

GA 1027

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GA 1027, a 277 cm long 211 kg male bottlenose dolphin (*Tursiops truncatus*) was recovered dead from the Gulf side beach about 1 mile east of San Luis Pass, Galveston Island, Galveston County. The original observer claimed that the animal was alive and moving (1:45 pm) but by the time TMMSN workers arrived, it was dead. Necropsy was begun at 7:00 PM.

He was a very large male, who had suffered considerable weight loss. The neck was prominent, the ribs evident, and the lateral vertebral processes projecting as a prominent lateral ridge. There were several small old well healed and pigmented scars, but no sign of significant injury. Several *Xenobalanus* were attached to the tip of the fin and along the edge of the flukes. A large volume of white foam ran from the blowhole when the animal was moved.

The abdomen contained a large volume of watery, opaque mustard-yellow fluid, with small soft clots in it. The entire length of the intestine was thick walled, with dense adhesions in several areas, especially in the region of the pelvic recess, and ventrally, where loops of purplish and green necrotic gut were firmly adherent to the body wall, forming a very large abscess. The peritoneum was thickened and tough throughout, and prominently congested. Both lungs showed prominent reticulated opacification of the pleura (typical angiomatosis) and several firm nodules from old lung worm infections.

The tongue was normal, but the oropharynx had large irregular "geographic" patches of yellowish green mucosal ulcers, and many linear ulcers in the esophagus. These were present to the level of the stomach. All stomach chambers were empty and the walls thickened. and the mucosa had many

punctate marks. The duodenal ampulla (fourth chamber) was widely dilated and bulbous, and the wall similarly thickened.

Our diagnosis was death from chronic peritonitis, intestinal necrosis, obstruction and sepsis. Culture of the blood, the peritoneal fluid, and the abscess all grew out *Edwardsiella tarda*, an uncommon but widely recognized pathogen of marine mammals and humans working around the marine environment.

Comment: There is no problem in assigning a cause of death to this animal. He died of peritonitis and septicemia (infection in the blood). He was likely an off-shore animal, based on his size and ectoparasites. The prominent weight loss and dense thickening of the peritoneal membranes indicated that he had been sick for some time. In addition to the effect of the adhesions, the intestine was becoming necrotic in the segment involved in the abscess. This appeared to be a progressive condition, with gradual obstruction of the intestine that would have caused him to quit eating. Progression of the infection caused blockage of the small blood vessels in the obstructed segment, causing it to become necrotic. This would be associated with seeding of the blood with bacteria. The organism causing the problem is one we know. We find it fairly often in our post-mortem cultures, sometimes associated with pneumonia. It is "natural" in the marine environment, by which I mean it is not associated with pollution. It causes the occasional infection in humans, and may be fatal. It is not clear why this dolphin had peritonitis. In some animals we have found infection of the peritoneum and pleura associated with perforation by a parasite or by a catfish spine. We didn't find either in this animal, and so we are inclined to classify it as "spontaneous", without any recognized precipitating event.