

THE INSIDERS GUIDE TO EXOTIC PET SUPPLIES



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Published by:

www.KeepingExoticPets.com

Introduction

Hello and welcome to The Insiders Guide To Exotic Pet Supplies. The goal of this free report is to give an "insiders view" of the commonly-used exotic pet equipment to enable you to get a better understanding of what is available, what works best and what works well together.

If you're just starting to get interested in exotic pets but don't know where to begin when it comes to housing your potential new pet then hopefully this report will be an ideal introduction for you.

Onwards...

One of the overbearing "golden rules" of exotic pet care is that most reptiles, amphibians and invertebrates are actually quite easy to keep once you get their environmental requirements right. Setting up their caging in the right way is really 90% of the battle with the remaining 10% consisting of items such as feeding, cleaning, disease treatment and so on. So getting your housing correct is essential.

As the hobby has progressed over the years a huge number of companies have started to produce exotic pet care supplies and while this variety means you have more choices and options than ever before the downside is that it can be difficult to know where to start.

For example if you're considering buying a bearded dragon some simple research will reveal that they come from the dry desert regions of Australia and we can further assume from this that they require a very hot basking area in their cage and strong artificial lighting if they are to feel at home.

It's certainly a good start but how do we go from this concept to a satisfactory habitat? What type of housing will work best? Which of the many different forms of heating should you use? What about artificial lighting? With all the equipment available the possibilities are virtually endless and in the past it has really only been from trial and error that keepers of exotic pets have discovered the best combinations and set-ups.

Clearly when living creatures are involved the concept of "trial and error" should be used with caution lest harm may come to your pet. Much better is to go in with a degree of knowledge and experience so you can get the environmental conditions right from the word go.

That is the goal of this report. To provide you with the insiders knowledge on the various pieces of equipment so you can make educated decisions about how to keep your exotic pets fit and healthy.

Successful Exotic Pet Care Starts With Research

Before we get into the main body of the report and start to look at exotic pet supplies I would like to reiterate one point that will help to make your exotic pet hobby so much more enjoyable and successful.

Before you actually bring any kind of exotic pet home the wisest thing you can possibly do is to read as much as possible about the species in question. With reptile magazines and books - and increasingly good quality free information available online - there is a wealth of information.

Getting a detailed understanding of how the animal lives in the wild can make keeping exotic pets so much easier in captivity because armed with this information you can use commonly-sold

equipment to mimic these natural surroundings as far as possible.

Examples of questions to be asking yourself during your research include:

- Is this a desert, savannah or rainforest species?
- Does this animal require regular access to water?
- Will this animal drink from open water, from water droplets or does it get enough moisture from it's food?
- Does the species like to immerse itself in water?
- Does this animal like to burrow?
- Is this species awake during the day or the night (diurnal or nocturnal?)
- Does the species come from an area with clear seasons - and if so what are these seasons? In the northern hemisphere we are used to seasons of warm and cold, but there are other types such as wet and dry seasons.
- Will this species spend most of it's time on the ground or in the trees? Do they like to climb at all?
- Is this an active species that requires lots of space or far more sedentary?
- What sort of places does this species like to hide from harm?
- Does this species bask in the sun or not?
- What sort of humidity is ideal? Some exotic pets require a moist environment while others can suffer from breathing problems and skin problems in such conditions.
- How warm is the species natural environment during the day and at night? Are there noticeable differences between the two?

Try to build up an understanding in your head of the natural conditions for the exotic pet you are considering and then use the various pieces of equipment we will be discussing to help you replicate these environmental requirements as closely as possible.

Caging For Exotic Pets

Glass Vivariums

Glass vivariums like the ever-popular Exo-Terra vivariums are, in my opinion, currently one of the very best forms of exotic pet housing for a variety of reasons. But before we get to those let's examine the few real downsides of glass vivariums.

Firstly they aren't available in a huge range of sizes and even the largest ones aren't very big so they

may not be suitable for housing larger animals.

