



Bearded Dragons

Pogona vitticeps

By Christopher Stancel, DVM

Introduction

Bearded Dragons (*Pogona vitticeps*) are very interesting reptiles to keep and make great pets when kept properly. Bearded Dragons are rightfully named so because they have a pronounced beard with spiny points that are often used for defensive displays or mating behavior. They are robust lizards that make great pet because they are very docile and social animals and tolerate handling very well. Bearded Dragons originally come from Australia but most if not all that are available today are captive born. Their natural habitats include arid, semi-desert rocky regions and arid open woodlands. They are skillful climbers and spend a lot time on branches and bushes. In Australia they are often found on fence posts when living near human surroundings. They enjoy basking on rocks and branches in the mornings and afternoon sun.

Sexing

The easiest way to sex your Bearded Dragon is to have the dragon sitting belly down and gently lift the tail straight up to a 90 degree angle. Be careful not to over extend the tail which can cause injury. Males will have two bulges just above the vent. These are the male dragon's hemipenes. Females which lack these bulges will have a smoother tail base above the vent and will have one small bulge at the edge of the vent in the center. This technique can be used on babies through adults but can be difficult in very young babies. Males will have a row of enlarged preanal and femoral pores on front of the vent/anus that often has a waxy secretion. Females will have these pores as well but are more underdeveloped. In the leatherbacks these can be reduced even in the males so the first technique can be more reliable.

Size

Bearded Dragon size can vary. The average runs between 16 to 24 inches in length and adult weight can vary from the mid 200 to 300 gram range even up to 700 or 800 gram ranges! Their size is based on their genetics and can be as small as the pygmy Bearded Dragons or as large as the German Giant crosses.

Longevity

When cared for properly Bearded Dragons can live a long time. The average life expectancy of these animals is around 7 to 10 years. Some have been known to live in to their early teens.

Housing

A variety of enclosures can be used to house Bearded Dragons. The most common being the standard glass aquariums available for fish and reptiles. They come in a variety of sizes that can be chosen from to suit the best needs for the number of animals being kept. Another common cage to keep Bearded Dragons in are prefabricated enclosures often made of expanded PVC or ABS plastic. These often make for attractive displays, easy to maintain and stackable to allow more cages to be kept in a room. Some chose to use plastic sweater-box type enclosures that work well when the appropriate size is chosen. Large-scale breeders often use these types of enclosures to house their many babies that can be produced by Bearded Dragons. Properly built homemade enclosures can also be used as long as they are designed properly.

A standard 15 to 20 gallon tank (24 to 30 inches long) aquarium is adequate for housing baby dragons in initially. This provides ample room to grow and allows for easy catching of prey items by the babies. As adults the smallest size enclosure would be a 40 gallon “Breeder” tanks. These aquariums are 36 inches long and 18 inches wide. They not only provide sufficient ground space but also the necessary height to provide climbing branches for your dragons. Always be sure to have a tight fitting/ secure screen top to keep your dragon from climbing out of the tank. If multiple dragons will be kept or large size dragons, a larger enclosure will be needed, ideally 4 feet or more.

When keeping multiple Bearded Dragons together it is very important to keep in mind that Bearded Dragons are territorial and will fight when they reach sexual maturity. Therefore, if multiple dragons are to be kept together it should be only one male to multiple females.

Substrate and Landscaping

This is a subject that can come under debate by some. Everyone has their preferences. I am writing this based nto only as a fellow keeper and breeder but also from the stand point of a veterinarian and seeing the side effects of certain substrates chosen.

Although it is often preferred to keep reptiles in a natural setting, in my opinion and experience sand is not the best first choice as a substrate for these animals, especially for baby Bearded Dragons. All too often Bearded Dragons ingest the sand, either accidentally during feeding or intentionally as a calcium source (see diet and nutrition section). This can lead to serious digestive disorders and sand impactions in these reptiles as well as others and can be fatal if left undetected. There are many sand products available for reptiles that make claims that the substrate is “fully digestible” but this is in fact not true and sand impactions are seen in reptiles kept on that substrate as well. Therefore, this substrate should be avoided if at all possible to avoid health issues. Another side to its use is that many breeders and keepers use sand as a substrate with no problems. They often use play sand that is silica free and sifted to remove larger pieces of rock can be mixed in with sand. Again, I personally don’t recommend this as a substrate but many of the most well know breeders do.

