



Monitors

(Hatchlings & Smaller Species)

Varanus spp.

An
Introductory
Information Leaflet



Europe's Premier
Reptile Product Company

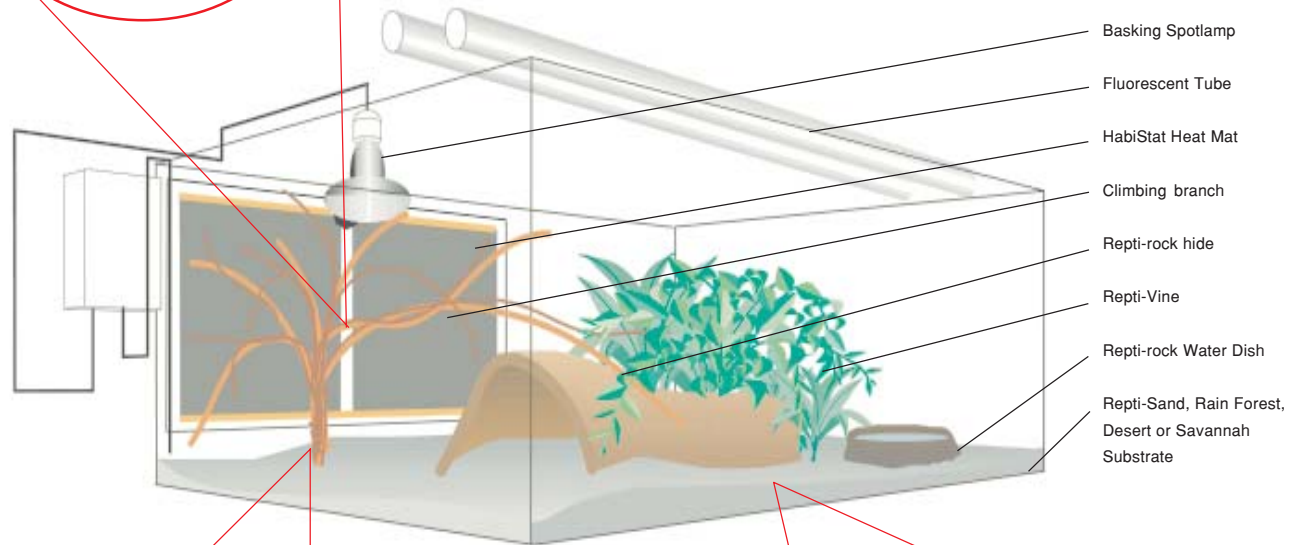
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Background Heat

Use a heat mat between half and two thirds the size of the cage to provide background heating. The hottest spot in the cage should not be above 40°C while the coolest should not be below 27°C. Use a HabiStat Mat - Stat if the temperature is too hot but put the whole cage in a cooler place if the temperature is not cool enough.

Food: Crickets, Locusts and Mealworms will be eaten by hatchlings and juveniles. Supplement insects with *Repton* or feeding *Cricket Diet Plus* & *Mealworm Diet Plus*. Other foods will include commercially prepared, fresh meat reptile diet and thawed rodent pups. As the animals grow, thawed rodents and chicks of increasing size will be preferred. Water should be fresh and changed regularly.

Cleanliness and Hygiene: A routine cleaner for all non-porous surfaces could be *Vetaclene*. Anything that cannot be easily cleaned should be periodically thrown away and replaced. Any little graze or blemish on the animals themselves would benefit from the first aid afforded by dabbing the wound with *Vetadine*. As far as human hygiene is concerned, *Vetasept Surgical Scrub* will clean hands and surfaces while *Vetasept Hand Rub* will allow adequate cleansing and disinfection even in cases when water is unavailable.



A Cage Suitable for Small Monitor Lizards

Hot Spot

A local area of higher temperature can be created with a spot lamp or a ceramic heater. Use these in conjunction with a HabiStat thermostat for precise control. Hot spots should be maintained for the same day length as the lights, sixteen hours in summer, eight in winter.

Cage Decor: *Repti-Sand, Desert, Savannah or Rain Forest Substrates*, all used bone dry as the cage base. These will blot up and 'clump' any fouling by the lizards. Clumps of waste can be removed without cleaning the whole tank out. *Cork Bark Slabs* or *Logs* could be used to make an interesting three dimensional display. Draping *Repti-Vines* in the cage will provide refuges the lizards can hide in or move through to loosen shedding skin. *Repti-rock* caves and water dishes would lend even more functionality and security.

