

## **SDFSFA Bulletin March 2008**

This bulletin is provided as a service to members of the  
SCUBA DIVERS FEDERATION OF SA

Working to develop the sport of Scuba diving in SA

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We are the peak body in South Australia, representing all recreational scuba divers.  
We act as a voice for all divers and other associations on all diving related matters.

We are publishing this electronic bulletin as a separate publication to our normal monthly SDF News Sheet. Future issues of this "SDFSFA Bulletin" will include lengthy articles about matters of interest to recreational divers. We welcome contributions from our readers.

If you don't have the time to read through everything in this bulletin, take advantage of the following table of contents (which contains most of the headings). Click on any item of interest to proceed straight to that section.

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### **MARINE PARKS UPDATE**

South Australia's proposed marine parks were discussed on the ABC's "Stateline" program on 29<sup>th</sup> February. Reporter Ian Henschke began by saying, "Last November, the State Government announced it's creating 19 marine parks stretching from the Victorian border to the Great Australian Bight. While the move has been welcomed by conservationists as long overdue, it's upset both the commercial and the recreational fishing industry, who warn that their favourite fishing spots might be about to disappear. This is the coastline near Rapid Bay. Not far from Backstairs Passage. These waters between the Fleurieu Peninsula and Kangaroo Island are the centre of the soon to be proclaimed Encounter Marine Park. It will be part of a string of 18 other parks across the State." Marine scientist Brian McDonald from the Department of Environment said, "The target is by 2010 to have 19 functional marine parks on the water. It's about an insurance policy for future generations. It's about taking what's typical of the South Australian environment and making sure that it's protected in its natural state to make sure that generations to come can come here to the same kind of location and see what we are seeing now. South Australia is responsible for the largest breeding colonies in the world so it's our responsibility to make sure they are looked after. They have been hunted. That no longer happens. Obviously, they've been protected for a long time but their populations haven't rebounded significantly, so it really is an onus on us to make sure we do the right thing. By creating marine parks, it's not only protecting the animal by law, it's protecting the habitats and the ecosystems they depend on to persist." Ian Henschke then said that, "The 19 parks will all have areas within them that will still

allow commercial and recreational fishing but importantly, they will also have sanctuaries or as the industry calls them, no take zones. And some areas will be totally off limits to the general public, kept in pristine condition, only accessible for scientific research. The draft zones for the 2,500 square kilometre Encounter Marine Park give a fair idea of what's in store for the state's fishers and charter boat operators. (The yellow areas are sanctuaries.) Multiply this 19 times across the state and the seafood industry says the effect will also be felt at the fish shop." Neil Macdonald from Wild Catch Fisheries\* then said, "It will drive the price up, no doubt about it and that's probably a hidden cost to the community that they won't see that until after this process is finished. As you can see they're substantial. That's one of our concerns. ... without a doubt there will be commercial operators and recreational fishers that will see a loss of access to some of their area. We've seen the Great Barrier Reef Marine Park where the Commonwealth Government found itself with a \$220 million bill from an insurance from its agency that it was probably going to cost it about \$10 million to compensate the industry. We've seen wholesale displacement in Victoria, with virtually no community engagement and consultation. Loss of recreational access to beaches, loss of commercial licences because of the closed areas. You know, they're examples of what's happened in other jurisdictions." Neil McDonald says when the parks are in place, there will be people who will lose their favourite fishing spots, and commercial operators who will lose fishing grounds. But the process is unstoppable. Driven by the Federal Government, South Australia is one of the last states to get on board and he hopes this could be a bit of a blessing. Neil Macdonald said, "SA, I guess, is lucky in that we've seen what you'd like to think is the worst case scenario, the way it's been delivered in other states and hopefully, we in the (industry?) and the government have learned from that and what we will have is a much better process to ensure that we have a much more balanced outcome." Phil Hollow from the Department of Environment is a former park ranger who now travels the state selling the marine parks policy to the public and getting feedback. He says most people are pretty positive once he's put the case for the parks. Phil said, "If for any reason a commercial fisher is displaced from a particular area, then there is compensation that is provided for in legislation, because it's a new process talking to them about the 19 and where they're going to be. Our marine environment, because most of it's under the water we don't see it, we have to show it in pictures. The pictures we show, at our roadshows or evening presentations, people believe they come from the Great Barrier Reef. We have a stunning marine environment underneath us but we just don't get to see it as much as we should." Ian Henschke said, "But while the commercial sector will be compensated, the recreational fishing industry says there's no such consideration for them or the businesses that rely on amateur anglers." Trevor Watts from the SA Recreational Fishing Advisory Council said, "Bait and tackle shops, tourism operators, the caravan parks, if any of these closures are placed in the wrong places, we could see whole caravan parks close." Trevor Watts says that there are 400,000 people who enjoy fishing in South Australia and the State Government would be smart to listen to them if they want to both create the parks and get their votes in 2010. Trevor said, "Probably wouldn't be wise from a government point of view to be piling some nasties on the community at election time. We only have to go back to Victoria when they brought about their first round of marine parks and the large numbers of communities and boats and trailers parked themselves out in front of Victoria's Parliament House and had the process changed very smartly." Commercial fisherman, Jeff Wait, then had his say about the government. He reckons that first they need to clean up their own act. He says that he himself is caught between bombs and Bolivar. To the north is the Australian Defence Force's sea testing range, to the south, the treated sewage outlet. "50% of the seagrasses are lost in this Gulf because

