

SUPPORT OUR SHARKS

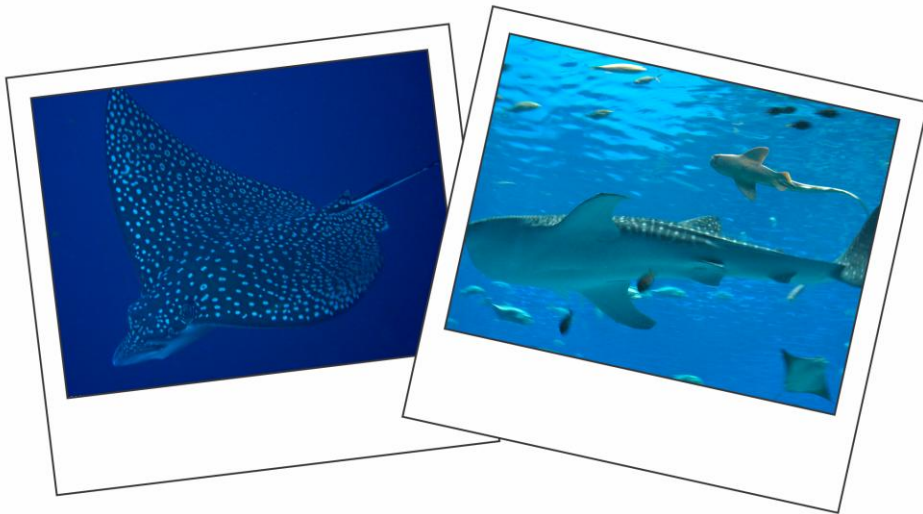
# THE BITE

Annual Report 2012



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For more information on topics discussed in this report go to [www.supportoursharks.com](http://www.supportoursharks.com)

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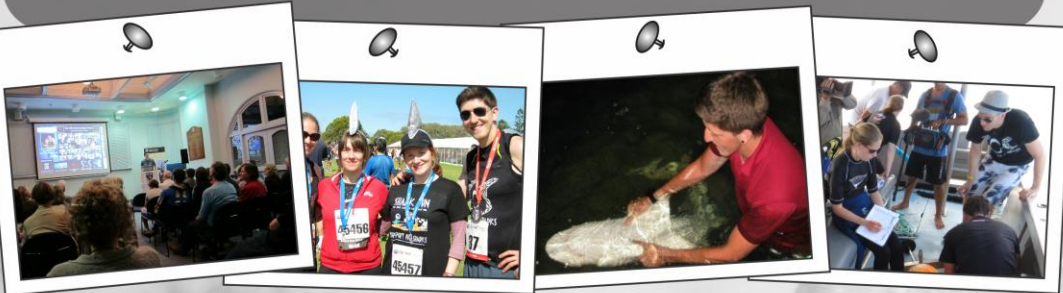
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# Overview

It has been another successful year for Support Our Sharks. In 2012, we continued to be proactive in communicating science and conservation to the world through international media outlets, peer reviewed publications, online educational tools, films and much more. This document reports the progress and achievements of SOS during 2012. Here you will find a description of SOS programs, objectives, activities and results that were generated with your support. We hope you continue to support our work in 2013.



55+

Media Spots

2

Documentaries

WEBSITE

160+

Countries

36%  
USA

22,860+

Website Visitors

62,000+  
Page Views

2

Radio  
Interviews

2

Magazines

MEDIA

3

IT'S OUR MISSION TO SUPPORT HEALTHY OCEANS THROUGH PROMOTING BETTER PROTECTION FOR SHARKS AND RAYS



EDUCATION

We are committed to doing our part to engage with the public and share the shark conservation message. In 2012, we travelled throughout Western Australia giving presentations and hosting interactive displays to share our latest research findings and explain the importance of protecting sharks. We gave presentations to over 1000 high school students and spoke with hundreds of people at our various events. In addition, we reached thousands of people globally with the release of our shark research and conservation films.

