



SafeFish Annual Report 2018




INDUSTRY TESTIMONIALS ON SAFEFISH

SafeFish operates through a partnership approach, working closely with industry, government and research stakeholders. Below are some testimonials from these stakeholders to demonstrate the value that SafeFish provides to these organisations.

“SafeFish have on several occasions provided both practical and high level technical advice regarding matters relating to the Australian Shellfish Quality Assurance Program. The prompt advice and technical input that SafeFish have provided has been invaluable. Additionally, the collaborative approach provided by SafeFish between regulators, researchers and the industry maximises efficiency and outcomes for all those involved.”

Ms. Tracey Stamp
Scientific Officer, Environmental Health Team,
Department of Health Western Australia

A close-up photograph of several mussels, showing their dark, glossy shells and some of the orange-brown gills. The mussels are piled together, creating a textured, organic background.

“Assuring authenticity is a critical factor in ensuring Australian farmed barramundi is known as a trusted and high quality product. With an ever-expanding range of technologies, the Seafood Authenticity report by SafeFish is an extremely useful tool that assists us to better understand the technologies available and assess what will suit our particular needs. The case studies in the report are particularly useful and provide practical applications of how specific technologies have been used in other industries.”

Ms. Jo-Anne Ruscoe
Executive Officer, Australian Barramundi Farmers Association

“Food safety and public confidence in our product are among the highest priorities for the Tasmanian rock lobster fishery. SafeFish has been instrumental in the provision of technical advice that has supported the management and monitoring program for Harmful Algal Blooms affecting the industry. Maintaining market access as a product of the highest quality is enhanced through our collaboration with SafeFish”

Mr. John Sansom,
Chief Executive Officer, Tasmanian Rock Lobster Fisherman’s Association

“SafeFish have been instrumental in pushing a high priority project identified by the Australian Shellfish Quality Assurance Advisory Committee surrounding national shellfish biotoxin harmonisation with international standards. The technical expertise, support and facilitation taken by SafeFish on this issue is a testament to the ongoing role SafeFish has to ensure food safety in the seafood market”

Mr. Phil Baker,
Chair, Australian Shellfish Quality Assurance Advisory Committee

OUR VISION & PURPOSE

SafeFish is a partnership of seafood experts that assists the industry to resolve technical trade impediments, especially in relation to food safety and hygiene. The purpose of SafeFish is to:

- Provide technical expertise to enable rapid response to sustain free and fair access to key markets;
- To underpin the safety and integrity of seafood sold commercially in Australia.

OUR HISTORY

When the Australian Seafood Cooperative Research Centre (ASCRC) started in 2007 the seafood industry started looking more strategically at trade and market access. These are a complex issues and present global challenges. Different countries have many diverse regulations, some related to food safety, some not. The industry recognized that as a relatively small player in the game, the fair trade platform was essential. They needed to get involved in the development of internationally agreed standards to prevent 'technical barriers to trade'. They also needed to provide coordinated, cohesive and robust technical advice to support Australian negotiators and delegations dealing with trade and market access issues related to food safety. While expertise was previously available from different sources, a more cohesive collaborative approach was required to bring together all relevant stakeholders (industry, researcher, government, and regulators) more collectively. This was the origin of the partnership approach known originally as the Seafood Trade Expert Panel funded by the ASCRC in 2010 (Project 2010-752-10), which was then renamed SafeFish in 2011. In 2015, SafeFish transitioned to a new business model, where a three-year project was funded through the Australian seafood industry and the Fisheries Research and Development Corporation (FRDC).

The demonstrated success and value to the seafood industry of the SafeFish program has allowed the stakeholder support to broaden, with industry now providing a substantial proportion of the funding required for the initiative from July 2018 to June 2021.

HIGHLIGHTS FROM 2015 TO 2018

Seafood is the most globally traded human food protein. In Australia in 2015/16 \$1.4 billion worth of fisheries and aquaculture products were exported, and 1.8 billion of product was imported into our market. Seafood safety has become, and continues to be essential to Australia's access to both global and domestic markets and particularly into the growing Asian economies.

The SafeFish program leverages the expertise and resources available in government, research and industry networks to provide expert technical support in response to food safety incidents. To achieve these outcomes, the program brings together experts in food safety to assemble all relevant, available data and by conducting research where necessary. In undertaking these roles, SafeFish helps the seafood industry to stay ahead of the ever-changing food safety requirements internationally and in Australia and helps to mitigate food safety risks.

As Independent Chair of SafeFish since 2014, I have been able to assist in streamlining SafeFish's governance and operating arrangements to ensure that the program is performing to the highest standard possible. I am very pleased to report, that the SafeFish program has effectively met its specified objectives over the past three years, and in most cases exceeded them. We have also managed to provide additional research and services by leveraging our investments through targeted strategic alliances; a key example of this was leveraging funding from external sources to progress the validation and implementation of marine biotoxin test kits.

