



# FRDC STAKEHOLDER BRIEFING

## March 2020

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## CORONAVIRUS UPDATE

Coronaviruses are a large family of viruses known to cause respiratory infections. These can range from the common cold to more serious diseases such as Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS).

The Coronavirus (COVID-19) global pandemic is a fluid situation that is impacting all aspects of our lives, with varying impacts across Australia and the world. It is important people seek the best, most up to date information:

- The Australian Department of Health updates the [‘Health Alert’ page](#) every day with the latest medical advice and official reports.
- For questions about testing or the welfare of people with the virus, contact your [state or territory health authority](#).
- The [Australian Health Protection Principal Committee](#) makes decisions on immigration and travel policies to manage international health risks on behalf of the Australian Government.
- Australians travelling overseas are encouraged to regularly review the [Smartraveller website](#) and subscribe for updates.
- The Coronavirus Health Information Line is available to call 24hrs, 7 days per week for information on Coronavirus 1800 020 080.

The information below is from <https://www.health.gov.au/resources/publications/coronavirus-covid-19-frequently-asked-questions>

## FRDC Response

Since January the staff and Board have been closely monitoring and planning how best to address the COVID-19 outbreak. We will provide updates as they come on a [COVID-19 page on the FRDC website](#).

The starting point for FRDC is the welfare and safety of the staff and our stakeholders.

*Safety First - The FRDC is strongly committed to a policy that facilitates work activities being carried out safely, and that enables all possible measures to remove (or at least reduce) risks to the health, safety and welfare of its employees, contractors, volunteers, visitors so far as reasonably practicable.*

The situation remains fluid, with changes occurring regularly. The FRDC will review and update its policies and actions as often as needed, providing updates via the website.

As of Monday 16 March, the FRDC staff were provided with the following guidance:

- Minimise face to face meetings – opt for telephone or digital meetings.
- Attendance at any meeting of 10 people requires the Managing Directors approval.
- All staff travel (interstate) is to be minimised and will require Managing Directors approval.
- No international staff travel – see note on bursaries below.
- Staff will be provided the tools to work from home.
- It is important staff who are unwell with flu symptoms (potentially COVID-19) need to be mindful they can impact on both staff and family.

The FRDC will continue to monitor the situation with regards other meetings and conferences scheduled for later in the year.

### - **Trade Bursaries and Leadership Programs postponed**

Due to safety concerns and travel restrictions On Tuesday in consultation with the team decided that it was in the best interest of all to cancel the 2020 seafood trade bursary and leadership bursaries to Brussels. He notified the participating countries – US, UK and Canada of our decision. To highlight

the speed of decisions, over the following days, Seafood Expo Global (Brussels) was cancelled and all travel from the US to Europe was also cancelled. FRDC has also cancelled the bursaries for the June World Recreational Fishing Conference to be held in Rotterdam. The National Seafood Industry Leadership Program is also postponing all the sessions. We will continue to monitor the situation with regards the two big international conferences scheduled for later in the year.

Due to rising health concerns and travel restrictions the FRDC decided that it was in the best interest of participants to cancel all International Travel Bursaries until conditions improve. This includes the 2020 Seafood Trade Bursary to the Seafood Expo Global (Brussels) and the World Recreational Fishing Conference to be held in Rotterdam. The National Seafood Industry Leadership Program is also postponing sessions.

#### - **FRDC Projects**

The FRDC are aware that the current COVID-19 restrictions may impact on researchers and staff working on projects. As noted above, the FRDC focus is on ensuring the health and wellbeing of all our stakeholders. If you are working on a project and activities such as fieldwork are likely to be impacted by the COVID-19 restrictions, just send an email to [frdc.programs@frdc.com.au](mailto:frdc.programs@frdc.com.au) to request a variation outlining what aspects of the project are likely to be delayed.

The FRDC staff will be catching up on project management activities during this period. This could also be an opportunity for our project investigators to also use this time to catch up on any reporting that may be due such as milestone and draft final reports. These can also be sent to [frdc.programs@frdc.com.au](mailto:frdc.programs@frdc.com.au) for us to process and review.

#### - **Free version of Microsoft Teams collaboration software**

As noted above the FRDC is trying where possible to move from face to face meetings over to teleconferences. Although you can join FRDC hosted Teams meeting without signing for a Teams account, Microsoft, as part of their [response](#) to the COVID-19 outbreak, is making freemium versions of Teams available for free. It is a good opportunity to [sign up for a free account](#) if you do not already have one to make use of added collaboration features and reduce some face to face meeting time.

