



Leopard Gecko CARE SHEET



The leopard gecko, *Eublepharis macularius*, originates from Pakistan and Afghanistan. The biology of captive lizards is the same as in the wild so the captive environment should reflect the natural habitat as much as possible to meet their complex welfare needs. These include: the need for a suitable environment; a healthy diet; to be housed with or apart from others; to be able to express normal behaviours and to be protected from harm. This is a guide, so do your own research before getting a leopard gecko.

Biology

Leopard geckos are 'terrestrial' (living mainly on the ground) and adapted to life in dry scrublands on rocky, clay soils. Leopard geckos are 'crepuscular', meaning that they are active at dawn and dusk. They spend the heat of the day hidden under rocks to avoid high temperatures and predators. Their wild diet consists of a large variety of invertebrates and the occasional small mammal and seasonal flower. 'Leos' usually grow to around 25cm in length and can live up to 20 years. There are now many colour and pattern variants called 'morphs' available.

All leopard geckos in the UK are captive bred. Before getting a leopard gecko you must be sure that you are able to provide the correct care, the associated costs for the animal's whole life. You can choose a reputable breeder or reptile shop, or there are likely to be many leopard geckos available for rehoming, so check the RSPCA website:

www.rspca.org.uk/findapet

ENVIRONMENT

The reptile enclosure, called a vivarium, must be secure to prevent escape and free from hazards. Good ventilation is essential to reduce the build-up of bacteria and it should be made from a solid material that is easy to clean. A 60 cm long, 40 cm high and 30 cm deep vivarium is the minimum size we recommend for one adult leopard gecko but it should be as large as possible. Position the vivarium away from heat sources.

Temperature

Reptiles are 'ectothermic' meaning they use their environment to warm up and cool down. You need to create a 'thermogradient' by positioning the heat source at one end of the vivarium, leaving the other end cool so the gecko can select the level of heat it needs.

To create a 'basking zone', use a 60 to 100 watt ceramic lamp or basking lamp. The heat source must be guarded to prevent your reptile getting burnt, or injured, should the bulb shatter. Leopard geckos feel warmth through their bellies, so place natural slate or rock in the basking zone to absorb daytime heat.

A thermostat, a simple device that regulates the temperature, must be used with all heat sources. For a heat lamp, place the probe of a dimming thermostat above the substrate. Adjust the thermostat temperature and check the basking zone with a digital thermometer until it reaches 28 to 30°C. The cool end should be 24 to 26°C. Thermostats are not always accurate, so check the temperatures every day using a digital thermometer for the basking zone and another in the cool end. An infrared thermometer can also be used to check the temperature in the basking zone and cool end daily.

LIFESPAN

10-20 years
in captivity

SIZE

Around 15 to 25
cm

TEMPERATURE

Hot end: 28 - 30°C
Cool end: 24 - 26°C

UV INDEX

Basking zone: 0.7
Gradient to zero in shade

HUMIDITY

30 - 40%, with a
humid hide

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You should turn off the heat at night to simulate night-time. However, if the temperature of the room drops below 18°C, you will need supplementary heat. Use a reptile heat mat on one side of a wooden vivarium, or under half the base of a glass vivarium. Connect this to an on/off thermostat, with the probe directly over the heat mat, set at 30°C. Alternatively, you can maintain the air temperature with a ceramic heat lamp (which does not emit light) set at 18 to 20°C with a thermostat.

Humidity

Leos need a relatively dry environment to prevent skin or airway problems. Measure the humidity at the cool end with a hygrometer. It should normally be around 30 to 40%. If it is too high, your vivarium will need more ventilation. A humid hide is also required to provide a local area of useable humidity, as described later.

Light

Reptiles use natural daylight to set their day and night patterns. Sunlight contains visible light and ultraviolet (UV). Part of UV, called UVB, allows reptiles to make vitamin D₃, vital for the animal to store and use calcium. Vitamin D₃ also interacts and regulates other core biological processes. Another part is called UVA, essential for a reptile's vision as they can see many more colours with UVA.

