

SDFSFA Bulletin May 2007

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 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. Click on any item of interest to proceed straight to that section.

CONTENTS:

THE BERLIN AQUADOM	1
HOBART ASSOCIATION	2
STORMWATER COCKTAIL KILLING OUR COASTLINE	2
SEARCH FOR THE AE2 SUBMARINE	3
'OPERATION SOURCE' (1943)	3
STAN WATERMAN	4
SAVING LEATHERBACK SEA TURTLES FROM THE BRINK OF EXTINCTION ..	4

THE BERLIN AQUADOM

The following item is taken from the NARCD club (Noarlunga Aquatic Recreational Club for Divers) May 2007 newsletter: -

"The world's largest cylindrical aquarium

Placed at the lobby of the Radisson SAS Hotel in Berlin, the 25m high AquaDom is the largest cylindrical aquarium ever built. Filled with about 900,000 litres of seawater, it contains some 2600 fish of 56 species. Combined with a vast amount of sandblasted glass, the giant AquaDom gives a transparent-like feeling to the lobby. Guests and visitors are able to travel through the aquarium in a glass-enclosed elevator to reach a sightseeing point and restaurant under the glass roof. Two full-time divers are responsible for the care and feeding of the fish and maintenance of the aquarium. Some of the interior rooms and suites look out over the atrium, offering "ocean views" of the AquaDom.

Construction

The AquaDom was opened in December 2003. It cost about 12.8 million euros. The acrylic glass cylinder was constructed by the U.S. company Reynolds Polymer Technology. The outside cylinder was manufactured on-site from four pieces; the inside cylinder for the elevator was delivered in one piece. The Aquadom is the largest acrylic glass cylinder in the world, with a diameter of over 11m, built on a 9m-tall concrete foundation."

The newsletter article features lots of great full-colour photos. Visit the NARCD website at www.narcd.com .

HOBART ASSOCIATION

The HMAS Hobart Association (SA Division) publishes a regular newsletter for those interested in the Association's activities. Their members include those who served on both the light cruiser HMAS Warrego (D63) and the guided missile destroyer HMAS Hobart (DDG39). Members of the Association participate in the annual Anzac Day march in Adelaide each 25th April. They also participate in the Coral Sea Memorial Service held at the Coral Sea Remembrance Columns in the Adelaide Botanical Gardens in May each year. The columns may be found by entering the gardens from North Terrace and then taking the first pathway to the right. The service was held on 6th May this year. A Hobart National Reunion is being held in Mildura, Victoria in November this year. The 2008 reunion may be held in Ballina, NSW. The Naval Vietnam Veterans National Reunion is being held at Coffs Harbour, NSW in October this year. An "All ships" reunion is being held in Tasmania in November and a "Tiffies" reunion will be held at Southport on the Anzac Day weekend 2008 (for the June/July 1964 & 1965 intakes at Nirimba). The Hobart Association helps to finance a SA Naval Cadet to go to sea on the *One and All* each year. Tony Zimmerman, one of the Association's members from Queensland, celebrated his 100th birthday last December. We probably wouldn't normally mention such an event 'cept this chap, apart from serving on many ships such as the *Hobart*, was a diver. He served on the *Hobart* as a shipwright and a diver from 1938 to 1943. He also served on HMAS *Canberra* when it was brought out to Australia from the UK. Contact the Association's Secretary, Ken Smerdon, on 8443 9086 if you would like to receive future issues of the association's newsletter.

(Anzac Day 2008 falls on a Friday, making it a holiday long weekend.)

Visit <http://www.diveexhmashobart.com/> for the latest details about the *Hobart*. It is well worth a look.

