



**ACTIVITY:** Treading water

**CASE:** GSAF 1962.02.05 / SA-154

**DATE:** Monday February 5, 1962

**LOCATION:** The attack took place in the Indian Ocean at Winkelspruit, 33 kilometres southwest of Durban on the coast of KwaZulu-Natal, South Africa.

$30^{\circ}05,6'S$ ,  $30^{\circ}51,9'E$

**NAME:** Reece F. Nielsen

**DESCRIPTION:** Nielsen, a 13-year-old male, was 1,52 metres tall, wore a bright blue and white striped bathing suit and had no injuries before entering the water. He was a junior member of the Winkelspruit Surf Life-saving Club.

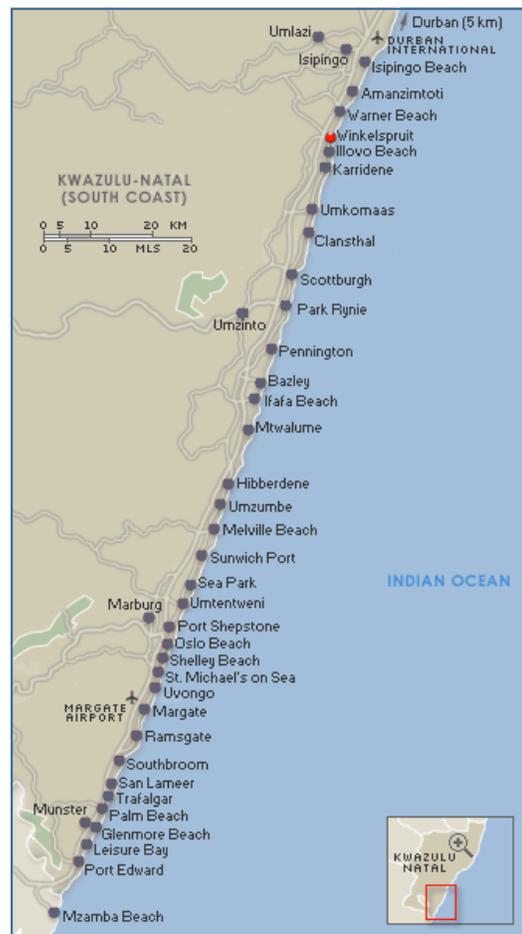
### BACKGROUND

**WEATHER:** The Durban meteorological station recorded temperatures from  $21,2^{\circ}$  to  $28,2^{\circ}\text{C}$ . The sky was overcast; at 08h00 there was 7/8 cloud cover and a light six-knot east-northeasterly breeze, at 14h00 there was still 7/8 cloud cover and there was a moderate 14-knot northeasterly breeze.

**MOON PHASE:** New Moon, February 5, 1962

**SEA CONDITIONS:** The Illovo River mouth was open and, as a result, the sea was discoloured and murky. The incident took place in a deep channel that ran diagonally towards shore between submerged rocks and a sandbank. Sea temperature was  $26,1^{\circ}\text{C}$ . The salinity was 35,13 o/oo which indicates that there was contamination by fresh water; the salinity of sea water 16 kilometres offshore averages 35,4 o/oo. The incident took place 37 minutes before spring high tide.

**ENVIRONMENT:** In 1962 Winkelspruit had a tidal swimming pool but the surf bathing area



was not protected by nets. Earlier in the afternoon swimmers were warned that there were sharks in the vicinity.

**DISTANCE FROM SHORE:** 12 to 15 metres

**DEPTH:** 1,5 metres

**TIME:** 16h20

**NARRATIVE:** Reece Nielsen and eight other children entered the water at 16h15, but Nielsen was seaward of the others and in the channel when he was bitten by the shark. He had been body-surfing and was treading water, waiting to catch a wave, when he suddenly shouted that a shark had attacked him and was dragged downwards to the level of his mouth. The shark “shook him like a dog”, according to witnesses. Nielsen punched and kicked at the shark until it released him. The shark, after biting Nielsen, brushed against 14-year-old Stewart Ross, who was seaward of Nielsen, rasping his abdomen, as it swam for the open sea. Ross was swimming with Nielsen to shore when he asked to be taken to the life-savers' hut, then lost consciousness.



Reece Nielsen

**INJURY:** All tissue, with the exception of a 10-centimetre strip of tissue on the back of the thigh, was removed from the top of the thigh to just above the knee by a single bite. The femur was exposed along the greater part of its length and bore scratches from the teeth of the shark. The femoral artery was severed at the junction of the upper and middle thirds of its course where it is almost impossible to effectively apply a tourniquet; only immediate digital pressure could have had any effect in slowing the massive blood loss resulting from an injury of this nature. There were three deep incisions in the thigh above the bite, and abrasions on the inner side and back of the other thigh. Lacerations on the terminal joint of the thumb were probably caused by the skin of the shark as Nielsen fought the shark.

**FIRST AID:** Nielsen was unconscious when he was taken from the water and bleeding from the single extensive wound on his thigh had almost stopped. (No tourniquet was applied for reasons stated above.) He died within three minutes of reaching shore.

**SPECIES INVOLVED:** Witnesses said that the shark was about three metres in length. Dr David Davies believed the incident involved a Zambesi shark, *Carcharhinus leucas*. Tim Wallett felt that had a Zambesi shark, or even a white shark, *Carcharodon carcharias*, bitten the boy the wound would not have been as wide and shallow. Wallett felt that a Zambesi or white shark with such a wide jaw would have removed the entire leg and concluded that the wound was made by a tiger shark, *Galeocerdo cuvier*.

Photographs of the wounds on both the anterior and posterior leg confirm that the shark had serrated teeth in its upper and lower jaws, but the shark's upper jaw was not as wide as the wound on the anterior thigh suggests. The teeth of the lower jaw impaled the posterior thigh, where the double row of tooth impressions indicate that the shark repositioned its bite. As the boy struggled and the shark tossed its head from side-to-side, the teeth of the upper jaw carved a large amount of tissue from the anterior thigh. The bridges of skin between some of the individual tooth impressions on the posterior thigh are similar to those in case GSAF

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1960.12.24 and suggest that a white shark may have been involved.

**SOURCES:** Interviews with Mrs. Nielsen (victim's mother), Frances Weissig (witness), and David Davies case notes.

**CASE INVESTIGATORS:** David Davies; Tim Wallett; Marie Levine