Secondly they typically aren't the cheapest form of exotic pet housing around and lastly as they are made from glass they are heavy and they can be fragile.

But to the upsides. These glass vivariums are typically made specially for exotic pets and so have a huge number of practicalities over something like a re-purposed aquarium which can be impractical in some situations.

Many currently-available glass vivariums open at the front - either with doors that slide to the side or that open forward on hinges making accessing your vivarium far easier for feeding and cleaning. They have watertight bases useful for moist environments and the glass means they won't rot in these circumstances.

Many of them have lids and fittings available to make adding electrical equipment like lights and heaters simple and they are all incredibly attractive to look at and can really help to draw attention to your pets.

In short for smaller exotic pets I think glass vivariums currently make one of the best forms of housing combining practicality and looks if you have deep enough pockets to accommodate them.

Wooden Vivariums

In days gone by wooden vivariums were the "industry standard" housing for many species of exotic pets and over the years I have owned dozens of them and used them successfully to keep and breed everything from wall lizards to milk snakes.

Wooden vivariums can be reasonably cheap to buy and come in a huge range of sizes and dimensions meaning that even larger exotic pets can be successfully housed using them. They typically have sliding glass doors to make access easy and being wood can be well insulated and good for keeping the heat in. This **does** mean though that where you can place a heat pad under a glass vivarium with a wooden vivarium you will need to actually place the heater **inside** the cage with your pet.

Wooden vivariums can also be quite easily and cheaply made and I have built my own on numerous occasions - and trust me I am certainly not very handy with tools! The wood used for most vivariums is melamine board which is really just cheap chipboard with a water-proof covering to give it the appearance of good-quality wood and this can be bought cheaply and easily in a range of different effects from good DIY stores.

And because you can either buy pre-built wooden vivariums or build your own this means that the sky really is the limit for this form of housing and if you have particular dimensions in mind one way or another you should be able to accomplish this with a wooden vivarium.

So what about the downsides of this cheap, simple, diverse form of exotic pet housing? Well very few wooden vivs come with fittings for electrical equipment and so you may need to be able and willing to drill holes etc. to insert these which can be frustrating and time consuming though as mentioned the trade-off is that this lower level of practicality is typically cheaper than other types of vivarium.

The main downside of wooden vivariums though is that even with the melamine covering the wood is likely to eventually start to age. If the wood is kept constantly warm as a result of a powerful heater or is kept moist such as when keeping many amphibians it may begin to rot or warp with age.

Of course there are things you can do to offset this risk - for example I line every join inside my wooden vivs with aquarium-safe silicon sealant to reduce the risk of moisture leaching out of the substrate but there are still risks involved.

Generally I would suggest avoiding wooden vivariums for exotic pets like water dragons, poison dart frogs and similar species that require a constantly humid environment but for drier species - like many of the commonly-kept rat snakes - these can provide an ideal and very cost-effective form of housing.

Plastic Vivariums

There are now a limited number of custom-designed plastic vivariums available resembling the general design of a wooden vivarium but made out of longer-lasting plastic. The sliding doors are typically present and many of these molded plastic vivs come with fittings ready for inserting electrical equipment making setting up your exotic pet's home far easier.

They may well be lighter than most other forms of housing discussed here too which can be helpful when moving your pets but many people find them unattractive and "tacky looking" though this is a matter of personal preference.

Lastly these molded plastic vivariums are still reasonably unusual in the hobby and as a result they can be reasonably expensive to buy and quite difficult to find in small reptile stores. Also be aware that only a small number of different sizes are available so you may struggle to find a suitably-sized viv if you are looking for something particularly large or small.

Mesh Vivariums

Increasingly popular at the moment are mesh vivariums which are exactly as they sound in that the "walls" of the vivarium rather than being made from some solid material like glass or wood are in fact made from tough mesh.

