Observation on the breeding of Painted Stork in a restored urban wetland in Chennai

The Adyar Eco Park (Tholkappia Poonga) restoration transformed a degraded urban wetland into a thriving ecological sanctuary. The project successfully eradicated invasive species like *Prosopis juliflora*, revived native tropical dry evergreen forest (TDEF) vegetation, and enhanced biodiversity. The return of migratory birds, butterflies, and other wildlife signifies the ecosystem's recovery. Today, the park stands as a model for urban wetland restoration and environmental education.

Located in the southern part of Chennai (13.0033° N, 80.2553° E), Adyar Eco Park spans 358 acres along the Adyar River, extending from the river mouth to the creek. This diverse, restored landscape supports a rich variety of flora and fauna. The park features mangroves and mangrove associates thriving in the brackish waters of the Adyar estuary, while freshwater vegetation flourishes in less saline areas. The TDEF habitat along the creek further enhances biodiversity.

Notable species found here include the Painted Stork *Mycteria leucocephala* and the vulnerable Spot-billed Pelican *Pelecanus philippensis*, both flagship species for wetland conservation. The park plays a crucial role in preserving urban ecosystems, serving as a sanctuary for numerous species and acting as a vital green lung for Chennai.

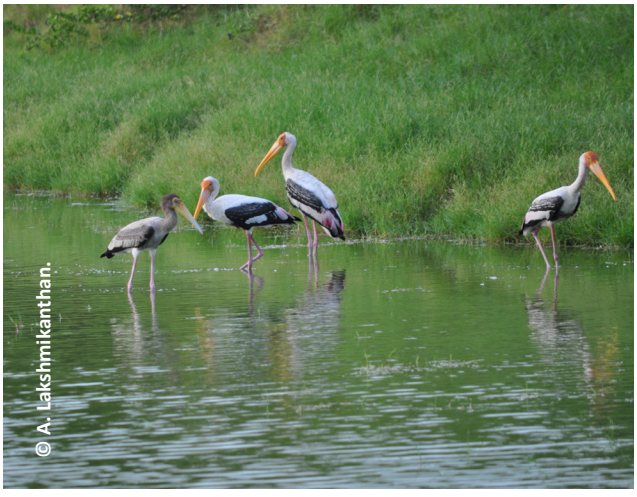
Observations on Painted Stork breeding

The Painted Stork *Mycteria leucocephala* is characterized by its rose-pink tail feathers and is one of the most abundant Asian storks. However, wetland drainage, pollution, and shrinking water bodies are observed to be major threats for this species. Although the Painted Stork is not commonly seen in this wetland habitat, about 10–15 individuals have become permanent residents of Adyar Eco Park. During our observation period, two nests were spotted on Arjun trees *Terminalia arjuna* at a height of 5 m. One nest contained two chicks, first observed on 18 and 23 of February 2020.

The second nest was under incubation on 27 February 2020, but was abandoned during the first week of March 2020 due to frequent disturbances by crows.

Of the two chicks hatched in the first nest. The second chick, which hatched on 23 February, was noticeably weaker than the first. Unfortunately, this chick fell prey to a Jungle Crow. This is the first documented breeding record of Painted Storks in Adyar Eco Park following its ecological restoration, marking a significant milestone as these threatened birds utilize the restored habitats for both foraging and breeding.

In southern India, the Painted Stork's breeding season typically begins in late November and lasts until March (Urfi 1993, 1997; Urfi et al. 2007). These birds are known for their colonial nesting behavior (Urif 1993). However, our observations at Adyar Eco Park indicate



that *Mycteria leucocephala* can also build independent nests, possibly due to the lack of tall canopy trees within the park.

Moses (2015) observed a colonial nesting site of Painted Storks at Vembanad Lake in Kerala, where the birds were nesting on almond or Badam trees *Terminalia catappa*. These trees were located in a marshy area, surrounded by tall grass and bushy shrubs, providing an ideal environment for the storks. Adyar Eco Park's presence of water, abundant vegetation, and suitable nesting trees after restoration likely

contributed to the success of this colonial nesting site. The storks' choice of *Terminalia arjuna* tree, which offers ample support and height, reflects their preference for elevated, secure locations to protect their nests from predators and disturbances. This observation emphasizes the importance of such habitats in supporting the breeding success of colonial waterbirds like the Painted Stork.

The young storks were observed to be grayish-black in colour, with black beaks and white legs. The mother cared for the chicks, feeding them

Observation on the growth of young Painted Stork at Adyar Eco Park, Chennai, Tamil Nadu

Date	Observation	Remarks
18 February 2020 29 February 2020	Two nests were observed. One nest with two chicks	12 days old.
31 March 2020	Of the two chicks one was weaker. Nutrition deficiency could be the reason	43 days old.
30 April 2020	The weaker chick predated by Jungle Crow on 25 April 2020	73 days old.
31 May 2020	Foraging with the help of mother	104 days old.
30 June 2020	Foraging lonely as well as with flock sighted in phase II	134 days old.
25 July 2020	Foraging with flock	159 days old.
31 August 2020	Foraging lonely as well as with flock	Probably moved elsewhere.

for up to 70–80 days. By mid-May 2020, the juveniles began foraging alongside their parents and later with the flock. The last sighting of the juvenile birds occurred on 25 July 2020 (159 days after hatching).

Exactly after a year in July 2021, four sub-adult Painted Storks were sighted in Adyar Eco Park, indicating successful breeding and return of the juveniles. This observation marks the first authentic breeding record of Painted Storks in the Adyar region and highlights the ecological significance of Adyar Eco Park as a breeding ground in restored urban wetland habitat.

The occurrence of breeding of Painted Storks in Adyar Eco Park is a significant conservation milestone, especially following the park's ecological restoration. Despite the challenges posed by the lack of tall canopy trees and predation by crows, the successful hatching and growth of chicks underscore the park's importance as a breeding site. Continued monitoring and habitat management will be crucial to support the breeding success of this wetland species in the future.

References

Moses, S. (2015). Painted Stork *Mycteria leucocephala* breeding in Kumarakom Bird Sanctuary, Kerala. *Indian BIRDS* 10(5): 126–127.

Urfi, A.J. (1997). The significance of Delhi Zoo for wild waterbirds, with special reference to the Painted Stork *Mycteria leucocephala*. *Forktail* 12: 87–97.

Urfi, A.J., T. Meganathan & A. Kalam (2007). Nesting ecology of the Painted Stork *Mycteria leucocephala* at Sultanpur National Park, Haryana, India. *Forktail* 23: 150–153.

Urif A.J. (1993). Breeding patterns of Painted stork *Mycteria leucocephala* at Delhi Zoo, India. *Colonial Waterbirds* 16(1): 95–97.

Acknowledgements
We thank Mr. Joss Brooks of Pitchandikulam Forests for his encouragement and Mr. A. Lakshmikanthan for providing the photographs. Our regards to Mr. R. Marimuthu, Dr. V. Santharam and Dr. Vaithiyanathan Kannan for offering their valuable comments.

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Citation: Rathinasabapathy, B., K. Ilangovan & V. Kalaiarasan (2025). Observation on the breeding of Painted Stork in a restored urban wetland in Chennai. Bird-o-soar #268, In: *Zoo's Print* 40(6): 14–16.