

Research holds key to safer coexistence with sharks

December 2 2013, by Ryan Kempster



The recent fatal shark attacks at Gracetown in WA and Coffs Harbour in NSW are a tragedy and our sympathy is extended to the family and friends of the victims and to the surrounding communities.

The Oceans Institute and the School of Animal Biology at The University of Western Australia have been working hard towards the testing of existing (commercially available) shark deterrents and the development of new methods (using light, sound and bubbles) to protect ocean users, thanks to funding from the WA State Government.

We will continue to dedicate all of our efforts to satisfy the requirements of both of these State-funded grants. This research is grounded in our

unique knowledge of how large predatory sharks detect their sensory environment, which ultimately guides their behavioural interactions with various stimuli.

We are working hard towards reducing the risk of [shark attacks](#) by providing independent scientific rigour to the development of new repellents, but it is important that people also accept some personal responsibility when entering the ocean.

Research has shown that the number of shark bite incidents occurring each year appears to be directly related to the length of time people spend in the water. Given that Western Australia has the fastest population growth of any Australian state, there is likely to be an increasing number of people venturing out into our coastal waters every year.

Thus, the likelihood of someone encountering a shark increases and with it a corresponding increase in shark bite incidents. Therefore, before suggesting that we cull economically and ecologically important [shark species](#), with no scientific assessment of their populations, we need to educate people about the risks involved when entering the ocean and how they can protect themselves from harm.

The white shark, a species often thought to be involved in fatal [shark bites](#), is classified by the IUCN (International Union for the Conservation of Nature) as being vulnerable to extinction, a status that has remained the same since 1996.

Despite the high profile media attention that the [white shark](#) receives, relatively little is known about its biology. We need to better understand exactly what causes sharks to bite people, what factors are responsible for them venturing closer to shore and more about their biology and life history.

Recent research has found, for example, that sharks' diving behaviour is affected by temperature and the moon, that female white sharks have different movement patterns to males, and that Australian white sharks have home territories they always return to.

This kind of research helps us better understand where [sharks](#) will be and how they are likely to behave. This approach could help us develop strategies to coexist with these important apex predators and continue to enjoy the ocean safely.

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