#### - **Fisheries Management COVID-19 Response**

Government and Fisheries Agencies across Australia are all looking at the issue – both internally and externally. Each jurisdiction is looking at the options for assisting industry to deal with and manage the impacts of the pandemic. For information on assistance being provided, stakeholders are encouraged to contact their relevant fisheries management agencies. The Seafood Trade Advisory Group (STAG) is providing updates on the impact on trade in particular the China market – the updates can be found at: <https://seafoodtradeadvisory.com/>

#### - **Food safety**

FSANZ is reporting that previous experience with outbreaks of illness due to MERS-CoV, SARS-CoV and other respiratory viruses (e.g. avian influenza) suggest that novel coronavirus may have been transmitted from animals to humans. However, transmission through food is unlikely and there is no evidence of this occurring with novel coronavirus to date.

Investigations to identify the source of the outbreak, the extent of spread of the infection, and mode(s) of transmission are continuing. FSANZ will continue to monitor developments and liaise with the Department of Health, the Department of Agriculture, state and territory health authorities and international counterparts to assess the possibility of foodborne transmission of the virus.

The National Fisheries Institute in the United States have developed the [Seafood Safety and Covid19 website](#) which provides some helpful information, frequently asked questions (with great authoritative references from international food safety authorities) and key messages, all focused on seafood safety and Covid19.

## **FRDC Chair Changes**

The Hon. Ron Boswell's resignation as Chair of the FRDC board was announced in January. The FRDC and community thank Ron and acknowledges his exceptional commitment and contribution to the Australian fishing and aquaculture sectors.

During his long-serving career in the Australian Senate, Ron Boswell had a well-known passion for the fishing and angling sectors. And in 2016, he joined the FRDC Board where he has worked actively with the fishing sectors – commercial, recreational and Indigenous – overseeing significant improvements, growth and change.

### ***Welcome John Williams the new FRDC Chair***

Mr John Williams has been appointed the FRDC Chair from 10 March 2020. John Williams was elected to Federal Parliament in 2007 as Senator for NSW and was sworn in on 26 August 2008.

John was born in Jamestown SA, but has lived most of his life in the Inverell district in the New England region of NSW. Prior to entering politics, he had been a truck driver, shearer, farmer and a small business owner.

With this background, John understands regional Australia and the issues small business operators deal with every day. John is a strong advocate for the reduction of red tape in small business to allow businesses to not only survive and compete but to grow and prosper. His vision is for regional Australia to obtain adequate funding to maintain rural communities and facilities, and maintain the way of life so many people enjoy.

## **Ministerial Changes**

David Littleproud has taken over as Minister for Agriculture after the resignation of Senator Bridget Mackenzie on 2 February 2020. Senator Jonathon Duniam is continuing in his portfolio of Forestry, Fisheries and Regional Tourism.

## **Federal Government Department Changes**

The Departments of Agriculture and Environment have been merged to create the Department of Agriculture, Water and the Environment. The restructure was announced by Prime Minister Scott Morrison December 2019 and the new department commenced operations on 1 February 2020

The new department has brought together the former Department of Agriculture and the environment functions from the Department of the Environment and Energy. The reform is a merging of departmental resources, not portfolios which are held by Ministers David Littleproud (Agriculture, Drought and Emergency Management), Sussan Ley (Environment) and Assistant Minister Jonathon Duniam (Fisheries, Forestry and Regional Tourism).

## **FRDC Funding Round Update**

The latest open call funding round for the FRDC closed on 16 February. There were around 50 applications received which will now be assessed by the RACs, IPAs and subprograms during their March/April meetings with some of these now being held by teleconference.

