Common Bearded Dragon Behaviors

Part of understanding how to properly care for your bearded dragon, involves first understanding your bearded dragons’ behavior. This will make it easier to determine when your bearded dragon needs something, and can provide vital clues that they may be injured or ill. There are approximately 73 different behavior patterns which have been observed in bearded dragons. Some behaviors are only seen when they are alone and some are only seen when they see another dragon or other animal in their marked territory. These behaviors are used for sleep & resting, social hierarchy, thermoregulation, seasonal changes, territorial behaviors, and in response to external stimulus. If you only have 1 bearded dragon you may not observe some of the more common behaviors. Sometimes their behavior is easy to explain but sometimes the behavior is difficult to understand. If you see your dragon scratching, pacing, or glass surfing, it may mean that they want to be taken out and handled, that there is something inside their enclosure that irritates or stresses them out, or they may want or need something else.

Because many of the behaviors that you observe can have different meanings in different situations, it is sometimes difficult to understand what your dragon is trying to tell you with their behavior, but as you spend time watching your dragon you will become more familiar with their “normal” behavior. Once you are familiar with their normal behavior, it will be easier to recognize any changes in the behavior which may indicate that your dragon needs or wants something, and can even indicate that they may be injured or ill. The best way to bond with your dragon and learn their behavior is to handle them as often as possible and by bathing them. This also allows your dragon to learn to trust you and can lead to comprehending more information from the behaviors that are being displayed.

Bearded dragons may be kept together when they are young, but once they start to display dominant and submissive behaviors they should be moved to separate enclosures. Bearded dragons have been shown to display dominant & submissive behaviors when they are as young as 4 months. Whenever 2 or more bearded dragons are kept together they will form a social hierarchy resulting in 1 dominant dragon, usually the largest male, and any others will be submissive. If there are more than 2 dragons in the enclosure, there will also be a hierarchy among the submissive dragons. This usually results in the most submissive dragon being denied access to food, UVB, a choice basking spot, etc. It will also result in the most submissive dragon living constantly under stress which is detrimental to their health and can increase the chances that the submissive dragon will become ill, infested with parasites, or be injured.

This is a list of some of the more common bearded dragon behaviors which you may observe and what they may mean. This is not a complete listing, and the behaviors can mean different things in different situations. Head bobbing, bearding, and arm waving are some of the more common behaviors you can observe when there are two or more dragons in the same enclosure or within sight of each other. Most bearded dragon owners enjoy watching these behaviors for amusement, but they may also indicate that your dragon wants or needs something. Bearded dragons will not mimic other bearded dragons so their behavior is always an honest action or reaction to a stimulus. Most bearded dragons will display specific behaviors when they see another bearded dragon, are approached by a larger animal, or experience something unknown. With practice you will be able to understand which behaviors are normal for your dragon and which ones are signs of stress or illness.
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**Arm Waving**

This is when a bearded dragon, male or female, will raise one of their arms in the air and wave it in a circular motion. They will sometimes wave both arms switching between them, and we have observed them waving both arms at the same time if they are laying on a basking limb or something else that supports their body, although this may actually be a “stomp”. Arm waving is generally interpreted as a submissive behavior, but can have other meanings. Fast arm waving may accompany head bobbing in a dragon who is trying to assert his dominance, while slow arm waving is usually a submissive response to stop aggression by a dragon who is trying to assert their dominance. Slow arm waving may also be used a signal that one dragon is aware of the other dragon approaching their territory and is sometimes seen in young bearded dragons when you approach their enclosure, possibly communicating that they may be intimidated by you. This behavior should stop in the young dragons as you handle them and they grow to trust you. The arm waving behavior is also displayed when a female is communicating her willingness to mate.