In 2012, we continued our support of The Australian Anti Shark Finning Alliance (TAASFA) to raise awareness and vital funds to fight for the protection of sharks in Australia. We also reignited our campaign against the culling of sharks in Western Australia after the government announced a pre-emptive killing program in a misguided attempt to protect swimmers from sharks. We continue to fight for more investment in research, and involvement with the local community on how to avoid coming in contact with potentially dangerous sharks.



CONSERVATION

Advances in scientific research are essential to the successful conservation of sharks and rays. This year we published our research findings in peer-reviewed international journals and shared our expert knowledge in a number of mainstream publications. Our research revealed new insights into the reproductive biology and sensory systems of sharks and rays. We are now using our findings to develop effective non-lethal shark repellents that could be used to protect both people and sharks.

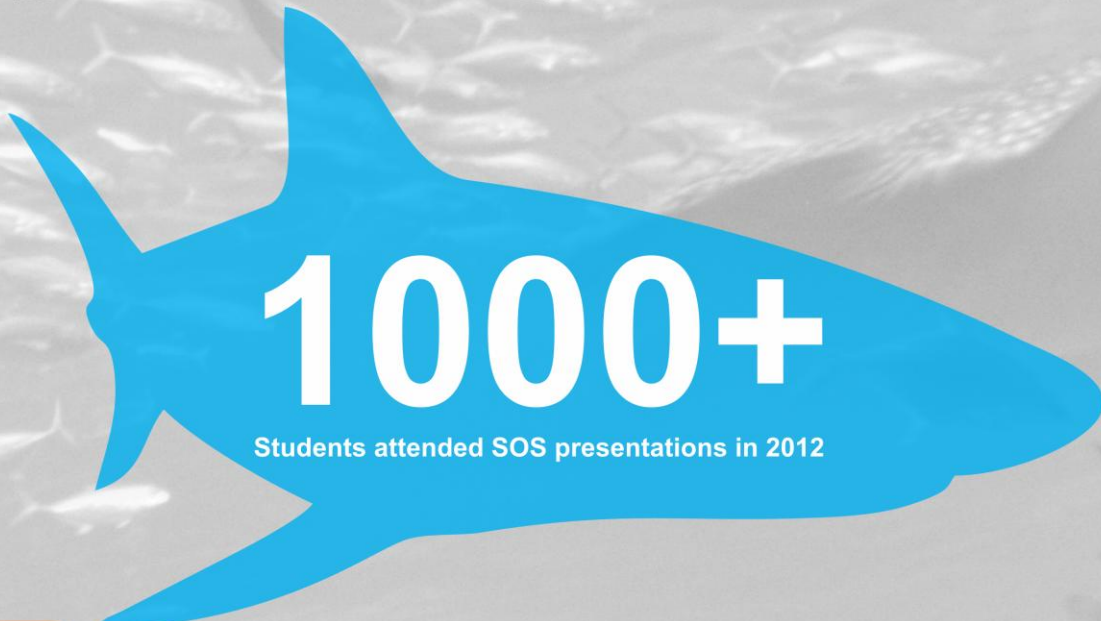


RESEARCH

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# Education

This year, we have been very active in pursuing our outreach activities to share the message of shark conservation. From community outreach events, the release of international conservation films, online awareness tools and shark research activities for high school students. Engaging with the public online and in person has enabled us to grow the international reputation of SOS and has exponentially increased our reach through 2012.



**SCIENCE CAFE**

This year we were invited to speak to over 600 high school students from schools around Australia as part of National Science Week's Science Cafe.



**SCHOOL TALKS**

We regularly visit high schools to give talks on the importance of protecting sharks, and share our latest research findings with students to inspire a new generation of scientists and conservationists.



**RESEARCH TOUR**

We participate in many programs that give students the opportunity to come and join us in the lab to get hands-on research experience with sharks.



