

SDFSFA Bulletin December 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
PO Box 360, Goodwood SA 5034 sdfsfa@adam.com.au www.sdfsfa.net

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 to
other divers, the government and general public.

**A merry Christmas and a happy new year to our member clubs and Bulletin
readers. Enjoy diving during your Christmas break.**

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
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PORT DEVELOPMENT COULD SCUTTLE GIANT CUTTLEFISH

"A vulnerable and genetically distinct population of giant cuttlefish stands in the way of
the mining industry's bid for a deep-sea port in South Australia's Spencer Gulf.

The shallows off Port Bonython, 25km northeast of the steel city of Whyalla, are the
world's largest breeding ground for the giant Australian cuttlefish, which, at up to 1.5m
long, are the largest of their kind.

But the mining industry is eyeing this spot for a deep-sea port to take its billions of
dollars of uranium, copper, gold and other minerals to the world.

The state Government has shown its hand by buying land for "future developments" at
the site, putting mining wealth and conservation on a collision course in this narrow
stretch of water 220km north of Adelaide. Marine biologists, fishers and environment
groups are gravely concerned for the cuttlefish's future if Port Bonython is expanded.
Spearheaded by the Olympic Dam uranium, copper and gold mine expansion, South
Australia's coming mining boom totals \$12billion worth of development.

The state's Chamber of Mines and Energy is lobbying Premier Mike Rann and senior
ministers to develop Port Bonython because it is close to rail links. If the bid is
successful, about 20 large ships a week will dock at the port compared with two at
present and a 3km jetty would be built to handle the extra traffic.

The expansion and associated dredging could kill off the cuttlefish, which, according to Adelaide University marine biologist Bronwyn Gillanders, is a species all of its own. Associate professor Gillanders has recently completed a study that showed the local cuttlefish - a "master of camouflage" with its ability to change colour - is a separate species that evolved "in the very recent past".

After being nearly fished out 10 years ago, a moratorium has allowed stocks to recover - but the cuttlefish faces an uncertain future as it breeds only once in its one-to-two-year lifetime, so any change in its environment could be fatal.

"If they don't breed in that first year, the population will reduce quite dramatically," Professor Gillanders said.

And if the expanded port did not kill off the species, a planned desalination plant - also for the mining industry and also for Port Bonython - would, Professor Gillanders said. Briny water from the plant pumped into the gulf could push salinity levels well past its present level of about 40 parts per thousand: "At 50 parts per thousand there's mortality," she said. "There's a number of people that are concerned about, not just the idea of the port, but also the desalination plant."

The Australian Conservation Foundation and Wilderness Society are opposed to the port development and the desalination plant.

"People are hoping that the cuttlefish issue will go away and it will if this goes ahead - permanently," Wilderness Society state campaign manager Peter Owen said. "Putting this infrastructure adjacent to the known breeding grounds of a unique and potentially endangered species is fairly short-sighted."

Chris Fewster - a former commercial fisherman who dives in the area about once a week - is not against progress and welcomes the mining boom, but "not at the expense of what's already here".

He fears the extra ships will bring pests such as starfish or algae that will "decimate our local environment".

"If they have dirty hulls there could be any number of species that fall off," Mr Fewster said.

Locals are also concerned about how the developments would affect the fishing industry."

Source: <http://www.theaustralian.news.com.au/story/0,25197,22859025-30417,00.html>

ANTI-WHALING PETITION

Actress Isabel Lucas, a former "Home & Away" star, is helping to campaign against Japan's slaughter of whales and dolphins. To find out more, or to sign her petition, go to www.news.com.au/dailytelegraph . Here are the details of the petition: -

"Ask Japan to stop targeting humpbacks

Dear Sir/Madam

I am an Australian who is concerned about the killing of Humpback whales in the Southern Ocean Whale Sanctuary by the Japanese government. Humpback whales are important wild animals for us socially and economically, due to the growing popularity of whale watching.

Please understand and respect that people in Australia and other countries want to protect these rare and threatened animals for future generations.

