

# Fire Bellied Toad

*Bombina orientalis*



**LIFE SPAN:** 10-15 years

**AVERAGE SIZE:** 2 – 3 inches

**CAGE TEMPS:** 68-70 degrees

**HUMIDITY:** 60-70%

\* If temp falls below 65° at night, may need supplemental infrared or ceramic heat

**WILD HISTORY:** Native to Southern and Southeastern Asia; Korea, Northern China, parts of Russia. These toads live in forests with deciduous and coniferous trees.

Fire-bellied toads are not actually classified as toads, but as frogs.

**PHYSICAL CHARACTERISTICS:** Fire-bellies have olive green backs with black spots, and a bright orange belly with black mottling. These colors tell predators, “Careful! I’m toxic!” Fire-bellies are *actually* one of the least toxic amphibians, but ALWAYS wash your hands after handling anyway.

Males have slightly rougher skin and fatter front legs than females.

Fire-bellies have webbed feet for swimming and large, bulbous eyes.

Unlike most frogs, Fire-bellied toads make sounds by inhaling rather than exhaling. Its croak has a pleasant sound, evocative of a small bell.

Because of their delicate and porous skin, handling your frog is not recommended; toxins can easily be transferred from your hands to the toad.

**NORMAL BEHAVIOR & INTERACTION:** Diurnal (active during the day) and semi-aquatic. These toads live in groups and will get along fine as long as there is proper space for each toad. A minimum of 4 gallons of tank space per toad is a good measure.

**WARNING:** larger toads can become aggressive with smaller ones in the tank. Try to purchase toads of similar size.

Fire-bellied toads are semi-aquatic. This means your enclosure must have water AND land space.

**NOTE:** DO NOT house fire-bellied toads with other species due to the toxicity of the fire-belly and possible toxins from the other species. This will create stress and illness. Each species may also harbor different parasites/protozoans/bacteria (even a healthy reptile harbors a small amount at all times), which may make each other ill.

**FEEDING:** Carnivores; live food

Protein sources such as: gut-loaded crickets, small feeder fish, earthworms, wax worms dusted with a supplement should also be part of their diet.

Wild caught insects should never be fed, since they can carry disease. All insects should be gut loaded (fed a nutritious diet about 24-hours before being offered to your frog – see our cricket care sheet).

Be careful to feed the proper size prey for your toad’s size. A good rule of thumb is that a cricket should never be larger than the distance between the toad’s eyes, or the distance from its eyes to its nose.

When feeding larger insects to your pet, try to make sure the insects have recently molted, as an insect with a large, hard exoskeleton is difficult to digest and may cause impactions.

Some reptile/amphibian owners find it easier and safer to feed their pet in a separate enclosure, free of bedding and furniture, this way you can be sure your pet eats all its insects, the prey cannot hide, and the toad will not pick up any bedding when grabbing prey and mistakenly ingest it along with the prey (which can cause impactions).

**SUPPLEMENTS:** Dust food with calcium supplement and vitamin supplements. As a rule, a growing juvenile’s food (and a pregnant/gravid female’s) should be dusted more often than an adult’s. Follow your veterinarian’s instructions for applying supplements to avoid over-supplementing food.

Our veterinarian recommends dusting insects with a good quality calcium supplement fortified with vitamin D3, 2-3 times a week. (Avoid using a calcium supplement with added phosphorous, unless specifically directed by your veterinarian, since this can promote kidney disease.)

Always consult your veterinarian for specific directions on supplementing your pet’s food, since there are many variables that go into determining the best supplementation regimen for each animal.

**WATER:** All water given to amphibians for bathing, swimming or drinking, as well as water used for misting must be 100% free of chlorine and heavy metals. (Not all home water filtration systems remove 100% of the chlorine and heavy metals from tap water). We recommend that you use unflavored bottled drinking water or bottled natural spring water; never untreated tap water. If tap water is used, you should treat it with a de-chlorinating treatment (available in the fish department). If you do not want to chemically de-chlorinate the water, you can leave an open container of tap water out for at least 24 hours. Do not use distilled water, which can cause severe medical problems, since it lacks minerals that are essential to important body functions.

Change the water in your toad's enclosure every one to two days.

A daily misting or two with chlorine-free water will also be appreciated. However, care should be taken not to allow the enclosure overall to become too damp. Also, do not mist less than two hours before turning the heat lamps off for the day, as the droplets may not have time to dry and may contribute to respiratory disease.

**SHEDDING:** Toads do shed their skin. Your toad may crunch his body up into an uncomfortable-looking crouching position. Then he will puff his body up to try to loosen the skin, then he will convulse as if he is coughing. As the skin is shed, he will eat it. It has many good nutrients, and your toad knows it!

If the tank humidity is low, your toad may not shed properly.

To create more humidity, the entire tank can be lightly spray misted twice a day during shedding time. Spray once in the morning and once later in the day. Make sure the later spray dries completely before lights go off for the night, as the droplets may not have time to dry and may contribute to respiratory disease.

