

**PA 582**

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PA 582 was a 55.3 kg, 183.5 cm long female spinner dolphin (*Stenella longirostris*) recovered dead by Tony Amos, December 26, 2000 on San Jose Island, Aransas County, Texas. It was very fresh, and may have died just before it was found. It was transported to the laboratory in Galveston for necropsy.

The animal was an adult female, covered with a very large number of well-healed small scars, of the 'cookie cutter shark' bite type. There were at least 10 to a side, with some overlap. There was also a 3 cm oval, sharp edged, white-rimmed ulcer, with a dark granular base on the left side. There was no obvious weight loss. There were no rakes or other fresh wounds, and no indication of recent trauma.

The blubber was thin, but may be of normal thickness for this species. A striking finding was the large size of the lymph nodes, especially in the neck and associated with the lungs, suggesting reaction to infection.

There was no excess fluid in any space. She was pregnant, the fetus (male) measuring 30.5 cm. The umbilical cord was covered with small wart-like excrescences. The placenta lined the left horn of the uterus and was normal.

The lungs were mottled, and the left had flecks of inflammatory exudate on the surface. There was prominent but focal air trapping, seen through the thin pleura. The trachea and bronchi were full of white foam. The lungs were blotchy, pink, yellow and purplish on slicing. There were several abscess-like lesions (cultured) and many small, thin-walled cystic spaces. The mucosa of the large airways was

normal in color. No lungworms were identified grossly.

The heart and aorta were grossly normal, except for a faint suggestion of myocardial mottling, which proved to be very extensive myocardial injury that we interpret to be a stress injury. The foam in the airways is typical of heart failure.

The stomach was empty of food material, and the intestine while also normal, was empty, containing only greenish paste. The liver was unremarkable, as was the pancreas. The spleen was normal.

The ureters and bladder were normal, but both kidneys were abnormal. The reniculi of lower pole of the left kidney (ca. 1/5th of the kidney) were pale and small, which proved to be scarring and shrinkage associated with the presence of small stones (calculi) in the collecting system. There were similar changes on the right, but not so pronounced.

The adrenal glands and thyroid were unremarkable.

The skull was normal. The brain was quite abnormal. The meninges, the membrane coverings of the brain, normally thin and transparent, were thick, opaque and greenish gray over the whole left side of the temporal and occipital lobes; that is from the lower side to the most posterior part of the brain. The microscopic features were of an old (months) necrotic lesion, associated with trematode eggs.

All joints were examined, and all were normal.

Our diagnoses at post-mortem examination were lung infection, bilateral, with abscesses; stress cardiomyopathy, with heart failure; parasitism of the brain by flat worms (flukes); bilateral renal calculi, with atrophy of the involved kidney; and

pregnancy. She appears not to have fed for at least a day, but was not wasted. We found no evidence of human interaction.

Comment: This very pretty little dolphin is not common in the Gulf of Mexico, especially not our part. This is the first freshly dead animal of this species I have seen here in my 11 years with the Network. Its normal home range is pretty far offshore. What was she doing so far from home water, especially in late December? We can only speculate, but she had a very large area of necrosis of the brain, the equivalent of a large stroke. This might have disoriented her enough to cause her to swim into our chilly waters. As I have mentioned before, the southern part of our coast is at the upper end of a consistent current flowing up from the Yucatan and the Bay of Campeche, so she may have been just carried along. While she hadn't eaten in a day or so, probably pretty sick from her lung disease, she was not wasted, suggesting she was well able to hunt with success. Evidently she was able to cope with the loss of function that must have accompanied the brain lesion. Brain parasitism is very common, nearly all of our stranded dolphins have it, and not only here but also in California, except for bottlenose dolphins. I have never seen it in a *Tursiops*, and while I have been told of one instance, I have not seen it reported in literature.