

Hornbills and its significance

Introduction

The Hornbill family has a total of **62 species world-wide** of which **32 species** are found in Africa and **30 species** are found in Asia (Natural History Curiosities, 2020). There are only **10 species** which can be found in Malaysia but only **eight (8) species** are found in Borneo. The **two (2) species** which are absent in Borneo are the **Great Hornbill** (*Buceros bicornis*) and **Plain-pouched Hornbill** (*Rhyticeros subruficollis*).

Hornbills of Borneo

The eight (8) species of Hornbills in Borneo are the small Hornbills: White-crowned Hornbill (*Aceros comatus*), Bushy-crested Hornbill (*Anorrhinus galeritus*), Oriental Pied Hornbill (*Anthracoceros albirostris*), Black Hornbill (*Anthracoceros malayanus*) and large Hornbills: Wrinkled Hornbill (*Aceros corrugatus*), Wreathed Hornbill (*Rhyticeros undulatus*), Rhinoceros Hornbill (*Buceros rhinoceros*) and Helmeted Hornbill (*Buceros vigil*). Except for Wreathed and Wrinkled Hornbills, all other Hornbills are **territorial** bird.

The small Hornbill is omnivorous which means they have **varied diet** from fruits, insects and also meat such as small lizard, birds, rats and bats. In contrast, the larger Hornbills are mainly frugivorous which feed on fruits especially energy rich oily fruits such as durians (Durionaceae), baccareas (Euphorbiaceae), laurels (Lauraceae), aglalias (Meliaceae), macarangas and nutmegs (Myrsticaceae). These fruit trees are thinly spread and fruit only intermittently. As a result, frugivorous territorial Hornbills used commonly available sugar-rich figs as a staple food supply. When figs were scarce, they will hunt for insects and small animals.

Like some mammals, Hornbills play vital role in regenerating our rainforest as they disperse viable seeds of large fruiting trees. Among the eight (8) species, only two (2) species, the Bushy-crested Hornbill and White-crowned Hornbill are **co-operative breeders** in which the family group will help to feed the helpless female and young. The other six (6) species are **pair breeders** where the female and young will be fed by the male; hence, the hunter saying “shoot one, three died”.

The eight (8) species of Borneo have their **distinctive features** which can make them easier to be identified.

1. The White-crowned Hornbill (WCH) known as Enggang Jambul Putih/Sentuku can be easily identified by the white crest.
2. Local name for Bushy-crested Hornbill (BCH) is Enggang Buluh/Kawan has distinctive features of blue face with no white plumage



Group of 5 BCH sighted at Gerenai FMU



Male & female BCH sighted at Gerenai FMU



Female BCH sighted at Lana FPMU

3. Local name of Oriental Pied Hornbill (OPH) is Enggang Kelingking/Lilin with distinctive feature of white bill and white-bellied.
4. Black Hornbill (BH) locally known as Enggang Gatal Birah/Alau Babi Gagak. Unlike OPH, BH has black-bellied. The male of BH has white bill where the female has dark bill with red facial. The stripe over the eye makes them look like they have eyebrow which can be grey or white in colour.



Female BH sighted at Segan camp



Male BH sighted at Ravenscourt FMU



Female BH with white strip sighted at Lana FPMU

5. Enggang Berkedut/Alau Buloh Kejakoh is the Wrinkled Hornbill (WKH). This species has yellow beak and throat pouches of white in male and blue in female.
6. Wreathed Hornbill (WH) with local name called Enggang Gunung/Alau Sangoh Undan. Like WKH, WH also has throat pouches but yellow in male, blue in female and green in juvenile. During flight, WH is easily identified by the white tail and black wing.



Male WH sighted at Ravenscourt FMU



Pair WH sighted at Gerenai FMU

7. The iconic of Sarawak is Rhinoceros Hornbill (RH) which often called by the local name of Kenyalang, has tricolored casque which varies from reddish to orange and yellow. Male is red-eyed and has larger casque while female is white-eyed and has smaller casque. RH is the only Hornbill with black band on white tail which can be easily identified during flight.



More than 15 individuals were sighted at Lana FPMU



Male RH has red-eyed



Female RH has white-eyed

8. The rarest Hornbill among the eight is the Helmeted Hornbill (HH) and often called Tajai but also has another local name of Burung Tebang Mentua (chop down mother-in-law's house). This species has heavy solid ivory bill which humans are greedy for it and caused decline in population as a result of overhunting. Another distinctive feature of HH is the long tail feathers.



