



Quick Stats: Bearded Dragon

Family: Agamidae
Origin: Australia
Size: Adult males up to 2 feet in length (including tail)
Diet: Omnivorous. Chopped meat, crickets, pinky mice, earthworms, leafy greens, squash; may want separate feeding tank.
Water: Water dish, droplets, misting
Terrarium: 10-15 gallon aquarium for hatchlings; minimum of 55-60 gallon for adults
Substrate: Indoor/outdoor carpet, newspaper
Decorations: Hidebox; provide rocks and branches for climbing and basking
Lighting: Fluorescent full spectrum lighting with UVB
Temperatures: 78-88°F; basking area of 95-100°F; night time temperatures in the 70's
Compatibility: Typically social; bearded dragons of similar size can be housed together, but should be monitored; appear to enjoy interaction with humans
Sexing: Males have larger heads, darker beards, and enlarged femoral pores
Life Expectancy: 10 years

Bearded Dragons originate in Australia. The most common species in the pet industry is the Inland Bearded Dragon, *Pogona vitticeps*, which was formerly called *Amphibolurus vitticeps*. The Inland Bearded Dragon is sometimes referred to as the Central, or Yellow-headed Bearded Dragon. Other members of the Pogona genus include:

- *Pogona barbata* - Common Bearded
- *P. henrylawsoni* - Rankin's
- *P. minima* - Western
- *P. minor* - Dwarf
- *P. mitchelli* - Northwest Bearded
- *P. nullarbor* - Nullarbor
- *P. microlepidota*

Natural environment

The Inland Bearded Dragon lives in the arid woodlands and deserts of central Australia. It spends much of its waking hours in bushes and trees, and is also found basking on rocks. When it is extremely hot, the bearded dragon will burrow underground. The bearded dragon is diurnal and an omnivore. It forages for food such as insects, small lizards and mammals, fruit, flowers, and other plant material during the day time.

Physical characteristics

The Bearded Dragon is tan to yellow in color. It is called "bearded" because of the dragon's ability to flare out the skin in the throat region when it is threatened or territorial. Its body has a flattened appearance, which becomes even more pronounced if the dragon is alarmed. There are spines on the throat, sides of the head, and sides of the body. The head is wedge-shaped, and the Bearded Dragon has a tail that is almost as long as the body.

It is difficult to distinguish males from females among hatchlings and juveniles. When they become adults, sexual differences become more apparent. The males generally have larger heads and larger, darker beards. The femoral pores of males also help to distinguish them from females.

Habitat

Enclosures: Cages should be secure with tight-fitting lids. The sides should be smooth to avoid abrasions of the nose. Wire cages do not retain heat and also can result in foot and nose trauma. Having a proper substrate in the cage (see below), making sure the cage is large enough, and using plastic coated wire mesh can lessen the possibility of injury.

Cages should be simple in design to facilitate cleaning. Cages made of wood must be sealed with polyurethane or a similar waterproofing agent and joints caulked to allow cleaning and disinfection. Fresh polyurethane must be allowed to dry several days and the cage thoroughly aired out prior to placing a reptile in it or toxicity may result.

Aquariums can be used to house Bearded Dragons. Hatchlings may be kept in a 10-15 gallon aquarium; adults require a minimum of at least a 55-60 gallon aquarium.

Substrate: The substrate is what lines the bottom of the cage. An ideal substrate is one that is inexpensive, aesthetically pleasing, easily cleaned, absorbent, and digestible if swallowed. Substrate can be flat newspaper, sheets of brown wrapping paper (the kind that comes in rolls), AstroTurf, indoor/outdoor carpet. Do NOT use cedar shavings, gravel, crushed corn cob, kitty litter, wood shavings, or potting soil that contains vermiculite, pesticides, fertilizer, or wetting agents.

Landscaping and Furniture: Branches for climbing and basking under the secondary heat source should be secure. These branches should be of various sizes and not ooze pitch or have a sticky sap; oak works very well. The branches should be as wide as the width of the Bearded Dragon. Boards covered with indoor/outdoor carpet also make good climbing posts. Flat-bottomed, smooth rocks are a good addition to the habitat, and can help wear down the toenails, which in captivity, must be clipped often.

Reptiles like a place where they can hide. This could be an empty cardboard box, cardboard tube, or flower pot. The hiding place should provide a snug fit and should be high in the enclosure. If your Bearded Dragon does not use its hiding place, try a different one or move it to a different location.

Appropriate plants in the enclosure can provide humidity, shade, and a sense of security. They also add an aesthetic quality to the enclosure. Be sure they are nontoxic. *Dracaena*, *Ficus benjamina*, and *hibiscus* are good choices. Be sure the plants have not been treated with pesticides and the potting soil does not contain vermiculite, pesticides, fertilizer, or wetting agents. Washing the plant with a water spray and watering it thoroughly several times to the point where water runs out of the bottom of the pot, should help remove toxic chemicals, which may have been used. Keeping purchased plants in a different part of the house for a while before putting them in the enclosure will also be helpful.