In 2017, SafeFish canvassed industry to gauge support for continuation of the program following the cessation of the current FRDC funding cycle in July 2018. I am pleased that industry saw value in the work conducted, and through its support, the SafeFish program has been successful in acquiring funds for another three years from July 2018 to June 2021.

Managing seafood safety is a challenge – across multiple aquatic environments, species, sectors, harvest procedures, jurisdictions, supply chains, product formats and markets. The need to protect the public, including the safety of recreational and customary fishers, and ensure governments are fully informed, adds further complexity. SafeFish plays the role of the trusted independent resource that is able to assist as issues arise. I am excited to continue to be involved in this initiative to ensure Australia maintains its outstanding reputation as a producer and supplier of high quality, safe and tasty seafood.



Dr. Anne M Astin PSM



The background of the entire page is a close-up, high-resolution photograph of several cooked prawns. The prawns are a vibrant orange-red color, with their long antennae and legs clearly visible. They are piled together, creating a dense, textured pattern. The lighting is warm, highlighting the glossy sheen of the prawn shells.

ABOUT US

SafeFish is the leading platform in the Fisheries Research and Development Corporation (FRDC) program for dealing with food safety and trade and market access issues for the Australian Fisheries and Aquaculture sectors. SafeFish acts in a collaborative manner, drawing expertise from a variety of Australian and international researchers and industry members. The SafeFish process builds a seafood sector that proactively addresses food safety issues in an innovative and collaborative manner.

SafeFish is now key to Australian involvement in Codex Alimentarius – the forum for developing internationally agreed food standards. Food safety standards developed at Codex form the basis for international trade, and provide an agreed reference point for settling international disputes. By providing evidence based technical reports to Australian delegations to Codex, SafeFish enables Australia to argue for the development of standards that are commensurate with risk in the Australian context, preventing technical barriers from arising.

SafeFish has also become a trusted, independent source of food safety information to both industry and regulators. As a provider of technical advice, SafeFish does not participate in the monitoring or management of risk, or in analytical testing of product, rather we facilitate these actions to occur using the most appropriate techniques and current scientific knowledge. SafeFish is focused on issues that arise from food safety concerns only, and thus does not include aspects such as biosecurity, or environmental sustainability.



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SAFEFISH PARTNERS FOR 2017/18

SafeFish is comprised of collaborative and strategic partnerships between wild-fisheries and aquaculture sectors, research providers and government stakeholders. The partners work together to deliver the outputs and objectives of the program.



Dr. Anne Astin
Independent SafeFish Chair
July 2016 – June 2017

Ms. Nicole Stubing
Fisheries Research &
Development Corporation
(FRDC)

Dr. Glenn Stanley
Food Standards
Australia, New
Zealand (FSANZ)

Mr. Mark Boulter
Consultant, Safe
Sustainable Seafood,
Industry
representative for
Seafood Importers
Association (SIA)

Mr. Spiro
Markantonakis
General Manager,
Dover EX27
Industry
representative for
Seafood Trade
Advisory Group
(STAG)

Ms. Cristina Lesseur
Corporate Quality &
Simpliot Manager,
Processing Industry
representative.

Mr. Phil Baker
Chair, Australian
Shellfish Quality
Assurance Advisory
Committee (ASQAAC)

Ms. Alison Turnbull
The SA Research &
Development
Institute (SARDI)

Dr. Rochelle Prattley
Food and Animal
By-products,
Department of
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Resources (DAWR)

Ms. Jane Lovell
Chief Executive
Officer, Seafood
Industry Australia

Ms. Shelly Alderman
(DAWR); Dairy, Eggs
and Fish Division
Export Program

Mr. Erik Poole
Business
Development
Manager, Sydney
Fish Market
(Observer)

Dr. Ramez Alhazzaa
Senior Scientist,
FSANZ (Observer)

Ms. Cathy Webb
Seafood Industry
New Zealand
(Observer)

SafeFish Secretariat

Dr. Anne Astin
Independent SafeFish
Chair

Ms. Alison Turnbull
Program Manager

Ms. Natalie Dowsett
Executive Officer

Ms. Navreet Mahi
Research and
Administrative
Support

Dr. Stephen Pahl
Codex Facilitator

Dr. Andreas Seger
Technical researcher

OUR OBJECTIVES AND ACTIVITIES

SafeFish provides technical advice to support the resolution of issues and challenges relating to the export, import and domestic trade of Australian seafood products. Its main objectives are as follows:

1. To ensure continued delivery of robust food safety research and advice to industry and regulators that underpins Australia's reputation as a producer of safe seafood.
2. To maintain and enhance the capabilities of SafeFish to provide that research and advice in a cost effective, efficient and timely manner.