of Bolivar and stormwater and Glenelg discharge. Not because of net fishing. Net fishing hasn't been there for 50 years. But it's documented proof. The Gulf is knackered down there because of pollution. It's knackered. Not up here where I fish... not yet. It may be later on, but not yet. Pollution will eventually spread throughout the whole Gulf and they're not even going to address that." Ian Henschke concluded by saying, "The Government says it's already started community consultation which will be wide and thorough. Even so, there's widespread concern across the fishing community that the parks are a done deal." He then said to Phil Hollow, "Do you think ultimately this will be good for fishing in South Australia or bad for it?" Phil replied, "I'm not a fish expert. I couldn't say that. I think it will be great for our marine environment. Fish live in our marine environment."

Source: <http://www.abc.net.au/stateline/sa/content/2006/s2177933.htm>.

\* Wildcatch Fisheries was launched in SA during February. Wildcatch Fisheries SA is the state's wildcatch fisheries' new industry body. It represents all (13) wildcatch fishing sectors, including abalone, charter boats, rock lobster, prawns and the Women's Industry Network. Neil MacDonald is the General Manager of Wildcatch Fisheries SA. He said that the new body will tackle the issues that affect the entire industry.

### **MARINE PARKS ROAD SHOW VISITS THE YORKE PENINSULA**

The Department for Environment and Heritage (DEH) marine parks tent travels around the Yorke Peninsula, from Port Broughton to Yorketown, in March and April. Communities will be able to learn about marine parks and ask questions at a series of information sessions when DEH staff visit nine communities on the coast. An information tent will be set up for informal exchanges of information about how communities can be involved in the development of marine parks in their local area. DEH's community engagement officer, Coast and Marine Conservation, Phil Hollow encourages all residents with an interest in the marine parks process to visit the information tent. "We want to make contact with as many residents and regular visitors as we possibly can to provide them with current information about marine parks," Mr Hollow said. He said people may have specific questions about marine parks, so for one-on-one discussion they could visit the marine parks tent when it is in their area. "DEH is interested in hearing from people who live at or visit their local coastline, particularly in what changes they have observed over the years in their area. Visiting the information tent for a one-on-one discussion is the best way to get up-to-date information and to add your name to the mailing list to receive more information in future. We want to ensure the new marine parks are areas of marine conservation and sustainable use that local communities are proud of and feel they 'own'. To do this we want as much community involvement in the planning phase as possible," Mr Hollow said. The Marine Parks road show will be stopping in the following towns:

March 27 - Yorketown - Weaner's Flat Reserve (10am - 7pm)

March 28 - Minlaton - Main Street Rest Area (10am - 7 pm)

March 29 - Moonta Bay - Foreshore (10am - 7pm)

March 30 - Port Wakefield - Boat Ramp (10am - 7pm)

April 11 - Ardrossan- Foreshore (10am - 7pm)

April 12 - Port Victoria- Foreshore (10am - 7pm)

April 13 - Stansbury – Seaside Markets (9am - 2pm)

For more information contact DEH's Coast and Marine Conservation Branch on (08) 8124 4900 or visit [www.environment.sa.gov.au/coasts/marineparks.html](http://www.environment.sa.gov.au/coasts/marineparks.html).

## **WESTERN BLUE GROPER AND HARLEQUIN FISH UPDATE**

The Department for Environment and Heritage (DEH) recently stated that “In South Australian waters the western blue groper, Australian sea lion and harlequin fish are among many species of conservation concern. DEH Coast and Marine Conservation acting manager, Chris Thomas, said the western blue groper’s slow growth and late reproductive maturity had contributed to a decline in its numbers in recent years. “The western blue groper used to be common throughout Investigator Strait and on the southern coast of Yorke Peninsula, but adults have not been seen off the southern coast of Yorke Peninsula since the 1960s. They still occur on northern Kangaroo Island and along the West Coast. In addition to the existing western blue groper fishing closures in South Australia’s gulfs, Investigator Strait and in several small aquatic reserves, the establishment of marine parks will ensure that significant habitat areas are protected,” Mr Thomas said. Unique to southern Australia and in the same family as the groper is another species of conservation concern - the colourful harlequin fish. The harlequin fish was once found in Victorian waters but a lack of sightings in recent years could mean the population has already disappeared from that state. “The harlequin fish appear to be particularly vulnerable due to their slow growth and reproductive rates,” Mr Thomas said. “As the harlequin fish lives in coastal reefs, habitat degradation caused by land-based pollution may also be contributing to the decline in its numbers.”

