



First sighting records of the nationally Endangered Ibisbill (*Ibidorhyncha struthersii*) in Chameliya River, Darchula, Nepal

Bhabishya Adhikari¹, Charan Bhattarai¹, Mohan Bikram Shrestha^{2*}

¹Central Department of Environmental Science, Institute of Science and Technology, Tribhuvan University, Nepal

²Central South University of Forestry and Technology, Changsha, China

(Received: 07 December 2025; Revised: 20 January 2026; Accepted: 17 February 2026)

Abstract

The Ibisbill (*Ibidorhyncha struthersii*) is a habitat-specialist wader, usually associated with high-altitude shingle-bed rivers in the Himalayas and Central Asia. The species previously had been reported from various rivers in the country. Its presence in the Chameliya River in Darchula district marks the first sighting record for that specific locality. Ibisbill at the Chameliya River in Darchula District were photographed on 5 November 2025 at 10:30 hours for about 7 minutes during bird watching along the river. A single adult Ibisbill was photographed at Bangabagar (29.660056°N, 80.532167°E) as the first confirmed record of the species at the extreme west of Nepal. The individual was observed at the riparian belt of the Chameliya River with cobble and boulder substrates, with a tranquil flow of the river, a habitat preferred by this species. Photographs and GPS coordinates are the supporting evidence to validate the sighting. Anthropogenic pressures such as the extraction of riverbed materials, trash including plastics and shattered glass pieces, and fishing activities were observed in the site, which are considered to be threats to Ibisbill. This record highlights the Chameliya River as a previously unrecognized wintering site for Ibisbill.

Keywords: Anthropogenic stresses, Chameliya River, Ibisbill, wader, wintering site

Introduction

The Ibisbill (*Ibidorhyncha struthersii*) is an enigmatic wader and the sole representative of the monotypic family Ibidorhynchidae (Hayman et al., 1986; Inskipp & Inskipp, 1991). The species is native to the high-altitude river systems of Central Asia and the Himalayas. It is a habitat specialist, relying strictly on shingle-bed river valleys characterized by slow-flowing water and substrates composed of rounded boulders and pebbles (Pierce, 1986).

It has a grey body, a black face, a sharply curved dark-red bill, a white underside, red legs, and a distinct black band across the chest. The species is identifiable in the field by its downward-curved red bill, the call, though it easily camouflages with the surrounding (Dilrangi et al., 2021). In flight, it holds its neck and long curved bill stretched forward, and the tail area and the black breast band become particularly striking as observed (Pierce, 1986).

Although the Ibisbill is listed as “Least Concern” globally by the IUCN due to its wide geographic distribution, the species faces considerable pressure within Nepal. At the national level, it is categorized as Endangered as a result of habitat fragmentation, increasing human disturbance, and extensive extraction of riverbed materials (Inskipp et al., 2016).

In Nepal, the Ibisbill breeds predominantly in high-altitude valleys, including Langtang, Mustang, and

Manang, at elevations ranging from 1,700 m to 4,400 m. The species undertakes altitudinal migration, moving to the lower foothills and riverbeds of the Terai during the winter months (Inskipp et al., 2016). Although it is documented from major river systems such as the Rapti, Trishuli, and Karnali, notable distribution gaps persist, particularly within the remote river valleys of Far-Western Nepal (Inskipp et al., 2016). However, ornithological data remain sparse for the rugged terrains of the far-western part of Nepal.

Materials and Methods

Study Area

The Chameliya River in Darchula District is a major tributary of the Mahakali River, represents an important riparian corridor that theoretically provides suitable habitat for the species. However, formal records of *I. struthersii* from this section of the river are virtually absent from existing scientific literature. The bird watching was conducted along the Chameliya River section between Gokuleswor (29.6658°N, 80.5441°E) to Panjynaya (29.6390°N, 80.5055°E) conducted on 5 November 2025 in Darchula district (Fig. 1). The total length of the surveyed mainstream is 5 km. The channel is gravel-bed, 30–70 m wide, with scattered mid-river boulder patches and shingle spars that provide the flat, unvegetated nesting and feeding micro-habitat typical of Ibisbill. Hillslopes are covered by chir-pine and temperate broad-leaf forest.

