PA 748

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PA 748 was a large (295 cm long) male bottlenose dolphin, *Tursiops truncatus*, weighing 229 kg. Age was determined to be more than 25 years, by counting of the tooth growth layers. We believe that the animal was considerably older than that, but complete closure of the dental pulp cavities prevented more layers from forming. He was recovered alive 28 October, near Corpus Christi, but in the PA region. Initially, he was able to swim on his own for short periods, and had a good appetite. Clinically, he was thought to have developed pneumonia, perhaps during rehabilitation attempts. Over a period of days his condition fluctuated, but generally followed a downward trend. Red tide was present in the Coastal Bend area, and the possibility that this animal was affected exists. National Marine Fisheries, South East laboratory personnel recognized that this animal was likely to be non-releasable, and endorsed euthanasia, which was done on November 6.

He was brought by truck to Galveston, TX for necropsy. External examination revealed a very large animal, with many old, faded small scars, and one or two small healing incised lesions. There were several abrasions on the rostrum. A pale scar on the left side of the head was attributed to a cookie cutter shark bite. The tip of the left flipper was notched, and well healed. There were several old healed cuts typical of fishing line cuts where the flipper meets the body, anteriorly. The animal was extremely thin, with a pronounced neck, protruding ribs, prominent lateral spinous processes, and flattening of the dorsal muscle masses, indicating that the weight loss was chronic as well as extreme. The teeth were all worn down nearly flush with the gingiva. Many were missing. The gingiva

is roughened and granular. The lymph nodes were enlarged. The lungs contained many small dense nodules, as well as many fine nematodes (lung worms) in the airways. The heart was very large, with several “scooped out” scars under the epicardium, the largest measuring 11 x 11 x 10 deep, located left lateral near the base. The valves were all normal. The aorta was normal. All internal organs were grossly normal except as noted. The tongue was scarred. There were several small ulcers of the pharyngeal mucosa and upper esophagus. The first gastric chamber was grossly normal, but the mucosa (lining) of the second chamber was diffusely hemorrhagic. No parasites were found. The intestinal tract was normal. The kidneys, ureters and bladder were normal, except for a 2 mm projection of the bladder mucosa, which proved to be a small smooth muscle tumor (leiomyoma). The skull was extremely dense and thick. The tentorium was completely ossified, or converted to bone. The brain was adherent to the dura in many areas, and the arachnoid was patchy white, suggesting scarring. There was an unusual amount of space in the posterior fossa, by the cerebellum, and an abnormally large amount of clear spinal fluid was present. Brain sectioning did not reveal internal hydrocephalus, although there were areas that appeared a bit atrophic. Mostly, it appeared to be a grossly normal, large brain.

General impression from the necropsy: Euthanized; problem seems to be residue of meningitis, or chronic meningitis; probable hydrocephalus. Pneumonitis; superficial gastric mucosal erosion/hemorrhage. Old age. Bone disease? Age related change? This may be the largest *Tursiops* examined here in the last 15 years. Stress cardiomyopathy; old scars, new lesions Discussion: This was clearly an old animal, reaching the end of his life span. Judging by his marks and scars, he had had an active life. He had evidence of prior meningitis, with adhesion of the brain to its coverings, and to the skull. Microscopic examination, however, revealed scarring of the meninges, but little suggestion of active disease. There were many small “punched out” heart scars, which we attribute to old healed stress lesions, as well as new area of injury to the heart muscle.

There was no evidence of vascular disease. There were also changes in skeletal muscle that closely resemble the stress myopathy or “capture myopathy” of wild hoofed animals. This results from stress of restraint. We attribute that to stranding and struggling on the beach.

Very interesting was something that wasn’t there. Over the past 10 years or so the incidence of a lung disease we have called angiomatosis increased in frequency and severity to involve 100% of adult bottlenose dolphins. In more recent years severity has declined, and this animal had none at all. We wonder if he was not an off-shore animal, or perhaps just lucky in this regard. Why was this animal euthanized? Why did we not make every effort to rehabilitate him? There are several reasons for this; the first was that the animal was definitely sick and impaired, and our experience with adult animals has been disappointing. Many hours and many dollars have been put into animals who lived for months, but who eventually died of incurable conditions. Have we done such an animal any good?

When we begin a rehabilitation, we have to have an outcome in mind. If the animal makes a quick recovery, within the first few days of rehab, we will go ahead with it, with the expectation that it can be released. If the animal is so impaired, or mutilated, and it appears that it can’t survive release, or would likely quickly fall to predators, we have to euthanize. If we are thinking that it might be transferred to a marine aquarium, if not releasable, then it must be in good condition, preferably young and still adaptable. Cupid was one such animal, as were Gilly and Mattie, now in San Antonio. We will put a lot of effort into rare species, if there seems a chance of success. Even if impaired, it may be worthwhile to preserve a rare animal, perhaps with the chance of breeding. Some species, such as *Kogia* are so fragile that they cannot survive for long in captivity, even with the most expert care. We are always obliged to think first of the welfare of the animal. We do not rehabilitate for our own satisfaction, but for the benefit to the animal. In cases very unlikely to survive, our attempts at rehabilitation may

only prolong the suffering of the animal. We do not believe this to be an ethical approach to rehabilitation.