Although not a natural looking substrate, newspaper or paper towels has always proven to be the ideal floor covering especially with breeders. This provides a good covering without the worry of causing health issues. It provides good sanitation as well when the newspaper or paper towels are removed regularly and the enclosure is kept clean. Reptile carpet can also be used,

looks somewhat natural and can provide for easy cleaning. The biggest thing to keep in mind is the proper sanitation/ cleaning of the carpet. It is best to have more than one piece of carpeting to the soiled carpet can be cleaned/disinfect properly and a new fresh carpet can be placed in the cage.

Poor choices for substrate with Bearded Dragons are orchid bark which can be easily ingested and allows for a place for the crickets to hide in. Another bad choice is aquarium gravel. This can be hard to keep clean and again be easily ingested.

As far as landscaping the enclosure, branches are a must. Bearded Dragons like to hang out on branches and enjoy the sun naturally and this can be replicated by providing sturdy branches for them to climb on their enclosures. Rocks can be used to not only decorate the enclosure but river rocks placed under a heat lamp provides a great basking site for your dragon and provides perfect belly warmth. Care should be taken when choosing other decorative items such as live or artificial plants. Bearded Dragons are plant eaters so can easily mistake an artificial plant for a snack. Also, keep in mind some live plants may be toxic so research what plants you choose before they are placed in the enclosure. It is also not recommended to use hide logs/boxes especially with baby dragons as crickets like to hide under them and may be missed by your dragons.

Heating and Lighting

The ideal temperature range for these animals is mid to high 80's in the cool end and ideally 100 to 110 at the hot end of the enclosure. It is essential to provide proper heat and temperatures for reptiles as their normal body function and digestion relies upon this to work properly. There must be a temperature gradient as well so these animals can regulate their body temperature. One end of the enclosure should be at the higher range of the temperature mentioned above and the other end of the enclosure can be cooler.

The heat can be provided in several ways. The best heat source readily used are incandescent bulbs. These will provide a localized area of heat and as well as provide some light. These bulbs can be placed over the river rocks to provide a nice basking site for your dragon. The appropriate wattage should be chosen based on the size of the enclosure and distance between the bulb and animals below. For baby Bearded Dragons a 60 to 75 watt bulb can be sufficient enough as a heat source assuming the room temperature is not too cool. Adult dragons are often kept with 100 to 125 watt bulbs to provide enough heat for their larger body mass and bigger enclosure they are kept in. Keep in mind, choose the appropriate fixture that is rated for the watts of the bulb used.

Another way to provide the heat is via a heating pad or heat tape available for reptiles. This will provide a constant area of belly warmth and should be placed at the hot end of the enclosure. There are several types of heating pads available, most are designed to be placed under the enclosure on the outside where others were designed to go on the back wall or the inside (make sure that it is safely designed by the manufacturer before any heating pad is placed inside the enclosure). These provide a safe way to provide heat to these animals and should be connected to a thermostat if possible to better control the temperature. Often a combination of heat tape or pads and incandescent bulbs are used to provide a higher daytime temperature and a cooler nighttime temperature often observed in desert environments. The traditional "Hot Rocks" that have always been used in the past as source of heat have died down significantly in

popularity and caution should always be used with these devices as heat sources as they often lead to thermal burns in reptiles.

Proper lighting is an essential requirement to the proper care of reptiles. They should be provided with 12 to 14 hours of daylight. Household timers work great for this purpose. There are various wavelengths of light that these animals are exposed to. It is very important to have the proper balance of these wavelengths for the well-being and good health of all reptiles. The two main categories of these wavelengths with regards to reptiles are Ultraviolet-A (UVA) and Ultraviolet-B (UVB). UVA has its physiologic benefits to these animals as well as UVB, however UVB is essential for reptiles to synthesize Vitamin D3 that is needed for the proper absorption and utilization of Calcium, an essential mineral to reptiles. The sun produces UVB; therefore it is a wavelength diurnal reptiles that are active in the daylight hours require.

