Memo

Date: Tuesday, June 17, 2014
To: Teri Dresler, Chris Pfefferkorn
From: Tim Storms, Zoo Veterinarian
Subject: Summary of tamarin investigation reports

Since the tragic loss of six tamarins soon after arrival at our quarantine facility in May, we have been intensively caring for the three survivors while at the same time working diligently to determine the cause of the deaths.

On postmortem exam, all of the tamarins were in good body condition, and no specific cause of death was identified. Two had food present in their stomachs, while four did not. There were mild age-related changes in the older male and female.

Pathologic exam of tissues showed systemic shock in all of the tamarins, which can be caused by a wide range of causes, and no specific cause was identified. Five of the six had some degree of stress-related changes in muscle or adrenal gland tissues.

As with humans, the presence of stress in these animals is not unexpected while acclimating to a new home and caregivers. It is not possible to eliminate stress entirely, but much care was taken to plan and arrange the shipment and new surroundings in a way that minimized potential stress for these tamarins and allowed them to thrive. These tamarins were provided with roomy caging with an elaborate array of perches. They were provided multiple nest boxes to enter and exit voluntarily as they chose, in order to allow them to comfortably rest. The temperature of their surroundings were closely monitored and controlled.

Although stress responses were a common finding, the pattern and timing of these deaths does not appear explainable by stress response alone, and it is very likely that the cause of death had many factors. To this point, we have considered and examined a range of other potential contributing factors. Toxins were considered, but no chemicals or any other potentially toxic agents were used in the tamarins’ presence. We considered the potential for mold toxins in their food. An analysis of offered chow pellets and stomach contents of two tamarins eliminated the possibility of lethal levels of mold toxins.

We also considered the presence of E. coli in the city of Portland water supply, but there was no evidence of gastrointestinal disease prior to or after death. We obtained cultures of their alternate water source and found no gastrointestinal or other pathogens.
Unfortunately, as much as we would like we will never know the specific cause of death of these tamarins.

Happily, three tamarins were unaffected, including one 9-week old female and her two older siblings. We have intensively monitored these tamarins in the days since, and are pleased to report that they are thriving and have maintained their close family bond. The juvenile has taken exceptionally well to supplemental hand-feeding with formula. She is daily increasing her appetite for food items while becoming less reliant on the formula.