Cage Set Up

The cage should be set up to allow an active lizard plenty of scope to climb, bask in a hot spot, move to a cooler spot, drink and hunt for food. Once or twice a week, these lizards may like a bath and should be allowed to completely immerse themselves. The lizards should also be able to secrete themselves into refuges and rub themselves against something when shedding their skin.

Shopping List

Minimum for a small lizard:

- **Vivaria**
- **HabiStat, Heat Mats** 23x11/28w
- **Basking Spot Lamp**
- **HabiStat Dimming Thermostats**
- **Reptile D₃ Compact Lights**
- **Thermometer** Alcohol
- **Repti-rock Dish & Hide**
- **Repti-Sand**
- **Reptavite or Repton** (see text)

Other items that may be purchased include those in the following list. Not all are required and several alternatives are suggested.

- **HabiStat, Heat Mats** (6x11/7w, 11x11/12w, 17x11/20w, 23x11/28w, 29x11/35w, 35x11/42w & 49x11/55w) & **Strips** (17x6/10w, 23x6/15w, 35x6/22w & 47x6/30w)
- **Ceramics Bulb Heaters** (60w, 100w, 150w, 250w, Reflectors & Holders)
- **Thermometers** (Alcohol, dial, minimum - maximum & electronic digital)
- **Hygrometers** (Dial & electronic digital)
- **HabiStat Thermostats & Accessories** (Mat-Stat 100w, Temperature Thermostat 300w, Twin Channel Thermostat 2x300w, Dimming Thermostat 600w, Pulse Proportional Thermostat 600w, both the last two models are available with a night time temperature drop facility.)
- **Sun, Moon & Sun & Moon Switches, Night Eye, Cool Control Thermostats and MiniFans.**
- **Repti-rock Dishes Hides & Caves**
- **Repti-Vines**
- **Repti-Sand**
- **Desert Substrate**
- **Rain Forest Substrate**
- **Savannah Substrate**
- **Cork Bark**
- **Reptile D₃ Lights** (18"/15w & 24"/20w)
- **Natural Sunlight Lamps** (18"/15w & 24"/18w)
- **Arcadia Control Units** (15w, 2x15w, 18w, 2x18w, 20w & 2x20w)
- **Frozen Mouse 'Pinkies'**
- **Crickets** &/or **Locusts**
- **Waxworms**
- **Repton**
- **Mealworm Diet Plus**
- **Cricket Diet Plus**
- **Reptasol**
- **Reptavite**
- **ProBalance**
- **Vetaclean**
- **Vetadine**
- **Vetasept Surgical Scrub**
- **Vetasept Hand Rub**
- **Books & Leaflets**



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Monitors...

...Biology

Monitors include the largest of all lizard species alive today. The are fairly robust animals with strong legs and sharp claws. The tail is about half the total length and unlike other lizards, it is not easily shed. They show a variety of colours and patterns depending on species and all come from Africa, Asia and Australia. The animals offered as pets are often wild caught and are usually sold as juveniles.

The species of Monitor most often available include:

Bosc	<i>Varanus exanthematicus</i>
Water	<i>Varanus salvator</i>
Nile	<i>Varanus niloticus</i>
White Throated	<i>Varanus albigularis</i>
Rough necked	<i>Varanus rudicollis</i>
Dumeril's	<i>Varanus dumerilli</i>
Argus	<i>Varanus panoptes</i>
Spiny Tailed	<i>Varanus acanthurus</i>

...Housing

Monitors are best housed in as large a cage as possible. Because of their rapid rate of growth and the heating and lighting equipment they need, purpose made vivaria are probably the most appropriate. The types with sliding glass doors to the front being especially resistant to escape. Another often used cage is a converted aquarium. A special adapting lid is used to contain the reptiles and house any equipment that may be used.

