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NOTE

THE VULNERABLE INDIAN SKIMMER *RYNCHOPS ALBICOLLIS* SWAINSON, 1838 (AVES: CHARADRIIFORMES: LARIDAE) BREEDING IN ODISHA, EASTERN INDIA

Subrat Debata, Tuhinansu Kar, Kedar Kumar Swain & Himanshu Shekhar Palei

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THE VULNERABLE INDIAN SKIMMER
***RYNCHOPS ALBICOLLIS* SWAINSON, 1838**
(AVES: CHARADRIIFORMES: LARIDAE)
BREEDING IN ODISHA, EASTERN INDIA

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The Indian Skimmer *Rynchops albicollis* Swainson, 1838 (Image 1) is one among the three species of skimmers found worldwide, and native to Bangladesh, India, Myanmar, Nepal, Pakistan, and Vietnam (BirdLife International 2016). Like its other congeners, it prefers estuaries and coasts during the non-breeding season, and frequents larger, sandy, slow-flowing lowland rivers, lakes and marshes during the breeding season. It is a colonial breeder and lays eggs on exposed sandbars and Islands (Rahmani 2012). In contrast to its historic range, the Indian Skimmer is believed to occur along some large rivers from Pakistan, through Nepal and India to Bangladesh and Myanmar with an estimated global population of 6,000–10,000 individuals (BirdLife International 2016). Referring to the recently published Asian Waterbird Census Report (Mundkur et al. 2017), it is now confined to Bangladesh and India only with a total estimated population of just 1,667 individuals. The

major cause of Indian Skimmer population depletion is related to reduction in their reproductive and foraging success from exploitation and degradation of habitats, human disturbance, irrigation projects and pollution from agricultural and industrial chemicals (BirdLife International 2016). Besides that, rise or drop in the water level of rivers is directly linked with nesting success of the Indian Skimmer. The increase in water level has been reported to wash away the nests (Sundar 2004) and dropping down of water level allows predators and livestock to access breeding islands (Sundar 2004; Siddiqui et al. 2007). Therefore, owing to rapid population depletion and perceived threats, the Indian Skimmer has been categorized as ‘Vulnerable’ in the IUCN Red List of Threatened Species (BirdLife International 2016).

Although the species has been reported from the major rivers and lakes of India, it is more confined to the north from Punjab through Uttar Pradesh, Madhya Pradesh to West Bengal, extending up to Odisha (Rahmani 2012). In Odisha, the Indian Skimmer has been reported from Bhitarkanika Wildlife Sanctuary (Gopi & Pandav 2007), Dhamra (Dutta 2007), Nalaban Bird Sanctuary and Chilika Lake (Balachandran et al. 2009; Dev 2013), Mundali (Li et al. 2009) and Satkosia Gorge Wildlife Sanctuary (Rahmani & Nair 2012), and was presumed to be a winter visitor. Rahmani & Nair (2012), however, forecast possible breeding activities in Odisha referring to their year round occurrence and mating behavior.

On 03 March 2017, we sighted around 110 Indian Skimmers at Mundali area (20.43475 N & 85.73459 E; elevation 23m), Cuttack (Image 2) and then on 07



