

# Shedding in beardies

Bearded dragons may sometimes use their sharp claws to scratch off pieces of skin on accessible parts of their body when shedding.

Photo courtesy flyingjil/www.shutterstock.com

While cats and dogs moult, so lizards like the bearded dragon will shed their skin instead. This can be a worrying time, however. So why and when does this occur, and what can you do to help? Peter Hawkins provides the answers.

**S**cientifically known as ecdysis, shedding is in fact a natural process that your bearded dragon will experience throughout its life. Yet this can also provide important insights into an individual's health and well-being, and may reflect underlying medical issues which you will need to address, so it pays to be observant.

## Why does this process occur?

Bearded dragons will shed much more frequently when they are younger and growing fast, although they will also continue to do so when they are older, since this provides a means of replacing damaged or worn skin.

## The shedding cycle

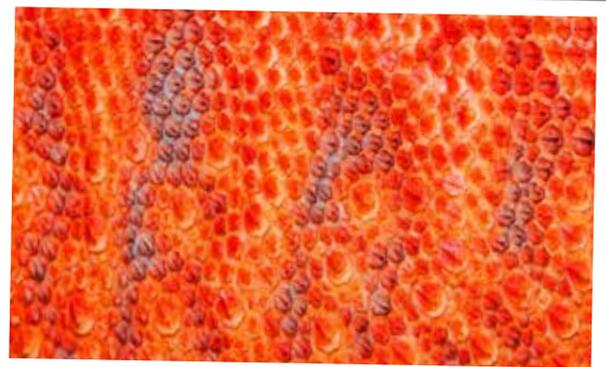
A beardie's skin is made from a keratin-based protein. This is water-tight, unlike that of amphibians, and is not elasticated like ours, which therefore means that as the lizard grows, so it must therefore shed its skin. Imagine trying to fit into a tight shirt or blouse. You will just end up ripping it, or popping the buttons

either when you sit down or move. That's much the same for beardies as well.

The shedding progress varies depending on age. During these vital early growing months, the shed will more often than not be an all over-shed, which is typically completed in just a day or so.

■ **From 0-6 months** - shedding is an almost weekly occurrence at this age, reflecting the rapid growth rate of these lizards through this early period of life. It can therefore be taken as a positive sign that your young bearded dragon is doing well.

■ **From 6-12 months** - when most of the rapid growth phase has been completed, shedding becomes less frequent. It will probably occur every couple of weeks in the case of a bearded dragon around six months of age, slowing to around



▲ Bearded dragon skin in close-up. Photo courtesy Worrakat/www.shutterstock.com

once every couple of months once the lizard is a year old.

■ **After 12 months** - your bearded dragon will begin to shed less frequently from this point onwards. This is normal though, rather than being a cause for concern.

■ **At around 18 months** - when it is no longer growing to any significant extent, a beardie will only shed a couple of times a year. Think of this as more of a change of clothes than anything else.

Over the course of time, the surface of a beard's skin can become damaged through wear, appearing scraped and often dirty too. The skin acts as a protective barrier over the body, and so this is why, although



▲ Young bearded dragons shed more frequently than older individuals. Photo courtesy Grace Cureton/www.shutterstock.com

the lizard will no longer be growing significantly, it will nevertheless require a fresh skin covering.

### What are the signs of imminent shedding?

When a bearded dragon is about to shed its skin, this will appear much tighter than normal over its body. You are also likely to notice a change in skin colour. It will always be duller than usual at this stage, and will eventually turn white immediately before shedding gets properly underway. This is totally normal, so don't worry.

### What should I do?

Honestly, the best thing to do with a shedding bearded dragon is just to leave it alone to get on with it naturally. These lizards have evolved over millions of years not to need any assistance in the way of baths, oils, or other treatments, under normal circumstances. Having the correct set-up and a variety of surfaces within the enclosure will aid things no end. You should be providing:

- Rocks
- Branches
- Slate
- Substrate

These will all be potentially useful to loosen and dislodge the old skin.

In addition, the following things need to be taken into consideration:

- The provision of a quality, effective UVB source, which is constantly essential.
- Ensuring there is a correct heat and light gradient across the vivarium.
- A good diet, supplements and hydration all have key roles to play.