If your toad still has a hard time getting the shed completely off its toes, tail or head; help him by spraying the area with water and gently massaging the skin until it peels off. If the retained shed is severe and cannot be removed easily, see your exotic veterinarian.

Remember to wash your hands thoroughly after handling your toad.

### **RECOMMENDED SUPPLIES:**

- |  |  |
|--|--|
| *10, 20 or 40 gallon glass tank                            | *Glass cover or aquarium cover w/fluorescent 2.0 UVB bulb.   |
| *Large ceramic crock or plastic container for a water area | *Temperature / humidity gauge – do not stick to side of tank |
| *Several small hide houses                                 | *Coconut fiber substrate, moistened                          |
| *Live plants – see amphibian safe plants below             | *Branches, plastic plants, live plants                       |
| *Calcium supplement  | *Small reptile heat pad                                      |

**HOUSING & ENVIRONMENT:** Your toad(s) need a warm, humid environment in their enclosure.

A ten-gallon glass tank (for two frogs) with a metal mesh cover will work fine.

If you lose too much humidity through the metal mesh cover, you can tape plastic sheeting (thick plastic bag – preferably translucent) over part of the mesh. However, be sure NOT to block the UVB light with the plastic, as it will filter out all the important rays before they reach you pet(s). Also, be sure that any hot lights do not come in contact with the plastic, or sit too closely to the plastic

There are several ways to set up a fire-bellied toad enclosure. Some people prefer to create a primarily aquatic environment, with a bit of land area. Others create a more terrestrial tank with a bit of water area. From our experience, fire-bellied toads prefer to be more on land than in deep water, so for our purposes, we will diagram a primarily terrestrial enclosure.

**ENCLOSURE SIZE:** A minimum of 4 gallons of tank space per toad, however a toad tank should be no smaller than 10 gallons, even for one toad.

10, 20L or 40 gallon tanks are commonly used.

**HEAT PAD:** Reptile heat pads can be adhered directly onto the underside of the glass bottom of the tank. Stick it directly on the glass on one of the very far ends of the tank (opposite the water dish). For safety reasons, make sure to attach the rubber feet (contained in the box) at all four corners of the underside of the tank. This will allow air to circulate underneath the tank and prevent the heat from being trapped under the tank. Leave the heat pad ON 24 hours a day.

Heat pads specifically manufactured for reptiles are safe to leave on 24 hours a day (which should be done for these enclosures). DO NOT use reptile heat rocks. They heat unevenly and have caused severe thermal burns in reptiles.

A human-grade heat pad may be used on the low to medium setting. Do be sure to allow for proper ventilation for safety reasons. \*\*\*Be sure to purchase a heat pad without automatic shut-off, which are still available.

**HEAT LAMP:** A heat lamp is not necessary for your toad enclosure as long as your cage temperatures stay within those listed at the top of this care sheet.

**UVB LIGHT:** Exposure to UVB (ultraviolet B) light is critical in allowing an animal to synthesize vitamin D<sub>3</sub> in their skin and metabolize calcium in their body.

If an animal is not exposed to an adequate level of UVB light, it will gradually develop physical problems from the result of mineral deficiencies such as low blood calcium (hypocalcaemia), soft eggs (females), stunted growth and metabolic bone disorder, which can be fatal if left untreated. In addition, recent studies have linked sub-optimal vitamin D levels with poor immune system function.

All day-active (diurnal) indoor reptiles, amphibians, birds and hermit crabs should be allowed self-selected exposure to UVB lighting for up to 8-12 hours a day. This means they should be able to bask in the light but also get away if desired, much as they might in the wild. Many twilight-active (crepuscular) and night-active (nocturnal) species do get some exposure to the sun and may also benefit from low levels of UVB, which helps regulate their photoperiod and vitamin D levels as well.

Please see our additional “UVB Lighting for Companion Birds and Reptiles” for specific instructions for your particular pet and the UVB bulb that we recommend for him or her.

**HIDING PLACES:** Fire-bellies appreciate hiding places within their enclosure. Small huts, crevices and planted areas will give your toad a place to hide when it is nervous.

**SUBSTRATE FOR LAND AREA:** We recommend a loose coconut fiber substrate, available in the reptile department and made by several companies. It is made from the husks of coconuts. This substrate is ideal for your toad, as it will help hold humidity in and is also a perfect substrate for plants. Keep the substrate slightly damp, but not watery. Plant your live plants right into the substrate.

Slope the substrate slightly so there is a lower end and a higher end. You will place your water container on the lower end, so place plants and hiding areas on the higher end.

Small patches of reptile moss can also be dispersed along the surface of the land area.

**WATER AREA:** About 40-50% of your toad’s enclosure should be water. For the water area, you can use a heavy ceramic crock or a plastic container. Push the water container snugly into the substrate. Arrange the substrate so it will not spill into the water container. The toad should be able to travel easily between the land and water areas. Fire-bellies generally prefer to just sit in the water rather than swim, so be sure that you put a few smooth rocks in the water for the toad to sit on where he can be only half immersed in the water.