As a member of the Democratic Party of Japan, which made strong progress in the last election, I respectfully ask you to understand how Japan's whaling policy, funded by Japanese taxpayers, is creating diplomatic and environmental problems outside of Japan. And I ask you to seriously challenge the current government's whaling policy in order to stop the killing of humpback and other whales in Antarctica.

I also hope you will be able to visit Australia to go whale watching in the near future to see and experience how magnificent humpback whales are and how much the whale watching industry contributes to our economy.

Sincerely yours,"

You can add your name to the on-line petition by visiting

<http://www.news.com.au/dailytelegraph/story/0,22049,22836857-5014728,00.html> .

THRASHER OR THRESHER?

The crew of the Channel 10 helicopter recently identified a shark sighted at Tennyson as a Thrasher shark. My first thought was "Great, a new species!". A shark reference book confirmed that the species that I was a bit familiar with was called Thresher shark, not Thrasher. But then I started wondering what the difference was between 'threshing' and 'thrashing'. My Collins dictionary explains that a thresher is a person or machine that threshes (beats out or separates grain from husks of corn, etc..). But then the dictionary suggested that an alternative word for 'thresher' was 'thrasher'. The dictionary explained that 'thrash' means to beat with a stick or whip. 'Thrashing' is beating or flogging. To 'thrash about' means to move one's limbs violently and aimlessly. But then I was surprised to read that 'thrasher' (not 'thresher') was a kind of large shark. But all my shark reference books refer to only 'thresher' sharks. One of my shark reference books says that the Pelagic Thresher, *Alopias pelagicus*, is "harmless and shy of divers". This species is said to only reach 3.3m, rather than 4m. It is said to "becoming less common in some areas because of heavy fishing". A second species, the Common Thresher Shark (or Thintail Thresher), *Alopias vulpinus*, is said to reach lengths of 5-6m (males only?). It is not considered aggressive but should be treated with caution. It too, is said to "becoming uncommon in many areas due to fishing pressure". Another book, however, says that this species has attacked boats and is possibly dangerous. The book also says that they prefer oceanic conditions and deep coastal bays. Yet another book says that they are harmless, having small pointed teeth. Another book says that they are no danger to swimmers and they have never attacked divers even though they will circle around just in sight of them. According to Dictionary.net, the free online English dictionary, at

<http://www.dictionary.net/thrasher+shark>, the (Common) Thresher Shark, *Alopias vulpes* (*vulpinus*), is "A large and voracious shark, remarkable for the great length of the upper lobe of its tail, with which it beats, or thrashes, its prey. It is found both upon the American and the European coasts." It also says that the shark is also called a fox shark, sea ape, sea fox, slasher, swingle-tail, and thrasher shark.

A book, which mistakenly refers to the 'Pelagic **Tresher** Shark', says that there are three species of thresher shark, *Alopias superciliosus* (Bigeye Thresher Shark) being the third species.

The web page found at <http://seafoxss402.homestead.com/Thresher.html> says that there are four species of thresher shark, including the Pacific Bigeye Thresher, *Alopias profundis*, which occur in the northwestern Pacific. It says that *Alopias superciliosus* is

the Atlantic Bigeye Thresher because it occurs in the Atlantic. It also says that the Common Thresher Shark, *Alopias vulpinus*, (also known as longtail thresher) is cosmopolitan in temperate and tropical waters. It says, "All threshers are fundamentally pelagic but will occasionally move in close to shore." It also listed a variety of names for thresher sharks, confirming many of those mentioned above, but also saying 'swiveltail' rather than 'swingle-tail'.

One of the books referred to above indicated that (Common) Thresher Sharks, *Alopias vulpinus*, (once called *Alopias caudatus*) are immediately recognizable so, presuming that the Channel 10 helicopter crew made no mistake identifying their sighting as a thrasher/thresher shark, it seems to be a rare sighting of this kind of shark off of our metropolitan coast.

Wikipedia, the on-line encyclopedia, says (at <http://en.wikipedia.org/wiki/Alopiidae>) that, "Like all large sharks, threshers are slow growing and are therefore threatened by commercial fisheries. Other than for its meat, the sharks are hunted for their liver oil, skin (for leather), and their fins, for use in shark-fin soup. They do not appear to be a threat to humans, although some divers have been hit with the upper tail lobe. There is an unconfirmed account of a fisherman being decapitated by a tail swipe as the shark breached*."

