

SULU HORNBILL

Anthracoceros montani



Critical ■ A2b,c,d; C1; C2b; D1

Endangered □ B1+2a,b,c,d,e

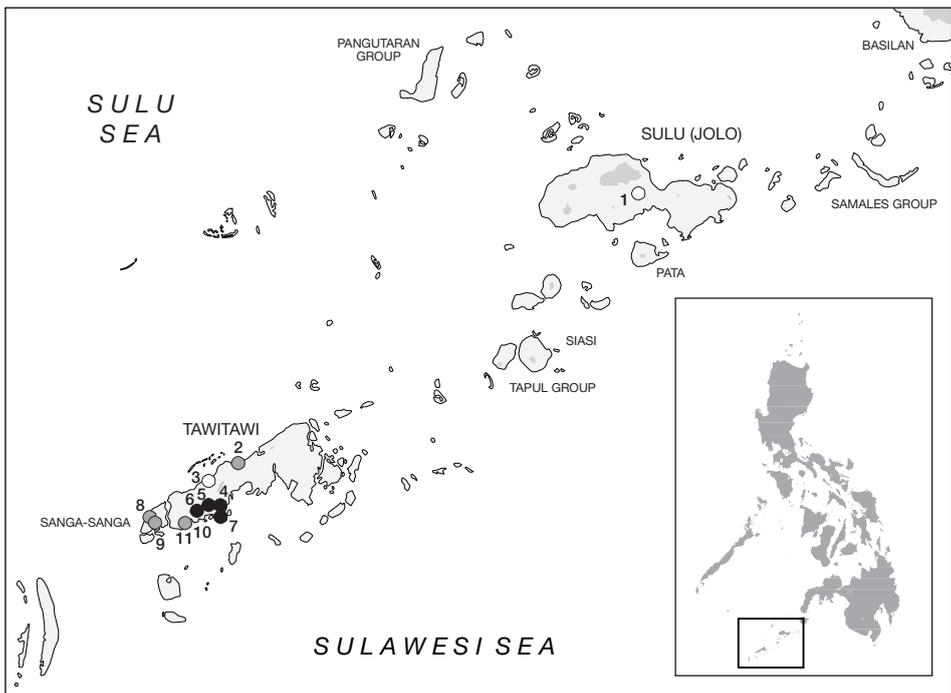
Vulnerable □ A1a,c,d; D2

This hornbill qualifies as Critical and faces potential imminent extinction. It has a tiny population probably now confined to just one island. It is predicted to undergo an extremely rapid population reduction in the near future based on the declines observed in the past, the continuing loss of the few remaining forests tracts in its range, and levels of exploitation.

DISTRIBUTION The Sulu Hornbill is endemic to the Sulu archipelago in the Philippines. It was reported by local people from the islands of Tandubatu, Dundangan and Baliungan, January 1995 (Diesmos and Pedregosa 1995), but these records require direct confirmation. Otherwise the species is known from:

■ **PHILIPPINES** *Jolo* 1880 or earlier, and in April–May 1883 (Oustalet 1880, Guillemard 1885a);

Tawitawi Saingsingan, Maraning, September 1972 (female in DMNH); **Tataan**, October 1891 (four specimens in CM, USNM); **Mt Binuang**, north-east of Batu-batu near Mt Datu



The distribution of Sulu Hornbill *Anthracoceros montani* (sequence not as in text): (1) Jolo; (2) Saingsingan; (3) Tataan; (4) Lubbuk; (5) Mt Binuang; (6) Bud Sicali; (7) Balimbing; (8) Luuk Pandan; (9) Balabek; (10) Batu-batu; (11) Suba-malum.

