

Scientists test bubble device to scare sharks

Plans to beef up drum-line security

Angela Pownall

Divers could be armed with a device that fires big intense bubbles and beaches could be enveloped with "bubble curtains" to scare off big sharks as WA scientists report some success in tests of innovative shark deterrents.

A group of scientists are now in South Africa to test new potential deterrents, as well as existing electrical deterrent devices, on a large resident great white shark population there.

The University of WA academics, who are funded by the State Government, are testing the sharks' reactions to bubbles, sounds and bright flashing lights underwater.

Lead investigator Shaun Collin said they expected to encounter up to 100 great whites during the three-week research trip.

"We have had large numbers of great white sharks interacting with our mid-water rigs, which present sounds, bubbles and light while recording the behaviour of the approaching sharks on stereo camera systems," he said.

"We hope to test whether they can successfully change the behaviour of these large predators, many of which are over 4m in length, and ultimately protect humans."

After five fatal shark attacks in 10 months in WA, the State Government allocated \$646,000 in December 2012 to fund two years of shark deterrent research.

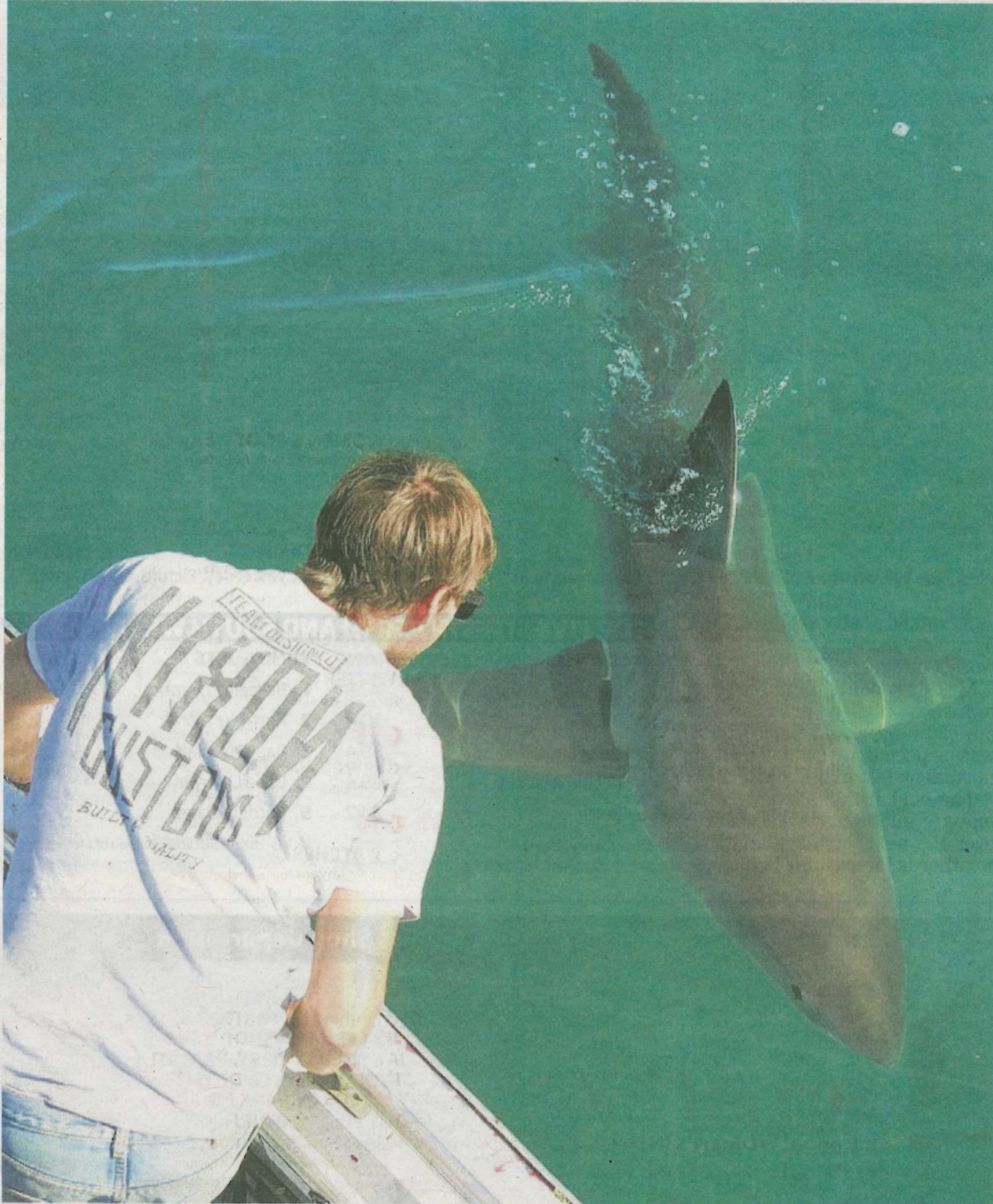
Since then, researchers at UWA's Oceans Institute have been developing the devices and testing them in the laboratory and with sharks off the WA coast.

