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Forest weaverbird nests utilized by foam-nest frogs (Rhacophoridae: *Chiromantis*) in Central Africa

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Abstract. We report that the Afrotropical anuran *Chiromantis rufescens* may use empty forest weaver bird nests above water for deposition of foam-nests with eggs. Our observation was made in January 2008 at a temporary pond in primary rainforest of Salonga National Park, Democratic Republic of Congo. To the best of our knowledge this is the first ever report of utilization of bird nests by amphibians. We expect that bird nests with their tube-like entrance were difficult to access for frogs and that the choice of this oviposition site was non-random. If so, it may be a response to strong egg predation, e.g. through primates, as known in *C. rufescens*.

Key words. Amphibia, Anura, *Chiromantis rufescens*, Aves, Ploceidae, *Malimbus nitens*, predation, reproduction, Democratic Republic of the Congo.

Anuran amphibians have evolved a remarkable diversity of reproductive strategies. Among the approximately 5,600 species known, currently 39 reproductive modes have been recognized (HADDAD & PRADO 2005, WELLS 2007). In *Chiromantis*, a Palaeotropical rhacophorid genus, a female and one to several males aggregate to produce a sticky foam-nest attached to leaves, rocks, branches tree trunks or thin branches above water (SCHIØTZ 1999, WELLS 2007). This strategy, also known as anuran reproductive mode 33 (HADDAD & PRADO 2005), may have developed to limit the risk of predation for aquatic egg and larval stages. We here report that the widespread sub-Saharan *C. rufescens* (GÜNTHER, "1868" 1869) (Fig. 1) makes facultative use of empty weaver bird nests for deposition of foam-nests. To the best of our knowledge this is the first ever report of utilization of bird nests by amphibians.

Our observation was made in Salonga National Park, Democratic Republic of Congo. The study site was a temporary pond in primary rainforest (02°45.6' S; 20°22.7' E) south of the Lokoro River. In late January 2008, when the breeding period for *C. rufescens* was about to end, still a number of foam-nests were present. In two cases, deserted

nests of a forest weaver bird, the blue-billed malimbe (*Malimbus nitens*), contained remains of foam-nest of *C. rufescens* (Fig. 2).

Malimbus nitens makes elaborately woven nests with relatively small entrance tubes, attached to thin branches or vines overhanging water. We expect that the choice of these sites for foam-nest deposition by *C. rufescens* was non-random, as nests seem hardly accessible for the frogs (Fig. 2).

Chiromantis species are known to opportunistically deposit foam-nests (e.g. SCHIØTZ 1999, RÖDEL et al. 2002, CHANNING & HOW-



Fig. 1. *Chiromantis rufescens* from Salonga National Park.



Fig. 2. Empty forest weaver bird nest with remains of a *Chiromantis rufescens* foam-nest.

ELL 2006). Although depositing foam-nests above water is conceivably a strategy against aquatic predators (HADDAD & PRADO 2005), easily accessible foam-nests may attract terrestrial predators. RÖDEL et al. (2002) reported that in West African rainforest monkeys have learned to regularly search for and feed on *C. rufescens* eggs. Salonga National Park has a highly diverse and dense primate fauna which cannot be ruled out to similarly affect the survival of *C. rufescens* eggs. If so, our finding may suggest that this species at our study site shows a trend to perform a more selective – compared to *Chiromantis* populations of the same or other species elsewhere – choice of deposition site for foam-nests with the goal to minimize predation risk.

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