Temperature

Bearded Dragons are cold-blooded animals from arid woodland and desert environments, and require supplemental heat for proper digestion. They prefer 78-88°F during the day and temperatures in the 70's at night. If a reptile is cold, it cannot properly digest its food and is more likely to become ill. Lizards like a temperature gradient so if they are cold, they can move to a warmer part of the cage and vice versa. Place a good quality thermometer in the cage at the level the Bearded Dragon spends most of its time so you can monitor the temperature.

Primary heat source: A primary heat source is necessary to keep the temperature of the entire cage within the proper range. A series of incandescent lights over the cage is one of the best heat sources. At night, these lights will need to be turned off and another heat source may be needed depending on the ambient temperature. A heating pad placed under the cage, ceramic infrared heat emitters or panels, or more expensive nocturnal reptile incandescent light bulbs which produce heat, but little visible light, can be used. For larger enclosures, a space heater or separate room thermostat can be used to keep the room at the appropriate temperature. Fire alarms should be placed in rooms where lights or other heat sources are used.

Secondary heat source: A secondary heat source creates more heat in specific areas of the cage to provide a temperature gradient. To best supply this gradient, the secondary heat source should cover only 25-30% of the surface of the enclosure. For adults, the secondary heat source could be a 30-75 watt incandescent bulb in a ceramic base, securely mounted where the animal can not touch it. There are also special "basking lights" available. Either type of light should shine down on a particular basking area from outside the cage. The temperature under the light in the area in which the Bearded Dragon would be basking should be 95-100°F. Hatchlings housed in smaller aquariums will require lights of lower wattage, or the aquarium temperature may become too warm very quickly. DO NOT USE HOT ROCKS AS HEAT SOURCES.

Light

Visible white light: In addition to heat, incandescent bulbs also provide visible white light. A combination of fluorescent and incandescent light fixtures can be used to provide visible light to all areas of the enclosure.

Ultraviolet light: In addition to heat and white light, Bearded Dragons must have access to natural sunlight for good health. This is because they need a certain spectrum of ultraviolet (UV) light called UVB. UVB is necessary for the Bearded Dragon to make Vitamin D. No artificial light source can provide UVB, so when the outside temperature on a sunny day is over 70°F, place your Bearded Dragon outside in a secure screen or wire cage with a locking door. Provide some shade and a hiding place within the enclosure. UV rays do not penetrate window glass so Bearded Dragons placed in a sunny window are not receiving UV light.

If a Bearded Dragon does not have access to bright sunlight, special black lights are used to provide the UVB light. These black lights for reptiles are NOT the black light tubes used for lighting fluorescent minerals, posters, and psychedelic paraphernalia (often called BLB lights). Fish/aquarium and plant "grow" lights, either incandescent or fluorescent, do NOT produce UVB. You need a black light which emits light in the 290-320 nanometer range. Lights producing only UVB, and lights which produce a combination of UVB and white lights are available. ZooMed's reptile or iguana lights, and Duratest's Vita-Lite are two good products. These UVB light sources should be replaced every 6 months.

Remember that UV light can not penetrate glass, so when overhead UVB light sources are used, the top of the enclosure must be a wire mesh that is not too fine. It is recommended that the UVB light source should be less than 18 inches from where the Bearded Dragon spends most of its time; 10-12 inches is optimal. The areas illuminated by the incandescent basking light and the UV light should overlap. If the Bearded Dragon spends almost all his time basking under the incandescent light, and the UV light is at the other end of the cage, he is not going to receive any benefit from it.

Water and humidity

Although Bearded Dragons receive most of their water requirement from the food they eat, fresh drinking water should be available at all times in a shallow bowl that cannot be tipped over. Proper humidity is necessary for proper shedding. Especially during the winter months when the humidity is low, mist the Bearded Dragon with water several times a week. Some Bearded Dragons appear to enjoy soaking in a tub of water. Be sure the Bearded Dragon is able to get in and out of the container easily. You will need to clean the container and replace the water regularly, since the dragon may urinate or defecate in the water. In fact, water usually stimulates them to eliminate, so immersing them in water is a part of the treatment for constipation.

Hygiene

The cage and food and water bowls should be cleaned routinely with a 1:10 dilution of household bleach. Rinse the items well after cleaning. Bearded Dragons can harbor the bacteria *Salmonella*. Be sure to wash your hands after handling the Bearded Dragon or its cage.