UVB can be provided two different ways. The first being the traditional fluorescent lights that are made to produce UVB. There are various companies that make them but most are suitable. There are 5.0 and 10.0 bulbs. The 10.0 is a stronger UVB and is better suited for adult dragons. I use the 5.0 mainly for my babies. These bulbs should be no more than 12 inches or so away from the dragons for the 5.0 and no more than 20 inches away for the 10.0 bulbs. Keep in mind that these bulbs should be changed about every 6 months as over time they lose the quality of UVB produced even though light is still being emitted. Avoid using the compact fluorescent bulbs as they are known to be too strong and can cause retinal damage to the eyes especially in baby bearded dragons. Another form of UVB bulbs are the Mercury Vapor bulbs. These too are produced from various manufacturers and their price can vary as well. These bulbs look like big flood lights but they are designed to give off both heat and UVB in one bulb. Many are self ballasted except for the lower watt bulbs that require an external ballast. Although these bulbs cost more than the fluorescent bulbs they last about a year so their cost is balanced by bulb longevity. They bulbs are very strong and many can emit UVB up to distances of 6 feet. Since these bulbs are so strong they are not recommended for use with baby bearded dragons.

Diet and Nutrition

Bearded Dragons are naturally Omnivores which means they eat both vegetation and insects. In captivity they can be fed a mixture of greens and vegetables. There is a huge selection of leafy greens which can be fed to your Dragon, some of which are... kale, arugula, collard & mustard greens, parsley, red and green swisschard, dandelion greens and flowers, endives, radish, carrot and turnip tops, escarole, green leaf/ red leaf and chicory endive. DO NOT feed your dragons iceberg lettuce as there is very little nutritional value. To add in variety, mixed into the greens may be many other veggies such as squash (shredded), corn, peas, carrots (shredded), sweet potato (shredded), cucumber, zucchini, green peppers. Small amounts of finely chopped fruit such as cantaloupe, apple, blueberries, peaches, pears, grapes, plums, raspberries and kiwi can also be given. Variety in the diet is key to offering them well balanced nutrition. A dragon's diet is variety. Always keep in mind the size of your dragon when chopping up your food items. The size of the pieces should easily fit inside the mouth of your dragon to avoid choking.

The other portion of your dragons diet can be an assortment of insects such as crickets, mealworms, superworms, waxworms, and the large Hornworms with adults. Again the size of your food item is very important. They bugs should be smaller than the width of your dragons mouth. If too large they can get stuck and cause blockage.

The younger the dragons are the more insects they eat. A hatchling up to 2 months will eat mostly insects only picking at finely chopped greens. Usually 1/4 inch to 3/8 inch crickets are offered at 2 to 3 feedings per day. Greens/veggies can also be offered best as early in the day as possible. As the dragons grow the size of the crickets can be increased and more greens offered. Dragons that are over 8 months old to adults should receive 80% greens and only 20% insects. They do not need to be fed insects every day, can only be 2 to 3 times per week. Bearded dragon adults can also be offered pinkies but these should be used sparingly and primarily for gravid females.

It is very important to remember to always feed your insects a good quality gut load atleast 12 to 24 hours prior to feeding your Bearded Dragons. This will ensure the insects themselves are fully loaded with the proper nutrition to fulfill the requirements of your leopard geckos. With regards to Calcium, this is an essential mineral to Bearded Dragons especially baby and gravid adults. Calcium is an essential component for normal bone development and proper egg production. Without enough Calcium in the diet, poor health may develop and baby dragons can develop metabolic bone disease from Calcium deficiencies. We use Rep-Cal Calcium with Vitamin D3. With every feeding for babies and 2 to 3 times per week for adults, the insects should be dusted with calcium by placing the food items in a plastic bag and shaking well. This will allow the calcium powder to stick to the food items so that when the gecko feeds on the insect it will ingest the calcium. Also, once to twice a week a multivitamin such as Herptivite or Vionate can be used.

Dragons are normally from dry environments so their water can be provided in different ways. Babies can be misted twice daily with a spray bottle containing warm water. Adults can be misted a few times a week or can be soaked in warm water for 15 to 20 minutes at a time. This works great for adults as it provides them with water and they are often stimulated to go to the bathroom when placed in warm baths. A water dish can be used but must be changed daily and if the dish has been defecated in - it must be cleaned immediately.

Feel free to contact us through our website if you should have any questions.

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