

Hornbill research and conservation in the Philippines

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Following our discovery of an unexpectedly large congregation of the critically endangered (Collar *et al.*, 1994) Writhed-billed hornbill (*Aceros waldeni*) in Aklan Province, Panay (Curio, 1995a), we focused our research and conservation efforts on this West Visayan island.

Based on a "nest incentive scheme" and in cooperation with the Sulud-Bukidnon people of Nawili, Valderrama Area near Bugasong, Antique Province, we started studying the food and breeding biology of *A. waldeni* and the Visayan hornbill or Tarictic (*Penelopides p. parini*) that is likewise critically endangered (Collar *et al.*, l.c.).

Just before breeding in 1995, we observed 3.2 Writhed-billed hornbills feeding in a "Lanok" tree (*Ficus* sp.) burgeoning with fruit near the campsite in Hamtang Forest, between Nawili and Mt. Balabag (near Mt. Baloy), 1000 m asl. The birds were all adult since the males looked like a breeding male (see below) and the female attains adult plumage before eight months of age (Curio, Hamann and Lastimoza, in prep.). Here the first pictures of an adult male were taken (Curio, 1995b). A good number of Tarictics were heard nearby.

Breeding started in the beginning of March, as judged from the disappearance of the *waldeni* females from the "Lanok", and lasted well into May/June, as inferred from the fledging of broods of both hornbill species. Around the camp site, our nest scouts located 24 active nests of the Tarictic and one Writhed-billed nest in May; six further Tarictic broods reported to us could not be verified by us because of lack of time and manpower (M. Doll, pers.

comm.).

Under the more closely observed Writhed-billed nest remnants of fruits and discarded seeds were collected for later analysis. Detailed observations were made of the family's vocalisations and of the male's provisioning and of agonistic interactions with Tarictics straying past the nest hole from which three young fledged.

At one nest of each species the first pictures of the provisioning male were taken by A.H.. Both they and colour sketches of the foraging adults demonstrate that the colour illustrations in the works of Kemp (1995, Pl. 9), duPont (1971, Pl. 47) and Hachisuka (1931-35, Pl. 25) are wrong, or, at the very least are not representative for the Panay populations of both species.

First, the facial colour of the *A. waldeni* male is saffron yellow with a tinge of azure blue around the eye and along the lower half of the gular pouch. The yellow area extends both rostrally onto the base of the red casque and caudally up to the ear-coverts. In the *A. waldeni* female the circumorbital bare skin is likewise pale saffron yellow as is the pouch. Both skin areas are similarly tinged with azure blue as in the male (Curio *et al.*, in prep.).

Second, the coloration of Tarictics observed by our team on northern Negros, near Patag (Negros Occ.) and a colour picture by A.H. on Panay, do not conform with the respective colour plate in Kemp (l.c.)(P.H., U. Sander pers. comm.). The ochre and rufous underparts of a breeding male are white as is the rufous of the tail. Most noteworthy is a white patch of bare skin surrounded by black(ish) feathers at the chin where this subspecies should have none (Kemp, l.c.). We shall also follow up exciting reports of our forest guards at Patag that told us about a second type of male Writhed-billed that differs profoundly from the established description given by Kemp (l.c.) and

earlier authors. Due to excessive hunting in the Northern Negros Forest Reserve, there is a dearth of larger birds, including hornbills and fruit pigeons. Our nest scouts reported finds of two inaccessible Tarricic nests in a steep cliff, the first ever found not located in trees, and, after the breeding season, of five Writhe-billed nests in trees that still need to be confirmed in the next breeding season.

Our conservation efforts comprised:

- Assessment of remaining hornbill populations and habitats through surveys and interviews on Panay and Negros, including mapping of suitable habitats via aerial surveys and development of a conservation plan with the local government authorities and NGOs;
- Payment of nest incentives that ± ensured protection of the nests found in the breeding season;
- Public education with the help of William Oliver's hornbill poster rendered bilingual by us (English, Tagalog);
- Employment of sizeable numbers of porters, guides, nest scouts, forest guards, an interpreter, and a DENR biologist (Glyn Galilea) in both Patag and Nawili;
- Payment of a "guard fee" to a hunter in the Cubay Area, Panay, safeguarding the preservation of a tree with eight nest holes;
- Financially supporting alternative livelihood measures for the people of Patag and Nawili;
- Compensating for the surrendering of airguns by hunters in Patag.

Given an extension of a research permit (MOA) kindly granted by DENR (Manila) to E.C., we shall reach out with our project to the Sulu Islands in 1996 to study and help preserve the Sulu hornbill (*Anthracoceros montani*) that may even be more endangered than the two Visayan species.

This note is publication No. 2 of the Philippine Endemic

Species Conservation Project of the Frankfurt Zoological Society, with additional support of the Andreas-Stihl-Stiftung, the EU, The German ornithologists' Society (DOG) the Ministry of Science and Research (MWF) of the land North Rhine Westfalia, and a generous donation from Prof. Dr. mult. h.c. Ernst Mayr, Cambridge, Mass.. The Protected Areas and Wildlife Bureau of the DENR (Director Wilfredo S. Pollisco), the Negros Forest and Ecological Foundation (President Mr. Gerry Ledesma), the Office of the Governor of Negros Occ. (Mr. Edwin Abanil, Governor Rafael L. Coscoluella), and West Visayas State University (President Dr. Bernabe Cocjin) provided advice and support throughout.

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