It is often recommended to give a beardie a bath when it is shedding. This can help the process to an extent, but only when skin has already cracked and is beginning to



▲ Suitable lighting is vital for a bearded dragon's well-being - including shedding. Photo courtesy Virginia Blount/www.shutterstock.com

flake off. Since the bearded dragon's skin is otherwise 100% waterproof, the skin needs to be broken in order for water to have any impact on loosening pieces of skin. Otherwise, if the skin is intact and not being actively shed, then all you will have if you bathe your beardie at this stage will be a wet dragon!

### Humidity

Increasing the humidity in the beardie's enclosure is another common practice. Again, this helps to an extent as another hydration option - a bearded dragon will shed far more efficiently under these conditions. This also ties in with their behaviour in the wild, as under these circumstances, bearded dragons instinctively dig burrows. These often extend down 20-30cm (8-12in) below the surface, and inside these

burrows, the humidity can easily reach 80%. This moisture will help to soften any skin that is shedding, and it may also rub off as the dragon moves in and out of the tunnel.

A little extra humidity in the morning and evening will help too. I spray my enclosures for a few moments at these times of the day, regardless of whether my beardies are shedding or not, as I have always done. To my mind, this simulates the natural dew that forms at these times of the day, and which bearded dragons will actually use to hydrate themselves, by licking at the droplets. Be certain to avoid electrical fittings in the vivarium though.

Alternatively, water can drip down over their heads, and will be directed into the mouth via their scales and ridges here, in what is



▲ Rubbing on items in its enclosure such as caves means that a bearded dragon will be able to remove its old skin more easily.

Photo courtesy CassieStudios/www.shutterstock.com

known as a capillary action. The remaining moisture that evaporates will naturally serve to increase the humidity.

I know many people use various products to assist shedding, such as aloe oils, but for me, I've never been convinced products of this type are effective. When the skin is intact, I'm not sure that potions and lotions will help with what is, after all, a natural process. Any benefit will occur only after the skin has started to flake off by itself. Moisture can then gain access through the outer layer, reaching the replacement layer beneath.

### Shedding issues

Nevertheless, issues can of course arise during the shedding process. To be honest though, if your husbandry methods are suitable, in terms of lighting, feeding and the like, then you should not encounter any serious issues. After all, beardies have been shedding successfully on their own for millions of years!

But that said, when I have encountered issues with shedding, these have been with bearded dragons that have come to me through rescues or following illness, and so reflect underlying care problems. The main difficulty with shedding is likely to be areas of retained skin that do not come off, and there can be environmental as well as nutritional causes in such cases.

### A bearded dragon in a shallow bath.

Photo courtesy Tajborg/www.shutterstock.com



**Never get impatient, and try to intervene directly by attempting to pull areas of loose skin off. I've witnessed many reptiles, and not just bearded dragons, suffer damaged skin/scales because of keepers seeking to aid the shedding process in this way. This can very easily cause your pet pain, and will lead to infections, so please don't do it!**

frequently those housed on items such as paper, tiles or carpet, which can prove to be less than ideal for this reason. Think about the type of surfaces that a beardie would normally encounter in the wild, and they're going to be rough, with the abrasive effects of sand, small pebbles or stones affecting the skin.

Any retained skin will get removed on the next occasion that shedding occurs, and will cause little issue to the bearded dragon, if only the belly is affected. It is much more serious if the old skin remains attached to the toes or tip of the tail, however, as this can restrict the circulation here, which may ultimately result in gangrene and loss of the affected area.

You can aim to increase your pet's level of hydration to help, by using

### Substrate concerns

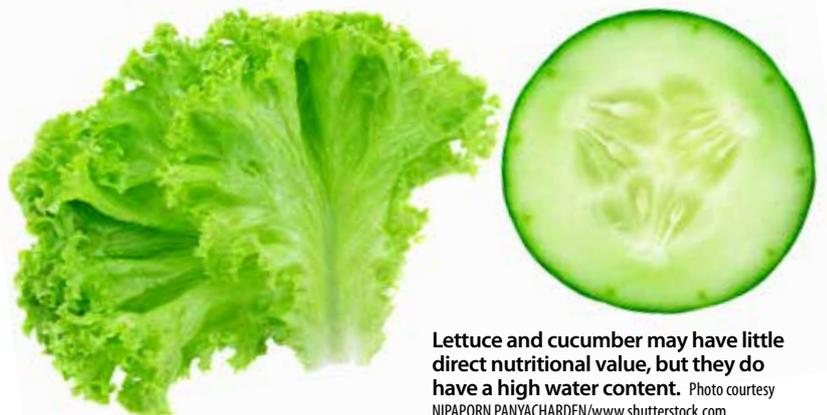
With the skin is retained, this tends to affect particular areas of the body. These are mainly the top of the head; the feet; tail; the area around the eyes and the underside or belly of your beardie. Retained skin on the belly can, in my experience, often be related to the type of substrate being used in the dragon's quarters.

