

# Shark tale is a rather shallow story

Researchers tail great whites to find startling new evidence

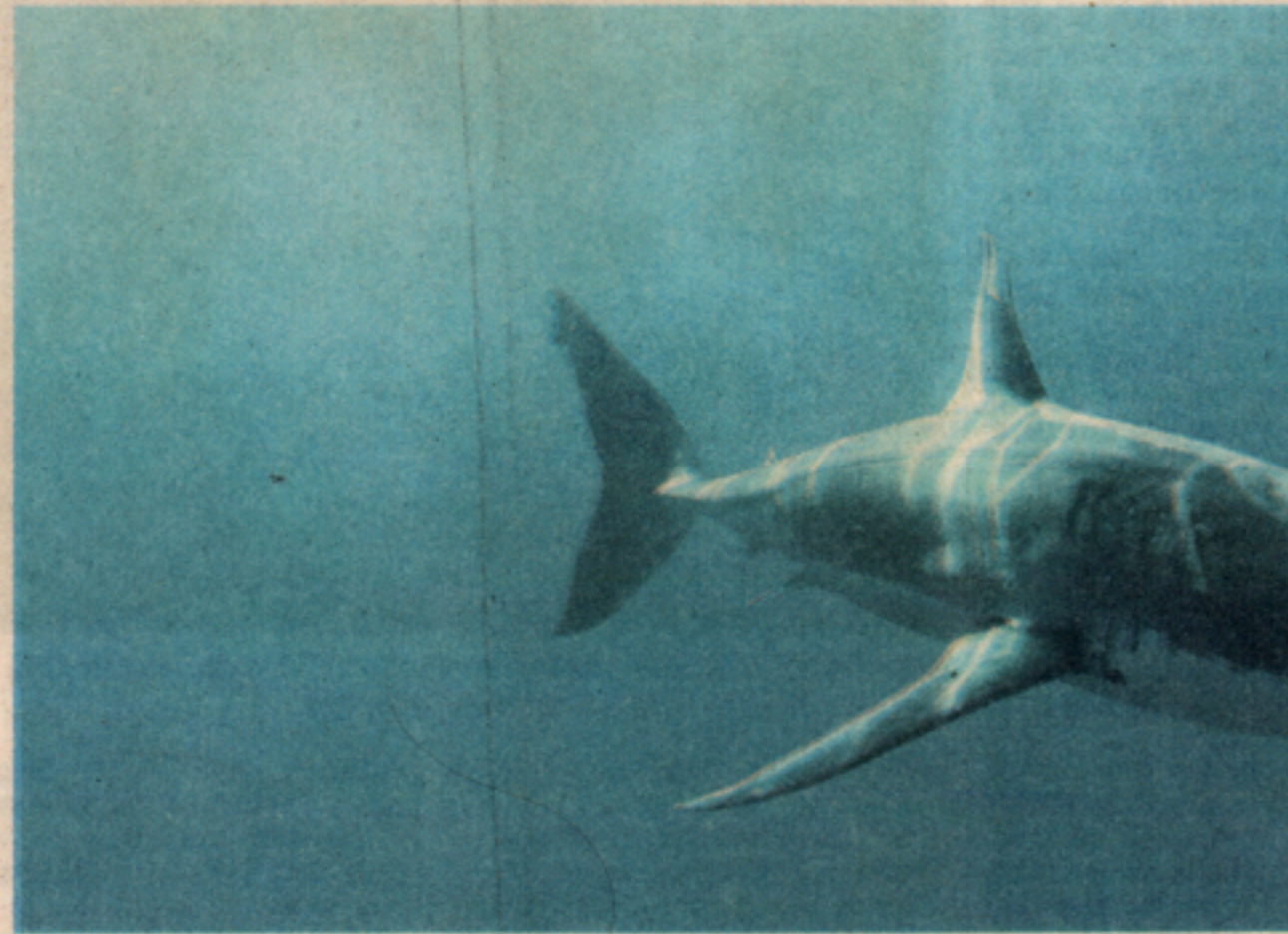
BOBBY JORDAN

LONG considered a mysterious monster from the deep, the great white shark is actually from the shallow — and no longer all that mysterious.

That's according to a group of pioneering researchers who, using sophisticated electronic tracking equipment, have compiled the first-ever detailed swim-maps of several great white sharks in Mossel Bay.

So far this year five sharks — Zulu, Kiddo, Pasella, Roxanne and Sampla — have been fitted with electronic tags that show not only the shark's position, but also its depth and the surrounding water temperature.

Once a tag is fitted, from a skiboat using a long pole, the shark is followed for as long as possible until it moves out

