## Feeding the Reluctant Snake

#### by Thurgess and Eunice Cranston

Inducing snakes to eat can be one of the most difficult aspects of keeping them in captivity. Many snakes, such as common kingsnakes, rat snakes, and rosy boas, will readily feed on a pink mouse "no questions asked!" Others, especially baby gray-banded kingsnakes (Lampropeltis alterna) and mountain kingsnakes (L. zonata and L. pyromelana), are notorious for their often poor feeding responses. Occasionally these more difficult snakes feed on a domesticated mouse within a few weeks of their birth or capture, but most need some form of trickery to get them to feed on this preferred food item. We have been faced with numerous snakes in our collection having a poor initial feeding response.

During the late spring of 1992, an adult rubber boa (*Charina bottae bottae*) was captured near our home. At the time, Thurgess thought she would make a good

display animal for his classroom. She weighed less than 2.5 ounces (70 grams) and had heavy scarring toward the posterior region of her body. After acclimating in a simple cage set-up she was offered a small pink domesticated mouse, the food item we prefer to use. She refused this food item, and continued to refuse similar food items for several months. During the course of the summer and fall she lost approximately 0.6 ounces (16 grams); at this time we decided to force feed her using our trusty "pinkie pump" or "press". We did this a couple of times during the fall before allowing her to cool to 50 °F (10°C) for winter brumation. We thought a cooling period, followed by a warming period, would probably induce this snake

In mid-February we reheated the rubber boa's enclosure. Again, small domesticated mice were offered, and again they were refused. In early March one of our cats raided a nest of voles (*Microtus* sp.) and brought us a live pup from the litter.

As a last resort we placed the vole in with the rubber boa; she immediately fed upon it. We offered the snake a small domesticated mouse, and she refused it. Another baby vole was brought to us by our trusty cat. This time we placed two baby domesticated mice in a small container with the vole and left them together for approximately two hours. All three rodents were placed in with the rubber boa and the snake was left undisturbed for several hours. Happily, the snake ate all three animals. This rubber boa has not refused a meal of domesticated mice since, and now resides in Thurgess' classroom.

When we encounter a difficult feeder we follow a set of procedures, starting with the least intrusive to the animal, and culminating with force-feeding. As a note, any animal which is not feeding should be given access to water and should be periodically checked to ensure that it is well hydrated. Newly captured adult snakes will sometimes refuse to feed on a domesticated mouse. If this occurs, there are

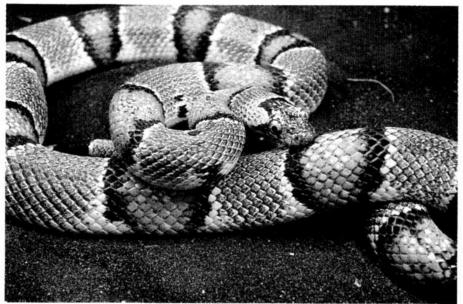


The rubber boa, Charina bottae bottae, caused the authors great grief until it voluntarily fed on meadow voles (Microtus sp.). Photo by Thurgess Cranston.

several strategies we employ to attempt to persuade the animal to eat. The first is to offer the snake both living and dead prev items. We also offer the food item at various times of the day and evening. Both of these strategies have succeeded in getting numerous "difficult" feeders to eat. As with the rubber boa, a non-feeding snake is sometimes offered a "wild" food item. These include white-footed deer mice (Peromyscus sp.), the heretofore mentioned voles, field mice (Mus musculus), and if nothing else works, lizards (either Sceloporus or Uta species), fish, or frogs. Because of ready acceptance by many of the previously mentioned difficult feeders Rossi and Rossi (1992) recommend the use of house geckos (Hemidactylus turcicus) to entice anorexic snakes to

These "wild" food sources can be difficult to acquire and have potential for harboring parasites. In recent years, many herpetoculturists have started captive propagation programs for some of the wild strains of mice, including whitefooted deer mice and field mice. Dwarf hamsters also have been used in many instances to get difficult snakes feeding (Staub, Frost, pers. comm.). In 95% of the difficult cases, the above mentioned strategies will get most snakes eating in captivity. Once the snake has fed we use the "wild" food item to scent domesticated mice and offer these to the snake. If a snake still does not want to feed, and we are close to the cooling period, we make sure the snake has no food in its gastrointestinal tract and then cool the animal. During the "spring" warm-up (mid-February for our snakes), the reluctant feeder often develops a very strong feeding response, and feeding difficulties with that animal become a thing of the

Perhaps the most frustrating aspect of herpetoculture is enticing neonatal snakes to feed on domesticated mice. If we encounter problems with a baby snake, we follow a set of strategies, one of which will usually work if given time. These strategies include: (1) Wash a newborn pink mouse with mild soap and place it together with the snake in a small container. (2) Gently open the snake's mouth and place a humanely dispatched pink mouse inside; sometimes the snake will go ahead and ingest the mouse. (3) Humanely dispatch a pink mouse and freeze the food item; thaw out the pink mouse and offer this to the snake. (4) Wash the pink mouse and scent with a lizard; then place the



The gray-banded kingsnake, *Lampropeltis alterna*, is a species notorious for neonates with a poor feeding response. *Photo by Thurgess Cranston*.