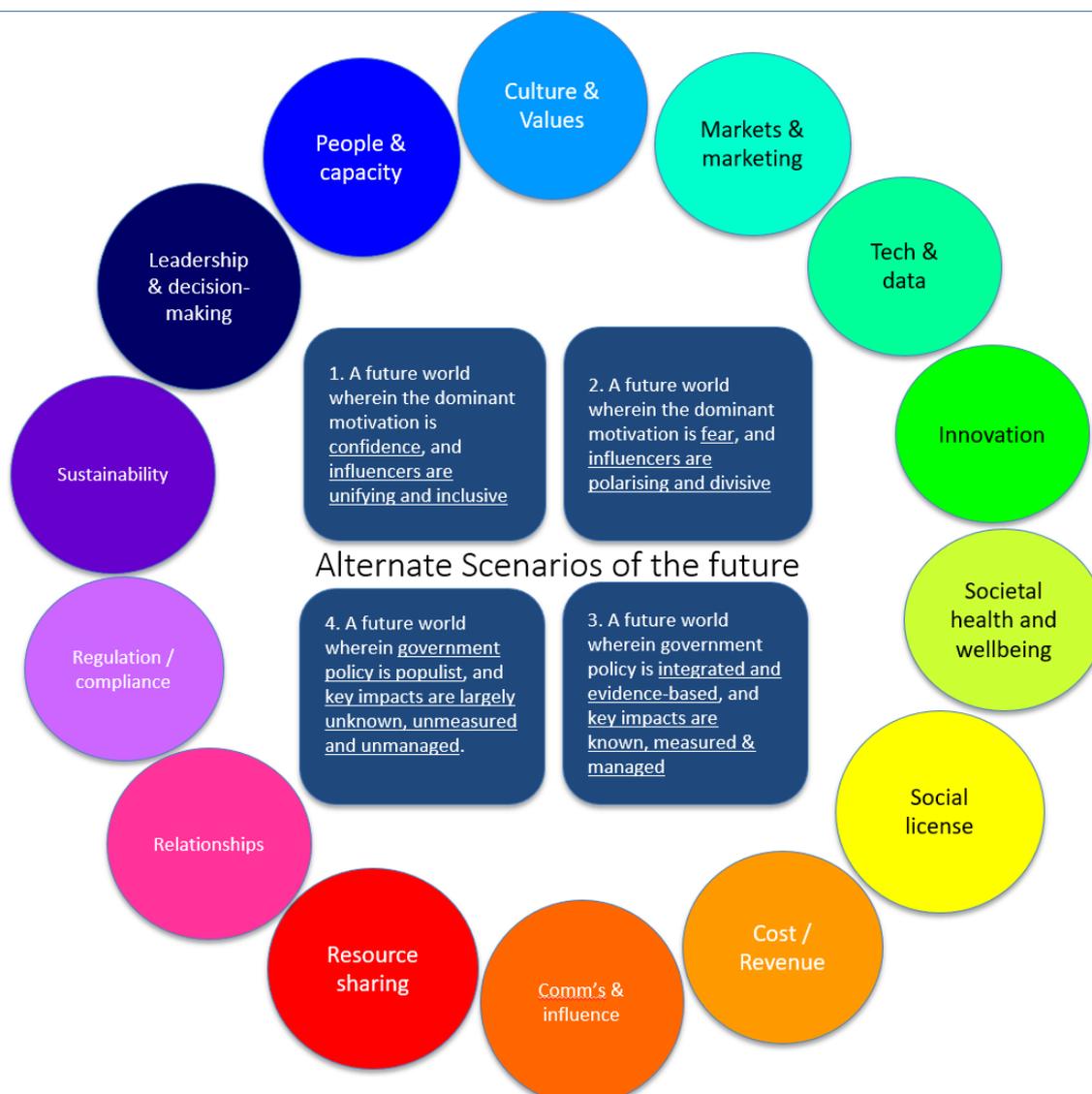
FRDC's process of evaluation now involves an external review of applications when recommended for approval by the RAC/IPA/Subprogram. This review occurs prior to the formal evaluation by FRDC. Applicants can expect to be informed of the next stages of their application evaluation after the RAC meetings and external reviews have been completed.

## **FRDC's next Research Development and Extension Plan 2020-2025**

FRDC is on track to produce its plan for 2020-25 by mid 2020. The plan will outline key result areas that FRDC will work towards in collaboration with our stakeholders over the next five years, through investment in research, development and extension (RD&E), with performance indicators to monitor progress.

Consultation to inform the new plan has been extensive, comprising approximately ten workshops over eight months involving participants from across each of the five sectors of the fishing and aquaculture community, fisheries managers, researchers and conservation NGOs.

Workshop participants collaborated to develop and later explore alternative scenarios of the future, and insights and implications were recorded and collated into 14 themes.