Ensuring the safety of seafood and sustaining access to markets provides significant public benefit. SafeFish makes a significant contribution to this by:

- Researching and providing technical input to international multilateral and bilateral trade negotiations through forums such as Codex Alimentarius
- Providing research and technical support to food safety incidents to minimise trade disruptions, including supporting appropriate risk communication
- Identifying emerging food safety issues and determining appropriate research and technical responses to protect Australia's continued access to markets
- Conducting research on seafood hazards to support risk management decisions
- Facilitating and coordinating national and international expert networks (including networks between researchers, industry and regulators)
- Developing and supporting food safety research and diagnostic capabilities
- Supporting productive partnerships between industry and regulators to enable utilisation of research findings and to facilitate considered responses to food safety issues.

OUR SUPPORTERS

Funding for SafeFish is provided by direct support from the following Industry associations: Southern Rock Lobster, Abalone Council of Australia, Oysters Australia, Sydney Fish Markets, the Australian Mussel Industry Association, and public good funds facilitated through the FRDC. SARDI also provides significant in-kind support to facilitate the SafeFish secretariat, and the Department for Agriculture and Water Resources, Food Standards Australia, New Zealand, the Australian Shellfish Quality Assurance Advisory Committee, the Seafood Trade Advisory Group, the Seafood Importers Association of Australia, the Sydney Fish Market, Seafood Industry Australia, Seafood New Zealand, Dover EX27 and Simplot Australia provide in-kind support to support participation as a partner on the SafeFish secretariat.





GOVERNANCE

The SafeFish initiative centres around an Advisory committee that provides recommendations to the SARDI Executive for ratification. A formal agreement between FRDC and the South Australian Minister for Agriculture, Food and Fisheries governs the program.

The Advisory Committee referred to as the SafeFish 'Partners' provide general oversight and strategic direction for the program. They also assist in communicating the technical outputs of SafeFish through the appropriate channels in Australia and overseas to facilitate the resolution of issues. Depending on the issues being discussed, this group has the ability to invite observers or relevant stakeholders to be involved to ensure that appropriate and widespread representation is achieved at all times. The partnership meet on a quarterly basis.

A Secretariat operated by the South Australian Research and Development Institute's (SARDI) Food Science group facilitates SafeFish. The secretariat comprises of the Program Manager, Executive Officer, Codex facilitator, Administrative support, Technical researcher and an external Independent Chairperson. The Secretariat coordinates and facilitates the day to day operations of SafeFish.

Charter of Operations

A Charter of operations details the governance arrangements for SafeFish. The Charter includes an overview of how we operate, the reporting and chain of command arrangements, how the program provides value to its stakeholders (including outlining its strategic plan), and outlines the communication strategy that SafeFish operates within. This can be found on the SafeFish website (www.safefish.com.au).

Value Proposition

In October 2017, an independent consultant was contracted to undertake a review of the value SafeFish has provided to the seafood industry. The review identified the core services that SafeFish undertook and quantified the impact that these had. The aim was to provide a value proposition for industry, in order to broaden the funding base of SafeFish, allowing it continue for a further three years. Following distribution of the value proposition, SafeFish received resounding support from industry and will continue its operations from 2018-2021 with financial support from the FRDC public good pool and contributions from the following industry stakeholders:

- Abalone Council Australia
- Australian Abalone Growers Association
- Australian Council of Prawn Fisheries
- Australian Mussel Industry Association
- Oysters Australia
- Southern Rocklobster Ltd.
- Sydney Fish Market
- Tasmanian Salmonid Growers Association
- FRDC Research Advisory Committees in each state and territory.

Ongoing in-kind support was also offered by SARDI, the Department for Agriculture and Water Resources, Food Standards Australia, New Zealand, the Australian Shellfish Quality Assurance Advisory Committee, the Seafood Trade Advisory Group, the Seafood Importers Association, the Sydney Fish Market, Seafood Industry Australia, Seafood New Zealand, Dover EX27 and Simplot Australia.





- Arsenic in Amusium balloti (Saucer) scallops in WA and QLD
- Export restriction for canned abalone into China based on Chinese sulphite regulations
- Ciguatera
- **Food fraud and food authenticity**
- **Harmful algal blooms (HABs) and their impact on seafood**
- Off label chemical use in Australia
- Parasites in finfish
- Per and poly fluoroalkyl substances (PFASs) – formally known as perfluorinated compounds (PFC)
- Potentially high levels of mercury in crustaceans
- **Validation and use of rapid test kits for marine biotoxin testing**
- Vibrios in bivalve shellfish
- Water retention chemicals

Prioritization Process

The SafeFish technical program is underpinned by a strategy to identify current and emerging food safety and market access issues, prioritise these, and undertake technical work to provide potential solutions to overcome those of highest priority. A prioritisation round was held in October 2016 to set the work program for the 2016-2018 period. The following issues/ hazards were identified for consideration by SafeFish in this process (NB: the items highlighted in teal were progressed with technical work in the 2017-2018 period):



