Document Type: S.O.P. **AUSTIN ZOO** September 2025 Original Issue Date: Date of Last Issue: NA All others Supersedes: Date of Last Review: NA Standard Operating Date of Next Procedure Review: Issued by: **Director of Animal Care Snake Feeding** Approved by: Dillon Horger Page 1

This document applies to feeding snakes at Austin Zoo, regardless of where they are housed or who is responsible for their care on any given day. Keepers are not permitted to deviate from this protocol without official permission from the Director of Animal Care. Any changes will result in this document being revised and redistributed to keepers for review.

Responsibilities

- **Animal Care Staff:** Carry out feeding procedures, monitor animal behavior, and document outcomes. As assigned, train new keepers as part of Area 4 duties.
- Animal Managers: Ensure staff are trained, oversee compliance with SOP, and update as needed. Respond to emergencies.

Important General Guidelines

- Prey items should be no greater than the widest part of the snake's body.
- Prey items are typically 10% of current body weight per each feeding. Animals that
 are overweight or underweight may have weight of prey item or frequency of feeding
 increased or decreased, as appropriate.
- Handle prey items with nitrile gloves to avoid bacterial transmission and transferring human scent onto prey items or prey sent onto human hands. This increases the likelihood the snake will consume the prey and decreases the chances of the snake attempting to bite a human hand that smells of rodent.
- Snakes that are nearing or undergoing a shed cycle should not be fed. The next feeding attempt can often be deferred to the next scheduled date/ weekday.
- Snakes should not be handled for 48-72 hours to reduce regurgitation risk. Essential
 and minimal handling can take place a minimum of 24 hours after ingestion of prey
 if necessary.

Prey Warming Protocol

Thawing

- Prey must be fully thawed in an animal refrigerator for 12–24 hours depending on size.
- Never thaw at room temperature for extended periods (risk of bacterial growth).
- Do not use microwave, as uneven heating can cause hot spots that pose a danger to the snake or may cook the outside portion of the prey.

Warming for Presentation

- Place thawed prey in a sealed plastic bag (to prevent contamination, avoid wet fur which may cause snakes to refuse prey, and avoid substrate sticking to the prey item) and submerge in warm water.
- For small rodents, 5–10 minutes is usually sufficient. For larger prey, 15–20 minutes may be required.
- Refresh water if it cools significantly.

• Target Temperature

- For snakes that eat inconsistently or are underweight, prey should be warmed to approximate mammalian/avian body temperature: (95–104 °F) before offering. This range is the ideal temperature for all snakes.
 - If in doubt, a temperature gun can be used to ensure the temperature is within safe range (80-100F).
 - Some snakes will consistently feed on prey items that are on the cooler side (80F). This is acceptable as long as the prey item is completely thawed and not frozen/ cold on the inside, which can create health issues or a regurgitation response.
 - In any case, always verify temperature through touch—prey should feel warm, not hot.

Presentation Timing

- Offer immediately after warming— do not allow prey to sit out and cool.
- Diurnal snakes should have prey offered during the day or with UV and basking lights on.
 - Common species: garter snakes, green tree pythons, rat snakes, indigos, corn snakes (day or night—depending on individual).
- Nocturnal/ crepuscular snakes should have prey offered at the end of the day before lights are shut off for the night.
 - Most of the DC and education snakes fall into this category: ball pythons, common/ red-tailed boas, rosy boas, rainbow boas, gopher snakes, sand boas, kingsnakes and milk snakes).

Safety Precautions

- At least two trained staff should be present when feeding venomous or large constrictor species.
 - Voodoo, Rosie, Obi.
- Be alert for defensive or feeding strikes.

Feeding

Ideally, all snakes should be trained to eat prey directly from the ground without the need to feed directly from tongs. Tongs can pose a significant danger to snakes (see "Safe Use Protocol" below). Note that whole prey that is left with the snake should be fed on a smooth stone or flat dish to prevent accidental/incidental ingestion of substrate.

 Observe the snake's behavior and body language. Is it coiled, investigative, and obviously waiting to be fed, or is it coiled or disinterested?