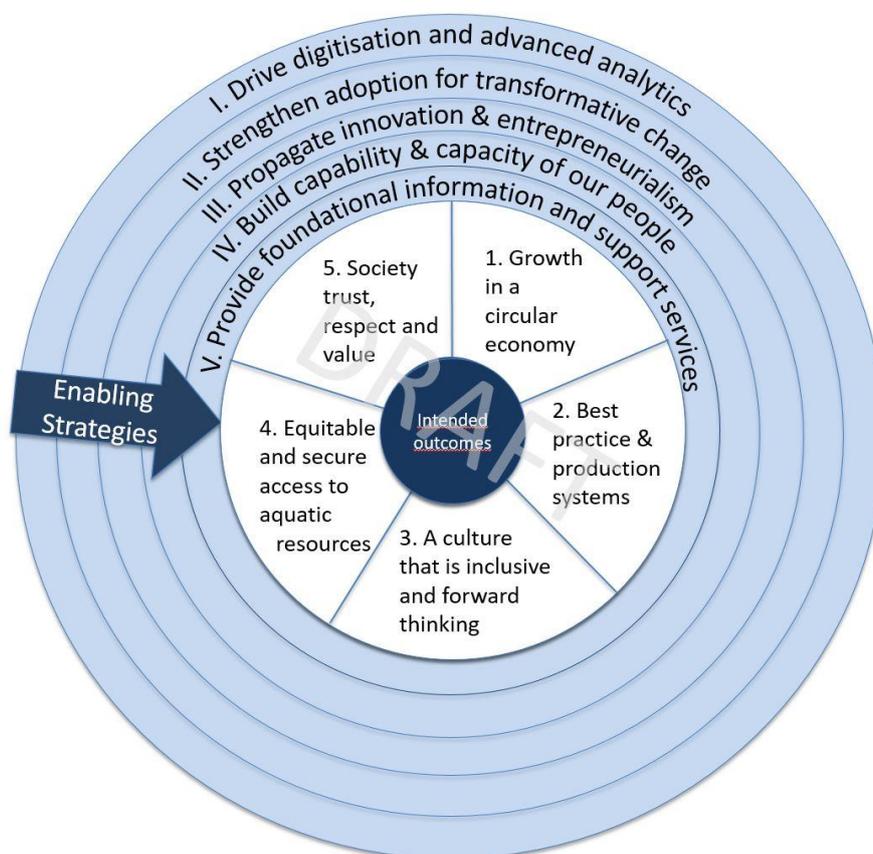


Themes identified were then used in defining clear, ambitious intended outcomes, to form the basis of FRDC's 2020-25 draft RD&E Plan, summarised below:

## Alternate Scenarios

| Themes   | Intended outcomes   |
|--|---|
| <p>Culture &amp; values, Markets &amp; marketing, Innovation, Cost/Revenue, Societal health &amp; wellbeing, Sustainability, Tech &amp; Data</p>   | <p><b>1 Growth in a circular economy</b><br/>Enduring and balanced ecological, social, economic and cultural growth, for the benefit of society.</p>  |
| <p>Sustainability, Resource sharing, Leadership &amp; decision-making, Social health &amp; wellbeing, Social license, People &amp; capacity, Cost/revenue, Tech &amp; Data</p>   | <p><b>2. Best practice and production systems</b><br/>Continued societal benefit from aquatic resources in a manner consistent with shared principles</p>   |
| <p>Culture &amp; values, Leadership &amp; decision-making, Relationships, Markets &amp; marketing, Resource sharing, People &amp; capacity, Innovation, Societal health &amp; wellbeing, Communication &amp; influence</p> | <p><b>3 A culture that is inclusive, forward thinking and capable</b><br/>A fishing and aquaculture community that is cooperative, diverse, and well equipped to enable growth and adaptability in a complex and uncertain world.</p> |
| <p>Resource sharing, Relationships, Regulation/compliance, Sustainability, Culture &amp; Values, Tech &amp; Data</p>   | <p><b>4. Equitable and secure access to Australia's aquatic resources.</b><br/>Fair and secure access to Australia's marine and freshwater resources, providing certainty and confidence.</p>   |
| <p>Communication &amp; influence, Social license, Relationships, Resource sharing, Societal health &amp; wellbeing, Culture &amp; values, Cost/revenue, Leadership &amp; decision-making, Tech &amp; Data</p>              | <p><b>5. Society and consumers trust, respect and value</b><br/>People feel good about using the products, services and experiences provided by Australia's fishing and aquaculture community.</p>                                    |

To expedite pursuit of the above-described five outcome areas, it is proposed that FRDC invest in five enabling strategies, illustrated by the blue rings in the figure below. Draft enabling strategies focus on allowing the full power of data, advanced analytics and services to be harnessed for future decision-making; increasing impact from investment in R&D; and realising the highest potential of our fishing and aquaculture community.