INPUT IN INTERNATIONAL STANDARD DEVELOPMENT

Codex

SafeFish monitors and has input into the review/development of a number of Codex Standards, Guidelines and Code of Practices of relevance to the Australian seafood industry. SafeFish aims to keep the relevant industry sectors informed of developments and helps to ensure that risk management approaches are commensurate to the level of risk within Australia. The adjournment of the Codex Committee on Fish and Fishery Products (CCFFP) in 2016 has resulted in seafood related activities being now undertaken through a range of General Subject Committees that include:

- Codex Committee on Contaminants in Foods (CCCF)
- Codex Committee on Food Additives (CCFA)
- Codex Committee on Food Hygiene (CCFH)
- Codex Committee on Fats and Oils (CCFO)
- Codex Committee on Methods of Analysis and Sampling (CCMAS)
- Codex Committee on Residues of Veterinary Drugs in Foods (CCRVDF).

These Committees manage a wide variety of activities and whilst not all of these activities are relevant to the seafood sector, resources are required to identify the items that are. Since April 2016 over 300 Codex related documents have been reviewed.

RELEVANT ISSUES UNDER DISCUSSION AT CODEX

To ensure that the Australian position on the Codex agenda addresses industry concerns, SafeFish follows a formalised process to provide technical briefs for the Australian seafood industry. An overview of the technical input coordinated for issues that have the potential to impact Australian seafood can be found below:

Methylmercury in Finfish

In 2013 CCCF agreed that consumer advice should not be developed at the international level and was more appropriate at the domestic level. SafeFish was active in comparing the proposed methylmercury levels to those documented in Australian fish, but noted that the global database on contaminants contained little information from Australian fish stocks. One option initially considered by CCCF was to establish a Maximum Level (ML) for methylmercury of 0.3mg/kg. This was based on risk only and SafeFish advised that such a level would be unpractical as it would result in high rejection rates and severe economic impact on the seafood industry. SafeFish continued to advocate and recommended to Codex Australia that if MLs were developed then they should be based on a risk-benefit approach, acknowledging the importance of fish consumption for positive health benefits as well as the risk associated with methylmercury. Input from SafeFish and other delegates was successful in having

the approach changed to the ALARA principle (As Low As Reasonably Achievable), resulting in average rejection rates of less than 5% of fish internationally. **After much debate, CCCF agreed in March 2018 to establish MLs for tuna (1.2 mg/kg), alfonso (1.5mg/kg), marlin (1.7mg/kg) and shark (1.6 mg/kg).** In addition, in March 2018 CCCF agreed to discontinue the work to set an ML for swordfish (as a consensus could not be reached) and for amberjack (as the average methylmercury levels were sufficiently low). The existing Guideline Levels for methylmercury in fish and predatory fish will also be revoked. **Given the pending implementation of these limits and the discussions that have taken place around this compound, it should be noted that some export destinations may begin to/increase their testing for methyl-mercury in these products.**

Histamine Guidance

Scombrototoxin fish poisoning (SFP) is a common cause of fish poisoning that occurs in humans, linked to histamine consumption. SafeFish has been contributing to the Codex guidance on preventing histamine formation that will be included as a new section in the Code of Practice for Fish and Fishery Products. Histamine formation can be effectively controlled by using good manufacturing practices to maintain hygienic quality of fish, particularly by controlling temperature. The guidance will only apply to marine finfish species that present the greatest potential for developing hazardous levels of histamine; e.g. *Scombridae*, *Clupeidae*, *Engraulidae*, *Coryphaenidae*, *Pomatomidae* and *Scomberesocidae*

families. **The Code of Practice will state that harvest vessels should implement a histamine control system including monitoring and record keeping that provides documented evidence of control.** If histamine control records are not available to a receiving establishment, then histamine testing will become a critical control point for receivers. This guidance is expected to be adopted by the Codex Alimentarius Commission in July 2018.

CCFH is now in the process of reviewing the histamine sections within the relevant Commodity Standards, including sampling plans. **The current Codex health-based safety limits for histamine of 200mg/kg will remain.**

Ciguatera

FAO/WHO have identified that ciguatera fish poisoning is an issue that increasingly affects the tropical and subtropical regions of the Pacific and Indian Ocean, as well as the Caribbean Sea. Over the last 10 years ciguatera poisonings have accounted for the majority of food safety outbreaks related to seafood in Australia (OzFoodNet data). Ciguatera was ranked as a high priority issue in the 2016 SafeFish Prioritisation process. In 2017, CCCF made a request to FAO/WHO for scientific advice to support either the future establishment of MLs for ciguatera toxin analogues C-CTX-1 and P-CTX-1 and/or the development of risk management guidelines. FAO/WHO have subsequently released a joint call for data on ciguatera poisonings. In light of this, SafeFish initiated an Australian working group with the objective of facilitating the collection and collation of available Australia data in response to the FAO/WHO call. A significant volume of data was supplied to FAO/WHO which will ensure that the risk assessment outcomes will be relevant to Australia.

