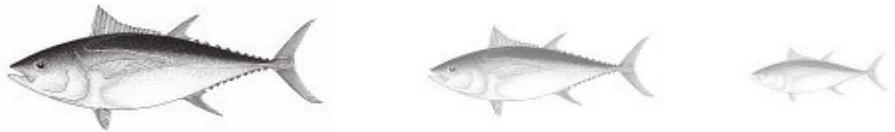


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Editorial



Welcome to our first issue of the year.

Since late April, the PIMRIS team and University of the South Pacific (USP) library colleagues have been working from home following the Fiji Ministry of Health’s advice and rise in COVID-19 infections on Fiji’s main island, Viti Levu. With daily infections now in triple figures and increasing significantly, the return to office is uncertain as vaccination, quarantine isolation and lockdowns continue.

Despite many challenges the USP responded well through the conversion of courses from face to face to online mode for remote teaching, and ensuring the continuation of quality teaching and learning. The efforts were not only successful but rewarding as USP was recently ranked eleventh in Crisis Management by the World Universities with Real Impact (WURI) 2021 global ranking. Congratulations to all involved and especially all students who had to adapt to the changes and restricted learning environment.

We acknowledge all updates and feedback from our members in the last six months although limited due to national priorities, COVID-19 pandemic restrictions and others. We are all in this together and we will emerge stronger and better after the worst passes.

In this issue, we share news from national and regional partners, Non-Government Organisations as well as selected questions and answers from the Food and Agriculture Organisation (FAO) on the impact of the COVID-19 pandemic on fisheries and aquaculture.

Please send us any updates or news you wish to share in our next issue (Dec.) or contact us via email if you need assistance with access to information resources or any of our services. Stay well and safe!

Susana Macanawai, *PIMRIS Coordinator*

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The University of the South Pacific has been ranked 11th in Crisis Management - WURI Ranking System. **More on USP web.**

---Opinions expressed in articles included in the PIMRIS Newsletter do not necessarily represent those of any participants. --

Directory

PIMRIS is a cooperative network of fisheries and marine resources libraries and information centres in the Pacific. Participants include national ministerial libraries and regional agencies listed below.

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New Faces, New Places

Farewell & Thank You!

Ela Qica, Senior Librarian - Customer Services at the USP main library in Suva has decided to retire from work. Ela was previously Librarian – Digitization and has served the USP Library for 25 years. Vinaka and Happy Retirement Ela!



Ela Qica



Martin Burrows

Martin Burows the Coordinator for the Oceania Sports Information Centre (OSIC) has returned to the United States (US) after 5 years with the USP Laucala Library in Suva. We wish Martin all the best for the future.

Daniel Ferrer, returned to the United States in May after serving as Library Systems Manager at the USP Laucala Library. He was previously with the library in 1983. He returned in 2018 to manage the library's (ILS) system change.



Daniel Ferrer

Happy Retirement Daniel!

Welcome!



Amit Kumar

Amit is the new Library Attendant at PIMRIS this year (from February). He joins the team at USP Lower Campus, as part of the USP Laucala library's annual staff rotation programme. Amit has been with USP library since 2012.

COVID-19 pandemic – impact on fisheries and aquaculture: FAO's Q&A

The Food and Agriculture Organisation of the United Nations (FAO) has released several reports on the impact and disruptions caused by the COVID-19 pandemic since early 2020.

Highlighted here are selected questions and answers (Q&A) from the FAO which explains more on how this health pandemic has affected not only businesses but communities and individuals worldwide.



Village women in Fiji fishing, well before the COVID-19 pandemic. (Photo: Wildlife Conservation Society, Stacey Jupiter)

How is COVID-19 affecting fisheries and aquaculture?

The impacts of COVID-19 on the fisheries and aquaculture food systems vary, and the situation is rapidly evolving.