RDC will be exploring opportunities to meet with Directors of fisheries in each jurisdiction, and key sector representatives during March to discuss insights generated, and seek input to elements of the draft plan, as well as future consultative and investment structures.

The plan will be finalised in June 2020.

We will continue to provide more information on the FRDC RD&E Plan [web page](#). You can also share your thoughts and ideas to [FRDC2025@frdc.com.au](mailto:FRDC2025@frdc.com.au).

## **Innovation Update**

### **EvokeAg**

[EvokeAg](#) was held 18-19 February 2020 at the Royal Exhibition Building in Melbourne. This year FRDC partnered with AgriFutures to sponsor the conference, taking the opportunity to run a panel session, which showcased areas of opportunity within the blue economy space. The panel featured David Carter from Austral, and Pia Winberg of Phycohealth. The FRDC had two stands which showcased the organisation's innovation activities – [Tekfish](#) and [Blue-X](#) – and gave the opportunity to meet investors and stakeholders.

The FRDC is also in the process of identifying challenges faced in the aquaculture, fishing engineering and traceability areas with the view to identifying innovative solutions and investment to help resolve the identified challenges. We will be contacting stakeholders in March and April to help identify these challenges.

For more information on Tekfish and the FRDC's other innovation activities please visit <https://www.frdc.com.au/en/research/innovation>

## **Commonwealth fisheries resource sharing framework: Discussion paper**

The Australian Government is developing a Commonwealth fisheries resource sharing framework to ensure fair and reasonable access among commercial, recreational and Indigenous fishers to our shared marine resources in Commonwealth-managed waters.

The Department has now released the discussion paper for stakeholder feedback. This discussion paper was informed by our consultation with stakeholders over the last 6 months.

Submissions and other feedback will be used to prepare a draft framework, which will be released in the future for further consultation. Subject to travel restrictions the Department intend to hold a workshop and/or some smaller meetings with stakeholders to discuss this later in the year (the stakeholder workshop that was to be held next week has been postponed).

Go to [haveyoursay.agriculture.gov.au/sharing-fisheries-resources](https://haveyoursay.agriculture.gov.au/sharing-fisheries-resources) to access the paper and information on how to make a submission. You can then upload your submission to help develop a draft framework that meets the needs of all stakeholders. Submissions close on 30 April 2020.

## **Impact on seafood sector from recent bushfires**

Many seafood businesses in NSW, Victoria and South Australia have been impacted by the disastrous bushfire season that ripped through large swathes of area near the coast in the summer months. Impacts include direct, such as the loss of the Abalone processing factory in Mallacoota to fire, and other indirect effects such as business disruption and the loss of income due to market access restrictions from road closures, spoilage of product from electricity failure and loss of fishing time.

Furthermore, recent rainfall in bushfire affected areas has further impacted on businesses such as oyster farms through increased sediment flow and water quality issues in estuaries and waterways caused by the loss of vegetation from bushfires. In places like Gippsland there have also been fish-kill events from high rainfall in bushfire affected areas.

If you or someone you know have been impacted in any way by the bushfires, please read the [Australian Bushfire Recovery Factsheet](#) which contains information on who to contact, how to claim the Bushfire Disaster Recovery Payment and what support is available..

## Digital Data Sharing and Collection

The volume of data collected from machinery, sensors and digital technologies has been growing and will continue to do so. Some, if not most, of that data is held or transmitted through by third parties. Steps need to be taken to increase trust and mitigate risks associated with third-parties.

FRDC has authored a discussion [paper](#) to help inform internal policies and strategies to minimise risks and extract value in relation to digital data. It aims to give confidence in relations to data being stored, used and shared to facilitate innovation by:

- Raising awareness around data ownership through copyright, contracts and licensing
- Building trust and confidence through measures to mitigate risks when using third party cloud service providers that stores data
- Highlighting current and future developments in the realm of data sharing

## FRDC submissions: Inquiries and Reviews

The FRDC has made submissions to a range of inquiries and reviews over the past few months. It is important to note that in most cases the publication of the submissions is by the secretariat managing that submission. In all of FRDC's submissions, FRDC has notified that its submission is to be made public. Once they are able to be shared they will be placed on the FRDC web site (<http://www.frdc.com.au/en/about/corporate-documents/submissions>). The recent submission have included:

- House of Representatives [Inquiry](#) into growing Australian agriculture to \$100 billion by 2030
- [Discussion paper](#) on Modernisation of the RDC system
- Senate [inquiry](#) into Impact of Seismic Testing on fisheries and the marine environment
- Tasmanian Legislative [inquiry](#) into finfish aquaculture

There is also a review into the EPBC Act underway.

