

SDFSA Bulletin – July 2006

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 “SDFSA 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.**

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LARGE CRAB GATHERING EVENT AT RAPID BAY

Three divers were diving at the right (eastward) end of the ‘T’ section, out from Rapid Bay jetty on 25th June, towards the open sea. They saw a huge gathering of spider crabs. They say that the area must have been at least 50 by 50 metres, possibly 100sq.m, and covered in spider crabs. They say that there must have been tens of thousands, maybe more. They say that in that area, there was hardly any sea floor between the individual crabs. None of them had seen anything like that before. They thought that the crabs were probably mating. Some of the bigger ones had a lighter shell colour and were soft.

Was this an isolated incident? Probably not! We reported the very same thing happening in Port Phillip Bay in Victoria at the same time last year. According to our June 2005 news sheet, underwater footage of about 50,000 spider crabs congregating was shown on TV. The reason for the gathering crabs was not known at the time. The exact location of the crabs was kept secret to protect them. If you're game, visit <http://www.justusboys.com/members/blogs/6977/3660/> for more details, including photos.

It also seems from the following report that spider crabs have congregated off Tasmania: - “Liz Turner also facilitated the BBC's acquisition of video footage of the giant spider crab aggregations in Tasmania. This footage and information will be used in the documentary *Planet Earth*, which is the follow up to *The Blue Planet* series.”

Source:

http://72.14.235.104/search?q=cache:Fg67iAJ0EZgJ:www.tmag.tas.gov.au/AboutUs/downloads/AnnRep0304_2.pdf+spider+crabs%2Bcongregation%2BAustralia&hl=en&gl=au&ct=clnk&cd=1

According to “Marine Decapod Crustacea of Southern Australia – A Guide to Identification” by Gary C B Poore, the species *Leptomithrax gaimardii* is “often reported by divers (as occurring) in large numbers in a few metres depth along the Victorian and Tasmanian coasts”.

SARFAC’s Trevor Watts says that he had the same experience on a dive training course about 15 years ago in American River. He says that crabs were “balled up in the thousands.”

Meanwhile, it seems that North Atlantic spider crabs, *Hyas araneus*, have been found in waters off the Antarctic Peninsula. Dr Neil Gilbert, environmental manager at Antarctica New Zealand, says the species could not have migrated such a great distance by its own accord.

ENCOUNTER MARINE PARK

Declaration of the proposed Encounter Marine Park may not occur until 2007 because it cannot be declared until the proposed Marine Parks Act is in place (see below). The DEH has completed analysing almost 500 submissions received through the consultation period. It is now preparing a Summary of Submissions Report. This should be publicly available in the near future. Work is continuing on the refinement of the draft zoning plan and the preparation of a revised zoning map. Amendments to the draft zoning map are intended to improve the balance of conservation. Use of the Encounter Marine Park will be based on information and advice received through the public consultation process. This will be followed by further targeted consultation with key stakeholders and local interest groups. A Regional Impact Assessment Statement (RIAS) supporting the revised zoning plan will be prepared and considered by the Regional Consultative Committee, prior to being submitted to Government for approval. The RIAS is intended to outline any environmental, social and economic implications arising from the proposed zoning arrangements.

PROPOSED MARINE PARKS LEGISLATION

The DEH is aiming to release the draft Bill later this year for a period of public consultation, prior to introducing the final Bill into Parliament. The marine parks legislation will set out the process for declaring marine parks and for developing management plans, including formal arrangements for public consultation, managing displaced commercial fishing and aquaculture effort and Parliamentary approval.

DEVELOPMENT OF OTHER MARINE PARKS

Work to develop marine park management/zoning plans for the remaining 18 focus locations comprising the South Australian Representative System of Marine Protected Areas cannot proceed until the proposed Marine Parks Act is in place.