If you have more than one

Reptiles are territorial and may fight when caged together. A male and female Bearded Dragon can generally be kept together, however, the male may become too aggressive during the breeding season and have to be removed. Larger Bearded Dragons may keep smaller cage mates away from food and heat sources, and may even see them as an appetizer. If housing Bearded Dragons together, a larger cage will decrease the possibility of aggression; nevertheless, monitor the Dragons closely.

Temperament and handling

Bearded Dragons tend to be mellow and docile, even in the wild. Although hatchlings and juveniles may be skittish, the adults will often appear to enjoy human company, making Bearded Dragons one of the better reptilian pets. Bearded Dragons tend to be curious, and will enjoy exploring, so if you can, provide a safe, larger enclosure.

To pick up a Bearded Dragon, place your hand under its abdomen and gently scoop it up. As the dragon lays on your palm, gently curve your fingers around its abdomen.

Behavior and body language

To better relate to your Bearded Dragon, you need to understand what various behaviors and body positions mean. During breeding season, to display dominance, or if startled or threatened, a dragon may puff out its beard. Both males and females will display this behavior. To appear even more menacing, the Bearded Dragon may also "gape," or open his mouth very wide. This can certainly make him look more aggressive, since his mouth is quite large. Another way Dragons show dominance, is to bob their heads. To show submission, a dragon will hold up one front leg and may slowly wave it.

Reproduction

Bearded Dragons reach sexual maturity and start to breed between 8 and 18 months. The female will generally lay 20 eggs in a clutch. If fertile, the eggs will hatch in 55-75 days. Unmated females may also lay eggs.

Diet

Because Bearded Dragons are omnivores, they need a balanced diet of meat and vegetable matter. Hatchlings eat mostly small insects. As they grow, they will start to eat more vegetable matter. The diet of a juvenile dragon (2-4 months of age) will consist of approximately 80% insects and 20% greens. Young dragons should be fed 2-3 times daily. If insufficient food is fed, young beardedls may nip at the tails and toes of their cage mates.

Meat: Meat can include pinky mice (for adults) and insects such as:

- Crickets; pinhead crickets for juveniles
- Mealworms
- Wax worms - high in fat, so feed sparingly
- King worms
- Earthworms
- Cockroaches

Preparing insects for food: Freshly molted insects are easier for the Bearded Dragon to digest. Feeder insects should be coated with calcium supplement (powdered calcium carbonate or calcium gluconate) 3-5 times per week for adults; every day for juveniles. The insects should also be "gut-loaded," which means the insects are fed nutritious and vitamin-rich foods before they are given to the Dragon. Good foods to feed the insects include ground legumes, corn meal, carrots, sweet potatoes, collard greens, mustard greens, broccoli, spinach, apples, oranges, cereals, and rolled oats. There are also commercial products rich in calcium and vitamins which can be fed to the insects. Insects may be purchased or wild-caught (without the use of pesticides).

The insects should be fed by placing them in a small bowl. After feeding, check that none of the insects escaped and fouled the water supply in the cage. To improve hygiene, some owners prefer to have a separate cage for feeding the meat-based portion of the diet.

Food particle size: For Bearded Dragons, it is very important that the size of food be proportional to the size of the animal. Malnourishment, seizures, and intestinal blockages can occur if hatchlings and juveniles are fed insects that are too large for them to capture or digest.

Feed beet greens and spinach only as an occasional treat, if at all. They contain oxalates which can bind calcium and could pose a problem if fed in high amounts. Do not feed iceberg lettuce.

Glass cages, even those with a screen top, should NEVER be used when providing access to natural sunlight. Glass cages will trap heat and can cause fatally high temperatures.

Second to the sun, the best light source is a combination of visible light from fluorescent or incandescent lights, and UVB light from special reptile black lights or combination lights.



DID YOU KNOW? Fireflies are poisonous to bearded dragons, other reptiles, amphibians, and birds.

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Vegetation

Plant matter in the diet should make up approximately 20% of the diet and should consist mainly of green leafy vegetables. Other vegetables can be included. Fruit should make up the smallest portion of the diet. The vegetables and fruits should be shredded or torn into small pieces and mixed together to encourage the Dragon to eat all that is offered, and not just pick out his favorite foods.

Greens	Vegetables	Fruit
<ul style="list-style-type: none"> ● escarole ● kale ● collards ● bok choy ● Swiss chard ● parsley ● clover ● alfalfa pellets ● dandelion greens ● turnip greens ● mustard greens 	<ul style="list-style-type: none"> ● broccoli ● okra ● peas ● green beans ● zucchini ● squash ● grated carrots ● sweet potato ● bell pepper ● frozen mixed vegetables 	<ul style="list-style-type: none"> ● figs ● kiwi ● papaya ● melon ● apple ● grapes ● dates ● peaches ● apricots ● strawberries (seeds removed) ● plums ● tomatoes ● bananas (with skin)