Fish and fish products that are highly dependent on international trade suffered quite early in the development of the pandemic from the restrictions and closures of global markets, whereas fresh fish and shellfish supply chains were severely impacted by the closure of the food service sectors (e.g. hotels, restaurants and catering facilities, including school and work canteens). The processing sector also faced closures due to reduced/lost consumer demand. This has had a significant impact, especially on women, who form the majority of the workforce in the post-harvest sector.

The lockdowns implemented by some countries have resulted in logistical difficulties in seafood trade, particularly in relation to transportation and border restrictions. The salmon industry, in particular, suffered from increased air freight costs and cancellation of flights. The tuna industry has reported movement restrictions for professional seafarers, including at-sea fisheries observers, and marine personnel in ports, thereby preventing crew changes and repatriation of seafarers.

Some shortages of seeds, feeds and related aquaculture items (e.g. vaccines) have also been reported, due to restrictions on transportation and travel of personnel, with particular impacts on the aquaculture industry.

As a result of the drop in demand, and resulting price drops, capture fishery production in some countries has been brought to a halt or significantly reduced, which may positively influence wild fish stocks in the short term. In aquaculture, there is growing evidence that unsold produce will result in an increase of live fish stocks, and therefore higher costs for feeding as well as greater risk of fish mortalities.

In some areas, an increase in retail sales has been reported due to the closure of the food service industry. Canned and other preserved seafood products with a longer shelf life have profited from panic buying at the beginning of the crisis. In some markets, suppliers have developed ways to provide direct supplies to consumers (e.g. box schemes) to replace lost fresh fish sales from established retailers.

There are still many uncertainties ahead, particularly with regard to the duration and severity of the pandemic, but a prolonged market downturn is likely to introduce long-term transformations to the sector.

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Is it still safe to eat fishery and aquaculture products?

Fish and fish products are a key component to a healthy diet and are safe to eat. Misleading perceptions in some countries have led to decreased consumption of these products. Yet, coronavirus cannot infect aquatic animals (finfish, reptiles, amphibians and invertebrates such as crustaceans and molluscs), therefore these animals do not play an epidemiological role in spreading COVID-19 to humans.

While there is no evidence of viruses that cause respiratory illnesses are transmitted via food or food packaging, fishery and aquaculture products can become contaminated if handled by people who are infected with COVID-19 and are not following good hygiene practices. For this reason, as before COVID-19, it is important to emphasize the need to implement robust hygiene practices to protect fishery and aquaculture products from contamination.

What are the implications for the most vulnerable?

The pandemic has created an unprecedented economic, social and health crisis with impacts on the most vulnerable groups including women (harvesters, processors and vendors), migrant fishers, fish workers, ethnic minorities and crew members. Many individuals are not registered, operate in the informal labour market with no labour market policies, including no social protection and no access to relief package/aid. These conditions might exacerbate the secondary effects of COVID-19, including poverty and hunger.

The small-scale fisheries sector is trying to make ends meet, to continue fishing and provide locally-caught fresh fish, but it is experiencing great difficulties due to the closure of markets, limited storage facilities, falling wholesale fish prices and new sanitary requirements and physical distancing measures. Because of these difficulties, many activities have been reduced. The reduction of fishing and fish farming activities will reduce the amount of fish available for processing and trade. Furthermore, mobility restrictions will adversely affect the transfer of fish to markets. This will particularly impact women, who are mostly in charge of these activities.

What are the implications in particular for women?

Self-isolation and restriction of mobility reduce demand for fish and fish products, which has negative economic impacts on women's livelihoods and income immediately (harvesting, processing and trading), and in the future. In addition to a lack of economic opportunities, women fish vendors may be exposed to a greater risk of infection, since markets are a place of close contact and have limited sanitation and hygiene facilities. This is all the more fundamental in view of women's decreased job security, especially those informally employed in the fisheries and aquaculture sectors and migrant workers in seafood processing factories. They are thus unlikely to be eligible for, or have access to, social protection benefits offered by some governments to handle the COVID-19 outbreak.

