.

Market forces would suggest a decrease in the lease price over time, meaning that when beach prices increase, fishers will benefit from greatly improved financial returns. Regardless, some fishers will suffer significant financial hardship in the transitional phase, and may be forced to exit the industry.

Many within the industry have suggested the need for rationalisation and capping of the number of active vessels in the fleet, especially given the recent reduction to the TAC. Some suggest the future industry would contain 150 to 170 vessels. Such rationalisation of the rock lobster fleet will have an obvious negative impact on employment within the industry and create a need for reskilling of some of the workforce.

3.3.2 Industry demographics

The rock lobster fishery has an aging demographic, with the average age of a licence holder/supervisor being 50 years. Over the following 10 years, there will be a significant number of operators exiting the fishery.



AN OPPORTUNITY TO UPSKILL
DECK HANDS TO SKIPPER
VESSELS

To date, the industry has no strategic plan for succession planning, and there is a high level of uncertainty around who will catch rock lobster once the current aging fishers retire.

There is an opportunity for deckhands to upskill and take over the role of skipper on existing fleet vessels.

3.3.3 A changing environment impacting stocks

In response to below average recruitment and poor stocks on Tasmania's East Coast, the rock lobster TAC has decreased from approximately 1,500 to 1,000 tonnes over recent years. Despite this decline in TAC, the value of the fishery has increased substantially, to its current value of \$90 million¹⁰. Although this elevated price has allowed the maintenance of the 200 vessel fleet, this has only occurred due to the very high beach price obtained over recent years. Industry is looking at mechanisms to reduce the fleet to a more sustainable level.

3.3.4 Reliance on a single market

The main market for Tasmanian rock lobster is South East Asia, with the Chinese market taking in excess of 95% of the rock lobster caught in Tasmania. This single market

¹⁰ Tasmanian Agri-Food ScoreCard Snapshot 2014-15 - <http://dpi.pwe.tas.gov.au/Documents/Tasmanian%20Agrifood%20ScoreCard%20Snapshot%202014-15.pdf>

occurrence is driven by the high price the Chinese market pays relative to what other countries are prepared to pay. Reliance on a single market opens up a range of potential influences and risks that could impact the sector's value, size and employment needs.

Historically, the main route into the Chinese market was through indirect means, the so called 'grey trade'. Such mechanisms for market access are highly risky, with border closures a constant possibility. Such an event occurred in November 2010, when a Chinese ban on Australian rock lobster sent the price of lobsters from \$65/kg to \$20 - \$25/kg. With the current average beach price nearing \$85/kg in 2016, and lease price averaging around \$45/kg, any future closures to Tasmanian rock lobster would be detrimental to the industry.



**SINGLE MARKET RISK,
NOT SUSTAINABLE FOR
STRATEGIC PLANNING**

The establishment of the China Australia Free Trade Agreement (ChAFTA) and associated abolishment of tariffs on Australian seafood exported to China will see more and more seafood product exported directly to China. This should stabilise current market access concerns around entry via indirect routes.

A diverse range of market drivers could influence the Chinese market at any time. For example, the 2003 outbreak of SARS. The outbreak saw Chinese consumers stay at home, with demand for luxury items, such as rock lobster, drying up. Subsequently, demand for Tasmanian product evaporated almost overnight.

The Chinese market is a volatile market with extremely high risk, and some processors have suggested opening opportunities into other countries, even at lower market prices, as an insurance mechanism.

3.3.5 Workforce outlook

The current high lease price and low beach price dynamic will most likely result in a retraction of the rock lobster fleet over the following years, unless a high beach price is restored in the near future. Combined with industry suggestions to rationalise and cap the number of operators within the fleet to 150 – 170 operators, there will be some loss of employment in the rock lobster fleet.

3.4 Scalefish

The scalefish fishery employs approximately 90 individuals, who participate in a diverse range of fishing activities, targeting a diverse range of species.

3.4.1 Industry dynamics

The scalefish fishery is relatively small scale and low value, meaning that any shift in access or market price could significantly impact the viability of operators.

Overlap of commercial scalefish operations with recreational fisheries has seen a number of fishing licence endorsements be classified as non-transferable. This means that when an individual who holds an endorsement exits the fishery, that commercial practice will also exit the fishery.

There is also an increasing trend for recreational fisheries to take significant amounts of scalefish. For example, the recreational take of sand flathead is >20 times more than the commercial take, and recreational catches of striped trumpeter represent an increasingly significant proportion of the total take¹¹. This results in increasingly restricted fishing areas and concerns over future resource access rights for commercial operators. This is of particular concern given the difficulties associated with constraining recreational catch.

3.4.2 Industry demographics

The scalefish fishery has an aging workforce, with the average age of licence holders/supervisors being 52. Given the physical demands of scalefish fishing (hauling nets and other gears), many operators will not be in a position to fish over the following 5 – 10 years. Given the low value and increasing resource access and sharing issues within this industry, the sector is not very attractive for new entrants.

