AMENDMENTS TO APPENDICES I AND II OF THE CONVENTION

Other Proposals

A. PROPOSAL

Inclusion of Buceros rhinoceros in Appendix II.

B. PROPONENT

The Kingdom of Belgium.

C. SUPPORTING STATEMENT

1. Taxonomy

11. Class: Aves

12. Order: Coraciiformes

13. Family: Bucerotidae

14. Species: Buceros rhinoceros (Linnaeus, 1758)

14. Subspecies: Buceros rh. rhinoceros L. 1758
Buceros rh. borneoensis Schegel in Müller 1840
Buceros rh. silvestris Vieillot 1876

15. Common Names:
English: rhinoceros hornbill
B. rh. rhinoceros: Malayan rhinoceros hornbill, peninsular rhinoceros hornbill
B. rh. borneoensis: Borneo rhinoceros hornbill
B. rh. silvestris: Java rhinoceros hornbill
French: calao rhinocéros
Spanish: Calao rinoceronte

16. Code Numbers: A-225-010.005.004

17. Identification of the subspecies:

Adults: there is little difference between the adults of the three subspecies. Sanft (1960) compares the two subspecies with the nominate one:

> B. rh. borneoensis is smaller (wing of male on average: 475 mm) than B. rh. rhinoceros (wing of male on average: 493 mm) and the casque of the former is on average shorter, broader and more recurved at the tip. The casque of B. rh. silvestris is not uptilled at the tip. Compared to the other subspecies, the black band on the tail of the silvestris ssp. is distinctly broader. But as the tails of imported hornbills are usually heavily damaged during transport this identification criterium is mostly non applicable.

Immatures: Young birds differ from adults by having a poorly developed casque and a brown iris (white or red in adults) (Sanft, 1960). It takes about four years to develope the adult casque and plumage (Kemp, 1979). As long as the casque or tail is not fully developed, distinction between the subspecies is difficult or impossible. There is no information available as to whether juveniles differ in measurements from adult birds.

2. Biological Data

21. Distribution: Occurs in Thailand, Peninsular Malaysia, Sumatra, Java and Borneo.

a) Buceros rh. rhinoceros: terra typica restricta: Malacca (Hartert, 1902).

Buceros rh. var sumatrana: (Schlegel in Müller, 1840). Terra typica: Sumatra, is now considered as a synonym, doubtfully distinct from Buceros rh. rhinoceros L. (I.L. Peters, 1945).

This subspecies occurs in S.E. Thailand, Continental, Malaysia and on Sumatra. (Bromley, E.F., 1952; King B.F. a.o., 1975). It became extinct in Singapore before 1950.

b) Buceros rh. borneoensis: (Schlegel en Müller, 1840). Terra typica: Borneo.

Buceros rhinoceroides Bonaparte 1850 is nomen novum pro B. rhinoceros var. borneoensis.

This subspecies occurs in lowland forests on Borneo, including Brunei, Kalimantan, Sabah and Sarawak.

c) Buceros rh. silvestris: Occurs in western Java as far East as Goenoeng Tangkoeban Parahoe (Bartels and Bartels, 1957) and Brebes (Sanft, 1960).

Round (1988) considered that in Thailand it may still occur widely on forested hill slopes but he regarded it as threatened because it is almost entirely restricted to the unprotected Malayan rainforest zone of the extreme South, and much of its habitat has already been lost.

In Peninsular Malaysia it is reported from Songlkhla South to Sohore, occuring normally in pairs or family groups but sometimes in flocks of up to 25 (Medway Wells, 1976). Johns (1986) found that its abundance was reduced in logged forests, and elsewhere (1987) concluded that the most important factors was the maintenance of large areas of habitat, which may be primary or logged forest.

Buceros rh. rhinoceros is extinct in Singapore. It was last recorded by Ridley (1898). In Sarawak, Harrison (1963) saw some, almost daily in all the remoted areas of primary forest up to 4,000 ft but noted that numbers have certainly fallen in the past decade, as a result of overhunting. In 1966 he wrote that it was still "gratifyingly frequent" and that shotguns and amunition were infrequently used helping such birds to recover from the threatening position earlier noted. Fogden

(1976) found it to be common in the Tutoh area of Sarawak in 1965. Davies & Payne (1982) found it to be widespread in most forest they visited in Sarawak but that it is adversely affected by logging. In Sabah, Gore (1968) indicated that it was becoming scarce as a result of shooting for food and decoration despite protection. However he considered that the bird was still common in some river valleys in 1962. In Brunei it was regarded as widespread in jungle area in 1984, generally in small numbers but with a maximum of 16 seen together (Counsell, 1986). In Kalimantan, Holmes and Burton (1987) considered that it was one of the three commonest lowland hornbill species. Nash and Nash (1988) found that it was common in all inland forest areas of the Tanjung Puting National Park.