We discussed the progress made in relation to the push for greater protection for Western Blue Groper and the Harlequin Fish in South Australian waters at our February meeting. We particularly discussed the recent letter of response received from Rory McEwen, Minister for Agriculture, Food and Fisheries. In his response, Mr McEwen stated that a recent SARDI Aquatic Sciences report “on the catches taken by recreational charter boat operators between September 2005 and June 2007 shows that only 63 Western Blue Groper were caught and retained.” He said that, “This indicates that this species is not being targeted by this sector.” It was agreed at our meeting that further action regarding the issue would be left to our Secretary, Steve Reynolds, and his club, the Marine Life Society of SA. MLSSA recently sent this reply back to the Minister: -

“Dear Minister,

Thank you for your reply to our letter asking for full protection of the Western Blue Groper and the Harlequin Fish in South Australian waters.

The fourth paragraph is of concern, as we wish to contest the claim that “this species is not being targeted by this (recreational charter) sector.”

It is assumed that “between September 2005 and June 2007”, at least 63 fish were caught (& retained), meaning that, of the reported catch, almost three legal-size fish were being killed every month. It must be assumed that the Western Blue Groper (WBG) that were retained were of legal size (60-100cm). These fish would be in the age range 15-25 yrs, and, if charters are operating only within legal waters (away from Investigator Strait and south-eastern Eyre Peninsula), almost all would have come from western South Australia. In reply to the assertion that blue groper are “not being targeted”, it is worth noting that if charter fishers visit a reef / “bommie” at Wedge or other Gambier group islands Isles; Investigator Group (Pearson, Ward, Flinders etc) or islands and reefs off southern Eyre Peninsula (e.g. Greenly, Rocky) or far west coast (St Francis Isles; Olive Island; Fowlers Reef), and fish for groper from a charter boat with the right tackle, they will likely catch one of these large, slow-moving, site-attached resident fish. Charter boats are well set up to do that - reach islands and reefs that were previous offshore refuges, and serially deplete populations of resident reef fish. There are dozens of magazines and web sites

showing photos of groper (many over 1m) being caught by charters in the locations listed above.

Even with small catches of the large, mature (“alpha”) males and other large WBGs, charter fishers could serially deplete reefs of large WBG over time, and impact upon population structure and abundance. There is no knowledge of the sustainability of the current catches (reportedly 60 – 70 per year, plus ~30 released), and the precautionary principle is not being applied. A significant number of the reported number of groper released during that period September 05 to June 07 (31 fish), would likely have died, or suffered sublethal injuries.

Extensive research has shown that large, slow-moving fish captured from > 10 m depth suffer barotrauma when pulled to the surface, and mortality can be 30-40%, or higher in similar reef fishes. If illegal-sized fish (> 100cm) are being caught and returned to the water (and there is photographic evidence to show that they are), if they subsequently die, then the prohibition on catching and killing WBG over 1m is not being adhered to by fishers in South Australia. There is strong likelihood that repeated charter trips to the same island groups will keep catching previously released (and previously injured) large groper, hence the likelihood of individuals over 1m dying becomes even higher over time.

Recent research (see Shepherd & Brook 2007 on distribution & abundance of blue groper (J. Fish Biology 71, 1-22) has shown that fishing, estimated to remove 45% of local populations, contributed substantially to the west-east geographic decline in blue groper abundance on the central SA coast.

Although it is pleasing to note that under legislation, rock lobster fishers and S.A. marine scalefish fishers no longer have access to blue groper bycatch; unfortunately, both lethal effects and sublethal injuries due to bringing groper to the surface and releasing them would still likely be an issue in these sectors. One of the best ways to address this problem is to ensure that hotspots for blue groper populations in S.A. are fully protected from any reef fishing activity.

One of several island groups that are significant in this regard, is the Investigator Group.

In 2005 an information paper prepared by Fisheries Manager Craig Noell found that there was a potential sustainability problem, due to increased by-catch and recreational catch. The FMC accordingly recommended:

- (a) access to blue groper should be removed from all fishing sectors, and
- (b) blue groper should be declared a protected species in all SA waters.

We note that in 2006 the Scalefish FMC approved full protection of the groper and PIRSA has so far failed to carry this out.

As for Harlequin Fish, that species very likely cannot sustain fishing without population impacts, as is the case of other large, long-lived fishes in the Serranidae family, with small population sizes. Harlequin Fish occur over a small depth range; are also at the edge of the geographic range in SA, and are fished wherever they can be found, because they are considered to be good eating. The low numbers recorded by charter boats is no indication that impacts are not occurring, because there are very few of these fishes on any one reef, and few Harlequin Fish in South Australia as a whole, compared with Western Australia.

