

## *Hypsiboas faber* (Wied-Neuwied) predation on *Scinax* aff. *perereca* (Anura: Hylidae) in southeastern Brazil

Mário Ribeiro de Moura\* and Renato Neves Feio

The smith frog *Hypsiboas faber* (Wied-Neuwied, 1821) is a large sized treefrog belonging to the *H. faber* group (Faivovich et al., 2005). This species inhabits water bodies in forested and open habitats in Atlantic Forest areas from northeastern Argentina to eastern Brazil (Martins, 1993). *Scinax* aff. *perereca* is a small hylid frog belonging to the *S. ruber* clade (*sensu* Faivovich et al., 2005), very common at the Serra do Brigadeiro State Park, municipality of Araponga, state of Minas Gerais, Brazil, and frequently observed inhabiting bromeliads and vegetation around permanent ponds (Lacerda et al., 2009).

During an anuran survey on 6 December 2009 at around 21:00h, MRM witnessed a predation of an adult male of *Scinax* aff. *perereca* (SVL 35.1 mm) by an adult male of *Hypsiboas faber* (SVL 90.8 mm). The observation took place in a permanent pond inside a forested area in the Serra do Brigadeiro State Park (20°43'19"S e 42°28'43"W), datum SAD1969, 1320 m elevation). The *H. faber* was encountered 1 meter above the ground, gapped on a tree trunk near the edge of a pond with the *S. aff. perereca* in its mouth (Fig. 1). Both specimens were collected and put inside a plastic bag with humid vegetation, and after about 10 minutes the *H. faber* completed the prey ingestion (collection permits IBAMA #571/2009 and IEF #071/09, given by Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis and Instituto Estadual de Florestas, respectively). The subsequent examination of the stomach contents of the *H. faber* revealed a Lepidoptera larva. Voucher specimens were deposited at the herpetological collection of Museu de Zoologia João Moojen, Universidade Federal de Viçosa, municipality of Viçosa, state of Minas Gerais, Brazil (*H. faber*, MZUFV 10195; *S. aff. perereca*, MZUFV 10196).

According to Toledo et al. (2007), anurans that predate other anurans usually can be categorized as convenience predators, because they are not predators specialized on anurans, but feed on them with regularity. However, the presence of hylid frogs as predators of other anurans is less common. In a review of anurans as prey of vertebrates, Toledo et al. (2007) found 243 reports, from which 33 (13.6%) on anurans predating other anurans, but just one with a hylid frog acting as the predator (Solé et al., 2004).

Solé et al. (2004) reported the presence of an adult male of *Scinax granulatus* (Peters, 1871) in the stomach of an adult male of *H. faber*, in a *Araucaria* area, in municipality of Itati, state of Rio Grande do Sul, southern Brazil (29°30'S, 50°10'W), and also found an adult of *Aplastodiscus perviridis* Lutz and Lutz, 1950 partly digested in the stomach of another male of *H. faber*, not mentioned by Toledo et al. (2007). Leite et al. (2008) observed a terrestrial anuran (juvenile of *Haddadus binotatus* [Spix, 1824]) being predated by a gravid female of *H. faber* in a forest fragment in the municipality of Mariana, state of Minas Gerais, Brazil (43°30'S, 20°14'W). The predator was encountered 2 m above the ground, indicating that *H. faber* may come down to the ground to feed, even if outside breeding sites. Solé and Pelz (2007) examined the stomach content of fifty calling males of *H. faber* in southern Brazil and found anurans prey items only in two specimens. These authors suggested that in this species the males do not search for prey at all in their breeding territory, but concentrate on advertisement calls because of local competition with conspecifics. Apparently, the predation of arboreal hylid frogs by adults of *H. faber* during reproductive aggregations is common in the diet of this species, possibly due to the similar habitats occupied by *H. faber* and other hylid frogs, which facilitate their (predator-prey) encounters (Toledo et al., 2007).

---

Universidade Federal de Viçosa, Departamento de Biologia  
Anmal, Museu de Zoologia João Moojen. Vila Gianetti 32.  
CEP 36570-000. Viçosa, Minas Gerais, Brazil;  
e-mail: mariormoura@gmail.com

\* Corresponding author



**Figure 1.** Adult male of *Hypsiboas faber* (SVL 90.8 mm) predating an adult male of *Scinax* aff. *perereca* (SVL 35.1 mm) on a tree trunk near the edge of a permanent pond at the Serra do Brigadeiro State Park, municipality of Araponga, state of Minas Gerais, Brazil. Photo: M.R. Moura.

**Acknowledgements.** We thank Marcelo Felgueiras Napoli for his comments on a previous draft of the manuscript. Diego J. Santana and Sarah Mângia for helping during the fieldwork. Ivan Nunes for the taxonomic identification of the specimens of *Scinax* aff. *perereca*. The Universidade Federal de Viçosa for logistic support. The Fundação de Amparo à Pesquisa do Estado de Minas Gerais (FAPEMIG, CRA-APQ-02370-09) for financial support. The Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES) for fellowships granted to MRM.

## References

- Faivovich, J., Haddad, C.F.B., Garcia, P.C.O, Frost, D.R., Campbell, J.A. and Wheeler, W.C (2005): Systematic review of the frog family Hylidae, with special reference to Hylineae: Phylogenetic analysis and taxonomic revision. *Bull. Am. Mus. Nat. Hist.*, 294: 1-240.
- Lacerda, J.V.A.; Assis, B.; Santana, D.J.; Feio, R.N. (2009): Anurans in bromeliads, Parque Estadual da Serra do Brigadeiro, state of Minas Gerais, southeastern Brazil. *Check List*, 5(40): 800-806.
- Leite, F.S.F.; Pezzuti, T.L.; Drummond, L.O. (2008): *Hypsiboas faber* (Smith Frog) - Diet. *Herpetol. Rev.*, 39(2): 206-207.
- Martins, M. (1993): Observations on the reproductive behaviour of the smith frog, *Hyla faber*. *Herpetol. J.*, 3: 31-34.
- Solé, M.; Pelz, B.; Kwet, A. (2004): *Hypsiboas faber* (Smith Frog) - Diet. *Herpetol. Rev.*, 35(2): 159.
- Solé, M.; Pelz, B. (2007): Do male tree frogs feed during the breeding season? Stomach flushing of five syntopic hylid species in Rio Grande do Sul, Brazil. *J. Nat. Hist.*, 41: 2757-2763.
- Toledo, L.F.; Ribeiro, R.S.; Haddad, C.F.B. (2007): Anurans as prey: an exploratory analysis and size relationships between predators and their prey. *Journal of Zoology* 271: 170-177.