



*Ryan McVeigh/Mad City Reptiles

Dart Frogs (Family Dendrobatidae)

Tiny Gems of the Amazonian Rainforest

Dart frogs are small, diurnal frogs which display what is known as brightly colored aposematic coloration that warns predators of their potential toxicity. They earn their names of poison dart or arrow frogs due to the Amerindian tendency to use the secretions from these frogs to line the tips of their hunting arrows and darts with. Depending on the species, some can be very brightly colored to warn of their toxicity, while others can be more cryptic in appearance. Depending on the species, they may be brightly colored with reds, oranges, yellows, blues, and greens. In order to obtain their toxicity, many dart frog species will consume specific prey items in the wild, and derive their toxins from them, including certain termites, ants, and other tiny invertebrates. Many species of dart frogs also have specialized reproductive biology, and may lay their eggs in tiny vernal pools, tree cavities, and standing water in bromeliads/other plants, and many will also carry their tadpoles on their backs. There are over 175 species of dart frogs, many of which are commonly available in captivity.

Taxonomy

Life: All living, physical, and animate entities

Domain: Eukaryota

Kingdom: Animalia

Phylum/Sub Phylum: Chordata/Vertebrata

Class: Amphibia

Order: Anura

Suborder: Neobatrachia

Superfamily: Dendrobatoidea

Family: Dendrobatidae

Genera: Adelphobates, Andinobates, Ameerega, Colostethus, Dendrobates, Epipedobates, Excidobates, Hyloxalus, Minyobates, Oophaga, Phyllobates, Ranitomeya, and Silverstoneia

**Taxonomy subject to change and revision.*

Lifespan and Longevity

If provided the proper care, dart frogs can attain longevity of 5 to 10 years or more.

Distribution and Habitat

Depending on the species, dart frogs are found in the humid, tropical climates of central and South America. Specifically, they may be found in Bolivia, Costa Rica, Brazil, Colombia, Ecuador, Venezuela, Suriname, Peru, Panama, Guyana, and Nicaragua. Different species of dart

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frogs may occupy different environments, including tropical to sub-tropical forests, lowland forests, freshwater marshes, lakes, and swamplands, to seasonally flooded grasslands and other areas, savannahs, to higher mountain/altitude forests.

Conservation Status

Conservation status dependent upon the species. Some species are IUCN Least Concern (LC). Some are IUCN Near Threatened (NT), Conservation Dependent (CD), Vulnerable (VU), Endangered (EN), to Critically Endangered (CE). Some Not Evaluated for the IUCN Red List (NE) or otherwise Data Deficient (DD).

Experience Level Required

Intermediate/Moderate to Advanced (depending on species).

Size

Dart frogs are generally small frogs, although their size varies depending on the species. Dart frog species range from about less than ½ an inch to about 2 ½ inches.

Housing and Enclosure Plus Temperature, Lighting, and Humidity

Housing must be sealed and escape proof with a secured lid or aquarium hood. Housing for dart frogs should be naturalistic and mimic their natural environment as much as possible. Live plants should be used whenever possible to help maintain oxygen and humidity levels inside the vivarium. A 10 to 30 gallon planted glass terrarium, vivarium, or even custom made enclosure with ample hiding and climbing areas should be provided. Humidity should fall between 80 to 100%, but provide minimal ventilation. Maintain most dart frogs at temperatures from 70 to 80 degrees F, rarely above or below these temperature ranges. Many commercially available hydrometers can monitor humidity levels inside the enclosure. Dart frog enclosures can be maintained at around room temperature or sometimes with under tank heating pads in some cases. Covering 80 to 90% of the enclosure or vivarium with a sheet of glass can achieve the desired humidity levels.

Also provide a “false bottom” constructed of quartz gravel, PVC, or charcoal to enable proper drainage from the vivarium. Substrates that are acceptable should retain humidity well and can include peat moss, fir bark, and sphagnum moss. Dart frogs also benefit from misting, and should be misted every 1 to 3 days. Many commercially available automatic and manual homemade misting systems are available for use. UVA/UVB lighting is not required for dart frogs, but can improve aesthetics and fluorescent bulbs can help mimic a 12 hour light cycle to promote optimal live plant growth by using full spectrum terrarium or aquarium bulbs. Providing UVA/UVB in moderated amounts can also be greatly beneficial for your frog’s health, immune system, and overall wellness. For any supplemental heating that may be needed, use a low wattage incandescent or UVA/UVB bulb, radiant or ceramic heat emitter, or UTH (under tank heating element). More specific lighting, heating, and humidity product suggestions and recommendations that can best suit one’s needs, as well as those of one’s animals can be given as well.

Feeding, Diet, and Nutrition

Microphagous to Insectivorous; In the wild, dart frogs are almost entirely microphagous to insectivorous, feeding on tiny, live, moving insects, arthropods, and other invertebrates. In captivity, it is recommended that dart frogs be provided cultured flightless fruit flies, springtails, isopods, or pinhead crickets. Many of these food items may need supplementation with calcium, vitamin D3, and other multi vitamins, which are commonly available through many commercial and retail outlets. If left as part of a self-sustaining bioactive setup, feeding most dart frogs can

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become very simple and inexpensive, although this still depends to some extent on the setup, size of the enclosure, and number of frogs per enclosure, and conditions should still be monitored. Feeding amounts and frequency can also still depend on the age and size of the frogs as well. More specific dietary and supplementary product suggestions and recommendations that can best suit one's needs, as well as those of one's animals can be given as well.

Handling

Dart frogs are small and fragile amphibians, and handling them should thus be reduced or eliminated as much as possible. In most cases, there is very little to no risk of ingesting toxic secretions from captive bred/born dart frogs, most of which derive their toxins from invertebrates consumed in the wild.

****Also be sure to practice basic cleanliness and hygiene associated with proper husbandry after touching or handling any animals or animal enclosures to prevent the possibility of contracting salmonellosis or any other zoonotic pathogens****

Contact

Authored by Eric Roscoe. For any additional questions, comments, and/or concerns regarding this animal, group of animals, or this care sheet, please email and contact the Madison Area Herpetological Society at info@madisonherps.org

Disclaimer: Note that the information provided in these, or any care sheets, are not intended to be all-exhaustive, and further research and care should always be sought and provided when it comes to any species one may prospectively be interested in. These care sheets are also not intended to serve as substitutes for professional veterinary medical care and husbandry should any animal require it. Always seek proper and professional veterinary care for any animal should the need arise, and be prepared ahead of time for any and all husbandry costs and expenses that may occur with any animal beyond the initial purchase. Any animal owned is ultimately a matter of personal/individual care and responsibility.

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