SCIENTIFIC WORKING GROUP

Apart from a Marine Advisory Committee and Stakeholder Reference Group, an eight member Scientific Working Group has been established to provide the Government with scientific advice to underpin DEH's marine initiatives. The following people were appointed to the Scientific Working Group: - Professor Anthony Cheshire (Chair), Professor Peter Fairweather, Dr Catherine Kemper, Dr Bronwyn Gillanders, Dr Scoresby Shepherd, Dr Hugh Kirkman, Professor Matthais Tomczak and Associate Professor Sean Connell.

TIDAL MOVEMENT

According to Rex Manson from the Friends of (Living) Christie Creek, page 53 of the document "Three dimensional modelling of tides in Gulf St Vincent", chapter 3) says that there is a southerly movement of tides and in turn the water courses when they enter the Gulf south of Port Stanvac. Rex says that the map on page 33 has Edithburgh and Port Stanvac marked and if you compare the location of these two places with the tidal movement charts on 53, it seems that there are 2 separate circulations. He says that he has found that people get confused with the northerly sand drift in relation to metro Adelaide (Kingston Park north). "It may seem like splitting straws, but I think it needs to be reinforced that we are dealing with different coastal/reef management issues in relation to metro Adelaide" he says. For further details visit <http://thesis.library.adelaide.edu.au/adt-SUA/uploads/approved/adt-ADT20010213.232311/public/04chapter3.pdf>

POTENTIAL ACID SULPHATE SOILS AT MARINA SITE

West Coast Sentinel

Potential acid sulphate soils at marina site

15th June 2006

Independent scientist Dr Peter Wood believes the fishing industry in Murat Bay will be directly under threat if the proposed development of the Ceduna Keys marina goes ahead. According to a report by the CSIRO, the mangroves in the area contain potential acid sulphate soils (PASS) which, once disturbed, can lead to major fish kills as well as major contamination of toxic metals in oyster flesh and other marine life. "Potential acid sulphate soils are a natural phenomenon which lie dormant when continuously submerged by the water table," said Dr Wood. "However once potential acid sulphate soils are disturbed and exposed to oxygen, components in the soil will turn to sulphuric acid and will wash into the immediate aquatic environment. "Acid sulphate soil disturbance has caused serious economic costs in Queensland and New South Wales. "It was estimated that the consequences of acid sulphate soil disturbance has cost Queensland over \$100m per year. "According to a submission to the Environment Impact Statement (EIS) by the Department of Environment and Conservation, 'CSIRO mapping indicates potential acid sulphate soils associated with mangrove and intertidal zones along the shoreline of Murat Bay. The EIS does not address the possibility of the channel sediments being potential acid sulphate soils, and no management strategy for the dredged soil is proposed. It is recommended that this matter be dealt with in the response document.' "The developers have since proposed an acid sulphate soils management plan. "The CSIRO risk maps indicate the possibility that an extra high level of treatment will be required, while the management plan underestimates this risk. The necessary soil analyses have not been done. Alternative development options have not been considered. The management plan does not address how various stages of construction will be managed, such as dredging. Issues relating to groundwater disturbance and possible contamination with heavy metals such as arsenic are not addressed. The proposed acid sulphate soils management plan does not comply with the guidelines issued by the SA Coast Protection Board. The safest solution for protecting fisheries and the Ceduna coastal environment would be for the Ceduna Keys project not to go ahead. In particular the area of mangrove and intertidal potential acid sulphate soils which is in the site of the

Ceduna Keys development should remain undisturbed. Environmental scientist Miss Kristen Blood said "fishermen as well as the entire community should indeed be concerned over the threat that the Ceduna Keys development has on the marine environment. It is a well known fact amongst the scientific community that disturbing acid sulphate soils can lead to the destruction of marine habitat. Townsfolk must be made fully aware of the detrimental effects the development may have on this town, well known for it's oyster festival and good fishing as well as it's aesthetic coastal feel that offers revenue from tourism. Once the natural coastal habitat has been replaced with canals and channels, the balance of the ecosystem is disturbed. Fish and birds no longer have breeding grounds leading to infestation by mosquitoes. To help counter this, many canal type communities on the east coast of Australia are now being sprayed with insecticides by overhead planes. "Is this what Ceduna really wants?" Ceduna Marina Development Co Pty Ltd director, David Kelsey said "we have scoped the studies that are required at the next work stage and have a management plan approved for the results of those studies."