In Sumatra, van Merle and Voous (1988) regarded it as still remarkably common.

In Java, Hoogerwerf (1964) found it "considerably less numerous" than "Anthracoceros albirostris" and Rhyticeros undulatus in Udjung Kulon Reserve but noted it was "not rare... in suitable habitat".

In the Cibodae Gunung Gede Nature Reserve in Western Java it was recorded by Delsman (1926-1928) but is now regarded as extinct there (Andrew, 1985). McKinnon (1988) stated that it is found in most large blocks of lowland and hill forest and is very conspicuous because of its size, habits and calling, but in fact is generally present at low density.

"Sightings of these birds (B. rh. borneoensis) as well as of the B. rh. rhinoceros are very infrequent", (letter of the Departement of Wildlife and National Parks of Malaysia of March 30th 1989). The species is considered to be rare and populations tend towards further decline.

23. Habitat: Lowland tropical rainforest up to 1,200 meters. As far as known, all hornsbill species nest in natural tree holes. The large species like Buceros rhinoceros require very big trees, which is probably the reason why cease to exist when these trees are felled (Kemp, 1975).

24. Food: Fruit (Ficus, Urostigma, etc.) and also insects, amphibians, small reptiles and birds (Kemp, 1979).

25. Reproduction: Maturity is probably only attained after 4-5 years. The female remains in the nest for about 90 days during which the eggs are laid, incubated, hatched and the chick partly reared. The female is entirely dependent on the male for food for herself and the young while they are sealed in the nest. There is only one breeding season. According to Bartels and Bartels (1937) the birds do not breed annually. Reported on several occasions to breed in successive years but ever rearing only one young bird to fledging. A clutch of one egg is reported but it is possible that sometimes two eggs are laid (Kemp, 1975).

B. rh. rhinoceros starts breeding on Sumatra in January. At the end of April a pair was observed feeding a young in the nest (Sanft, 1960).

B. rh. borneoensis breeds on North Borneo in May and June (Shelford, 1899).

Leighton M. (1982) mentions that a male borneoensis was seen feeding the female in nest-hole on February 12th while the juvenile was first seen on May 23rd. Female had broken out of the nest-hole by April 3rd.

B. rh. silvestris breeds on Java in March and April (Bartels and Bartels l.c.).

3. Trade Data

31. National Utilization: In Sabah occasionnaly encountered kept as pets (Davies and Payne, 1987).

On Borneo, birds are shot for food and decoration.

The rhinoceros hornbill is the national symbol of the Sarawak State of Malaysia. Tail feathers, casques and skulls are still part of the dress of many of the Sarawak people. Several people were wearing tail feathers in the Narudi area, and two shops in Narudi were found to have tail feathers for sale.

One shop had about 30 feathers, and the other about 40 feathers (Kemp, 1975). Heads and casques are preserved in houses and tails are used to decorate capes (Duckell, 1985).

32. Legal International Trade: No data available.

33. Illegal Trade: Since all range states ban exports except for scientific purposes it is likely that all birds advertised commercially are of illegal origin. Advertised by a dealer in Hong Kong in 1988 and by several dealers in the UK in 1988 and 1989.

In the stock and pricelists which are sent abroad by birdshops and wholesale dealers these hornbill species are indicated as "usually available stock". The average price for a rhinoceros hornbill, as indicated on Singapore-pricelists, is US$ 250 each. Trade documents from Singapore usually do not mention a subspecies name, if one is indicated it is either borneoensis or silvestris. In 1987 as well as in 1988 thirty specimens of Buceros rhinoceros have been imported into the UK. All of the sixty birds were claimed to be borneoensis, the country of origin declared as Indonesia and the country of consignment Brunei (letter of 17.3.89 of the UK CITES Scientific Authority for animals).

