

An observation of an early migration event of Amur Falcon in Manas National Park, Assam, India

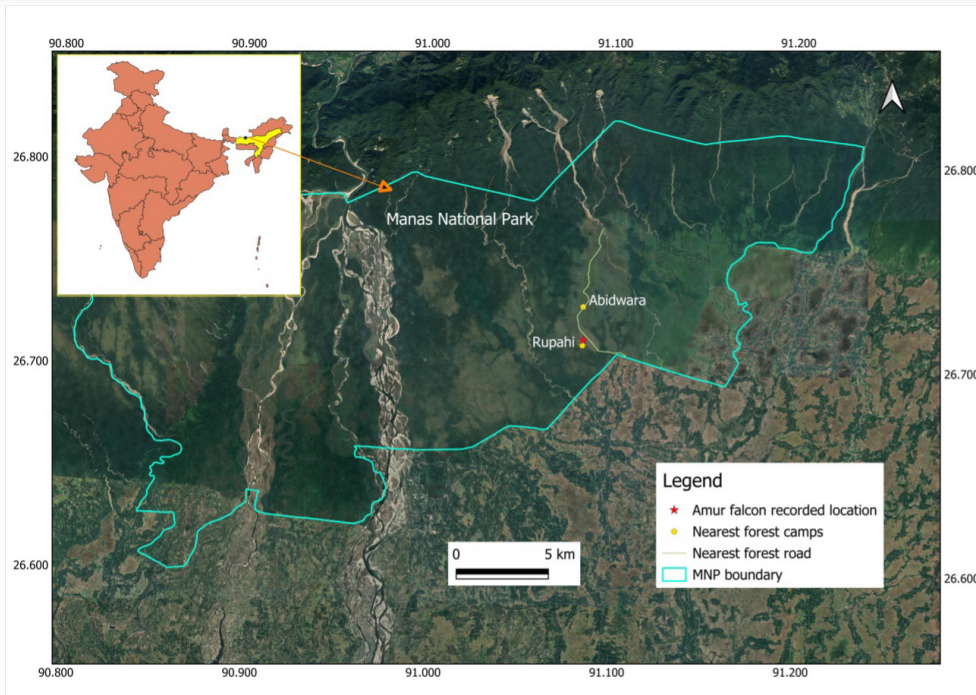
On 13 June 2024, during fieldwork near the Rupahi Camp of the Bhuyanpara Range in Manas National Park, we photographed a small raptor perched on an *Osbeckia stellata* plant (26.71420 N, 91.08459 E) at 1330 h on a cloudy day. Initially, we identified the bird as a Eurasian Hobby, but scrutinizing the picture further with the help of experts and field guides (Ali et al. 1987; Grimmett et al. 2011) got us to the conclusion that this was an Amur Falcon *Falco amurensis*. The bird had a whitish with a rufous or chestnut breast band in its underparts. It measured 28–31 cm from its bill to tail and featured a cere, eye ring, legs, and feet that range in color from red to pale orange across all its plumages. The bird also had dark eyes and its legs and feet were yellow. We observed the bird for nearly five minutes before it flew away. *Osbeckia stellata* typically flowers from early June to late November. The grassland in this area is a moist deciduous type, featuring grass species



Amur Falcon perched on an *Osbeckia stellata* plant near the Rupahi Camp of the Bhuyanpara Range within Manas National Park. © Karan Barman.

such as *Saccharum narenga*, *Arundo donax*, *Saccharum spontaneum*, *Phragmites karka*, *Imperata cylindrica*, *Cymbopogon flexuosus*, *Alpinia nigra*, *Osbeckia stellata*, and *Typha latifolia*. Amur Falcon is a long distance, trans-equatorial migrant (Bildstein 2006; Tamir et al. 2024) that migrates through three flyways, namely, the East Asia/East Africa Flyway, the Central Asian Flyway, and the East Asia/Australasia Flyway (BirdLife International 2015). As early published documents,

in northeastern India are seen usually in the month of October to February. The breeding range of this bird is usually confined to northeastern China, southeastern Russia, North Korea, and eastern Mongolia (Corso & Catley 2003). Earlier documents indicate that Amur Falcons typically leave their Asian breeding grounds in late August or early September, usually migrating in large flocks. In October and November, most of the birds travel south-west, crossing the Indian subcontinent and



Sighting location of Amur Falcon in Manas National Park

migration cues from wintering and breeding grounds, affect food availability and weather during stopovers, and alter conditions at summering grounds. Longer migrations increase the risk of mismatches between migration timing and local environment conditions, potentially impacting the birds' annual cycles (Carey

eventually making their way across the Indian Ocean to reach eastern Africa (Skerrett 2008). The bird refuels at many stopovers before ultimately arriving at their wintering sites like South Africa (Bildstein et al. 2000; Bildstein 2006; Pietersen & Symes 2010), Zimbabwe (Irwin 1981; Symes & Woodborne 2010), and Namibia (Symes & Woodborne 2010). Northeastern India is a key stopover location where the birds rest and prepare for their challenging journey across the Indian mainland, the Arabian Sea, and the Indian Ocean (Ali et al. 1987; Naoroji & Schmitt 2011) before arriving at the African continent (Clement & Holman 2001; Bildstein 2006).