Create a 'photogradient', from light to shade, by grouping your light with the heat source so the cool end is more shaded, just as in the wild. Fit a 2 to 5% UVB tube for reptiles, one half to one third of the vivarium length, into the roof of the vivarium in the hot end. Use a reflector of the correct length to direct the light onto your gecko. UVB decreases with distance, so follow the UVB tube manufacturer's recommendations regarding distance between the lamp and your gecko. UVB is partially blocked by mesh, so you may need a stronger UVB bulb in a taller vivarium, or one with a mesh lid. Check the manufacturer's guidance on which bulb you need. The UVB output decreases over time so the UVB output should be checked regularly using an appropriate UV Index (UVI) meter positioned at the level of the animal directed towards the UV lamp. Leopard geckos require a gradient of UVB within their enclosure ranging from UVI 0.7 in the basking zone to zero in the shade. The lamp must also be replaced according to the manufacturer's instructions. Seek advice from your reptile vet if you have a red-eyed morph as they may find bright light damaging. UV lamps must always be guarded to prevent burns, or injuries should the bulb shatter. Turn off all lights at night. Lamps can be controlled using a simple plug-in timer: 12 hours on

during the day and 12 hours off at night.

Cleaning

Poorly maintained enclosures can become dirty quickly and create a health risk for you and your reptile. Waste should be 'spot cleaned' as soon as it appears.

Clean the vivarium and equipment fully once a month. Use a reptile-safe disinfectant then rinse off and dry thoroughly. Be careful as reptiles can carry *Salmonella*. Wash your hands before and after handling the gecko or its equipment to reduce the spread of infection between you and the lizard and other animals.

DIET

Water

Water is essential for a reptile's health and wellbeing. A shallow dish of clean, fresh water must be provided at all times in the cool end. This must be cleaned and replaced at least daily and immediately if it is soiled.

Feeding

Leopard geckos mainly feed on invertebrates in the wild. In captivity, feed a varied diet of live invertebrates, called 'livefood'. These include crickets (e.g. brown house crickets), 'calciworms' and locusts, no bigger than the size of the gecko's head. Feed waxworms sparingly as they are high in fat. Juveniles should be fed daily; adults every other day. You can also offer a washed dandelion or nasturtium flower once a month to supplement the diet. It is a good idea to weigh your gecko regularly. Feed in a separate container to prevent the gecko swallowing the substrate. If you feed in the vivarium, remove uneaten bugs to prevent them biting the gecko.

Feeder insects should be kept in a large, well-ventilated container. They should be fed safe vegetables and hydrated well for their own welfare and so that the nutrients are passed onto the gecko. Feeder insects should also be 'gut-loaded' with vitamins and minerals by offering them an appropriate formulated gut-loading diet 24-48 hours prior to feeding them to your gecko.

The captive environment does not supply all of the vitamins and minerals available in the wild, so supplements are required. Livefood should be lightly dusted with a vitamin and calcium supplement immediately before being offered to the gecko. Vitamins and minerals can be overdosed so always follow the instructions of the chosen brand. For example, with a well-set UV system you will not need to supply a lot of vitamin D₃.

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You should also provide a small bowl of plain calcium powder at all times for them to lick. Store supplements in a cool, dry place to keep them fresh.

BEHAVIOUR

Enrichment

It is important to provide opportunities for leos to express natural behaviours, which is called 'enrichment'. For leopard geckos, this will involve providing plenty of hiding places and some low, sturdy branches or rocks for climbing.

Include many hides throughout either end of the vivarium so the gecko can choose the temperature without having to compromise feeling secure. Another hide with a waterproof bottom, containing damp moss creates a 'humid hide'. This needs to be sprayed with clean water every few days to keep it moist.

Substrate

Substrate is the name for the floor covering in your vivarium. It is important as it provides something for the gecko to grip onto. In the wild, leopard geckos may take up small amounts of soil or sand when feeding, which are passed through the body. With a healthy adult gecko, in a well set-up enclosure, a soil/sand mix of approximately 50% organic soil, 50% sand can be used. Only use clean children's play sand or reptile sand - not builder's sand which can be sharp.

