

A New Name for Sphaenorhynchus aurantiacus (Daudin) (Amphibia, Salientia)
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A New Name for *Sphaenorhynchus aurantiacus* (Daudin) (Amphibia, Salientia)

Juan A. Rivero

The name *Hyla aurantiaca* Daudin is preoccupied by *Hyla aurantiaca* Laurenti, which is a synonym of *Hyla boans* Linné. *Hyla lactea* Daudin, the first synonym of *Hyla aurantiaca* Daudin is preoccupied by *Hyla lactea* Laurenti, which corresponds to *Phyllomedusa hypocondrialis* (Daudin). As no other name is available for the form currently known as *Sphaenorhynchus aurantiacus* (or *S. lacteus*), *Sphaenorhynchus eurhostus* is suggested for it. The species range extends from Bolivia and Amazonian Brazil to Venezuela and Trinidad. It is characterized by its large size, apparent tympanum, presence of a canthal stripe and a tarsal fold, ⅔ webbed fingers, almost fully webbed toes, and by having the anterior extremities of the vomerine teeth in level with the posterior margins of the choanae.

Daudin (1803a:20) described *Hyla aurantiaca*. In the same publication (p. 21) he described *Hyla lactea*, which has been considered a synonym of *H. aurantiaca* by most authors since Duméril and Bibron (1841).

Lutz and Lutz (1938:175) stated that the type-locality of *H. aurantiaca* is uncertain and cited Duméril and Bibron (1841) as indicating that the species probably came from "Amérique méridionale". They also added that "it is almost certain to belong to the northern form, since most of his specimens of South American batrachians come from Cayenne and the northern part of the continent." It is possible that Lutz and Lutz were thinking of *Hyla lactea* (type-locality, "America"). No type-locality is included in the data connected with the type of *H. aurantiaca*, but both in the Histoire des rainettes, 1803 and Histoire des reptiles, 1803, Daudin clearly stated that the species "existe au Brésil". Besides, he referred Seba's *Rana Brasiliensis, gracilis*, a Brazilian form, to his *H. aurantiaca*.

H. aurantiaca Daudin (1803a:pl. 9, fig. 3) is figured with fully webbed toes (fingers apparently free), while *H. lactea* Daudin

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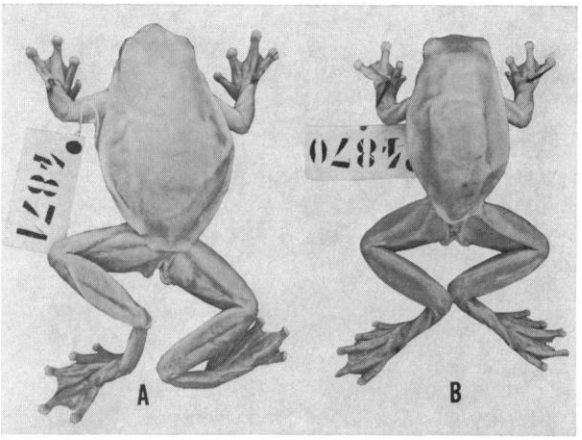


Fig. 1. Holotypes of *Hyla aurantiaca* Daudin and *Hyla lactea* Daudin. A, *Hyla aurantiaca*, 40 mm, female, from ?Brazil (Mus. Nat. Hist. Nat. Paris 4871); *Hyla lactea*, 36 mm, male, from "America" (Mus. Nat. Hist. Nat. Paris 4870).

(1803a:pl. 10, fig 2) appears to have the toes ½ webbed and the fingers ⅓ webbed. From the figures, the two animals do not appear to be conspecific, but examination of the types reveals them to be identical. Both seem to correspond to the species occurring in northern South America, north of Bolivia and Amazonian Brazil.