Source:

http://www.ceduna.yourguide.com.au/detail.asp?class=news&subclass=general&story_id=487810&category=general&m=6&y=2006

CONTROLS TO LIMIT VICTORIAN ABALONE VIRUS

We reported in our June news sheet that an abalone virus had caused an abalone fishing closure in the western zone for Victoria. Strict quarantine measures have now been introduced to Victoria's south-west waters to stop the spread of the virus which causes ganglioneuritis. It has already infected littoral reefs adjacent to Port Fairy and forced the closure of four Victorian abalone aquaculture farms. A Control Area has been declared by Bob Cameron, the Victorian Minister for Fisheries, along 10kms of coastline west of Port Fairy, following consultation with the local fishing industry. The Control Area extends from the high water mark at Boulder Point (east of the Craggs) to the Moyne River mouth at Port Fairy (extending between 200m and 700m off shore). This is the first time that the virus has been found in Australian waters. It is thought that it is spread by direct contact between abalone, activity that involves human or equipment contact between an infected and healthy abalone, and by other marine species. The Control Area seeks to reduce the risk of human related activity spreading the disease, particularly from reef to reef and over large distances. The following activities are prohibited in the Control Area:-
The use of all commercial fishing and abalone equipment, and the use of recreational hoop-nets, bait traps, recreational haling nets and abalone levers;
Anchoring of vessels and fishing equipment; and,
The collection, or attempted collection, of abalone and all shellfish, rock lobster, sea urchins, all other invertebrates and substrate.

WORLD'S LARGEST PROTECTED MARINE AREA

On 15th June 2006, US President George W. Bush announced the creation of the world's largest protected marine area. President Bush designated a 1,200mile-long chain of small Hawaiian islands (and surrounding waters and reefs that are home to a spectacular array of sea life) as a national monument. Under the National Antiquities Act, President Bush enacted a suite of strict rules for the area, including a five-year phasing out of commercial

and sport fishing. The chain of largely uninhabited atolls, seamounts, reefs and shoals, which sweeps northwest from the big islands of Hawaii, is called the Northwestern Hawaiian Islands. It is home to some 7,000 species of marine life, including endangered green sea turtles and Hawaiian monk seals and millions of breeding seabirds. Environment groups are pleased at the creation of the world's biggest ocean sanctuary, surpassing Australia's Great Barrier Reef Marine Park. The North-western Hawaiian Islands are scattered over 350,000 square kms, an area slightly bigger than Australia's Great Barrier Reef Marine Park. About a quarter of the species living there are found nowhere else on earth. President Bush said, "The undersea forests and mountain ranges in the area comprise the largest remote reef system in the world, and we're going to preserve it."

Source:

http://www.nytimes.com/2006/06/15/science/earth/15hawaii.html?_r=1&th&emc=th&oref=slogin

See also: -

Hawaiian Islands Become World's Biggest Marine Reserve 16/6/06 at

<http://www.abc.net.au/news/newsitems/200606/s1664425.htm>

US to create world's largest marine sanctuary 15/6/06 at

<http://www.newscientist.com/article/dn9338-us-to-create-worlds-largest-marine-sanctuary.html>

Bush's Ocean Sanctuary Pleases Green Groups (USA) at

<http://www.abc.net.au/am/content/2006/s1664516.htm>

DEH COAST AND MARINE SEMINAR PROGRAM – 2006

The Department of Environment Coast and Marine Seminars are held on Wednesdays (or some Fridays) 12.30 - 1.30pm, Coorong Boardroom, 1 Richmond Road, Keswick. All welcome

