

# A Reporting on Wire Tailed Swallows (*Hirundo smithii*) winter visit to Durgapur Barrage, West Bengal, India

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## Introduction

Wire tailed swallow (*Hirundo smithii*) is a widespread resident bird with a no earlier record from Durgapur, West Bengal. The sexes are alike, but females possess shorter tail feathers or wires. Adult is characterized by glossy steel blue above with bright chestnut cap; bright pure white under parts and two very long filamentous tail feathers, which trail behind like two wires. But the juvenile has brownish cast to blue upper parts and dull brownish crown. Its preferred habitat ranges from open country, cultivation to neighbourhood of rivers, jheels etc. It is generally found in the vicinity of water, in flocks, skimming over the water surface, usually feeding in pairs or loose flocks, and roosts in reed beds. (Kumar *et al.* 2005)

## Methodology

### Study Site:

Durgapur is an industrial town of Bardhaman district in West Bengal harboring some heavy industries like Durgapur Steel Plant, Alloy Steel Plant, Durgapur Thermal Power Station, Durgapur Projects Limited etc. River Damodar flows from north west to south east direction of this town. Over the river Damodar, a dam has been constructed (locally known as Durgapur Barrage) by the Damodar Valley Corporation. This river demarcated the geographical division of two districts of West Bengal namely Bankura on right bank and Bardhaman on left bank. Two canals run towards these two districts supplying water for irrigation chiefly in winter months. On the left bank of Damodar, a canal carrying the industrial waste also flows in the same direction and merges with Damodar in the downstream position of Durgapur Barrage.

On the morning of 28<sup>th</sup> December 2012, during our regular bird surveys and bird counts (from 7.30 hrs to 9.30 hrs) in Durgapur Barrage adjoining area, at 9.20 hrs we noticed six wire tailed swallows (*Hirundo smithii*) over a concrete structure beside the industrial waste canal [Zulu 1 (Fig. 1 & 2): 23° 29' 54.69" N, 87° 17' 19.19"]. Again, during another bird count on 1<sup>st</sup> January 2013 in Durgapur Barrage area [Zulu 2 (Fig. 3 & 4): 23° 29' 11.8" N, 87° 18' 1.2" E and Zulu 3 (Fig. 5 & 6): 23° 28' 55.48" N, 87° 18' 27.71" E] we observed both flying flocks and congregation of wire tailed swallows respectively. We counted the birds by using Olympus binocular (8X40) and photographed them using CANON Power Shot camera (SX 150 IS).



Fig 1. A view of the study site (Zulu 1) at Durgapur barrage and adjoining area, West Bengal, India



Fig 2. Observed site (Zulu 1) of wire-tailed swallows around Durgapur barrage area. West Bengal, India



Fig 3. A view of the study site (Zulu 2) at Durgapur barrage, West Bengal, India

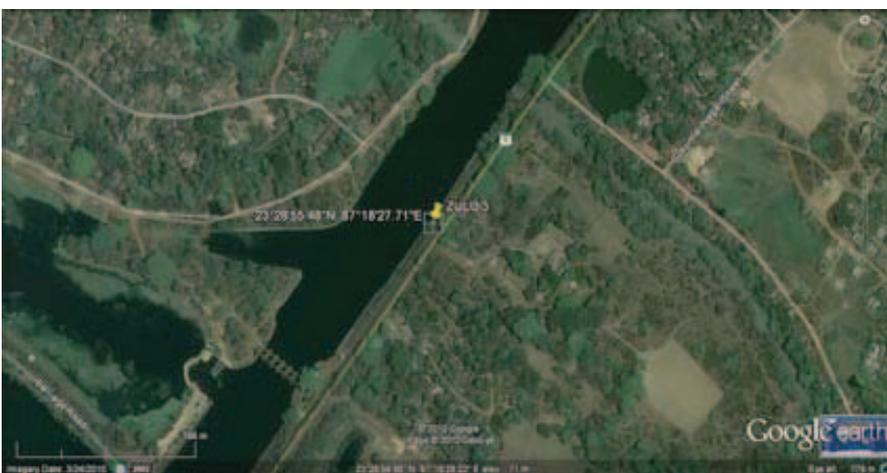
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**Fig 4. Observed site (Zulu 2 ) of wire-tailed swallows around Durgapur barrage area, West Bengal, India**



**Fig 5. A view of the study site(Zulu 3) at Durgapur Barrage, West Bengal, India**



**Fig 6. Observed site (Zulu 3) of wire-tailed swallows around Durgapur barrage, West Bengal, India**



**Fig 7. Wire-tailed swallow (*Hirundo smithii*) observed on Damodar barrage on 1.1.2013**

### Results

During our surveys it was revealed that the number of individuals in the congregation was about 100–120. Throughout the river stretch these birds were observed flying in loose flocks of 20–30 birds each. We also identified some Barn swallows (*Hirundo rustica*) at the same time over throughout the river bed in small numbers. We postulated that during this early winter season an approx of 300 wire-tailed swallow population is visiting Durgapur Barrage region through multiple observations on Damodar river bed. The birds were identified in field following “Pocket Guide to the Birds of the Indian Subcontinent” (Grimmett *et al.* 2007).

### Discussions

The adult male (Fig 7) was recognized by chestnut crown, glistening white under parts and under wing-coverts, and fine filamentous projections to outer tail feathers. The juvenile (Fig 8) has brownish cast to blue upper parts, and dull brownish crown. At Zulu 1, we observed that they were flying for about 20 minutes on the waste canal bed and then suddenly sat on the concrete bank for 3-5 minutes only. At Zulu 2, we are only capable to monitor their flight for about 30 minutes from river bank but no pictures were taken. We estimated the



**Fig 8. Adult wire-tailed swallows observed at the study site (Zulu 1) on Durgapur barrage adjoining areas.**



**Fig 9. Congregation of wire-tailed swallows observed at the Durgapur barrage, West Bengal, India**

population of birds here ranged in between 100–120 m in a stretch of about 500 meters in river bed. Apart from this, Zulu 3 showed the congregation of birds where 50% of the population possessed “The Wire” (Fig 9). The species is Least

Concern (Bird Life International 2012) and is mainly a resident species so its visit to Durgapur Barrage during winter may be a proof of range extension in this geographical location which needs further research. The global

population has not been quantified. This observation is the first in Durgapur Barrage, West Bengal in modern times.

**References**

**BirdLife International (2012).** *Hirundo smithii*. In: IUCN 2012. IUCN Red List of Threatened Species. Version 2012.1. <[www.iucnredlist.org](http://www.iucnredlist.org)>. Downloaded on **1<sup>st</sup> January 2013**.

**Grimmett R., C. Inskipp and T. Inskipp (1998).** *Birds of the Indian Subcontinent*. Oxford University Press, (Delhi), p.268

**Kumar, A., J.P. Sati, P.C. Tak and J.R.B. Alfred (2005).** *Handbook on Indian Wetland Birds and their conservation: i-xxvi; 1-468*(Published by the Director, Zool. Survey. India).