Another hard-to-get-feeding colubrid snake is the Sonoran mountain kingsnake, Lampropeltis pyromelena. Photo by Thurgess and Gern Cranston.



This Western hognose snake, Heterodon nasicus kennerlyi, is feeding on a lizard-scented pink mouse. Photo by Thurgess and Gern Cranston.

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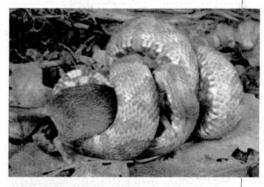
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scented food item together with the snake. (5) Humanely dispatch a pink mouse, then wash and "split-brain" it (Applegate, 1992); place this food item with the snake. (6) Lizard-scent a pink mouse, "prime" the snake with a live lizard, then immediately offer the snake the scented pink mouse. (7) Gently tap the head of the snake with the food item; sometimes, the snake's protective response of striking an irritant will cause the snake to strike at the food item and initiate the response of constriction and feeding. And (8) use any combination of the above. Lately, we have used little sections of lizard skin on the back of the pink mouse with great success. Freshly hit, road-killed lizards that have been frozen work well for this purpose — just thaw out a piece of skin! Sometimes the snake and the food item are placed in an eight ounce "deli" cup with air holes to insure that the snake must encounter the pink mouse. Perseverance is the key to enticing the snake to eat the preferred diet of domesticated mice.

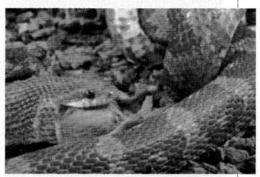
If a neonate has not accepted a food item on its own by late November, and the snake has sufficient weight, we will cool the animal to brumation temperature after its gut is empty of any force-fed contents. When the neonate is rewarmed four to five weeks later, often it will start to take pink mice on its own.

If after a few weeks to a month following brumation we still do not have the baby snake feeding, we again resort to force-feeding. This should only be a last resort. This is accomplished by using what is known as a "pinkie pump" or a "pinkie press" and should only be done by someone who has had experience using this technique. Two strategies help make this final process successful: (1) Run the humanely dispatched pink mouse through the pump twice; and (2) Lubricate the nozzle with water or egg white before











Feeding sequence of an amelanistic corn snake, *Elaphe guttata guttata*. *Photos by Thurgess Cranston*.



An example of a captive-bred strain of a white footed deer mouse, *Peromyscus* sp. The use of domestic deer mice is advised to reduce the risk of exposure to the hantavirus, a disease prevalent in wild strains of this mouse. *Photograph by Thurgess Cranston.* 

placing the nozzle into the snake's esophagus.

A second form of force-feeding is frequently utilized. This involves the use of adult mouse tails (which weigh approximately one gram). The tail is cut off of a frozen mouse at an angle. The mouse tails are kept in packets of ten or so in the freezer. When we need to force feed a baby snake, we place a mouse tail in a cup of warm water and allow the tail to defrost. The water also acts as a lubricant, making the task of getting the food item down the snake's esophagus that much easier. Because the tail is cut at an angle, the angled side can be used to gently pry open the snake's mouth. The tail is then slowly turned in a clockwise direction, which will gently ease the food item down into the snake's stomach. We often alternate between the pinkie pump and the mouse tail as food items for our difficultto-feed neonates.

Recently we employed a different strategy with some troublesome neonates. A group of 12 gray-banded kingsnakes (Lampropeltis alterna) from our 1996 hatch steadfastly refused to eat domesticated mice when we tried the above mentioned strategies. We decided to let these snakes fast on heat for a period of three weeks. At the end of this fasting period, newborn pink mice were placed with each of the baby snakes. Of the 12, five babies fed on this food item. All of these animals were snakes that had no prior interest in feeding on domesticated mice. Of the five snakes, all are still consistently feeding on newborn pink mice. Perhaps all they

needed was a little "starving" period to encourage the taking of the mice; perhaps the smell of blood on the newborn mice enticed the neonates into feeding.

As one can see from this article, there are many possible methods for trying to get the difficult feeder to eat. As mentioned before, the most important aspect in this process is that one perseveres. If an animal is allowed to deteriorate and becomes emaciated, it may be too weak to survive even if it is force-fed. Therefore, a watchful eye is most important, as is one's willingness to be creative and try new methods of inducing the snake to feed. Barring an actual physiological problem such as an incomplete digestive tract, we believe that there is no excuse for a captive animal to die of starvation. So be resourceful, accept the challenge, and enjoy the rewards of a healthy animal.

The following people kindly lent us their insights and "tricks" to get many of our more difficult snakes to feed in captivity: Rick Staub, Greg Frost, Walter Broda, Jr., and Erik Loza. Doug Brown and Barney Tomberlin helped us with the photography and for that we are grateful.

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