**SHARK AID UK**

SOS volunteer, Nikki Jacques, has been working tirelessly to share the shark conservation message throughout the UK, and this year Nikki represented SOS by talking at the Shark Aid UK fundraising event.



**ONLINE TOOLS**

The SOS website is a major source of our educational outreach, with fun and engaging activities to educate and inspire people to support shark conservation.



**A SHARK'S TALE**

This year we released our new film, A Shark's Tale, to encourage more discussion about sharks and to educate people about the threats that sharks face in the 21st century.



**DISPLAYS**

Engaging with the public through interactive displays is an important part of our work, which enables us to better understand why people are afraid of sharks and why this fear may be holding back conservation efforts.



**HATCHLINGS**

This year we released unique footage of the moment a bamboo shark first gets to experience the world around it, as it emerges from its eggcase, showing the world a different side to sharks.



**PUBLIC LECTURES**

As SOS is a science based conservation organisation, we are regularly asked to speak at public events to share our expert knowledge and latest research findings.

# Conservation

Shark species around the world are being overfished at levels never before seen in human history. A lack of proper management is pushing many species to the brink of extinction. As apex predators, sharks fulfill a key role in maintaining balance in the ocean by keeping other populations in check. SOS actively promotes shark conservation around the world and encourages others to get involved and protect these incredibly important animals.



## REPELLING SHARKS TO PROTECT THEM

SOS is working hard to understand shark sensory systems to develop an effective non-lethal shark repellent that could be used to protect sharks.

*"Non-lethal repellents may be used to protect sharks by driving them away from areas where they are likely to be killed by human beings", says Ryan Kempster.*

Shark repellents have been of interest to human beings for many years. Principally, they have been used to protect ocean users from potential 'attack', but also serve multiple other functions. For example, fish caught in a net or on a line may be an attractive prospect to a passing shark and so a non-lethal repellent may serve to protect a fisherman's catch. In addition, sharks themselves are sometimes caught inadvertently by fishermen and so repellents may prevent unnecessary deaths by reducing the number of sharks caught as by-catch. Therefore, shark repellents may also be used to protect sharks by driving them away from areas where they are likely to be killed by human beings; in this case, shark repellents may be considered a useful tool in the conservation of sharks.



## STOP THE CULL CAMPAIGN

As a result of our successful 2011 Anti Cull Campaign, the Western Australian Government announced that they will allocate \$6.85-million for its 'shark mitigation' strategy in response to the wave of shark bite incidents in the state. Unbelievably, \$2 million of these funds was to be allocated to a new service to allow the Department of Fisheries to track, catch and, if necessary, destroy sharks in close proximity to beachgoers, including setting drum lines if a danger is posed. Even though a report commissioned by the WA Department of Fisheries (August 2012) said,

*"due to the environmental impacts of shark control activities, it is not recommended that either shark nets or drum-lines be introduced into Western Australia".*

The proposed cull would be detrimental to a species already threatened with extinction. Pre-emptively killing sharks is simply an appeasement tactic, one of emotion rather than of real science.

As a result, in 2012 we started a new campaign against the pre-emptive killing of sharks in favour of increased investment in research, and involvement with the local community on how to avoid coming in contact with potentially dangerous sharks.



## SHARK RUN MARATHON

This year, we continued our support of The Australian Anti Shark Finning Alliance (TAASFA) by organising Shark Run 2012 to raise awareness and vital funds to fight for the protection of sharks in Australia. TAASFA are working hard to bring shark finning in Australia to an end and target anyone and everyone involved in order to achieve their mission.

Throughout 2012, SOS founder, Ryan Kempster, trained hard every day to ensure that he would run strong for sharks. On August 26th, Ryan completed the Shark Run Marathon in the fantastic time of 3hrs 53 mins, but not without injury. Throughout his training, Ryan had been battling a series of injuries from shin splints to fractured toes, but his passion for sharks kept him going.

