

SHORT NOTES

Recent record of Bulwer's pheasant in a production forest in central Sarawak

MARIUS JOSCHA MAIWALD and JAYASILAN MOHD-AZLAN*

Bulwer's pheasant (*Lophura bulweri*) is a Bornean endemic species, first described by Richard Bowdler Sharpe in 1874. It is currently ranked as 'Vulnerable' by the IUCN due to ongoing habitat destruction and its naturally small populations (BirdLife International 2022). Knowledge on this species' ecology and distribution is rather scarce but, on account of the few sightings known to the scientific world, the pheasant seems to be a primary forest specialist of lowland to montane rainforest landscapes, ranging in altitudes from 150 m to at least 1500 m (BirdLife International 2022). Apart from its inherent rarity, the lack of knowledge of this species is probably due to its largely nomadic habits, which prohibits ornithologists to study 'resident' individuals in detail.

Based on attempts to breed the *L. bulweri* in captivity, it has been suggested that males engage in a lek system, staying out of sight from one another but within calling distance (Rowden 2001). Rowden (2001) also noted that males and females seem to prefer different shade regimens, which he postulated as a way of reducing intraspecific competition. Two publicly available sound recordings taken from Maliau Basin, Sabah (www.xeno-canto.org) were obtained in August 2007 and July 2015. The recordings during that period are an indication of a possible calling season. July and August are among the drier months of the year in northern parts of Borneo. Phillipps and Phillipps (2014) noted that most Bornean birds follow an annual breeding cycle, which appears to be influenced by monsoon seasons. Fischer *et al.* (2017) stated that adult males have been observed to moult from January to May, while females were found moulting from January to June. McGowan and Kirwan (2016) noted a nest in November, while juvenile birds were observed in August, indicating a slow breeding season. Since not much is known about this species, every observation offers valuable insight on its ecology and, sometimes, its resilience to habitat-altering events.

We captured a photo sequence of a single adult male on a logging road in the lowland and submontane production forests of Kapit Forest Management Unit (Kapit FMU) in Sibul, Sarawak. The individual is an adult male without signs of moult, and was photographed around 07:50 in the morning on 21st of October, 2017. In its newer logging coupes, including one where the image sequence was taken, Kapit FMU has implemented Reduced Impact Logging (RIL) techniques in accordance with the Malaysian Criteria and Indicators (MC&I) for Sustainable Forest Management (Malaysian Timber Certification Council 2020). The camera was placed as part of a larger study in 2017 at an elevation of 323 m. At the time that the photo was taken, the coupe was being actively logged, although operations had ceased in that particular area and moved on to adjacent areas within the coupe at the time of camera trap placement. This indicates that *L. bulweri* is still present in the forest even shortly after RIL operation. While the species is most certainly a forest specialist, it can tolerate moderate amounts of anthropogenic disturbance. Roads of 3-4 m width do not seem to present a barrier to its movements. The images (and those of Fischer *et al.* 2017) do not provide any evidence favouring the idea that *L. bulweri* follows migrating wild pigs (Phillipps and Phillipps 2014).

Institute of Biodiversity and Environmental Conservation, Universiti Malaysia Sarawak, 94300 Kota Samarahan, Sarawak, Malaysia.

*Corresponding author: azlan@unimas.my

From the 58,000 independent images recorded throughout the study, there is only one independent image (0.002%) of *L. bulweri* (as part of three image-sequences), suggesting the rarity of *L. bulweri* in production forest. However, it should be noted that studies aimed at this species are almost non-existent. Trained ornithologists most probably may find the presence of more individuals based on their vocalisations, which sounds like ‘*Be-Kia*’, explaining the onomatopoeic name ‘*Burung Bekia*’ among the locals. Future studies using camera traps to understand the distribution and ecology of this species in Sarawak should be considered.

Acknowledgements: Funding for field work was provided by the Ta Ann Holdings Berhad, though their staff did not participate in our analysis or seek to contribute to or influence our inference. We thank L.T. Tchi, N. Bijack, L. Ajang, and M. Roy, for assistance and advice. In-kind support was also provided by the Universiti Malaysia Sarawak. We also thank G.W.H Davison who has kindly read and improved the initial draft.

REFERENCES

- BirdLife International. 2022. Species factsheet: *Lophura bulweri*. Accessed on March 11, 2022. <http://www.birdlife.org> on 11/03/2022.
- Fischer, J.H., Jones, S.E.I., Brodie, J.F., Marshall, A.J., Setiawan, E., Wain, A., van Berkel, T.B.T., Wearn, O.R., van der Kaaden, A., Granados, A., Mathai, J., Cheyn, S.M. and Denny, M.J.H. 2017. The potential value of camera-trap studies for identifying, ageing, sexing and studying the phenology of Bornean *Lophura* pheasants. *Forktail*, 33: 92–102.
- Malaysian Timber Certification Council. 2020. Malaysian Criteria and Indicators for Sustainable Forest Management (MC&I SFM). Accessed on March 11, 2022. <https://mtcc.com.my/wp-content/uploads/2020/04/MCI-Sustainable-Forest-Management-1-Apr-2020.pdf>
- McGowan, P.J.K. and Kirwan, G.M. 2016. Bulwer’s Pheasant *Lophura bulweri*. In *Handbook of the birds of the world alive*, J. del Hoyo, A. Elliott, J. Sargatal, D. A. Christie and E. de Juana (eds). Barcelona: Lynx Edicions.
- Phillipps, Q. and Phillipps, K. 2014. *Phillipps’ Field Guide to Birds of Borneo. Sabah, Sarawak, Brunei and Kalimantan*. Third Edition. Singapore: John Beaufoy Publishing.
- Rowden, J. 2001. Behavior of captive Bulwer's wattled pheasants, *Lophura bulweri* (Galliformes: Phasianidae). *Zoo Biology*, 20(1): 15–25.

Appendix



Figure 1. A single male adult Bulwer's pheasant (*Lophura bulweri*) photographed in a production forest of Kapit Forest Management Unit in Sibu, Sarawak.