The statutory review of the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) commenced on 29 October 2019. Professor Graeme Samuel AC has been appointed as the independent reviewer. An Expert Panel will support and provide advice to Professor Samuel on specific issues.

The review will look at how the EPBC Act has been operating, and any changes needed for Australia to support ecologically sustainable development into the future. All Australians are invited to participate in the review. More information can be found at <https://epbactreview.environment.gov.au/> and <https://epbactreview.environment.gov.au/resources/discussion-paper>

## Carp Update

Over the past three years, the Department of Agriculture, Water and the Environment and the Fisheries Research and Development Corporation (FRDC) have been undertaking a world-first program to assess the feasibility of using Cyprinid herpesvirus 3 (the carp virus) as a biological control agent for introduced common carp in Australia, as part of the [National Carp Control Plan](#). In January 2020, the FRDC delivered its assessment for consideration by government.

Noting there are additional pieces of research underway, the department and the FRDC have decided that integrating key research results into a single document will best facilitate assessment and government consideration of the carp virus's potential as a biocontrol agent. As such, FRDC will integrate the outputs of this research into a revised version and provide this to the department by mid 2020.

The FRDC’s National Carp Control Plan is one of several important inputs that will inform a decision by the Australian, state and territory governments on the carp virus. In addition to the FRDC’s work, a final decision on carp biocontrol will require further public consultation and regulatory approval.

## Sea Rogue screening

The FRDC hosted the NSW screening of the short film *Sea Rogue* - a collaboration between the SeSAFE project team and Millstream Productions, funded by the Australian Maritime Safety Authority and the FRDC.

The film captures the powerful story of the loss of the FV *Sea Rogue* off Ballina in 2008; where deckhand Michael Williams swam 15 nautical miles to shore in an attempt to find help and save the crews’ lives. Sadly, the skipper Charlie Picton was lost at sea as a result of the incident.

The screening was held on the 12th anniversary of the loss of the FV *Sea Rogue* in Yamba on 27th February, and is part of a larger national marine safety initiative known as the SeSafe Project (<http://www.sesafe.com.au/>). The goal of this initiative is to raise awareness and improve safety performance in the fishing and aquaculture industry Australia wide.

## CRC Northern Australia Workshop – Opportunities in Northern Australia

During 2019 a CRC Northern Australia funded project “[Aquaculture opportunities in northern Australia: Solutions and Strategies](#)” a workshop was conducted by researchers and aquaculture experts from James Cook University (JCU), CSIRO, Blueshift Consulting, Australian Barramundi Farmers Association (ABFA), Australian Prawn Farmers Association (APFA) and the Indigenous Land and Sea Corporation (ILSC). The aquaculture situational analysis project is one of eight industry situational analyses funded by the CRCNA in 2017/18. Other industries being examined by the CRCNA include the rice, forestry, cropping, horticulture, bush foods, beef, health and infrastructure and communication sectors.

## Key events 2020 – note these events may be impacted by travel restrictions and cancellations

| Date           | Event  | More information  |
|----------------|--|---|
| 28 Jun – 2 Jul | World Recreational Fishing Conference 9, Rotterdam, the Netherlands                                | <a href="https://www.wrfc9.com/">https://www.wrfc9.com/</a>               |
| 5-9 Jul        | Australian Marine Sciences Association/New Zealand Marine Sciences Society 2020 Conference, Sydney | <a href="https://amsa2020.amsa.asn.au/">https://amsa2020.amsa.asn.au/</a> |
| 11-15 Oct      | World Fisheries Congress 2020, Adelaide  | <a href="https://wfc2020.com.au/">https://wfc2020.com.au/</a>             |
| 18-23 Oct      | International Conference and Workshop on Lobster Biology and Management                            | <a href="https://icwl2020.com.au/">https://icwl2020.com.au/</a>           |

Dates for seafood festivals for 2020 can be found on the FRDC FishFiles website <http://www.fishfiles.com.au/Media/Seafood-Festivals>

## FRDC board meeting dates and locations

| Date           | Location                            |
|----------------|-------------------------------------|
| 22-23 Apr 2020 | Canberra                            |
| 15-17 Jun 2020 | Darwin                              |
| 19-20 Aug 2020 | Canberra                            |
| 25-26 Nov 2020 | Location TBA/Canberra or Inland NSW |

