

# Seasonal Incidence of Black Wing Stilt (*Himantopus himantopus*) at Water Bodies of Moradabad City, Uttar Pradesh, India

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**Abstract:** *Himantopus himantopus* are well known waders which are commonly called as black - winged stilts of Order Charadriiformes, Family Recurvirostridae of suborder Charadrii which comprises Avocets and Stilt. Their Seasonal Incidence was studied at different water bodies of Moradabad including Ramganga River, Dhela River (BHOJPUR), Wetlands near Agwanpur, Islamnagar Kashipur Road were also recorded in different seasons viz. Summer, pre monsoon, monsoon and winter. They are found in Abundance during winter season followed by post monsoon.

**Keywords:** Wader, migratory birds, *Himantopus himantopus*, Moradabad, Uttar Pradesh.

## 1. Introduction

*Himantopus himantopus* are well known waders which are commonly called as black - winged stilts. They are widely distributed in shores and water bodies. They are identified as very thin and long - legged waders <sup>(1)</sup> (Fig. - 1), Taxonomically they are constituted under Order Charadriiformes, which is a diverse order of small to medium - large birds <sup>(2)</sup>. Most charadriiformes birds are shorebirds which live near water. Their Family Recurvirostridae of suborder Charadrii comprises Avocets and Stilts. As per IUCN they fall under least concern Category.

Moradabad is a well - known city located in western Uttar Pradesh known well globally for metal handicrafts.



Figure 1: *Himantopus himantopus*, black - winged stilts

Moradabad is surrounded by a network of riverine systems and mainly Ramganga River flows through it covering a long distance. Moradabad has many water bodies and many small permanent and temporary wetlands are being observed trespassing through the city and adjoining areas. The Moradabad city lies between 28 °21' to 28 °16' North Latitudes and 78 °4' to 79 ° East Longitude. This district of western Uttar Pradesh occupies a geographical area of 3493 sq. km. and is home to a population of 27, 61, 620 (Fig. - 2).

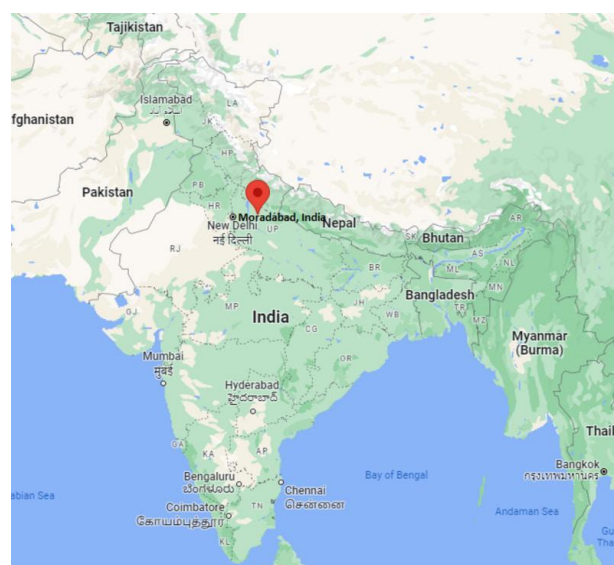


Figure 2: Moradabad city in Indian Map

The City has rich biodiversity of Avian species which includes Waders, waterfowls and Arboreal birds <sup>(3)</sup>. The city has an area of 79 km square, and it is situated in the upper part of Ganga's plains. The city is one of the richest in terms of groundwater resources. It is located at an elevation of 198 meters from sea level on the banks of the Ramganga river, which is a tributary to the Ganges. Another small river, called Gagan, flows through the city (Figure - 3). The city has minimal forest cover, but green zones have been established in many parts to provide the necessary green cover.

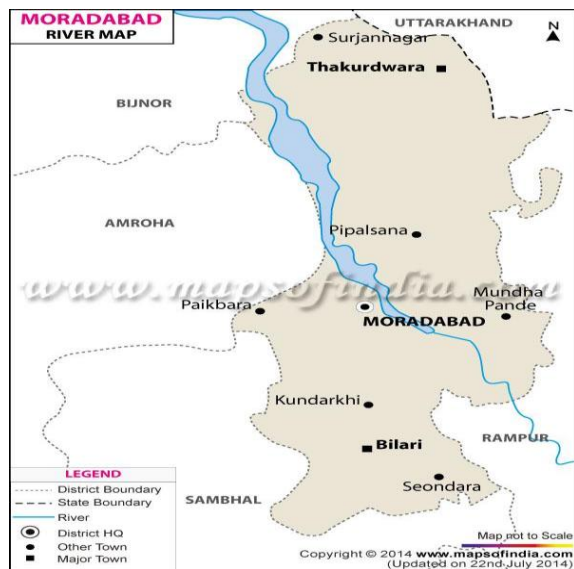


Figure 3: Map of Ramganga River, Moradabad City

Present Research paper summarises their seasonal incidence in the city and adjoining areas. Present studies focus on their observation in water bodies of Moradabad which includes Ramganga River, Dhela (Bhojpur), Wetlands near Moradabad Kashipur Road in different seasons viz. Summer, pre monsoon, monsoon and winter.