Here at SOS, we believe that every individual can make a contribution to shark conservation, no matter how big or small. Ryan's Shark Run Marathon raised \$300 for TAASFA and inspired countless people to get involved and run their own marathons in the name of shark conservation. Also joining Ryan in other Shark Run events were three passionate shark conservationists, Channing Egeberg, Caroline Kerr and Claire Walker. We are so grateful for their support and their FINtastic effort to spread awareness and support for shark conservation.



# Research

Advances in scientific research are essential to the conservation of any animal. We are committed to doing our part to engage with the public, political figures, and the media to share our scientific work and help improve the reputation of sharks. Better understanding will inevitably lead to better protection for sharks as people begin to realise the important role they play in keeping our oceans healthy.



## PUBLICATIONS

- Kempster, R. M., McCarthy, I. D. and Collin, S. P. (2012) Phylogenetic and ecological factors influencing the number and distribution of electroreceptors in elasmobranchs. *Journal of Fish Biology* 80(5): 2055-2088
- Fitzpatrick, J., Kempster, R. M., Daly-Engel, T., Collin, S. P. and Evans, J. (2012) Assessing the potential for postcopulatory sexual selection in elasmobranchs. *Journal of Fish Biology* 80(5): 1141-1158
- Kempster, R. M. (2012) Does WA have a problem with sharks, or with the media? The Conversation Website.
- Kempster, R. M. (2012) Jumping into shark infested waters: How I became a shark biologist. *Asian Diver Magazine* (Issue 4).

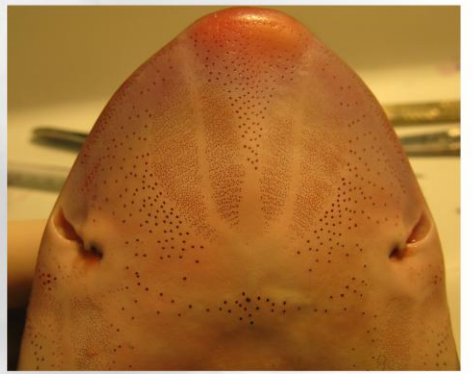
## The Seventh Sense

For almost 500 million years, sharks have evolved an arsenal of adaptations to help them locate and capture their prey. Like all fish, sharks have a sixth sense: a lateral-line system that detects vibrations made by passing fish. What sets sharks apart, however, is their acute seventh sense. Known as electroreception, it allows them to 'see' the electric fields emitted by all forms of life. They do it by using tiny pores all over the surface of their heads.

SOS founder, Ryan Kempster, mapped the pattern of these electroreceptive pores on more than 120 species of shark. He discovered that different species have evolved particular pore patterns refined for specific purposes under different environmental conditions.

"By understanding the significance of this variation we may be able to develop effective electric shark repellent devices to protect people from sharks and protect sharks from people", said Ryan.

**Kempster RM, McCarthy ID and Collin SP (2012) Phylogenetic and ecological factors influencing the number and distribution of electroreceptors in elasmobranchs. *J Fish Biol* 80: 2055-2088.**



# Media Coverage

As scientists, we believe it is important for us to facilitate good communication of our research findings to ensure the effectiveness of future conservation and management plans. We regularly speak out for the protection of sharks and rays, in the international media, to spread awareness, and share our expert knowledge with the public. In 2012, we appeared in two international documentaries, a number of major newspapers and magazines, and took every available opportunity to speak out for the protection of sharks and rays.



New Scientist  
USA Today  
CNN  
CBS

Discover Channel Magazine  
Asian Diver Magazine  
ABC Catalyst  
Australian Geographic  
Sydney Herald  
West Australian  
WA Today  
The Post (UK)  
(45+ other articles)



SELECTED MEDIA



## Australian Sharks' Protected Status Under Threat.

"Australian Sharks' Protected Status Under Threat". *New Scientist*. July 20 2012. [www.newscientist.com](http://www.newscientist.com)

"FIVE fatal shark attacks in 10 months have led the Western Australian fisheries minister, Norman Moore, to question whether great white sharks still merit protected status.