So why mesh? Mesh has a number of potential benefits to the exotic pet such as the way that air can circulate freely ensuring that stagnant air doesn't build up in a humid cage and also providing a way to enable lizards to climb. These cages have become particularly popular among keepers of chameleons which regularly suffer health issues in overly stagnant conditions.

However the same mesh also has a couple of major downsides that for me have prevented me using these vivariums for any of my pets. Quite simply as air can circulate freely and actively this means that maintaining the right environmental conditions within the cage can become a real struggle.

How do you create a humid environment for example? Typically you create a warm environment and then add water. The water starts to evaporate and assuming that you get the air flow right - enough ventilation so a stagnant atmosphere doesn't occur but not so much that all the moist air escapes - your exotic pets should remain fit and healthy.

However try to achieve this with a mesh vivarium and you will struggle to maintain the humidity

and will just manage to raise the moisture levels in your home which can lead to mold, rot and so on. Not cool.

The same goes with heating. In a well-insulated cage like a wooden vivarium a nice, toasty environment can easily be created using a range of different heaters and thermostats which makes creating the right environment both easy and cost effective. With a mesh vivarium that heat can escape very easily meaning it can be more challenging to keep your exotic pets warm.

In general while I appreciate the benefits of these cages there are really too many downsides in my opinion unless you are using these cages in a special room of your house which you plan to heat all year round to a suitable temperature.

Tortoise Tables

For the tortoise keeper there are a limited number of suppliers currently selling "tortoise tables" which are just as they sound. A tortoise table typically in a low, flat container with a decent floor area - think of it as a kitchen table with slightly raised sides to prevent your pets from falling off the edge. Lights and heaters can be easily fitted to the raised sides to provide the correct environmental conditions.

These tables can make very attractive displays and make it easy to see and enjoy your pets. They typically have a large floor area meaning your tortoises will have plenty of space to move around yet are designed to reduce the chances of your tortoise trying to climb up the sides and inadvertently flipping itself over on it's back in the process.

Lastly tortoise tables are typically open at the top so ensuring that your tortoises can enjoy a dry environment which most of them enjoy, though great thought must be taken if you have children or free-ranging pets such as cats that no damage can come to your tortoises in their pen.

Aquariums

The classic glass aquarium can be used as a cage for quite a range of different exotic pets though care must be taken with the lid. A standard aquarium hood will do little to keep many exotic pets in and you may find animals such as newts can easily climb up the glass while more arboreal animals like some lizards may be able to jump up to the top and climb out.

As a result it is generally necessary to make your own lid or to buy a specialist reptile-safe lid such as those made by Clearseal. As aquariums can often be bought very cheaply second hand - or you may even be able to get hold of one for free - they can be a very cost-effective form of housing for exotic pets.

Depending on the environmental requirements of the species you have chosen lids can easily be made on the cheap at home using a range of materials. As an example some years ago I "inherited" a large aquarium that a friend no longer wanted. Using silicon sealant and pre-cut perspex I split the aquarium into four equally-sized compartments and used further pieces of perspex to create lids for each section.

I then used this to house a number of tarantulas in ideal (and very attractive) surroundings. Further possibilities include simply buying a piece of wood of a suitable size to lay over the top or creating a frame of the right size and then covering it in mesh.

If you choose to make your own lid pay attention to how you will gain access to the aquarium for cleaning and feeding and also how you will attach any electrical equipment necessary such as heaters and lights.

As for species suitable for aquariums the possibilities are almost endless but the glass construction makes them particularly suitable for species that either require a large body of open water or simply a very moist environment that might cause other materials to rot.

I have a very attractive display of fire bellied toads in an aquarium where I have used a piece of perspex a few inches tall to split the base of the aquarium into two separate "compartments". One side is open water with a gravel bottom while the other is a dry area where the toads can climb out of the water, feed and hide and this arrangement not only looks visually stunning but is easy to set up and maintain in an old aquarium.

