Lighting Requirements

Low level UVB lighting is important for the frogs to thrive. The lighting should also be adequate for the plants to do well. The lighting should be placed directly above the terrarium on a screen. There can be no glass or plastic between the light and the frogs, otherwise the UVB lighting will be blocked. Brighter lights are better to help you enjoy seeing your plants and frogs.

Diet

As juveniles, these frogs feed on wingless fruit flies. Springtails, isopods, rice flour beetles and pinhead crickets are also options. Feeding occurs daily, especially for the young frogs. If they are actively producing eggs, continue the daily feeding. Generally, an adult frog will take about a half teaspoon of insects daily. Reduce this feeding if these insects aren't completely consumed in one day. Choose a feeding area in the enclosure and use a flat, shallow dish to put the insects into. This allows for easier cleaning and your frogs will habituate to this area at feeding time. Dart frogs are day feeders, so you should be able to get a good look at them during feeding

Water

Fresh water must be available at all times. This can be provided as simply as a large bowl or two, or as elaborate as a recirculating system with waterfalls. Any water that is provided but be chlorine and chloramine free.

Humidity is typically adequate with appropriate water sources, however, using a fogger or daily misting can help keep the humidity in the proper zone. Soggy endosures promote bacterial and fungal growth that is very harmful to your frogs. Use caution to not overdo the misting. Adequate drainage of the substrate is also a must.

Supplements

All insects must be dusted with a premium vitamin supplement that includes calcium, vitamin D 3, and vitamin A. Dusting of insects should be done daily for young frogs and can be decreased to 3-4 times weekly for adult frogs.

Tips For a Happy, Healthy Animal

- Make sure enclosure is secure at all times.
- Secure furniture in enclosure to avoid falling on frog.
- Keep all water sources clean.
- Use dechlorinated and dechoraminated water.



It is Important to Avoid

- · Avoid contact with heating or lighting fixtures
- Avoid handling.
- Avoid gravel in substrate where frog may accidentally ingest it.

Common Disorders

- Spindly leg
- Short tongue
- Chytrid fungus
- Parasites
- Enteritis/Intestinal infection
- Skin infection

Additional Reading

The Complete Oophaga pumilio (Central American Poison Dart Frog, Dendrobatidae) - Biology, Ecology, Captive Husbandry.
Steinman, F, van der Lingren, C. 2013. Edition Chimaira, Frankfurt.

Poison Frogs (Professional Breeders Series). Schmidt, W, Henkel, FW. 2004. Edition Chimaria, Frankfurt.

Regular visits to your reptile veterinarian should be scheduled to check for parasites and other early signs of disease and to promote a long, satisfying relationship with your Dart Frog. For help in finding a reptile/amphibian veterinarian in your area, contact the Association of Reptilian and Amphibian Veterinarians (www.ARAV.org) or contact the American Board of Veterinary Practitioners

(www.ABVP.com/diplomate)

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COMPANION REPTILE CARE SERIES

HOW TO KEEP YOUR DART FROG HEALTHY, HAPPY AND SAFE!





NATURAL HISTORY

Dart frogs are one of the most colorful and interesting frog species kept in captivity. These small frogs come in a rainbow of colors and patterns. All dart frogs belong to the family *Dendrobatidae*. The species *Dendrobates*, *Phyllobates*, *Epipedobates* are all part of this family, plus a few others. Their husbandry may seem complex, but if you follow our care guidelines you will have success!

You may know them as poison dart frogs, but all captive raised dart frogs have lost their toxicity. The name, poison dart frogs, comes from the toxins they secrete in the wild for protection. South American Indian tribes used this toxin on their arrows for hunting. The toxins depend on specific insect meals in the wild to charge up their toxins. Choosing captive bred and raised frogs will avoid any toxin exposure, and will help your frogs to thrive in your vivarium.

What to Expect From My Animal

It is important to note that these frogs should not be picked up and handled. When you need to move them, use a clean tub with a lid and gently coax them into it. You can easily hurt these delicate frogs with your fingers, as the oils we have on our hands can be easily absorbed through the frog's skin. In addition, their small size predisposes them to other handling trauma. If there is a valid reason that you need to touch them, wear nitrile gloves rinsed with fresh water. This will protect the frog from anything you may have on your skin.

Is My Animal Male or Female?