Rivero (1961:137) pointed out that *H. aurantiaca* Daudin is preoccupied by *H. aurantiaca* Laurenti, a synonym of *Hyla boans* Linné. In view of this, Bokermann (1966:15) indicated that the name to be used for *H. aurantiaca* Daudin is that of its first synonym, *H. lactea* Daudin in the combination *Sphaenorhynchus aurantiacus*. This is incorrect, however, for *H. lactea* Daudin, 1803a is preoccupied by *H. lactea* Laurenti, a species with barred flanks which Daudin (1803a:20) referred to *Phyllomedusa hypocondrialis*.

As both *H. aurantiaca* Daudin and *H. lactea* Daudin are unavailable and no other name seems to correspond to the population currently known as *S. aurantiacus* (or *S. lacteus*), a new name is suggested for it (see below).

Although many of the characters separating *Sphaenorhynchus* from *Hyla* are not exclusive to that genus, it appears that *Sphaenorhynchus* constitutes a natural group and, apart from *Hyla nana* (which may not be a member), all others have two dermal flaps on each side of the anus (not well developed in *S. habra*) and a peculiar looking head with small eyes and sharp canthus rostralis. I would prefer to leave the splitting of large genera to revisionary works, but in this case the name *Sphaenorhynchus* (or *Sphoenohyla*) has been used recently by several workers, and to insist on keeping this group in *Hyla* would be to call the various species by two different names.

The original description of *H. aurantiaca* is inadequate, but Duméril and Bibron (1841: 610) wrote an excellent description using the types of *H. aurantiaca* and *H. lactea*. I have omitted a redescription in this paper, but a diagnosis and a discussion of the variation and the differences between the various members of the genus, follows the synonymy. These *Sphaenorhynchus* should henceforth be known as:

Sphaenorhynchus ***eurhostus*** nom. nov.

Hyla aurantiaca Daudin, 1803a:20 (?Brazil), 1803b:57; Duméril and Bibron, 1841:610; ?Burmeister, 1856:105; Günther, 1858:106; Boulenger, 1882:388; Nieden, 1923:308; Ahl, 1929:1.

Hyla lactea Daudin, 1803a:21, 1803b:62.

Calamita aurantiacus Merrem, 1820:172.

Calamita lacteus Merrem, 1820:172.

Sphaenorhynchus lacteus Tschudi, 1838:71.

Dendrohyas rubra Tschudi (part), 1838:74.

Dendropsophus (*Dryomelictes*) *aurantiacus* Cope, 1870:554.

Scytopis amantiacus Cope, 1874:124.

Hyla (*Sphoenohyla*) *aurantiaca* Lutz and Kloss, 1952:657.

Sphoenohyla aurantiaca Goin, 1957:12; Goin and Layne, 1958:111.

Hyla orophila planicola Rivero, 1961:136.

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Holotype.—Mus. Nat. Hist. Nat. Paris 4871, adult female, ?Brazil.

Diagnosis.—A large *Sphaenorhynchus* (35–43 mm) with exposed tympanum, triangular snout with a truncate tip, vomerine teeth in two oval patches situated between the posterior margins of the choanae, a dark canthal stripe, a tarsal fold, ⅔ webbed fingers and almost fully webbed toes.

Variation.—In addition to the holotypes of *H. aurantiaca* and *H. lactea* (MNHN Paris 4870, male, "America"), I have examined specimens from Trinidad (Mus. Comp. Zool. 48963, 33908–09), Sta. Cecilia and Limón Cocha, Ecuador (MCZ 55089–90, Univ. Kans. Mus. Nat. Hist. 99429–31, 105250), Barrancas, Venezuela (MCZ 19917) and Rôndonia, Brazil (KU 74301–02, 92288–91).

The male holotype of *H. lactea* differs from the female holotype of *H. aurantiaca* in its smaller size (36 mm), slightly more pointed snout, more distinct tarsal fold, slightly more webbed fingers, and in having a vocal sac comparable to male *Sphaenorhynchus* as discussed by Goin (1957:13). The difference in web extension is not pronounced; in the holotype of *H. aurantiaca* 1½ phalanges are free of webbing on the second finger and 1¾ on the fourth, while in the holotype of *H. lactea* 1¼ phalanges are free on the second and 1⅔ on the fourth.