STORMWATER COCKTAIL KILLING OUR COASTLINE

By Clare Peddie, Environment Reporter, The Advertiser

"The Environmental Protection Authority water quality guidelines allow stormwater and wastewater to carry sediment and pollution out to sea. University of Adelaide marine biologist Associate Professor Sean Connell says "most scientists in this state" consider the current guidelines inadequate. More sediment and pollution is allowed into the sea here than in other states. "The EPA guidelines used to determine how much pollution can go into the marine environment appear to be inadequate." he said. "They are set far too high. And our coast is so nutrient poor, relative to places like NSW, which means it is a double-whammy for us. Our guidelines at least should be equal to, if not lower than, those in other states.", he said. Authority principal water quality adviser, David Duncan, admits the levels are set higher than in other states but they are "mandatory compliance limits. They are not the tightest criteria in the country but we tend to use them in a more regulatory manner than in the other states.", he said. "By setting a higher number, that enables us to be harder on the numbers. If someone breaches our limit there is the capacity to turn around and prosecute them or fine them. There may have been changes but, in general, other states have set a broad limit and then they try to work within those limits." Mr Duncan said the original "conservative limits" may be revised following the final report of the Adelaide Coastal Waters Study, due in the next six months. The

decline of kelp forests and seagrass meadows, meanwhile, has progressed to such an extent Associate Professor Connell said some areas showed total "ecosystem collapse". "There are whole swathes of rock out there where there is virtually nothing living on it except very short weedy species.", he said. "Other species haven't replenished themselves. Fish associated with the kelp forests are strongly affected and organisms that use kelp forests for the juvenile stages. Recycling stormwater and wastewater would have benefits for the marine environment by reducing oversupply of nutrients and sediments.", he said" Source: <http://www.news.com.au/adelaidenow/story/0,22606,21641849-2682,00.html>

SEARCH FOR THE AE2 SUBMARINE

Following on from the reports in our March news sheet and April Bulletin regarding the WWI Australian submarines HMAS AE1 and AE2, the Submarine Institute of Australia is raising funds in order to be able to preserve the wreck HMAS AE2 which sank in some 73m of water in the Sea of Marmara on 30th April 1915. Dr Mark Spencer was the first Australian to visit the site in 1998 following its discovery in 1997. The March 2007 issue of Dive Log reported that Mark and a dive team are returning to the site this year to carry out further scientific investigation of the wreck's condition. The team aims to provide information for future management considerations. This includes the remote possibility of raising and conserving the AE2. Marine archaeologist Tim Smith gave a presentation about the project at OZTeK'07 held in Sydney in March. A letter from Mark Spencer regarding a training rehearsal for the next AE2 expedition was published in the April issue of Dive Log. Mark said that the Submarine Institute of Australia set up the AE2 Commemorative Foundation to conduct the next expedition. A team from the Foundation recently carried out a rehearsal on the J-Class submarine number 5 in the Ships' Graveyard off Port Phillip Heads. Read "Australian History in a Turkish Sea" by Bill Sellars in the January/February 1999 issue of Scuba Diver magazine for more details. The story of the discovery in 1997/8 can also be found at http://www.heritage.nsw.gov.au/heritagensw/dec98/10_art.htm .

For further details about HMAS AE2 visit

<http://www.anzacsite.gov.au/5environment/submarines/ae2.html> and <http://www.navy.gov.au/spc/history/ships/ae2.html>

'OPERATION SOURCE' (1943)

In 1943, six Royal Navy 4-man midget subs took part in 'Operation Source', an attack on the German battleship *Tirpitz* in Norway. 'Operation Source' is the story told in the 1955 B&W movie titled "Above Us the Waves" which was shown on ABC TV in Adelaide on Anzac Day this year. The movie stars John Mills, John Gregson, Donald Sinden and James Robertson Justice. Another movie about the same operation is the 1968 movie "Submarine X-1" starring James Caan which was shown on Channel 7 in Adelaide the day before Anzac Day. Carl Spencer, from the UK, is involved in the search for the wreck of the X-5, one of the 4-man midget subs used in 'Operation Source'. He gave a presentation about the search at OZTeK'07. The March 2007 issue of Dive Log gave details about the search for the X-5 which was lost in the Arctic in 1943 during 'Operation Source'.