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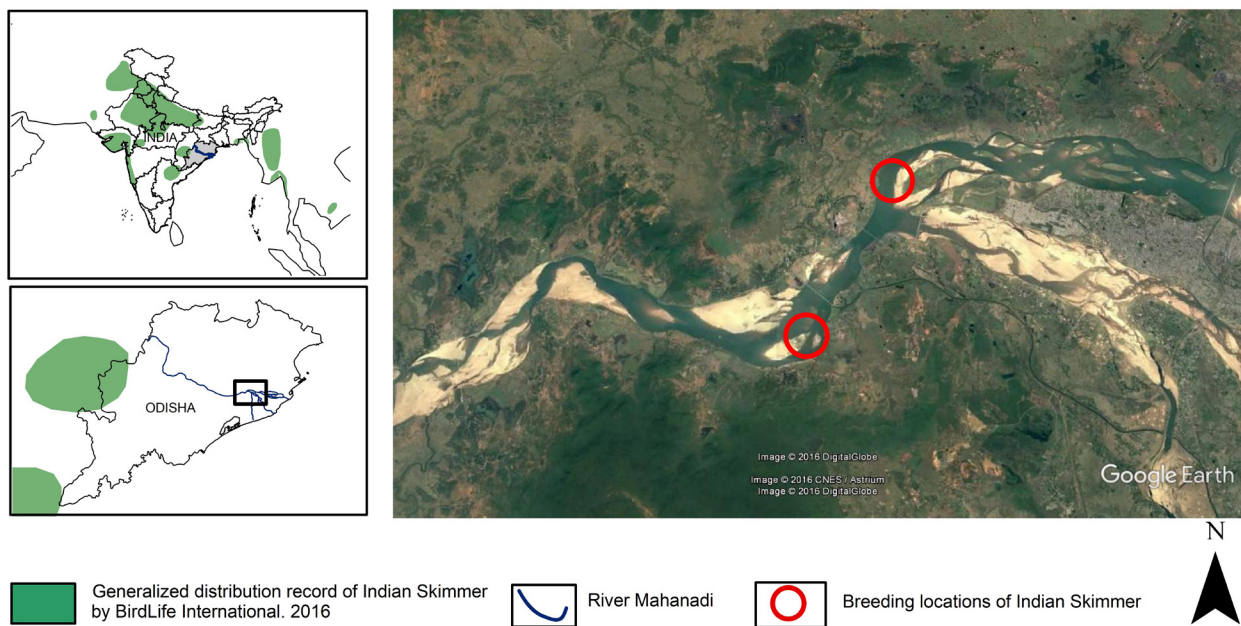


Figure 1. Map showing distribution of Indian Skimmer and breeding locations in Odisha, eastern India

March 2017, around 43 birds at Kakhadi (20.49031 N & 85.77169 E; elevation 28m), another place situated around 8km north of Mundali (Fig. 1). Subsequently, we witnessed pre-nesting activities; courtship and mating behavior of some birds at both the places (Image 3A,B). On 05 April 2017, we found 32 simple scrape nests, spaced irregularly on two small islands near Mundali (25 nests) and Kakhadi (seven) with one to three conically-oval shaped, buff colored eggs with brown blotches and streaks (Image 4), those were identified to be laid by the Indian skimmers referring to the descriptions given by Oates (1901). We monitored the site on boat from a safe distance for further confirmation and observed that Indian Skimmers came back to the nests and started incubating the eggs (Image 5).

Earlier, the bird was known to breed only in National Chambal Sanctuary, Uttar Pradesh (Sundar 2004) until new nesting sites were reported in Norara, Uttar Pradesh (Siddiqui et al. 2007), Pong Dam Wildlife Sanctuary, Himachal Pradesh (Fernandes & Besten 2013), and Son Gharial Wildlife Sanctuary, Madhya Pradesh (Dilawar & Sharma 2016). The present observation along with an earlier report by Rajguru (2016) confirms that Indian Skimmers are breeding along the River Mahanadi in Odisha, eastern India. The observed nesting season and behavior resembles earlier observations made by Sundar (2004) at Chambal Wildlife Sanctuary and Siddiqui et al. (2007) at Narora. In the present observation, we observed a single egg in most of the nests (n=9), which indicated probable preliminary state of egg laying activities and



Image 1. An Indian Skimmer on an island in Mahanadi River near Mundali, Cuttack, Odisha

the clutch size may increase in subsequent days. Our informal discussion with the local fisher communities also revealed that the Indian Skimmer, locally known as 'Paani-Chiri', used to congregate and breed at Mundali since a long time, which might have not been noticed in earlier surveys. Lack of adequate studies on this species has resulted in gaps in understanding distribution and status of the Indian Skimmer in India and other range countries. Referring to the trend in the rapid decline of the Indian Skimmer population worldwide (Mundkur et al. 2017), regular monitoring and protection of the identified nesting sites is of high priority. Furthermore, in agreement with the recommendation given by Rahmani & Nair (2012), targeted surveys particularly



Image 2. A flock of Indian Skimmers flying over the river Mahanadi near Mundali, Cuttack, Odisha