B. rh. rhinoceros are regularly found in shipments bearing other subspecies names e.g. In 1987, 5 shipments of rhinoceros hornbills, comprising 28 birds, have been imported from Singapore into Belgium. All these rhinoceros hornbills were declared as being Buceros rh. borneoensis. A close examination of the birds on arrival in Belgium revealed that at least four of them were Buceros rh. rhinoceros.

34. Potential Trade Threats:

341. Live Specimens: The hornbills are desirable exhibit birds because of their relatively large size, striking coloration and unique bill morphology. When shipped and transported for trade quite a number of birds die before and even shortly after arrival (various traders'personnal comments). Due to the complicated breeding biology, breeding results are rather poor.

342. Parts and Derivatives: Local use of casques, skulls and feathers.

4. Protection Status

41. National:

Brunei: Capture and export subject to licence (The Wildlife Protection Enactment, 1978).

Indonesia: Completely protected since 1931 (Undang Undang Perlindun Binatang Liar 1931 nr. 134 and Besluit van de Gouverneur-Generaal, Staatsblad van nederlands Indië, 1931, nr. 366).

Malaysia: - Peninsular: Totally protected since 1972 although licences may be issued for scientific purposes (protection of Wildlife Act, 1972).

- Sabah: Protected since 1963 special licences may be issued for scientific research (Fauna Conservation Ordinance, 1963).

- Sarawak: Protected since 1973, licences may be issued for scientific purposes (The Wildlife Protection Ordinance, 1973).

Thailand: Protected since 1961, the species may be captured and exported if an authorised quota system is established, but there is no quota currently (Wild Animal Conservation and Protection Act, 1960 and Ministerial Regulation No 14).

42. International: Only Buceros rh. rhinoceros is in CITES Appendix II.

43. Additional Protection Needs: Given the difficulty to determine, all except intact and undamaged adult birds up to the subspecies level and given the necessity of ongoing protection of the nominate subspecies the other two subspecies (borneoensis and silvestris) should be listed also in Appendix II for look-alike reasons.

5. Information on Similar Species

Buceros hydrocorax, with a flattened casque, occurs with four subspecies in the Philippines (du Pont J.E., 1971). Only the nominate form Buceros hydrocorax hydrocorax (Luzon rufous hornbill) is listed in Appendix II.

Buceros bicornis (great pied hornbill) is another similar bird. The species occurs in Sumatra, in Peninsular Malaysia and in Thailand. All subspecies are listed in Appendix II except Buceros bicornis homrai (Homrai pied hornbill) listed in Appendix I. This subspecies occurs in Bangladesh, Burma, Bhutan, Kampuchea, China, India, Laos, Nepal and Viet Nam.

6. Comments from Countries of Origin

Malaysia: the trends are towards a decline for the populations of Buceros rh. rhinoceros and Buceros rh. borneoensis.

Indonesia: no comments.

Thailand: no comments.

7. Additional Remarks

- The proposal falls under Article II 2(b) (look-alike) and is a consequence of the several look-alike problems with all three subspecies of the species Buceros rhinoceros.

- An other important point is that all the animals of the rain forest of Southeast Asia and of the Sounda and other islands are threatened by the disappearance of their special habitat.

D.R. Wells wrote in 1985: "Third World realities and the apportionnement of international blame for what is happening to the tropical forests have been reviewed exhaustively (e.g. Plumwood and Routley, 1982), generating a sense of urgency that in Southeast Asia is unexaggerated. Current and projected land usage over key areas will place survival of large sections of its highly-endemic forest biota in serious doubt within one decade of 1982."

The proposal has been submitted to the Animals Committee for consideration. It has been reviewed at the Committee's second meeting, and it is fully endorsed by the Committee.

8. References

Andrew, P., 1985. An annotated checklist of the birds of the Cibodas-Gunung Gade Nature Reserve. Kukila 2(1): 10-28.

Bartels, M. & Bartels, H., 1937. Uit het leven der Neushoorn-vogels. Tropische Natuur 26: 117-127; 140-147; 166-172.

Bonaparte, C.L., 1850. Conspectus Generum Avium Vol. 1.

Bromley, E.M., 1952. A note on birds seen at Maxwell's Hill, Perak, April 1950 and February 1951. Bull. Raffles Mus. Singapore, 24; 199-218.

Counsell, D., 1986. The Royal Airforce Ornithological Society's Expedition, May-June 1984. Burnei Mus. Journal 6: 164-204.

Davies, G. & Payne, J., 1982. A faunal survey of Sabah. Unpublished report to WWF Malaysia.