Moreover, lockdowns and mobility restrictions may modify the dynamics and power relationships between men and women within fisherfolk households and communities. It is therefore recommended that special attention and support be given to women and children who are particularly vulnerable to sexual exploitation and abuse in times of crises.

As was also observed during the 2013–2016 Ebola outbreak in West Africa, a surge of domestic and family violence cases has already been observed in Australia, China, Indonesia, Italy, Malaysia, Singapore, the United Kingdom of Great Britain and Northern Ireland, and the United States of America as a result of confinement measures.

(More info. Q&A: COVID-19 pandemic - impact on fisheries and aquaculture | FAO | Food and Agriculture Organization of the United Nations)

Pacific Community's Heads of Fisheries meeting prioritises scientific knowledge



SPC's Heads of Fisheries meeting in early June was held virtually. (Image: SPC web)

The thirteenth (13th) Pacific Community (SPC) Heads of Fisheries Meeting held virtually in early June has concluded with a focus on key priorities of enhancing scientific knowledge and technical tools to better serve Pacific Island people in the coming years.

More than one hundred participants from twenty-two Pacific Island countries and territories consisting of Heads of Fisheries, senior fisheries managers, field officers, fisheries officers, donors, other regional agencies, and non-government organisations discussed the emerging priorities for fisheries and aquaculture in the region.

These priorities are being aligned to the SPC member needs in the post-COVID recovery environment, which includes digital transformation to enhance safe and secure access to fisheries data, the Pacific Framework for Action on scaling-up Community based Fisheries Management, and the availability of scientific knowledge about climate change impacts to inform fisheries management decisions.

“Improving scientific support for the Pacific fisheries includes the development of web portals and data visualisation tools, as well as the application of Artificial Intelligence in electronic monitoring to improve data collection,” explained Neville Smith, SPC Fisheries, Aquaculture and Marine Ecosystem (FAME) Division Director.

“Enhancing existing strategic scientific assets will unleash the potential to perform genetic and ecosystem analyses to answer specific scientific questions from members and to build capacity in the region.”

This year's Head of Fisheries meeting was chaired by the Acting Deputy Assistant Secretary for International Fisheries at the National Oceanic and Atmospheric Administration (NOAA), Alexa Cole.

Dr Cole acknowledged that the United States was pleased to chair the thirteenth Heads of Fisheries meeting and seeing the impressive scale of work done by the Pacific Community and members.

Also discussed and endorsed at the meeting was the draft Pacific Framework for Action on scaling up Community-Based Fisheries Management (CBFM).

The Framework for Action acts as a tool to strengthen coastal communities' efforts in managing their fisheries resources in recognition of the diversity of context among Pacific Island communities.

At the conclusion of the four-day meeting, the Heads of Fisheries refined and endorsed the SPC FAME's work priorities for 2021 and beyond. The outcomes of this meeting will be submitted to the upcoming regional Fisheries Ministers' Meeting in July.

(Adapted from SPC News)

Traditional Fijian leaders meet to plan management of their Qoliqoli

Eight Fijian traditional leaders from Fiji's western division, agreed to establish their traditional networks of Marine Protected Areas (MPA) or 'Qoliqoli' and a Qoliqoli Trust Fund with a Deed of Trust, in a recent meeting.

Traditional leaders for the Yavusa (tribes) of 'Tikina ko Nacula' and 'Tikina ko Yasawa' who share the same 'qoliqoli' or fishing area, located on the western end of Fiji's iconic Great Sea Reef, met for the first time under the visionary leadership of the Turaga



During the meeting of the Yavusa Tikina ko Nacula and Tikina ko Yasawa and hotel/resort operators. (Photo: WWF-Pacific)

na Tui Drola, Ratu Manasa Naikasowalu. The meeting was to discuss opportunities, plan and unite towards a common vision of managing their 'qoliqoli' sustainably.

They also nominated representatives from each tribe as part of the process for establishing the trust.

