SDFSA Newsletter – December 2024

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SCUBA DIVERS FEDERATION OF SA, Inc.

Email: info@sdfsa.net or Web: https://sdfsa.net
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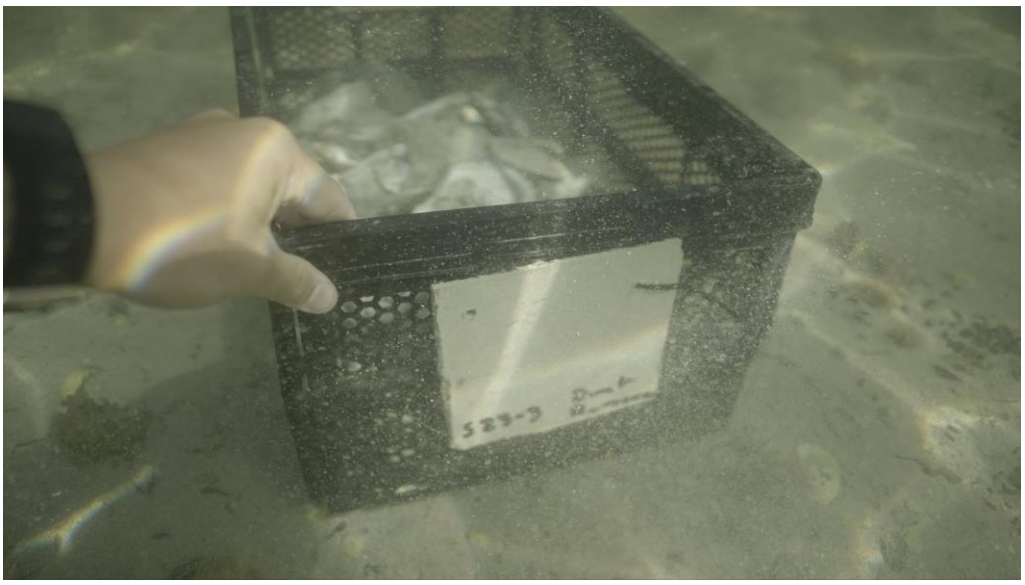
SDFSA Patron:
Dr. Richard Harris



Oyster Reef Restoration image from https://www.eyrelab.org/projects/reviving-coffin-bays-lost-oyster-reefs

In this month's issue

CALL FOR VOLUNTEER DIVERS

The Alexandrina Council is seeking expressions of interest for volunteer diving services at Horseshoe Bay, Port Elliot to help Council maintain a recreational pontoon just off the beach. The Council has been advised that for insurance purposes they must now conduct visual underwater assessments of the pontoon twice yearly. These inspections require the expertise of accredited divers with engineering qualifications to assess the structure. The Council has advised that "In order to mitigate any civil liability as a result of inspection outcomes, divers could be covered by Council's indemnity insurance by becoming registered volunteers of Council". We have attached the letter from the Council with the details.

If anyone is interested or requires further information, please do not hesitate to contact the Council.

CALL FOR INPUT: OYSTER REEF RESTORATION RESEARCH

eyre lab (established by the founders of Coffin Bay Scuba) is running a short, 2-minute survey that they have invited the SA diving community to fill out. According to Manny Katz, Director, "The data collected from the survey will go into a research paper currently being written by Nichole Lindsay, for her Master's thesis at the University of Adelaide. This research report will help advise future marine restoration and conservation efforts in the state, the survey can be found here: https://www.surveymonkey.com/r/TSWGTQR. "

Manny also has kindly provided an update on Coffin Bay Scuba and eyre lab: "Coffin Bay Scuba is no longer operating as a conventional dive shop. Air fills, rental gear, and courses are not available to the public. " The new organisation – "Educating Youth in Restoration Ecology lab" is a non-profit organisation which has been established to:

- promote the awareness and engagement of youth in the field of restoration ecology
- facilitate education and training opportunities for youth interested in environmental stewardship
- conduct research and projects aimed at conserving ecosystems [from: www.eyrelab.org)

eyrelab has "partnered up with Cutty's Glass Bottom Boat tours to offer visitors a way to experience and learn about the work that we are doing…These tours increase education and awareness about marine ecosystems, which is invaluable to the broader diving community. These tours also help enable our research, as they donate a percentage of profits to our causes. " [email, Manny Katz]

Manny is still available as a resource for divers to access information about local dive sites, marine life, and can sometimes be convinced to get in the water.

