

The
**HERPETOLOGICAL
BULLETIN**

Number 88 – Summer 2004



PUBLISHED BY THE
BRITISH HERPETOLOGICAL SOCIETY

Dendrobates truncatus: an often overlooked poison-dart frog

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DENDROBATES *truncatus* (Cope, 1861), or the Rio Magdalena Poison-dart Frog, hails from the tropical forests of the Magdalena river valley of Colombia. It is apparently closely-related to the more popular *D. auratus*, a species often kept for its hardiness and ease of breeding.

Keeping

The species should be maintained as for other poison-dart frogs. A suitable setup would be a large glass vivarium maintained at 20–24°C (I used an external proprietary heat-pad, controlled by a thermostat) and sprayed regularly (or with running water – others have described how this can be achieved in the vivarium) to keep the humidity levels high. I used 75 x 30 cm vivaria (actually aquaria) to maintain two breeding pairs and did not experience excessive territoriality. If taller vivaria are used, the species co-exists happily with other species which occupy a different spatial niche (i.e. higher up in the vivarium) such as *D. ventrimaculatus*.

Vivaria 'roofs' were custom-made by me from clear perspex. Ventilation is very important in such a warm, humid environment. An effective method of achieving this is to site a ventilation panel (mesh or a series of carefully-drilled holes) above the vivarium's light-source. All light-sources emit some heat and this causes air from inside the setup to rise out through the holes. A second ventilation panel situated at the opposite side of the vivarium allows fresher air to be drawn inside. Aquarium-style UV tubes were always used for lighting (ca. 12 hours a day), although this was mainly for the benefit of the plants.

I experienced better success with this species and 'happier', healthier frogs if the back and sides of vivaria were well-planted. *Philodendron* species are a good group of plants to use and I highly recommend *Scindapsus* (Devil's Ivy) as it grows well under most conditions (in fact, in the

vivarium, it will need to be regularly cut back!). Bogwood furnishings or other decoration, as well as bromeliads, for hiding places are appreciated and help to make the setup an attractive display. With this aspect of frog-keeping your imagination and pocket depth are the only limits! Growing plants also help to remove waste products from the substrate (but are not a substitute for cleaning and removing debris!) as well as providing micro-climates of differing humidity through transpiration.

D. truncatus is not a fussy eater and will take hatchling crickets and fruit-flies from metamorphosis onwards. These should be dusted with a proprietary vitamin/calcium supplement designed for amphibians and reptiles. Also suitable as food are various aphids as and when these are available (so long as their host plants have not been sprayed with any chemicals). Elderberry bushes are often a good place to find thousands of blackfly!

Breeding

Under the above conditions, breeding may occur spontaneously. An increase in spraying, however, and therefore humidity, at the latter end of summer is sometimes needed to persuade frogs unwilling to reproduce. Readiness is signalled by a low, buzzing call (which is so quiet, your partner/parents/housemates are unlikely to object!) from the males. *D. truncatus* seems to respond to a slight drop in ambient temperature which occurs naturally at the end of our northern summer. It seems that this, plus higher humidity, simulates the onset of the southern hemisphere's rainy season (although I have not properly tested this). Male frogs are slightly smaller than females and noticeably slimmer. They can, with practice, also be differentiated by their larger toe-pads (though these are not very obvious in this species).



If a male is successful in attracting a female, eggs (4–20 in my experience) will be laid in a suitable refuge. The typical half-coconut “igloo” on a petri dish is fine, but I used old plastic fishfood tubs, inverted and with a 2 cm hole cut in one side. Some frogs will care for their own eggs and in due course carry the emergent tadpoles to a water dish. I found it more satisfactory to remove the dish or lid on which the eggs were laid to a humidity box for more successful hatching. Such a box consists of a plastic ice-cream tub (or similar box), which must have some holes to let air circulate, floating in a larger container containing a few inches of water at about 20°C. The eggs are sprayed lightly every day but must not be allowed to submerge as they will die. I also added a few drops of aquarium fungicide to the spray water in order to help prevent infection (often happens without this measure and can run riot!). Spraying keeps the eggs moist but also agitates them slightly and mimics the effects of care from their parents. This seems to be beneficial.

It is generally obvious when the tadpoles have wriggled free of their jelly covering and at this stage they can be transferred to a water container (at a similar temperature) for rearing. Several tadpoles can be maintained together in a 5 litre container; being fed on fish flakes and/or thawed frozen spinach. Metamorphosis takes around 16 weeks. Tadpoles reared much faster than this may suffer developmental problems.

Metamorphs are very large for poison-dart frogs (often above 1 cm) and take small fruit-flies and hatchling crickets immediately. They can be maintained in the same way as the adults and will live happily with their parents when they are big enough not to be bullied, so long as there is room in your vivarium.

Afterthoughts

This is a fascinating and rewarding frog to keep in the vivarium and I am often surprised that more hobbyists do not breed this species. I put this down to their relative obscurity in the dart-frog world. There was a serious pollution incident in the Rio Magdalena a few years ago (so serious that the Catholic Church in Colombia issued instructions for their adherents to NOT eat fish on Fridays!) and the area is suffering widespread environmental degradation (overfishing, overcultivation etc.) which has unknown and potentially lasting effects on the wildlife dependent on the river valley and its associated estuary (a Ramsar site). Chemical pollution of the river by local industry also continues.

If you are interested in keeping and breeding dendrobatids and have the opportunity to obtain some *D. truncatus* from a reliable (= legal and reputable) source, why not give them a try? The opportunity to encounter them in the wild seems an increasingly unlikely possibility....

Notes

The frog in the photograph is one of a pair (male) in my collection which produced many healthy tadpoles over a period of about five years. It was photographed using an old (Pentax) SLR camera and extension tubes at close-range. This requires much patience, good lighting, phlegmatic frogs and the assistance of a ‘frog-wrangler’ to retrieve escaping subjects.

If anyone knows or hears of new measures to protect the Rio Magdalena valley area I would be interested in hearing from them at the above e-mail.