**Basking**

Basking is one of the behaviors that bearded dragons use to regulate their internal body temperature and is a method of thermoregulation. For proper metabolism bearded dragons need to maintain a core temperature of 95°F-110°F. Since they are unable to generate their own body heat, they accomplish this by getting their heat from their environment. Bearded dragons can frequently be observed basking with their mouths open. This is another thermoregulatory behavior and allows them to dissipate excess heat. Basking with their mouths open is normal for bearded dragons and some other lizards, but can be a sign of a respiratory infection. This behavior is usually observed while they are under their heat light, but may be observed in other locations within the enclosure. If your bearded dragon is constantly lying with their mouths open in the cool end of their enclosure, it may be a sign that the overall temperature in the enclosure is too high, or they may have respiratory issues. On the other hand if you see your dragon basking under the heat light with their mouth open it means that the temperature is just right. You may also see them basking under their
UVB source, if they feel they need the UVB.

Basking also plays a big part in the social hierarchy when multiple dragons are kept in the same enclosure. The most dominant dragons will have their choice of perching on the highest branches and best basking areas.

**Bearding - Flaring & Darkening Their Beard**

Both male & female bearded dragons darken and expand their beards, and this is the behavior which is responsible for the bearded dragons’ name. Generally they will do this as a defensive behavior and to make themselves seem bigger. However, it is not unusual for a bearded dragon to stretch their beards from time to time without any reason at all. Bearded dragons have a bone like structure that is located on both sides of the head. These structures move outward and push the skin out, making them appear to have a beard. This behavior is commonly used when their environment changes, they are not feeling well, are upset, or as a threatening and/or defensive display. This behavior is also commonly displayed by males during breeding season, and will usually be answered by the female with slowly bobbing their head and/or waving to indicate her willingness to mate. They can also darken their beards sometimes to black, and sometimes extending onto their chest, as a further display. This display has also been interpreted as a sign of aggression, but it is usually a bluff and is rarely followed up.

**Biting**

Biting is a pretty clear sign of aggression. If you have a bearded dragon that tries to bite you then it must have learned not to trust people. Bearded dragons usually love to be held and bond with people and are rarely aggressive. If you have an aggressive dragon that tries to bite you then it is probably because the person who had them before you mistreated or hurt them. Not handling your dragon will not teach them to trust you so we would recommend that you get some gloves and keep handling them. Start out with short periods and gradually lengthen them. Eventually your dragon will learn to trust you and bond with you. Then you won’t need the gloves. You can also try hand feeding them treats. If they are very aggressive then you may need to start out with the gloves. A bearded dragon that is up on their legs and appears tense and alert is more likely to progress to more aggressive actions, like biting, than a dragon who is just displaying a darkened beard.

**Brumination**

Brumination is actually a term for a less intense form of reptile hibernation. It is a state of regulated hypothermia that allows the animal to conserve energy during the winter, and reset their biological clock for a new breeding season. In the wild bearded dragon’s bruminate when the temperatures drop, the days shorten, and food becomes scarce. In captivity the temperatures are controlled and food is always available so brumination is really not necessary. Since bearded dragons have been captive bred for so long, the need to bruminate is not as fixed as it is in wild animals. Because of this each bearded dragon will bruminate differently. It may last for weeks to months, and some dragons may not bruminate at all. Bearded dragons usually bruminate when they are 8 months to 1 year old, but it can happen earlier or later. Brumination
usually occurs in the winter (November through February), but it may occur during the spring/summer, which is winter in Australia.

The signs of brumination are similar to the signs that are displayed when the dragon is under stress, ill, infested with parasites, or injured. These signs may include decreased activity, decreased appetite, not wanting to be handled, avoiding their basking light, staying in their cave, sleeping a lot, burrowing under their substrate. Each dragon will bruminate differently, and may display different combinations of the signs listed, and to various degrees. Some dragons may just stop eating, while others may gradually reduce the amount that they eat. Some dragons may sleep for a couple of weeks, while others may just take frequent naps. If you notice that your dragon is starting to bruminate, or if you want to encourage them to bruminate, you can start to shorten the time that their heat & UVB lights are on. Normally the lights should be on for 12-14 hours a day. When they are bruminating that time should be reduced so they are on for 8-10 hours/day. Don't change them in one day; gradually shorten the time by 30 min/week until you reach the desired time. At the end of brumination increase the lighting schedule 30 min/week until they are set to be on for 12-14 hours/day.

