

ACTIVITY: Swimming / playing

CASE: [GSAF 2001.07.06.a](#)

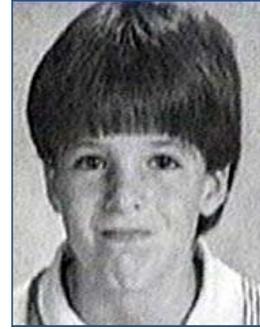
DATE: Friday July 6, 2001

LOCATION: The attack took place in the Gulf of Mexico at Langdon Beach, Santa Rosa Island, Pensacola Beach, Escambia County, Florida, USA.

30°18.964'N, 087°15.812'W

NAME: Jessie David Arbogast

DESCRIPTION: Jessie is an eight-year-old male from Ocean Spring, Mississippi. He has a slender build and brown hair.



Jesse Arbogast

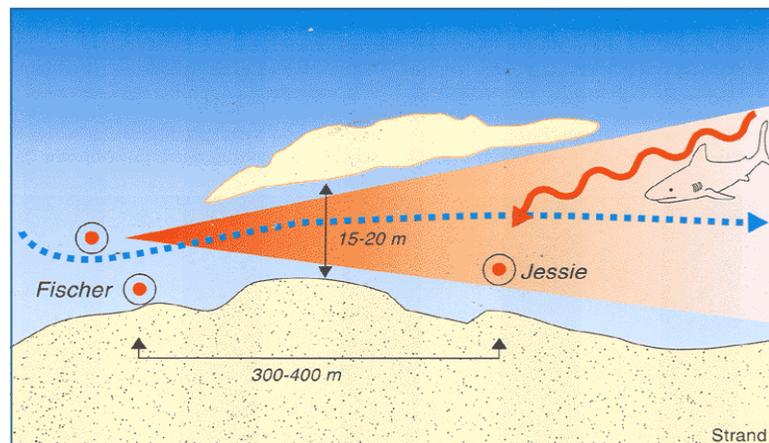
BACKGROUND

WEATHER: At 19h53, Santa Rosa recorded a clear sky and 10-mile [16.1 km] visibility. The air temperature was 84°F [28.9°C], dew point 75°F [23.9°C], humidity 23.9%, sea level pressure 30.04 inches [1017.4 hPA], wind direction SW at 5.8 mph [9.3 km/h]. The sun was setting (sunset: 19h55), there was a slight wind; it was a nice evening. At Landon Beach, the estimated temperature during the early evening hours was 27°C.

MOON PHASE: Full moon on July 5, 2001. Visible Moon on July 6 was 99% full at 21h00.

SEA CONDITIONS: The sea was calm and underwater visibility was six to seven metres (estimated) during the daytime hours. The current was flowing east-to-west, and the tide was outgoing (mean low tide at 22h26).

ENVIRONMENT: Langdon beach is very flat. There is a sandbar 25 metres off the beach, and inshore of the sandbar is a two-metre-deep channel. There was light tackle fishing going on 300 to 400 metres upcurrent of the attack site. A videotape, shot during the afternoon of the incident from 13h30 to 16h30, shows shore fishing and trolling. Boats were also idling in the



channel 20 metres from the beach, and another was fishing in the channel at 16h30. At least one Coast Guard helicopter flew over the beach, and then hovered about 150 metres above the ground.

DISTANCE FROM SHORE: Five metres

DEPTH OF WATER AT INCIDENT SITE: About 50 to 60 cm.

TIME: 19h55

NARRATIVE: Jessie Arbogast, his 11-year-old cousin Brandon, and another child were playing just behind the “breakers” in the shallows. Brandon was sitting on an inflatable raft a few metres west of Jessie. Brandon saw the shark as it passed below his raft. The shark ignored Brandon and swam directly toward Jessie. Jessie did not see the shark approach and it bit him, its lower jaw teeth penetrating his thigh, its upper jaw teeth into his forearm.

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Jessie screamed and Brandon called to his father, Vance Flosenzier, who was on the beach about 20 metres from water with his back to the children. As Vance turned around he saw the shark grab Jessie's arm as it made a second bite. Vance and a bystander ran into the water to help Jessie. Vance grabbed the shark by its tail, while the bystander tried to pull Jessie away from the shark that was grasping his arm. As Jessie and the shark were pulled in opposite directions, Jessie's arm was severed. Flosenzier pulled the shark onto the beach, while the bystander and Vance's wife, Diane, brought Jessie to the beach.

INJURY: The boy's right arm was severed above the elbow and his lateral right thigh was bitten. On the boy's right arm that was recovered from the shark there were additional wounds: Toothmarks (puncture wounds) on the forearm and the lacerations to the fingertips.