CALL FOR INTERNS AND TEAM MEMBERS: Rodney Fox & Mark Tozer

The Rodney Fox Shark Museum is being transformed with the launch of the **Rodney Fox and Mark Tozer Marine Conservation and Research Centre**.

Mark Tozer has forwarded the following announcement for sharing with the SA Diving Community. More details will be found on the new website in the near future: http://www.foxtozerconservationcenter.com.au/.

“Rodney Fox and Mark Tozer, both renowned for their lifelong dedication to marine conservation, are excited to announce the launch of the Rodney Fox and Mark Tozer Marine Conservation and Research Centre. This initiative will transform the Rodney Fox Shark Museum and Learning Centre into a comprehensive platform for conservation and research, reflecting a new name and renewed mission. By adopting this updated name, the Centre aims to reach an even broader audience of conservationists, researchers, and environmental advocates, as well as inspire the public to take action for the oceans…

Our oceans, which are essential to life on Earth, are facing unprecedented threats. Climate change, pollution, overfishing, and habitat destruction are all putting immense pressure on marine ecosystems, endangering countless species and affecting global biodiversity. With their combined expertise and shared passion, Rodney and Mark are stepping up to provide a platform that fosters solutions to these urgent issues…

Mark will also be establishing an executive committee of dedicated individuals who will meet once a month to discuss conservation efforts and environmental causes. **In addition, we are actively seeking interns, as well as team members in media, finance, events, IT, and fundraising, all committed to helping make a difference in conservation and research.** Together, we aim to create impactful solutions for our oceans. For more information on the Centre's initiatives or to get involved, please visit www.foxtozerconservationcenter.com.au.”

SPLASH INN 2025 and the SEA STAR AWARD

Thanks to everyone who joined us for our first 3 Splash Inns in 2024, and especially to our guest presenters Mark Tozer, Dr. Richard Harris and Dr. Chris Acott. Splash Inn will resume in 2025 once the summer diving season winds down and the weather kicks up.

Nominations for our new Sea Star award are now closed. We will make the announcement in 2025, with the presentation to take place at the first Splash Inn in March.

IMPORTANT NOTICES

MARINE CONSERVATION TARGET IN THE AUSTRALIAN STRATEGY FOR NATURE

The Australian Government has published the Strategy for Nature 2024-2030, created to halt Australia’s biodiversity loss by 2030 with a path to recovery by 2050. The strategy puts forward six national targets and three ‘enablers of change’:

The targets: 1. No new extinctions; 2. Increase Australia's circularity rate and reduce pollution and its impacts on biodiversity by 2030; 3. Eradicate or control invasive species in priority landscapes and further minimise their introduction by 2030; 4. Priority areas are under effective restoration by 2030; ***5. Protect and conserve*** 30% of Australia's landmass and ***30% of Australia's marine areas by 2030*** [emphasis added]***;*** 6. Minimise the impact of climate change on biodiversity.

Enablers: Mainstream nature into government and business decision-making, including in financing, policies, regulations and planning processes; Ensure equitable representation and participation in decisions relating to nature, particularly for First Nations peoples; and ensure environmental data and information are widely accessible and support decision-making.

You can read the full strategy at https://www.dcceew.gov.au/environment/biodiversity/conservation/publications/australias-strategy-for-nature.

Both Ewens Ponds and Piccaninnie Ponds continue to be closed to the public for water-based activities until further notice. Check the websites at https://www.parks.sa.gov.au/parks/ewens-ponds-conservation-park and https://www.parks.sa.gov.au/parks/piccaninnie-ponds-conservation-park.

SDFSA COMMITTEE BUSINESS

The next meeting of the Committee is Wednesday, 22 January 2025 at the Arab Steed upstairs meeting room.

CONGRATULATIONS TO…

- The Rodney Fox Shark Museum and Learning Centre on recently being named as runners-up for innovators leading the way in science and technology.
- Professor Mike Steer on becoming the new Executive Director of SARDI.
- Gretchen Grammer who is acting in Mike Steer's old role as Research Director at SARDI.
- The Maritime Archaeology Association of WA (MAAWA) which celebrated its 50th anniversary recently.