We hope these points will be taken into account when considering full protection of these two threatened fish species.

Yours sincerely, Philip Hall

(cc the Premier, Mike Rann)”

As reported at our March meeting, the DEH (Department for Environment and Heritage, Coast and Marine Conservation branch) have now acknowledged the problems facing Western Blue

Groper and Harlequin Fish. A full-page spread on the topic featured in The Advertiser on 4<sup>th</sup> March. That very same day, the Environment Minister, Gail Gago, sent the following letter to MLSSA: -

“Thank you for forwarding me a copy of your letter to Hon Rory McEwen MP, Minister for Agriculture, Food and Fisheries, concerning the protection of the Western Blue Groper and the Harlequin Fish. I apologise for the delay in my response. The South Australian Government is committed to a 'No Species Loss Strategy' for South Australia and to improve protection of threatened and rare species. This strategy includes marine species as well as estuarine and freshwater species. The statute that supports this strategy is the *National Parks and Wildlife Act 1972*. Threatened species recovery plans are envisaged for any species listed as endangered. The recovery plans will set objectives for, and identify actions to achieve, species recovery. DEH (the Department for Environment and Heritage) has been working with other partners to better understand the conservation status of coastal, estuarine and marine fish, sharks and rays in South Australia. A comprehensive study, currently underway, has already highlighted many of the issues and concerns that MLSSA (Marine Life Society of South Australia) raises. Once the study is finalized, initiatives for the protection of potential threatened species and their habitats (such as legislative listing), will be discussed. DEH has recently employed a marine ecologist to focus on conservation planning, policy and action for threatened marine species and I have asked the Department to invite MLSSA to be a partner on this important initiative. The work mentioned above will also inform the development of marine parks in South Australia's coastal waters. It is likely that some significant habitats for both species will be afforded protection under the proposed marine parks zoning system. Dr Scoresby Shepherd, whose findings you refer to in your letter, is a member of the Government's Scientific Working Group, which provides me with independent advice on technical and scientific matters relating to the marine environment, and will also assist with the process of identifying and selecting candidate marine park areas. Therefore, I am confident that his scientific findings will directly inform the marine parks process and other marine conservation initiatives. I encourage MLSSA to take part in the marine parks process during both formal and informal opportunities for public and stakeholder involvement. I also look forward to your involvement in establishing the necessary measures to better protect threatened marine species in South Australia.

Thank you for drawing this matter to my attention. Yours sincerely, Gail Gago”

### **LATEST SHARK ATTACK STATISTICS**

As reported in our March news sheet, according to the “University of Florida News”, “Fatal shark attacks worldwide dipped to their lowest levels in two decades in 2007”. According to [http://www.flmnh.ufl.edu/fish/sharks/statistics/sharksummary\\_2007.pdf](http://www.flmnh.ufl.edu/fish/sharks/statistics/sharksummary_2007.pdf), the sole casualty in 2007 was a swimmer vacationing in the South Pacific. According to <http://www.flmnh.ufl.edu/fish/sharks/statistics/2007attacksummary.htm>, “The single fatality resulting from an unprovoked attack in 2007 was recorded from New Caledonia. This is the fewest number of fatalities in two decades (the previous low was 0 in 1987). The mean number of unprovoked deaths from 2000-2007 is 5.0 per year.” The latest fatality is an Austrian (NOT Australian) scuba diver who died after a shark (not surprisingly) bit his leg during a diving tour where bait was put into the water to attract sharks in the Bahamas. The Austrian man was a lawyer. Perhaps the boat charter thought that he would be safe, expecting the sharks to show him some ‘professional courtesy’. (Further details about this latest incident are included further below.) Mind you, a fisherman recently survived 30 hours in ‘shark-infested waters’ by clinging

to an esky after his trawler sank off the New South Wales north coast. Another man from the trawler survived a 10-hour swim to shore. The skipper of the boat was, however, still missing at the time of writing.

According to the web page found at

<http://www.flmnh.ufl.edu/fish/sharks/statistics/2007attacksummary.htm> , “The International Shark Attack File (ISAF) investigated 112 alleged incidents of shark-human interaction occurring worldwide in 2007. Upon review, 71 of these incidents represented confirmed cases of unprovoked shark attack on humans. "Unprovoked attacks" are defined as incidents where an attack on a live human by a shark occurs in its natural habitat without human provocation of the shark. Incidents involving sharks and divers in public aquaria or research holding-pens, shark-inflicted scavenge damage to already dead humans (most often drowning victims), attacks on boats, and provoked incidents occurring in or out of the water are not considered unprovoked attacks. "Provoked attacks" usually occur when a human initiates physical contact with a shark, e.g. a diver bit after grabbing a shark, a fisher bit while removing a shark from a net, and attacks on spearfishers and those feeding sharks. The 41 incidents not accorded unprovoked status in 2007 included 20 provoked attacks, two cases of air/sea disasters, five cases of sharks biting marine vessels, four incidents dismissed as non-attacks, zero scavenge incidents, and 10 cases in which insufficient information was available to determine if shark attack was involved.”