If body language DOES NOT Indicate immediate Interest:

Open the enclosure on the side furthest from the snake's head, as appropriate.

- Present prey item using tongs/forceps to simulate natural prey movement when appropriate. Avoid nearing "strike zone."
- If the snake begins tongue-flicking or moving, drop the prey item close to the snake and retreat.
- For shy or stressed feeders, quietly leave prey near the snake and minimize disturbance by dimming lights, reducing noise, or covering enclosures.

If body language DOES indicate immediate Interest:

- Open the enclosure on the side furthest from the snake's head, as appropriate.
 Ensure you are accessing the enclosure in a way that does not allow the snake to make contact with your person.
 - o If necessary, use longer tongs or shield when dropping prey.
 - Ensure the snake will not fall out of the enclosure attempting to strike (if especially eager).
- Drop or gently toss the prey near the snake. Avoid nearing "strike zone."

Feeding with Tongs - Safe Use Protocol

1. Tool Selection

 Use long, sturdy, smooth-edged feeding tongs or hemostats appropriate to the species' size, as provided and dedicated to feeding snakes.

2. Prey Presentation

- Grasp prey item with tongs securely by the back end. Hold the minimum amount of the prey body necessary to avoid contact with tongs.
- Position prey so that the head or forward body is presented first, simulating natural orientation.
- Hold the prey item as far away from the snake as possible so that it may strike the prey, but decrease the likelihood of overshooting and hitting tongs or the human hand.
- Release prey immediately once the snake has established a secure strike and coil, preventing it from coiling on the tongs and allowing it to continue ingestion without interference.

 Avoid excessive or unnecessary repetitive motions that increase the chance of the snake striking the tong. Once the snake is showing interest, freeze.

3. If a Snake Bites or Wraps the Tongs

- o Remain calm and do not pull back suddenly, which could cause oral injury.
- o Gently set tongs down inside enclosure until snake releases.
- Radio Animal Managers and vet tech. Response required is specialized and requires increased expertise.

Post-Feeding Monitoring

- 1. Monitor snakes for successful ingestion and swallowing.
- 2. Observe for signs of regurgitation, aspiration, or other complications over the next 24–48 hours.
- 3. Do not handle snakes for at least 24–48 hours post-feeding unless veterinary intervention is required.

Disinfection/ Sanitization Standards

- Clean and disinfect feeding tools after each use per established protocol (see Bleach Disinfection Protocol)
- Remove soiled substrate if prey residue is left behind.
- Any uneaten prey must be discarded; never reuse refused items.

Recordkeeping

- Record date, prey type, prey weight, quantity, feeding response, and outcome in Keeper Log and internal DC peer-to-peer communication methods (white board, keeper book, etc.)
 - Note refusals, regurgitation, or behavioral abnormalities.
- Maintain frozen prey inventory and report to Animal Managers when items are low in stock and an order needs to be made.

• Do not leave uneaten prey in the enclosure longer than necessary. If fed in the morning, remove leftover prey end of day; if fed in the evening, remove leftover prey first thing the next morning.

Contingencies

- **Refusal of Food:** Document and re-offer at next scheduled feeding. If repeated refusals occur, note clearly in keeper logbook and speak to an Animal Manager directly to ensure timely and clear communication.
- **Regurgitation:** Record and report immediately. Monitor closely and adjust feeding schedule per Animal Managers' guidance.
- Aggressive or Unsafe Feeding Response: Discontinue attempt and call an Animal Manager for assistance and evaluation.
- Suspected dehydration: If on paper (to avoid incidental ingestion of substrate) and the snake will eat wet prey items, it is acceptable to attempt to feed rodents that have been wet to increase hydration. Prey items should not be injected with fluids, as this creates a potential avenue for bacteria. Remember that access to clean water, appropriate humidity, and regular soaking is essential. Veterinarians or vet techs may provide subcutaneous fluids.

Training

- Only keepers officially signed off on Area 4 or 6 may perform snake feedings within their assigned and trained areas.
- Review and understanding of this SOP is required.

References

- AZA Accreditation Standards and Related Policies (current edition).
- AZA Snake Taxon Advisory Group (TAG) Husbandry Manuals.