3.4.3 A changing environment impacting stocks

Warming waters and competition with recreational fishers is impacting available stocks of traditional scalefish species. This changing marine environment, however may also deliver opportunities for new species, such as King George Whiting, Snapper and Yellow Tail Kingfish.

Another significant issue is a growing seal population. Seals often devastate a catch, with some commercial fishermen losing 100% of a day's catch to seals. This will have obvious negative impacts on the workforce.



**SEALS DIRECTLY IMPACT THE
WORKFORCE**

3.4.4 Workforce outlook

With the imminent retirement of many scalefish fishers over the next 10 years, there will be significant opportunity for new entrants within the scalefish sector. However, the relatively low value, and increasing issues around resource access and sharing, make the sector relatively unattractive.

In all, it is anticipated that employment within the scalefish fishery will decline over the following 5 – 10 years.

¹¹ Tasmanian Scalefish Fishery Assessment 2015-16. IMAS.

3.5 Wild catch Sector Summary

In general, all sectors of the Tasmanian wild catch fishery are facing the same issues, notably, an aging workforce, increasingly tight profit margins, environmental and resource access and resource sharing issues.

It is not anticipated there will be any significant growth within the other wild catch sector in the next 5 – 10 years.

In fact, it is anticipated that most sectors will rationalise, meaning less people will be employed.

4 Seafood processing

Key points

1. Factors influencing seafood processing include wild catch and aquaculture trends and availability
2. Demand for seafood is increasing – resort to imports?
3. Domination of the processing sector will see ongoing employment in this area.
4. Skills that will be in high demand in this sector will range from food handling to business and marketing.

4.1 Seafood processing

Seafood processing in Tasmania directly employs approximately 310 people. Employment in the sector, however, is very much influenced by the seasonal availability of seafood product. Seafood processing companies have the ability to support a large number of local, transient and seasonal workers that may have a low skill or literacy/numeracy level.

Seafood processing is an integral part of the seafood industry, and when considering the number of employees and the regional locations in which they live and work, the sector is a critically important part of workforce development.

4.2 A Demand for local and imported seafood

Naturally, there is a strong correlation between total seafood production and the need for processors, as very few harvesters actually process, package and ship their own product.

HEAVY RELIANCE ON OTHER SECTORS

Wild catch sectors have processors collect their catch from a landing point, where they are transferred into the hands of the processor for post-harvest sorting, filleting, storage, packaging and export. Marine farmers often process fish on site within their own facilities.

The seafood processing sector relies on access to fresh seafood to process, and in this regard is highly susceptible to any industry shifts or closures.

A further dynamic of seafood processors is the fact that Australia imports almost 70% of its seafood, which is a surprising fact considering the amount produced in Australia is around 230,000 tonnes per year, and the domestic consumption of seafood in Australia has increased steadily, to now over 350,000 tonnes per year. The continued demand for seafood protein is driving the processing sector in a big way.

Australian consumers continually demand a cheaper product, however cheaper imported seafood may not provide a sustainable option for future protein supply in Australia. Many countries that Australia imports seafood from struggle to meet their own demands for protein. With a rapidly increasing world population, such countries may in the

DEMAND IS HIGH FOR SEAFOOD SOURCED PROTEIN

future retain their seafood product to feed their own populations. Such a situation would result in an increasing domestic demand for Tasmanian seafood, which has been branded as clean and green. This could lead to the harvest of lower value, currently non-targeted species.

4.3 Processor leveraging

An increasing trend that we are seeing is that processors, or the company that owns the processing business, are buying quota from sectors that have a quota management system. The theory is that if the processor owns the quota unit, they can employ divers/skippers/crew to catch the fish when they need it, based on customer demand. This has led to inherent problems such as: competition for wages, competition for contract jobs and increasing the gap between investors and fishers. The seafood industry is seeing large investors move into the processing and quota space, and this scenario looks likely as a long term outcome.

4.4 Workforce Outlook

The seafood processing sector will continue to have seasonal demand for workers, which will in large be driven by wild catch harvests. There is a need for an online system to manage the seasonal jobs in this sector.

Continued demand for protein worldwide will see the further development of wildcatch and aquaculture ventures within Tasmania and Australia.

Subsequently, the future of jobs in the processing sector looks bright.

5 Conclusions

There are an exceptionally diverse range of factors that could and will influence workforce demand across the seafood industry over the next 5 – 10 years. Many of these influences are unpredictable and/or will be driven by policy decision makers.

On the balance of probabilities, the need for new workers within the seafood industry will be high in the medium to long term as sectors expand and grow (salmon) or the current workforce age and retire (rock lobster and abalone).

There will be an ongoing high demand for skills and training to meet seafood industry workforce needs (succession planning and new entrants).

It is also anticipated that some sectors will require rationalisation (abalone and rock lobster) which will result in the need for current employees to exit the seafood industry and enter a new workforce. This will require programs and opportunities for reskilling and retraining.

In all, the seafood industry workforce looks bright.