Bearded dragons that most often suffer from this issue are



▲ Wild bearded dragons in Australia tend not to encounter shedding problems, but poor condition is always likely to make this process more protracted for these lizards.

Photo courtesy Brooke Whatnall/www.shutterstock.com



Lettuce and cucumber may have little direct nutritional value, but they do have a high water content. Photo courtesy NIPAPORN PANYACHARDEN/www.shutterstock.com



foods that are well-known for their water rather nutritional content. These include cucumber and a little lettuce as well, in addition to the lizard's usual foods.

### Lack of vital nutrients

The under supply of key nutrients is another primary cause of shedding issues. Reptiles (and not just bearded dragons) that are poor shedders are often suffering from a deficiency of B vitamins. Furthermore, the body's vitamin E, D<sub>3</sub>, calcium and magnesium supplies are all essential in aiding



▲ Bee pollen is a valuable source of protein, aiding growth, as well as vitamins and minerals. Photo courtesy MAHATHIR MOHD YASIN/www.shutterstock.com

the shedding process. I would therefore recommend the use of targeted supplementation, especially if you are starting out with a rescued dragon. My personal choice would be Arcadia EarthPro-A as your calcium based multivitamin. This is

loaded with nine different B group vitamins, and bee pollen, which has a host of nutrients in itself.

I personally use this daily (or every feed) for my bearded dragons and have done since its release a couple of years ago. The only other addition to my supplements is the newer Arcadia EarthPro Mg, which is a magnesium supplement. This I use once a week with beardies under 12 months and every fortnight with adults. Together, these supplements cover all the key ingredients required for a healthy shed.

If you are looking for a more specific form of supplementation, I would advise Arcadia's Shed Support, which is also relatively new to the market. This product has a double dose of essential B vitamins, carotenoids, bee pollen and also plant extracts which will allow the body to assimilate natural vitamin E.

These key vitamins and minerals will aid the body from the inside, help to ensure that the shed proceeds naturally. (The dosage required and more information can be found on the product packaging). Start using it when you first notice the dulling of your beardie's colour which

▲ A good diet and adequate hydration are vital in terms of ensuring that a bearded dragon sheds cleanly. Photo courtesy smilepoker/www.shutterstock.com

◀ A piece of retained skin is seen here above the eye. Photo courtesy U. Gernhoefer/www.shutterstock.com

indicates that a shed is soon to begin.

### Serious shedding issues

As mentioned previously, the worst cases of shedding problems that I have seen have involved the feet, tail, and eyes. I've witnessed old skin cutting off the blood supply, as well as causing swelling in the affected area - typically the feet in most cases. I want to stress that if this is already an issue, do not wait for the next shed before taking action. Seek the assistance of an exotics vet, who is best-placed to deal with an case of this type.

So when a shed is complete, or an area of skin has come off, I always recommend having a closer look, so you can monitor the progress of the shed. You need to make sure the new skin is clean and has no old areas left. Pay close attention to the vicinity of the toes, where it may not be so obvious, and the other problematic areas mentioned above.

### Shedding frequencies

It's always worth making your exotic vet aware of any concerns that you have, so if there is a problem, it can be dealt with at an early stage. From start to finish, the shedding process generally lasts around a week. But if it continues a little longer, and causes no issues, it's not a worry at all. The following shedding data reflects the differences between different age groups, as highlighted earlier.

■ **Shedding between 0-6 months old:** Shedding almost weekly while growing rapidly, the actual shedding period at this age only lasts a few days from start to finish, because of the bearded dragon's fast growth at this early stage.



▲ There can be various causes for loss of appetite in bearded dragons, unrelated to shedding, and loss of condition may not be immediately apparent, especially as many do tend to be overweight. Photo courtesy StartNow/www.shutterstock.com

■ **Shedding between 6-12 months:** The initial 'rapid' growth period has subsided, with growth now continuing at a slower rate. Shedding is reduced to just two or three times a month, at most.

You may also find that shedding is more random at this stage, meaning that instead of the skin being shed over the entire body, as was previously the case during the fast growth of the early months of life, it proceeds in stages.