But the difficulty of finding great whites in WA waters prompted them to go to Mossel Bay, home to the world's most accessible great white shark population, to test the technology.

Professor Collin said they had "some quite encouraging results" with bubbles in WA and hoped to get similar reactions from South African great whites.

He said if the bubbles worked to deter great whites, a bigger compressor could be used to fire off a line of bubbles at a beach when a shark is detected.

Professor Collin said a more



Accessible: UWA scientists went to Mossel Bay because of its big great white shark population. Picture: Shaun Collin

personal-based bubble deterrent could also be developed, where "very intense bubbles could be controlled and directed" by divers encountering a shark.

The scientists are also testing the South African great whites' reactions to different two sounds

— the call of an orca, one of very few known great white predators, and an artificial sound developed to be uncomfortable for sharks.

The third new possible deterrent being tested is a beacon fitted with flashing bright white

LEDs designed to temporarily "semi-blind" sharks that look at it.

"Sharks have receptors in their eye that only operate under dim light so a flashing light of this type will bleach their retina," Professor Collin said.

Angela Pownall and Daniel Mercer

The WA Government expects to spend \$6 million on drum lines to catch sharks off the State's coastline over the next three years.

A review of this year's 14-week drum-lines trial released yesterday revealed the State Government plans to crack down on attempts to disrupt the shark cull.

The Government proposes to extend an exclusion zone around the drum lines from 50m to 100m and bring in a 100m exclusion zone around drum-line operators' vessels.

It will also draw up plans with WA Police to deal with those who interfere with the drum lines.

Premier Colin Barnett said the report, which was written by his own department, "vindicated" the drum-line trial and proved many concerns about it were misplaced. "I've got no doubt in my mind that this program has increased public safety on our beaches," he said.

Critics point out that no great white sharks, which have been responsible for the 11 fatal attacks in WA since 2000, were among the 172 sharks caught on the drum lines during the trial.

Instead 163 tiger sharks were caught, of which 64 died, and one bull shark.

The review said the Government would look at changing the bait used on the hooks after a higher than expected number of tiger sharks and seven stingrays were caught.

It also said training would be improved for the private contractors, who will operate up to 72 drum lines off the Perth and South West coasts.

The South West surf community will be consulted on the placement of drum lines after concerns they were too close to surf breaks during the trial.

The review said the drum lines would have "additional swivels" to reduce the twisting of rope by caught sharks.

The Government is applying for approval to operate drum lines for 5½ months a year, at a cost of \$2 million, for three years.

Important Notice to Bankwest Maximum Protection Customers

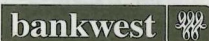
As of 21 July 2014, Bankwest will no longer provide a maximum protection service at the Joondalup store located at 11 Boas Ave, Joondalup WA 6027.

Unless collected before 3pm on 18 July 2014, items remaining in maximum protection at Joondalup will be moved offsite and held temporarily until you arrange collection.

Please note: Bankwest no longer offers the maximum protection service for lodgement of new items.

If you would like further information, please contact the Bankwest Customer Help Centre on 13 17 19.

Bankwest, a division of Commonwealth Bank of Australia ABN 48 123 123 124
AFSL/Australian credit licence 234945.
BWN5357-TW-10x2-1806



TILE CLEARANCE SALE

VARIOUS JOB LOTS \$10sqm or LESS!

ITALIAN Bathroom Wall and Floor Tiles from \$12 m²

ITALIAN and SPANISH Floor Tiles end of line large quantities available from \$15 m²

Polished Porcelain 600x600mm from \$22 m²

Plus many more styles and sizes THOUSANDS OF METRES TO CLEAR

CALL IN NOW!

Osborne Ceramic Tile Warehouse

49 King Edward Road, Osborne Park Ph: 9446 8400

Open Mon-Fri 8am-5pm, Sat 8am-3pm

Stock clearance 1 week only

40% off all furniture and Umbrellas

10% off all beefeater bbqs including Rangehoods.

10% off all weber BBQs

\$100 off pizza ovens.

IN-STOCK ITEMS ONLY

158 Stirling Highway, NEDLANDS U1 164-168 Gt Eastern Hwy MIDVALE

9389 8363

9250 6262

Winter Trading Hours

Monday-Friday 9am-5pm

Saturday 9am-5pm

Sunday 11am-4pm

Monday-Friday 9am-5pm

Saturday 9am-3pm

Sunday CLOSED