FIRST AID: Vance and Diane Flosenzier compressed the arm and leg wounds with towels and initiated CPR with assistance from Susanne Werton (beachgoer) and Jennifer Loukota (Gulf Island National Seashore park ranger). Within minutes after the attack, Jared Klein (Gulf Island National Seashore park ranger) arrived at the scene and shot the shark four times in the head using a 9 mm pistol. He pried the shark's jaws open with a police baton, and a volunteer firefighter, Tony Thomas, used a clamp to pull Jessie's arm out of the shark. Jessie was airlifted by "BaptistFlight" to Baptist Hospital in Pensacola, Florida, arriving there 30 minutes after the attack. The arm was brought by ambulance shortly afterwards.



The bull shark involved in this attack.

TREATMENT: On arrival at the hospital, Jessie had no blood pressure or pulse and was resuscitated by Dr. Jack Tyson. His arm was re-attached during an 11-hour surgical procedure performed by Drs. Ian Rogers and Julie deCampos. When Jessie developed kidney problems he was transferred to Sacred Heart Children's Hospital. Intensive care was overseen by Dr. Rex Northup, a pediatric physician with Nemours Children's clinic. Jessie remained in a coma.

SPECIES INVOLVED: Bull shark, *Carcharhinus leucas*. The shark was a male, 2.26 metres total length, but no weight measurement or tissues samples were taken.

FACTORS CONTRIBUTING TO THIS INCIDENT: After reviewing all the evidence, it was concluded that sport fishing, together with environmental triggers, contributed to the attack.

The natural setting (tip of island, channel, outgoing tide, evening hours, full moon) increased the likelihood of presence of sharks close to shore. The sandbar, nearly exposed at low tide, created a channel with a relatively narrow passage (about 25 m). The outgoing tide increased the current in this channel. Any form of food / bait thrown into the water would be carried along the breach to the tip of Santa Rosa Island. At the tip of the island two water masses merge: the Gulf of Mexico and the intercoastal waterway of Pensacola Bay, bringing water from Escambia and Blackwater Bay. Blackwater Bay is filled by the Coldwater Creek and Blackwater River freshwater system. Merging water masses of

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different salinities increase food availability and frequently increase currents as well. The site of the attack was located about five kilometers east of the merging water area. Ongoing fishing upcurrent from the attack site, together with the fishing prior to it, brought sharks closer to the vicinity of the children.

During the onsite investigation on July 13, 2001, the case investigator noted many teleost fishes (various species) circling around his legs. Bony fishes often look for structures to hide (or orient themselves). The site of the attack is completely without structures, therefore, anything floating or extending from the bottom (e.g. standing human) will be singled out. An incoming shark is likely to follow smell and then sounds (produced by the fish) when there is fishing going on. A splashing human is much "louder" than swimming fish, and will eventually arouse the shark's interest. Further, fish particles swept downcurrent from fishing activity often attach to a human body, a factor that must also be considered an additional unwanted attractant.

The initial injury consisted of puncture marks on the lower right arm and right thigh with no loss of tissue. This implies that the shark "explored" Jessie. Exploratory behavior is common when a shark is attracted by certain stimuli, then finds itself in an environment which does not fit the initial triggers (odor corridor vs. Jessie's appearance and sound pattern). It is likely that Jessie was targeted (rather than Brandon) because of the sounds that he was making and the positions of the boys: Brandon was floating, not touching the bottom; Jessie was splashing and in contact with the bottom. Nevertheless, the final trigger cannot be determined. That the shark did not mistake Jessie for prey is evidenced by the first wound during which Jessie pushed the shark away with his hand, aiming at the shark's snout/mouth area, lacerating his fingers. The shark responded by snapping at the boy (a 'stress bite' grabbing his arm) resulting in the second bite. The arm was severed as the shark and boy were pulled apart, but there was nothing that either of the rescuers could have done differently to prevent that from occurring and save the boy's life.

NOTE: GSAF submitted recommendations to Mr. Monty Blews, General Manager, Santa Rosa Island Authorities, to reduce the risk of a similar incidents.



Shark expert Erich Ritter photographs the shallows as he starts his investigation at Langdon Beach, Friday near Pensacola, Fla.

AP photo

Three years after the attack it was reported that Jessie "was growing like a weed" but must still use a wheelchair and has trouble speaking. His aunt reports that Jesse is speaking "clearer words" but no sentences, and he also smiles and laughs with his brother and sister. Jessie has been making a slow but steady recovery.

In July 2006, five years after the attack, Jessie is a growing and responsive teenager who laughs a lot but still is confined to a wheelchair and doesn't talk. Jessie, now 13, is a handsome teenager. "He's in an adult wheelchair now. He has to be fed, but he eats normal food," said his aunt. Jessie can hold on to cups and toys. "He got a T-ball set and actually can hold a bat and swing from his wheelchair," said Flosenzier. "That's so much more than doctors ever expected in 2001."

CASE INVESTIGATOR: Erich Ritter, Ph.D., GSAF