Visit <http://www.flmnh.ufl.edu/fish/sharks/isaf/diverstats.htm> for more info re shark attack statistics.

Here is a report re the recent death of an Austrian scuba diver who died after a shark bit his leg during a diving tour where bait was put into the water to attract sharks in the Bahamas: -  
“An Austrian scuba diver has died after a shark bit his leg during a diving tour in the Bahamas where bait was put into the water to attract sharks. The US Coast Guard said it sent a rescue helicopter to pick up the man yesterday after a mayday call from the Florida-based charter dive boat Shear Water, saying that a man had suffered a shark bite. The victim was flown from the scene, about 8km north of Great Isaac Cay in the Bahamas, to Jackson Memorial Hospital in Miami, where he was pronounced dead, the Coast Guard said. Great Isaac is about 100km east of Fort Lauderdale, Florida. "From what I heard they were on a shark diving trip, feeding the sharks," said Ken Smiriglio, an assistant with the Austrian consulate in Miami. The consulate identified the victim as Markus Groh, 49, a lawyer from Vienna. The Shear Water is owned by Jim Abernethy's Scuba Adventures of Riviera Beach, which operates scuba diving trips in which the crew puts food in the water to bring divers into close contact with hammerhead, tiger and other shark species. On its website, the company says shark diving is a "potentially dangerous sport". “To insure the best results we will be 'chumming' the water with fish and fish parts. Consequently, there will be food in the water at the same time as the divers,” the site said. The company did not immediately return a call seeking comment.”

Source: <http://www.theaustralian.news.com.au/story/0,25197,23277477-12377,00.html>

Here is the full report from the “University of Florida News” regarding how fatal shark attacks worldwide in 2007 have dipped to their lowest levels in two decades: -

“Human deaths from shark attacks hit 20-year low last year

Fatal shark attacks worldwide dipped to their lowest levels in two decades in 2007 with the sole casualty involving a swimmer vacationing in the South Pacific, according to the latest statistics from the University of Florida. Except for 1987, when there were no fatalities, the last year a single human death occurred from a shark attack was in 1985, said George Burgess, director of the International Shark Attack File housed at the University of Florida’s Florida Museum of

Natural History. By comparison, there were four deaths each in 2005 and 2006, and seven in 2004. "It's quite spectacular that for the hundreds of millions of people worldwide spending hundreds of millions of hours in the water in activities that are often very provocative to sharks, such as surfing, there is only one incident resulting in a fatality," he said. "The danger of a shark attack stays in the forefront of our psyches because of it being drilled into our brain for the last 30 years by the popular media, movies, books and television, but in reality the chances of dying from one are infinitesimal." Advances in medical treatment, greater attention to beach safety practices and increased public awareness about the danger of shark attacks are all likely reasons the fatality rate so far for the 21st century, at 7.6 percent, has been lower than the 12.3 percent recorded for the 1990s, Burgess said. The number of shark attacks overall increased from 63 in 2006 to 71 in 2007, continuing a gradual upswing during the past four years, he said. "One would expect there to be more shark attacks each year than the previous year simply because there are more people entering the water," he said. "For baby boomers and earlier generations, going to the beach was basically an exercise in working on your suntan where a swim often meant a quick dunking. Today, people are engaged in surfing, diving, boogie boarding and other aquatic activities that put them much closer to sharks." Occasionally, the number of attacks may drop in a particular year because of changes in meteorological or oceanographic conditions that affect water temperature and salinity, such as the frequency of hurricanes and tropical storms, Burgess said. But scientists don't put too much stock in these year-to-year fluctuations, preferring to look at long-term trends, he said. Traditionally, about half of the world's attacks occur in United States mainland and Hawaiian waters, but the proportion was greater in 2007, Burgess said. Last year's total of 50 attacks returned to 2000 and 2001 levels of 53 and 50, respectively, after dropping from 30 to 40 for each year between 2003 and 2006, he said. Elsewhere, there were 12 attacks in Australia, up from seven in 2006 and 10 in 2005, but down slightly from the 13 attacks recorded in 2004. There were two attacks each last year in South Africa and New Caledonia, with single incidents reported in Fiji, Ecuador, Mexico and New Zealand. There also was an upswing in attacks along the Florida coast, jumping from 23 in 2006 to 32 in 2007. There has been a gradual increase in human-shark skirmishes in the Sunshine State since they dropped from 37 in 2000 to an 11-year-low of 12 in 2004, he said. Within Florida, Volusia County continued its dubious distinction as the world's shark bite capital with 17 incidents, its highest yearly total since 2002, Burgess said. Attractive waves off New Smyrna Beach on the central Atlantic coast are popular with surfers, he said. Additional U.S. attacks were recorded in Hawaii – seven — marking a five-year-high, along with South Carolina, five; California, three; North Carolina, two; and Texas, one. Fifty-six percent of the 2007 victims were surfers and windsurfers; followed by swimmers and waders, 38 percent; and divers and snorkelers, 6 percent. Last year's Sept. 30 fatal attack involved a 23-year-old woman from France who was snorkeling off the Loyalty Islands archipelago in French New Caledonia and became separated from a friend, Burgess said. She was a nurse who had just finished a hospital contract in Noumea and was taking a brief vacation before flying home, he said. "We advise not getting yourself isolated because there is safety in numbers," he said. "Sharks, like all predators, tend to go after solitary individuals, the weak and the infirm, and are less likely to attack people or fish in groups." Last year had few spectacular attacks or heartwarming rescue stories, Burgess said. "It was mostly minor injuries," he said. "There weren't too many made-for-movie moments."