To keep your land area contained more neatly, you can use an aquarium divider (available in the fish department) designed for the size of the tank you are using. This will create a retaining wall for your substrate. Simply cut the divider down until it is roughly the same height as your water container. Again, smooth rocks and moss can be used to make the transition area easier to navigate. If a tank divider cannot be located, a firm piece of plastic can be used. Do not use wood, as the humidity in the tank will cause it to rot.

Using the water container makes it easy to lift the container out in order to clean it every one to two days.

**BRANCHES & PLANTS:** Branches can be included in the enclosure, but be sure not to situate them in a way that will allow your toad to escape easily. Toads are excellent climbers.

Live plants can help increase the humidity in your toad enclosure. Be sure to include only amphibian safe plants such as pothos, aloe, philodendrons, spider plants, ficus, and dracenaes. They can be planted directly into the enclosure substrate.

**TEMPERATURES:** Cage temperatures should be monitored daily and kept at the temperatures listed at the top of this page. Use your reptile thermometer to check the temperatures in different places in the cage regularly to make sure they continually match the listed proper temperatures.

\* If the room temperature falls below 65 degrees at night, a supplemental infrared or ceramic heat fixture may be necessary. (These fixtures do not emit a light spectrum that is visible to the toad, so it will not disturb him at night, but they WILL provide the necessary supplemental heat.)

If your toad does not receive the proper heat at the proper temperatures along with UVB light, he may become sick with issues such as respiratory disease and will probably stop eating, as toads have a hard time digesting their food without proper heat and light.

**DAY/NIGHT LIGHT CYCLES AND HEATING:** All amphibians must have distinct day and night periods in their enclosure to maintain their biological rhythms. Fire-bellied toads need 8-12 hours of daytime and 8-12 hours of nighttime. However, as the daylight hours change seasonally outside, daylight hours inside the tank should reflect the same.

**The day period must be light, and the night period must be dark.**

A timer should be used to set day/night periods.

**HABITAT MAINTENANCE:** Daily maintenance should consist of spot cleaning by removing soiled substrate, cleaning water bowl thoroughly and wiping glass clean.

Remove the water container every day; wipe clean (wash with mild dishwashing liquid & warm water at least once a week, rinse very well) and fill with fresh de-chlorinated water.

The entire tank should be cleaned thoroughly at least once every month with:

- A mild dishwashing liquid (a weak dilution) in warm water, THEN
- Vinegar & water (1:8)  
OR bleach and warm water (1:32)
- Cage “furniture” should also be scrubbed clean with the same dilution.
- RINSE CAGE AND FURNITURE EXTREMELY WELL!
- NEVER MIX VINEGAR AND BLEACH – IT CREATES A TOXIC SOLUTION!!
- NOTE: water used for cleaning does not need to be de-chlorinated, as your pet will not be drinking it or bathing in it.

**GROOMING & HYGIENE:** To reduce the risk of contracting and spreading salmonella poisoning (and the toxins from your toad); all handlers should wash their hands after handling any reptile.

**SIGNS OF A HEALTHY ANIMAL:** smooth, even skin; no traces of mites (small, reddish brown spots around nostrils, near ears and eyes); clear eyes, rounded, full body; strong, even, smooth jaw line; bright eyes.

It is very important to keep a journal for each animal that records feeding, refusal, shedding, unusual behavior, changes in behavior and dates of bulb changes. This will help your veterinarian trouble-shoot any health issues.

We recommend physical exams every year or two years with an exotic pet veterinarian for pet reptiles and amphibians. If your vet sees your pet regularly, many common conditions that afflict pet reptiles and amphibians can be caught and treated early. If not caught early enough or if left untreated, many of these conditions can become far worse if not fatal.

**SIGNS OF ILLNESS:** Irregular skin; small reddish brown spots (mites) around mouth, eye area, ear area; irregular jaw line, ‘dents’ in mouth with or without cottage cheese-like material (mouth rot); cloudy eyes or dull colored body when not in a shed; bloating or thinned body; irregular feeding and defecating habits. Limp, thin body, lethargy, sunken eyes, pinkish patches or spots on belly or sides; obvious wounds from cage mates or prey.

**SOME COMMON PROBLEMS INCLUDE:**

HEALTH ISSUE:	SYMPTOMS:	TREATMENT:
<b>Mites, parasites</b>	small reddish-brown spots around eyes, mouth & on body or in substrate. However, pet may show no signs of harboring parasites besides declining health.	See exotic pet veterinarian, ensure optimal diet with proper calcium supplementation and UV light
<b>Skin problems – bacterial, fungal, abrasions</b>	Ulcers, patches or wounds visible on skin, lethargy or loss of appetite	Call exotic pet veterinarian. Optimizing cage set-up, topical and systemic medications
<b>Bloating disease</b>	Bacterial disease - Accumulation of fluid under the skin gives a bloated look to the toad	See an exotic pet veterinarian immediately. Antibiotic therapy.