Other Misc. Possibilities

The various caging options described above are the standard fare available from most exotic pet stores and reptile supply websites. These are the normal forms of housing employed for keeping reptiles, amphibians and invertebrates. But they aren't the only options.

Just as there are a ridiculously large number of exotic pets you may decide to keep so there are almost an unlimited range of possible ways to house them.

For example some people use outside ponds for keeping terrapins and turtles in during the summer months though care must be taken to net them in so predators cannot make off with your prize specimens.

And many smaller invertebrates risk getting lost in overly-large herptile cages. For these - like preying mantis and smaller tarantulas - a range of additional housing options are available. I have used custom-built glass tarantula tanks in the past, a wide range of tupperware boxes and even made my own small perspex cages for next to nothing. Assuming the container will allow you to see your pet and will allow your pet enough space and the necessary environmental conditions to remain fit and healthy then feel free to experiment and think outside the box.

Heating

Many - though by no means all - of the exotic pets within the hobby come from the warmer parts of the world. They are also cold-blooded. So to keep them fit and healthy most exotic pets require some form of supplemental heating - even if that is only during the colder months of the year.

Of course some species need incredibly high temperatures year-round with basking spots of 35+ degrees at all times while many of my invertebrates receive no extra heating at all during the summer.

Unless you're keeping one of the few species which is comfortable year-round at room temperature (examples might be Japanese fire-bellied newts and the various fire-bellied toad species) you're likely going to need some form of artificial heating for your exotic pet.

There are a number of options here with wildly differing uses, costs and results so let's take a closer

look together...

However before we actually start looking at the various types of exotic pet heating available to you let's take just a few minutes to take a closer look at the subject of monitoring the heat in your vivarium.

Obviously you measure temperature with a thermometer but there are a surprising number of different thermometers involved and over the years I have tried out all sorts of different possibilities so I wanted to just point you towards a solution that has worked well for me.

I use two kinds of thermometers these days. The first type is a "wall mounted" type - as you see attached to some aquariums - that will measure the ambient air temperature for you. If you are only using a low-powered heater this is probably all that you need.

The other type I use is a digital probe thermometer to measure hotspots. These thermometers have a temperature sensor on a long wire which you can fit into your exotic pet cage to measure the temperature at a specific place in the cage. This is typically directly over or under your heater so you can check it is of a suitable temperature.

In this way using such a combination I can keep an eye not only on the general air temperature within my exotic pet cages but also keep an eye on the hotspots if my pets require them and therefore have all the bases covered and a quick glance at the dials tells me in an instant that everything is as it should be.

Heat Mats

The heat mat (or heat pad) is the cheapest and easiest form of heating for exotic pets. It is also the lowest power costing mere pennies per day to run. In appearance the heat mat looks like a thin piece of plastic with a cable and plug coming out of the end. Plug it in and it warms up to a comfortable 20-25°C in a short while.

Heat mats have just so many benefits as a form of heating. They are widely available, cost very little to buy and come in a huge range of sizes. They are uber-simple to use, are reliable, hardy and will work for years to come.

One of the concepts of using artificial heating is that we want to create what is known as a "heat gradient" - where some parts of your exotic pet cage are warmer than others. In this way your pet can move around as in nature and find the spot that suits them best for now. Warm up in the hottest part or cool down at the other end of the cage.

So for this reason you only want to heat 1/3 to 1/2 of your exotic pet vivarium with a heat mat to provide that gradient.

For example I currently heat my leaf insects using a heat mat. They are housed in a glass aquarium which I have placed half-on a heat mat. This means there is a heated end and an unheated end with a gradient between the two. With glass cages you can either place the cage onto the top of the heat pad or you can tape the heater to the outside of one of the walls of the cage. With better-insulated cages (or glass cages that have a lot of substrate at the bottom that would otherwise prevent the heat from getting through) then you may need to put the heat mat actually inside the cage rather than outside.

