

Hornbill Predation of Bats

Amar-Singh HSS

The Gomantong Caves, Sandakan, Sabah, Borneo, Malaysia is well known as a site to observe raptor species feeding on bats. Raptors commonly seen there include the Wallace's Hawk-Eagle *Nisaetus nanus*, Bat Hawk *Macheiramphus alcinus* and Rufous-bellied Eagle *Lophotriorchis kienerii* but others are also known to visit the site.

The late evening exodus of 100,000s of bats also attracts hornbills to feed. On 27 February 2025, starting from 1745hrs, I observed a pair of Oriental Pied-Hornbills *Anthracoceros albirostris* feeding on bats. Like the raptors, the hornbills arrived early, before the bat exodus, to position themselves for the evening meal. But unlike the raptors they are not adept at catching the bats in mid-air as they stream out of the cave. They appear to have learned to place themselves on foliage nearest to the path of some of the streaming bats. They then wait to snag a bat with the beak, fly to another perch to kill and eat it (Plate 1 for image sequence). They then return for another feeding episode. Attempts to fly into the stream of bats to hunt them appear unsuccessful.



Plate 1: Composite of images to show bat feeding sequence of the Oriental Pied-Hornbill, Gomantong Caves, Sandakan, Sabah, Borneo, Malaysia, 27 February 2025.

There are many species of bats reported at Gomantong Caves but the population is dominated by the Wrinkle-lipped Free-tailed Bat *Mops plicatus* which is estimated to be above 200,000 in number (Tella *et al.*, 2025). The Wrinkle-lipped Free-tailed Bat has a body mass of 10.5–18 g and is possibly the bat species taken.

The diet of Oriental Pied-Hornbills is mainly fruit but also includes small animals but bats are not mentioned (Wells 1999; Smythies 1999; Kemp & Boesman 2020; IUCN Hornbill Specialist Group 2025). I have personally seen them take small birds and raid the nest of Scaly-breasted Munia *Lonchura punctulata* to feed on juveniles.

There has been previous documentation of Oriental Pied-Hornbills feeding on bats (Chong 2017; Wee *et al.*, 2019). Cede Prudente, Matt Hamilton, Kecil, Tan and Syahrul observed Oriental Pied-Hornbills preying on bats in 2017 at Gomantong Caves. Recent videos of the behaviour by Cede Prudente are linked here: <https://www.youtube.com/watch?v=boPZder8SjU> & <https://www.youtube.com/watch?v=kGl-7mlqmEU>. A British Broadcasting Corporation video (2021) also shows the feeding behaviour that appears to have been filmed at Gomantong Caves: https://www.youtube.com/watch?v=GAe_04vmNRQ.

Other hornbill species in Malaysia that have been documented to feed on bats in the wild include:

1. Black Hornbill *Anthraceroceros malayanus*, also noted feeding bats to juveniles (Hall 1996; IUCN Hornbill Specialist Group 2025).
2. Bushy-crested Hornbill *Anorrhinus galeritus*, also at Gomantong Caves (Tella *et al.*, 2025).
3. Rhinoceros Hornbill *Buceros rhinoceros*, personal observation by Ahmad Amir Isqandar with an image (Malaysian Bird Report 2023).

It is possible that other local hornbill species also take bat prey and I hope this article will alert observers to this behaviour. Why hornbills take bats and other animal prey is still uncertain. It could be related to breeding or food scarcity (Tella *et al.*, 2025) and requires investigation with observation of food sources over time.

Acknowledgement

I would like to thank Swee-Yian Lim for reviewing the manuscript.

References

1. Chong, R. (2017). Oriental Pied Hornbill caught a bat. *Bird Ecology Study Group*. [online] <https://besgroup.org/2017/01/25/oriental-pied-hornbill-caught-a-bat/> Accessed on 06 August 2025.
2. Hall, L.S. (1996). Brief Notes: Predation on the Bat *Chaerephon plicata* by the Black Hornbill, *Anthraceroceros malayanus*. *The Sarawak Museum Journal*, L (71): 173-176.
3. Kemp, A.C. & Boesman, P.F.D. (2020). Oriental Pied-Hornbill *Anthraceroceros albirostris*, version 1.0. In Birds of the World (J. del Hoyo, A. Elliott, J. Sargatal, D. A. Christie, and E. de Juana, Editors). *Cornell Lab of Ornithology*, Ithaca, NY, USA. <https://doi.org/10.2173/bow.orphor1.01>
4. IUCN Hornbill Specialist Group (2025). Oriental Pied hornbill *Anthraceroceros albirostris*. [online] <https://iucnhornbills.org/oriental-pied-hornbill/> Accessed on 06 August 2025.
5. IUCN Hornbill Specialist Group (2025). Black Hornbill *Anthraceroceros malayanus*. [online] <https://iucnhornbills.org/black-hornbill/> Accessed on 06 August 2025.
6. Malaysian Bird Report (2023). Volume 2/2023, September 2023 – see under Taiping Bird Week, page 85. [online] <https://malaysianbird.report/report/vol-2-2023/> Accessed on 06 August 2025.



7. Smythies, B.E. (1999). *The Birds of Borneo*. Fourth edition. Revised by Davison, G.W.H. Natural History Publications (Borneo), Kota Kinabalu.
8. Tella, J.L., Fuentes-Sendín, C., Gutiérrez-Expósito, C., Ruiz-Jiménez, G., Sainz-Elípe, R., Sánchez-Prieto, C.B. & Serrano, D. (2025). Bushy-Crested Hornbills Successfully Hunting Flying Bats in Gomantong Caves, Malaysia. *Ecol Evol.* 15(7):e71744.
9. Wee, Y.C., Acierto, G.V. & Strange, M. (2019). Did the Oriental Pied Hornbills catch a pair of Whiskered Myotis bats? *Bird Ecology Study Group*. [online] <https://besgroup.org/2019/07/06/did-the-oriental-pied-hornbills-caught-two-whiskered-myotis-bats/> Accessed on 06 August 2025.
10. Wells, D.R. (1999). *The birds of the Thai-Malay Peninsula: Vol. 1 (Non-Passerines)*. Christopher Helm, London.

Citation: Amar-Singh HSS. (2025). Hornbill Predation of Bats. *Malaysian Bird Report*. Volume 3/2025, Sept 2025: pg. 41-43.