The eight traditional tribes are Yavusa ko Rara, Yavusa ko Yasawa, Yavusa ko Bouwaqa, Yavusa ko Natubasa, Yavusa ko Tamasua, Yavusa ko Drola and Yavusa ko Vanuakula.

Also invited to this meeting were representatives from the local hotel and tourist operators including Blue Lagoon Beach Resort, Coconut Beach Resort, Coral View Islands Resort, Nabua Lodge, Nanuya Island Resort, Oarsman Bay Lodge, Turtle Island Resort and Yasawa Island Lodge.

These local hotel and tourist business operators were also part of earlier meetings with the Tui Drola, Ratu Manasa Naikasowalu and newly elected Mata ni Tikina for Nacula (district representative) Mrs Lavenia Naivalu in the lead up to the traditional leaders' meeting.

The meetings with the private sector had aimed at exploring opportunities for their support towards the implementation of the Fisheries Management Plan for Nacula and Yasawa.

During the meeting, the leaders and representatives agreed on several fisheries management rules including the phasing out or banning of all night diving fishing activities, restricting the number of fishing licenses issued, the banning of scuba fishing as well as dynamite fishing activities.

Also discussed and agreed to during the meeting is the adoption of the 'ridge to reef' management approach to help manage and sustain their marine resources.

The Ridge to Reef approach areas discussed includes the reforestation of mangroves and degraded forest areas, sustainable agriculture and banning the burning of land as a land preparation method before planting.

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In addition, the meeting agreed to explore opportunities to strengthen food security, increase awareness on climate change, and adaptation and improve livelihoods such as up- scaling best practices from the WWF-Pacific's project to the Tikina ko Yasawa, called, "Living with Change".

Nine representatives from the hotel & resort business in attendance jointly presented their request for the leaders to endorse their proposed MPAs and partnership moving forward.

The eight Yavusa leaders agreed and gave their blessing for the hotel and resort operators as part of the network of MPAs within the qoliqoli, to set up their MPAs in front of the resort foreshore areas.

The hotel and resort operators also pledged a small token of appreciation to be deposited into the Qoliqoli Trust Fund.

More meetings will be planned in the future between the private sector and the eight Yavusa to discuss matters relating to the Qoliqoli Trust Fund.

There will also be more consultations and meetings with the qoliqoli communities regarding the financing of the Qoliqoli Management Plan, the Fisheries Management Plan, monitoring and enforcement of MPAs and education scholarships as some of the priorities discussed during the meeting.

These are also matters to be included in the Qoliqoli Trust Fund's Deed of Trust that is yet to be finalised.

Some of the facilitators and observers at the meeting commended the preparations, efforts and leadership roles of all involved towards reaching several positive outcomes and agreement. Many of these agreements will greatly benefit the communities of Tikina ko Nacula, Tikina ko Yasawa and Hotel & Resort operators in the future.

Possible benefits included the "increased resilience of these communities towards impacts of Climate Change through sustainable management and use of their natural resources, sustainable sourcing and supply of seafood and other agricultural products to the tourist operators thus improving the local economy of the communities, and lowering of carbon footprints for the local resorts further enhancing sustainable tourism" according to WWF-Pacific's Project officer, Apolosa Robaigau.

WWF-Pacific project team had earlier implemented the 'Living with Change – Resilient Mangroves



Village leaders during the meeting. (Photo: WWF-Pacific).

Mangroves, Fisheries, People" project funded by the German Government, for the Tikina ko Nacula Community. Its Great Sea Reef Programme Manager Alfred Ralifo commended the leadership of the Turaga na Tui Drola and support of the Tikina Ko Nacula Sustainable Development Committee especially the Chair Mr Ame Rokotuibau and Secretary Mrs. Lavenia Naivalu who greatly assisted the WWF-Pacific team with the successful implementation of this project.

(Adapted from WWF-Pacific News)

Micronesian student explores floor of Marianas Trench



Nicoe Yamase on the deck of DSSV Pressure Drop. (Photo: RNZ Pacific – Giff Johnson)

A PhD student from the Federated States of Micronesia has become the first person from her nation and one of the first in the world to explore the ocean floor in the southern end of the Marianas Trench.