Sexing these amphibians is difficult until they reach adulthood, which is usually at around one year old. Sexing will be difficult and fairly subjective, even to advanced keepers. Females are usually larger (longer and wider) than males. Males have distinctive calls used during breeding. *Dendrobatidae tinctorius* males (dyeing dart frogs) may have larger toes pads.

Housing and Substrate

These frogs do best in a vivarium that has adequate drainage, is well planted, and has many hides available for security. Choose a glass enclosure with good ventilation on top with screening and large front doors for ease of access. The smallest size that is appropriate should be at least $12\times24\times16$ inches (60cm $\times30cm\times40cm$), and larger enclosures are better. The enclosure must be very secure. Be sure, there are no gaps that the frogs can escape through. Select an appropriate background that enhances your plantings and gives the frogs security.

The best substrate in the vivarium is a complex layering of ingredients that help the frogs and plants thrive. This allows for the soil to be adequately aerated for the plants, but also pulls the excess moisture away from the frogs. The bottom layer of the vivarium should have a substrate that will not break down in water. Gravel or day potting balls (LECA, Hydro-balls, Feather-lite, Terra-lite) work well here. This layer should be at least 1-2 inches (3-5cm) deep. Cover this layer with yard fabric. This keeps the base layer from getting infiltrated with the soil. On top of the yard fabric, add a layer of activated charcoal. This helps to detoxify the enclosure from accumulating waste. Above this level is your healthy soil. Organic mixes that have no chemical fertilizers or insecticides added are best. Use this soil layer as your planting soil.

WHAT YOUR VETERINARIAN LOOKS FOR IN A HEALTHY DART FROG

Vital Statistics:

Body length

Adults can reach .75-2.5 inches depending on species (2-7cm)

Body weight

I oz. (30 grams) average

Age of sexual maturity

Longevity 7-10 years, possibly longer





NOTE: Most, if not all, reptiles and amphibians carry Salmonella bacteria in their intestinal tract and intermittently or continuously shed these bacteria in their feces, so they are unsuitable pets for very young children and those with compromised immune systems. Good hygiene must always be practiced around all reptiles and amphibians, including dart frogs. For more information, please see the handout, Salmonella Information for Reptile Owners at http://arav.org/salmonella-bacteria-reptiles.



Create an interesting terrain with different heights in the terrarium. The vivarium should be interesting for both you and the frogs. Plant larger plants in back and shorter plants in front for a layered look. Install your hides and water feature. Create a focal point with interesting driftwood. Have levels in the terrarium with side glass mounted lichens, etc. Be sure everything is easily accessible for cleaning. And always make sure all furnishings are secure to avoid them falling onto your frogs. Lastly add damp spagnum moss, leaves, flat smooth rocks around your plantings for the final effect. Be sure all cage furniture is secure and cannot harm the frogs.

We do recommend periodic soil disturbance via gentle tiling every 2-3 months. The moss will also need replacement at this time. Soil should be fully renewed every 6 months. This allows you to remove any toxins that have accumulated and redecorate.

Tips for a healthy enclosure

- Do not disturb the garden fabric or the clay balls as this is where beneficial bacteria live.
- Never allow water to accumulate above the clay balls.
- Water plants as needed.
- Adding springtails (arthropods that help break down organic waste material and control soil bacterial populations) may help reduce waste material.

Research the species of frogs that you are keeping to know if they can be housed with other frogs or not. There are frogs that do well in individually sexed pairs and those that can handle groups. The ones that can be kept in same species groups are <code>Epipedobates</code>, <code>Phyllobates</code>, <code>Periodically</code>, some territorial aggression may occur. This can be avoided by providing adequate space and avoiding overcrowding your frogs. <code>D. tinctorius</code> and <code>D. azureus</code>, and the rest of the species should only be kept in individual pairs as adults. Picking out three young individuals may increase your odds of getting a pair. Separate out the extra mismatched individual when they are old enough to tell their sex.

Temperature and Humidity Requirements

Dart frogs prefer to be kept between 70-78° Fahrenheit (21-25° Celsius). This is commonly close to room temperature. If your room is routinely going to be cooler than this, a low-level heat source may be necessary.

Humidity should be high at 75% or above. Be sure you have a thermometer and hygrometer to monitor temperature and humidity.