

# How Do I Get My Bulbs To Last Longer?

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Proper heating and lighting in the terrarium is the #1 most important aspect of successful husbandry for reptiles and amphibians. Since reptiles are poikilothermic (dependent on outside conditions for regulating their body temperature), the use of proper heat bulbs and ultraviolet bulbs is paramount for your pet to thermoregulate, grow and develop properly, breed and reproduce as well as how it affects mood and behavior. The downside of this is that the bulbs you buy don't last forever, and with new innovations in herpetoculture (the keeping and breeding of reptiles) every year, proper heating and lighting could be your pet's biggest expense. It is our intent to teach you how to get the most from your bulbs and how to avoid some common mistakes.

## **Your Fixture;**

Always ensure that your fixture is CSA approved for fire and electrical safety. Be sure that the fixture you are using will accommodate the wattage of bulb you intend to use. Trying to use a 100W bulb in a fixture that is only rated for 75W is a fire hazard and could ruin your bulbs as well as the fixture.

There are fixtures with ceramic bases that can accommodate most sizes of bulbs and there are fixtures that have kiln fired porcelain bases that are suitable for higher heat usage such as are necessary for ceramic heat emitters. Ensure you are using the proper fixture for the proper bulb.

If you look inside the base of a new fixture, you will see a shiny copper tab that should be raised up at a 45 degree angle. This copper tab needs to make contact with the soldered base of your heat bulb. A firm connection means you will get the best life out of your bulb.

When it is time to replace a burned out bulb, **you should unplug your fixture** and check out the base. If the copper tab looks blackened from use you should take a small piece of steel wool and try and clean it the best you can. You may also notice that screwing in your initial bulb has squished this tab flat. If you try to put in a replacement with a flattened tab, it is possible that your new bulb might not make a good connection which in turn could cause some electrical arcing and flash out your new bulb a lot sooner than expected. **Ensuring that the fixture is disconnected from the electrical source**, take a butter knife and pry up the copper tab to its initial 45 degree angle to ensure you will get a good connection with your new bulb.

## **Electrical Timers and PowerBars;**

Make sure that your fixture is plugged into a surge protected powerbar. This powerbar should be plugged into an electrical timer. Remember that you are dealing with high heat and thin glass. There is a lot of expansion and contraction happening that over time can affect the strength of the bulb glass. Have you ever been watching television or reading and then notice the lights dim slightly or the television goes fuzzy when somebody runs an appliance such as a vacuum or a blender? The use of a good surge protected powerbar can prevent this and the stress it puts on your bulbs. That being said; avoid using dimmer switches. Bulbs burn best at the intensity they were designed for.

Having an electrical timer will also enhance the life of your bulb just by making human contact with your equipment less necessary. No more switches to turn on and off or having to unplug and plug in your fixture. No more worrying about turning on your animals lights if you go away for vacation. This will also enhance the quality of life for your reptile as its photoperiod will be consistent through the seasons.

## **Your Bulbs;**

There are several varieties of bulbs used for just as many applications for your terrarium needs. Tight beam spots for heating up a certain basking area, floodlights for a more forgiving broad radiant heat, mercury vapour bulbs to provide heat as well as UVB in a single bulb. Here are a few tips for proper use of these bulbs to maximize their life;

- Never change day bulbs and night bulbs! One bulb per fixture. Constantly screwing in and unscrewing bulbs will leave you very quickly with the glass part of the bulb in your hand while the metal part is still stuck in your fixture! Over time the expansion and contraction of the glass will loosen its fitting to the metal and the actual glass becomes frail with age and use.
- Don't touch your bulbs with your fingers! Oils from your fingerprints on the glass of your bulbs will leave "hotspots" where the glass will heat the bulb unevenly and heat up more where your fingerprint oils were. This may potentially cause your bulb to fail earlier than expected. Use a clean, dry cloth or paper towel to screw in your new bulb.
- Use a surge protected powerbar and an electrical timer
- Watch your use of misting and water usage. One drop of water will cause a hot bulb to explode. Pay attention when misting your terrarium that you don't inadvertently hit the bulb with a stray drop. If you have a lot of water for either turtles or semi-aquatic lizards or frogs, position your fixtures to an area where an animal can't splash the bulb by jumping into the water. There are "splashproof" halogen bulbs available on the market to help prevent such incidents from occurring.
- Watch the use of oversized bulbs in small fixtures. Ensure the glass of the bulb doesn't protrude past the cusp of the fixture and make direct contact with the screen. The bulb should be clear of all objects.

## **How Long Should My Bulbs Last?**

Typically, you will find yourself changing blown heat bulbs every 3-4 months. Hopefully, with this guide you may find they last 6 months or more!

Mercury vapour bulbs should last you at least a year. At this point they should be changed as the beneficial UV radiation will be worn out. The heat and visible light part will still be useful though. You may notice from time to time that this type of bulb may automatically turn off for a few minutes and then turn back on. In some instances, such as a brief power outage in your home, you will see all your lights come on except for your mercury vapour bulbs. This is normal. These specialized bulbs will actually cool themselves for a few minutes before turning back on.

Linear and compact fluorescent bulbs will also last many years but they should ideally be replaced every year for maximum UV benefits.

It is possible that once in a while you may get a bad bulb. It may flash out immediately, or it may only last a few days or weeks. We will be happy to replace these bulbs for you. On the other hand, if you find that you are constantly having bad luck with bulbs – it is more than likely something is going wrong on your end. Check your parameters, read this guide. If you've gone through three bulbs in three weeks, then it is time to buy a new fixture!

For more comprehensive information on the effects of heating and lighting on your pet reptile, ask us for a free copy of **ExoTerra's Reptile Lighting Guide**.