## 2. Methodology

A comprehensive biodiversity survey was undertaken to meticulously document and analyze the presence of various

species, with a particular emphasis on *Himantopus himantopus*. This extensive study, spanning from 2023 to 2025, employed equipment, including binoculars and a high-resolution DSLR camera, to ensure accurate observations. Author meticulously monitored distinct study sites: the Ramganga River, Dhela River (Bhojpur), and a wetland near the Moradabad - Kashipur Road. These sites were selected for their unique ecological characteristics and potential to support a diverse range of species. Throughout the study period, the author conducted regular surveys to track the arrival and departure of species, providing valuable insights into their migratory patterns and habitat preferences. The collected data was systematically recorded in Excel sheets, facilitating efficient data analysis and interpretation. To ensure the accuracy of species identification, the author consulted standard reference texts<sup>(4, 5)</sup>. This rigorous approach enabled to verify the presence of *Himantopus himantopus* and other species, contributing significantly to our understanding of the region's biodiversity.

## 3. Results and Discussion

*Himantopus himantopus* are 30 - 40 cm with characteristic thin pink legs and long and thin black bill. Their body above is black in coloration and white below. Males and females are distinct with different body colouration<sup>(2)</sup>. Young birds are grey and have a markedly sandy striation. They are often found near the shores of lakes and rivers. They use to walk with their long thin legs in water and are seen feeding small insects, molluscs and crustaceans as food.

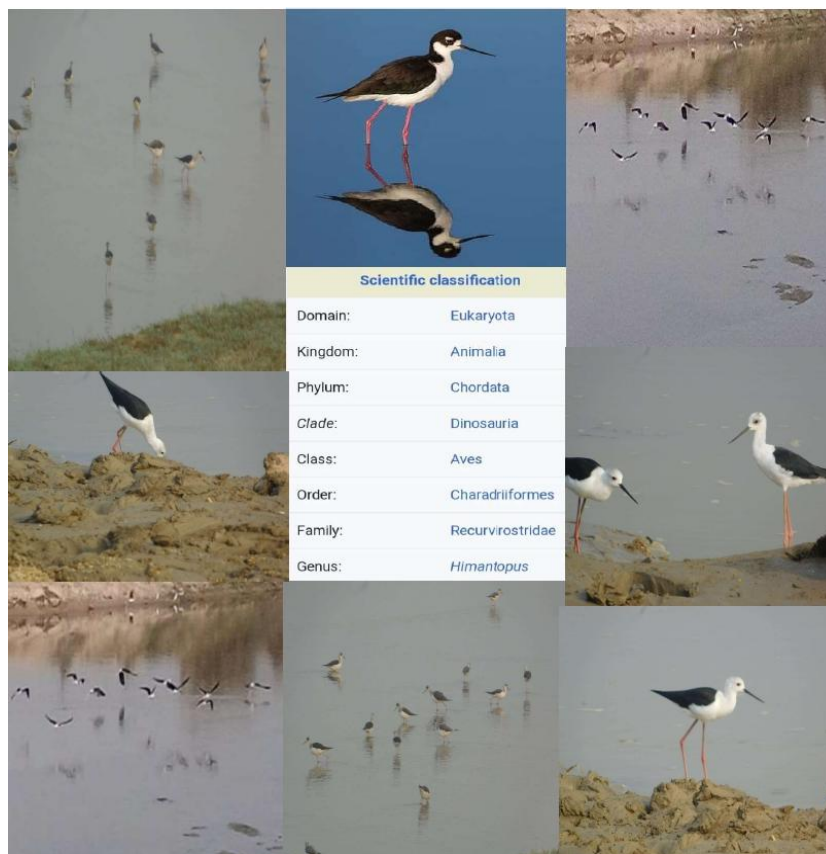


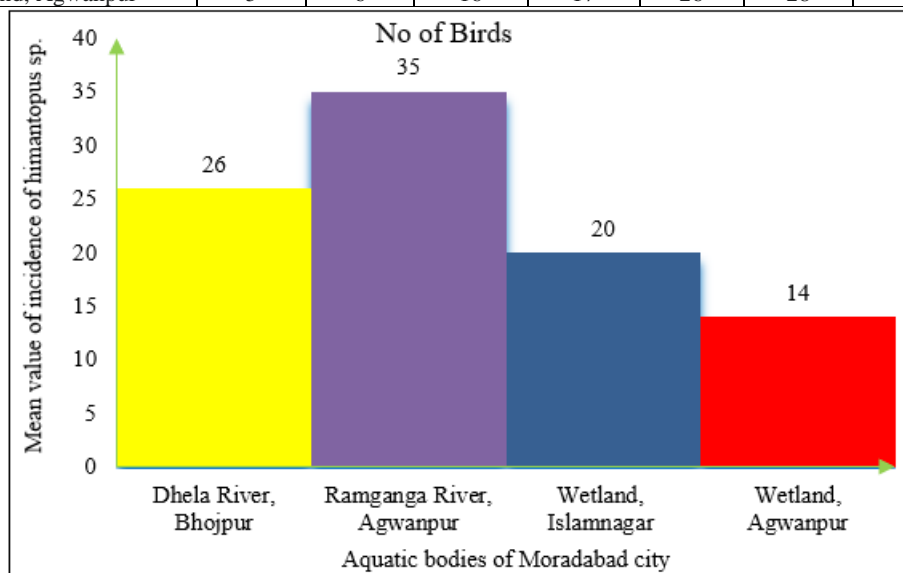
Figure 4: *Himantopus himantopus* cited at different Aquatic bodies of Moradabad City during the study period (April 2023 to March 2024)