NEWS FROM SHOPS, CLUBS and ORGANISATIONS

Sea Wolves Dive Days

The Sea Wolves dive club is planning a series of 3 shore dives that will be open to any certified diver to come and join in. The Club wants to offer a dive with a buddy for those divers that struggle to find buddies and so do not dive as much as they would like. The hope is that if Sea Wolves can keep some people diving that would otherwise quit and sell their gear, it creates a good outcome for everyone.

Mark these three Sundays in 2025 in your calendars: 12-Jan, 9-Feb and 2-March. The events will start mid-morning and finish with a sausage sizzle to meet and greet. The plan is to have a number of members attend to buddy as needed, or just have a nice dive then a BBQ.

For more information including venues and times, check the Sea Wolves website at https://www.seawolves.org.au/ or their Facebook page at https://www.facebook.com/SeaWolvesDiveClubSA.

Adelaide Scuba and downunderpix 2024/25 Summer Underwater Photography Competition
Open to all underwater photographers. No entry fee! Photos to be taken between 1 December 2024 and 28 February 2025; Submission deadline 6:00pm 8 March 2025.

From downunderpix Facebook posting:
"Entries in the 4 sections are invited from underwater photographers who may enter up to four images in each of the sections. An image may be entered into only one section of the competition.

1. Open – any underwater image taken in the waters of South Australia.
2. Nudibranch - the subject(s) of the image must include a nudibranch and the image taken in the waters of South Australia.
3. downunderpix Edithburgh Fun Weekend - the image must have been captured under or in the water immediately adjacent to Edithburgh Jetty as part of a downunderpix fun weekend.
4. Adelaide Scuba Boat Dive – the image must have been captured during a dive from a dive boat operated by Adelaide Scuba.

Images may be colour, black and white or monochrome. Images must not have been taken using practices harmful to the subject or the surrounding marine environment including using any method of restricting or manipulating the natural movement of the subject(s)."

MEET YOUR SDFSA COMMITTEE MEMBER

Amanda Biddle – Accidental Diver

Approximately 30 years ago I went to Queensland with a friend for a relaxing week away at their family timeshare. As you do when away we signed up for some holiday activities we wouldn't normally do. My choice – seeing the Great Barrier Reef from under the water, their choice seeing it from above the water - while falling from a plane. Neither activity was a huge hit – the area of the reef we were taken to for our Discover dive was primarily sandy bottom, with few fish, and not particularly pretty, and the sky diving was called off due to high winds (insert sigh of relief due to a significant fear of heights on my part). I thought I would never bother going diving (either kind) again.

I have always had a love for our state emblem the Leafy Seadragon and after many years of dragging the family to aquariums anywhere we travelled to see them and the many other types of seahorse, and talking to a friend who was a US Navy diver, I decided I really would like to see them in their natural environment rather behind glass. So when a milestone birthday came around some 10 years ago I hinted that I would like to do a Discover Dive here in SA. Hubby diligently went off to locate a dive shop that would take me on such a dive. After chatting with several shops and listening to what they could offer he met Lexi from Divers Delight. They talked through the alternatives available for a Discover Dive as well as what it would look like if I did a Padi OW course which would include at least 1 dive at a site where there were Leafys and the opportunity to dive with them again if there were no leafys around that day or even if there were and I just wanted to see them again. Although not able to take me out on my OW assessment dives, Lexi managed to arrange a beautiful display of Leafys at the Bluff for my final dive.

Not long after this we had a family holiday in Thailand and the resort had a dive centre attached. After walking past looking at the photos several times (seahorses) and dropping in for the occasional

chat and drink I decided I would quite like to do a couple of dives there as well – and so a diver was born.

Fast forward to now and while the Divers Delight shopfront is no longer open Lexi and Scott have become part of the family and I have been lucky to dive at a lot (but not yet enough) sites in SA, as well as Botany Bay, UllaDulla, and South West Rocks in Australia. There has been bonus diving in Thailand and Naxos in Greece, as well as specific drive trips to Bali a couple of times, the Maldives, Raja Ampat, and Cebu in the Philippines. I've added nudibranchs to my trip wish lists as well as slowly ticking off my seahorse and pipefish species spotters list. My favourite dive sites in SA are Edithburgh and Rapid Bay and I am looking forward to one day getting down to Mt Gambier to dive Ewens & Piccaninnie Ponds. Despite syngnathiformes being my focus my most memorable diving moment was in low vis when seemingly out of nowhere a 3m grey nurse swam past me within arms reach and then continued on between my 2 dive buddies who were just ahead of me.

