

ACTIVITY: Scallop diving

CASE: GSAF 2002.04.30

DATE: Tuesday April 30, 2002

LOCATION: The attack occurred in the Great Australian Bight, possibly near Saddle Point, 13 kilometers [8 miles] west of Smoky Bay. Smoky Bay is located on the West Coast of the Eyre Peninsula in South Australia.

32.1°S, 133.7°E



Paul Buckland

NAME: Paul William Buckland

DESCRIPTION: Paul Buckland, a 23-year-old male, was a professional scallop fisherman and had leased a scallop fishing license from his brother. He was using a hookah unit and was clad in a full wetsuit. He was also wearing a fully-activated Shark POD (Protective Oceanic Device), an electrical shark repellent manufactured by Sea Change Technology.

BOAT: The support boat was a 6.5 metre mono-hulled aluminum boat.

BACKGROUND

MOON PHASE: Full Moon, April 27, 2002

SEA CONDITIONS: Underwater visibility was "good".

DISTANCE FROM SHORE: 1.8 kilometres

DISTANCE FROM BOAT: 50 to 100 metres

DEPTH OF WATER AT INCIDENT SITE: 30 feet

TIME: 12h40

NARRATIVE: Buckland and 24-year-old Shannon Luke Jenzen left the Smoky Bay boat ramp at about 07h30 and dived for scallops in five different locations before moving to their fifth and final location. Jenzen wasn't certain where they were when the attack occurred, but according to a police officer the divers were near Saddle Point.

They arrived at the fifth location at about 11h30. Mr. Jenzen dived for about an hour, found good quality fish in about 32 feet of water, and surfaced at 12h30. He gave the POD he was wearing to Buckland. He said that didn't see Buckland turn the device on, because that was normally done when the diver was in the water. Only five minutes after Buckland entered the water, he surfaced and shouted for the boat. "I was sorting a catch and I was about three-quarters of the way down the hose when I heard Bucky calling out to me," said Jenzen. "He was yelling my name. I didn't see him come up but I knew something was wrong. I think he was saying, 'Shannon come quick' ... I kicked the motors over and put it in gear and started to motor over to him."

"The shark attacked virtually straight away and I saw it happening in front of me. I saw that it was a white pointer and it had Bucky in its jaws. It lunged out of the water and shaking its head and thrashing around. It didn't take Bucky under. I steamed up to the shark and it was still attacking him; it wouldn't let him go. The shark was enormous; it was the size of the boat. The girth of it was huge. It was just thrashing him on the top of the water. Bucky wasn't screaming at all it was just so violent. I reached him and hit the shark with the side of the boat. I went around to the steps at the side, got on the steps, and pulled Bucky in. The

shark let go as I pulled Bucky in. As I pulled Bucky from the water. I felt the Shark POD zapping me. If the POD is on it will give out little electric shocks when it comes out of the water.”

“Bucky was still alive when I was pulling him in, but I saw that his injuries were extensive. As I pulled him in he just said ‘get me in the boat.’ He died pretty well straight after I had got him in.”

Unfortunately, the VHF radio on the boat was defective, and mobile telephone on the boat had a flat battery, so Jenzen was unable to contact the shore. He steered the boat back towards Smokey Bay, stopping on the way to ask some fishermen to radio for an ambulance, which they did. He warned other fishermen in the area to get their divers out of the water. He then headed to the boat ramp and awaited the ambulance, but it was clearly too late to save Mr. Buckland.

INJURY: The injuries were fatal. On May 2, 2002, Professor R. W. Byard conducted a post-mortem examination of the diver’s body at the Forensic Science Centre. Professor Byard noted that Mr. Buckland’s right leg had been completely amputated through the hip joint. There were also multiple irregular incised bite marks to the buttocks and upper left leg. Death was due to exsanguination from amputation of the right leg through the hip joint. This was associated with multiple incised wounds typical of those found with shark attack. Professor Byard also noted there were no underlying diseases present which could have caused or contributed to death. There were no other significant traumatic injuries. Toxicology was negative.

Dr. Helen James, Forensic Odontologist, also examined Mr. Buckland’s injuries, and his wetsuit, bathers and diving vest. She concluded that the pattern of wounds was consistent with the dentition of a white shark. She was unable to accurately determine its size.

FIRST AID: Jenzen didn’t try to remove Buckland’s wetsuit, perhaps aware that it served as a pressure bandage. He wrapped Buckland in a quilt, which was on board to protect the scallops from the sun, but the diver died in his arms within moments of being taken on board.