From the above literature it is definite that the sighting of the Amur Falcon in Manas National Park, Assam during the month of June is an early migration event. The timing of migration to summering grounds for birds from mid to high latitudes has evolved to avoid adverse spring weather and coincide with increasing food supplies. Climate change can disrupt

2009). Beyond climate change, several other factors can contribute to unusual migratory events in birds. Vagrancy and shifts in wind patterns due to changes in ocean currents play significant roles. Vagrancy occurs when birds make navigational errors, leading them to arrive at unexpected locations ahead of schedule (Lees & Gilroy 2021).

Additionally, climate-induced changes in atmospheric circulation compel birds to adjust their flight patterns in response to shifting wind directions (Skyllas et al. 2023). This phenomenon highlights the significant challenges birds face during migration. Navigating through unpredictable wind patterns and altered atmospheric conditions can prompt birds to begin their migration earlier than usual, either from their wintering grounds or breeding territories. This underscores the complex interplay between environmental factors and migratory behavior, demonstrating how multifaceted and adaptive migratory responses are to changing environments.

References

- Ali, S., S.D. Ripley & J.H. Dick (1987).** Compact handbook of the birds of India and Pakistan: together with those of Bangladesh, Nepal, Bhutan and Sri Lanka, Oxford University Press, New Delhi, 737 pp.
- Bildstein, K.L., J. Zalles, J. Ottinger & K. McCarty (2000).** Conservation Biology of the World's Migratory Raptors: status and strategies, pp573–590. In: Chancellor, R.D. & B.U. Meyburg (eds.). *Raptors at Risk*. Proceedings of the 5th World Conference on Birds of Prey and Owls, 895 pp.
- Bildstein, K.L. (2006).** *Migrating Raptors of the World: Their Ecology & Conservation*. Cornell University Press, 320 pp.
- BirdLife International (2015).** Data Zone. Migrating birds know no boundaries. Available at: <https://datazone.birdlife.org/sowb/casestudy/migrating-birds-know-no-boundaries>. Accessed on 22 July 2023.
- Carey, C. (2009).** The impacts of climate change on the annual cycles of birds. *Philosophical Transactions of the Royal Society B: Biological Sciences* 364(1534): 3321–3330.
- Clement, P. & D. Holman (2001).** Passage records of Amur Falcon *Falco amurensis* from SE Asia to southern Africa including first records from Ethiopia. *Bulletin of the British Ornithologists Club* 121(4): 222–230.
- Corso, A. & G.P. Catley (2003).** Separation of transitional second calendar-year Red-footed Falcon from Amur Falcon. *Dutch Birding* 25: 153–158.
- Grimmett, R., C. Inskipp & T. Inskipp (2011).** *Birds of the Indian Subcontinent*. 2nd edn. Oxford University Press & Christopher Helm, London, 528 pp.
- Irwin, M.P.S. (1981).** *The Birds of Zimbabwe*. Quest Publishers, 464 pp.
- Lees, A.C. & J.J. Gilroy (2021).** Bird migration: when vagrants become pioneers. *Current Biology* 31(24): 1568–1570.
- Naoroji, R. & N.J. Schmitt (2011).** *Birds of Prey of the Indian subcontinent*. Om Books International, New Delhi, 704 pp.
- Pietersen, D.W. & C.T. Symes (2010).** Assessing the diet of Amur Falcon *Falco amurensis* and Lesser Kestrel *Falco naumanni* using stomach content analysis. *Ostrich* 81(1): 39–44.
- Skerrett, A. (2008).** The proliferation of records of Amur Falcon *Falco amurensis* in Seychelles since 1995. *Gabar* 19: 23–26.
- Skyllas, N., M.J. Loonen & R. Bintanja (2023).** Arctic tern flyways and the changing Atlantic Ocean wind patterns. *Climate Change Ecology* 6: 100076.
- Symes, C.T. & S. Woodborne (2010).** Migratory connectivity and conservation of the Amur Falcon *Falco amurensis*: a stable isotope perspective. *Bird Conservation International* 20(2): 134–148.
- Tamir, T., A.T. Kimsing & D. Mize (2024).** D'Ering Memorial Wildlife Sanctuary, a significant flyway and a preferred stopover (refuelling) site during the return migration of the Amur Falcon *Falco amurensis* (Radde 1863). *Journal of Threatened Taxa* 16(3): 24967–24972.

Acknowledgement

We would like to express our sincere gratitude to the authorities and frontline staff of Manas National Park for their invaluable assistance in the field.

Karan Barman^{1*}, Jonmani Kalita², Koushik Rajbongshi², Leons Mathew Abraham³ & Dhritiman Das⁴

^{1,2}Aaranyak, Threatened Species Recovery Programme, 13 Tayab Ali Lane, Beltola, Guwahati, Assam 781028, India

³Pygmy Hog Research & Breeding Center, Indira Nagar, Basistha, Guwahati, Assam 781029, India

⁴Durrell Wildlife Conservation Trust, Pygmy Hog Conservation Programme, Indira Nagar, Basistha, Guwahati, Assam 781029, India.

*karanbarman19@gmail.com (Corresponding author.)

Citation: Barman, K., J. Kalita, K. Rajbongshi, L. M. Abraham & D. Das (2025). An observation of an early migration event of Amur Falcon in Manas National Park, Assam, India. *Bird-o-soar* #267, In: *Zoo's Print* 40(4): 30–32.