RELEVANT ISSUES UNDER DISCUSSION THROUGH WTO SANITARY AND PHYTOSANITARY (SPS) NOTIFICATIONS

A number of SPS notifications from trading countries have been monitored by SafeFish. The following issues currently have the potential to affect Australian seafood exports:

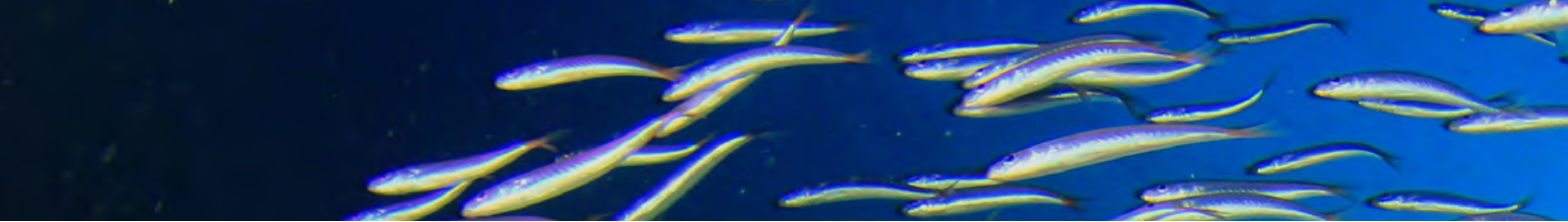
Changes to the Korean Residue Limits for Aqu-S (Isoeugenol)

In February 2017 Korea issued a SPS notification that a new Korean Maximum Residue Limit (MRL) for isoeugenol (active component within Aqu-S or clove oil) is being established at 0.01 mg/kg and **this limit came into effect on July 1st 2018 and is now being enforced by local authorities.** The current MRL in Australia for isoeugenol is 100 mg/kg for fish (excluding molluscs or crustaceans).

Changes to the Hong Kong maximum limits (MLs) for Metals

In June 2017 Hong Kong issued a SPS notification that is proposing to establish MLs for metallic contamination in different food/food groups **and will come into effect in November 2019.** The proposed amendments plan to adopt Codex limits unless otherwise justified. Some of the proposed amendments will be stricter than domestic (FSANZ) and Codex MLs and this has the potential to impact fish, crustaceans, molluscs and other aquatic animals.





TECHNICAL RESEARCH

The technical research that SafeFish has undertaken for the 2017-2018 financial year is as follows:

Food Authenticity in Seafood

SafeFish has written a comprehensive report to critically review available authenticity tools and provide information to the Seafood industry on the current state of play relating to food authenticity in Australia, and things that they need to consider in the future.

Australian food is ranked the highest by Association of Southeast Asian (ASEAN) countries in terms of safety and quality (Economist Intelligence Unit 2012). This allows our export products to attract a premium price in the market, and creates consumer demand. To date Australia has escaped a major food safety scandal but we are not immune. Food fraud in general is increasing, costing the global food industry a reported \$50 billion annually with an estimated 20% of in-store and 40% of on-line food products being adulterated or counterfeited (PwC 2016). PricewaterhouseCoopers (PwC) reported in January 2016 that one in three companies were victims of fraud. Seafood is recognised as one of four major foods & ingredients for fraud (Moore et al. 2012). Whilst individual food safety incidents can cost up to hundreds of millions of dollars, it is recognised that many food and wine exporters are currently doing too little to protect their own or Brand Australia in foreign marketplaces.

Traceability is one method of combatting food fraud, but it is not sufficient on its own. Increasingly attention is turning to methods for determining authenticity in the market. Potential technologies to confirm authenticity and provenance include DNA metabarcoding, trace metal profiling, chemical fingerprinting, stable isotope technologies and metabolomics, all of which this report explores.

This research output was initiated in 2016/17 period with the report being completed in August 2018. The report is available on the SafeFish website: <http://safefish.com.au/Reports/Technical-Reports/Seafood-Authenticity>

ADDITIONAL EXTENSION ACTIVITIES

In addition to the research output above, SafeFish has also completed the following extension activities:

Technical Exchange to China

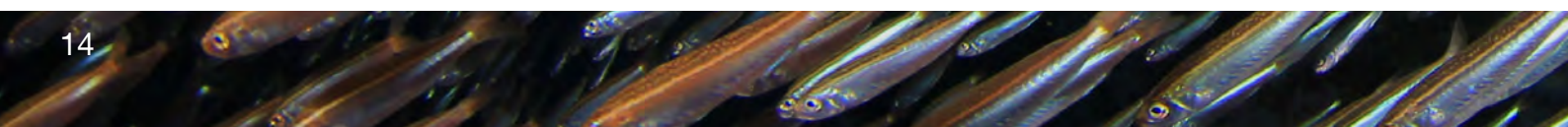
SafeFish participated in a trade mission to China with the STAG and the AAA in May 2017. The mission met with key researchers and businesses who provided information that will assist in the submission of a request to the CNHFPC to change the Chinese food standards code to allow sulphites in canned abalone. A change to the Chinese food standards code would allow Australian canned abalone containing sulphites below permitted levels to be exported to China. The exchange also assisted in raising the profile of the researchers, enabled them to more clearly understand how the Chinese regulatory system operates, and enabled them to build networks with researchers and businesses in China that could be called upon in the future for collaboration or assistance with projects.