EQUIPMENT: At the Inquest held March 19, 2003 in Port Lincoln, Jenzen testified that Buckland owned two Shark PODs, one of which had been returned to the manufacturer prior to the attack because of problems experienced with the battery and the on/off switch. “Paul owned two Shark PODs because one kept breaking down and we couldn’t work if we didn’t have a Shark POD.” He said Mr Buckland had bought the Shark POD that was worn the day of the attack only a few months prior to the attack, probably in November or December of 2001. Mr. Jenzen described for the coroner how the pair fitted the POD, with one electrode being attached to a vest and the other to the hose above their heads for convenience, because there was more “messing around” when the electrode was placed on the fin. “We also thought it might be safer because it would create a bigger shield,” he said. “And a lot of the time, when you crossed your legs, you could get shocked.” He also said the POD was usually only turned on when ascending and descending.

Senior Sergeant Robert McDonald, of the police water operations unit told the Coroner's

Inquest that the Shark POD that Mr. Buckland was wearing when he was bitten was tested and found to be working.

Helena Wescombe-Downs, commercial manager of Sea Change Technology, expressed concern that divers were not using the Shark PODs to the manufacturer's specifications. The manufacturer specified the device be turned on for the duration of a dive and one electrode should be worn on the scuba cylinder and the other on the diver's swimfin. The two electrodes that produce the shield should be between 1 metre and 1.5 metres apart, but if one electrode is placed on the hose, "the electrodes could come closer together, which would not give as an effective shield." She said if the electrodes were pulled apart by 2.5 metres, the shield would dissipate. Once on the surface the Shark Pod might have been ineffective because the second electrode designed to be fitted to his swimfin was on his airline above his head. On the surface, this electrode would have been out of the water thus preventing it from producing the pulsating electronic field.

Ms Wescombe-Downs said if Mr Buckland had turned off the POD when he reached the seafloor and turned it on when he saw the shark, it was difficult to say if the device would have made any difference, admitting that it could have been difficult for anything to stop the shark. The POD was designed to deter a shark cruising by but might not have any effect on an aggressive animal. Ms Wescombe-Downs said her company no longer manufactured Shark PODs, based on the Shark Protective Oceanic Device developed by the Natal Sharks Board in South Africa. On March 27, they brought out the Shark Shield, which contained the same technology, but was presented in a much more "user-friendly" package.

SPECIES INVOLVED: A white shark, *Carcharodon carcharias*, between six and seven metres in length. It was thought that the shark was the same one that had been harassing boats in the area during the two months prior to the attack on Buckland.

COMMENT: Senior Sergeant McDonald believed that the shark was in the vicinity or and aware of the presence of Jenzen while he was underwater and could have been circling and passing him without his knowledge. Because the Shark POD was turned off, the shark was not deterred. The change over of divers may have interested or excited the shark and it became more excited and interested by the movement of Jenzen to the surface, movement on the surface by both divers and then the descent of Buckland to the sea floor. Scallop divers spend the greater majority of their time on the sea bed looking down to identify and pick up scallops by hand. It is highly likely that this shark continued to circle and pass Buckland undeterred by his Shark POD. It would appear that after five or ten minutes into the dive, which would ordinarily have lasted for at least an hour on the bottom, Paul Buckland spotted the shark, probably as it was making a pass. McDonald postulates:

"By this stage the shark must have been quite excited or preparing to attack. Instead of staying on the seabed and making his way along the bottom to a point directly below the vessel with his Shark POD turned on, he immediately left the bottom and commenced an ascent switching his Shark POD on as he went. In doing so he surfaced a considerable distance from the boat. Due to the distance that he surfaced from the boat and the time it took for his partner to start up and move to his location, he was unable to get out of the water and away from this shark. He was subsequently attacked by a single bite from this shark as he waited on the surface, and died a short time later aboard his boat."

It is also possible that the shark may have seen the boat as a competitor for a food source because the diver was only bitten as he was being pulled aboard the boat. However, it is also very likely that the shark was simply investigating the situation and was undecided how to respond, but when struck by the boat it reacted with aggression (striking out at something smaller than itself and which it had already assessed as non-threatening) – a response seen in many “provoked attacks” by sharks and other animals, including humans.

SOURCE: Inquest taken on behalf of our Sovereign Lady the Queen at Port Lincoln in the State of South Australia, on the 17th day of March and the 11th day of April 2003, before Wayne Cromwell Chivell, a Coroner for the said State, concerning the death of Paul William Buckland, late of 3/6 Bishop Street, Port Lincoln, South Australia.

CASE INVESTIGATORS: Philip Kemp, Terry Peake and Bob Myatt, Global Shark Accident File.

