Conservation of avian diet specialization is complex and a challenging task for developing countries

Morelli et al. (2021) have highlighted that avian species with specialized diets are more prone to extinction, as information regarding their ecological requirements and other aspects of species’ biology is generally limited, and thus, these characteristics need to be studied in greater depth. They argue that the availability of such information would potentially encourage policy makers/managers to include aspects of dietary specialization alongside other normally considered metrics when designating more PAs. However, although we are in full agreement with the findings of this study, we have particular doubts as to whether researchers in developing countries are endowed with sufficient funds to even contemplate initiating studies on the ecological requirements of threatened species. In developing countries hosting threatened species, funds are generally allocated to surveys conducted to assess the status (presence/absence) of these species. Furthermore, given the high costs of conducting research, we are of the opinion that researchers in these countries are provided with fewer funding opportunities (Helden, 2012), particularly with respect to the study of those species for which numbers are extremely low, and thus are highly unlikely to be encountered without considerable investments of time and effort. However, Waldron et al. (2013) argue that the issue of inadequate funding to save biodiversity is a problem not only exclusive to developing countries, as even countries with better GDP typically allocate relatively less funding for biodiversity research. Therefore, in developing countries, studies on the ecological requirements of threatened avian species should be undertaken supported by funding provided by government agencies, as this generally makes policy-planning relatively easier for other government-run agencies that deal with policy implementation. We accordingly urge respective governments in the developing world to encourage researchers to engage in ecology-related research on threatened species by increasing the allocation of funds available for such studies.

We agree with Morelli et al. (2021) that, worldwide, the most threatened bird species have relatively little protected area coverage. In India, for example, resident breeding bird species, such as Rhinoptilus bitorquatus, Ardeotis nigriceps, Houbaropsis bengalensis, Syphoetides indicus, Athene blewitti, Ophrysia superciliosa, and Perdicula manipurensis, the status of which is currently deemed to be threatened (Critically Endangered or Endangered), are generally distributed outside the confines of PAs and thus may have undergone population declines similar to those suffered by other threatened species elsewhere due to habitat loss (Hoffman et al., 2010). Nevertheless, effort to protect these species by creating more extensive PA networks and gaining more detailed information regarding dietary specialization are being made increasingly more difficult against a backdrop of expanding human populations, which prevents local and federal governments designating more areas as PAs. Moreover, traditional practices of hunting by local tribes, which often have valued cultural significance, make the enforcement of laws within existing PAs even more challenging (Datta et al., 2008). In this regard, although federal government has recently inaugurated an initiative to create Eco-sensitive Zones (ESZs) (MoEFCC, 2011) around PAs, which are designed to serve as “shock absorbers,” these will benefit only those species already inhabiting PAs and do little in the way of protecting threatened species distributed beyond PA boundaries. As such, this initiative is being cautiously implemented, given that NGOs, villagers, and civil society groups argue that ESZs curtail locals’ livelihood opportunities. However, although industrial-scale activities are strictly prohibited within these ESZs, only certain activities of villagers are regulated.

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CONFLICTS OF INTEREST
All authors declare that they have no conflicts of interest.

AUTHOR CONTRIBUTIONS
Gopinathan Maheswaran conceived the idea and wrote the manuscript. Imran Alam and Amitava Majumder revised the manuscript, edited the manuscript, and support its content.

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Gopinathan Maheswaran
Imran Alam
Amitava Majumder

Zoological Survey of India, Kolkata, India

Correspondence
Gopinathan Maheswaran, Zoological Survey of India, M-Block, New Alipore, Kolkata-700053, India.
Email: maheswaran@zsi.gov.in

ORCID
Gopinathan Maheswaran
https://orcid.org/0000-0003-2496-9556

REFERENCES
Datta, A., Anand, M. O., & Naniwadeker, R. (2008). Empty forests: Large carnivore and prey abundance in Namdapha National Park, north-east India. Biological Conservation, 141, 1429–1435. https://doi.org/10.1016/j.biocon.2008.02.022
Heldon, P. V. (2012). The cost of research in developing countries. EMBO Reports, 13(5), 395. https://doi.org/10.1038/embor.2012.43
Hoffman, M., Hilton-Taylor, C., Angulo, A., Böh m, M., Brooks, T. M., Butchart, S. H. M., Carpenter, K. E., Chanson, J., Collen, B., Cox, N. A., Darwall, W. R. T., Dulvy, N. K., Harrison, L. R., Katariya, V., Pollock, C. M., Quader, S., Richman, N. I., Rodrigues, A. S. L., Tognelli, M. F., … Stuart, S. N. (2010). The impact of conservation on the status of the world’s vertebrates. Science, 330(6010), 1503–1509. https://doi.org/10.1126/science.1194442.
MoEFCC. (2011). Guidelines for declaration of Eco-sensitive Zones around national parks and wildlife sanctuaries. New Delhi: Govt. of India, Ministry of Environment, Forest and Climate Change.
Morelli, F., Benedetti, Y., Hanson, J. O., & Fuller, R. A. (2021). Global distribution and conservation of avian diet specialization. Conservation Letters, 14, e12795. https://doi.org/10.1111/conl.12795
Waldron, A., Mooers, A. O., Miller, D. C., Nibbelink, N., Redding, D., Kuhn, T. S., Roberts, J. T., & Gittleman, J. L. (2013). Targeting global conservation funding to limit immediate biodiversity declines. Proceedings of the National Academy of Sciences of the United States of America, 110(29), 12144–12148. https://doi.org/10.1073/pnas.1221370110

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