

CARE GUIDE

LEOPARD GECKO

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Common Name	Leopard gecko
Scientific Name	Eublepharis macularius
Average Size	18 to 25 cm (7-10"). Larger individuals may be found as selective breeding has led to larger sized leopard geckos. Females are generally smaller than males.
Average Lifespan	15 to 20 years. As we learn more about the needs of reptiles in captivity, they are living longer and healthier lives, and their average lifespan is an estimate.
Oldest in Captivity (if known)	40+ years old. Her name is Großmütterchen and she is located in Germany. She has UVB lighting, natural substrate, room to explore, and an annual brumation period.
Natural Range	Their native habitat includes the rocky, dry grassland, and semi-desert regions of Afghanistan, Pakistan, India, Nepal, and Iran.
Temperament	Docile and curious. Leopard geckos are popular as pets due to their charming smiles and docile nature.
Behaviour	Leopard geckos are crepuscular (active mostly at dawn/dusk). In the wild, leopard geckos hide in burrows and rock crevices during the day when temperatures are high. After the sun sets, leopard geckos begin to emerge and start hunting. However, in captivity, leopard geckos have been seen basking during the day under their UVB and heat lamps.
Cohabitation	While some academic sources have stated that leopard geckos have been found in loose colonies in the wild, in captivity the safest bet is to house leopard geckos on their own to avoid injury. Cohabitation can result in dropped tails, bite wounds, limb loss, and competition for food can lead to weight loss and malnutrition. The risks of cohabitation are not worth the cost savings, and should only be done by experienced keepers who are aware and accepting of the risks.
Activity Level	Active at dawn/dusk and periodically throughout the night. Quite active and they enjoy hunting and stalking their prey.
Conservation Status	IUCN - least concern
Enclosure Size	There is an antiquated myth that reptiles will feel "overwhelmed" when they are placed in a large space; reptiles will utilise every inch of space they are provided as long as they feel safe. You can make an animal feel safe by: <ul style="list-style-type: none"> • Limiting your use of reflective surfaces, such as glass • Use front-opening enclosures as approaching from above is something a predator would do • Provide leaf litter, plants, and plenty of hiding places The minimum size an enclosure should be is the size that allows the animal to have an adequate temperature gradient and room to explore.

	<p>The minimum size recommended for an adult leopard gecko is 36x18x18". Floor space is more important as they are a terrestrial (ground dwelling) species. However, they will use more space if it is provided.</p>
Enclosure Materials	<p>Glass: difficult to maintain temperatures and humidity. Has a reflective surface that can stress animals out. Heavy, difficult to move, and easy to break.</p> <p>Wood: heavy, difficult to move. Easier to maintain temperatures and humidity than glass. Needs to be sealed or it will rot.</p> <p>PVC: light-weight, easy to move. Best material to maintain temperatures and humidity. Does not rot, can seal seams to hold water. More expensive. There are different grades of PVC that affect its ability to bend/warp/deform, resist scratching, etc; you get what you pay for when it comes to PVC.</p>
Temperature Range	<p>Warm end: 32-33°C Basking surface: 34-36°C Cool end: 21-25°C Night: 18-25°C</p> <p>Temperatures do not need to be exact as temperature fluctuations in nature are normal. If your bulb burns out or you are experiencing a power outage, do not feed your animal until they have had a period of 24-hours with adequate temperatures as they will not be able to digest their food if they are too cold.</p>
Humidity Range	<p>Average humidity should be between 30-40%. Average household humidity in Canada is sufficient. However, if you live in a tropical climate, it will be difficult to maintain appropriate humidity for this species. Leopard geckos benefit from higher humidity while they are shedding. Rather than increasing the humidity of their entire environment, you can add a humid hide for your leopard gecko to use as they need.</p>
Lighting	<p>While their eyes are evolved for low light conditions, having light allows them to regulate their day/night cycle, which is beneficial for their wellbeing and stimulates appetite. A 12 hour on/off cycle is recommended.</p>
Heating	<p>We recommend using halogen heat lamps for day time heat. Halogen bulbs supply heat to animals in the most natural way (from above) and produce infrared A and B, which are the wavelengths that are produced by the sun. These wavelengths penetrate deep into the reptile's body, providing them the energy to efficiently digest their prey and maintain healthy bodily functions. The wattage of the bulb will depend on the ambient temperature in your home, the material of the enclosure, the height at which the bulb is placed, and air flow. Getting correct temperatures in your enclosure is a matter of trial and error and there is no one-size-fits-all approach.</p> <p>Additionally, you can use a dimmable lamp and a thermostat to monitor</p>