Remember brumination is a natural process and the best way to get through it is to leave them alone. Usually any attempts to interrupt the process will not have any success and may be detrimental to their health. Provide greens daily so if they get hungry they can eat. This also provides them a source of water which is important. If you are able to wake your dragon we also suggest a weekly bath to avoid dehydration. If you are unable to wake them, leave them be. Do not force your dragon to eat before or during brumination, it can have serious health consequences. If they get hungry, they will eat.

Since the signs of brumination are the same behaviors that are displayed when your dragon is under stress, ill, infested with parasites, or injured, then if you have any doubt if they are bruminating or ill we recommend bringing them to a reptile vet if you have any question.

**Color Changes**

This section is for changes in your dragons’ skin color and not with the darkening or blackening of their beards as they are two different behaviors, although they frequently can be observed at the same time. For darkening of their beards check out the section titled “**BEARDING (Flaring & Darkening)**”.

Bearded dragons generally change their skin color slowly as they grow & shed. Each time they shed they can get more colorful until they are about 1 - 1½ years old. Sudden skin color changes are usually due to thermoregulation or Mood. Skin color changes can be due to stress, illness, emotion, of an outside stimulus. Bearded dragons will often darken or turn black if they are cold or when they are outside to allow them to absorb more heat, but they will also darken if they are threatened, upset, or when they’re environment changes.

**Digging**

Bearded dragons may dig for a number of reasons. One of the reasons bearded dragons dig is to create a more comfortable spot to bask or sleep. They may also just be trying to escape their enclosure to get at
something that is outside of their enclosure or to get away from something that is inside of it. If they are old enough to bruminate they may be trying to create a burrow to keep them cool and help them regulate their temperature. Female bearded dragons will also dig to create a place to lay her eggs if they are gravid.

If you are housing two or more female bearded dragons in the same enclosure and one or both of them begins digging, they may be gravid (carrying eggs) and looking for someplace to lay their eggs. They can become gravid without exposure to a male bearded dragon, but the eggs will not be fertile. A suitable substrate must be provided for them to lay their eggs in or they may become egg-bound (*Dystocia*).

**Eye Bulging**

Bearded dragons have the startling ability to make their eyes bulge out. This behavior is not clearly understood but many people believe it is a way for them to yawn. Another more widely accepted interpretation is that bearded dragons bulge their eyes to stretch and loosen the skin around their eyes before and while they are shedding. It can usually be observed more frequently when they are young, which makes sense because they shed more frequently when they are young. Another possibility is that this is an old ability that no longer serves any practical purpose. Some varieties of horned lizards have the ability to increase the blood pressure behind their eyes until it squirts out as a defense mechanism. This may indicate a genetic lineage between horned lizards and bearded dragons. Another possibility is that it may be related to high blood pressure. High blood pressure has been known to make the eyes of some chameleons bulge out. While this is a common behavior it is rarely observed because of its short duration. If your bearded dragon displays this behavior for more than 30-60 minutes it could be an indication of high blood pressure or other problems and we recommend taking them to a reptile vet.

**Gaping/ Yawning**

The most common reason for your bearded dragon to sit with its mouth open is that it is one of the mechanisms that they use to regulate their temperature. Reptiles don't sweat so they have developed different methods to cool their bodies or maintain a constant temperature. This behavior allows them to cool off by expelling heat, and also allows them to maintain their optimal temperature and stay where they are. When a bearded dragon is basking to absorb heat they will quickly reach their optimum temperature. At that point they will need to do something to avoid warming up more. They can move away from the light, or they can open their mouth to expel some heat. If your dragon is constantly in the cool end of your enclosure with its mouth open it can also mean a couple of different things. It may mean that the enclosure is too hot and there is not enough of a temperature gradient or ventilation for them to cool down. It may also indicate that they may have a respiratory infection. If they are sitting with their mouth open and you hear any hissing or gurgling, bring them to the reptile vet immediately to be checked.