Nicole Yamase, a PhD candidate in the University of Hawaii's Marine Biology Graduate Program, went to a depth of 10.7 km in the area known as the Western Pool of the Challenger Deep.

The location of the dive, which took place earlier in March was about 320 kilometers southwest of Guam.

Yamase boarded the vessel *DSSV Pressure Drop* at Apra Harbor in Guam, which transported a submersible known as *the Limiting Factor* to the Marianas Trench location.

"The submersible was piloted by its owner, Victor Vescovo," Yamase said Tuesday after returning to Hawaii.

"It took us four hours to reach the bottom, two hours to explore the bottom, and four hours back up so a total of 10 hours underwater. We explored the eastern part of the Western Pool where, to their knowledge, no one has ever been to before."

Yamase said exploring and mapping the ocean floor in the Marianas Trench was a key part of protecting the health of the world's oceans.

"The work that Victor and his team are doing is very important for us to manage our marine resources and exclusive economic zone (EEZ) in general," said Yamase. "The FSM's EEZ zone is huge!"

She pointed out that on previous mapping explorations to the bottom, "they have also discovered new species, and I am sure there are many more to be discovered. You cannot manage something you don't know about or don't know exists so that is why their work is crucial for us and our oceans."

The *DSSV Pressure Drop* vessel had the first of its kind multi-beam sonar that allowed the ship to map areas of the ocean that have never been visited before, she said, adding that "currently, only 20 percent of the seafloor is mapped."

"This expedition showed me how vast our ocean is. Even though not many people have accessed these depths before, our actions and activities still affect the environment down there. Everything is connected from the mountain tops to the deepest part of the ocean. We must do what we can to protect our waters."



Inside the submersible Limiting Factor close to the ocean floor, Nicole Yamase and pilot/owner Victor Vescovo. (Photo: RNZ Pacific – Giff Johnson).

(More from: Radio NZ News – Pacific)

News from around the region

Solomon Islands Fisheries launches its new website

The Solomon Islands Ministry of Fisheries and Marine Resources (MFMR) recently launched its new website.

Speaking at the launch, the Permanent Secretary for the MFMR, Dr Christain Ramofiafia said the new website will serve as the ministry's platform to showcase who they were and share their core business programmes

Dr Ramofiafia added, "our achievements, responsibilities, obligations and commitments to the fisheries sector and the people of our country will now be shared with others beyond our borders".

The Permanent Secretary of the MFMR highlighted that the new website will also serve as a learning platform for high school and tertiary students who have interests in fisheries made possible through the availability of the ministry's work and information resources online and accessible globally.

"The website will assist us to communicate better and to serve our clients more effectively, said Dr Ramofiafia.

Stakeholders, partners, investors and the local community were encouraged to visit the website and provide feedback on how the ministry can serve them better.

The new website was developed by a local contractor and company, SoloGUIDE Ltd. and supported by the MFMR project team with guidance provided by the government's Information and Communication Technology Support Unit (ICTSU) and Solomon Telekom.



The Solomon Islands MFMR new website that was launched in April. Link: <https://www.fisheries.gov.sb/>



Solomon Islands MFMR Permanent Secretary, Dr Ramofiafia at the launch. (Photo: MFMR News).

The official launch also marks the end or closure of the two-year project which started in late-2019.

A presentation on the different features of the new website was done by Mr Jorge Brechterfield of SoloGuide Ltd.

The MFMR Permanent Secretary acknowledged the New Zealand government for financially supporting the ministry since 2005 through the **Mekem Strong Solomon Islands programme** and its ongoing partnership.