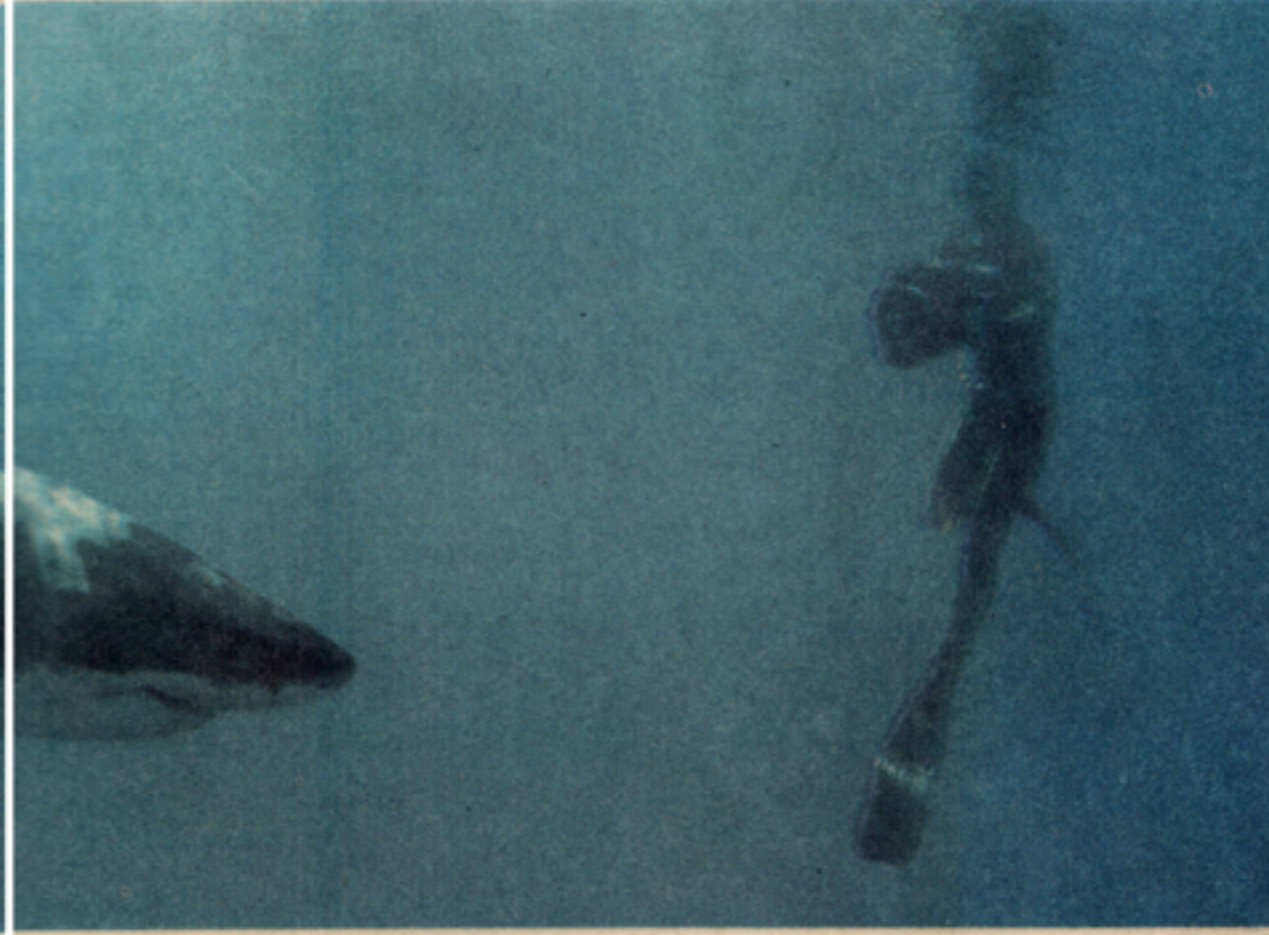


of range. The team set a new world record for monitoring great whites of 103 consecutive hours.

As a result, scientists now know ex-

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actly how much time each shark spends waiting for takeaways at Seal Island or following trawlers into Mossel Bay harbour.



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The findings have provoked international interest and will feature in a National Geographic documentary later this year.

**Scientists now know exactly how much time each shark spends waiting for takeaways at Seal Island**

**GETTING TO KNOW YOU:** The Mossel Bay great white shark project has provoked international interest

Picture:  
FIONA AYERST  
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ago was the first time we ever tracked a little 2m shark right to the entrance of our commercial harbour at Mossel Bay, where some boats had just come in. It stayed around the entrance to the harbour for 14 hours," Johnson said.

Younger sharks were less predictable in their movements, he said: "There are a lot of small sharks in the bay this year, and they seem quite opportunistic. Sometimes you see them swimming in 2m of water, and they seem to move around a lot. They don't have the same set, predictable manner of older sharks.

"Another nice thing about Mossel Bay is that lot of sharks display a high degree of residency. They stay here between six and eight months of the year. We have had a few disappointments, though. A big shark we were tracking a few weeks ago went around the point and started swimming off to Struisbaai."

Johnson and his team, which operates as a private research company called the South African Marine Predator Lab (Sampla), are also pioneering research into the power of a great white shark's bite. Using a custom-designed bite-force meter, a database of 165 bites was collected, which showed that a shark's bite can be six to seven times more powerful than a human bite, although its average bite is much softer — more of a nibble.

The "bite-o-meter" is now being used to help scientists estimate the power of prehistoric sharks, including the infamous megalodon shark — the largest ever at between 12m and 18m.

Improved shark surveillance has also shed new light on how great whites hunt at night: results suggest they patrol much closer to the surface than they do during the day.

The shark researchers are planning to share their findings at the Dias Museum and local aquarium, thereby adding to the town's tourism renaissance at the western end of the Garden Route.

Mossel Bay Tourism marketing manager Debra-Lee Bouwer said: "It's important to us that our environment should be properly preserved, and for this to happen it needs to be properly understood — and the results of that understanding need to be communicated to both residents and visitors."

The researchers believe a better understanding of shark movements will reduce the chance of shark attacks by enabling humans to keep away from known shark locations.

"It's unprecedented in the world to study great white sharks at this level, and we're only able to do it because of the incredible surroundings," said project leader Dr Ryan Johnson. He said the team's tracking success was due largely to sharks' love of Mossel Bay.

The area is considered great white heaven due to its sheltered location and the presence of a seal-breeding colony — an open-air restaurant for sharks. Tracking was much easier because sharks could spend most of the year patrolling the bay, unlike in other less-protected areas where sharks tend to move off after a few months, he said.

So far the six-month project has produced some surprising results: "It's extraordinary how much time they spend just behind the breakers," Johnson said, adding that the shark cage-diving operation in the bay and the commercial harbour were two other popular hangouts. "A couple of days