Great white sharks have been listed as 'vulnerable' since 1996, and have been protected in all Australian waters since 1999. But the recent spate of attacks has occurred at a frequency unlike anywhere else in the world, Moore said in a statement this week.

All fatalities from shark attacks are tragic, but there is 'absolutely no scientific evidence' to suggest the recent uptick is linked to a rise in the shark population, says Ryan Kempster at the University of Western Australia in Perth. 'Sharks mature slowly, taking up to 25 years until they are sexually mature, so any kind of abundance increase is going to be slow,' he says.

In response to the attacks, the Western Australian government has funded four research projects that Kempster thinks should tell us more about the enigmatic fish."



# Online Impact

SOS has built an international reputation as a leading source of science-based shark conservation, education and research. In 2012, we had our biggest year so far, with over 22,000 visitors to the SOS website, 434 additional members of the SOS email list, and over 14,000 views of SOS films. With the help of many passionate volunteers, we have been able to share our work with people across the world in more than 160 countries.



- 36% USA
- 18% Australia
- 10% UK
- 5% Canada
- 31% 160 Other Countries

SOS MEMBERS

**434**

New members of the SOS email list in 2012  
(559 total members)

SOS FILMS

**14323**

Views of SOS films in 2012  
(22379 total views)

SOCIAL MEDIA

**2616**

Facebook likes in 2012  
(8108 total likes)



# Meet the Team

Ryan Kempster, shark biologist and founder of SOS, felt it was his responsibility to use his knowledge and expertise to teach others about sharks, and help them understand why sharks are so important for the health of our oceans. With his partner, marine biologist Channing Egeberg, they are continuing to reveal new insights into the secret world of sharks and rays through well designed research projects. They work hard to inspire the next generation of conservationists and scientists through science-based conservation programs.



**Ryan Kempster**  
Shark Biologist & Founder of SOS

Ryan is a sensory biologist specialising in the function of the electrosensory system of sharks and rays, with the ultimate goal of refining and improving electrical repellent devices to keep us safe in the water. Sharks have always been Ryan's passion and protecting them his goal. To do this, Ryan has embarked on a career in research to better understand sharks and communicate his finding with the general public in the hope that he can inspire others to follow in his passion for protecting these amazing animals.



**FOUNDER**

**Channing Egeberg**  
Marine Biologist & SOS Education Officer

Channing has worked all over the world supporting our marine life, from protecting sea turtles in Costa Rica and Australia to rehabilitating marine mammals in California. She enjoys working with children to ensure that they understand the importance of the world's oceans and appreciate its inhabitants. Channing is passionate about conserving our marine environment to ensure the survival of our oceans and the health of our planet.



**EDUCATION OFFICER**



**FEATURED VOLUNTEER**

**Nikki Jacques**  
Featured SOS Volunteer

Nikki Jacques has been with SOS since its inception in 2010, when she joined the team as one of our social media administrators. Since then, Nikki has been extremely active in her shark conservation outreach activities. She has represented SOS at a number of events by giving presentations on shark conservation and hosting stalls to educate others about the issues facing sharks.

Support Our Sharks has been extremely active through social media, but this has only been possible thanks to the many people who have contributed their time and incredible passion for supporting our work to protect sharks. These people truly are the unsung heroes of shark conservation and everyday continue to fight for sharks in all corners of the globe. Thank you to all of our Facebook admin that have, and still to this day, contributed their time, for free, to Support Our Sharks.



**VOLUNTEERS**

The background of the entire page is an underwater photograph. It shows a deep blue environment with several vertical beams of light filtering down from the surface, creating a serene and somewhat ethereal atmosphere. The water has a slightly rippled texture, and the overall color palette is various shades of blue, from light cyan at the top to deep navy at the bottom.

**Annual Report 2012**  
[www.supportoursharks.com](http://www.supportoursharks.com)