

Poison Dart Frog Facts

Everything You Need to Know About Poison Dart Frogs

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One of the most fascinating things you need to know about poison dart frogs is they don't produce the poison alkaloids with which they defend themselves. Instead, poison frogs derive their poison supplies by consuming other animals! That's right poison frogs didn't evolve with the ability to manufacture poisons. What they did evolve with, however, is a desire to eat ants, beetles, and other invertebrates that scientists believe consume alkaloid poisonous plants, become alkaloid-rich, and transfer the poisons to the dart frogs that eat the insects. Although the poison dart frogs don't produce alkaloidal poisons, they are immune to them.

Another thing you need to know about poison dart frogs is that *Phyllobates Terribilis*, otherwise known as "Golden Poison Frog", is the deadliest poison dart frog in existence. But not only that, this frog is capable of carrying enough poison during any given time to wipe out 10,000 mice. A dose this powerful is strong enough to kill between eight and twenty humans. For these reasons, the Golden Poison Frog is said to be the most poisonous "vertebrate" worldwide.

There are a number of different kinds of poisons that can be harbored in poison dart frogs. The type of poison they carry depends on the species of frog and the kinds of poisonous life-forms they consume. For example, since Golden Poison Frogs eat ants, termites, and beetles, they transmit a poison called batrachotoxin. This means batrachotoxin is produced

when poison frogs eat these kinds of life-forms. Batrachotoxin is powerful enough to prevent human nerves from transmitting impulses and thereby causing human muscles to become inactive. Inactive muscles can lead to heart fibrillation and heart failure.

One thing frog hobbyists or anyone apt to handle poison frogs needs to know is poison frogs can remain poisonous for years after captivity. Although poison frogs must consume poison life-forms to obtain their deadly toxins, they do not need to consume toxicants on a regular basis. Dart frogs can store alkaloid batrachotoxin for years because the toxin does not deteriorate easily.

Handlers also need to know that dogs and chickens have died from manipulating paper towels previously walked on by poison frogs. Poison frogs do not need to bite, sting, or commit any violent act in order to inflict their poison. All one has to do to become subjected to their poison is touch a poison frog because the deadly toxins are stored just below their skin and is secreted when the frogs are irritated.

Other things one may need to know about poison dart frogs: They are native to South and Central America. They taste vile. They are deadly if ingested and, therefore, have no natural enemies.

In attempt to understand, and to follow the poison frog's ability to extract, maintain, and utilize poison they acquire from other animals, scientists conducted studies during which poison dart frogs were fed cultured nonpoisonous insects like fruit flies and small crickets that were inconsistent with the frogs' wildlife diets. In efforts to evaluate the frogs' toxicity levels after they'd consumed cultured insect diets, scientist found that dart frogs raised in captivity, as well as dart frogs captured from the wild, had no poison in their systems.

These experiments, in conjunction with findings from hobbyists and zoological amphibian researchers, that report captive frogs' lack of interest in consuming ants period, suggest frogs possess knowledge of when to eat alkaline infested foods and when it's all right to avoid such foods. The frogs' turning away ants is more than surprising because ants are a major wild poison frog staple.

With all this said, however, and to reemphasize what's been stated earlier, although would-be poison frogs are not poisonous when bred in captivity; as long as they are not fed the poisonous types of foods they would eat in the wild, and captured poison frogs generally lose their toxicity once they are continually fed foods other than their normal poisonous staple like the ant, some captured poison dart frogs "can" maintain a degree of poison from alkaline-based insects they consume in the wild for a number of years.

In addition to preserving poison derived from alkaloid-ridden ants, some poison frogs, like some members of the Dendrobatidae family, possess the ability to alter toxins. By altering the toxins, the frogs increase the toxins' potency. For instance, frogs could potentially convert "pumiliotoxin" 251D to "allopumiliotoxin" 267A. This conversion would raise the original toxicity level to a potency level that's five times greater.

Another thing you need to know about poison dart frogs is that scientists are trying to discern whether the frogs have natural immunities to the poisons they consume because they evolved with the immunities, or if they developed the immunities due to continuous consumption of ants and other alkaloid prey. Scientists speculate the frogs' ability to digest toxic ants may have allowed the frogs to utilize ants that had been previously disregarded as food sources.

You may also need to know how poison dart frogs, known as poison arrow frogs as well, got their nicknames. Poison dart

frogs are referred to as poison arrow frogs because South American tribesmen manufacture the frogs' poisons in order to use the poisons on arrow tips and blow-gun darts.

If you would like to start a collection of dart frogs, or even get one or two, you might need to know the dart frogs' size ranges. Well, another surprising fact regarding poison dart frogs "is" their size. Many of these brightly colored creatures are so small they range in length from one to a mere six centimeters; the species, sex and age are contributing factors to the frogs' sizes. What's more, many of the frogs are even smaller than a human thumbnail.

If breeding poison dart frogs you need to know that when dart frogs appear to be wrestling, they probably are wrestling not mating as many hobbyists mistake their frogs to be doing. When dart frogs mate, the oviparous females of most species lay unfertilized eggs near a forest floor, usually in moist sheltered areas. After the eggs are laid, the male fertilizes them in the nest. Afterwards, one of the adult frogs, usually the male, watches over the eggs until they hatch into little tadpoles. The watch-frog must continually shield the eggs from female frogs that would eat them because some competitive females have strong needs to promote their own DNA in the gene pool.

Female frogs of some species called "Obligate egg feeders" usually provide young tadpoles with fresh laid infertile eggs as, at least for some species, these eggs stand as the only available tadpole food source until the tads metamorphose into sub-adult froglets. In that raising obligate egg-feeding frogs in captivity may be considerably taxing as far as feeding the young, hobbyists may be interested to know several breeders have found success in feeding small fish-eggs to baby tads.

Captive poison dart frog life spans range from five to twelve or more years. Not much is known regarding wild frog life spans. Most species of these frogs mature around one and a

half to two and a half years of age.

You may need to know how to tell if dart frogs are male or female: Gender identification of poison dart frogs can be determined through behavior analysis. After eating, or after heavy water misting, mature males sound off mating calls. The noise they produce may be likened to a succession of high-pitched "clicks".

The gender of juvenile frogs may sometimes be discerned by the frog's profile. Male backs normally have a deeper slope with less of a break than their female counterparts that are usually rounder than males; and females' backs have bigger breaks.

Frogs' toes can also serve as an alternate method to identify frog gender. Some females have narrower toes than males, and some mature males have small grey areas on their necks where they produce their mating calls.

A few notable poison dart frogs are:

Dendrobates Tinctorius—are beautiful dart frogs native to tropical rain forests of the Guianas.

Dendrobates Azureus also called "Blue Poison Dart Frog" is native to southern Surinam near its Brazilian border in South America.

Dendrobates Pumilio also called "Strawberry Dart Frog" is native to the tropical rain forests of Panama, Nicaragua, and Costa Rica.

All right... There... You have it in a nutshell. Or at least, you have "almost" everything you need to know about the poison dart frog there's actually so much to learn about these fabulous frogs that the flux of information cannot fit it in one little article.