

Rediscovery of *Hyophryne histrio* (Anura, Microhylidae) in Atlantic Forest remnants of Bahia, northeastern Brazil

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Hyophryne histrio was described by Carvalho (1954) based on a single immature specimen deposited in the herpetological collection of Museu Nacional of Rio de Janeiro (MNRJ). João Geraldo Santos collected the type species of this monotypic genus in March 1944 at Fazenda Repartimento, municipality of Ilhéus, state of Bahia, northeastern Brazil. Since then, there was no new record of this frog.

Recently, the RestaUna Project – Forest Remnants of Una, South Bahia (Núcleo de Estudos da Mata Atlântica – Universidade Santa Cruz) was designed to investigate the comparative response of several biological groups facing forest fragmentation. Series of pitfall traps were placed in different habitats to undertake the herpetofauna survey: primary forest of Una Reserve (15°10'S, 39°31'W) and surroundings, forest fragments, secondary forest and cacao groves. These habitats were sampled in three geographical blocks (Figure 1).

Between October 1999 and February 2000 a total of 42 specimens of *Hyophryne histrio* were collected on all habitats studied: primary

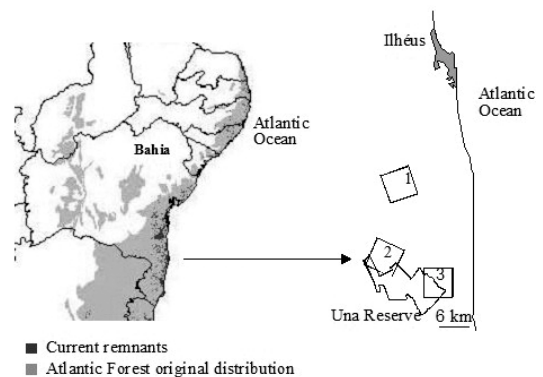


Figure 1 - Map of northeastern Brazil, showing the original distribution and current remnants of Atlantic Forest and location of Una Biological Reserve and the three studied blocks.

forest interior (N=4), primary forest edge (N=1), forest fragment interior (N=7), forest fragment edge (N=7), secondary forest (N=6), and cacao grove (N=17). Although slightly more frequent in the cacao groves, the abundance of *H. histrio* does not vary significantly among different habitats [Kruskal-Wallis test: $H(5, N=36)=7.35, p=0.20$]. All individuals were collected by pitfall traps, and no specimen was found on the forest leaf litter or temporary ponds. Some

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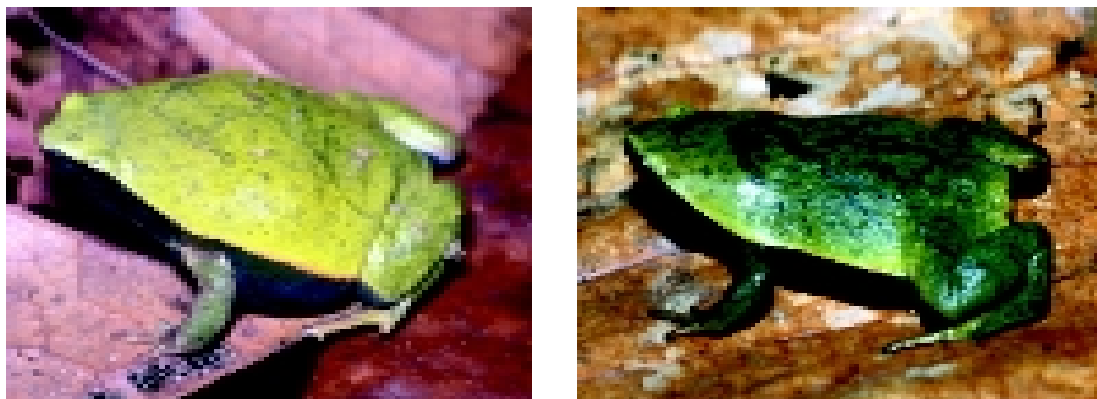


Figure 2 - *Hyophryne histrio* from Una, Bahia, Brazil. (A) yellowish and (B) greenish specimens.

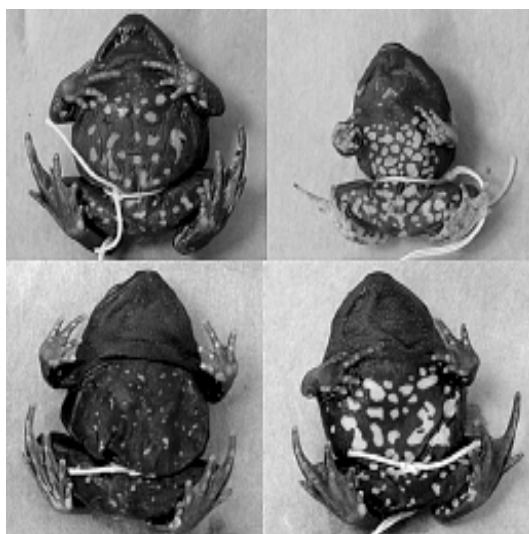


Figure 3 - Ventral view of four specimens of *Hyophryne histrio* from Una, Bahia (MZUSP 132328, 132342-3, 132357).

specimens were also sampled by pitfall traps in a preliminary survey in the same area in January 1999. The collected animals display great color variation on upper surfaces of head, body and limbs (yellowish, orange, green, beige, or dark brown), and an irregular, roughly arrow-shaped dark mark on dorsum (Figure 2). Lower surface

is black with several light spots, varying in number and shape (Figure 3). The snout-vent length of a series of 34 specimens deposited in Museu de Zoologia da Universidade de São Paulo (MZUSP) varied from 24 to 41 mm. The collected specimens were deposited in the herpetological collection of MNRJ (MNRJ 28564-28573) and in the herpetological collection of MZUSP (MZUSP 132326-132359).

Two other surveys of Atlantic Forest and cacao plantation herpetofauna were carried out, also by means of pitfall traps, at Jussari in March 2001 (RPPN Serra do Teimoso, 15°09'S, 39°31'W) and Uruçuca in April and May 2002 (14°33'S, 39°18'W), distant 46 km and 69 km from Una, respectively. Despite the high sampling effort, *Hyophryne histrio* was not captured at these localities, what leads me to consider that this species either is not present there or, if present, is less abundant than in Una.


The Atlantic forest of eastern Bahia is among the threatened hotspot of the world (Mittermeier and Mittermeier 1997). The original forest has been suffering the effects of fragmentation and other anthropic pressures, which were intensified during the last decades by the decadence of cacao plantations (Alger and Caldas 1996). Most of the forest

surrounding the reserve has been selectively cut to accommodate cacao plantation and other crops or cleared for cattle ranching. A few fragments of primary forest remain. In cacao groves, large emergent trees are preserved to shade the understory cacao plants. Notwithstanding its higher degree of disturbance compared to primary forest, cacao groves provide shelter and humidity for forest animals, apparently protecting them from extirpation in open area (Araujo *et al.* 1988, Argôlo 2004).

The information provided herein discloses the scarcity of knowledge on Brazilian herpetofauna, particularly from Atlantic Forest fragments, a habitat increasingly endangered. Hitherto, *Hyophryne histrio* was only known from its original description, based on a single specimen collected in Ilhéus nearly 60 years ago. This species seems much more common than expected upon the data gathered from Una (Dixo 2001). The absence of *H. histrio* in simi-

lar habitats, forested fragments and cacao plantation near Una and Ilhéus may denote the endangered condition of this species, which is apparently endemic to a restricted, fragmented, and threatened region. More pitfall traps surveys need to be done to corroborate or reject this hypothesis.

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