

PI 128

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PI 128 was a 242 cm, 267 kg male bottlenose dolphin, *Tursiops truncatus*, recovered from Beach Blvd, Laguna Vista, Cameron County, Texas, November 27, 1998. He was taken to the University of Texas - Pan American for rehabilitation. He was given supportive care, but he died on December 01. Necropsy was done by Lance Clark.

On external examination, the dolphin appeared to be emaciated, with a prominent neck. The blubber was soft and spongy, suggesting considerable weight loss. There were no signs of recent external injury. There was an old deep scar on the dorsal surface of the left flipper where it attaches to the body.

A striking finding on internal examination was the presence of a large (10 cm long) stingray spine that had penetrated the wall of the thorax between the fourth and fifth ribs, pierced the marginal lymph node and entered the lung. The spine was completely encapsulated by fibrous tissue, and there was little sign of active infection, indicating that this was an old wound. A small (0.5 cm) pocket of pus was present. Both lung surfaces were mottled with white blotchy spots. Many lung worms were found. Apart from a small amount of pink fluid in the pleural space, the remainder of the chest was normal.

The heart and great vessels all appeared grossly normal, as did the abdominal organs.

The brain appeared normal when first removed and placed in formalin. However, after fixation, when it was sliced for internal examination, a striking degree of enlargement of the ventricular system (hydrocephalus interna) was found, along

with meningitis and inflammation of the wall of the ventricles (ventriculitis). This is remarkably similar to the findings in the brain of SP321, a 249 cm male *Tursiops truncatus* recovered dead from Sea Rim State Park early December, whom I reported on in the last Newsletter. In contrast to SP 321, an old male, our current animal is immature. As I discussed, hydrocephalus like this case is caused by obstruction to flow of the spinal fluid, which circulates under slight pressure. Obstruction to flow causes a rise in internal pressure, dilating the ventricles and causing loss of brain substance. The inflammation of the ventricle linings is also destructive. As a result, the brain atrophies or shrinks from the inside out, and the extra space produced by atrophy is filled with the spinal fluid. This is certainly the cause of death in this animal.

The blotchy lung surface was caused by a mild case of pulmonary angiomas, our now common bottlenose dolphin lung disease. It does not appear to have been severe enough to cause this animal any problems.

The embedded stingray spine seems to be unrelated to stranding. Long-time readers of the Newsletter may recall GA 466, a bottlenose dolphin reported in the summer 1993 Pathologist's Report. That animal had been stabbed in almost the same spot, maybe several centimeters more toward the mid-ventral line, and bled to death internally, from a severed artery. At the time, because of the placement of the wound and the shape of it, I attributed it to a stingray. That was a bit speculative, but I could not think of another reasonable explanation. The finding of an embedded spine that penetrated entirely through the chest wall and into the lung indicates that the ray delivers his blow with considerable force. In our current case, a few inches more to the midline and the wound would have been to the heart. This makes two cases of stingray injury out of a series of less than 65 code 2 *Tursiops* necropsies. Evidently, stingrays are a significant morbidity/mortality factor for bottom-cruising dolphins.