The Trinidad examples are also males (39–42 mm). In one the tympanum is less distinct than in the type but in the other three it is equally distinct. The heel of the holotype of *H. aurantiaca* extends anteriorly to the tympanum, while in the Trinidad examples and in the type of *H. lactea* it extends to the middle of the eye. The skin may be partially or totally shagreened, and the tarsal fold may be of variable prominence. In the single individual in which the fingers are intact, only one phalanx (the disc) is left free on the second finger and 1⅔ on the fourth.

All three Trinidad specimens differ from the types of *H. aurantiaca* and *H. lactea* in having a canthal stripe (presumably faded in the types), and, in two cases (MCZ 33908–9), a whitish fold that extends from the posterior corner of the eye to a short distance behind the shoulder.

The frog from Barrancas, Venezuela is a 23 mm specimen which is rather deformed, but it agrees in most important details with the type of *H. aurantiaca.*

In the material from Ecuador (KU 99429–31, KU 105250) there is some variation, both in the amount of webbing and in disc size. KU 99429 and 99431 are webbed to the disc on the outer finger, but in KU 105250 half of the second phalanx is free. In the latter specimen and in KU 99431 (both females), the discs are very large, at least ⅔ the size of the eye (more than double the size of the tympanum). I am not certain whether this is intrapopulational variation or if it is indicative of sexual dimorphism. The difference may also be interspecific in character, but the inconsistencies apparent in the available material do not permit such a conclusion.

The material from Rôndonia, Brazil is also divergent but the differences are difficult to quantify. The most obvious are: adult size, length of the snout, and manus length. None of the six adult males is longer than 36 mm. The digits and entire manus are obviously shorter than in the holotype of the species but I can not quantify the differences because all body dimensions appear to have changed proportionately. In some specimens there is a slight, pale speckling on the dorsal surfaces. These specimens probably represent a different form but for the present I prefer to include them with *S. eurhostus.*

Remarks.—If *Hyla nana* is excluded, the genus *Sphaenorhynchus* contains eight species; names, authors and type-localities as follows: *S. orophilus* (Lutz and Lutz) from Serra del Mar, 4 km outside Petropolis, Brazil; *S. planicola* (Lutz and Lutz) from Recreio dos Bandeirantes, Federal District, Río de Janeiro, Brazil; *S. surdus* (Cochran) from Paraná, near Curitiba, Brazil; *S. dorisae* (Goin) from Leticia, Colombia; *S. habra* (Goin) from Leticia, Colombia; *S. palustris* Bokermann from Espiritu Santo, Brazil; *S. bromelicola* Bokermann from Maracás, Bahía, Brazil, and *S. eurhostus* from ?Brazil. *Sphoenohyla seabrai* Bokermann (1958) was later considered a synonym of *Allophryne ruthveni* (Bokermann, 1966).

Comparisons.—*S. eurhostus* is probably the largest and the most fully webbed species in the genus. Its closest rival in size is *S. dorisae,* which may attain a length of 35.7 mm (Goin, 1957:16) and *S. orophilus,* which may grow to 35 mm (Lutz and Lutz, 1938: 180). From *S. dorisae, S. eurhostus* differs in having the vomerine odontoids closer to the choanae (separated by a distance four

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times their diameter in *S. dorisae*) and by having a well defined canthal stripe. *S. orophilus* is a mountain species in which both fingers and toes are less webbed than in *S. eurhostus*. *S. habra* is a small species (15–19 mm) with poorly developed anal flaps, no apparent tympanum and no vomerine teeth. Both *S. palustris* and *S. surdus* have dorsolateral stripes. *S. palustris* can further be distinguished from *S. eurhostus* by its shorter head, covered tympanum, more rounded snout and by the absence of a tarsal fold. *S. bromelicola* is also smaller and has less webbed fingers, covered tympanum and pale speckled dorsum. In this species the brain can be seen through the skin.

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