

G'day from Scuba Dive SA

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This bulletin is provided as a service to members of the

SCUBA DIVERS FEDERATION OF SA

(Trading as Scuba Dive SA)

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Scuba Dive SA is the peak body in South Australia, representing all recreational scuba divers. The SDF is also the 'Safe Diving' Federation. We promote Safe Diving.

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

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WINTER IS SPIDER CRAB SEASON

As reported in our June 2011 Bulletin (http://www.sdfsa.net/newsletters/2011/2011-06_Bulletin.pdf), "Now that the water is getting a little bit cooler, it is time to keep an eye open for spider crab gatherings. Such incidents seem to be occurring around June & July each year. Alexius Sutandio once discovered hundreds of spider crabs gathering together to the left of the Edithburgh jetty in July. He thought that the spider crabs were all mating and he took some video footage, which can be found at either <http://www.facebook.com/ext/share.php?sid=103570472681&h=t8ls6&u=ALmUn&ref=nf> , <http://www.facebook.com/ext/share.php?sid=103570472681&h=t8ls6&u=ALmUn> , or <http://www.youtube.com/user/Whalebug#play/all/uploads-all/0/8agrODIyx2c> . Jason Graefling had also seen them mating at Edithburgh some 5 weeks earlier. In June 2006, a large crab-gathering event was witnessed by 3 divers at Rapid Bay. The three divers were diving at the right (eastward) end of the T-section, out from Rapid Bay jetty when 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. The very same thing happened in Port Phillip Bay, Victoria at the same time in 2005. 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. 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.” It also seems that spider crabs have congregated off Tasmania. According to the Dolphin Research Institute’s page in the May 2011 issue of Dive Log magazine (p.70), there have been massive migrations of spider crabs observed in the shallower, southern waters of Port Phillip Bay. “These usually occur between April and July each year, especially when there is a new or full moon” according to the report. The documentary “Ocean” features some footage of thousands of spider crabs in Port Phillip Bay (The 81-minute (French) documentary is narrated (in English) by Pierce Brosnan. Coincidentally, it features some footage of thousands of spider crabs in Port Phillip Bay). 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”. According to the web page found at <http://www.marineboyproductions.com.au/spider-crabexpeditions.html> , “Spider Crab Expeditions -Spider Crabs reside in Port Philip Bay, Victoria, Australia for 12 months of the year. However, in April through to July each year, as the water cools, the crabs gather in the shallows in their tens of thousands! This aggregation is continuously “on the move” and has been referred to as the “March of The Spider Crabs”. This amazing natural phenomenon is believed to be linked to a mating ritual. Throughout this time period, the crabs gather and play “stacks on the middle”. The mountains of crabs can be up to 2 metres high and cover areas up to a kilometre long. Throughout the cycle, the crabs often moult their shell and, at times, mass “die offs” of Spider Crabs can be seen. The Spider Crab march is an amazing visual experience and resembles scenes from a science fiction film. The gathering also attracts predators such as sting rays and even sharks.” There is a YouTube video at <http://www.youtube.com/watch?v=pflXwCXd6D4> – “SCUBA Diving Melbourne - Spider Crabs at Rye Pier annual mid-winter moult by www.NetBookings.com.au ”. A caption reads: “What a sight, thousands of spider crabs all together for their mid-winter moult. It lasts a few weeks and then all goes back to normal until next year.” Many of the above witnesses of spider crab gatherings thought that the crabs were mating. One web page found, however, suggests that all of the crabs are moulting, rather than mating. It seems though that the crabs mate as soon as moulting is over.

