



Remarks on “A new *Phyllomedusa* Wagler (Anura, Hylidae) with reticulated pattern on flanks from Southeastern Brazil”

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Some species in the *Phyllomedusa hypochondrialis* species group have a reticulated pattern on the hidden parts of the flanks and limbs. These species are quite interesting given their characteristic distribution on mountain ranges, reproduction occurring in streams and rivulets, and by the surprising richness of the group. Four new species of *Phyllomedusa* were described in the last five years; three were species with reticulated pattern on flanks, endemic to restricted mountain ranges (Brandão 2002, Caramaschi *et al.*, 2006, Giaretta *et al.*, 2007). The most recently described species is *Phyllomedusa araguari* (Giaretta *et al.*, 2007). However, some information reported in this description in relation to the original description of *Phyllomedusa oreades* (Brandão 2002) deserves further comments. *Phyllomedusa araguari* was described based on only three individuals and the authors stated that it can be easily distinguished from the very similar *P. oreades* by: 1) the presence of a reticulated pattern bordering the upper jaw and encircling the eyes (absent in *P. oreades*), 2) by having a broader reticulated strip in flanks, 3) a well defined reticulated pattern on throat, belly and ventral surfaces of limbs, 4) less projected nostrils, and 5) white ventral surface in life (pink in *P. oreades*). *Phyllomedusa araguari* was also reported as a pond breeder, while *P. oreades* is a stream breeder.

The illustration of the holotype of *Phyllomedusa oreades* (Figure 1B of Brandão 2002), showed an evident pattern encircling the eyes. The pattern found in *P. oreades* is much more evident than the one illustrated in the holotype of *P. araguari* (Figure 2B of Giaretta *et al.*, 2007). We re-examined the specimens of *Phyllomedusa oreades* housed in the Coleção Herpetológica da Universidade de Brasília (CHUNB) and the pattern described for *P. araguari* on the upper jaw is present in several individuals from Serra da Mesa, Brasília, Chapada dos Veadeiros, Caldas Novas, and Pirenópolis, although of variable size and definition. This character seems to vary among individuals and populations. The same occurs with the height of the reticulated strip in flanks, finger disk width, profile at lateral view, and the ventral reticulated pattern.

The tadpoles of *P. araguari* were found in deep water pools along an erosion trench (Giaretta *et al.*, 2007). This corresponds to an artificial habitat that the species seems to use. However, the natural habitats for reproduction of the species are temporary creeks and streams. In March 2008 we visited the type locality of *Phyllomedusa araguari* and found tadpoles and a juvenile in a deep pool of a temporary stream (Figure 1). This habitat is very similar to the one used by *Phyllomedusa oreades* for reproduction. As reported in the original description, the type locality of *P. araguari* is surrounded by cattle farms and most of the natural habitats have been substituted by agricultural land. The temporary creeks and streams used for reproduction by this group of species of *Phyllomedusa* are erosion prone habitats, since they are formed along the natural drainage of the relief, have shallow soil, and lack dense vegetation. The cattle trampling at these sites are the main cause of erosion (Figure 2). The small number of individuals found of *P. araguari* may thus be a consequence of the erosion effect on the temporary creek and the disappearance of favorable habitat.

We compared the calls of different populations of *Phyllomedusa oreades* with the calls of *P. araguari* reported in the original description. The calls of *P. araguari* and *P. oreades* are fundamentally the same. We analyze 114 advertisement calls from five individuals collected at the type locality (Serra da Mesa, Minaçu), and at Pirenópolis. The *P. oreades* call is characterized by a single pulsed note (Figure 3). The mean note duration is 29.7 ± 4.0 ms (N = 114), the dominant frequency is 1681 ± 65 Hz, and the fundamental frequency is 1234 ± 63 Hz (N = 114). The pulse duration is 6.6 ± 1.1 ms (N = 114). The mean number of pulses per note is 3.9 ± 0.2 (Table 1).

We commonly use Lydocaine to euthanize collected frogs. We apply the anesthetic over the ventral surface of the specimens, where it is quickly absorbed. The anesthetic induces the vasodilatation and, consequently, it causes the ventral surface of the specimens to become pink in coloration. We observed color changes on ventral surface of the specimens in several conditions, induced by several causes. All specimens of *Phyllomedusa oreades* have white venter at