SDFSA Newsletter – February 2021

SCUBA DIVERS FEDERATION OF SA, Inc.

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Port Noarlunga when the swell is up...



Photo courtesy of Chelsea Haebich

In this month's issue

OUR LEAD STORY: Night Diver Rescued at Port Noarlunga	2
ANNOUNCING 2020-21 SA SCUBA WEEK(s) in March	3
And In Other News	4
SDFSA COMMITTEE BUSINESS	4
CONGRATULATIONS TO	4
2020 - 2021 EVENTS	5
STEVE'S SCIENCE STORIES for the month	6
What are the effects of Flash Photography on Fish?	6
Face Rash after Diving?	7
ABOUT THE SDESA	Q

OUR LEAD STORY: Night Diver Rescued at Port Noarlunga

Oksana knew when she stepped out of her car on Monday evening that something didn't feel right. It had been a long day already, and a long drive to Port Noarlunga for her very first night dive. The sun was setting and the surface conditions looked dark and choppy – not unusual for the Noarlunga reef but not what she was used to.

But in spite of feeling uneasy, she met her PADI advanced course mates, geared up, jumped into the ocean from the jetty platform and started her descent.

Some three hours later, SA Sea Rescue Squadron picked her up drifting in the ocean near O'Sullivan's Beach, over 2km north of the Noarlunga reef and 1km offshore.

This story is about an experienced diver who ran into trouble on what should have been a straightforward training dive. There are lessons here that Oksana believes are important to share.

Oksana is a nurse well trained in trauma care who has lived and worked internationally for most of her career. While based in Libya 20 years ago, she learned to dive with BSAC, logging over 100 dives in the Mediterranean. After moving to the UK, she continued to do a little dive travel but eventually let her diving lapse. And then she came to South Australia, where she decided to start diving again. She took a refresher course, insisting on both a comprehensive pool session and an ocean dive. After logging another 20 dives, she invested in her own gear and signed up to do an advanced course so that she could experience some of the deeper dives that South Australia has to offer.

However, despite her experience, she had never done a night dive.

That particular evening, the swell was over one metre combined with 24 km/h winds. Divers who frequent Noarlunga are familiar with the "washing machine" effect that these conditions can create at and below the surface near the reef. But Oksana wasn't used to such conditions, and was uncomfortable with jumping into choppy waters off a jetty platform. All her previous experience in the Mediterranean had been shore diving – easy swims out to drop offs, returning the same way. To add to her anxiousness, she had not settled on the weight that she would need with her new gear.

She started her descent and found she was struggling to stay down. She surfaced and tried several more times to rejoin her buddies, able to follow their lights but unable to get to, or stay back down with them. She finally decided she would have to abort the dive. But by then, the swell and current had taken her some distance along the reef away from the jetty stairs.

She considered swimming back to the jetty but as a shore diver, she thought she might have better luck going in to shore. But the swell and wind were increasing, and the currents were taking her further away. Eventually she realised she would simply have to drift with the ocean, waving her torch in the hopes that she would be seen and rescued.

Back at the reef, her buddies went into their own rescue mode for a missing diver: they checked around the bottom – no luck; surfaced and looked for her -- no luck; swam back to the jetty, climbed the stairs and only then were they able to spot her light in the distance. SA emergency and SA Sea Rescue were called immediately, executing a successful boat rescue, but only after searching for Oksana on the surface for quite some time.

Oksana's experience was a classic case of task overload -- dealing with a general feeling of unease at the start, training for a new skill, challenging surface conditions and a new gear setup. Any one of

these factors could have been managed, but all four at the same time led her into a crisis situation. Matters were complicated by the fact that she had left her SMB (surface marker buoy) in her car, making it harder to spot her at the surface. She also had no backup torch, but fortunately the batteries lasted just long enough in the one she was carrying.

So what can we learn from Oksana's situation?

She strongly advises that everyone should pay attention to how one is feeling at the start of any dive. If you aren't up for it, there is no harm in telling your buddies that it's a no go for you. You should become very comfortable with any changes in your gear before taking on a new experience, whether it's a new course or a more challenging dive. Even a simple switch to a thicker wetsuit can affect your diving performance underwater. And make sure you have your emergency tools with you at all times. Oksana didn't have her SMB but she did have her snorkel, which probably saved her from taking in too much seawater at the surface when her air ran out. On night dives, be sure to carry a backup torch just in case. Finally, discuss an exit strategy with your buddies – if you have to abort a dive, make sure you all know the best places to return to on the surface, whether it is the boat, the jetty or shore.