In this way my ball python is housed in a 120cm long wooden vivarium at present which I have drilled a hole in (the cage, not the snake!) so that I could feed the wire of the heat mat through and place the heater under one of my snake's hides.

These heaters are generally such low power that they are only warm to touch meaning there is virtually no chance of burning yourself by coming into direct contact with them though some authorities still recommend not using a heat mat unless it is attached to a thermostat. While this sounds like a good preventative idea all I can say is that I have been using low-wattage heat mats without thermostats for around 20 years and have never had a problem with overheating when they are used correctly.

As mentioned though these heaters do not supply a great deal of heat. They may keep a small cage for a tarantula comfortably warm all year round. They may provide some background warmth in a well-insulated vivarium like one made from wood but for lizards that require a really hot basking spot these heat mats should only really make up one part of your heating system. In these cases you can use a heat pad for gentle background warmth in combination with one of more powerful heaters which we will be discussing shortly to provide a much hotter area for your pet to bask under.

Heat Cables

Heat cables were originally designed for gardeners to warm up their seeds so are sometimes called "soil heating cables" and they provide a similar level of gentle background temperature to a heat pad. The real difference is that a heat cable is exactly that - a long plastic cable - rather than a flat pad.

They can be used in a similar way and so I use a long heat cable to warm most of my invertebrate cages at the same time using only one plug rather than having to buy dozens of heat pads and splitters. In short they are simply a cost-saver if your collection starts to grow and you need to heat a large number of containers.

Hot Rocks

The hot rock is an artificial rock with a thermostat attached which warms up like a real rock naturally would in the sunshine. For this reason hot rocks can be useful for exotic pets that would normally bask in the sunshine - like many lizards - though is likely to be of less use for invertebrates and other creatures that don't normally bask.

Also be aware that the rock must be located on the floor of your vivarium so it is also unlikely to be of much help for arboreal species like iguanas and water dragons which prefer to bask from the safety of a tree.

Hot rocks can get very hot indeed so it is important to check that the one you consider buying has a thermostat built-in to prevent your pet from getting burned and that they are only used in glass vivariums as when used in a wooden viv they can either lead to the rock overheating or your viv getting damaged from the direct heat.

Generally these heaters are of limited use and there are far more successful methods of providing basking spots if this is what your exotic pet requires.

Bulbs

Now we move into the two forms of heaters which can provide a far higher intensity of heat - ideal for those in colder climates or those who keep species that require higher temperatures. Be aware that for invertebrates the heat pad listed earlier is almost always all that is required while bulbs and ceramics (which we will cover in a moment) are more suitable for tropical reptiles and amphibians with their respectively larger cages.

There are a range of different heat-producing bulbs available from the use of standard household bulbs that product both light and heat, to special "hotspot" bulbs designed to produce a "beam" of heat that can be directed at a certain spot in your cage to bulbs which product no light but just heat - ideal for nocturnal species.

Also be aware that of the bulbs which produce light, some produce only light to make your tank more attractive while others produce "full spectrum" light which can be useful for aiding plant growth and proper metabolism in your pet (more on this subject later).

If you opt to heat your viv using a bulb - which as mentioned can be useful for creating a basking spot for lizards, tortoises and so on - then there are a few things to be aware of.

Firstly bulbs understandably get hot so it is a wise idea to fit the bulb where your pet will be unlikely to be able to physically touch it and to further prevent burns it is wise to use a mesh cover of some form (many different varieties are available) over the bulb for the same reason. Prevention is better than cure as they say.

For a similar reason bulbs should only be used to heat an exotic pet cage when it is connected up to a thermostat. This will then give you precise control over the heat that your pet is receiving and will further reduce the risk of overheating as if the enclosure starts to get too warm the thermostat will turn the heating element off until the temperature drops too low again before turning it back on again.

Secondly different bulbs have different fittings and it is not uncommon to find that some bulbs are screw fit while others are "bayonet" style so while looking for bulbs ensure that you also buy a suitable fitting for it so you can fix it into your vivarium successfully.