Source: <http://news.ufl.edu/2008/02/12/sharks-2007/>

## **REPORT ON SHARK SHIELD EATEN BY GREAT WHITE SHARK**

A shark shield recently reported as having been eaten by a great white shark was a surf model which was being trialled off South Africa. The shark shield was activated on a float carrying bait. The trial, which was being watched by members of the Natal Sharks Board, was deemed a failure when a 3.6m female great white shark approached and, rather than being deterred by the device, bit into it. On the surface (no pun intended), this incident would be of major concern to users of shark shields. Rod Hartley from Sea Change Technology, which manufactures the Shark Shields, has defended the product. "There is no doubt whatsoever that it does not attract sharks. Nobody wearing a Shark Shield has ever been attacked by a shark," he said. He went on to say that the failed South African test on the surf unit, which has been held back from release into the marketplace, was due to a problem with the electrode's configuration. The device was now packaged with a large disclaimer warning that it would only repel sharks when the surfer was still in the water waiting for a wave. Here is a full report from the "AdelaideNow" website: -  
"GREAT WHITE 'ATE ANTI-SHARK DEVICE'

An electronic device designed to ward sharks away from surfers failed so spectacularly during a trial off South Africa that it was eaten by a great white. An inquest heard yesterday the Shark Shield surf model was activated on a float carrying bait when the 3.6m female shark approached. Rather than being deterred by the device, the shark, under the gaze of the Natal Sharks Board, bit into it. South Australian Deputy State Coroner Tony Schapel yesterday heard of the test failure during the inquest into the death of Jarrod Stehbens, who was taken by a great white shark while diving off Glenelg in South Australia in 2005. The inquest has turned into a trial of Shark Shield devices, hearing concerns that the electronic fields generated to repel sharks may attract them. Studying cuttlefish for the University of Adelaide at the time of his death, Stehbens had been provided with two Shark Shields on his dive boat by university staff - but he either didn't know they were there or chose not to use them. University staff have told Mr Schapel they questioned the Shark Shields' efficacy and believed there might be long-term health risks from using them. As a result, the devices were not compulsory. Rod Hartley, director of Sea Change Technology, which manufactures the Shark Shields, yesterday took the stand to defend his product. "There is no doubt whatsoever that it does not attract sharks," he said. He told Mr Schapel he believed a disgruntled surfer had started the rumour. "Nobody wearing a Shark Shield has ever been attacked by a shark," he added. Mr Hartley said the failed South African test on the surf unit - which has been held back from release into the marketplace - was due to a problem with the electrode's configuration. The device was now packaged with a large disclaimer warning it would only repel sharks when the surfer was still in the water waiting for a wave. "The surf product only can be guaranteed to work when it's stationary, not when it's surfing in the wave or paddling," Mr Hartley said. CSIRO shark expert Barry Bruce has told the inquest the shark that killed Stehbens was in "full predatory strike" mode and would have been nearly impossible to deter. His body was never recovered. \*Mr Schapel will publish his findings at a later date."

Source: [http://www.news.com.au/adelaidenow/story/0,22606,23299122-911,00.html?from=public\\_rss](http://www.news.com.au/adelaidenow/story/0,22606,23299122-911,00.html?from=public_rss)

\* On 14<sup>th</sup> March, the Deputy State Coroner, Anthony Schapel, handed down his findings into the shark attack death of Jarrod Stehbens. Mr Schapel found that Shark Shields gave divers some degree of protection and that they "have an ability, to a greater or lesser degree, to repel or otherwise deter the approach of sharks". Rod Hartley from SeaChange Technology claims that a shark shield would have saved Jarrod. Adelaide University apparently had shark shields available in their dive boat at the time but divers were either not aware of their availability or

chose not to wear them. Mr Schapel questioned why the university was reluctant to make the wearing of the shark shields by its research divers compulsory. Mr Hartley said that shark shields have turned sharks in full attack mode away. Divers across the world have credited the shields with saving their lives. The university has accepted the recommendations made by the Coroner's office. Former Coroner, Wayne Chivell, recommended in 2003 that all commercial divers use repellent devices in shark-prone areas.