It is believed that at least ten divers have died on the reef at Port Noarlunga since the first recorded diving fatality in 1951. This latest incident is a sober reminder that although the site is popular, easily accessed and relatively shallow, divers should not underestimate the risks involved with different levels of experience, weather and water conditions, and should be adequately prepared for emergencies.

After a couple of nights in hospital to make sure her lungs were clear of the effects of the salt water, Oksana has recovered. She is determined to go diving again – although it may be a while before she tries another night dive.

Many thanks to Oksana herself for being willing to share her story. And thanks to others who have provided background information and insight into lessons learned. This story will appear in an upcoming issue of Scubadiver ANZ.

ANNOUNCING 2020-21 SA SCUBA WEEK(s) in March

No surprise that given the pandemic we were hesitant to organise a celebration of all things scuba back in October. But the 2020-21 dive season is still with us, so we've decided to go ahead with a modest SA Scuba Week(s). We are planning to take our marquee and members of the SDFSA Committee out to you, to find out more about our members and encourage divers to join up. Look for our marquee at Rapid Bay (March TBC), Edithburgh (March TBC) and Port Noarlunga (21 March) and drop by for a chat.

Our Port Noarlunga presence will be part of **Dive for Cancer**. For more information on Dive for Cancer's evening gala (guest speaker: Richard Harris) and charity auction, Friday 19 March, and the Sunday (21 March) dive and sausage sizzle, go to https://www.facebook.com/diveforcancer.

Coincidently, the **Ocean Film Festival** will be held afternoon (2-5pm) and evening (7-10pm) 20 March at the Capri: another great opportunity to get together to appreciate everything the ocean has to offer

And stay tuned: We will be making a major announcement soon as part of Scuba week!

And In Other News...

While the Port Hughes jetty was repaired and reopened just before Christmas, several new pylons still need to be installed. The jetty is closed again, with hopes that work will be completed later in February.

The stairs on the Second Valley jetty were badly damaged during a very stormy Friday Feb.5 and are unusable. SDFSA will be talking with Council shortly to find out details on what the plans are for repairs.

Some snorkellers have had encounters with stinging jimbles in the Port Noarlunga area during January. Jimbles are difficult to see underwater and they give a nasty sting to unprotected skin. Unwet suited snorkellers are particularly prone to jellyfish stings.

SDFSA COMMITTEE BUSINESS

- We are pleased to announce that we have two new committee members: Sebastien Landat and Karolyn Ruc. Many thanks, Seb and Karolyn for joining the SDFSA managing committee.
- Thanks to everyone who dropped by or helped with our recent Bunnings sausage sizzle. We raised over \$1500.00!
- Next Committee meeting is February 24, 7pm at the Arab Steed. All are welcome; please email info@sdfsa.net if you wish to attend.

CONGRATUI ATIONS TO...

- > Drs Richard Harris & Craig Challen on having a newly discovered species of trapdoor spider (Troglodiplura species) named after them. Four of the Thai cave rescue divers, including Thai divers Beirut Pakbara and Saman Kunan, who both died as a result of the rescue effort, has each had a spider named after them. The newly identified species have been named Troglodiplura harrisi, Troglodiplura challeni, Troglodiplura beirutpakbarai and Troglodiplura samankunani. The only previously identified spider of the trapdoor type was the Troglodiplura lowryi. (Western Australian Museum scientists discovered the four new trapdoor spider species, which are blind and extremely rare. They live only in caves in the Nullarbor Plain. The lead scientist said that the team wanted to honour the key people involved in the 2018 Thai cave rescue.)
- > Dr. Simon Pierce & Dr. Andrea Marshall, founders of the Marine Megafauna Foundation, on the first issue of "Ocean Giants", MMF's brand-new FREE quarterly magazine. The first issue highlights a major marine protection win in Mozambique, along with the results from some recent research and conservation initiatives.
 - $\frac{\text{https://static1.squarespace.com/static/5fb45e1d56031c342ebab398/t/60090b083ac929257}}{\text{b5d0859/1611205438888/Ocean-Giants-Magazine_MMF_Issue-01.pdf}}$

2020 - 2021 FVFNTS

South Australia

March 2021 SA SCUBA WEEK(S): Rapid Bay (March TBC), Edithburgh (March TBC) and Port Noarlunga (21 March), coinciding with Dive for Cancer and the Ocean Film Festival.