HH sighted at Lana FPMU

Presence of the Hornbill species in the Forest Management Units

All 8 species are present in the Forest Management Units (FMUs) and Forest Management Plantation Units (FPMUs) due to the diverse forest types in the respective FMU and FPMU. Gerenai FMU has seven (7) species except WKH. Ravenscourt FMU, Ulu Trusan FMU and Lana FPMU has six (6) similar species except WKH and OPH which are not sighted. Marudi FPMU and Segan FPMU each has four (4) but of different species. There are only two (2) species which are sighted in Kuala Baram FPMU.

Region	FMU/FPMU	HH	RH	WH	WKH	WCH	BCH	BH	OPH
Lawas									
1	Ravenscourt FMU	√	√	√		√	√	√	
2	Ulu Trusan FMU	√	√	√		√	√	√	
Upper Baram									
3	Gerenai FMU	√	√	√		√	√	√	√
Lower Baram									
4	Marudi FPMU		√	√			√	√	
5	Kuala Baram FPMU						√		√
Bintulu									
6	Segan FPMU		√		√		√	√	
7	Lana FPMU	√	√	√		√	√	√	
HH-Helmeted Hornbill, RH-Rhinoceros Hornbill, WH-Wreathed Hornbill, WKH-Wrinkled Hornbill, WCH-White-crowned Hornbill, BCH-Bushy-crested Hornbill, BH-Black Hornbill, OPH-Oriental Pied Hornbill									

Sarawak and the State Crest

Sarawak is known as the “Land of Hornbills” or “Bumi Kenyalang” because the Hornbills can be found in most part of the State. Under the Order **Bucerotiformes** and **Family Bucerotidae**, the Hornbill is called **Enggang** in Malay and **Kenyalang** by the Dayaks.

The State Crest is represented by a symbolic figure of a wing-spread Kenyalang – the State bird – with a shield bearing the state flag on its chest. The hornbill’s tail and wings are comprised of thirteen feathers or strips that represent the eleven (11) states in Peninsular Malaysia, Sabah and Sarawak.

Cultural ties to the Indigenous People

The Rhinoceros hornbill, with its upswept phallic casque, represents one of the most powerful Dayak gods, Singalang Burong, who plays an important part in the Dayak religious festivals, especially the Gawai Kenyalang.

The traditional dance, **Datun Julud** or **Hornbill Dance**, is from the Orang Ulu tribes which include the Kelabit, Kayan and Kenyah. The dance is performed by the female who wear head dress of hornbill feathers. The dancer also holds the feather fans of hornbill feathers which she moves up and down gracefully to depict the hornbill in flight. Occasionally, up to four women perform the dance together. Nowadays, in performance to tourists, there is no limit to the number of dancers. Sometimes, a male dancer dressed as a warrior is added to depict the returning warrior from a successful head hunting trip. The dance is accompanied by the music from the **sape**,

Protection and Conservation Status

All Hornbill species are **Totally Protected** under **Wild Life Protection Ordinance, 1998 of Sarawak**. There is the penalty of RM25,000 fine and two (2) years of imprisonment for those who hunts, kills, captures, sales, imports, exports including in possession of any recognizable part or derivative of Hornbills. In **CITES**, only HH falls in Appendix I while seven other are in Appendix II. The **IUCN status** varies from low risk: Least Concern (LC) and Near Threatened (NT); to high risk: Vulnerable (VU), Endangered (EN) and Critically Endangered (CR).

IUCN Hornbill Specialist Group and Hornbill Conservation Network

The Hornbill Specialist Group (HSG) has as its Mission Statement to use the combined knowledge and skills for evidence-based conservation action for the Hornbill and their habitats. There are 142 members coming from Asia (106), Africa (18) and others (18).

The Hornbill Conservation Network is a grouping of members with interest in Hornbill Conservation. It is a platform for everyone to share ideas and inspiration towards a healthy hornbill population and livelihood. The group has 1,9 k members and its membership goes beyond geographic borders with the contribution of materials thus making it a dynamic information database.

Malaysian Nature Society

The FMUs is collaborating with the Malaysian Nature Society (MNS) by providing information regarding hornbill sightings at the FMUs which enables the MNS to compile database on the important hornbill landscape in Sarawak.

Sarawak State Crest



Datun Julud or Hornbill Dance



Dayak Warrior



Sape Player



Cultural Use



Long Anap, Gerenai FMU



Rhinoceros Hornbill
(white with black band)

Black Hornbill
(black with white tip)



Rhinoceros Hornbill
(white tail with black band)

Hornbills feathers on regalia for traditional costume



Bushy-crested Hornbill
(white tail with black tip)

Great Argus (Ruai)

Hornbill feathers on traditional headband

Decoration



Rhinoceros Hornbill at Long Apu, Gerenai
FMU