- 26th July - Sue Gibbs/Alison Wright (Macquarie University – SA Museum/ Senior GIS Officer, Coast and Marine Conservation Branch) – Aerial dolphin survey in Spencer Gulf.
- 30th August - Rosemary Paxinos (Project Officer, Marine Planning, Coast and Marine Conservation Branch) – Marine Planning update.
- Friday 15th September – See below.
- 27th September - Brett Pendlebury (Senior Ranger/Adelaide Dolphin Sanctuary) – Adelaide Dolphin Sanctuary.
- 25th October - Michael Breen (Coast and Marine Conservation Branch) – Mammal Interaction Policy.
- 29th November - Liz Barnett (Senior Project Officer, Estuaries Policy, Coast and Marine Conservation Branch) – Estuaries Action Plan.

ANOTHER COAST AND MARINE SEMINAR PRESENTATION

A seminar on the National Cooperative Approach to Integrated Coastal Zone Management – Framework and Implementation Plan will be presented by Patricia von Baumgarten on Friday 15th September from 12.30-1.30pm in the Coorong Boardroom at 1 Richmond Road, Keswick. For more information and updates contact: Alison Wright, Senior GIS Officer, Marine Programs, Coast and Marine Conservation Branch, Coast and

Marine Program, Department for Environment and Heritage phone 8124 4901 or 0402 337 377 email: wright.alison@saugov.sa.gov.au

WAIVERS, GOOD SAMARITANS & VOLUNTEERS

We have received the following 'legal' comments from Recreation SA and thought that they would be useful to our members: -

WAIVERS

Amendments to the *Recreational Services (Limitation of Liability) Act, 2002*, and the *Trade Practices Act 1974 (Cth)* enables providers of "recreational services" to modify or exclude a duty of care owed to a consumer by the use of a waiver or limitation of liability. This will only apply where there is no registered code in relation to the recreational service. The amendment will only apply until 1 August 2007, after which time the only manner in which liability will be able to be modified with respect to a recreational service will be in accordance with a registered code.

GOOD SAMARITANS

Under the *Civil Liability Act, 1936 (SA) (as amended)* an individual who provides assistance, advice or care to another person in an emergency, where there is no expectation of payment by money or other means, will not be able to be sued for any injury or harm he/she causes if acting in good faith without recklessness (provided the good Samaritan's ability was not significantly impaired by alcohol or drugs).

VOLUNTEERS

Pursuant to the *Volunteers Protection Act, 2001 (SA)* volunteers are protected from liability for injury to another when they are acting in good faith and without recklessness in the course of carrying out community work for a community organisation. This immunity does not operate if the volunteer's ability to carry out the work properly was impaired by drugs or the volunteer was acting outside the scope of activities authorised by the community organisation or contrary to instructions given by the community organisation.

SHARK TRACKING ARTICLE FROM THE ADVERTISER (5/7/06)

"Hunting the hunter

The mysteries of the feared white pointer shark are unravelling as science tracks its movements, writes science reporter Deborah Tideman.

COLUMBA is unique. The 3.5m, 500kg great white shark is the only top-order predator now being tracked by scientists in South Australian waters using a satellite tag. Named after Yorketown's St Columba's Memorial School, which was fascinated by the scientists' work, the satellite tag will provide detailed data of her movements. She joins an elite group of only six other great white sharks previously tracked by CSIRO scientists off the SA coast. CSIRO senior research scientist Barry Bruce, Australia's foremost expert on white pointer sharks, travelled from Hobart to lead the four-day tagging operation last week, which was sponsored by Australian Geographic. The satellite tag fitted on Columba will transmit data when she surfaces, such as where she is and the water temperature, until the devices' batteries expire. The data is picked up by satellites that relay its information to a ground station in France and is accessed in Hobart. CSIRO scientists then plot the shark's movements using this data. "We are building up a picture of their movement patterns and what we are doing now is trying to understand why they