The shed may be just of the skin on the body to start with, followed a week later perhaps by the old skin on the head and so on. This is quite normal, and not a cause for concern, but do check carefully to ensure as ever that none of the old skin becomes stuck on the toes or in other vulnerable areas.

■ **Shedding from 12 months onwards:** Your beardie will be nearly fully grown by this stage. As a result, shedding will occur less frequently, rather than multiple times a month.

■ **Shedding after around 18 months:** The bearded dragon should now basically be fully grown. So shedding will now only occur a couple of times a year. And again, it is likely to be very sporadic, taking perhaps a week for the skin on the head to be shed, before perhaps the back then starts to shed a couple of weeks later.

### Shedding and loss of appetite

A decline in interest in food is very common prior to a shed, along with other potential behavioural changes, depending on the individual. These



Shedding is a much more rapid process in young bearded dragons. Photo courtesy thomascanss/www.shutterstock.com

can involve not just going off food, but becoming less active and hiding away more than normal.

These signs only last a few days - and if you keep a shedding diary, this is likely to give some assurance as to when a shed is imminent, and such behaviour can be expected as part of this process, rather than being indicative of illness. If these symptoms persist, however, then clearly there could be a more sinister cause which will require a visit to your exotics vet. This applies particularly if a shed does not occur.

Always keep a watch on your bearded dragon's weight if it is refusing food, regardless. In the case of an adult which has previously had a healthy appetite and good nutritional reserves, this may not be a major issue. Indeed, you may rarely see any loss of weight, even after several weeks, but the lack of appetite obviously must be investigated.

A baby or younger beardie going off its food can be more problematic, resulting in more evident weight loss, as their body reserves are not as great at this early age. Furthermore, the likelihood of parasitic problems depressing their appetite can be



▲ This bearded dragon is undergoing a body shed, with the old skin curled back over the body and relatively little old skin remaining on the head. Photo courtesy E. Ast/www.shutterstock.com



**Activity levels may alter around the shedding period.** Photo courtesy C. Nass/www.shutterstock.com

greater at this stage, and so you need to seek veterinary advice. In most cases though, reflecting a higher level of activity and their desire to eat, so shedding rarely seems to affect young beardies to the same extent as adults, in terms of depressing their appetite. If it does, it usually lasts only a day or so, and any longer period can be a cause for concern.

### Why is shedding not occurring?

In the case of an adult bearded dragon, I really wouldn't worry too

▼ **A number of factors may impact on the shedding frequency in older bearded dragons in the wild - including the availability of food and the prevailing weather conditions.**

Photo courtesy Ken Griffiths/  
www.shutterstock.com

much if the interval between sheds is extended more than usual. As long as you are providing quality UVB lighting, the correct heat gradient, plus adequate nutrition and hydration, the bearded dragon will shed in due course. It should happen naturally without any worry, provided all these basic requirements are met.

However, in the case of a youngster in the first year of life, it should most definitely be shedding frequently, so if you are sure that your husbandry is fine, you will need to seek specialist veterinary advice. There could be issues around parasites in this case perhaps.

### Eating the shed skin

Such behaviour is perfectly natural and of no concern at all, providing that your set-up is clean, and the skin was not previously contaminated by any faecal waste. It is actually a common practice for many lizard species to do this, although such behaviour is more widely-

recognised in geckos than agamids. The old skin serves as a source of calcium and other nutrients.

This is therefore really a natural survival instinct. It has also been suggested that this behaviour may be directly linked to concealing the bearded dragon from predators in an area, by removing a visual indicator of its presence there. I'm not sure how valid this suggestion is, however, not having seen any comprehensive evidence to support this theory.

### Shedding and sleeping

A prolonged sleeping session throughout the day while shedding takes place is certainly not an uncommon event. The whole process of shedding is likely to be an uncomfortable one for a bearded dragon to say the least, and sleeping more than usual means less movement is required. The logic suggests that it is then less uncomfortable, but of course, with reduced movement occurring, so the downside of this arrangement is that shedding will take longer as a result.

A healthy bearded dragon will be rubbing its body in its quarters to aid the loosening of the skin that is being shed. If you therefore have a bearded dragon that is shedding and becomes completely lethargic and uncharacteristically alters its pattern of sleeping, see your vet, just in case of an underlying health issue. ❖

*\*Pete Hawkins has been keeping and breeding a wide range of reptiles and amphibians for many years. He is active in his Facebook groups: Bearded Dragons Network. Chameleon Network. Snake Network. Lizard Network. Gecko Network and Amphibian Network.*