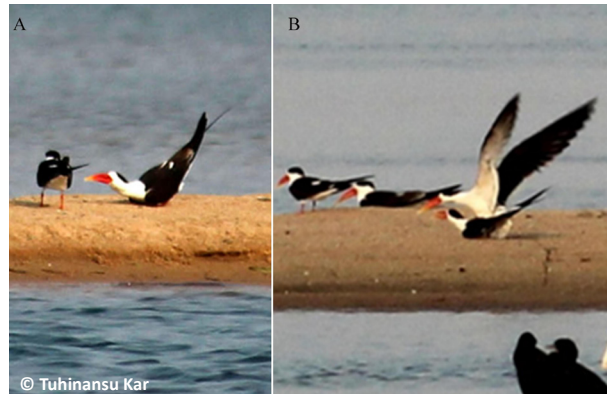


Image 3. Pre-nesting activities of Indian Skimmer in the islands of the river Mahanadi in Odisha, eastern India; A - Courtship behavior at Mundali and B - Mating behavior at Kakhadi



Image 4. Indian Skimmer nest with eggs on an island in the river Mahanadi near Mundali, Cuttack, Odisha



Image 5. Indian Skimmers incubating their eggs on an island in the river Mahanadi near Mundali, Cuttack, Odisha

during the breeding season along the entire length of the River Mahanadi and other large rivers is essential to understand the status of the Indian Skimmer in Odisha. The results of these will be helpful in reassessing the global status of the species and formulating conservation plans for the future.

REFERENCES

- Balachandran, S., P. Sathiyaselvam & S. Panda (2009). *Bird Atlas of Chilika*. Bombay Natural History Society, Mumbai and Chilika Development Authority, Bhubaneswar, 326pp.
- BirdLife International (2016). *Rynchops albicollis*. The IUCN Red List of Threatened Species 2016: e.T22694268A93444131. Accessed on 11 March 2017. <http://doi.org/10.2305/IUCN.UK.2016-3.RLTS.T22694268A93444131.en>
- Dev, U. (2013). *A Field Guide to the Birds of Chilika*. Odisha Forestry Sector Development Project, Bhubaneswar, 281pp.
- Dilawar, M. & V. Sharma (2016). A new breeding location of Indian Skimmer *Rynchops albicollis*, and notes on other birds in Son Gharial Wildlife Sanctuary, Madhya Pradesh, India. *Indian Birds* 11(2): 35–38.
- Dutta, S.K. (2007). *Biodiversity Assessment of Dhamara Port Site and Surrounding Areas, Orissa*. Greenpeace India, 38pp.
- Fernandes, M. & J.W.D. Besten (2013). Some interesting breeding records for Pong Dam Wildlife Sanctuary, Himachal Pradesh, India. *Forktail* 29: 141–143.
- Gopi, G.V. & B. Pandav (2007). Avifauna of Bhitarkanika mangroves, India. *Zoos' Print Journal* 22: 2839–2847; <http://doi.org/10.11609/jott.zpj.1716.2839-47>
- Li, Z.W.D., A. Bloem, S. Delany, G. Martakis & J.O. Quintero (2009). *Status of Waterbirds in Asia - Results of the Asian Waterbird Census: 1987–2007*. Wetlands International, Kuala Lumpur, Malaysia, 276pp.
- Mundkur, T., T. Langendoen & D. Watkins (eds.) (2017). *The Asian Waterbird Census 2008–2015 - Results of Coordinated Counts in Asia and Australasia*. Wetlands International, Ede, 144pp.
- Oates, E.W. (1901). *Catalogue of the Collection of Birds' Eggs in the British Museum*. British Museum (Natural History), Department of Zoology, London, 202pp; <http://doi.org/10.5962/bhl.title.8298>
- Rahmani, A.R. (2012). *Threatened Birds of India: Their Conservation Requirements*. Oxford University Press, New Delhi, xvi+864pp.
- Rahmani, A.R. & M.V. Nair (2012). *Threatened Birds of Odisha*. Oxford University Press, New Delhi, 196pp.
- Rajguru, S. (2016). Birds in the sand. <http://www.sanctuaryasia.com/conservation/field-reports/10350-birds-in-the-sand.html> Electronic version accessed 11 February 2017.
- Siddiqui, A.I., J. Pandey & R. Mandal (2007). House-crow: threat to Indian Skimmer. *Mistnet* 8(2): 4–6.
- Sundar, K.S.G. (2004). Observations on breeding Indian Skimmers *Rynchops albicollis* in the National Chambal Sanctuary, Uttar Pradesh, India. *Forktail* 20: 89–90.



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