(Adapted from: Solomon Is. MFMR News)

Tuvalu Fisheries hands over RV Tala Moana and welcomes newly trained fisheries observers



Officials signing the papers for the handing of RV Tala Moana in April. (Photo: Tuvalu Fisheries)

In April this year, the Tuvalu Ministry of Fisheries and Trade officially handed over the Research Vessel (RV) Tala Moana to the Ministry of Transport, Energy and Tourism during a ceremony at the Fisheries office in Teone, Tuvalu.

The handing over was officially signed by the Acting Minister of Fisheries and Trade, Hon. Ampelosa Tehulu and Minister of Transport, Energy and Tourism, Hon. Nielu Mieisake.

The ceremony to mark the occasion was opened with a prayer by Reverend Alefaio Honolulu, followed by official speeches.

The RV Tala Moana was a second-hand boat purchased by the United Nations Development Programme (UNDP)'s Global Environment Facility (GEF) funds allocated for the Tuvalu Fisheries' National Adaptation Programme of Action (NAPA) 2 Project. Its purpose was for travels and deliveries to the outer islands mostly for fishery resource assessments and disaster risk management and governance activities.

The Director of Fisheries, Samisoni Finikaso during his speech stated that the RV Tala Moana was managed successfully by the Fisheries Department since its arrival in late 2015 and operated and was maintained from income derived through chartered services for private projects and government agencies.

The thirty-two (32) metre vessel has made over one hundred trips to the outer islands and also took part in local fisheries patrols.

In other developments within the Ministry of Fisheries this year, a total of ten newly trained local fisheries observers have completed their five (5) week course in January.

The nine males and 1 female fisheries observers were replacements for those who have left the Tuvalu National Observer programme and will be the eyes and ears of Tuvalu in their oceanic fishery.

The training which was held at the Fisheries Department office was facilitated by Manoj Kutan, a certified observer trainer and three other trainee trainers.

Mr Kutan stated at the end of the training that, "observer work is for both men and women, so whenever there is recruitment, girls are encouraged to apply".

This training was funded by the Pacific Regional Oceanscape Programme (PROP).

(Adapted from: Tuvalu Fisheries news - website)



The new fisheries observers with their trainers at the end of the training. (Photo: Tuvalu Fisheries)

Seabed Minerals Amendment Bill 2021 passed by Cook Islands Parliament

The Cook Islands Seabed Minerals Amendment Bill 2021 passed in Parliament in March was to make clear that only Cook Islands limited companies may apply for a seabed minerals license or permit.

According to the Cook Islands News and the Cook Islands Seabed Minerals Authority reports, the 2021 amendment was to help tighten potential ambiguity in certain provisions of the Seabed Minerals Act 2019 which could allow a Limited Liability Company (LLC) to apply for a license.

This follows a statement by the Seabed Minerals Authority that one of the four applications they received was by a LLC whilst the other three were Cook Islands registered companies.

Cook Islands Prime Minister, Mark Brown during his address in Parliament said “to allow an LLC to apply for and hold a license would create an uneven playing field, as it would potentially mean that an LLC would not have to comply with certain tax and reporting requirements”.

While putting the Bill before Parliament, Prime Minister Brown added, “we cannot allow that”.

“The amendment sends a message to companies wanting to operate in our waters that they have to play by the rules and that we will not hesitate to take action if we perceive that any company is trying to take advantages of possible loopholes.”

He further added, “it also sends a message to our people and the wider community that again we take our role as ocean stewards seriously. We are building a world leading seabed minerals sector based on best principles and practices, with an effective robust legal framework, to benefit the Cook Islands and our people”.

The Leader of the Opposition, Tina Pupuke Browne supported the amendment and said, “the Opposition’s approach to exploration is consistent with the policy that the government has adopted. It makes sense to the opposition that if we are going to collect data to enable us at some later stage determine as to whether we enter into the second phase, then we need to do that very carefully, and be very sensitive about our environment”.

Prime Minister Brown re-assured parliament that the government will continue to proceed with caution taking actions based on the best available science to manage the Cook Islands seabed mineral resources, while ensuring that the marine environment is protected.