○ Historical (pre-1950) ● Fairly recent (1950–1979) ● Recent (1980–present)

Sali, August 1995 (D. Allen *in litt.* 1996); **Lubbuk**, north of Balimbing, August 1995, pair (D. Allen *in litt.* 1996); **Bud Sicali** (“Bud Sigurrsigurr”), 3.2 km north-east of Batu-batu, August 1995 (D. Allen *in litt.* 1996); **Balimbing**, 1987 (Jensen and Hornskov 1992); **Batu-batu**, December 1971 (duPont and Rabor 1973a; female in BMNH) and August 1994 at 250 m (G. C. L. Dutton *per* T. M. Brooks *in litt.* 1997); **Suba-malum**, Batu-batu, September 1972 (female in DMNH); Languyan, by local report, January 1995 (Diesmos and Pedregosa 1995);

Sanga-sanga (now reportedly extinct: see Population, also Remarks 1) Bulubuk, September 1972 (two specimens in DMNH), this presumably being the “Balabak” forest in Kemp (1995) and the “**Balabek** forest near Barrio Lakit-Lakit”, where two birds were heard and one seen on an unspecified date in the mid-1980s (Krupa and Buck 1988); **Luuk Pandan**, September 1972 (two females in DMNH, YPM).

POPULATION When Bourns and Worcester (1894) referred to “this rare hornbill” they were evidently describing either its restricted range or its rarity in collections, since they obtained 14 specimens and reported it “common on the hills back of the town of Sulu, and very abundant in Tawitawi, where it occurs in great flocks” (also in McGregor 1909–1910). However, it was apparently not seen between 1891—Hachisuka (1931b) referring to its rarity (but see Remarks 2)—and 1971, and in that period was “thought to be extinct”, although it proved to be still “fairly common” in dipterocarp forests (duPont and Rabor 1973a), and thus it was reported by Dickinson *et al.* (1991), who ignored the judgement of the species (in Gonzales and Rees 1988) as scarce and threatened, and who may also have seen the comment in Krupa and Buck (1988) where numbers were assumed to be stable given the amount of habitat remaining on Tawitawi (but see Threats). The species was recently judged “probably common in the interior” of Jolo and Tawitawi (Rivera 1993); there are, however, no recent records—nothing, in fact, since 1883—from Jolo (Diesmos and Pedregosa 1995) and the island is now virtually deforested (Collar *et al.* 1994, D. Allen *in litt.* 1997); moreover, in 1995 Sanga-sanga was found to have been logged out and the species no longer present (D. Allen *in litt.* 1996). In January 1995 it was reportedly scarce on Tandubatu, Dundangan and Baliungan (Diesmos and Pedregosa 1995). One pair and an immature were sighted in the northern part of Tawitawi in September 1991 (Lambert 1993c), and only two birds were observed in 1994 (Collar *et al.* 1994), with single pairs (with no immatures) at Binuang and Binirang in August 1995 (D. Allen *in litt.* 1996). Evidence from the entire Tawitawi group suggests that its population is currently very low (Diesmos and Pedregosa 1995), with an estimate of under 20 pairs in the main mountain range on Tawitawi, fuelling the belief that “this will be the first [Sulu] species to become extinct” (D. Allen *in litt.* 1997).

ECOLOGY Habitat This bird inhabits primary dipterocarp forests, “typically on the slope of a mountain peak” (duPont and Rabor 1973a). The attribution of mountains as habitat here and in Gonzales and Rees (1988) is less indicative of a preference than of a constraint from forest loss in the lowlands (see below).

Food Little has been recorded other than that “fruit” is involved (McGregor 1909–1910), although Gonzales and Rees (1988) reported “forest fruit, small lizards and some insects”. Birds were recorded feeding together in tall fruiting trees inside dense original forest (duPont and Rabor 1973a); in one instance three were seen feeding on large, lipid-rich fruits of an emergent, apparently lauraceous tree (Lambert 1993c); in another, four visited a fruiting tree over 1 km from the nearest forest (Kemp 1995).

Breeding Breeding remains undescribed (Dickinson *et al.* 1991, Kemp 1995), although there is now some sketchy anecdotal evidence. The observation of a pair plus an immature in September (Lambert 1993c) suggests that breeding in this instance might have begun in March/April. On Tawitawi, birds nest in cavities in tall trees of large diameter, and clutch size is reported by villagers to be two, with fledging in May–June (D. Allen *in litt.* 1997).