Implementation of Biotoxin test kits in Industry

A grant of \$199,800 was obtained from the Department of Agriculture and Water Resources Package Assisting Small Exporters scheme to assist the bivalve industry adopt the Neogen rapid test kit for paralytic shellfish toxins, thus improving risk management of this issue. International biotoxin experts were contracted to assist in the development of an updated chapter on Laboratory analysis for the Australian Shellfish Quality Assurance Program (ASQAP) Manual of Operations that included a section on the appropriate use of rapid screening analyses. They also provided appropriate Quality Assurance/Quality Control advice for industry users. The development of a national policy on screening techniques will allow regulators to add this new tool to their collection of methods to manage biotoxin risk. Current tools have proven to be too slow and costly to adequately manage the biotoxin risk in some areas.

As part of the project, a workshop was facilitated to train industry on the use of the kits and readers (see more information below in Training and Workshops). Proficiency testing of industry showed that many industry members were competent in the use of the test kits, however, several required additional practice and training before being able to use the kits to make harvest decisions.

The combination of workshop and proficiency testing provided in this project has built confidence, capability of users, and capacity in the rapid testing procedure, for both industry in the short term and potentially for regulators in the longer term. It has also highlighted the





need for experience in the kit use, and the dangers in using the kit without adequate training and practice.

The project will benefit the whole bivalve shellfish industry, including small exporters, producers, and retailers. Benefits to small exporters are through maintaining market access to key export destinations, particularly sensitive markets like Japan and Hong Kong, and reducing market access costs. The tests are cheap enough and fast enough that exporters could test every batch leaving their premises for less than \$30 per test, and have a result within 30 minutes, significantly reducing business risk. The result should lead to a significant reduction in the number of biotoxin recalls experienced by Tasmanian growers, and subsequent protection of the reputation of the state Shellfish Quality Assurance Programs, and international market access.

In the 2015-2016 financial year the shellfish industry conducted 3835 biotoxin tests, the majority of which were for paralytic shellfish toxins (ASQAAC minutes, October 2016) at an estimated cost of \$1million dollars. Only 10% of these were positive. If 50 % (SafeFish estimate) of these tests are PST tests taken to confirm a low risk, then \$500,000 per annum could be saved if it is possible to incorporate screening tools into state regulatory programs.

Technical advice to the Seafood Industry, regulators and Laboratories relating to correct methods to calculate and report on paralytic shellfish toxins in seafood

Paralytic shellfish toxins (PST) are a complex group of over 57 different analogues, all related to saxitoxin, but with variable toxicity to humans. Domestic and International Standards require that PST are reported as one concentration, in milligrams saxitoxin equivalents per kilogram (mg STX equiv. /kg) seafood. The current method for analysing PST in Australia is the Lawrence method (AOAC 2005.6). This method provides results as individual analogues in micrograms per litre (ug/L). SafeFish contracted Pth Consultancy to provide independent expert advice on the procedures to use to ensure that Australian laboratories were uniformly

reporting PST in accordance with domestic and International standards, which are slightly different. This advice included the selection of appropriate toxic equivalency factors. The advice was provided to all shellfish quality assurance programs, laboratories and industries undertaking marine biotoxin testing (shellfish, rock lobster and abalone industries).

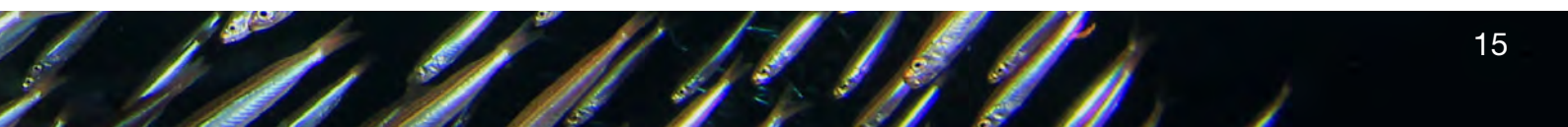
Continuation of the Harmonisation of biotoxin regulatory limits for bivalves with international standards

At the November 2016 ASQAAC meeting, SafeFish was requested to resume progressing the FSANZ submission on harmonising biotoxin regulations in Australia (an application had previously been started in 2015 but was never completed due to lack of resources). SafeFish facilitated a number of meetings with FSANZ to progress the application, and at the 2017 ASQAAC meeting a workshop was held to answer questions that had been identified throughout the process that aimed to define the scope of the application going forward. At this workshop, ASQAAC could not agree on whether a submission for harmonisation should be proposed to FSANZ, so it was requested that SafeFish collate toxin data for all states to get a better understanding on the effect of changing the regulations. Due to the unfunded nature of this work, delays in its completion have been significant. ASQAAC has since requested SafeFish include the potential submission in the 2018 prioritisation process; if it is selected as a priority it will be progressed through the SafeFish work program.