THE LIFESPAN AND MAXIMUM LENGTH OF GREY NURSE SHARKS

According to the web page found at <http://mlssa.org.au/2018/04/04/the-lifespan-and-maximum-length-of-grey-nurse-sharks/> , Dr Nick Otway | Senior Research Scientist | Marine Ecosystems says, “(Re.) grey nurse sharks in NSW. In answer to your questions for the wild population off eastern Australia: (1) grey nurse sharks (males and females) can grow to a maximum length of 3.2 metres (maximum length is measured with the tail in a depressed position [flexed downwards] during a necropsy in a laboratory); and (2) they (males and females) can reach an estimated maximum age of 38 – 40 years, although very few individuals reach this age (which is estimated by counting the number of growth rings in the vertebrae). These statistics are very similar to grey nurse sharks in the disjunct populations elsewhere in the world where they are referred to as sandtiger sharks (i.e. off the east coasts of the USA, and South America) and spotted ragged-tooth sharks (i.e. off the east coast of South Africa). For example, the largest length recorded in a scientific publication for the sandtiger (grey nurse) shark of South America was 3.18 metres and a recent scientific publication estimated the maximum age off the east coast of the USA to be 35 – 40 years.

I hope this information is helpful. Regards, Dr Nick Otway | Senior Research Scientist | Marine Ecosystems”

THE HISTORY OF THE 'DIVER BELOW' FLAG

The International Flag 'A' ("I have a diver down – keep well clear at slow speed") has been around since 1885! Back then, the British Board of Trade introduced the International Code of Signals to be used by vessels at sea. The code consisted of 18 signal flags at the time. The Alpha Flag (Flag A) was a white and blue swallow tail 'burgee' (distinguishing flag). Its original use was to let other vessels know that the boat flying it was restricted in its ability to manoeuvre and should be given right of way. It was traditionally flown when helmet divers were operating from a vessel. The International Code of Signals was revised to contain all the letters of the alphabet (consist of 26 flags) in 1902. A recommendation by the Australian Port Officer's Association on the adoption of the International Code of Signals Flag A, as the flag to be flown by vessels having divers in the water, was accepted by Port and Maritime authorities throughout Australia and came into force on 1st April 1969. There is much more to the story though, as described by Des Williams (Historical Diving Society Aus-Pac) in his article titled "Development of the Diver's Safety Flag". Allan Kessler recently posted the article on Facebook: -

"DEVELOPMENT OF THE DIVER'S SAFETY FLAG by Des Williams HDS Aus-Pac
Surfacing after a dive, there is nothing more unsettling to a diver than the sound of a boat travelling at speed above. One must keep an anxious lookout for churning propellers whilst praying they are not about to pass overhead. The risk of serious injury or death from motor boat "bite" is ever present and most, if not all, experienced divers can relate tales of near misses. The 1950s and 60s were boom years for spearfishing and scuba diving, which also coincided with a boom in aluminium and fibreglass runabout affordability, so it wasn't long before the increased danger to divers became very real indeed.

By 1960, the spear-fisher's representative body, the Underwater Spear Fishermen's Association (USFA), was pressuring all state maritime authorities to recognise the diver's flag, composed of a red background with one white diagonal stripe from the top right-hand corner to the bottom left hand corner and for it to be incorporated in the States flags code. It was thought that the red background of such a flag was universally recognised as a warning of danger. It was the diver's flag design being supported by American sports divers at the time.

Its design was originally conceived by Denzel Dockery in the early 1950s and was sold through his dive shop at Flint, Michigan, USA. The flag was seen by Ted Nixon, a sales rep for US Divers and he offered to promote and sell the flag nationally. It wasn't long before the flag gained recognition by various US states and county ordinances who legalised and more importantly, enforced its use.

Under pressure by the USFA for an officially recognised single diver's flag, the Australian Ports Authority (APA) approached the Ministry of Transport (MOT) in London for advice. Not surprisingly, a complicated British solution was forthcoming! The MOT deemed the US sport diver's flag as unsatisfactory! They recommended the APA adopt the International Code of Signals flags H over D. Yes, a TWO flag signal to convey the message "I am engaged in submarine survey. Keep Clear." Internationally, the H flag flown separately means "I have a pilot on board" whilst the D flag separately means "keep clear of me – I am manoeuvring with difficulty".