	<p>your temperatures more efficiently. The thermostat will detect the temperature of the enclosure and adjust the strength of the bulb to match the set temperature.</p> <p>Black/red/blue bulbs that are often advertised for night-time heating are not necessary. Coloured bulbs are known to affect a reptile's vision and any heat source that emits light will interfere with your animal's day/night cycle. If your home gets cold at night (below 18°C), we recommend using a deep heat emitter as these emit heat and no visible light. Deep heat emitters only emit infrared B and C, making them less ideal than halogen bulbs.</p> <p>Using heat mats, "belly heat", heat rocks, and heat panels are all outdated methods and there are much safer and healthier options for your reptiles.</p>
UVB	<p>It is a myth that crepuscular or nocturnal animals do not need UVB lighting. All reptiles benefit from UVB but the strength of the light will depend on the height from the basking area, and also the strength required by the animals. The Journal of Herpetological Medicine and Surgery recommends a basking UV index between 0.5-1.5 (0.5-0.7 for albino, patternless, and other morphs that may be more sensitive to light). There are various factors that can affect the efficiency of a UVB bulb such as mesh screen lids, faulty manufacturing, used bulbs, and distance from the basking area. UV index can be measured with a metering device such as Solarmeter to ensure you are providing adequate amounts of UVB for your animal. Never use coil-type bulbs, mercury vapour bulbs, LED UVB, or any "all-in-one" type of bulb - they are inaccurate and can be dangerous. LED UVB is a new technology and studies using a Solarmeter have found that it is not quite reliable when it comes to UVB output. However, there is hope that as development continues, the quality will continue to improve as well. UVB bulbs need to be replaced as they lose output over time; even if a bulb is still emitting light, it can be emitting no UVB and you will need a Solarmeter to read the output.</p>
Substrate	<p>Leopard geckos in the wild have been found to avoid areas where the ground is primarily sand. Instead, they prefer clay and sandy soils, as well as rocky crevices. It is recommended to use a mixture of rinsed play sand and organic topsoil. We use Reptile Ready's Arid Mix which is a bioactive substrate that includes rinsed play sand, organic screened topsoil, and insect frass. This substrate can be used as a naturalistic substrate as a stand alone, or as a bioactive substrate with isopods, springtails, and live plants. You can create your own mixture as well: ensure the topsoil does not have any additives such as fertilisers, compost, manures, or chemicals. Rinse the play sand to remove dust and allow it time to dry. You can sterilise the substrate by baking it to remove any unwanted microorganisms, but this is a personal choice (30 minutes at 200°C - let cool before adding it to the enclosure). Loose substrate does not cause impaction - improper husbandry does.</p>
Handling	<p>Always support their full body from below. Gently scoop them up with one hand underneath, and place one hand lightly on top in case they decide to run or jump as a fall can result in injury. Never pick up an animal by the tail</p>

	or limb, or without properly supporting their full body. Leopard geckos have vocal cords and may “chirp” if mishandled or startled.
Feeding	Many leopard geckos “wag” their tail when they spot their prey and begin to hunt. Feed adult leopard geckos 3 times a week. Offer as much food as they will eat in a 15 minute period. Remove uneaten insects to prevent injury to your leopard gecko. It is normal for a leopard gecko to go a short period of time without eating, especially around breeding season. If your leopard gecko stops eating, monitor their weight and water intake. If they begin to lose weight quickly, bring them to a vet.
Diet	Leopard geckos are insectivores , meaning they eat a diet of live insects. Dehydrated or freeze dried insects should never be used as a staple in an animal's diet as they provide little-to-no nutrition and can lead to dehydration. Insects that leopard geckos enjoy are: grasshoppers, crickets, mealworms, superworms, waxworms, black soldier fly larvae, silkworms, hornworms, and roaches. There is no single food that provides a balanced diet, you must provide a diverse diet to ensure your animal has access to a variety of minerals and vitamins.
Multivitamin + supplements	Dust all feeder insects with calcium powder. If you are not using UVB, dust with a vitamin supplement that includes vitamin D3. Ensure to use a multivitamin powder as many animals in captivity can easily develop deficiencies. Follow the manufacturer's directions for usage and frequency. Please be aware that there is limited research conducted on reptile nutrition, with much of our understanding derived from practical observations. Ensure any supplement contains preformed vitamin A (retinol), not beta carotene as insectivores cannot process it.

The information in this care guide is based on both practical experience as well as research papers published by reputable sources. Reptile husbandry is constantly evolving as we learn more about these remarkable creatures, never rely on one source for information and always strive to learn more.