

Care of the Savannah Monitor

The Savannah monitor (*Varanus exanthematicus*) is native to the savannahs of eastern and southern Africa. In the wild these monitors are scavengers covering large distances as they search for small prey items. Savannah monitors in the pet trade are either wild-caught or captive-raised.

Savannah monitors belong to the family Varanidae family, which includes some of the largest lizard species in the world such as the Komodo dragon and Nile monitor. Although the Savannah monitor is small compared to many members of this family, pet Savannah monitors can range from 3 to 6 feet in length, with their tail comprising almost half of total body length. With proper care, Savannah monitors can live up to 10 or 15 years. Savannah monitors are not recommended for novice reptile enthusiasts since recreation of required habitat and diet can be challenging.

Diet

Savannah Monitors require a high protein diet. Offer gut-loaded insects such as large crickets, superworms, king mealworms, silkworms, grasshoppers, cockroaches, as well as crayfish and other low-fat foods like cooked egg whites or Egg beaters[®]. Waxworms should only be offered occasionally, as they are high in fat. Pre-killed mice or rats can be offered, but only occasionally to reduce the risk of obesity.

Dust the non-breeding adult's diet with a calcium carbonate or calcium gluconate supplement once weekly. Calcium supplements should be devoid or low in phosphorus with a minimum calcium: phosphorus ratio of 2:1. Avoid products containing Vitamin D as this can lead to toxicity. A general vitamin/mineral supplement may also be offered once weekly.

Adults may be fed 2-3 times weekly. To prevent injury always use tongs to introduce food and remove leftovers. Your monitor may mistake your moving fingers for moving prey when hungry.

Water

Your monitor needs fresh water provided daily. Provide water in a heavy dish or tub large enough for your lizard to not only drink from, but also completely submerge itself (they can stay under water for extended periods of time). Provide access to a larger soaking tub at least 1-2 times weekly for several hours.

Housing

Temperature	<p>Proper heating is a critical component in the care of your Savannah monitor, allowing efficient metabolism, appropriate growth, and proper immune system function. These lizards thermoregulate themselves based on body needs and require a temperature gradient on both a horizontal and vertical plane.</p> <p>Combine an undertank-heating pad (on the warm side) with a spotlight or white incandescent bulb in the basking area to achieve the correct temperature gradient. Avoid electric reptile “hot rocks” as these can be associated with serious burns. Strive for 85-90°F (29-32°C) with a basking area that reaches 94-100°F (34-38°C). Place thermometers on the cool side of the cage, the warm side and near the basking area to monitor temperature.</p> <p>Temperature should drop to 74-78°F (23-26°C) at night. Use a nocturnal reptile bulb or red light if nighttime temperatures drop too low so as not to disturb your monitor’s sleeping patterns.</p>
Humidity	<p>Strive for 40-50% relative humidity, which may be achieved by lightly misting the cage. Also offer a moist hide area.</p>
Cage size and design	<p>Savannah monitors are active lizards. Adults require very large enclosures (i.e. 6 x 3 x 6 feet or 1.8 x 0.9 x 1.8 m) so custom built cages are often needed. Provide a minimum of 100 square ft. (30 sq. m) floor space.</p> <p>Enclosure tops must be secure enough to prevent escape while supporting heat and light elements. Screen tops are recommend to allow ventilation and penetration of ultraviolet rays. Screen tops should be made of a plastic coated welded wire that is resistant to claws and firmly attached.</p>
Substrate	<p>Preferred beddings include newspaper, butcher block paper, and outdoor carpeting or “Astroturf”. Reptile bark or non-aromatic mulch may also be used. Artificial turf and bark both trap moisture that can promote bacterial or fungal overgrowth, so these beddings must be changed frequently.</p>
Cage furniture	<p>Provide full-spectrum lighting for optimal absorption of dietary calcium. Be sure to choose a bulb specifically designed for reptile use that emits light in the UVB range of 290-320 nm. Ultraviolet rays are filtered by glass and plastic therefore natural light and artificial light must not pass through glass or plastic. The UVB spectrum generally degrades after about 6 months; therefore bulbs should be replaced every 6 months.</p> <p>In warm weather exceeding 75°F (24°C) your monitor can be taken outside and exposed to natural sunlight, however be aware some monitors become aggressive when exposed to natural sunlight (<i>see Handling and Behavior below</i>).</p> <p>Place hide boxes at both ends of the cage. Cardboard boxes with a cutout hole, pieces of large rounded cork, covered cat litter pans or commercially available reptile hide boxes all work well. Large pieces of dried grape wood, fig wood, or cork bark can also be used.</p> <p>Rocks should be large and smooth edged to help keep nails in wear as well as allow for easy cleaning. Limestone slabs and river rocks work nicely. Make sure there is still plenty of height above climbing structures to contain your monitor.</p>
Sanitation	<p>Clean water and food bowls daily.</p> <p>Change newspaper every couple of days. Astroturf needs to be cleaned every couple of</p>

	<p>days so keep two or three pieces to rotate since the carpeting needs to be completely dry before replacing. Spot clean mulch and reptile bark regularly and change out all bedding at least once a month.</p> <p>The entire habitat including perches and rocks need to be completely scrubbed down every 2-3 months. Everything must be completely dry before returning the monitor to its habitat.</p>
Social structure	Monitors tend to be solitary animals and should be housed separately to avoid aggression-related injury.

Handling and Behavior

Savannahs are the most mild mannered of the monitors, however all monitor lizards are capable of delivering a painful bite. Monitors can also use their nails and tail as weapons.

When handling monitors, correct technique is essential to avoid being bitten.

Do Not...

- Approach a monitor rapidly or in a threatening manner.
- Handle your monitor after handling its food items without first washing your hands.
- Attempt to handle your monitor when it displays threatening behaviors such as hissing, open mouthed snapping, puffing out the throat, standing up on the hind limbs and/or flicking the tail unless you are an experienced reptile handler

Some Savannah monitors can become tame with time and patience. Daily contact will gradually establish a level of trust and confidence between you and your monitor. Begin by allowing your monitor to explore and discover your scent, making sure to avoid any sudden movements. Gently grasp them behind the head with one hand and support the body and tail with the other. Be aware that monitors are lively and will often try to jump, even if you are holding them a few feet above the ground.

It is also important to keep your monitor's nails trimmed as they can become very sharp and painful. Toenail trims often require two or three people well versed in reptile restraint to prevent injury to the animal or handlers. Talk to your reptile veterinarian about nail trims.

Common Problems

- Savannah monitors are very prone to obesity and fatty liver disease in captivity so closely monitor your pet's weight and eating habits and avoid overfeeding. Large lizards such as Savannah monitors also require regular exercise to prevent obesity. Supervise your lizard at all times when it is out of the cage. Monitors can be very destructive and can easily injure themselves.
- Metabolic bone disease can also develop with inadequate vitamin/mineral supplementation.

Further Reading

Bartlett PB, Griswold B, Bartlett RD. Reptiles, Amphibians, and Invertebrates: An Identification and Care Guide, 2nd ed. Hauppauge, NY: Barron's Educational Series; 2010.