Why does my reptile need a heat lamp?

https://shirleyaquatics.co.uk/knowledge/why-does-my-reptile-need-a-heat-lamp/

Why does my reptile need a heat light?

Why do reptiles need a heat lamp? Why cant they control their own body temperature? To answer these questions, we need to delve into the world of the cold-blooded……

Cold-hearted swine

Most reptiles (with the exception of a very limited few, one example being Tegu's) are "cold-blooded". This in itself is not a particularly accurate statement. Poikilothermic is the scientific term for true cold-bloodedness and does not describe reptiles particularly well. Reptiles are ectothermic and rely on external factors (the best example being the sun) to regulate their internal body temperature. While their body temperature is dependent upon external heat sources rather than internal heat production, most are capable of very precise control of their body temperature. Due to the fact that reptiles don't need internal energy to maintain body temperature, they have very low calorific needs, they have a slow metabolic rate – as little as 1/7th of the rate of a similarly sized mammal. For example, a royal python will feed on a rodent up to roughly 5% of the snake's total body weight, a 1500g royal python would need a meal of 75g every 10 – 20 days.

Can you regulate?

Thermoregulation is a term you may have heard us use before. But what is it?
Thermoregulation is the process by which reptiles maintain their body temperature within a specific range. Reptiles have a preferred body temperature range, which varies by species and where the animal's native habitat is. If their body temperature falls outside of this range for prolonged periods, they may become sluggish, inactive, and can even become ill.
To maintain their preferred body temperature range, reptiles employ several behavioural and physiological methods. This allows the reptile to absorb heat from their environment and control their core temperature and their metabolism.
There are several different behavioural adaptions reptiles have developed to aid in maintaining their

preferred body temperature range, this is known as behavioural thermoregulation.
Behavioural thermoregulation is when reptiles use their behaviour to regulate their body temperature. For example, many reptiles bask in the sun to increase their temperature. They will position themselves in a location that provides the right amount of heat, such as a rock or a sunlit branch (displayed by several species of turtle and lizards). This behaviour is especially important for reptiles that live in colder environments such as garter snakes, or at higher elevations, for example the mountain horned agama.
Reptiles can also seek out cooler areas to regulate their body temperature. For example, they may retreat to the shade or burrow underground to escape the heat of the sun, turtle species will retreat to the water to regulate their temperature, and some snakes will also choose water to help cool down. This behaviour is especially important for reptiles that live in hot and arid environments such as the bearded dragon and several species of tortoise.

Why do reptiles need a heat lamp to thermoregulate?

Thermoregulation is crucial for reptiles because their body temperature affects their entire physiology. The best example of this is digestion. If a reptile's body temperature is too low, their digestive system may not function properly, and they may not be able to digest their food. Mediterranean tortoises who have been hibernated (technically brumation is the correct term) to soon or without allowing them time to “empty” themselves will have food in their digestive system. If it stays in the digestive tract and the animal is not warm enough the food will not be digested, and it will degrade. The food will rot and then ferment, leading to the release of gases from the decomposing vegetation. This can lead to bacterial infection, sepsis and even death. Active reptiles that do not brumate, if maintained at a lower temperature will not feed (if they do, it will result in the same digestion issues as the tortoises) and eventually starve to death.
If the body temperature is too high, they may become dehydrated, and their internal organs may suffer damage. Dehydration is a leading cause of health issues in captive reptiles, it can lead to various health problems, including shedding and skin issues, kidney problems, immune system problems, digestive problems and even death.
Thermoregulation is especially important for reptiles that are kept in captivity, as their environment is often different from their natural habitat. This is one of the reasons we recommend a naturalistic enclosure and learning as much as you can about the natural history of the species. The better you can replicate their natural environment the easier it will be for the animal to thermoregulate. If their enclosure is too hot or too cold, they may not be able to regulate their body temperature properly,

leading to health problems.

Why do reptiles need a heat lamp A Conclusion...

To conclude, thermoregulation is a vital aspect of reptile biology. Reptiles use a combination of behavioural and physiological mechanisms to maintain their body temperature within a specific range. As keepers, it is our responsibility to provide our pets with an environment that allows them to regulate their body temperature effectively, which includes providing a temperature gradient within their enclosure, adequate lighting, and the right substrate. By understanding the importance of thermoregulation, we can ensure the health and well-being of our favourite reptile pets. Thrive. Don’t just survive.

Why not check out our YouTube channel for some cool videos on our reptiles and helpful tips on husbandry!