19 MARCH and 21 March: Dive for Cancer. Friday the 19^{th} 6:45 – 10pm will be an evening gala and charity auction, with guest speaker Richard Harris; on Sunday there will be a group dive and sausage sizzle. Details at https://www.facebook.com/diveforcancer.

20 March: OCEAN FILM FESTIVAL. Matinee 2-5pm; Evening 7-10pm. Held at the Capri Theatre, 141 Goodwood Rd., Goodwood. Book tickets at oceanfilmfestivalaustralia.com.au.

3-17 April, FESTIVAL FLEURIEU 2021

The 2021 Festival Fleurieu is being held from 3rd to 17th April. Visit either https://www.festivalfleurieu.com.au/ or https://www.facebook.com/FestivalFleurieu/ for more details.

17 May 2021, 6-10 pm: The 2021 Underwater Tour, hosted by Underwater Australasia and Underwater Tour, is being held at the Star Theatre, Sir Donald Bradman Drive, Hilton. Presenters include Aaron Wong, Richard Smith and Janet Lanyon.

20-24 September 2021: World Fisheries Congress, to be held in Adelaide – https://wfc2020.com.au/. The 2021 Underwater Tour, hosted by Underwater Australasia and Underwater Tour, is being held at the Star Theatre, Sir Donald Bradman Drive, Hilton on Monday 17th May 6 – 10pm. Presenters include Aaron Wong, Richard Smith and Janet Lanyon.

Interstate/International

CITIZEN SCIENCE MONTH 2021

Citizen Science Month is being held in April 2021. With support from the National Library of Medicine, you can organize, facilitate and/or promote events and citizen science projects throughout April. Visit CitizenScienceMonth.org to find free, downloadable, customizable resources, event planning guides, best practices, summative evaluation outcomes and a link to join the Citizen Science Month mailing list. You don't have to be a citizen science project leader to organize a Citizen Science Month event with SciStarter. Contact them via email to info@scistarter.org.

6th International Eco Summit Conference - Gold Coast, Queensland - 14-18 June 2021.

Australian Marine Sciences Association 2021 will be held in Sydney with the theme - 'Marine Science in the Anthropocene'. Dates TBC. https://amsa2020.amsa.asn.au/.

New Zealand Marine Sciences Society will be held separately, dates and venue TBD.

ICRS 2021 – International Coral Reef Symposium 18th to 23rd July 2021

The 14th ICRS is being held in Bremen, Northern Germany the primary international conference on coral reef science, conservation and management, bringing together leading scientists, early career

researchers, conservationists, ocean experts, policy makers, managers and the public. Visit https://icrs2021.de/ for more details.

OZTEK CONFERENCE & OZDIVE EXPO 21 11-12th September 2021

OZTek, the Advanced Diving Conference & Exhibition has combined with the OZDive Expo, Melbourne Conference & Exhibition Centre,. Visit https://OZDive.net.au for more details.

STEVE'S SCIENCE STORIES for the month

By Steve Reynolds

What are the effects of Flash Photography on Fish?

This was supposed to be a piece about how new research has found that "Flash photography doesn't harm seahorses" at all, but I've had to reconsider my approach to the topic.

It was my good fortune that, when I submitted the original piece for our January newsletter, it was held over by the Editor and saved for the February newsletter. It was also fortunate for me that, just as I was preparing my submission for the February newsletter, Christopher Deane drew my attention to the opposite view — "flash kills seahorses".

Certainly, a recent study was claiming "It's OK to use flash photography on seahorses as long as you don't touch them. According to "Flash photography doesn't harm seahorses – but don't touch" at https://theconversation.com/flash-photography-doesnt-harm-seahorses-but-dont-touch-110428, "research, published in Nature Scientific Reports, (at) https://www.nature.com/articles/s41598-018-37356-2 shows that flash photography does not damage the eyes of seahorses, but touching seahorses and other fish can alter their behaviour."

According to the Abstract for "Behavioural and pathomorphological impacts of flash photography on benthic fishes", the impacts of photographer behaviour and photographic flashes on animals are poorly understood."