Lastly bulbs come in a range of different strengths. Everything from 15 watts up to 100 watts can be found if you search hard enough so it may be necessary to buy a number of bulbs of different powers to test out in your vivarium in order to see which one really does the job properly - too weak and your pet will receive little benefit - too strong and your pet could fry. Finding the happy medium is key here though of course increases the costs of this method.

One way to save electricity is to use your bulb in combination with a reflector. In this way all the heat from the bulb will be bounced down into the cage meaning you need less power to create the same temperature of hotspot.

Lastly be aware that while heat bulbs and fittings are cheap to buy, they can be expensive to run for long periods of time. Imagine leaving on a 100 watt bulb for 12 hours a day, 365 days a year and while the setup costs may be low the running costs can quickly add up if you're unlucky.

Ceramic Heaters

Like heat bulbs, ceramic heaters are designed to give out high levels of heat and so similar precautions should be taken to use a thermostat, a cover and a reflector if you are going to get the best from your heater while keeping your pet safe.

Ceramic heaters come in two main forms - bulbs or troughs - though do a reasonably similar job. The two main differences between ceramic heaters and heat bulbs are firstly that ceramics give off no light while most heat bulbs *do* give off light and secondly that a ceramic heater can give off even more heat than a heat bulb.

In general for larger exotic pet cages or for those species which require hot basking spots (like many mid-size and large lizards) a ceramic heater with a separate artificial UV light source can be the best combination. The ceramic heater gives you total control to create the perfect basking spot with a heat pad used to provide gentle background heat. The ceramic heater can be left on 24 hours a day (though the right thermostat will help to gently drop the temperature of the heater at night to mimic the cooler night temperatures) and as it doesn't give out light this won't upset your pet. The light, in contrast, can be set on a timer to come on in the morning and switch off at night.

Thermostats

Whilst I have admitted hand-on-heart that I tend not to use a thermostat with my heat mats I *do* use them with all the other kinds of heating in my various exotic pet cages and particularly for the higher-intensity heaters like heat bulbs and ceramics and I consider them essential if you're not going to accidentally cook your pet.

Thermostats generally resemble a plastic box with three wires coming out of them. The first of these is the temperature sensor. While the main thermostat should be positioned outside your exotic pet cage you will need to carefully thread the probe into your cage so it is located directly beneath the main heat source. In this position it can sense the temperature of the hottest part of your cage and make changes as necessary.

The next cable has a plug on the end so you can plug it into your wall socket and the final cable has a socket on it so you can plug your heater into it. So the electricity essentially flows from the wall, into your thermostat and back out into the heating device you are using. Because the thermostat sits in the middle between your wall socket and your heater it can control the temperature of your heater by varying the power it allows through to it based on what the temperature probe finds. A small dial on the thermostat lets you control how warm you want your cage to become.

There are a range of different brands on the market but when trying to select the most appropriate thermostat for your needs it is less about the brand and more about the actual type of thermostat because some work better in certain situations.

On/Off Thermostats - When the temperature sensor notices that the temperature in your cage is getting too high it simply turns off the heating device for a while. When the temperature has dropped a little it switches it back on again. By constantly adjusting whether your heater is on or off this simple thermostat succeeds in controlling your internal temperature.

The downside of this type of thermostat is if you are using them for light-emitting heaters like heat bulbs. Clearly if you were using a bulb with an on/off thermostat the light would constantly be

flickering on and off which is neither good for you or your pet, though these can be used for other forms of heaters like heat mats which won't affect your viewing pleasure if they are constantly turning on and off.

Dimming Thermostats - Dimming thermostats take a slightly different approach to the problem. Rather than turning your heater on and off, the dimmer simply reduces the power it receives - and hence the temperature it gives out. This form of thermostat is best for light-emitting heat sources (such as heat bulbs) as the light won't be constantly switching on and off thanks to the thermostat but instead will gently get brighter and dimmer as the power fed to the bulb changes. Even so some people find this change in light intensity mildly frustrating and so still opt to use a separate lighting unit so the changes are less noticeable.