As a guide the cage should be a minimum 60 cm x 30 cm x 30 cm for a single hatchling but 200 cm x 60 cm x 60 cm for a pair of animal, each about 80 cm in total length. Of course, the cage could be larger as this would allow the animal room to grow and make it easier for the owner to manage the environment. The cage should be set up in a manner similar to the diagram over leaf. It will be necessary to provide a local hot spot near 40°C, while the coolest part of the cage should be nearer 28°C. The hot spot can easily be arranged by installing a *Basking Spot Lamp*. To ensure the cage does not overheat, the lamp is best controlled with a *HabiStat Dimming Thermostat*. White and UV light, from a lamp like a Reptile D₃ tube, may be needed and should be present for a similar period; about sixteen hours per day in summer dropping to eight in winter. Remember to change UV lamps at least once each year.

Much of the success achieved in keeping Monitors will come from the skilful manipulation of ventilation. The lizards often prefer high humidity but cannot tolerate stagnant air conditions. Fresh air moving into the cage is essential. Use the upward draughts caused by heated air rising to flush out the cage and drag fresh air in. Another way to increase air movement is to use a *MiniFan*. A light daily misting with a hand sprayer will provide any humidity required.

...Husbandry

Monitors are best kept singly or as pairs. Of course the more lizards kept in each cage, the larger the cage should be. Males will tend to fight as they reach maturity, so no more than one should be present in the cage. In any case, there should be plenty of retreats and visual screens. Watch out for bullying, particularly amongst animals of different sizes.

To handle a monitors the whole animal should be gently grasped and held in the hands. This, of course, requires both the lizard and handler to be relaxed about handling. If either is nervous or there is a real risk to either, a more secure method is called for. One hand is used to support the neck and shoulders and the other grasps the base of the tail. Both hands should

control the animal and stop it from wriggling free or injuring itself. At the same time the handler should take care not to be bitten, scratched or whipped with the tail. As the animal grows handling usually gets easier. Many fully grown animals are quite tame and tractable. Monitors seem to be aware of their human keepers and may distinguish males from females; sometimes tolerating one but not the other!

In time the cage will begin to look scruffy as faeces and debris builds up. As everything recommended for the cage is washable or disposable, a good clean out is easily done. Eight to ten weeks would be about as long as the cage could be left before being completely cleaned. The cage set up advised in this leaflet is practicable and can be made to look pleasing to the eye. If a more natural set up is envisaged, it may be best to wait until some experience is gained. In any case, some of the very informative books on Lizards in general and Monitors in particular could be investigated.

...Food & Feeding

Insects like crickets, locusts and mealworms form the staple diet in captivity. Insects should be dusted with Repton. Alternatively, they can be fed Cricket Diet Plus and Mealworm Diet Plus respectively to 'load' the insect with vitamins and minerals but do not do both! About once a week, small monitors should be offered a frozen rodent pup or commercially prepared, fresh meat reptile diet, both of which should be thoroughly thawed. Dead food is best supplemented with a sprinkling of Reptavite. These lizards grow very rapidly, so any dietary deficiency will quickly result in deformity. Calcium and the associated vitamin D₃ being particularly important. As the monitor grows, it will need a diet of defrosted frozen, whole rodents and birds.

A dish kept full of clean, fresh water should always be available. The lizards will use this both for drinking and as a bath. On leaving the water, the conditions in the cage should enable the animal to dry out completely within about half an hour. A small cage may only allow a small dish for drinking; in which case a larger dish can be given once or twice each week for bathing.

...Reproduction

Male monitors are proportionately larger than the females and they may have slightly broader heads. Definitive sexing is, however, usually quite difficult and best left to an expert.

A period of courtship proceeds mating and during this time much activity can be expected. Eggs are laid after mating and they may take several weeks to hatch. A cooler winter period will be needed to condition the lizards for breeding in the following season. As mature monitors are quite large breeding, needs a substantial enclosure and is not too common in captivity.

...Health & Disease

Monitors live for many years in the wild but seem to live even longer in captivity. They do not suffer from many diseases and veterinary attention is rarely needed. An environment and diet as described in this leaflet will preclude most problems. The most often encountered disease will be a metabolic bone disorder caused by insufficient vitamin D₃ or calcium. Good practice, hygiene and first aid will probably deal with rest. If real disease is discovered, a vet must of course, be consulted. Pet lizards do not pose a real threat to human health. All the normal hygiene precautions regarding humans and animals should, however, be observed.