are in certain places at certain times of the year," Mr Bruce said. Evidence gathered so far suggests there are biological hotspots that may dictate the sharks' movements. These include seal colonies in places such as Port Lincoln, islands in the Great Australian Bight and near Esperance; schooling fish such as snapper, which frequent Spencer Gulf and Gulf St Vincent, and schools of gummy sharks - also in the Bight - at certain times of the year. Scientists now believe sharks instinctively know where these hotspots are and travel directly to them using "set corridors" of movement. "They seem to go from place to place directly, and use very similar routes in their pathways to get from one place to another," Mr Bruce said. "It appears that in certain areas when there are sharks moving from place to place, their tracks overlap as if they follow corridors. "The more you track them, the more you see evidence of these corridors." Columba was caught off the remote Neptune Islands, south of Port Lincoln, using a burly of tuna meat and oil. Once caught, Columba was held in a stretcher on the boat while the tag was placed on the dorsal fin in a brief, controlled process during which she was given oxygen via a saltwater hose. A second acoustic tag was also fitted at the time, which sets off an alarm if she swims through listening stations installed in the ocean. One listening station is already installed off the Neptune Islands. Another one is operating off Stradbroke Island, Queensland. Plans are under way to install up to 50 listening stations throughout coastal waters from Western Australia to Queensland. These will pick up data from the acoustic listening tags attached to the sharks when they pass nearby. "Ultimately, the research will provide advice on minimising the risks to people and fishing operations," Mr Bruce said. White sharks are of national and international conservation significance and subject to research conducted throughout Australian waters. They are protected from recreational and commercial fishing in Australia. Despite a scarcity of data on the species' population, scientists believe there has been a decline in their numbers. The main threat faced by sharks is commercial fishing such as netting. "It's very hard to put an estimate on the current status of the shark population, but the more we tag and get information on their movements the better that information will become," Mr Bruce said. The mapping projects have already shown that sharks do not move randomly, and are found in more than just seal colonies. "The really fascinating thing for us following the white sharks around is that it is telling us a lot more about what is happening in the environment," Mr Bruce said. "Tracking white sharks means we can also trace biological events and follow movements of snapper, salmon, school and gummy sharks, and mulloway. "We can't track those other things, but the white sharks are telling us." Mr Bruce said great whites move from one site to another, sometimes thousands of kilometres apart usually at a speed of about 3km/h. They can stop for periods of months in the same location. "We do know that white sharks in the gulf waters are not resident, they are coming and going all year round," Mr Bruce said. "There is no such thing as resident white sharks. "White sharks visit areas and may stay for up to a couple of months but they don't live there." There is a seasonal peak of white sharks off Neptune Islands during winter period but white sharks are in SA waters all year. "We've always wondered why certain places get a higher number of white sharks than others," Mr Bruce said. "Beach protection programs off NSW waters show that some beaches' nets consistently catch white sharks." "What we now think is that could be because that beach is on the corridor that the sharks are passing through on their way to somewhere else. "If we can determine if there is a higher chance of somebody meeting up with a shark using these pathways corridors then we might be

able to tell when people might be at risk of encountering a shark in certain places and to reduce that risk."

Source:

http://www.theadvertiser.news.com.au/common/story_page/0,5936,19685732%255E20221,00.html

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

Recreation SA

Recreation SA's Adventure Activity Standards Working Committee for Snorkelling, Scuba and Aquatic Wildlife Tours

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

The SDF's sponsors are: -

Baird Bay Charters & Ocean Eco Tours

SA Tall Ships Inc. ☎ 8341 2004 ✉ office@satallships.com

Contact the Federation's Secretary on info@sdfsa.net to be included on the mailing list for this electronic bulletin.

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