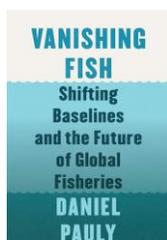
Following the passing of the Amendment Bill 2021 in Parliament, the lone LLC company that applied earlier has been notified of the new requirements and to resubmit their application within the given short grace period.



The Cook Islands parliament in session. (Photo: Seabed Minerals Authority of the Cook Islands website).

(Adapted from Cooks Is. News & Cook Islands Seabed Minerals Authority website)

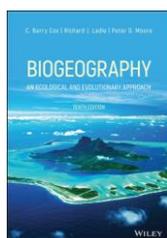
New Books & Useful Online Resources



Vanishing fish : shifting baselines and the future of global fisheries / Pauly, D. Vancouver: Greystone Books Ltd. ©2019. ISBN: 9781771643986.

Vanishing Fish is a career-spanning collection of previously published essays, with some new material, from the pen of fisheries biologist Daniel Pauly who coined this term in 1995. The book gives an eye-opening overview of the state of the world's fisheries.

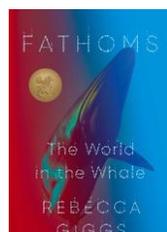
<https://www.nhbs.com/vanishing-fish-book>



Biogeography : an ecological and evolutionary approach / Cox, C.; Ladle, R. & Moore, P. 10th edn. Hoboken, NJ: Wiley, ©2020. ISBN: 9781119486855.

This new edition incorporates the exciting changes of the recent years and presents a thoughtful exploration of the research and controversies that have transformed our understanding of the biogeography of the world.

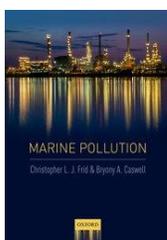
<https://www.wiley.com/en-us/Biogeography%3A+An+Ecological+and+Evolutionary+Approach%2C+10th+Edition-p-9781119486855>



Fathoms : the world in the whale / Giggs, R. New York.: Simon & Schuster © 2019. ISBN: 9781982120696.

In *Fathoms*, we learn about whales so rare they have never been named, whale songs that sweep across hemispheres in annual waves of popularity, and whales that have modified the chemical composition of our planet's atmosphere.

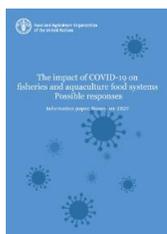
<https://www.simonandschuster.com/books/Fathoms/Rebecca-Giggs/9781982120696>



Marine pollution / Frid, CLJ. & Caswell, BA. E-book published by Oxford Scholarship Online, ©2017. Online DOI: 10.1093/oso/9780198726289.001.0001.

This volume describes the different marine pollutants, the science behind measuring their ecological impacts and how they are monitored in the environment including traditional and new management approaches.

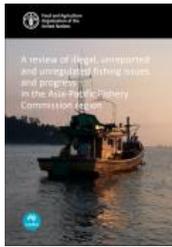
<https://oxford.universitypressscholarship.com/view/10.1093/oso/9780198726289.001.0001/oso-9780198726289>



The impact of COVID-19 on fisheries and aquaculture food systems, possible responses: Information paper, November 2020 / Food and Agriculture Organisation of the United Nations (FAO). Rome, Italy: FAO. ©2021. ISBN: 9789251337684.

The purpose of this information paper is to update information on the COVID-19 pandemic's impact on the fisheries and aquaculture sector and the measures taken, to inform on the ongoing impact on the fisheries and aquaculture food systems, and responses from seafood providers and governments.

<https://doi.org/10.4060/cb2537en>



A review of Illegal, unreported and unregulated (IUU) fishing issues and progress in the Asia-Pacific Fishery Commission region / Wilcox, C.; Mann, V.; Cannard, T. et. al. Bangkok: Food and Agriculture Organisation & CSIRO, c2021.