**Table 1:** Seasonal Incidence of *Himantopus himantopus* in different water bodies during 2023 – 2025

Seasons	Ramganga River, Agwanpur	Dhela River, Bhojpur	Wetland, Islamnagar	Wetland, Agwanpur
Summer	=	=	=	=
Pre monsoon	=	=	=	=
Post monsoon	=	+	+	=
winter	+	+	+	+

**Table 2:** Mean value of incidence of *himantopus sp.* at different aquatic bodies of Moradabad.

Name of Aquatic Bodies	Sep - 24	Oct - 24	Nov - 24	Dec - 24	Jan - 25	Feb - 25	Mar - 25	Mean
Dhela River, Bhojpur	8	10	23	26	40	42	34	26
Ram Ganga River, Agwanpur	18	29	38	40	44	44	30	35
Wetland, Islamnagar	9	9	21	25	27	30	18	20
Wetland, Agwanpur	5	6	16	17	26	28	0	14

**Figure 5:** Mean Index of *Himantopus himantopus* cited at different Aquatic bodies of Moradabad City

From the perusal of table 1, it is found that they are seen in abundance during winter followed by post monsoon (Fig - 4). It is also observed that they breed with pairs form during the monsoon season. Large populations migrate to the region during the winter months while others are resident birds which are seen foraging for small invertebrates, such as insects, crustaceans, and mollusks, in wetlands and agricultural fields. They are seen covering large areas of low flowing rivers in winter season in Ramganga and Dhela Rivers at Moradabad.

The wetlands are also sighted with their flocks during post monsoon and winter season. They make aquatic fauna very rich during winters as they are seen in abundance. Their arrival are seen with onset of post monsoon later in September October and their number are seen increasing gradually in pre winter, peak winter and post winter till later march.

It was also surprising that during 2023 - 24 their abundance was much more in Ram Ganga River, Agwanpur then in 2024 - 25 during the winter season. Factors that account was less water flow through the river in 2024 - 25 then it was in 2023 - 24. They are mostly observed during winter at shallow wetlands and river sides due to decreased water level<sup>(6)</sup>. From Fig. - 5, it was found that they are resident at maximum number in Ram Ganga River Agwanpur followed by Dhela River, Bhojpur, wetland - Islam Nagar and wetland - Agwanpur. It is a pioneer study at Moradabad and no work was cited during literature review.

From the above study, it is envisaged that they mark their presence well in the aquatic fauna of Moradabad and following points should be taken into consideration for their conservation.

- 1) Habitat loss: Wetland destruction and degradation due to urbanization, agriculture, and infrastructure development may threaten *Himantopus* habitats.
- 2) Pollution: Pollution from industrial, agricultural, and domestic sources may affect water quality and availability which can affect *Himantopus* populations.
- 3) Climate change: Changes in temperature and precipitation patterns alter the availability of food resources and habitats for *Himantopus* species.

#### Conflict of Interest

The author declares no conflict of interest. As the sole author of this research, I have no financial, personal, or professional relationships that could potentially influence the research findings.

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## References

- [1] Bird Life International (BLI).2008. Retrieved 24 September 2008.
- [2] Bird Life International (2019) [amended version of 2016 assessment]. "*Himantopus himantopus*". *IUCN Red List of Threatened Species*: e. T22727969A155440465. doi: 10.2305/IUCN. UK.2019 - 3. RLTS. T22727969A155440465. en.
- [3] Gupta, S. (2025), Study on effect of urbanization on biodiversity of major avian fauna of Moradabad, Uttar Pradesh, India. *Int. J. Res. Acad. World*; 4 (1): 100 - 102.
- [4] Grimmett R, Inskipp C, Inskipp T., (1998), *Birds of the Indian Subcontinent*. Oxford University Press. p.1 - 506.
- [5] Ali S., Ripley S D, *Handbook of the Birds of India and Pakistan*. Vols 1 - 10. Oxford University Press; 1968 - 1974.
- [6] Shrivastav, Neha, (2025), Study on *Vanellus Indicus* and *Himantopus Himantopus* in Kota District (Rajasthan) *International Journal of Science and Research (IJSR)*, Volume 14 Issue 1.