Microplastics in Seafood

Following a number of public enquires and ongoing media attention around this issue, SafeFish was requested to undertake a small literature review to determine how widespread the issue of microplastics in Australian seafood was, the risks and impacts it may have for the industry, and to document current international activities in this area. This document was presented to the SafeFish partners at their July 2017 meeting where it was discussed and deemed as an emerging issue that would be monitored. Following these discussions, it was also requested that the literature review be turned into a simplified fact sheet for industry and put on the website for information.

In early 2018, SafeFish was approached by the University of Adelaide to collaborate on an FRDC proposal for funding for a project around marine plastic pollution in seafood. The proposal aims to determine





the presence of plastics in Australian seafood sold for human consumption, how this varies across the country (including from metropolitan and non-metropolitan markets), as well as placing the presence/absence of plastics in seafood into the international context to determine how bad the situation is in Australia. SafeFish was involved in drafting the proposal and would assist in the dissemination of information through the correct channels, and have a role on the steering committee should the project be approved.

A fact sheet on Microplastics in Seafood is available on the SafeFish website: <http://safefish.com.au/Reports/Food-Safety-Fact-Sheets/Microplastics-in-Seafood>

Assistance in managing food safety incidents

SafeFish provides technical assistance in the form of incident response advice & management, to industry and regulators to enable them to appropriately manage food safety incidents when they arise. For the 2017-18 period, SafeFish has continued to provide assistance with managing the toxic paralytic shellfish poison bloom that occurred on the East Coast of Tasmania, which

has had impacts on bivalve, abalone and rock lobster fisheries.

TRAINING AND WORKSHOPS

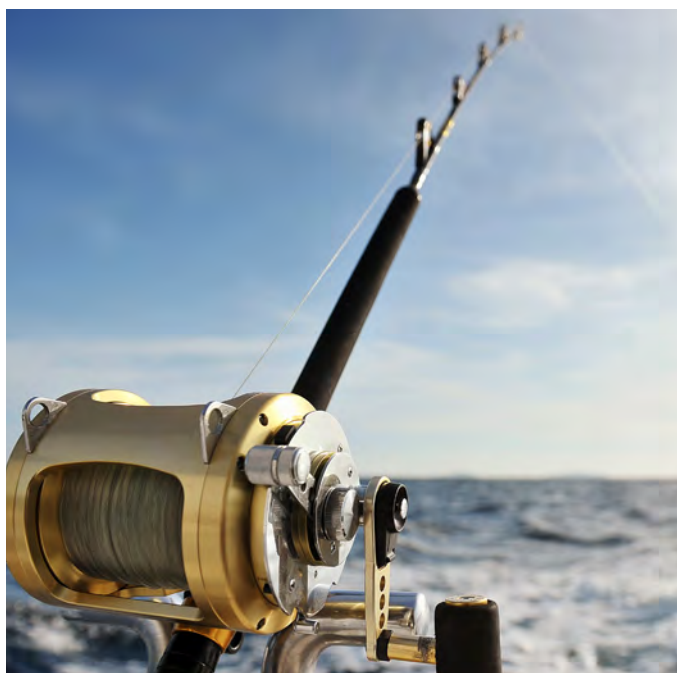
Ciguatera Expert Teleconference

Following a call from the FAO/WHO for information relating to ciguatera, in March 2018 SafeFish facilitated a teleconference bringing together fourteen participants with expertise on ciguaterins from industry, regulatory bodies and research facilities. The teleconference identified available Australian data that was suitable to collate (including ownership, method of collection and resources of collection). SafeFish then worked with data owners to compile a submission, ensuring the outputs of FAO/WHO risk assessment were relevant to the Australian situation.

The FAO/WHO risk assessment may result in guidelines for risk reduction of ciguatera fish poisoning, however there are still many issues to resolve prior to implementation of a food standard (e.g. methods of analysis, and availability of toxin standards for analysis). An exciting outcome of this process was that all participants have agreed to continue to be involved in the working group to facilitate future research and a nationally consistent outbreak response to ciguatera.

