

Student Information Sheet 12

Australian Shark Attacks

Introduction

Sharks occur in all the coastal waters and **estuarine** habitats around Australia's coast. As the population increases many more people are entering coastal waters. In the last 50 years, there have been only 61 human deaths in Australian waters from shark attack. Some years there are none, other years there have been up to three in a year, but the average is around one per year. Each year thousands of swimming days take place on our beaches, harbours and rivers and the number is increasing with both increasing population and tourism.

The Australian Shark Attack File

In 1984 the Australian Shark Attack File (ASAF) was established to find out the actual number of shark attacks in Australian waters, and to help researchers understand and record the behaviours of sharks where close contact with humans occurs.



Ron Taylor diving with an oceanic whitetip shark, *Carcharhinus longimanus* (© Ron and Valerie Taylor)

As part of a world-wide study into shark behaviour, data from the ASAF may eventually help identify common factors relating to the cause of attacks on humans.

The ASAF database is held at Taronga Zoo, Sydney, and is associated with the International Shark Attack File that is coordinated by the American **Elasmobranch** Society. Information on shark attacks can be accessed at <http://www.zoo.nsw.gov.au/content/view.asp?id=126>.

Shark attacks on humans



Sharks view of a board rider

According to the ASAF, there have been 61 recorded human deaths due to shark attack in the last 50 years (up to December 2004). Of these, 22 have occurred in Queensland, 16 in South Australia, 9 in New South Wales, 7 in Western Australia, 4 in Tasmania, and 3 in Victoria (Table 1 (next page)). No fatal attacks have been recorded in the Northern Territory in that time period.

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State	Total attacks	Fatal attacks	Last Fatal attack
NSW	238	72	1993 Byron Bay
QLD	221	71	2004 Opal Reef
WA	70	12	2004 Gracetown
SA	46	20	2004 West Beach
VIC	32	7	1977 Mornington Peninsula
TAS	21	5	1993 Tenth Island, Georgetown
NT	11	3	1938 Bathurst Island
	639	190	(as of December 2004)

Table 1. Information from the Australian Shark Attack File records of reported shark/human interactions since 1791 (over a 213 year period)

Which sharks are potentially dangerous to humans?

There are over 370 shark **species** world wide with at least 166 species inhabiting Australian waters. Of those only a very small number are known to be dangerous to humans.

The ASAF data indicates that the majority of shark attacks that were deadly or severely injured humans come from three main groups of sharks — the white shark (*Carcharodon carcharias*), tiger shark (*Galeocerdo cuvier*) and the family of whalers (*Carcharhinidae* which contain the bull shark *Carcharias leucas*).



Ron Taylor diving with great hammerhead sharks, *Sphyrna mokarran*
(© Ron and Valerie Taylor)

Other large sharks can also be considered possibly dangerous, mostly because of their size. They include the wobbegong (*Orectolobus* sp), hammerhead (*Sphyrna* sp), blue shark (*Prionace glauca*), mako (*Isurus* sp), and grey nurse shark (*Carcharias taurus*). However, it must be remembered that any large animal can be considered dangerous to humans (on land or in the sea).

Why do sharks attack humans?



Sharks view of a board rider
(© Ron and Valerie Taylor)

There are several ideas as to why sharks 'attack' humans. Some 'attacks' on humans may be purely curiosity; some may be territorial; others may be related to the invasion of the shark's personal space by humans. Other ideas include mistaken identity, or the shark may have been disrupted during its breeding behaviour. It has been shown that most encounters with sharks, where injuries occur, usually result in single racking wounds that may indicate defence behaviour rather than a hunger-related attack.

The majority of people that are bitten receive a single bite and are released, which indicates the shark is not just biting to get food in these cases.

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Prevention of shark attacks

Shark attacks remain a real but unlikely danger for humans entering the water. However, this does not mean that people should ignore the chance of an attack by swimming outside the protection of the patrolled beaches. There is a much higher risk of drowning while swimming than from being killed by a shark.

The best prevention is to use common sense. Awareness of what may invite or provoke an attack will assist in deciding where to go and what to do in the water. These are some safety guidelines:

- Do not swim, dive or surf where dangerous sharks are known to gather, such as canal developments in Southern Queensland.
- Always swim, dive or surf with other people at patrolled beaches.
- Do not swim while bleeding.
- Do not swim in dirty or murky water.
- Avoid swimming well offshore, near deep channels, at river mouths or along drop-offs to deeper water.
- Do not swim where there are large schools of fish.
- Do not swim with pets and domestic animals.
- Look carefully before jumping into the water from a boat or wharf.
- If possible do not swim at dusk, dawn or at night when some sharks may be more active.
- Do not swim near people fishing or spearfishing.
- If a shark is sighted in the area leave the water as quickly and calmly as possible.
- Do not wear jewellery or shiny objects as the reflections could be mistaken for fish.
- Do not swim near fur seal colonies especially during the pupping season.

If you are in the water and you see a shark, **stay calm!** Leave the area as quickly and as quietly as possible. However, if an attack is imminent try to keep the shark in sight and if it gets close then any action you take may disturb the attack pattern, such as hitting the shark's nose, gouging at its eyes, making sudden body movements, blowing bubbles, etc.

Alex Gaut (MESA) adapted this information sheet (which is suitable for primary school students) from the information sheet compiled for the general public by © John West (jwest@zoo.nsw.gov.au).

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