Migration No movements are recorded or likely, but this hornbill wanders locally in search of fruiting trees, even locating those outside forest (Kemp 1995).

THREATS The Sulu Hornbill is highly threatened by forest destruction coupled with intensive and uncontrolled hunting. Observers in around 1987 and September 1991 considered that “extensive forest still exists” on Tawitawi (Krupa and Buck 1988, Lambert 1993c), but such forest (as seen from the air) appears actually to be young secondary growth (almost all trees are currently below 20 cm in diameter at breast height), and logging of the few remaining areas with large trees—almost entirely confined to rugged and mountainous areas—appears to be unsustainable and soon to be followed by uncontrolled settlement and full conversion to agriculture as the island develops and malaria is eradicated (D. Allen *in litt.* 1996, 1997). This process has disastrous implications for a species which relies on large trees for food and breeding sites (see Ecology).

In addition, local people report that the species is shot if encountered in the forest, for food or target practice, and as the island holds a large number of heavily armed militias this threat must be very serious (Lambert 1993c)—all the more so since local hunters are able to attract birds by imitating their calls (D. Allen *in litt.* 1997). Pairs seem to be tolerant of human activity, nesting near to habitation if suitable cavities are present (D. Allen *in litt.* 1997). Nestlings are extracted annually from holes and eaten (D. Allen *in litt.* 1997). It is not known whether the species is collected for the pet trade, although a pair of unknown origin were seen in an aviary at the Alavar restaurant in Zamboanga City, Mindanao, in August 1997 (J. M. L. Tan verbally 1997). While surveys are clearly a priority for this species and other forms endemic to the Sulus and Tawitawi, this work is seriously hampered by the continued activities of extremist groups on the islands (Dutson *et al.* 1996).

MEASURES TAKEN Although coastal areas of the Sulus and Tawitawi have been proposed for FPE funding (see Appendix), there are currently no effective protected areas within the range of this species, a circumstance which needs urgently to be addressed. A small area of forest (c.300 ha) near Tarawakan, Tawitawi, is associated with an Agricultural College and appears to receive a degree of protection (D. Allen *in litt.* 1997) although there are as yet no records of the hornbill from this site. In 1997 the Mindanao State University (Tawitawi) and the Haribon Foundation began collaborating on an awareness campaign focusing on the conservation of terrestrial biodiversity (NADM). The species is listed on Appendix II of CITES.

MEASURES PROPOSED There is an urgent need to develop a major integrated plan for the preservation of terrestrial biodiversity in the Sulu and Tawitawi islands (the latter being a “key site”; see Appendix). This strategy should take into consideration the distribution and ecological requirements of all threatened species whose ranges fall largely or entirely in this archipelago (see Remarks 3), targeting areas in which most of these species occur. In particular relation to the hornbill, there is a need to protect the remaining forest patches in the northern portion of Tawitawi (e.g. near Languyan), and the smaller islands of the Tandubas Group, namely, Tandubatu, Dundangan and Baliungan. Education and conservation awareness campaigns—akin to that mentioned in Measures Taken—should be continued and expanded. The ecology and biology of the species should also be studied in order to assess its real conservation status and to enable the formulation of an appropriate management plan (see also Measures Proposed under Blue-winged Racquet-tail *Prioniturus verticalis*).

REMARKS (1) Dickinson *et al.* (1991) missed the DMNH material and attributed to Krupa the first record of the species from Sanga-sanga. (2) Hachisuka’s (1931b) sense of the bird’s

rarity was unduly heightened by his mistaken belief that only a single specimen had been obtained since the original description. (3) Several threatened species rely entirely, or almost so, on forests in the Sulu archipelago, and most particularly on forest on Tawitawi: Sulu Bleeding-heart *Gallicolumba menagei*, Sulu Brown-dove *Phapitreron cinereiceps*, Blue-winged Racquet-tail *Prioniturus verticalis* and Sulu Woodpecker *Picoides ramsayi*. Among wider-ranging species present on Tawitawi the most significant is the Critically Endangered Philippine Cockatoo *Cacatua haematuropygia* (see relevant account).