

## Nesting of Oriental Pratincole in Tamil Nadu: photographic evidence from Pichavaram mangroves

The Oriental Pratincole *Glareola maldivarum*, a distinctive member of the family Glareolidae, is known for its unique nesting behaviour and extensive migratory patterns. The species breeds across the southeastern Palearctic and Indo-Malayan realms, with populations ranging from the Indian subcontinent to eastern Mongolia, China, and parts of Japan, and winters across the Indo-Malayan to the Australasian biogeographic realms (BirdLife International 2024). In the Indian subcontinent, its breeding distribution includes Sindh, northern India, Odisha, West Bengal, Assam, and Bangladesh, with additional records from Kerala, Sri Lanka, the Maldives, and the Lakshadweep Archipelago (Khan 2017).

Despite this broad range, detailed breeding records are relatively isolated and underreported, particularly in southern India (Manakadan et al. 2011). Nesting behaviour of this species was observed at Karaivetti Bird Sanctuary, however, the observation remained unpublished (S. Balachandran pers. comm. April 2024).

This unpublished record further underscores the significance of the present study, which provides the first photographic confirmation of nesting in Tamil Nadu.

Pichavaram Mangrove Forest is located in the

Cuddalore District on the eastern coast of Tamil Nadu, which is one of the largest mangrove ecosystems in India. It covers approximately 1,100 ha and supports a diverse array of flora and fauna, including numerous bird species (Kathiresan 2000). The area is characterised by its complex network of tidal waterways, mudflats, and mangrove vegetation, providing ideal habitats for both resident and migratory birds (Sampath & Krishnamurthy 1993).

An avifaunal study was conducted as part of a PhD project (2022–2025) in Pichavaram. On 23 April 2024, during a monthly ornithological survey of the Pichavaram mangrove forests and the adjacent C. Manampadi Village (11.4689° N, 79.7602° E), six Oriental Pratincoles were observed exhibiting aggressive behaviour by repeatedly chasing a *Corvus* species in an open area. Following the discovery of nesting activity, targeted nest surveys were conducted twice weekly by a single observer.

Observations were made from a safe distance using Nikon 10 × 50 binoculars and a Nikon P600 camera to minimise disturbance, following standard ethical guidelines (Barve et al. 2020). This chasing behaviour was interpreted as indicative of nest defence. The Pratincoles successfully deterred the crow, after which one individual alighted approximately 65 m from the observer and moved towards its nest.



Adult Oriental Pratincole in grassland habitat. © I. Jamil Hussain.



Adult Oriental Pratincole displaying wing-spreading behaviour. © I. Jamil Hussain.



Oriental Pratincole nest with clutch of eggs and scale reference. © I. Jamil Hussain.



Juvenile Oriental Pratincole in open habitat. © I. Jamil Hussain.

The bird displayed vigilant behaviour before settling. The nests were subsequently located opportunistically based on adult behavioural cues.

As the observer approached cautiously, another individual engaged in distraction displays.

Owing to the strong camouflage of the eggs, nest detection was challenging. Initially, a nest containing two eggs was located, followed by a second nest with a single egg approximately 20 m away on 23 April 2024. On 26 April, two additional nests were identified, containing two and three eggs, respectively. Further surveys on 02 May revealed three more nests, each containing two eggs. In total, seven nests were documented, with clutch sizes ranging from one to three eggs.

The eggs measured an average of 2.8 cm (length) × 2.4 cm (width) ( $n = 5$ ; range: 2.7–2.9 cm in length and 2.2–2.6 cm in width). Nests consisted of shallow, unlined ground scrapes on compact sandy-muddy substrate, typically associated with dried, cracked mud and sparse grass cover. The eggs were oval to slightly pyriform, with a pale buff to sandy brown background densely marked with dark brown to black blotches, closely resembling the surrounding substrate and thereby enhancing crypsis.

Nest sites were located in open, sparsely vegetated areas, making them vulnerable to disturbance and predation from cattle, dogs, and crows. Additionally, a juvenile of the Oriental Pratincole was observed in the nesting area, indicating successful hatching at least

in part of the colony. However, monitoring could not be continued beyond the third week because rainfall and freshwater influx caused flooding of the nesting site. All observations were documented through photography and videography to analyse nesting characteristics.

The present nesting record is consistent with previous breeding records from other parts of India. Nesting has been documented from the Hirakud Reservoir in Odisha (Das et al. 2021) and on open substrates in southern Gujarat, where clutch sizes ranged from one to four eggs (Patel & Moksh 2025). Similarly, nests in the present study were located on exposed sandy-muddy substrates with sparse vegetation, and clutch sizes ranged from one to three eggs.

These observations suggest ecological flexibility in habitat use, with the species utilizing a variety of open habitats ranging from inland reservoirs to coastal mangrove-associated flats.

Comparable nesting ecology has also been documented outside India. Chaiyarat & Eiam-Ampai (2014) demonstrated that grazing pressure can influence nesting success, whereby moderate disturbance may help maintain open habitats, whereas excessive trampling increases nest vulnerability. Similar patterns have been reported in the related Small Pratincole breeding on exposed wetland substrates in Kerala (David et al. 2020). Studies on ground-nesting birds further suggest that reducing disturbance and protecting nesting patches can significantly improve nest survival (Kiss et al. 2024).

Collectively, these studies highlight an ecological compromise in habitat selection. Open, sparsely vegetated habitats enhance egg crypsis and facilitate predator detection; however, they also increase vulnerability to disturbance, predation, and flooding. In the present study, the nesting sites were exposed to threats from cattle, dogs, crows, and flooding caused by rainfall and freshwater influx. Although the nesting area lies within the protected Pichavaram mangrove reserve forest, disturbance in the buffer-zone arising from grazing, fishing, and tourism may affect nesting success. These findings underscore the importance of continued monitoring and targeted habitat management for the conservation of the species.

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