STAN WATERMAN

Stan Waterman, the underwater cinematographer, recently lost his left eye due to a battle with skin cancer. When asked what has kept him involved in scuba diving for so long, explained "The sea is so mysterious and enchanting that every dive will have something new to offer". On Thursday 25th January 2007, the Grand Cayman Marriott Beach Resort hosted the 2007 International Scuba Diving Hall of Fame Induction Ceremony, paying tribute to five internationally renowned divers, including Neville Coleman* and Rodney Fox, as well as two local honourees. Stan Waterman was Master of Ceremonies for the evening. Stan himself is a member of the Scuba Divers Hall of Fame, being one of the inaugural inductees. He was inducted into the Scuba Divers Hall of Fame in 2000, along with Jacques Cousteau, Emile Gagnan, Lloyd Bridges, Sylvia Earle, Al Giddings, Ben Cropp, Ron and Valerie Taylor, Jack McKenney and Hans & Lotte Hass (to name a few). During the evening, there was a surprise award for Stan who had not been present for his own induction back in 2000.

*Neville Coleman's acceptance speech and profile/biography (and a complete list of Scuba Divers Hall of Fame inductees and board members) was published on pages 78-9 of the April issue of Dive Log. The article features a photo of Stan Waterman with his hand on Neville Coleman's right shoulder. There are also photos showing Neville with Rodney & Kay Fox, and also with Rodney, Paul Humann and Carl Roessier, the other three living inductees for 2007. Paul Humann was co-publisher of the Reef Identification series books "Reef Fish," "Reef Creature" and "Reef Coral," and other marine guides. Carl Roessier led the first diving expeditions to many of today's most famous remote diving sites. He has popularized the idea of diving remote, pristine reefs using live-aboard boats. The late Ralph Erikson, co-founder of PADI, was one of the (total of) five inductees. Ralph died in May last year.

SAVING LEATHERBACK SEA TURTLES FROM THE BRINK OF EXTINCTION

In last month's Bulletin we reported that, as bycatch from fisheries activities, the Leatherback sea turtle, *Dermochelys coriacea*, could be extinct by as early as 2015 in the Pacific Ocean. Fisheries bycatch is the number one cause of death for adult leatherbacks in the wild. Our report mentioned that a research biologist may have found the key to saving them from the brink of extinction with the help of some rubber hose and fishing line. The groundbreaking work earned him the Archie Carr Biology Award, named after the father of sea turtle conservation, at a recent gathering of scientists and conservationists in South Carolina. Below are details of Todd Jones' research (Taken from UBC Reports | Vol. 53 | No. 4 | [Apr. 5, 2007](#)): -

"Harnessing Turtle Power

By Brian Lin

They have been around for more than 100m years and survived the extinction of the dinosaurs. But human activity and ignorance in the past 50 years has left only 40,000 leatherback sea turtles swimming in our oceans, and as bycatch from fisheries activities, they could be extinct as early as 2015 in the Pacific Ocean. Now a UBC research biologist may have found the key to saving these quietly charismatic animals from the brink of extinction -- with the help of some rubber hose and fishing line. At 250-550 kg and about the size of a Volkswagen Beetle®, an adult leatherback turtle is a sight to