* This last comment seems to refer to the story of a fisherman standing on the deck of an American trawler in the North Atlantic Sea. If that is the case, and the Thresher was breaching i.e. in the water at the time, it seems that it was under some kind of threat of being caught and killed. That being the case, it's not surprising then that the Thresher lashed out with its long tail, the result being that the tail decapitated the fisherman standing on the deck with a single lash.

Information about the Bigeye thresher, *Alopias superciliosus*, can be found at http://en.wikipedia.org/wiki/Bigeye_thresher.

CATCH CUTS 'BRING BIGGER PROFITS'

SARFAC recently sent us the following details from the Sea Anglers' Conservation Network (<http://www.sacn.org.uk/>): -

"Catch cuts 'bring bigger profits' by Richard Black, Environment correspondent, BBC News website.

Fishermen would make even more money than previously thought if they let depleted stocks rebuild, according to research from Australia and the US. When fish are more plentiful it becomes easier and cheaper to catch them. Now researchers have shown how bigger stocks would bring bigger profits for those in the industry. Writing in the journal *Science*, they report that Australia is to start managing some of its fisheries this way from the beginning of next year. The publication comes a couple of weeks before European fisheries ministers meet to decide 2008 quotas for many species, including the severely depleted cod.

"This is what some people may have suspected before, but we're the first to actually show the result," said research leader Quentin Grafton from the Australian National University (ANU) in Canberra. "As soon as you start saying 'we're going to reduce the harvest', fishermen say 'you're going to make us worse off'; but we're saying 'if you reduce the harvest now, you'll actually be better off'."

Traditional fisheries management centres around a concept known as Maximum Sustainable Yield (MSY) - the highest catches that can be taken year after year without

running stocks down. Many fisheries authorities that claim to aim for MSY are failing to achieve their target. The UN calculates that 75% of commercial fisheries globally are exploited either up to or beyond their sustainable limits.

While MSY management might yield the biggest catches, Professor Grafton's team calculated that fishermen would earn more if they kept stocks at a higher level, which they have named Maximum Economic Yield (MEY). This is because as stocks fall, it becomes progressively more expensive to catch what is left. Keeping stocks higher and catching less might lower a fisherman's income, but it would lower costs even more.

The size of the extra profit, and the extra amount of stocks conserved, depends on the species, with the biggest effect noted in long-lived, slowly-reproducing organisms.

"So we looked at the orange roughy fishery off south-eastern Australia - that's a very long-lived species that can go up to 150 years," said Professor Grafton. "We calculate that we should be conserving about 65% of the virgin biomass whereas at the moment we're down to about 30%. With a faster-growing species such as the [Australian] northern prawn fishery, you're at the other end of the spectrum."

With advice from scientists at ANU, the Australian federal government is to introduce MEY-based management for 26 species from the beginning of 2008, Professor Grafton said. European fisheries managers theoretically aim for traditional measures of sustainability, though the quotas recommended annually by scientists are routinely inflated in the European Commission's proposals, and then inflated again when national ministers make the final decision just before Christmas.

A spokeswoman for Britain's environment ministry (Defra) said that although they acknowledged optimal stock sizes could be larger than indicated by MSY calculations, "The UK is committed to the Johannesburg agreement of bringing stocks to MSY levels by 2015, and this will still ensure a greater long-term security for stocks and their fisheries." Martin Pastoors, chair of the Advisory Committee on Fishery Management within the International Council for the Exploration of the Sea (Ices), which provides the EU's scientific advice on fisheries, commented: "The simple logic of lower costs at bigger stock size seems plausible, and therefore higher profits at MEY above MSY. But, he cautioned: "Low effort and high revenues mean that a small group of people could become very rich."

Overcapacity in the fishing industry, in Europe and elsewhere, means that many fishermen are competing harder for a smaller share of shrinking stocks; profit now, rather than when stocks have rebuilt later, is the imperative. Quentin Grafton's team believes the new findings could enable fishermen, with support from their governments, to take out loans secured against future profits, enabling a temporary suspension of fishing on fragile stocks. "Fishers individually wouldn't be able to borrow from banks, but with governments they could - this could finance a transitional fund," he said.

