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Leptopelis notatus (Anura: Hyperoliidae) in the Massif du Chaillu, Gabon: from ethnic wars to soccer

Despite the zoogeographical importance of the Massif du Chaillu, southern central Gabon, as a possible forest refuge during the Pleistocene, its herpetofauna was virtually unknown until recently. Our recent herpetological investigations in the Massif allowed us not only to gather a preliminary list of reptile taxa, including several new records for the country (Bauer and Pauwels, 2002; Pauwels et al., 2002a), but also uncovered important interactions between the local ethnic groups and several snake species (Pauwels et al., 2002b). We here report ethnozoological data on amphibians gathered during our three visits to the village of Diyanga (01° 30' 56''S - 11° 43' 45''E; altitude 565 m asl, Ogoulou Department, Ngounié Province) in July, September and November 2001. Collecting was undertaken with the help of the villagers. The village of Diyanga comprises two separated parts, inhabited by Massango Bantu and Babongo Pygmies, respectively. These two ethnic groups live in harmony, and one of us (OSGP) had the opportunity to spend many evenings recording ethnozoological notes on numerous amphibian species from elders of both ethnic groups. Notably, we recorded interesting data on a large green Leptopelis arboreal frog, called mobénda by the Babongo and dibougougou by the Massango, that we identified as *L. notatus* (Buchholz and Peters, 1875). It is a locally common species that occurs from western Cameroun to R. D. Congo (Frétey and Blanc, 2000; Schiøtz, 1999). Specimens were shown alive or freshly dead to the medicine man, the village elders, and hunters. Only consensual ethnozoological data and vernacular names were retained. Three voucher specimens of Leptopelis notatus were collected in Diyanga, deposited in the collections of the Institut Royal des Sciences naturelles de Belgique (IRSNB 13361-2 [respective field

numbers, P561 and P613]) and, provisionally, in the collection of M-OR (field number P614).

In Diyanga, Leptopelis notatus was found in forest clearings, in secondary forest and cultivated fields. It was most often found sitting on large leaves, and did not try to escape when caught, even at night. Ten species of Leptopelis are known to occur in Gabon (Frétey and Blanc, 2000), among them several are found in the area of Diyanga. However, only L. notatus was the object of the following traditional belief and use. When our first specimens were encountered, the hunters informed us that the species is of magical importance. We therefore decided to interview as many inhabitants as possible on this species, and organized two evenings with the elders dedicated to discussions about the importance of the frogs. Magic secrets are the property of traditional medicine men (locally called "charlatans" in Gabonese French), and only they and the elders are allowed to divulge these secrets.

Only this frog species, we were told, is used to increase the performance of goalkeepers. The day before an important soccer match, the medicine man collects a specimen, preferably a large adult, stuns it, puts it in the fire and then picks up its ashes. The ashes are then stored in a banana leaf. He makes several incisions on the upper part of the wrist of the goalkeeper, and then sprinkles the ashes on the fresh wounds. We were told that this tradition is several centuries old. Given that soccer surely has not been played this long in Africa, the elders explained that soccer is just a modern form of war between ethnic groups, and that in former times, the same magic was used for the best spear throwers (spears being called dikongò and dikongó in Massango and Babongo, respectively). The best throwers were those who were able to catch the spears thrown by the enemies before they touched the ground, and to re-use them straight away. They were the best because they were vaccinated with the frog's ash the day before every battle. This magic secret is today the property of the Massangos and Babongos, and can be shared with soccer teams belonging to the same ethnic groups (like the Mimongo team), but we were asked not to divulge it to other Gabonese ethnic groups. The

name of Diyanga's soccer team is M'bia. "The vaccinated person works with the arms of this frog, his hands being also sticky". That is why only the goalkeeper is vaccinated: other players do not need sticky hands or feet. In fact, we were informed that there is another species for the feet, today used for soccer players. This species, unfortunately not collected by us during our stay in Diyanga, was formerly used for the hunters who had to walk long distances. Elders told us that in former times, their enemies were the Akélé, who kidnapped Massango women, "because Akélé women were like termites: not able to make children." "One day Akélés had no more children and had to steal Massango's wives. This was the main cause of war between Massangos and Akélés, and the reason for which Massangos had to get the best spear throwers." We were shown traditional spears, which were composed of two parts: a wooden shaft (mwiri in Massango), and a metallic point adjusted on it (dikongò and dikongó refer either to the whole spear or to the metal point only). Although these deadly tribal wars are now over, Diyanga elders still prefer their youngsters not to marry Akélés. This magic utilization of L. notatus is localised. In the Nzebi village of Itsiba (01° 46' 55''S - 11° 58' 41''E; altitude 670 m asl; Boumi-Louétsi Department, Ngounié Province), situated only 40 km SE of Diyanga, such use of L. notatus was totally unknown. In contrast, this frog is there called ipongolo and is looked upon as a symbol of laziness, since it was said to sleep all the time. Another Nzebi name for it is ipongolo kwam cholo (kwam = dead; cholo = to sleep). In Itsiba as well as in Diyanga, L. notatus and many other frog species were eaten by the villagers, and prepared "en paquet", like other amphibians and reptiles (see Pauwels et al., 2002b: 137).

