

CAPTIVE CARE OF LEOPARD GECKOS

(Eublepharis macularius)

Range

Leopard geckos are found in Iran, Afghanistan, Pakistan, and India.

Selection

When selecting your gecko look for obvious signs of health. The gecko should be alert and if possible try and see the lizard feed. Make sure the gecko is captive bred and not imported. With the massive quantities of geckos being produced by captive breeders each year this shouldn't be a problem.

Appearance

Leopard geckos are among the largest geckos with adults attaining a length of around 8 or 9 inches. Most leopard geckos have a yellow background with brown spots covering the adults. Juvenile geckos have a predominantly striped pattern that fades to the spotted pattern with age. They also have a very obvious outer ear and differ from many geckos in that they have eyelids and lack adhesive lamellae, meaning they can't walk up vertical surfaces.

Housing

An aquarium is a perfect home although many people have success with plastic sweater boxes. Since they are a terrestrial species, a long aquarium is better than a high one. A 20-gallon long aquarium is adequate for 3 or 4 geckos. Make sure that you only have one male per enclosure as males will fight each other. The substrate can be anything from sand to newspaper. Sand creates the most natural setup, and you can buy playground sand from any hardware store. Rocks and logs can make the terrarium more natural looking and they provide your lizards with places to climb and get exercise. A hide box is also recommended for each lizard for use in times of conflict and for sleeping.

Lighting and Temperature

Leopard geckos are a nocturnal species so no form of UV lighting is necessary. A simple spotlight with the appropriate wattage bulb can provide both daytime light and heat. Daytime temperatures should be around 90 and the nighttime temps can go down in the low 70s. When I say 90 degrees I mean this should be the temperature directly under the spotlight. This will allow the rest of the cage to remain from anywhere to the 80's to room temperature. I feel that it's best to provide any reptile with a temperature gradient and let them regulate their temperature. I have problems with under tank heating pads and hot rocks as they don't raise the ambient air temperature in the tank and their surfaces often produce extremely high temperatures.

Feeding and Watering

Leopard geckos are relatively easy to feed because they will thrive on insects. A staple of crickets along with occasional waxworms and mealworms make a good diet. Adult geckos can also be fed an occasional pinkie mouse. Juveniles can be feed every day and adults every other day. Supplementation is a must for leopard geckos. Two supplements should be used: one that is just calcium/D3 and another that is a reptile multivitamin. Juveniles should be supplemented at every feeding and adults at every other feeding. Gravid females should also be supplemented at every feeding to make up for the large nutritional depletion caused by egg laying. Insects can be coated with these supplements and it's always a good idea to feed the insects a high quality diet so as to "gut-load" them and increase their nutritional value. If your geckos don't mind being handled it may be a good idea to feed them in a separate container. This reduces the chance of impaction from ingesting the substrate in the aquarium and allows for you to monitor how much each gecko is eating.

A shallow water dish should be provided at all times and changed daily to stop bacteria and fungus growth. Allowing leopard geckos access to a moist area is a good idea that aids in shedding. Even though they come from arid climates their burrows tend to have moderate humidity. People can supply this humidity by moistening the area under their hide boxes. Make sure that the overall cage isn't wet or overly humid.

Breeding

Leopard geckos are relatively easy to breed. One male will mate with several females so people tend to keep them in groups of one male to 3 or 4 females. Pregnant females can usually be detected because of a bump on each side of her abdomen. If provided with a laying box, females will tend to use it. Something like a cool whip tub with a hole cut in the side that is filled with moist moss or vermiculite will provide an attractive place for the females. Females will usually produce multiple clutches of eggs during breeding season. The eggs should be removed from the egg laying box and incubated in vermiculite with a 1:1 ratio of water to vermiculite by weight. The plastic shoebox inside of a ten-gallon aquarium makes an adequate incubator. If incubated at 85 degrees they should hatch in around two months. A higher incubation temperature will produce more females although de Vosjoli mentions that this may result in overly aggressive females. The newborn geckos will not eat until after their first shed (usually after about a week). They can then be started on appropriately sized insects. It's also best to house them separate, such as in plastic shoeboxes.

This is an overview of leopard gecko care. Some recommended reading follows:

Brant, Bill. "Leopard Geckos" Reptiles, pp. 16-22, April 1994.

Coborn, John. Snakes and Lizards...Their Care and Breeding in Captivity. Tetra Press. 1987.

de Vosjoli, Philippe. The General Care and Maintenance of Leopard Geckos and African Fat-tailed Geckos. Advanced Vivarium Systems.1990.

Seufer, Hermann. Keeping and Breeding Geckos. T.F.H. Publications, Inc. 1991.

A Note From the Webmaster...

The above article was written by Chris Norman. Based on email I've received and posts I've read through the years, I have appended the following excerpts are from de Vosjoli's book, *The General Care and Maintenance of Leopard Geckos* (1990, Advanced Vivarium Systems, Lakeside CA):

Sexing Leopard Geckos

There is little sexual dimorphism between males and females. In general, males are more heavy-bodied than females, with broader heads and thicker necks. The best way to sex them is to look at the ventral side. Males have a V-shaped row of pre-anal pores which exude a waxy substance. Hemipenial bulges can be seen at the base of the tail of sexually mature males. Females have pre-anal "pits" - pores which are not filled nor exuding the waxy plugs. Juveniles can be sexed as early as one month of age with some degree of reliability - if you use a 10X magnifying glass. (page 4)

Temperature-Dependent Sex Determination in Leopard Geckos

Recent studies have confirmed that the sex of leopard geckos is temperature determined. If the eggs are incubated at a temperature of 79F, virtually all of the offspring will be female. At a temperature of 85F, one can expect more or less equal ratios of males and females. At 90F, the great majority of the hatchlings will be males. At 92F, the hatchlings are virtually all males. Furthermore, research has shown that females that have hatched from eggs incubated at high temperatures, called "hot females", will be unusually aggressive and demonstrate male behavior traits and therefore will be unsuitable for breeding. Herpetoculturists, depending on their goals, will have to determine the preferred incubation temperature(s) for their purposes. When large-scale breeding for the pet trade is a primary goal, breeding for females is more desirable because the latter can be kept in groups. (page 27)

Male leopard geckos are harem breeders. As such, they should not be kept with less than 3 females. Being territorial and aggressive over breeding rights, two males should not be kept together. While females generally get along with each other and with males, there may be some incompatibility. This may result in outright attacks, or preventing, actively or through intimidation, others from free access to food, sleeping, basking, or other areas in the enclosure. If this occurs, the individuals must be housed in separate enclosures. For more information, see the Zulich's leopard gecko article.

Related Articles

Leopard Geckos, by Al & Billie Zulich (<http://www.coloherp.org/cb-news/cbn-0007/LeopGecks.html>)

Leopard and Fat-Tailed Geckos: Egging and Incubation (<http://www.anapsid.org/lepgeckbreed.html>)

Fat-tailed Geckos (<http://www.anapsid.org/fattailgecko.html>)

Feeding Invertebrate Prey (<http://www.anapsid.org/feedingbugs.html>)

The Use of Hormone Antagonists to Inhibit Reproduction in the Lizard, *Eublepharis macularius* (<http://www.anapsid.org/birthcontrol.html>)