Delsman, H.C., 1926-28. Vogelleven in het Oerbosch I-III Tropische Natuur 15: 193-197; 16: 81-89; 17: 26-29.

Duckett, J.E., 1985. Some general bird notes from the Fourth Division of Sarawak. Salawak Mus. J. 34: 145-159.

Fogden, M., 1976. A census of a bird community in tropical rainforest in Sarawak. Salawak Mus. J. 24: 251-267.

Gore, M.E.J., 1968. A checklist of the birds of Sabah, Borneo. Ibis 110-165.

Harrisson, T., 1963. Birds above the Borneo jungle canopy. Ibis 108: 403-406.

Harrisson, T., 1966. Further notes in super-canopy birds in Borneo Ibis 108: 419-420.

Hartert, T., 1902. On birds from Pahang, Eastern Malay Peninsula Novit. Zool. Tring. 9: 537-580.

Holmes, D.A. & Burton, K., 1987. Recent notes on the avifauna of Kalimantan. Kukila 3(1-2): 2-32.

Hoogerwerf, A., 1964. On the ornithology of the Rhino Sanctuary Udung Kulon in West-Java (Indonesia). Nat. Hist. Bull. Simm. Soc. 23: 441-500.

Hose, C., 1899. The nesting habits of Buceros rhinoceros. Ibis (7)5: 547-549.

Johns, A.D., 1982. Observation on nesting behaviour in the Rhinoceros hornbill, Buceros rhinoceros. Malay. Nat. J. 35: 173-177.

Johns, A.D., 1986. Effects of selective logging on the ocological organisation of peninsular Malaysian rainforest avifauna. Forktail: 65-69.

Johns, A.D., 1987. The use of primary and selective logged rainforest by Malaysian hornbills (Bucerotidae) and implications for their conservation. Biol. Cons. 40: 179-190.

Kemp, A.C., 1975. Report on a study of hornbills in Sarawak, with comments on their conservation.

Kemp, A.C., 1979. A review of the hornbills: Biology and Radiation Living bird 17: 105-136.

King, B.F., Woodcock, M. and Dickinson, E.C., 1975. A field guide to the birds of South-East Asia, Collins, London.

Leighton, Mark, 1982. Fruit resources and patterns of feeding, spacing and grouping among Sympatric Borneos hornbills (Bucerotidae) Ph.D. Univ. of Calif.

Linnaeus, Carl von, 1758. Systema Naturae d.X.I.: 104.

MacKinnon, J., 1988. Field guide to the birds of Java and Bali.

Van Marle, J.G. & Voous, K.H., 1988. The birds of Sumatra.

Medway, Lord & Wells D.R., 1976. The birds of the Malay Peninsula Vol. 5.

Nash, S.V. & Nash, A.D., 1988. An annotated checklist of the birds of Tanjung Puting National Park, Central Kalimantan. Kukulà 3 (2-4): 93-110.

Plumwood, V. and Routley, R., 1982. World rainforest destruction. The social factors. The Ecologist 12: 4-22.

Du Pont, J.E., 1971. Philippine Birds. Delaware Museum of Natural History. Greenville. Delaware.

Ridley, H.N., 1898. Birds in the Botanic Garden, Singapore. J. St. Br. R. Asiatic Soc. 3: 73-89.

Round, P.D., 1988. Resident forest birds in Thailand: their status and conservation. I.C.B.P. Cambridge.

Sanft, K., 1960. Aves/Upupae-Bucerotidae. Das Tierreich. Lieferung 76. pp. 174: 106 fig.

Schlegel, H. in Müller, S., 1840. Over de Neushoornvogels (Bucerotidae) van den Indischen Archipel. Verh. Nat. Gesch. Zool. Aves p. 22.

Shelford, R., 1899. On some Hornbill Embryos and Nestlings. With Fieldnotes by C. Hose. The Ibis 5: 538-549.

Stuats, S. and Johnson, T., 1986. World Checklist of Threatened Birds. (Consultation Draft). Nature Conservancy Council of Great Britain. UK CITES Scientific Authority for Animals.

Vieillot, L., 1876. Nouveau Dictionnaire d'Histoire Naturelle. Vol. 4: 592.

Wells, D.R., 1985. The forest avifauna of Western Malasia and its conservation. Conservation of tropical forest birds. I.C.B.P. Technical Publication No 4: 213-232.