The researchers "investigated the pathomorphological and behavioural impacts of photographer behaviour and photographic flashes on 14 benthic fish species that are important for scuba diving tourism and aquarium displays."

They "ran a field study to test effects of photography on fish behaviour, and two laboratory studies that tested effects of photographic flashes on seahorse behaviour, and ocular and retinal anatomy."

Their study "showed that effects of photographic flashes are negligible and do not have stronger impacts than those caused solely by human presence. Photographic flashes did not cause changes in gross ocular and retinal anatomy of seahorses and did not alter feeding success."

The researchers found, however, that the "Physical manipulation of animals by photographing scuba divers.... elicited strong stress responses." They said, "This study provides important new information to help develop efficient management strategies that reduce environmental impacts of wildlife tourism."

What I find, is that there remain two sides to the argument regarding whether or not flash photography has any detrimental effects on fish. Christopher Deane shared the article found at https://www.facebook.com/AquaMarineDivingBali/photos/a.288596914558731/367195270288978
5/ in a couple of Facebook groups. It created a bit of interest and discussion.

According to that original Facebook post (AquaMarine Diving – Bali, https://www.facebook.com/AquaMarineDivingBali/photos/a.288596914558731/367195270288978
https://www.facebook.com/AquaMarineDivingBali/photos/a.288596914558731/367195270288978
https://www.facebook.com/AquaMarineDivingBali/photos/a.288596914558731/367195270288978
https://www.facebook.com/AquaMarineDivingBali/photos/a.288596914558731/367195270288978
https://www.theseahorsetrust.org/) maintains that photography flash kills seahorses.

Although a Divernet article at https://divernet.com/2019/02/09/strobe-damage-to-seahorses-a-fallacy-claim-scientists/ states, "Strobe damage to seahorses a fallacy, claim scientists",

Neil Garrick-Maidment told Divernet that the research was "an appalling piece of work" that failed to address the issue of dormant diseases being activated by stress.

"I have said repeatedly that it is not the flash that actually kills the seahorses, but the effects of the stress caused by the flash," says Garrick-Maidment. "Seahorses have diseases dormant in their bodies and when they become stressed and the body weakened as a result of it, these diseases take over the body and kill them some weeks later. Here at the Seahorse Trust we will always defend the no-flash policy as laid down by the Marine Management Organisation and Natural England and continue to lobby the authorities to keep it in place."

"Garrick-Maidment acknowledged the report's findings on the damage caused by divers who physically manipulate seahorses, saying that when harassed the animals "use up large amounts of energy, go into flight mode (if they are allowed to escape, which these were not), become stressed. It also splits up pairings, leading to reduced breeding, as time is wasted on trying to find a new partner, if one is available."

I can only suggest that, if you are keen to know whether or not flash photography affects fish at all, that you do your own research and decide for yourself. Meanwhile, according to some video footage posted at https://www.facebook.com/331381787443281/videos/181400263732385, a little seahorse is said to keep following the videographer, but then the seahorse is being followed by another videographer with bright lights.

The study "Behavioural and Pathomorphological Impacts of Flash Photography on Benthic Fishes" is published in Scientific Reports at https://www.nature.com/articles/s41598-018-37356-2#Sec13 .

Face Rash after Diving?

It seems that some divers have suffered from face rashes after diving, after a Hobart dive for example. One diver has reported on Facebook suffering from face rash following Hobart dives about 3 times in the last 3 years. The rash was "like cold sores on (my) face which became scabs a couple of hours after diving". After a dive, he would experience the rash over the next few days. "The first couple of times, I thought I may have been stung by jellyfish or similar," he said. "My wife also had the same on one occasion. (Has) anyone else been affected? I'm not in a hurry to go back," he said.

Other divers were quick to point out that the rash is being caused by creatures such as sea lice and sea anemones that live on the ropes and other structures, and it is best not to rub your face after touching the ropes. The sea lice and sea anemones on the ropes stick to your gloves, and when you touch your face, or if they are disturbed and float onto your face, they cause the irritation. Further advice included "Always wear gloves and a hood to minimise exposure, and it is best to remove your gloves first, before removing your hood. The trick is to not touch your face with anything, such as hands or gloves, that have been in contact with any structure that sea lice-type creature may be living on.

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/.

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