

ON THE IDENTITY OF *DENDROBATES QUINQUEVITTATUS* (ANURA: DENDROBATIDAE)

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ABSTRACT: We call attention to the wrong usage of the name *Dendrobates quinquevittatus*. Specimens from Samuel, State of Rondônia, Northern Brazil, 150km from the type locality, fit perfectly the original description of *D. quinquevittatus* and differ in several features from those specimens currently referred to as *D. quinquevittatus* in the literature.

KEYWORDS: Taxonomy; Amphibia: Dendrobatidae; *Dendrobates quinquevittatus*.

INTRODUCTION

Steindachner⁸ described with many details the color pattern of a small dendrobatid collected at Salto do Girao (= Jirau), Rio Madeira, Rondônia, Brazil, by J. Natterer in the beginning of the past century, and named it *Dendrobates tinctorius* var. *quinquevittatus*. The name *quinquevittatus* was extracted from a L. J. Fitzinger label. Lutz and Kloss⁴ used the name *quinquevittatus* for some small, striped dendrobatids from the upper Amazonas region, identified by E. R. Dunn. Silverstone⁷ reviewing the genus *Dendrobates* used the name *quinquevittatus* for several small specimens with distinct color patterns in a conservative way, since some species of this genus are actually very variable in color and color pattern. Lescure and Bechter³ applied the name *quinquevittatus* to several specimens from Amazonia and briefly commented the polymorphism in some populations. Myers⁶, in a partial revision of the *quinquevittatus* group, removed two species from the synonymy of *D. quinquevittatus* and described three new species.

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The purpose of this note is to call attention for the wrong usage of the name *quinquevittatus*. Pending a revision of the *quinquevittatus* group by Myers⁶, we briefly diagnose here some specimens from Samuel, 150 km from Salto do Jirau, and compare them to information in the literature concerning specimens referred to as *D. quinquevittatus*.

MATERIAL AND METHODS

Recently we had the opportunity to examine several live and preserved specimens of a *Dendrobates* from Samuel ($8^{\circ}46' S$, $63^{\circ}27' W$), Rio Jamari, Rondônia, which fit Steindachner⁸ description and illustration quite perfectly, and also the illustrations of the holotype of *D. quinquevittatus* provided by Silverstone⁷. These specimens from Samuel differ in several features from those currently referred to as *D. quinquevittatus* in the literature (e.g., Plate 1 in²; Figures 4-8 in³; Figures 1A and 7B in⁶; Frontispice II in⁷).

Measuring procedures are those of Myers⁶. Specimens examined are: ZUEC (Museu de História Natural, Universidade Estadual de Campinas) 7815-7826; MNRJ (Museu Nacional do Rio de Janeiro) 4995 and 4996.

RESULTS

Dendrobates quinquevittatus Steindachner, 1864.

Dendrobates tinctorius var. *quinquevittatus* Steindachner, 1864:261, plate XV, Figure 2, holotype: NHMW (Naturhistorisches Museum, Vienna) 16517, Salto do Girao, Brasil.

Dendrobates quinquevittatus (part.). Silverstone, 1975:33, Figures 12A and 14D. (Only the holotype of *D. quinquevittatus*).

Diagnosis. A small *Dendrobates* (15.9-18.9mm snout-vent length considering both sexes) with slightly granular skin (Figure 1). Large finger discs; second finger slightly longer than first. In life, greenish to yellowish white middorsal, dorsolateral, and lateral stripes on deep black dorsum and flanks. Limbs brownish yellow with scattered and variable sized, small black spots. The spots are less numerous on hands, feet, and ventral surfaces of the limbs, which are less brownish than the dorsal surfaces. Metallic, golden orange "flash" marks in the axila and groin. Venter with variable sized and shaped, deep black blotches on a greenish to yellowish white ground (see a color photograph of a specimen of *D. quinquevittatus* from Samuel in⁵). In preservative all colors, except black, fade to white. Measurements of 14 specimens from Samuel are presented in Table 1.

DISCUSSION

As mentioned above, the specimens of *D. quinquevittatus* from Samuel perfectly fit Steindachner's⁸ detailed original description and illustration. Larger size, limbs not reticulated, differences in, and little variation of, color and color pattern easily distinguish the specimens from Samuel from those referred to as *D. quinquevittatus* by Lescure and Bechter³, Lutz and Kloss⁴, Myers⁶, and Silverstone⁷ (except the holotype of *D. quinquevittatus*). The specimens found by Duellman² at Santa Cecilia, Ecuador, also have spotted limbs, but differ in all other features mentioned above. Considering these differences, we conclude that all these specimens are not *D. quinquevittatus* (except the holotype in⁷).

Identifying recently caught anurans by comparing them with the type-specimens is frequently a difficult task, since many types are from the

TABLE 1

Means (\bar{x}) standard deviations (SD), and ranges for the measurements of 14 specimens of *Dendrobates quinquevittatus* from Samuel, Rondônia, Brazil. All measurements are in millimeters.

	\bar{x}	SD	range
snout-vent length	17.71	0.99	15.9-18.9
head width	5.46	0.21	5.0-5.8
head length	5.74	0.20	5.4-6.1
thigh length	7.65	0.38	7.1-8.3
tibia length	7.68	0.26	7.3-8.1
feet length	7.07	0.26	6.8-7.6
hand length	4.43	0.19	4.2-4.9
eye diameter	2.03	0.11	1.8-2.2
tympanum diameter	0.98	0.10	0.8-1.1
eye to nostril distance	1.86	0.06	1.8-2.0
internarial distance	2.45	0.13	2.2-2.6



Fig. 1. A live specimen of *Dendrobates quinquevittatus* from Samuel, Rio Jamari, State of Rondônia, northern Brazil. Photo by I. Sazima.

past two centuries and, consequently, color, color pattern, and occasionally morphology are in poor conditions. Misidentifications may be a common occurrence in such instances. Except for those species whose type localities are unknown, vague or wrong, the practice of looking for a species in its type locality has proven to be a valuable tool in solving problems of anuran proper identification¹.

RESUMO. Chamamos a atenção para o uso incorreto do nome *Dendrobates quinquevittatus*. Exemplares de Samuel, Estado de Rondônia, distante 150km da localidade-tipo, concordam perfeitamente com a descrição original de *D. quinquevittatus* e diferem em diversas características daqueles correntemente referidos como *D. quinquevittatus* na literatura.

UNITERMOS. Taxonomia; Amphibia: Dendrobatidae; *Dendrobates quinquevittatus*.

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