

Reptile With Swollen Jaw

My lizard has not eaten since I got her, and she also has a bottlejaw, which I think is from hypoproteinemia due to parasites. Can you help?

By Margaret A. Wissman, DVM, DABVP

I am a veterinary student from South Africa and a keen reptile hobbyist. I am battling to find information on protein deficiency in bearded dragons. I am hoping you might have some information for me, as my resources are limited over here.

I recently bought a new female (2 years old, 450 grams) to add to my collection. She has not eaten since I got her (three weeks), and she also has a bottlejaw, which I think is from hypoproteinemia due to parasites. She is in good shape though, and I cannot really see that she is not eating. She refuses any food item, and I occasionally force-feed her crickets.

I de-wormed all my beardies just in case it might be parasites. The thing is that I lost another female about four months ago. She lost a lot of weight during the breeding season, then gained weight very nicely and developed a bottlejaw at the same time. At first I thought it was fat. She still gained weight, and after her winter rest, she just never got back to eating and eventually died. I also de-wormed her but possibly too late.

Please help me. I am afraid this new female may walk the same path. I believe that I do nothing wrong in housing, feeding, etc. But clearly something is not right that I lose females at such a young age.

I actually had to look up the meaning of "bottlejaw" as I was not familiar with that term. I only found one reference to bottlejaw in a paper on parasitology involving a case report on a cow with lesions in the abomasums (one of the four stomachs of a ruminant). It also had a large swelling under the jaw that appeared fluid-filled. This swelling was referred to as bottlejaw.

Now that I understand your terminology, you are describing a fluid-like pocket under the jaw. This may be caused by abnormally low protein levels in the bloodstream, which allow fluid to seep out of blood vessels and into the surrounding tissues. Osmotic pressure is what causes fluid to stay inside blood vessels normally, and this is a complex system involving proteins, albumen, salts, sugars and many other substances that circulate in the liquid portion of the blood. If, for some reason, such as too much protein being lost from the gastrointestinal tract from heavy parasitism, the protein level in the blood of a bearded dragon (or other creature) drops below a certain level, the liquid portion of the blood may end up seeping into the tissues. Although that is a distinct possibility, it is time for you to put those newfound veterinary skills to the test and draw some blood from your lizard for a complete blood count (CBC) and chemistry panel. I'm sure your veterinary college should be able to run these tests.

Although the college might not have reference ranges (also called "normals") for bearded dragons, these are available through several sources. The most common source is International Species Information System (ISIS), which has the zoo database of a large number of exotic animals and birds. The reference ranges are provided on a CD-ROM, which may be purchased through ISIS. The reference ranges are listed under Inland Bearded Dragon, *Pogona vitticeps*.

The only way you will find out for sure what is going on with your beardie females is to run the blood work. Blood may be easily drawn from the tail vein for analysis. Fecal parasite analysis is also indicated, instead of simply de-worming, as different parasites may require different medications. For example, cryptosporidium, coccidia, tapeworms and roundworms all require different drugs, and not all protozoal parasites can be eradicated completely. X-rays may also prove beneficial in procuring a diagnosis.

It doesn't sound as if you had a necropsy (animal autopsy) performed on your other dead female beardie. That is very important when dealing with a herp colony. By learning the cause of death, you may be able to prevent similar deaths in the future. Also, I hope you have been practicing appropriate biosecurity with your colony because quarantine of all new herps is extremely important. In addition to bacteria and parasites, certain viral diseases can also be introduced into your collection if you don't quarantine all new herps before placing them in with your established animals.

Make sure you are keeping your beardies within the correct temperature range, you have a focal hot spot for basking (approximately 110 degrees Fahrenheit), and you have correct lighting. Browse my archived answers to questions to find information on bearded dragon husbandry, nutrition and breeding. I have published a plethora of information on these popular, wonderful lizards.

Please take advantage of the wonderful resources available to you at your veterinary college to perform appropriate diagnostics. I'm sure some veterinarians teaching at the college have an interest in herp medicine, or perhaps some vets in private practice could help you. You could also join the Association of Reptile and Amphibian Veterinarians, an organization based in the United States, as they offer a tremendous amount of information on husbandry, medical issues and surgical procedures, which would be helpful to you in your veterinary pursuits.

You should be able to diagnose your female beardie with the resources available to you. And who knows, you might publish your first veterinary paper on this condition in your lizard at some point.

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Need a Herp Vet?

If you are looking for a herp-knowledgeable veterinarian in your area, a good place to start is by checking the list of members on the Association of Reptilian and Amphibian Veterinarian (ARAV) web site at www.arav.com. Look for DVMs who appear to maintain actual veterinary offices that you could contact.