Industry Training on Neogen Test Kits to Detect Biotoxins

In early 2018, in collaboration with Seafood Training Tasmania and the University of Tasmania, SafeFish provided training for 25 participants from the Tasmanian shellfish industry on how to use the rapid test kits and readers to detect biotoxins. Equipment (50 test kits and 7 readers) were purchased as part of a Department of Agriculture and Water Resources grant (see above) and are now available in every growing area on the east coast of Tasmania. The provision of Neogen readers and kits and training of growers in their use, has enabled businesses to take control of biotoxin risk management at the farm level, enabling them to make their own decisions on harvest sales. The cost (up to \$30,000 per recall) and impact of biotoxin recalls can now be avoided through the actions of the growers themselves.



The provision of testing equipment in every high risk growing area in Tasmania has allowed a significantly greater rate of testing than would otherwise have occurred. The large number of growers trained means that they will now be able to help each other with both technique and equipment when required.

COMMUNICATION ACTIVITIES

Stakeholder updates

Following partner meetings, quarterly updates are provided on the activities and key outputs from the last period to all seafood stakeholder associations that request to be kept informed via this medium. The following quarterly updates on activities and technical work was provided to industry stakeholder associations meetings and can be accessed from the SafeFish website: <http://safefish.com.au/Media-Centre>:

- An overview of SafeFish activities was provided for publication in the Seafood Trade Matters newsletters (September 2017; January, April and July 2018).
- An update of SafeFish projects was also provided multiple times per year on request to SRL, ACA, MIA, Oysters Australia and the Sydney Fish markets board meetings to inform them of the work that was being undertaken
- From July 2017, communiques have been produced following each partners meeting, detailing the main discussion points. These are distributed to relevant stakeholders (via direct dissemination and through the website).

Website

The SafeFish website was updated and migrated to a new back-end operating system in 2017 to assist with design and functionality issues that the Secretariat was encountering. It was also re-designed to follow a similar theme/layout to the FRDC and other partner websites to ensure consistency across the board and brand recognition. In early 2018 a redesign of the reports page was commissioned to improve the search-ability function, by introducing filters by category and species. This will enable users to find and link to reports more easily.

An update on the most commonly visited/downloaded content accessed via the website and the demographic of users was presented at each partners meeting to demonstrate the value of the website as a communication tool to SafeFish stakeholders. **In the 2017-2018 period, there 1,600 hits to the SafeFish website (with approximately 300 monthly, 80 weekly and 20 daily users).** The most popular pages visited were the homepage and the technical program section and the main demographic of users were from Australia, the USA and China.

Enquiries to SafeFish

SafeFish provides responses to technical enquiries around food safety and market access to industry, regulators and consumers on demand. For this financial year, SafeFish received 22 separate enquiries, most of which were issue based and involved the Secretariat providing advice on appropriate contacts in the field or where to get further information around the topic. Other enquiries received were notifications of potential emerging issues.



FINANCIAL REPORT

The total costs for SafeFish in 2017-18 were \$266,964. The breakdown of where these funds has been spent are as follows:

	Income \$	Expenditure \$	Carried Forward \$
Governance	16,400	16,775	
Codex	5,000	6,400	
Tech Reports	68,000	11,250	
Comms, extension and training	12,266	23,950	
Salaries and on-costs	171,824	208,589	
Total	\$273,490	\$266,964	\$6,526

COMMENTS

The majority of the technical reports were done in-house and thus appear as salary.

These figures exclude the \$159,000 in-kind salary contribution by SARDI, as well as the in-kind salary contributions from the SafeFish partnership members.



SAFEFISH: SWIMMING INTO THE FUTURE

The FRDC and industry bodies (ACA, AAGA, ACPF, AMIA, OA, SRL, Sydney Fish Markets, TSGA and FRDC RACs) have agreed to fund SafeFish for a further three years to enable a continuity in the services and protection to the Australian seafood brand that the provision of SafeFish services offer (this also includes continued in-kind support from SARDI and the respective agencies for the current SafeFish partners). At the April 2018 SafeFish Partners meeting, the participants reviewed the current SafeFish model of operation to assess if this was still appropriate given the change in funding arrangements going forward. The SafeFish partners recommended:

- the model of operation should not change
- SafeFish should work to broaden the stakeholder base and increase avenues for input
- financially contributing industries as well as all other SafeFish stakeholders should be invited to be involved in the generation of the SafeFish work program through the formal prioritisation process. This is scheduled to occur in July 2018 and will set the technical work programme for SafeFish for the 2018-19 period.

- The format for prioritisation should enable more industry involvement and transparency within this process.

A significant difference in the operation of SafeFish post June 2018 is that there will be increased funds to cover salaries and technical work. Dispersion of the technical funds is now at the discretion of the partnership members (depending on what issues of priority are identified each year) giving a lot more flexibility to what research can be progressed.

The team at SafeFish are excited to be able to continue to provide our services for the Australian seafood industry for another three years. By working together in a cohesive manner, our excellent reputation of having safe, high quality seafood products can be maintained well into the future.



**For more information on
SafeFish or its activities,
please feel free to contact us.**

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