This idea is being looked at in relation to tuna fisheries of the eastern Pacific, another area where high catches have brought some stocks to the brink of commercial extinction."

Source: <http://news.bbc.co.uk/1/hi/sci/tech/7127761.stm>

LAST LAUGH

A research leader from the Australian National University in Canberra said to some fishermen "We're going to reduce the harvest." The fishermen replied "What about us?" "Don't worry," said the researcher, "we want to do the right thing for mee (MEY¹), yoo

(EU²), an' yoo (ANU³) (1 = Maximum Economic Yield, 2 = the European Union and 3 = the Australian National University).”

VICTORIAN ABALONE GANGLIONEURITIS VIRUS

On 28th November we received an email message from Recfish Australia via SARFAC regarding the National Abalone Health Advisory Group planning to hold its first meeting on 14th December.

UPDATES ON GANGLIONEURITIS VIRUS IN ABALONE

Information Bulletin 27th November 2007

“On 24TH September 2007, the Victorian Department of Primary Industries (VDPI) agreed to support a proposal from the VADA Victorian Abalone Divers Association to create a virus “firebreak”. The proposal involves commercial divers attempting to remove all abalone from a defined area of reef adjacent to the eastern front of the virus to reduce the risk of the spread of AVG further into the central zone fishery. It is expected that this operation will commence in the coming weeks.

On 10 November 2007, a commercial diver located moribund abalone at the beginning of the Bay of Island near Peterborough, approximately 500 metres east of the area confirmed on 13 September 2007. The next day, a commercial abalone diver reported observing abalone showing signs of AVG while diving about 50 metres south of Discovery Bay Marine Park, 100 metres offshore from Whites beach.

VDPI Attwood has since confirmed the presence of AVG in the abalone samples that were submitted for histopathology from the above areas.”

Information Bulletin 12th December 2007

“On 30TH November 2007, a Fisheries Victoria Research diver located moribund abalone 300 metres east of Mutton Bird Island at Crofts Bay in the Bay of Islands near Peterborough. This location is approximately 1 kilometre east of the area confirmed on 22 November 2007. The Victorian Department of Primary Industries (VDPI) Attwood has since confirmed the presence of Abalone Viral Ganglioneuritis (AVG) in the abalone samples that were submitted for histopathology from the above areas.

The key outcome of the VDPI hosted 2nd National Abalone Virus Scientific and Management Forum held on 2 October 2007, was that abalone health requires a national approach and the development of a draft national work plan, which is governed by an appropriate coordinating body. The membership of the national abalone health management advisory and coordinating body has broad expertise in abalone harvesting (recreational and commercial), health, aquaculture and management. The current membership includes:

Dr Peter Appleford- Australian Fisheries Management Forum

Dr Kevin Ellard- Aquatic Animal Health Committee

Mr Mark Gervis- Australian Abalone Growers Association

Mr Lawrence Moore- RecFish Australia

Mr Michael Tokley- Abalone Council of Australia

The co-ordinating body will be responsible for finalising the draft workplan and overseeing its implementation in a timely manner. The first proposed meeting of the co-ordinating body is scheduled for Friday 14 December 2007, and will focus preparing a draft workplan and the terms of reference. A formal cost sharing arrangement between

relevant jurisdictions and stakeholders is also expected to be developed. The outcomes of the meeting will be forwarded to all appropriate groups for their information.

Recently the VDPI commissioned an independent expert to review a scientific paper titled "Taiwanese Abalone feed: a possible infectivity source of the herpes-Like Viral Epidemic in Australian abalone" that investigates possible sources of AVG. The review was a result of concerns raised by abalone stakeholders regarding the contents of the paper and some assumptions made regarding the source of AVG. In short, the reviewer stated that the paper relied on a number of unsupported assumptions and postulations that were ultimately unconvincing. A full copy of the review is available on the DPI abalone disease webpage at www.dpi.vic.gov.au.

For further information, please contact the Executive Director of Fisheries Victoria, Dr Peter Appleford on (03) 9658 4360."