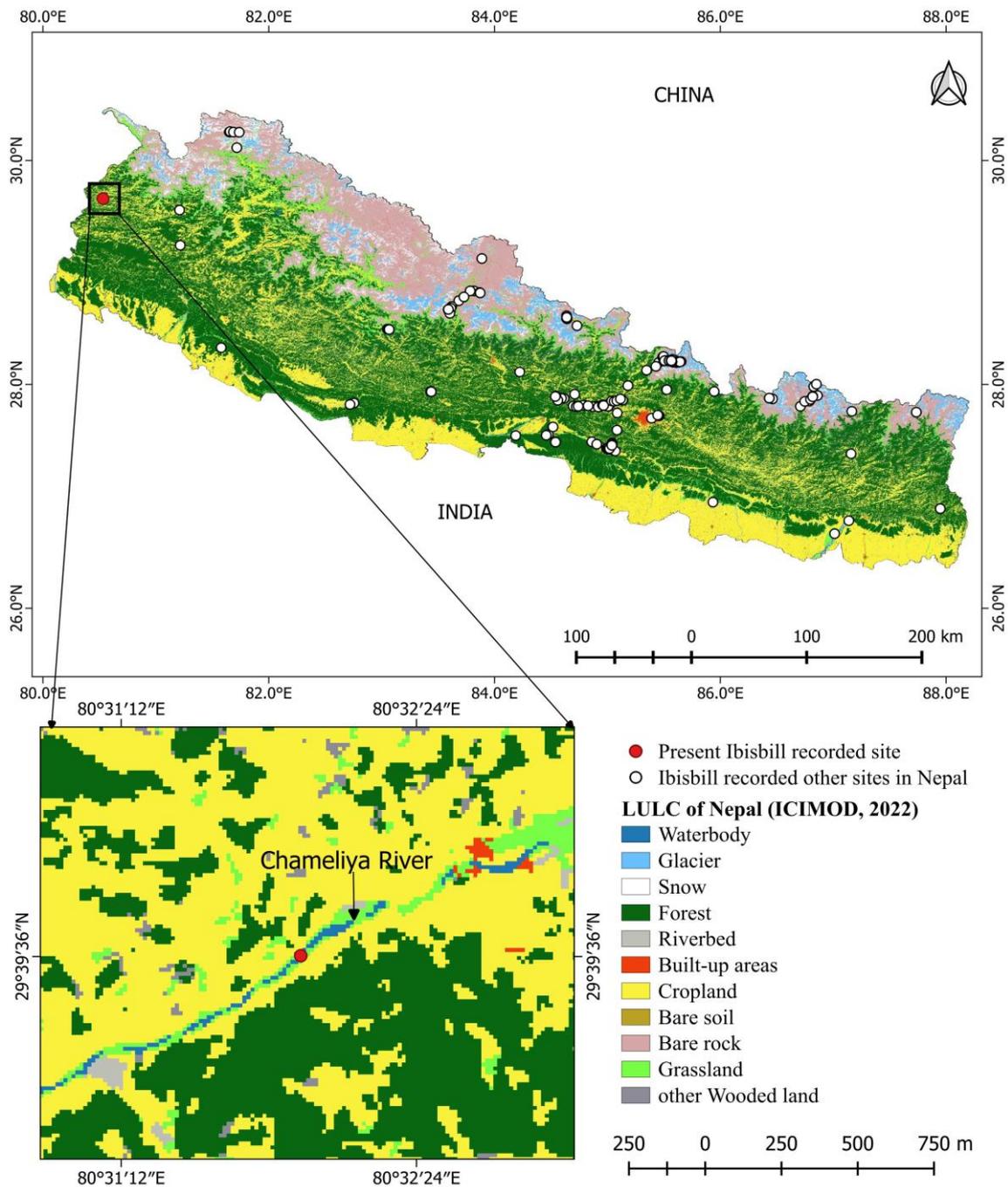


Figure 1. Ibisbill (*Ibidorhyncha struthersii*) recorded site at the Chameliya River (red dot) and Ibisbill recorded at other sites across Nepal (white dot).

Methods

A casual bird watching was conducted, particularly in the river stretches section of Chameliya River between Gokuleswor and Panjynaya. Ibisbill (*Ibidorhyncha struthersii*) was sighted and a photograph was captured. Birdwatching was aided by binoculars (Vortex 10 x 42 mm magnification and Kite Falco 10 x 42 mm magnification), and a Canon 90D camera and Canon 55-250 mm lens were utilized for capturing bird photographs. A Garmin GPSMAP 62s (± 3 m accuracy) recorded co-ordinates for every sighting. The birds field

guide (Helm Field Guide: Birds of Nepal, Revised edition) was used for identification of bird species (Grimmett et al., 2016). The map was created using QGIS Desktop v 3.40.10 software.

Results and Discussion

A single adult Ibisbill was sighted at Bangabagar ($29.660056^{\circ}\text{N}$; $80.532167^{\circ}\text{E}$). The sighting occurred on 5 November 2025, at 10:30 hours, under clear and sunny weather conditions (Fig. 2). An individual Ibisbill was observed at the floodplain (5 m from water edge) and

rushed to river with disturbance encountered and later flew away. This marked the first documented record of the species for the Chameliya River and for Darchula

district. Throughout the observation (about 20 minutes), multiple photographs and videos were captured.