Pulse Thermostats – These work in a similar way to dimmer thermostats but rather than changing the power to the heater the heater is rapidly switched on and off by sending through “pulses” of electricity. Once again these are really better suited to non light-emitting heat sources.

Day/Night Thermostats – Many cheaper thermostats will control the heat of your vivarium and keep it at a pretty-much constant temperature. However most of the above types of thermostats are also available in a day/night version which allows you to set two different temperatures. During the day one temperature will be used and then at night the other, cooler temperature will be used to help keep your pet warm while accurately providing a daily pattern much like animals would experience in the wild.

While the day/night version of your chosen thermostat is likely to be more expensive thanks to the extra technology required they can be well worth the money if you are serious about keeping your pet in the best possible health.

One final note when selecting a suitable thermostat is to consider the wattage of the heater you are going to be using it with. There is no point buying a thermostat that will only control a 50 watt heater if you are using a 500 watt ceramic heater so select your heater(s) first and then look afterward at finding a thermostat that will do the necessary job for you.

Lighting

Putting artificial light into your exotic pet cage has two distinct benefits. The first of these is that it can simply make your display vivariums look far more attractive - lighting draws the eye and helps to show up the true color of your pets.

But there is a second, even more important reason, for many exotic pets most notably chelonians (terrapins and tortoises) and lizards. And that reason is that these reptiles would naturally bask in the sun's rays in the wild. The UV light that they absorb helps them to metabolize calcium and vitamin D3 and without this source of UV light some species can suffer from what is known as "metabolic bone disease".

Metabolic bone disease or MBD occurs when there is insufficient calcium in the body resulting in swollen joints and weakened bones. Animals may break limbs during routine activity and in some cases reptiles may even become paralyzed. Clearly this is something we want to avoid.

So while placing artificial lighting in your preying mantis or tarantula cage may be seen as a luxury, if you're keeping a bearded dragon or a leopard gecko it is an essential part of the package and this

is one reason why keeping lizards, terrapins and tortoises can be seen as more expensive and complicated than keeping many invertebrates, snakes and amphibians.

If you want to know more about UV light in reptiles then the single best source I have ever found is www.uvguide.co.uk which is regularly updated with all the latest findings on the subject.

So what do we need to know for the purposes of our insider's guide, apart from that it is an essential part of housing for many species?

Firstly it is important to note that UV light won't travel through glass so just putting your vivarium near a window isn't going to cut it - nor is putting an artificial light close to your cage. You need to fit a specialist reptile-safe UV light actually *inside* your pet's cage so if you are considering one of these species it is essential to bear this in mind when considering caging options.

Secondly you should try to ensure that the tube is reasonably close to your pet. There is no point putting a UV light in the roof of a cage if the cage is a meter high and your pet spends its whole time on the ground. Aim for a distance of no more than 18" between the light and where your pet normally resides.

Thirdly UV lights quickly lose their effectiveness so you should change the bulb every 6 months or so even if it appears to your eyes to be working perfectly well.

Fourthly there is evidence to suggest that UV light can be harmful to the eyesight of humans so it can be prudent to design your cage in such a way that the actual tube itself is hidden from your view - such as behind a lip of wood - but so that the light reflects down into the cage. A reflector behind the bulb will ensure as much light permeates down as possible.

There are two main kinds of artificial UV lighting - the bulb and the tube - though both have similar effects. Personally I am a strong believer in the tube option for a number of reasons.

Firstly unlike a bulb they don't tend to get too warm so they shouldn't interfere with the heating element of your setup. Secondly a tube running the whole length of your vivarium is going to ensure that your pet gets a decent dose of UV light each way whereas a bulb will give out light over a far smaller area and may not be as beneficial so I would strongly recommend you opt for the tube option if at all possible.