## FRDC RAC meeting dates

| Date          | Research Advisory Committee meetings | More information   |
|---------------|--------------------------------------|--|
| 18 March 2020 | QLDRAC                               | See the FRDC website - <a href="http://frdc.com.au/Partners/Research-Advisory-Committees">http://frdc.com.au/Partners/Research-Advisory-Committees</a> |
| 19 March 2020 | VICRAC                               |  |
| 31 March 2020 | SARAC                                |  |
| 2 April 2020  | COMRAC                               |  |

## Projects approved since last update in December 2019

NOTE: some projects may have not yet been contracted

| Project Number | Title   | Applicant   | Principal Investigator | Budget\$ |
|----------------|---|---|------------------------|----------|
| 2018-177       | 'If you don't know where you are going, you'll end up someplace else' - Future proofing the Australian Mud Crab Industry through improved strategic direction       | C-AID Consultants   | Chris E. Calogeras     | 101,563  |
| 2018-180       | Benchmarking for health and productivity in aquaculture.  | Agriculture Victoria  | Tracey Bradley         | 108,620  |
| 2019-005       | Risk analysis to identify and minimise biosecurity risks arising from recycling bivalve mollusc shell waste during shellfish reef restoration projects in Australia | DigsFish Services Pty Ltd                                   | Ben Diggles            | 59,750   |
| 2019-010       | Revisiting biological parameters and information used in the assessment of Commonwealth fisheries: a reality check and work plan for future proofing                | CSIRO Oceans and Atmosphere Hobart                          | Karen Evans            | 189,065  |
| 2019-014       | Can DNA from routine plankton surveys be used to measure fish spawning areas and monitor changes in pelagic ecosystems?   | University of Adelaide                                      | Tim M. Ward            | 408,321  |
| 2019-056       | Assessing the population biology of Black Jewfish ( <i>Protonibea diacanthus</i> ) in Queensland  | Department of Agriculture and Fisheries EcoScience Precinct | Samuel Williams        | 321,754  |
| 2019-070       | Determination of the impacts of direct harvest of coral species in northern Australia   | Department of Primary Industry and Resources (NT)           | Shane Penny            | 360,000  |
| 2019-074       | Engagement for Success: evaluation of engagement events to inform industry management strategies  | OceanWatch Australia Ltd                                    | Lowri Pryce            | 135,450  |
| 2019-075       | Recreational Southern Rock Lobster tagging program – assessing current data and modelling assumptions and approaches to establish a robust estimate                 | University of Tasmania (UTAS)                               | Karlie S. McDonald     | 147,805  |
| 2019-078       | Fishing for change: A social marketing approach to reduce the recreational harvest of Snapper and Pearl Perch in Queensland.  | Currie Communications                                       | Sophie Clayton         | 342,500  |
| 2019-084       | Seafood Marketing Symposium 2020  | Queensland Seafood Marketers Association Inc                | Marshall Betzel        | 40,000   |
| 2019-094       | Southern Ocean IPA - variation to 2018-124: Science to support Australia's Southern Ocean Fisheries 2018-2020. Addition of  | Austral Fisheries Pty Ltd                                   | Rhys Arangio           | 8,991    |

