Selected Protocols
Tri-State Toxicological Research Study

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1. Criteria for selecting goslings:
   a. Goal is to collect 30 resident prefledgling/fledgling goslings (birds fledge at 40-48 days of age); one per family group (if possible, but unlikely); 6 per study site
   b. If goslings are in a family group, collect, if possible, the largest of the prefledgling/fledgling geese
      Note: if multiple birds are accidentally collected, submit both
   c. If birds are collected alive (only minor injury), place in a transport box or carrier and give to veterinarian and/or transport to the Necropsy Facility at Twin Rivers (OK)

2. Venipuncture:
   a. The basilic vein, located on the ventral aspect of the wing, may be the best site to collect blood from a fledgling goose. For this technique, an assistant restrains the bird in dorsal recumbency on a flat surface; extend one wing and restrain it carefully by placing pressure on the antebrachium and primary feathers. The vein is entered distally to medially at a point just proximal to the elbow. Apply digital pressure to the puncture site to prevent hematoma formation.
   b. An alternate site is the medial metatarsal vein located on the medial side of the intertarsal joint. Bird should be properly restrained. The leg is extended by the person drawing the sample and the vein is entered distal to proximal (generally enter the vein distal to the tibiotarsal-tarsometatarsal joint), with the bevel up. Apply pressure to the puncture site for several minutes after the needle is withdrawn.
   c. A third potential site for obtaining blood is via jugular venipuncture. Carefully restrain the bird and extend the head. Wet the right side of the neck with alcohol; place a finger between the cervical vertebrae and the trachea, and often times the jugular will be evident.
   d. For venipuncture, heparinize a 3-cc syringe (force out any extra heparin); using a 25-g needle enter the vessel bevel up; put 0.5 ml in a cryotube and label; place the remaining sample in a green tube.
3. Identifying birds: label each bird with the state (KS, MO, OK), 01 (etc.), GPS location, collector
4. Samples for ALAD study: a. place ½ ml of heparinized blood in cryotubes (see above); b. label tube; 3. put in metal holding structure or in small open container in the tank and cover with 4x4's to keep tubes in place (ie, prevents them from floating out); 4. J. Carpenter will run hematocrits from the other heparinized sample
5. Euthanasia: after the blood sample is obtained, put 2(-3) cc of isoflurane onto 2 cottonballs and place into the facemask; place the bird's head into the facemask; be sure there are no openings (ie, leaks) in the mask (can stuff any openings with 4x4's);

leave head in until bird is euthanized (cervical dislocation can later be performed if needed)

6. Other samples: a. blood (see above); b. weigh carcass if possible; c. pull numerous breast feathers from bird, place in whirlpack (FWS provides), and label; d. pull 8-10 primaries (ie, outer wing feathers), place in a gal. ziplock bag (FWS will provide), and label; e. J. Nietfeld and J. Carpenter will perform postmortem examinations and harvest tissues for histopathologic and toxicologic evaluations; if the bird needs to be transported to the Necropsy Facility, place bird in a tub/container that contains 15 cc detergent/gal. distilled water (if available); then place bird into a cooler with icepacks and deliver to PM site within 4 hr; NOTE: in some cases, Necropsy Facility staff may be able to meet transporters part of the way