This behavior is also used as a defensive display when your bearded dragon perceives something as a threat. They will open their mouths as a defensive display to warn other animals to stay away. They may also open their mouths at you if you have not handled them enough to build up trust. This is rarely followed up with more physical actions like biting.
Bearded dragon yawning is another common behavior that can be observed. We usually observe this behavior in the morning when the lights go on, or when they wake up from a nap. They yawn by puffing out their beards several times and then opening and closing their mouths.

**Glass Surfing/ Dancing**

This is a behavior that bearded dragons will display when they are bored or under stress. Bearded dragons will run back and forth along the front or sides of their enclosure, and try to run up the side. They will also stand on their hind legs and slide (surf) along the front or side. It is fun to watch, and you may think your bearded dragon is playing or sees his reflection in the glass but he isn't doing it for fun. If they are glass surfing glass surfing, it should be considered abnormal behavior and may indicate that something is going on. They may need a larger enclosure, the temperatures may be incorrect, or something may be stressing them like a dog or a cat. They may also want to come out and be held, or may want to visit another dragon that they can see from their enclosure to mate or fight. Glass surfing is amusing but they may hurt themselves by rubbing their feet, bellies, and faces on the glass, especially if there are sharp edges.

**Head Bobbing**

Head bobbing is one of the primary behaviors that bearded dragons use to define the social hierarchy. The dragon will move its head in an up and down motion. This behavior is called “Head Bobbing” and is frequently accompanied by a darkening and puffing out their throats which is called “Bearding”. A fast head bob is usually interpreted as a sign of dominance and is used as a territorial showing of who’s the boss, while slower, shallower head bobs are usually a sign of submission. Head bobbing is generally used as a sign of dominance between two dragons, and is more common in males than in females.

Males will also head bob at females to show that they are a suitable mate by displaying their dominance during breeding season with fast forceful head bobs. At times the head bobs may be so vigorous that one or both of the dragons’ front feet are lifted from the ground making them appear to stomp. Females will acknowledge the other dragons’ dominance and acceptance to breeding with slow, shallow head bobs, arm waving, and/or slow push-ups.

These behaviors are usually observed when one dragon enters another one’s marked territory. They will warn the other dragon with head bobs & bearding that the dragon has entered his territory and they are prepared to defend it. The dragons may adopt fighting poses, circling, and tail biting. This will usually lead to a fighting unless they are separated. When males fight over territory, it is not uncommon for them to fight until one or both of them are injured or one of them is dead.

Females also have a social hierarchy, but they usually do not display aggressive behaviors to show their dominance. The hierarchy is usually dictated by the size of the dragons with the largest being the most dominant.

These behaviors are not specific to the dragons’ sex. Some females display aggressive behaviors (fast head bobbing & bearding), and some males display submissive behaviors (slow head bobs and arm waving), so the behavior cannot be used to determine the sex of your dragon.
**Hiding & Burrowing**

Bearded dragons can hide for a number of reasons and it is normal behavior except in certain circumstances. In the wild, bearded dragons will hide to escape the heat and for security during brumination. Some bearded dragons like to hide during the night or whenever they cool down. If you have a thick substrate or use shelf liner, newspaper, paper towels, etc. in your bearded dragon’s enclosure they may burrow under it. This can be normal as long as they come out to warm up and get UVB. In captivity they will hide when bruminating, but they may also hide if they are sick or stressed. If multiple dragons live in the enclosure, which we recommend against, then the least dominant dragon will constantly be under stress. They may hide to avoid all of the other dragons. This will adversely affect their health since they will not be getting the heat or UVB they require. If they alone in their enclosure and are hiding most of the time, and they are not bruminating, you may need to evaluate your habitat specifically checking to see if they have proper temperatures and a proper temperature gradient. If their habitat and all of the temperatures are correct, you may need to bring them to a vet to check for illness or parasites.