behold. But few people have the privilege in their lifetime to witness these critically endangered animals due to their enigmatic lifestyle and interactions with fisheries. “Leatherbacks are oceanic-pelagic animals,” says T. Todd Jones, a PhD candidate in the Dept. of Zoology, “which means that they are programmed to swim continuously in open waters and are known to swim the entire Pacific Basin to reach their nesting beach -- that’s 13,000 km one way. Unlike the other six species of sea turtles, which forage along the coast or in the reefs, leatherbacks, named after their rubber-textured ‘soft’ shells, have no concept of barriers or boundaries. If you keep them in a tank, they would keep swimming into the walls or dive into the bottom.” For this reason, researchers have had trouble keeping and studying the turtles to find the secrets to their conservation. Jones came up with an ingenious -- and deceptively simple -- solution. He custom-fitted hatchlings with harnesses made of soft rubber hoses and attached them to the top of the pool with a fishing string, reminiscent of a Jolly Jumper®. Immersed in filtered seawater heated to a perfect 24 degrees Celsius -- the same temperature as their Subtropical nursing waters -- each leatherback is given its own “infinity pool.” “As far as they’re concerned, they’re swimming freely in the ocean,” says the Orlando, Florida native, who grew up surfing, snorkeling and fishing the beaches where five species of sea turtles breed and nest. He also pioneered a recipe to satisfy the leatherbacks’ discriminating appetite. “They eat jellyfish almost exclusively, which is quite different from all other sea turtles,” says Jones. “We blend human grade squid and vitamins with gelatin to create jelly strips that are similar in consistency to jellyfish.” It takes a half-dozen undergraduate volunteers working seven days a week to clean, prepare and hand-feed the four kg of food that each leatherback eats a day, the equivalent of 20% of its body mass. Volunteers even jiggle the jelly strips underwater to simulate jellyfish movement, which attracts the turtles over to the food. As a result of these innovations, Jones and his team have achieved the near impossible -- they have raised two healthy leatherbacks from hatchlings since July 2005. At almost two years old and weighing in just under 30 kg, the pair marks the first time more than one leatherback has been raised in captivity, providing crucial comparative data for research and conservation. Researchers around the world have attempted to raise leatherbacks in captivity since 1936. Only two other researchers have been able to maintain a leatherback for more than a year. In 1988, Vincent Bels, a researcher with the Muséum National d’Histoire Naturelle in France raised a leatherback for more than three years. By feeding the juvenile leatherbacks to satiation and meticulously keeping track of their diet and growth, Jones has been able to determine a female leatherback’s maximum growth rate. He has found they need 3.3m kilojoules (or more than 800m calories) of energy to reach sexual maturity. Based on Jones’s findings, leatherbacks could reach sexual maturity in as little as seven years, compared to 15-30 years for other sea turtles, provided that food sources are abundant. What he has learned about leatherback behaviour, diet and physiology in the past two years will also help create protocols for rehabilitating adult leatherbacks that are caught in fishing nets. The groundbreaking work earned him the Archie Carr Biology Award, named after the father of sea turtle conservation, at a recent gathering of scientists and conservationists in South Carolina. “My goal as a scientist is to find out as much I can about these critically endangered animals so we can inform the most effective and appropriate conservation efforts,” says Jones, who has worked with sea turtles for more than a decade. His message to humans? “We now know the amount of energy it takes for a leatherback to

reach adulthood. If we continue to over-use, over-fish and contribute to global warming, there simply won't be enough resources in the ocean for them to sustain themselves and survive the population decimation due to fisheries practices. "Everything we do could be affecting a leatherback turtle somewhere," says Jones."

Here now are some quick facts about leatherback sea turtles: -

"Quick Facts About Leatherback Sea Turtles

A sexually mature female leatherback returns to the beach where she was hatched to breed and nest every two to three years. She could lay as many as 65-85 eggs and then disappear into open ocean until she is ready to breed again.

The hatchlings, small enough to fit in the palm of the hand, must brave predators both on land and at sea, and typically swim non-stop for 36 hours using only nutrients stored in their underbelly. Those who survive are often never seen again until they return as first-time mothers. These are called the "lost years," because up to now, scientists didn't know for sure how long it takes for them to become sexually mature or where they went for nursery grounds.

In the wild, one in 1,000 hatchlings make it to adulthood due to a combination of natural causes and human activities.

Fisheries bycatch is the number one cause of death for adult leatherbacks in the wild. Leatherbacks are the only species of sea turtle with a "soft" shell, which is black with white dots. Each leatherback turtle has a unique pattern, which expands as it grows."

Source: <http://www.publicaffairs.ubc.ca/ubcreports/2007/07apr05/turtle.html>

(As reported in the April issue of our news sheet and Bulletin, Mike Gemmell, information officer for the SA Museum, said that they tour the oceans of the world and they are seen quite regularly in our gulfs. A huge one was sighted off of Outer Harbor, SA on 1st April. Rob and Chris McDonald both saw one off Somerton in June 2001.

Another had been seen 18km off of Port Hughes in 1992. Visit <http://www.mlssa.asn.au/> and read the September 2001 MLSSA Newsletter for further details.)

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 Management Committee (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 info@sdfsa.net to be included on the mailing list for this electronic bulletin.

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