

The tadpole of *Chiasmocleis schubarti* Bokermann, 1952 (Amphibia, Anura: Microhylidae)

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The genus *Chiasmocleis* Méhely comprises 29 species distributed from Panama to tropical South America clustered in five clades: *C. albopunctata*, *C. bassleri*, *C. hudsoni*, *C. shudikarensis* and *C. ventrimaculata* (Peloso *et al.* 2014). *Chiasmocleis schubarti* Bokermann belongs to the *C. albopunctata* clade, which also includes *C. alagoana* Cruz, Caramaschi, and Freire, *C. albopunctata* (Boettger), *C. capixaba* Cruz, Caramaschi, and Izecksohn, *C. lacrimae* Peloso, Sturaro, Forlani, Gaucher, Motta, and Wheeler, *C. leucosticta* (Boulenger), and possibly other morphologically and/or molecularly related species that have never been included in a phylogenetic analysis in a broader context (e.g., *C. atlantica* Cruz, Caramaschi and Izecksohn, *C. cordeiroi* Caramaschi & Pimenta, *C. crucis* Caramaschi & Pimenta, *C. gnoma* Canedo, Dixo and Pombal and *C. mantiqueira* Cruz, Feio and Cassini) (Cruz *et al.* 2007). Within these species, *C. alagoana*, *C. albopunctata*, *C. lacrimae*, *C. leucosticta* and *C. mantiqueira* have their larval forms described (Wogel *et al.* 2004; Nascimento & Skuk 2006; Oliveira-Filho & Giaretta 2006; Langone *et al.* 2007; Santana *et al.* 2012).

Chiasmocleis schubarti is known from Atlantic forest fragments in the states of Espírito Santo, Minas Gerais and Bahia, eastern Brazil (Pimenta & Silvano 2002). Herein, we describe its tadpole.

Tadpoles of *C. schubarti* (stages 27–42; Gosner 1960) were collected in a temporary pond, surrounded by semi-deciduous gallery forest, at Parque Estadual do Pico do Itambé (43°18'27"S, 18°25'15"W; 1080 m a. s. l.; Datum WGS 84), County of Santo Antônio do Itambé, state of Minas Gerais, at the southeastern portion of the Espinhaço Range, southeastern Brazil, in December 2012. Presence in our samples of pre-metamorphic tadpoles already exhibiting small irregular white blotches on outer surfaces of arms and forearms, also present in adults (in preservative), allowed us to confirm species identity. Moreover, *C. schubarti* is the only Microhylidae species known for this locality.

We euthanized tadpoles in 5% lidocaine, then fixed and preserved in 10% formalin. Voucher lots are housed in the Tadpole Collection of the Universidade Federal de Minas Gerais (UFMG), Belo Horizonte, state of Minas Gerais, Brazil. External morphology descriptions, measurements and proportions were based on 38 tadpoles in stages 34–38 (lots UFMG 1545 and 1563). Terminology and measurements follow Altig & McDiarmid (1999) and Pinheiro *et al.* (2012): total length (TL), body length (BL), tail length (TAL), maximum tail height (MTH), tail muscle height (TMH), tail muscle width (TMW), interorbital distance (IOD), body height (BH), body width (BW), body width at eyes level (BWE), eye diameter (ED), eye-snout distance (ESD), oral apparatus width (OAW), dorsal fin height (DFH), ventral fin height (VFH) and dorsal-fin insertion angle (DFiA). All measurements were taken with aid of ImageTool version 3.00. To obtain high quality photos we used an adjustable platform to support tadpoles immersed on water. Values are presented as mean ± SD (range).

Data about morphological features of known tadpoles of the *C. albopunctata* clade and of a morphologically similar species (*C. mantiqueira*) were obtained from their original descriptions. For *Chiasmocleis mantiqueira* the lot UFMG 1283 was also analyzed.

Description. Maximum total length 20.6 mm, at stage 38. **Body** depressed (BH/BW = 0.69–0.76), rounded in dorsal view, triangular depressed in lateral view, from 0.32 to 0.38 times total length (Fig. 1A, B). **Snout** semicircular in dorsal view, and slightly rounded in lateral view. **Eyes** from 0.14 to 0.18 times body width, laterally located (IOD/BWE = 1.00). **Nares** absent. A dorsal nasolacrimal groove from anterior margin of the eye to anterior region of snout (Fig. 1D). **Spiracle** midventral on lower abdomen, broad-opening in posterior third of the body (anteriorly to vent tube). Its external wall projecting over the vent tube, and with lateral flaps extending in direction to limbs (Fig. 1F). **Intestinal tube** circularly coiled, switchback point located at center of abdominal region. **Vent tube** medial, posteroventrally directed