Do not use 'calcsand', beech chips, or other non-natural loose substrates. This is because they can cause 'impaction', where particles become lodged inside of the belly and cause a blockage. This is a potentially fatal issue. Impaction is a worrying sign of underlying problems such as incorrect temperatures, dehydration or vitamin deficiencies. Therefore you should see your reptile vet for regular check-ups to ensure that your gecko is healthy. You can use clay substrates that provide a natural look and set hard so



Bringing your lizard home

Set up the vivarium and run it for a minimum of a week before introducing your leopard gecko. This will allow time for you to adjust everything before the animal arrives. On the first day, carefully place the gecko inside the vivarium. Leave the lizard with some food and water but with no further interaction until the following day. This will reduce stress and allow the leo to explore in its own time. It is best not to start handling unnecessarily for the first week. Instead, let your gecko take time to become used to its surroundings.

that there is no risk of impaction. Another safe option is to use rough, flat stone or slate pieces. They provide good grip, can be used to create different levels in the vivarium and can be easily cleaned. You could use a product called reptile carpet to line the vivarium floor, which can be easily removed for cleaning. It is recommended to house young geckos on non-loose substrates when they are very young, until you are happy that they are doing well. For permanent housing, we recommend that owners provide a naturalistic environment and also consider a bioactive system. Keepers can research how to do this using expert books on the topic, or specialist keeper member groups online.

COMPANY

We recommend keeping these geckos singly as they do not need social company and can even be aggressive.

Handling

Leopard geckos can become used to handling, which is helpful when checking their health. Never grab your gecko as this could stress it and lead it to struggle or bite or struggle. The gecko should be gently scooped up with both hands, so all four feet are supported. Never apply any pressure to the tail as the gecko can drop it. Their tail can grow back but it is dangerous for the gecko's health as it will have to rebuild its fat stores.

If your gecko backs away when you try to pick it up or tries to bite, it is better to leave it alone rather than to keep going until it is caught – just try again another time. The gecko should not be taken from the vivarium for so long that its core temperature drops. Around 10-15 minutes at a time is safe, depending on the room temperature. Keep other pets away, regardless of how safe they may seem around your gecko.

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HEALTH & WELFARE

Clear, bright eyes are one of the signs of a healthy leopard gecko. They should be active and the belly should not touch the floor, apart from when resting. Well-fed geckos will have a thick tail. A leopard gecko's droppings should be quite dry and will be made up from faecal waste (the dark part) and urates, (the white part).

Shedding

Leopard geckos shed their skin in large pieces. There is no rule as to how often this will happen but young, growing geckos shed their skin more frequently. When ready to shed, the skin may look dull as the old skin separates from the new skin underneath. The leopard gecko will spend time in its humid hide, softening the skin. Then it will normally pull it off gently and eat it.

Poor shedding on the feet can cut off the blood supply and lead to the loss of toes. Do not pull off old skin if it seems stuck as it can tear the new skin underneath. If you still see dry skin caught around the toes or eyes, consult your reptile vet for advice.

Brumation

Brumation is a natural process, similar to hibernation, seen in some individuals over the cooler months. It is triggered by the reduction in temperatures, air pressure and natural daylight hours. These geckos may eat less than normal and increase the time spent sleeping. However, they should not lose weight at this time, so monitor your gecko carefully.



Transport

If you need to transport your leopard gecko for example when taking it to the vets, it is important that it is done safely. A gecko can be transported in a well ventilated plastic container lined with soft, absorbent paper. This should be kept warm; the addition of a reptile heat pack may be required to provide gentle heat in cold weather but make sure this will not over-heat. Keep transport time to a minimum to reduce stress.

Diseases & concerns

One of the most common problems that affect captive reptiles is metabolic bone disease, 'MBD'. This is a term used to describe a range of nutritional diseases. However, it is most often due to a lack of UVB lighting, resulting in vitamin D₃ deficiency, preventing reptiles absorbing calcium from their food. Symptoms include muscle twitching, swollen legs, fragile bones and eventually, permanently deformed limbs, jaws, spine or tail. If you notice any of these signs you must seek urgent vet advice.

Female geckos reaching adulthood may produce infertile eggs, even without a male present. If this happens, her belly will swell and you might even be able to see the eggs in the belly. It is very important she is given a nest box of moist soil or a sand/soil mixture to lay the eggs in, or she may become egg-bound.

Geckos can also get digestive problems. Abnormal droppings or constipation, coupled with weight loss can be serious. As mentioned, another potential disease of captive lizards that you need to research is impaction.

It is essential that you take the time to do further research before getting a reptile. If you do get a leopard gecko, monitor its health and behaviour daily and see your reptile vet if you have ANY of the above concerns.

This care sheet is a basic guide only. Further information must be sought before you decide to take responsibility for any exotic pet. Find more information on our website:

www.rspca.org.uk/leopardgecko

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