**Hissing**

Bearded dragons usually do not make any sounds, but they may hiss if they feel threatened, and it should be interpreted as a sign of aggression, although they rarely progress to biting. They may also make hissing or gurgling sounds, combined with constant gaping if they have a respiratory infection and need to see a reptile vet immediately.

**Inflating & Flattening Body**

Bearded dragons can inflate their bodied to make themselves appear to be larger than they really are. This is a passive/aggressive behavior and may be displayed when they are feeling threatened or just want to be left alone. They may also do this in the bath possibly to increase their buoyancy or to increase their surface area to absorb heat.

When bearded dragons are cold they may flatten out & darken their bodies to absorb more heat when exposed to the sun or a heat lamp. After they reach their optimal temperature they will move to a cooler area and slowly cool down. This is not an issue unless you see them constantly doing this. It may mean that the temperature in the basking spot is not hot enough. You can move their basking spot closer to the heat source, or increase the wattage of the bulb to provide them access to more heat.

Bearded dragons that encounter larger dragons, or female dragons that do not get along will usually flatten their bodies and rotate them sideways to make they look longer/larger. They will sometimes circle each other with their bodies flattened and rotated to intimidate their opponent before proceeding to fighting & biting. Males may also demonstrate this behavior, but they are just as likely to start fighting without the behavioral display once one dragon has entered another’s territory.

**Licking**
Licking is normal behavior for bearded dragons and they use licking to taste anything new that they encounter. They may also use licking to help to create a memory of their location & environment.

**Lying on Top of Each Other**

When bearded dragons lie on top of each other, sometimes called stacking or piling, it may appear that they are getting along and you may even think it is cute. However it is a sign of dominance when one dragon stands or lies on top of another, and can result in injury or death to the dragon(s) on the bottom since their breathing may be impaired. The most dominant dragon will be on the top, closest to the heat source & UVB, and the dragons on the bottom will be shielded from the heat source and from the UVB.

**Rubbing**

Bearded dragons usually rub against anything and everything in their enclosure when they are shedding to help loosen their shedding skin. If you see this behavior after they have finished shedding they may have skin that failed to come off during their last shed. This can cause issues especially if it is on their toes as it can become restrictive and result in the loss of the digit. You can avoid this by bathing them weekly and misting them daily, with more frequent misting during sheds. This will help the old skin come off easier.

**Shedding**

Shedding is a natural process experienced by a lot of reptiles and is called Ecdysis. The three primary factors that influence the frequency & ease of shedding are growth, health, & humidity. Bearded dragons shed because their skin does not grow as they do; this is also why young dragons, less than 1 year old shed more frequently than older dragons. When your dragon is getting ready to shed the scales will turn darker as the new skin forms under the old skin and moisture builds up between them. Baby & juvenile bearded dragons may double or triple their size in a short time so it is not uncommon for them to seem like they are always shedding. During this time they should also become more colorful with each shed. Older dragons may only shed 1-2 times a year depending on how much they are growing. Their appetite & activity may also diminish. Bearded dragons do not shed their skin in a single piece like a snake due to the shape of their bodies. Instead they shed it in pieces. Misting and bathing your dragon will help provide the proper humidity and moisture to allow him to shed completely and avoid retained sheds.

**Stamping**

Stamping is a behavior that is sometimes shown by males that are interested in mating with a female, or when they are very upset at another male dragon that may have entered their territory. They head bob so vigorously that one or both of their front arms lift from the ground when they raise their head and then stamp back down when they lower their head.

**Tail Twitching**

This is a behavior that is not displayed by all bearded dragons, and is displayed more often in juvenile
dragons than in adults. The bearded dragon will raise their tail so it curves above their body and twitch it back and forth. This is usually interpreted as an indicator that they are alert to something, are stalking their prey, or are stressed and don't want to be bothered. They may also twitch their tails during breeding.