## **MARINE MAPPING**

### **OFF YORKE PENINSULA**

According to the Department for Environment and Heritage (DEH), "An intensive research project off Yorke Peninsula . . . conducted by the DEH, in partnership with the Northern and Yorke Natural Resources Management Board, will generate valuable scientific data that will be used to help manage the local marine environment. DEH marine scientists headed out (between) Sunday 24 February and Sunday 2 March. Based at Point Turton and Marion Bay, the team of two scientists (mapped) about eight square kilometres per day around the foot of Yorke Peninsula. Bryan McDonald, Principal Marine Advisor (Science) with DEH's Coast and Marine Conservation branch, said the mapping involved using advanced acoustic and video technology. "The team (was) mapping our marine habitats using underwater video and acoustic sounding, providing far greater detail than was previously available," he said. "The waters off Lower Yorke Peninsula are a hive of activity and are important both to local communities and a whole range of marine industries. This method of mapping allows us to cover a lot of territory in a relatively short space of time," he said. The research profiled the landscape of the sea floor as well as the sea life in large areas. This gives the scientists a better idea of what will be found in surrounding areas. "The habitat maps produced will be used for various projects which help protect the marine environment and will also be available on the Internet," Mr McDonald said."

For further information about the Government's commitment to caring for the marine environment visit the DEH website at [www.environment.sa.gov.au/coasts/index.html](http://www.environment.sa.gov.au/coasts/index.html).

### **OFF CEDUNA**

Also according to the Department for Environment and Heritage (DEH), "An intensive research project off the Far West Coast being conducted by the Department for Environment and Heritage (DEH), in partnership with the Eyre Peninsula Natural Resources Management Board, will generate valuable scientific data that will be used to help manage the local marine environment. DEH marine scientists will head out on Wednesday 12 March and, dependent on weather, will continue mapping the sea floor until Tuesday 18 March. Based at Ceduna, the team of two scientists aims to investigate up to 80 sites per day in the shallow bays from Smoky Bay to Ceduna. Bryan McDonald, Principal Marine Advisor (Science) with DEH's Coast and Marine Conservation branch, said the mapping involves using satellite imagery, aerial photography and video technology. "The team is mapping our marine habitats using a range of remote technologies, providing far greater detail than was previously available," he said. "The waters off the Far West Coast are a hive of activity and are important both to local communities and a whole range of marine industries," he said. The research will profile the landscape of the sea floor as well as the sea life in large areas, giving scientists a better idea of what will be found in surrounding areas. The team will map Smoky Bay, Bosanquet Bay, Laura Bay, Denial Bay, Tourville Bay and Decres Bay. "The habitat maps produced will be used for various projects which help protect the marine environment and will also be available on the internet when complete," Mr McDonald said. Further information about the Government's commitment to

caring for the marine environment is available from the DEH website [www.environment.sa.gov.au/coasts/index.html](http://www.environment.sa.gov.au/coasts/index.html) or by phoning the DEH Coast and Marine Conservation Branch on 8124 4900.”

### **THE ANCHORS AT PORT NOARLUNGA REEF**

As reported in our March news sheet, we recently received an interesting email message from David Cowan to inform recreational scuba divers about the presence of another two more anchors within the Port Noarlunga Aquatic Reserve. David felt that the known presence of two additional anchors within the Port Noarlunga Aquatic Reserve will enhance the diving experience there by providing more places to visit whilst diving. Parts of David’s email message are below: -

