

Bereis' Treefrog Facts

Dendropsophus leucophyllatus (Beireis 1783)

Names and locations

Dendropsophus leucophyllatus (Bereis' Treefrog) is a species of amphibians in the family hylid frogs. They are found in The Neotropics. They are nocturnal. They have sexual reproduction. They rely on saltation to move around.

Dendropsophus leucophyllatus (common names: Beireis' treefrog, also white-leaf frog and clown treefrog) is a species of frog in the family Hylidae. It is found in the Amazon Basin (Bolivia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Peru, Suriname, and possibly Venezuela).[2] This widespread and locally common species is found near water in a wide variety of tropical habitats. There are no known significant threats to this species.[1]

Here you can hear the advertisement or mating call of the Bereis tree frog:

https://www.fonozoo.com/fnz_detalle_registro_amphibia.php?id=76095&tipo_registro=1#modal

Features: Size, Colors, Patterns



Giraffe Phase
Picture by: Jose M. Padial



Clown Phase
Picture by: Peter Janzen



Both Phases
Picture by: Kenneth P, Wray

Dendropsophus leucophyllatus is a small to medium-sized tree frog with an average snout-vent length of 29.7 mm in males and 37.9 mm in females. It has an axillary membrane that reaches halfway to the elbow, webbing at the base of fingers, webbed feet, a single palmar tubercle, and moderate pectoral patches (Caminer et al 2017).

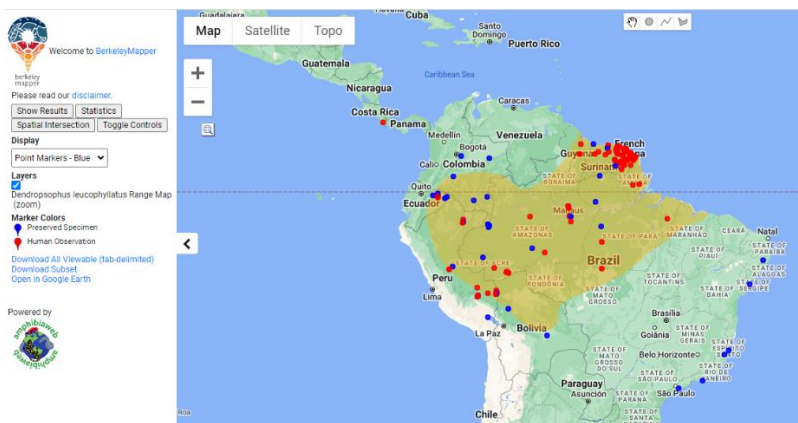
The two most similar species to *D. leucophyllatus* are *D. arndti* and *D. triangulum*. *Dendropsophus leucophyllatus* can be differentiated from both by its clear elliptical leaf-shaped sacral mark. Their advertisement call also differs by *D. leucophyllatus* having shorter pulsed trill notes at the start of their call. This species can also be differentiated from *D. reticulatus* by *D. leucophyllatus* having a larger size (Caminer et al. 2017).

Its coloration in life varies from brown to dark brown with bright yellow or white dorsolateral bands extending to the tip of the snout. There's a leaf-shaped mark on the sacrum that is also bright yellow or white, and there are two bright yellow or white bands cover its shank, which also may be fused and cover the leg completely. Some individuals may have a reticulated color pattern. The ventrum and webbing may be red, orange or pink. The eyes are large, round and prominent with dull or coppery bronze irises (Caminer et al 2017).

Individuals vary in both coloration and patterning. The dorsal coloration varies from brown to dark brown, with yellow or white dorsolateral bands that extend to the tip of the snout. Some individuals also have a thin, brown line that crosses the sacral mark perpendicularly. There are one to two rounded white spots on the dorsal surface of each forearm, and there are one to three long ovoid bands on each shank, which are sometimes fused together to cover the whole surface. The ventrum and webbing vary between red, orange, and pink. Some individuals in the eastern part of the Guianas, east of the Approuagues River have a light, dorsal reticulated pattern that is unique to their populations. In preservation, they have dark round marks along the dorsum, sides of the head, and in life, the dorsal surfaces of the limbs are on a bright yellow or white background instead of the usual brown (Caminer et al. 2017).

Distribution and Habitat

Country distribution from AmphibiaWeb's database: Brazil, French Guiana, Guyana, Suriname



Source: distribution map in BerkeleyMapper

This species is found in the northern Brazilian Amazonia, Suriname, Guyana and French Guiana ranging in elevation from sea level to 400 m at Grande Montagne Tortue, Guyana. They have been observed in permanent or semi-permanent ponds along roads or in pristine moist rainforest, large coastal swamps, and at the edges of forest savannas (Caminer et al. 2017).

They have been found perching above water from a few centimeters to several meters above in the tree canopy (Caminer et al. 2017).

Life History, Abundance, Activity, and Special Behaviors

The advertisement call of *D. leucophyllatus* is one pulsed trill note followed by one or two secondary notes that are shorter and have less pulses than the first note. The aggressive call has three to five notes that are the same as the second type of notes in the advertisement call, except they're longer in duration (Caminer et al. 2017).

Larva

Eggs are deposited on the tips of leaves over water in clutches of 570 - 769 eggs (Schiesari et al. 2022).

The eggs hatch into exotrophic tadpoles that drop into lentic water. At Gosner stage 39, the tadpole body has an elongated oval shape when viewed dorsally and a triangular and depressed shape when viewed laterally. The eyes are medium sized and are positioned laterally. The nostrils are small, round, and are positioned laterally to the snout with the opening directed anterolaterally, and there is no projection on the marginal rim. The spiracle is single, sinistral, conical, positioned lateroventrally, and is short and wide. The dorsal fin is shallow, slightly convex, and it originates at the tail-body junction. The ventral fin has a moderate height and is slightly convex. The lateral line is visible, and the tail has flagellum (Schiesari et al. 2022).

In life, the dorsum varies from brown to copper and the venter is a silvery black color. There are two broad longitudinal stripes, one black at eye-level and one silver just below the first one, that run along the sides of the body. The tail fin is transparent except for the heavily pigmented middle third. It has been noted that newly-hatched tadpoles in Brazil are yellow-brown and have a dark brown stripe on the tail with a gold strip above it, along with clear fins and gold eyes (Schiesari et al. 2022).

Trends and Threats, Relation to Humans

Dendropsophus leucophyllatus has a very large range with extensive areas of undisturbed or protected forest, so there are little threats to this species (Caminer et al. 2017).

Dendropsophus leucophyllatus is in the international pet trade, but not at levels that constitute a major threat (IUCN 2004).

Eyes and vision

Frogs and toads have large, prominent eyes and many visually-guided behaviors, making them an exciting group in which to study the evolution of vision. Some frogs, such as the Clown Tree Frog, *Dendropsophus leucophyllatus*, have spectral filters in the lenses of their eyes that block short wavelengths of light (e.g., UV), with important implications for how they see in low light and the resolution of their vision. Thomas et al. (2022) measured the spectral transmission of light through the ocular lenses of 85 species of frogs and salamanders and tested whether shortwave filtering was associated with ecology. They found that day-active frogs more commonly evolve lenses that filter out shortwave light, which should protect the retinas of diurnal species from damage and improve visual acuity in bright environments. Night-active species usually had more transparent lenses, likely to maximize sensitivity in dim light. However, despite being mostly nocturnal, scansorial species that typically climb up into plants show selection for stronger shortwave filtering in their lenses than species that tend to be found on the ground or in water. Climbing frogs may sacrifice sensitivity for resolution to navigate their complex arboreal environments. (Written by Katie Thomas)

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