Figure 2. Ibisbill photographed at the Chameliya River from the Bangabagar, Darchula district, Nepal

The sighting of single individual contrasted with the denser winter groups reported from the East Rapti (Bhusal et al., 2024) and the Langtang Khola in Nepal (Pierce, 1986). The riparian habitat aligns with the species' documented habitat preference for clean, fast flowing gravel bed rivers with exposed shingle bars and limited human disturbance (BirdLife International, 2024). The braided channel lacks embankments and experiences seasonal scouring, which helps maintain unvegetated shoals suitable for feeding and nesting (Inskipp et al., 2016). Besides, the seasonal scouring, an intermittent release of water from hydropower projects within the site have the potential to alter flow regimes and sediment transport. Large-scale extraction of stones and boulders from riparian at the site was noted. This increased human disturbance and changes in natural flow patterns constitute major threats to the species (Bhusal et al., 2024).

Monitoring the distribution of habitat specialists like Ibisbill is vital for understanding the ecological health of Himalayan river systems. This sighting records of the Ibisbill from the Chameliya River in the Darchula district added information extending to the known wintering distribution of the species in Nepal. These observations not only highlight the importance of the Chameliya River for avian biodiversity but also underscore the urgent need for conservation measures in the river for the conservation of threatened species.

Conclusions

The sighting of Ibisbill in the Chameliya River suggested that this river provide suitable habitat conditions. The regular monitoring of birds and riparian habitat

conservation at the Chameliya River is advisable to preserve potential habitat for Ibisbill and other waterbirds. Anthropogenic activities such as littering of plastic wrappers and glass (such as liquor bottles), and other river mining activities should be properly monitored and environmental impact assessment for developing of linear and point infrastructure (hydropower) must be done.

Acknowledgements: Authors are extending their gratitude to the anonymous reviewer.

Author contributions: B.A.: Field study, writing-original draft, review and editing; CB: Field study, writing- original draft, review and editing; MBS: conceptualization, data curation, field study, funding acquisition, supervision, writing – review and editing.

Conflict of Interest: The authors declare no conflict of interest.

Data Availability: Data will be available through the corresponding author upon reasonable request.

References

- Bhusal, N., Paudel, S., & Timilsina, P. (2024). Behavioural monitoring and threats assessment of Ibisbill (*Ibidorhyncha struthersii*) in the wintering site, East Rapti River, Hetauda, Nepal. *American Journal of Zoology*, 7(1), 1-5. <https://doi.org/10.11648/j.ajz.20240701.11>.
- BirdLife International. (2024). *Ibidorhyncha struthersii*. The IUCN Red List of Threatened Species 2024, T22693699A206596604. <https://doi.org/10.2305/I>

- UCN.UK.2024-1.RLTS.T22693699A206596604.en.
- Dilrangi, K.H., De Silva, W., & Mahaulpatha, D. (2021). Diversity, habitat utilization and nesting characteristics of waterbirds in and around Maduru Oya Reservoir in Maduru Oya National Park, Sri Lanka. *Open Journal of Ecology*, 11(10), 664–689. <https://doi.org/10.4236/oje.2021.1110042>.
- Haq, I.U., Bhat, B.A., & Ahmad, K. (2021). Feeding behavior in Ibisbill (*Ibidorhyncha struthersii*). *Advances in Zoology and Botany*, 9(2), 60–64. <https://doi.org/10.13189/azb.2021.090204>.
- Hayman, P.J., Marchant, J.H., & Prater, A.J. (1986). *Shorebirds: An identification guide to the waders of the world*. Christopher Helm.
- Inskipp, C., Baral, H.S., Phuyal, S., Bhatt, T.R., Khatiwada, M., Inskipp, T., Khatiwada, A., Gurung, S., Singh, P.B., Murray, L., Poudyal, L., & Amin, R. (2016). *The status of Nepal's Birds: The national red list series*. Zoological Society of London.
- Inskipp, C., Grimmett, R., Inskipp, T., & Baral, H.S. (2016). *Birds of Nepal* (Revised Edition, p. 368). Christopher Helm/Bloomsbury.
- Inskipp, C., & Inskipp, T. (1991). *A guide to the birds of Nepal*. Christopher Helm.
- Pierce, R.J. (1986). Observations on behaviour and foraging of the Ibisbill *Ibidorhyncha struthersii* in Nepal. *Ibis*, 128(1), 37–47. <https://doi.org/10.1111/j.1474-919X.1986.tb02090.x>.
- Ye, Y., Davison, G.W.H., Zhu, P., Duan, L., Wang, N., Xing, S., & Ding, C. (2013). Habitat utilization, time budget and daily rhythm of Ibisbill (*Ibidorhyncha struthersii*) in Daocheng County, Southwest China. *Waterbirds*, 36(2), 135–143. <https://doi.org/10.1675/063.036.0203>.