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Predation of *Aparasphenodon arapapa* (Hylidae) by *Itapotihyla langsdorffii* (Hylidae)

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The Neotropical genus *Aparasphenodon* (Miranda-Ribeiro, 1920) is distributed from southern Brazil to the Orinoco river basin in northern Venezuela (Argôlo, 2000) and is currently composed of four species (Frost, 2011). Treefrogs of this genus are characterised by strongly co-ossified skulls, due to which they are often called "casque-headed frogs", and phragmotic behaviour (using the head to close the entrance of their shelters) (Pimenta, Napoli and Haddad, 2009). The cranial co-ossification, associated to phragmosis, has been reported to play a major role in evaporative water loss reduction and physical protection against predators (Andrade and Abe, 1997; Jared et al., 2005). Another possible defensive strategy reported for the genus is the secretion of a substance that can induce adverse reactions, such as pain, extreme tearing and visual difficulty, due to casual contact of the hands with the eyes after manipulation of the frogs (Lynch and Vargas Ramírez, 2000).

Aparasphenodon arapapa (Pimenta, Napoli and Haddad, 2009) is a small-sized (male snout-vent length 57.4-58.1 mm) (Pimenta, Napoli and Haddad, 2009) recently described species that inhabits ground bromeliads in arboreal "restingas" in a small area along the Brazilian coast, from the municipalities of Cairú to Una, both in the state of Bahia (Lourenço-de-Moraes, pers. comm.). No information on its ecology and behaviour has been reported.

Itapotihyla langsdorffii (Duméril and Bibron, 1841) is a large-sized (mean female snout-vent length 103 mm; male 81 mm) (Vrcibradic, Teixeira and Borges-Júnior, 2009) treefrog widely distributed in the Atlantic Forest biome of eastern Brazil, occurring from the state of Sergipe (Arzabe and Loebmann, 2006) to Rio Grande do Sul (Lingnau et al., 2006) and also in eastern Paraguay and northwestern Argentina (Frost, 2011).

During fieldwork in the Reserva Particular do Patrimônio Natural (RPPN) Boa União, located in the municipality of Ilhéus, Bahia, Brazil (-15.06667º S, -39.05000º W, 95 m above sea level), we captured an adult individual of *I. langsdorffii* (snout-vent length 78.00 mm; tibia length 41.20 mm; head width 18.90 mm; head length 17.75 mm; Fig. 1A) on June 04, 2012 at 09:05 pm. The frog was immediately submitted to a stomach flushing procedure (Solé et al., 2005) during which we retrieved the body of a juvenile *A. arapapa* (MZUESC 10821; snout-vent length 19.70 mm; tibia length 09.85 mm; head width 07.00 mm; head length 06.60 mm; Fig. 1B). After measurements and stomach flushing, the predator was released at the same place of capture.

The diet of *I. langsdorffii* from a population in Espírito Santo state has been reported as consisting of few, large prey, with orthopterans being the most important items (Vrcibradic, Teixeira and Borges-Júnior, 2009). These authors also found small anurans (*Physalaemus crombiei* and *Scinax argyreornatus*) and feathers in the stomachs of *I. langsdorffii*, which indicates that these treefrogs may occasionally prey on vertebrates (Vrcibradic, Teixeira and Borges-Júnior, 2009). Although the species has been reported preying on anurans, to our knowledge, this is the first report for predation on a species of the genus *Aparasphenodon* and also the first predation event ever reported for *A. arapapa*.

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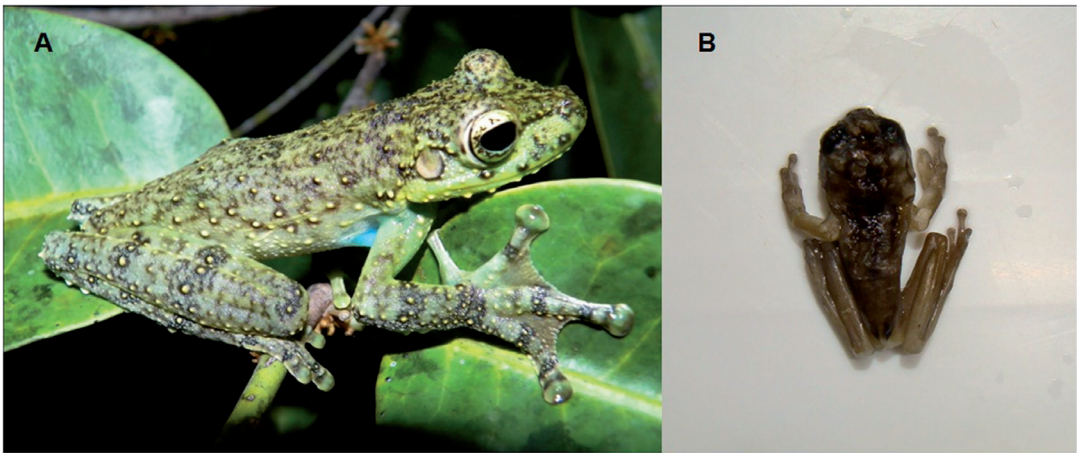

Figure 1. A) Adult individual of *Itapotihyla langsdorffii* captured at Reserva Particular do Patrimônio Natural Boa União, Bahia, Brazil. **B)** Juvenile individual of *Aparasphenodon arapapa* retrieved from the stomach content of *I. langsdorffii*.

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