Illegal, unreported and unregulated (IUU) fishing constitutes a persistent and pressing problem estimated to account for up to USD 23 billion annually in the APFIC area of competence (hereafter referred to as the 'APFIC area'). The effects of IUU fishing can be severe, particularly for small-island and coastal developing states...

<http://www.fao.org/3/cb2640en/cb2640en.pdf>



SPC Fisheries Address Book 2021: Répertoire des pêches de la CPS: 2021 / Pacific Community. Noumea, New Caledonia: SPC, c2021.

The SPC Fisheries Address Book contains more than 1500 individual contacts of fisheries-related people, mainly from the Pacific Islands Region, but also from other parts of the world.

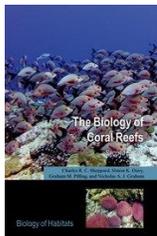
<https://www.spc.int/resource-centre>



SPC Fisheries Newsletter - #164, April 2021 / FAME, SPC. Noumea: New Caledonia: Pacific Community (SPC), c2021.

Produced by the Pacific Community, Division of Fisheries, Aquaculture and Marine Ecosystems, Information Section. (Access the online version – pdf via the link provided below).

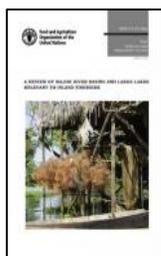
<https://coastfish.spc.int/en/component/content/article/523>



The biology of coral reefs / Sheppard, C., et al. 2nd ed., Oxford, UK: Oxford University Press, c2018. ISBN: 9780198787341.

This book provides an integrated overview of the design, physiology, ecology, and behavior of coral reef organisms. It places particular emphasis on conservation and management due to the habitat's increasingly endangered status and contains updates on the magnitude of environmental issues affecting coral reefs...

<https://global.oup.com/academic/product/the-biology-of-coral-reefs-9780198787358?cc=fj&lang=en&>



A review of major river basins and large lakes relevant to inland fisheries / Ainsworth, R. & Cowx, IG. Rome: Food and Agriculture Organisation, ©2021.

This review presents summary information on 45 river and great lake basins of the world, which support inland fisheries. The information presented is drawn from published information in peer-reviewed journals as well as grey literature. Each basin summary is presented in a common format, covering the description of the fishery, estimates of catch and numbers of people engaged in the fishery...

<http://www.fao.org/3/cb2827en/cb2827en.pdf>

Conferences, Workshops & Events Jul – Dec 2021

- 05 – 06 July **ICAOOAM 2021: 15. International Conference on Acoustical Oceanography, Ocean Acoustics and Modelling, Singapore.**
Web: <https://waset.org/acoustical-oceanography-ocean-acoustics-and-modelling-conference-in-july-2021-in-singapore>
- 05 – 08 July **Pacific Resilience Meeting 2021 - *Our People, Our Journey: Nurturing Pacific Resilience from home.*** (Virtual Meeting). This year's PRM will focus on locally-led action & solutions to climate change and disasters from our region. Web: <https://www.spc.int/events/pacific-resilience-meeting-2021>.
- 22 – 23 July **15th International Conference on Aquaculture & Marine Biology: Sustainable Aquaculture: New Challenges & Strategies** (Webinar), Dubai, United Arab Emirates. Web: <https://aquaculture-marinebiology.conferenceseries.com/>
- 11 – 19 Aug. **17th Regular Session of the Scientific Committee – Western and Central Pacific Fisheries Commission (WCPFC) – (online).**
Web: <https://www.wcpfc.int/meetings/17th-regular-session-scientific-committee>
- 22 – 28 Sept. **17th Regular Session of the Technical and Compliance Committee – Western and Central Pacific Fisheries Commission (WCPFC),** Pohnpei, Federated States of Micronesia (FSM). Web: <https://www.wcpfc.int/meetings/17th-regular-session-technical-and-compliance-committee>
- 04 – 05 Nov. **Global Summit on Marine Science and Oceanography – *Latest advancement in the direction of Marine Life,*** Sydney, Australia. Web: <https://marinescience.conferenceseries.com/>