“The search for these (and a possible 5th anchor) began after Christopher Deane advised of the existence of a 3rd anchor in the ‘South Aussie Snippets’ column in Dive Log Australasia No. 221 (December 2006). Chris’ advice was offered in response to an article I wrote about the 2nd anchor at Port Noarlunga (refer Dive Log Australasia No. 220 (November 2006), page 66). The 3rd Anchor, which is an admiralty pattern anchor with 1.0 m long shank & 9.0 m of chain, was located in January 2007, while the 4th Anchor, an admiralty anchor whose timber stock has rotten away, was located in April 2007. At the time of discovery, the latter anchor, which was partially buried, was believed to have a 2.0 m long shank. The subsequent shift of sand from around this anchor has revealed a short & ‘stocky’ anchor with a shank length of about 1.0 m. The Department of Environment & Heritage (DEH) advised in September 2007 that these anchors are unlikely to be protected by the Historic Shipwrecks Act 1981. However, their location within the Port Noarlunga Aquatic Reserve means that they receive a ‘secondary’ level of statutory protection as marine life growing on these anchors is protected by law. DEH advised that it would inform both the Department of Primary Industries & Resources (PIRSA) (the manager of the Port Noarlunga Aquatic Reserve) and the Office of Recreation & Sport (promoter of the Port Noarlunga Reef Underwater Trail) about the existence of these anchors. To assist PIRSA, all 4 anchors & some other features were located by GPS by DEH in early January 2008. During the search for these anchors, the remains of a small crane and other artefacts (i.e. timber piles, rolling stock and chains) were found on the south side of the jetty. These artefacts probably originate from an earlier jetty located about 50 metres south of the present jetty. The crane was located by swimming in ideal conditions (i.e. slack water during neap tides) on a compass course of approximately 60 degrees magnetic from Anchor No. 3. The site of the earlier jetty is proposed to be the subject of a non-disturbance survey to be carried out by the Society for Underwater Historical Research (SUHR) with assistance from Flinders University archaeology students and AIMA/NAS Maritime Archaeology course graduates. Persons interested in participating should contact Peter Ross (acting SUHR President) at [ross0203@flinders.edu.au](mailto:ross0203@flinders.edu.au) or Jason Raupp (SA AIMA/NAS tutor) at [jason.raupp@flinders.edu.au](mailto:jason.raupp@flinders.edu.au).”

David also sent us some location drawings with these comments: -

“The attachment contains location drawings for Anchors 2 to 4 for use by divers wishing to locate these anchors. Anchor No. 2 is best located by swimming a compass from Trail Marker No. 5. Anchor No.3 is best located by compass course during ideal conditions (see above) – you will need to swim over a vehicle tyre and a small drum to reach this anchor. Anchor No. 4 is best located by swimming a compass course from the mooring chain. For those who are unaware

of Anchor No. 1, it is the very large anchor located next to the reef between Trailer Markers 3 and 4.”

Many thanks for this exciting information David.

### **ANNIVERSARY OF RECOVERY OF CANNON FROM HMS ENDEAVOUR**

As reported in our March news sheet, next year marks the 40<sup>th</sup> anniversary of the recovery of six cannon jettisoned by Captain James Cook when his ship, HMS *Endeavour*, ran aground in 1770. “In 1886, the Working Men's Progress Association of Cooktown wanted to recover the cannons Cook had left at Endeavour Reef when grounded there, for a proposed memorial. They offered a £300 reward but searches that year and the next failed to find anything. Further later searches in 1966, 1967 and 1968 were unsuccessful too. In 1969, a search using a sophisticated magnetometer designed by Virgil Kaufman from the Philadelphia Academy of Natural Sciences found the abandoned cannons, and iron ballast, near the reef. Pinpointing the grounding narrowed down the search for the lost bower anchor too. Seven of the journal keepers had it set to the west, Cook's log and journal put it to the south, but apparently a misreading of Cook's account made the searchers believe it was universally described as westward. An area in that direction was marked out for passes with the magnetometer. By chance while turning it around outside the search area an anomaly was detected, which turned out to be the anchor, to the south, where Cook described. Conservation work on the cannons was undertaken by the Australian National Maritime Museum and one is on display there. The anchor and another cannon are displayed at the James Cook Historical Museum in Cooktown. Those items are all long-term loans from the National Museum of Australia.”

Source: [http://en.wikipedia.org/wiki/HM\\_Bark\\_Endeavour](http://en.wikipedia.org/wiki/HM_Bark_Endeavour)

Below is a record of the initial loss of the cannon in 1770: -

Jun 11: - Captain James Cook's ship *Endeavour* struck a reef north of Cape Tribulation. The ship was lightened by throwing overboard 6 brass cannons, ballast and stores.

Jun 18: - Cook and 87 men began repairs to *Endeavour* at what was to become Cooktown. Cook named the Endeavour River after his ship.

Aug 5: - Cook & his crew departed onboard *Endeavour* (after 48 days stay).

Then, in January 1969, four cannon from *Endeavour* were recovered from Endeavour Reef, off Cooktown in north Queensland by an expedition from the Philadelphia Academy of Natural Sciences led by Virgil Kaufmann. Vince Vlasoff later raised two more of Cook's cannon from the area.

Source: <http://users.bigpond.net.au/leslies/Notes/Cooktown/cooktownchron.htm> .

Further reading: “In Search of a Cannon” by G.K. Bolton (first published by Vince Vlasoff in 1969).

The Scuba Divers Federation of SA is a member of the following: -

Rapid Bay Jetty Design Group

SARFAC (SA Recreational Fishing Advisory Council)

Fleurieu Reef Advisory Group (Ex-HMAS *Hobart*)

TRAIL COMMITTEES - SA Trails Coordinating Committee (Office of Recreation & Sport) and Port Noarlunga Reef Underwater Trail South Australian Trails

Contact the Federation's Secretary on [sdfs@adam.com.au](mailto:sdfs@adam.com.au) to be included on the mailing list for this electronic bulletin.

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