

Fact Sheet – Polar Bear Deaths

Danny

8 ½ years old at time of death, August 21, 2006

Cause of death: heart failure following anesthesia for medical examination

- Actual cause of death on August 21st, 2006 was heart failure - *severe myocardial fibrosis, valvular myxedema* (ZooPath report).
- Bear was receiving treatment for fly bites with horse spray, plus keflex and rimadyl
- Bear was immobilized to verify that bleeding on ears was from fly bites and not something more serious.
- Vet recommended to keep pool empty so fly ointment applied to ears would not be washed off. Given hose to keep cool.
- Immobilization is always a risk. Organ failure compromised his ability to metabolize anesthesia. Heart rate was high throughout procedure.
- Prolonged recovery from anesthesia, but Danny was awake and alert by mid afternoon.
- Observed that he was not using his back legs so we decided to continue to watch him.
- Observed him try to climb down stairs into the empty pool, but he slid to bottom. Keeper contacted vet at 6:00 p. m. Vet administered additional reversal agents for anesthesia. Vet was preparing to immobilize him again when he died.

Kelly

19 years old at time of death, December 9, 2006

Cause of death – euthanized after blood work indicated severe kidney failure

- Reported as lethargic in November 2006.
- Immobilized on November 30th; blood work indicated kidney failure.
- Condition continued to worsen.
- Immobilized again on December 9th; blood work showed severe renal failure so she was euthanized.
- A piece of plastic toy and some stones found in stomach at necropsy.
- The presence of foreign material in Zoo carnivores is not an uncommon occurrence. The items generally pass through the digestive system as they do with a pet dog or cat.

Becky

29 years old at time of death, February 10, 2007

Cause of death: Cancer of the gall bladder

- May 2006 – exhibited vomiting and loose stools.
- Anesthetized to remove large gallstone on May 13th 2006.
- Anesthetized again on August 13th to recheck gallbladder.
- Continued to have episodes of vomiting and loose stool. Options discussed at animal management meeting: euthanize or remove gall bladder and treat with pancreatic enzymes.
- Removed gall bladder on November 21st – pathology report came back *chronic cholecystitis* (i.e. acute inflammation of the gall bladder).
- Observed piece of plastic bag in her stool on January 30, 2007, fecals otherwise normal.
- Started to decline in health on February 8th. Thought maybe she had an intestinal blockage so vet did exploratory surgery. He removed section of constricted tissue in bowel where cancer was suspected. No signs of a foreign body obstruction. Also removed a small piece of plastic from stomach; this had nothing to do with her chronic health problems.

- Slow to come out of anesthesia; Pathology report indicates cause of death as *Cholangiocarcinoma* (cancer) *gall bladder* (ZooPath report dated March 21st); also evidence of hepatic (liver) disease.

Kinapak

6 ½ years old at time of death, May 27, 2007

Cause of death: chronic cardiopulmonary disease resulting from an anomaly in the heart valve

- Block of rat bait and parts of a garbage bag found in exhibit during keeper's morning inspection on January 8th, 2007. No evidence that Kinapak consumed any part of either, but incident noted on keeper report to alert keepers to watch for signs of potential illness.
- Noted as being off diet on May 22nd; was immobilized on May 27th. Went into cardiac arrest on way to vet hospital. Zoopath report indicates *chronic cardiopulmonary disease*. Given age of bear, the independent pathologist suspects some form of developmental anomaly in the heart valve (*valvular dysplasia*).
- Absolutely no evidence of foreign material contributing to bear's death. No foreign bodies whatsoever found in stomach or intestine at necropsy.

Summary

- The polar bears died of heart failure, cancer of the gallbladder, kidney disease (euthanized), and a heart valve problem.
- The bears did not consume garbage. A small piece of a garbage bag was observed in the stool of one animal, but there was never any plastic found in any bear's intestines.
- The bear exhibits are checked multiple times each day for trash or other debris. In addition, signage is posted at the bear exhibit advising visitors not to throw any objects into the exhibits.
- The two bits of plastic found in the stomachs of Kelly and Becky were not responsible for their deaths from kidney disease and gallbladder cancer.