Artificial UV tube (or strip) lighting consists of two main elements - the bulb (or tube) itself and the starter. Starters consist of a box which powers the light out of which comes three wires. One wire plugs into the mains as a source of electricity and the other two have "caps" on the end so they can fit onto the ends of a fluorescent tube. Again, try to find a UV bulb of the same length as your cage so your pet is exposed to as much UV as possible.

Humidity

Whether your exotic pet requires a high humidity or a low one getting this important factor wrong can be disastrous. For example if many snakes are kept too moist they can suffer from breathing problems or skin conditions. On the other hand if you keep a tree-frog overly dry it will soon die of dehydration while many invertebrates need a reasonable humidity level if they are to moult properly.

Back in the early days humidity was really all about merely increasing the moisture in the air of the exotic pet cage however now hobbyists appreciate the importance of not only getting the humidity right but also of trying to avoid stagnant air within their cages. To this end we need to consider both increasing the humidity within your cage (which we will cover shortly) but also ensuring adequate ventilation. When considering housing then a factor worthy of consideration is whether or not it has some kind of vent to allow a degree of air exchange with the room outside the cage.

Lastly be aware of the tool known as a "hygrometer" which does for humidity what a thermometer does for temperature. For particularly sensitive species a hygrometer can be a very useful piece of equipment and they can often be bought from reptile stores bundled with thermometers for ease.

Moisture Boxes

While snakes do not generally appreciate moist environments a degree of humidity is often required for them to successfully change their skins. This is where a "moisture box" or "moss box" can come in handy. The moisture box is essentially a plastic tub (ice cream tub, tupperware box etc.) that your pet can fit into. The lid is placed on the top and a suitably-sized hole is cut in the side to allow your pet access to the inside of the box.

Within the box various moist materials can be placed - sphagnum moss is a popular option hence the alternative name - so that the box represents a small area of increased moisture while the rest of the cage can stay dry.

Your pet can then decide if it needs additional moisture or whether it would prefer to dry out. Typically these moisture boxes aren't used long-term but rather for exotic pets that are going through a moult. There are better options for exotics that require constantly high humidities as we will cover in the next few minutes.

Foggers/Misters

In the warm environment of a vivarium sometimes just regular spraying with a houseplant spray gun can be enough to keep up the humidity levels. Indeed it is this simple technique that I apply to virtually all my invertebrates - with my mantids, spiders and so on - getting a regular spray though the frequency is increased when a moult is imminent.

However be aware with this method that the moisture levels will rise and fall considerably over time. Within a short while of spraying the levels will rise but after a while as all the water evaporates the levels will drop again. This may work fine for many invertebrates but for other more sensitive exotic pets which require a more consistent humidity other options will be needed.

A good example of this are the automatic misters available for reptiles and amphibians. These do a similar job to a houseplant spray gun but on a regular and automatic schedule. Using the controller you decide how much moisture should be kicked out and the mister will then send a plume of fine water droplets into the atmosphere at regular intervals throughout the day.

While these pieces of kit tend to be quite a good size - meaning they are unsuitable for particularly small cages - they can be an excellent idea for maintaining the perfect tank conditions with minimal effort from yourself.

Depending on the unit you purchase some of these pieces of kit can also produce a "fog-like" effect

of fine water droplets within your cage giving your viv a real damp, rainforest appearance and greatly adding to the interest.

Waterfalls

Another option for increasing air-bound moisture in your vivarium is with one of the automatic waterfalls currently for sale. They suck water in at the bottom and pump it out of the top over an artificial rock face which not only looks incredibly attractive but of course helps to increase the humidity within the cage. They can also provide further visual interest to your cage.

These waterfalls require careful maintenance so they have sufficient water to do their job and to ensure they do not become blocked by debris so they will require some additional effort from time to time but they are certainly worthy of consideration.