Ptychadena aff. *mascareniensis* that we collected in July 2001 in puddles along the road at the western entrance of Diyanga village (vouchers P538-9, P543) were as important as *Leptopelis notatus* in the local folklore. They were called èngoto by the Babongo and mbènda by the Massango. They are said to sing continuously for several hours and move their legs while doing so, and were hence chosen for the vaccina-

tion of balafon players. Interestingly, Lawson (1999: 55) reported that the Oroko people of south-west Cameroon call *Ptychadena mascareniensis,* "mokabe", a name referring to "someone or something that can jump or skip continuously".

The use of Leptopelis notatus in magic certainly does not affect populations of this species, and the hunting for food consumption is rather limited. It is, however, essential to record specific ethnozoological data since they are, as much as the forest species themselves, likely to disappear because of environmental changes, i.e., when a given ethnic group in a given area is no longer in regular contact with a given species. These data are strictly part of the local culture and, although often neglected by conservationists, they constitute a strong, additional argument in favour of biodiversity conservation programs. The present case is remarkable in that, despite the fact that the original context, the competition between Massangos and other ethnic groups, has changed so much, from bloody wars to friendly soccer matches, the only stable element through time has been the constant use of a tree frog, L. notatus.

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Olivier S. G. Pauwels¹, Mark-Oliver Rödel² and André Kamdem Toham³

¹Department of Recent Vertebrates, Institut Royal des Sciences naturelles de Belgique, Rue Vautier 29, 1000 Brussels, Belgium; Email: osgpauwels@hotmail.com ²Department of Animal Ecology and Tropical Biology, Zoology III, Biocenter, Am Hubland, D-97074 Würzburg, Germany;

Email: roedel@biozentrum.uni-wuerzburg.de ³World Wildlife Fund, Central African Regional Program Office, B.P. 9144 Libreville, Gabon;

Email: kamdem.toham@internetgabon.com

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A record of the Arakan forest turtle *Heosemys depressa* (Anderson, 1875) from the southern Arakan Yoma Hills, Myanmar

(with one text-figure)

The Arakan forest turtle, Heosemys depressa (Anderson, 1875), is endemic to Myanmar and considered one of the world's least known chelonians (Ernst and Barbour, 1989; van Dijk, 1993). From 1875, when the species was first described, to 1908 only five H. depressa were reported in the literature, all from Rakhine (formerly known as "Arakan") State in western Myanmar (Iverson and McCord, 1997). These specimens presumably originated from the Arakan Yoma Hills, although specific locality data are lacking (Iverson and McCord, 1997). More recently, Platt et al. (2003) collected 17 H. depressa from the northern Arakan Yoma Hills (Fig. 1), and other specimens of uncertain provenance have been obtained from turtle markets in Yunnan Province, China (Iverson and McCord, 1997; P. C. H. Pritchard, pers. comm.; J. Behler, pers. comm.). Herein we provide data on five additional H. depressa from a previously unreported locality in the southern Arakan Yoma Hills.

We obtained these specimens during November 2000 from villagers living in the Rakhine Yoma Elephant Range (RYER; 18° 00' N; 94° 40' E), a protected area encompassing 175, 644 ha in the southern Arakan Yoma Hills (Fig. 1). This region is characterized by evergreen forest (Stamp, 1924; Stamp, 1930; Terra, 1944) of poorly known floristic composition (Salter, 1983) and extensive tracts of bamboo (*Melocanna bambusoides*) that developed as a result of long-term shifting cultivation and frequent anthropogenic fires (Soderstrom and Calderón, 1979).

We salvaged the carapaces (without plastrons) of four adults and the complete shell of an immature *H. depressa* that were captured locally and consumed by villagers (Table 1). These specimens are currently housed in the natural his-