I joined the SDFSA as I wanted to keep up to date with what was happening with our various jetty repairs, what conservation efforts were occurring at our dive sites, as well as to learn more about other dive sites in SA that I could venture to. With my now 13 year old son also in the water it is even more important to me that I know the areas I am diving in and that they, as well as the areas I am entering and exiting the water from, are safe.

STEVE'S SCIENCE STORY for the month

By Steve Reynolds

RESEARCHING HOW CHANGING SEAGRASS HABITATS AFFECT THE SURVIVAL OF THE WESTERN ROCK LOBSTER

According to the Fisheries Research & Development Corporation's November newsletter FRDC News, Western Australia's West Coast Rock Lobster Managed Fishery has been conducting research into how changing seagrass habitats affect the survival of the Western Rock Lobster (Panulirus cygnus) during its early juvenile life-cycle stage. Brad Collis wrote a report titled "*Research into how changing seagrass habitats affect the survival of the Western Rock Lobster (Panulirus cygnus) during its early juvenile life-cycle stage adds to ongoing efforts to protect this high-value fishery*".

The following are excerpts from the newsletter.

He says, "New insights into the behaviour of early juvenile Western Rock Lobster and their preference for seagrass habitats are expected to significantly improve the capacity of fisheries managers to plan years ahead for any population impacts."

He explains how "Western Australia's West Coast Rock Lobster Managed Fishery (WCRLMF) is already a globally recognised model for sustainability. For decades, managers have used larval settlement monitoring as a reliable indicator for planning future catch limits."

He goes on to say, "However, in recent years there has been an increasing disconnect between larval settlement and catch rates for adult rock lobsters. Threats to the early juvenile life stage of rock lobsters known as puerulus are thought to be key, particularly habitat changes and climate anomalies, such as the 2011 marine heat wave."

Twin challenges

"Studying puerulus is challenging. In this tiny juvenile stage, they are all but invisible once they settle into their habitats. Equally problematic is mapping habitat change.

However, a comprehensive FRDC-funded project (2019-099) led by marine ecologist Dr Tim Langlois at the University of Western Australia has successfully taken on these twin challenges.

The project's aims were to investigate habitat factors influencing juvenile lobster growth and survival, and develop practical, accessible, ways to perform this habitat monitoring and ground-truth data from existing remote sensing platforms.

Tim says research has given fishery managers the ability to track habitat and climate anomalies at important sites in the Western Rock Lobster fishery since 1987 and correlate these changes with changes in population and catch rates."

Seagrass preferences

"Juveniles in the wild are effectively invisible, so we built aquarium habitats that allowed the puerulus to grow on their settlement habitat and to be closely studied," explains Tim.

"The aquaria experiments revealed that early juveniles have a very clear chemosensory preference for the dense seagrass habitats, particularly the wireweed species in the shallow water (less than 20 metres) along the coast between Mandurah south of Perth and Kalbarri to the north.

"This habitat is vulnerable to changes in water temperature, predation by herbivorous sea urchins and shifting sand that can smother the seabed vegetation."

Tim says being able to monitor changes in vital seagrass habitats and the impact on puerulus, would give fishery managers two to three years advanced warning of consequences for the adult population and the implications for rock lobster catch rates."

Monitoring seagrass habitats

"To monitor seagrass habitats and also ground-truth satellite data, the project team worked with Dongara boat builder and former lobster fisher John Fitzhardinge, to develop the Benthic Observation Survey System (BOSS).

This underwater camera array mounts two racks of stereo cameras to produce the 3D images needed to measure seagrass density. The four-camera racks have a combined field of view of 270 degrees and can cover up to about 100 square metres. The system has also been designed for fast use. It can be deployed over the side of a commercial boat, left on the seabed just long enough for disturbed silt to settle, take photos and be retrieved all in about five minutes.

Tim says BOSS provides researchers and fishery managers with an improved means to monitor habitats, helping them to better understand potential drivers and interactions of larval settlement and puerulus survival.

The impact of climate anomalies, and potentially long-term climate change, is well illustrated by studies indicating declines in seagrass and kelp habitats along the Western Australian coastline.

FRDC Research Portfolio Manager Adrianne Laird says that by modelling and tracking changes in benthic habitats over time, this research provides insights into how ocean climate and recruitment habitats, such as seagrasses, influence the Western Rock Lobster population.

