



## Aura's Story

### A Case Study in Lead Poisoning

On March 18<sup>th</sup> we received a call from WV DNR Police Officer Andy Lyons alerting us to a golden eagle on Shepherd Mountain near Keeney's Knob that was having trouble flying. Wendy was dispatched to the remote location and returned with a mature female who was unable to get enough force from her wing flaps to get off the ground. One leg seemed weaker than the other and her stamina faded quickly. No apparent injuries but very thin and dazed. We worried about possible lead poisoning. X-rays showed nothing in the digestive tract, so we sent off a blood sample for testing to the Golden Eagle Tracking Study Team at WVU.

The test results were astounding. The eagle had a lead level measuring 58.6 ug/dL - the test only goes as high as 62 ug/dL. This bird not only was lead-poisoned, she should have been dead! She was visibly weaker by the hour. Dr Streit prescribed a regimen of multiple medications and treatments that, combined with hand-feeding sessions, meant that the eagle was being handled every 2 hours from 7 am to 11 pm.

The lead did horrible things to her. She could barely stay conscious at first, so fluids had to be slowly tube-fed or given under the skin and she could barely keep food down, sometimes not at all. The lead had her bleeding from her digestive tract, and there were times in the first 3 weeks we thought we'd lose her for sure. Her feet balled up in a contraction that would not let up, so we did hot water and Epsom salt soaks with 10 - 15 minute massages twice daily until the contractions started to ease up and we could make padded foot balls for her toes to wrap around. As the feet relaxed over the course of the next week we were gradually able to increase the size of the pads to spread her toes out more and more towards a natural position.

Finally by April 12 her lead levels were back to a normal level and her feet were starting to open and be usable. She was starting to go nuts being kept in intensive care, so we put her into the 40 foot room in the Flight Barn to calm her down and give her some personal options. She could stand but not perch.

Gradually over the course of the next several weeks she began perching, then on May 30<sup>th</sup> she took her first observed flight all the way across the room, landing on the top of the hutch on the opposite side of the room! The flight was labored and heavy, but she was flying.

On June 13<sup>th</sup>, we saw that something wasn't right with her mentation. We had purchased an expensive lead analysis machine in the interim, and we used it now. The lead test came back 8.6 ug/dL. The lead was leaching out of her bones or organs and making her sick again. Back to the treatment regimen for a week, then she was tested again. By June 20<sup>th</sup> her lead levels were back to normal and she was antsy so she was allowed to start free-flying in the flight barn's Leon Wilson Continual Flyway. Over the next few weeks she was gradually starting to fly more, but her flying was still labored and heavy, no stamina, no real loft or maneuverability. Landings were more like lucky crashes than

planned set-downs.

On July 14<sup>th</sup> we discovered an eruption of exuberant tissue growth on both ankles. Exuberant tissue growth is exactly what it says: lots of tissue suddenly mushrooming out of an opening in the skin, no nerves and very few blood vessels in it. The right ankle had less than the left ankle. Dr Streit set up a treatment regimen of hydrotherapy, then topical therapeutic dressings wrapped up in a pressure bandage, all to be changed and done twice a day. So the “chase around the flyway” exercise program began - both for the eagle and for the humans.

By July 30<sup>th</sup> she was not showing signs of significant progress. Dr Streit consulted with Dr Sue Mohler and with the help of Greenbrier Veterinary Hospital in Lewisburg a series of 4 weekly laser therapy treatments on the growths began. The right ankle responded well, but the left one continued to be problematical, so on August 20<sup>th</sup>, Dr Streit surgically removed about half of the left ankle’s growth. The right ankle had healed up completely.

Tired of saying “the lead poisoned female golden eagle” on the Three Rivers Avian Center’s Facebook page updates, we ran a 24 hour contest. The winning name was “Aura”, because “Au” is the periodic table’s abbreviation for gold, and because another meaning is “beautiful presence.” She certainly has such a presence and puts up with a lot from us as we work to heal her up.

November 7, 2013

Both ankles are completely healed and Aura is ready to be released. The Golden Eagle Tracking Study is accepting her into their Study and she will be fitted with her solar powered satellite transmitter Friday morning (11/8/2013).

---

Here’s the video of Aura getting her transmitter on and her subsequent release at Three Rivers Avian Center on Saturday 11/9/2013 at 3:15 pm:

[www.tracwv.org/tracvideos/aurasrelease\\_s2.flv](http://www.tracwv.org/tracvideos/aurasrelease_s2.flv)