It was decided that as the H over D flags system was the accepted and recognised signal to shipping of all nations, it was therefore of greater significance. As the Australian Navy also agreed with this view, the H over D flags signal was adopted during 1962 and was to be flown from a boat during diving operations. And, to be sure, to be sure, it was also recommended that a

supplementary red and white flag, (as originally used in the USA!) was to be towed on a float to indicate the presence of a diver in the water. No doubt, Australian flag manufacturers rejoiced! Not surprisingly, a period of confusion followed, as the individual Australian States, prevaricated over which system to use. The next confusing flag development came in NSW on 2nd June 1967, when the Maritime Services Board of NSW made the following announcement “A new signal flag is to be adopted in NSW to signify the presence of skin divers in underwater operations. This was announced today, by the Maritime Services Board which indicated that at a recent meeting of the permanent committee of the Australian Port Authorities’ Association, it was decided that a red flag with a white diagonal cross should be adopted throughout Australia, to denote the presence of skin divers. The Maritime Services Board will promulgate regulations in due course to give statutory authority for the use of the red flag with the white diagonal cross in NSW.”

This single flag (the NATO Flag 4) was exactly what divers had wanted and in NSW at least, rapidly gained acceptance whilst the US sport diver’s flag was quickly abandoned, for the new closely similar flag. However, no sooner had Flag 4 been introduced than a combination of international events and the rise in sport diving popularity, dictated a further change.

In 1885, the British Board of Trade had introduced the International Code of Signals to be used by vessels at sea. At this time the code consisted of 18 signal flags. In 1902 the code was revised to consist of 26 flags containing all the letters of the alphabet. The Alpha Flag (Flag A), a white and blue swallow tail burgee, had originally flown to let other vessels know that the boat flying it was restricted in its ability to manoeuvre and should be given right of way. It was traditionally flown when helmet divers were operating from a vessel. Well, brilliant! Finally, a decision to use a flag, which had signalled diver’s below since the 1880s!

During the Fourth Assembly of the Intergovernmental Maritime Consultative Organisation (IMCO) held during 1965, the International Code of Signals was revised with the changes to become effective from January 1st 1969. Of particular concern to divers was the revised meaning given to Flag A. Its meaning now was “I have a diver down – keep well clear at slow speed”. A recommendation by the Australian Port Officer’s Association on the adoption of the International Code of Signals Flag A, as the flag to be flown by vessels having divers in the water, was accepted by Port and Maritime authorities throughout Australia and came into force on 1st April 1969.

It was subsequently agreed that Flag A must be flown from boats and must measure a minimum of 915mm X 760mm. In 1983, the Maritime Services Board of NSW introduced a regulation approving the flying of Flag A from a buoy, or float, in use by spear-fishers or divers, providing the flag measured no less than 700mm X 200mm. Sanity prevailed, and this is still the status quo today.

Your reporter was still cautiously diving under the H over D flags system in Victoria, during early 1970, even though the new single Flag A had been approved eight months earlier. Unfortunately, the new Flag A was not immediately understood by all boat users, so divers were very circumspect in its use during the first few years. Back then, it was not uncommon for fishermen to motor up to a dive boat to ask, “what flag is that?” The Scuba Diver’s Federation in various States were quick to set about a national advertising campaign, to promote the new Flag A, amongst all boat users. Bumper stickers were handed out and signs erected at boat ramps during this campaign*. Today, the Flag A is widely understood and as always, for your own protection, you are strongly urged to “Fly the Flag for Diver Safety”.

Similar details to those above were published in the Log Book first produced by the Scuba Divers Federation of Australia in the 1970s. The log book stated that it was a requirement in NSW for the flag to either be made of rigid material or held rigid by a wire along the top.

Our thanks go to Des Williams for the details provided in his article “Development of the Diver’s Safety Flag”.

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

RecfishSA (SA Recreational Fishing Advisory Council)

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

If you wish to be included on the mailing list for this electronic bulletin, contact Steve Reynolds, the Federation’s Secretary, on info@sdfs.net for more details.

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