|          |   |  |                     |           |
|----------|---|--|---------------------|-----------|
|          | printing of the Kerguelen Plateau Science Symposium II papers compilation   |  |                     |           |
| 2019-112 | Assessing the impacts of trawl gear on sawfishes in the Northern Prawn Fishery with the aim to identify and test mitigation measures ensuring the long-term sustainability of Sawfish populations in northern Australia | CSIRO Oceans and Atmosphere Hobart                                   | Gary Fry            | 205,782   |
| 2019-129 | Potential transition of shark gillnet boats to longline fishing in Bass Strait - ecological, cross-sectoral, and economic implications  | Fishwell Consulting Pty Ltd  | Ian Knuckey         | 478,931   |
| 2019-140 | Presentation at World Congress of Aquaculture and Fisheries (Xiamen, China) on Biosecurity and Aquatic Animal Health  | Pearl Producers Association (PPA)                                    | Aaron Irving        | 2,000     |
| 2019-145 | Southern Ocean IPA (Austral Fisheries only) - Chemical profiling of Patagonian Toothfish ( <i>Dissostichus eleginoides</i> ) from the Heard Island and McDonald Islands fishery   | Austral Fisheries Pty Ltd  | Rhys Arangio        | 45,568    |
| 2019-147 | Risk factors and management strategies associated with summer mortality in Australian abalone   | Department of Primary Industries and Regions South Australia (PIRSA) | Matthew S. Bansemer | 184,616   |
| 2019-148 | Aquatic Animal Health Training Scheme 2019-2022   | CSIRO Australian Animal Health Laboratory                            | Joanne M. Slater    | 150,000   |
| 2019-151 | Application of a machine learning approach for effective stock management of farmed abalone   | James Cook University (JCU)  | Jan Strugnell       | 115,649   |
| 2019-155 | Southern Ocean IPA - Updating Australia's Southern Indian Ocean Fisheries Agreement Benthic Fishing Impact Assessment   | Australian Antarctic Division (AAD)                                  | Dirk Welsford       | 24,000    |
| 2019-156 | The use of dietary intervention with <i>Ulva</i> to improve survival associated with the incidence of summer mortality on farmed Abalone  | University of Adelaide   | David A. Stone      | 175,249   |
| 2019-157 | Economic Mapping of Australia's Wild-catch Prawn Supply Chain   | Ridge Partners   | Ewan Colquhoun      | 90,151    |
| 2019-158 | Investigate suitability of alternative bleeding practises of Southern Bluefin Tuna ( <i>Thunnus maccoyii</i> ) post-harvest and their impact on product quality   | Nutrisea Pty Ltd   | Trent D'Antignana   | 48,026    |
| 2019-161 | Industry travel bursary to attend the Thirteenth Meeting of the Conference of the Parties to the Convention on the Conservation of Migratory Species of Wild Animals (CMS COP13)  | Atlantis Fisheries Consulting Group (AFCG)                           | Andrew Sullivan     | 12,000    |
| 2019-162 | Western Abalone Divers Association 2020 Quota Setting Workshop: Opportunity for shared understanding of potential TACC setting processes by Western Australian Abalone stakeholders                                     | Western Australian Fishing Industry Council Inc (WAFIC)              | Basia R. Littlejohn | 6,000     |
| 2019-163 | NCCP: Understanding the genetics and genomics of carp strains and susceptibility to CyHV-3  | CSIRO Australian Animal Health Laboratory                            | Peter Durr          | 20,000    |
| 2019-164 | TSGA-IPA: A five-year aquatic animal health research and development program to support the growth and sustainability goals of the Tasmanian salmonid aquaculture industry  | Department of Primary Industries Parks Water and Environment         | Richard Morrison    | 6,913,273 |

|          |  |   |                  |         |
|----------|--|---|------------------|---------|
| 2019-166 | The effects of vitamins and feeding frequency on the extension of the colour shelf life and maintenance of flesh quality of fresh and frozen Southern Bluefin Tuna flesh ( <i>Thunnus maccoyii</i> ) | University of Adelaide                        | David A. Stone   | 368,090 |
| 2019-168 | Integrating indigenous fishing: extending adoption pathways to policy and management   | Peter O'Brien Consulting                      | Peter H. O'Brien | 160,000 |
| 2019-170 | Evaluating the Effects of Seismic Energy on <i>Pinctada maxima</i> Pearl Oysters   | Australian Institute Of Marine Science (AIMS) | Mark Meekan      | 145,103 |
| 2019-172 | RRD4P: FRDC Contribution: Closing the Loop: Black Soldier Fly technology to convert agricultural waste   | Australian Pork Ltd (APL)                     | Denise Woods     | 90,000  |
| 2019-173 | Security of resource access - what is legislative best practice for the commercial seafood industry?   | Seafood Industry Australia (SIA)              | Jane D. Lovell   | 50,000  |
| 2019-174 | Aquaculture Challenge Workshop as part of Tekfish  | Food Futures Company Pty Ltd                  | Christine Pitt   | 40,000  |
| 2019-176 | NCCP: Determination of the susceptibility of silver perch, Murray cod and rainbow trout to infection with CyHV-3   | CSIRO Australian Animal Health Laboratory     | Nick J. Moody    | 188,938 |
| 2019-177 | Monitoring and mitigating interactions with dolphins in purse-seine fisheries; literature review and field trials  | University of Adelaide                        | Tim M. Ward      | 200,000 |
| 2019-204 | AAGA Strategic & R&D Plan 2020-2025  | Ridge Partners                                | Ewan Colquhoun   | 25,422  |
| 2020-011 | Taxonomy of northern Australia's commercially important Ostreidae  | Griffith University Nathan Campus             | Carmel McDougall | 70,000  |