"This understanding is essential for improving the management of the fishery and ensuring its long-term future," says Adrianne."

LARGEST CORAL IN THE WORLD FOUND IN THE SOLOMON ISLANDS

According to https://www.deeperblue.com/largest-coral-in-the-world-found-in-the-solomon-islands/?mc_cid=c7ac2c85c7&mc_eid=d4cc43123c , “A group of scientists working aboard a research vessel in the southwest Pacific Ocean has discovered the world’s largest coral.”

“Measuring 34m wide, 32m long and 5.5m high, with a circumference of 183m, the gigantic organism is a complex network of coral polyps — tiny individual creatures — that have grown over a span of three centuries. In contrast to a reef — which is a network of many coral colonies — this structure is a standalone coral that has grown uninterrupted for hundreds of years.

Discovered in the Three Sisters island group by members of the National Geographic Pristine Seas team during their scientific expedition to the Solomon Islands, the mega coral — mostly brown but with splashes of bright yellows, blues and reds — is covered with ripples of waves, mirroring the ocean’s surface. It is longer than the planet’s biggest animal, the blue whale. The coral, species “Pavona clavus,” provides essential habitat, shelter and breeding grounds for an array of species from shrimp and crabs to fish.

According to National Geographic Explorer in Residence and Pristine Seas Founder Enric Sala:

“Just when we think there is nothing left to discover on planet earth, we find a massive coral made of nearly one billion little polyps, pulsing with life and color. This is a significant scientific discovery, like finding the world’s tallest tree. But there is cause for alarm. Despite its remote location, this coral is not safe from global warming and other human threats.”

The coral is so colossal that it can be seen from space. To the naked eye, it may look like an immense rock just beneath the surface of the ocean. When team members initially spotted the structure, they thought it might be remnants of a shipwreck due to its size.

Pristine Seas’ underwater cinematographer Manu San Félix dove down for a closer look and discovered it was an exceptionally big Pavona clavus. Despite its size, the coral has never been documented, with the local community reporting they didn’t know it was there.”

FOR YOUR CALENDAR: FORTHCOMING EVENTS

South Australia

12 January 2025: Sea Wolves Dive Day. See https://www.seawolves.org.au/ for details

9 February 2025: Sea Wolves Dive Day. See https://www.seawolves.org.au/ for details

2 March 2025: Sea Wolves Dive Day. See https://www.seawolves.org.au/ for details

2nd March CLEAN UP AUSTRALIA DAY

18-20th March 2025: Seagriculture: 2nd International Seaweed Conference Asia Pacific, Adelaide. Event will be opened by renowned climate scientist Professor Tim Flannery. See https://seagriculture-asiapacific.com/

Interstate/International

Until 8th December: The free admission Fantastical Sharks and Rays display is being held at the Australian Museum, Sydney.

12th December: Australian National Maritime Museum's Special Talk: The Barangaroo Boat – Archaeology, Conservation and Display at 2 Murray Street, Darling Harbour, Sydney. The talk is primarily about the boat's conservation and display.

15-16th March 2025: ADEX Australia, incorporating OZTek Advanced Diving Conference 2025 is being held at the Sydney International Convention and Exhibition Centre, Darling Harbour Hall 2. OZTek Advanced Diving Conference will be celebrating 25 years whilst ADEX celebrates 30 years this year. See https://diveoztek.com.au/ for more details.

4-9th May 2025: The 25th International Seaweed Symposium is being held in Victoria, BC, Canada.

ABOUT THE SDFSA…

SDFSA is a non-profit, incorporated membership association dedicated to the preservation and enjoyment of our unique underwater world.

JOIN US FOR FREE!

https://sdfsa.net/membership-categories/

The more members we have, the stronger our influence. We serve as a peak body representing the interests of South Australian recreational scuba divers and the related sports of freediving and snorkelling, including the provision of information to government and the general public. Together we can have real impact on the issues affecting the South Australian diving community.

If you wish to be added to the mailing list for this Newsletter, join the SDFSA!

You can also read about the Federation's work in monthly issues of DiveLog Australasia, Scubadiver ANZ and on our website at https://sdfsa.net. Stay up to date with the latest news through our Facebook page, https://www.facebook.com/scubadivesa/. And follow our FB group, SA Dive Sites VIz and Conditions for current diving conditions shared by the group members.

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