MORE ON MORETON BAY

"Bligh launches conservation plan

Moreton Bay, known as Brisbane's playground, will stay that way, according to Premier Anna Bligh, who yesterday announced that professional fishing would be banned in almost 15per cent of the vast waterway.

Over the past two decades, the use of Moreton Bay has been a hot political topic, with several reports commissioned in an effort to protect the interests of professional and amateur fishermen, boaties, commercial whale-watching operators, conservationists and residents of the many bay islands.

There has also been continuing debate about a bridge to connect the larger Stradbroke Island and several smaller ones with the mainland - a proposal that has not attracted political support.

Ms Bligh yesterday launched a draft conservation plan for the bay, acknowledging that the ban placed on commercial fishing would result in some trawler operators going out of business.

At present only 0.5per cent of Moreton Bay is covered by green zones - areas protected from all fishing activities - but that has now been raised to almost 15per cent of the 350,000ha bay.

Ms Bligh said the changes would cost the \$24 million-a-year fishing industry about \$4million, and the Government intended to set up a \$14million adjustment package to buy out the commercial fishing licences over the next few years.

"This plan is about looking after fishing well into the future, and making sure for generations to come there are fish there for all of us to catch, and for people like me who like eating seafood - fish out there for many years to come for us to eat," Ms Bligh said.

"We can't have a fishing industry if we don't protect the sensitive breeding habitat of this bay, and in order to do that we need more green zones."

Ms Bligh said the expansion of the protection zones would ensure the future of the internationally significant marine environment that supports more than 750 species of fish and 120 species of coral.

"An expert panel including marine scientists and an economist have helped with the process and thorough consultation has occurred with marine park users," she said.

"The proposed green zones have been designed to minimise impacts on all Moreton Bay users as much as possible."

Source: http://www.theaustralian.news.com.au/story/0,,22859027-30417,00.html%3Ffrom%3Dpublic_rss

PIRATE SHIP FOUND AFTER 300 YEARS

"A US underwater archeology team announced yesterday that it had probably discovered the shattered remnants of a ship once captained by the notorious buccaneer William Kidd off a tiny Dominican Republic island.

The barnacled cannons and anchors found stacked beneath just 3m of crystalline coastal water off Catalina Island are believed to be the wreckage of the *Quedagh Merchant*, a ship abandoned by the Scottish privateer in 1699, Indiana University researchers said.

"When I first looked down and saw it, I couldn't believe everybody missed it for 300 years," said Charles Beeker, a scuba-diving archeologist who teaches at Indiana University.

"I've been on thousands of wrecks and this is one of the first where it's been untouched by looters."

The Dominican Government has licensed the US university to study the wreckage and convert the sea floor where the cannons and anchors are marooned into an underwater preserve, where it will be accessible to divers and snorkellers.

"We believe this is a living museum," Professor Beeker said.

"The treasure in this case is the wreck itself." The scattered cannons and anchors, partially hidden by swirling sand, were first spotted by a local man who reported his discovery to the Dominican Government, according to Francis Soto, director of the National Office of Subaquatic Heritage and Culture.

The Indiana University team then examined the wreck at the request of the Caribbean country's Government.

The find could reveal key information about piracy in the Caribbean and about the elusive Captain Kidd, according to John Foster, California's state underwater archeologist, who will participate in the research.

"I look forward to a meticulous study of the ship, its age, its armament, its construction," Mr Foster said. "Because there is extensive written documentation, this is an opportunity we rarely have to test historic information against the archeological record."

Historian Richard Zacks, who wrote a book about the seafaring privateer called *The Pirate Hunter: The True Story of Captain Kidd*, said the Scotsman had captured the 500-tonne Moorish ship in the Indian Ocean but left it in the Caribbean in 1699 as he travelled to New York to try and clear his name of criminal charges.

Kidd failed to convince authorities of his innocence and was hanged in 1701 in London, Mr Zacks said. His body was suspended in a gibbet, a kind of cage, on the Thames River as a warning to other privateers."

Source: <http://www.theaustralian.news.com.au/story/0,25197,22927327-30417,00.html>

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 to be included on the mailing list for this electronic bulletin.

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