

## First breeding record of the Small Pratincole *Glareola lactea* and River Tern *Sterna aurantia* in Periyar Lake, Periyar Tiger Reserve, Kerala, India



Small Pratincole juvenile. © C. Sivakumar

Periyar Lake is a large inland waterbody lying within the Periyar Tiger Reserve in Idukki District of Kerala. The lake is mostly open water with tall dead trees protruding out of the lake surface. These trees are used as nesting and resting sites by waterbirds. When water level recedes, submerged landmasses emerge out the lake surface forming small 'thuruthu' (Malayalam for island). To continuously monitor the waterbird population in Periyar Lake, the Periyar Tiger Conservation Foundation (PTCF) has been conducting monthly surveys from October 2016. The surveys have revealed that the Lake is home to 38 species of waterbirds and 15 of them breed here (Patrick unpub. data).

On 17 February 2019, during the routine monthly survey, a flock of 30 Small Pratincoles *Glareola lactea* were sighted at the second thuruthu, close to the Mullaperiyar Dam. On closer observation of the flock, some birds exhibited head bobbing, which was assumed as a courtship behaviour and hence the survey team intensified the search. The search yielded, three small eggs that were located under a boulder. These eggs, however, turned out to be White-browed Wagtail *Motacilla maderaspatensis* eggs.

In the March survey, the team did not record any eggs. On 17 April 2019 when the team surveyed the site again, 28 eggs were recorded in clutches of two. All the eggs were laid on the ground either exposed to the sun or under small stones. The eggs were



Small Pratincole eggs. © C. Sivakumar



Small Pratincole egg and chick. © C. Sivakumar

small (2–2.5cm in length,  $n=16$ ). Egg colour was sandy brown to light green with speckles throughout the egg. Some of the eggs were darker. Eggs were laid in the barren portion of the Island (sloping north) and not among the grasses.

The same day three larger eggs were recorded in a single clutch (4.2cm,  $n=3$ ). These eggs were laid slightly above the barren ground (on the flat top portion of the Island) and was lined with small sticks. Two River Terns *Sterna aurantia* were observed circling above the thuruthu. Since the Red-wattled Lapwing *Vanellus indicus* (which lays similar sized eggs) was not spotted in the vicinity nor its call heard, the eggs were assumed to be River Tern eggs. The presence of chicks during the next visit confirmed our assumption. These observations represent the first record of breeding of the two species in Periyar lake. Details collected during subsequent visits to

the second thuruthu are provided in Table 1. Small Pratincole is a recent colonist in Periyar Lake and was recorded for the first time in May 2018 (Sreekumar et al. 2018). River Tern was first reported in Periyar Lake in 1986 (Santharam 1989). They are usually seen in the Lake from November to May in less numbers. Poor rainfall (low water level exposing the thuruthu's for a long period) after the 2018 floods may have prompted them to nest in the thuruthu. Both the species are widely distributed in India and inhabit large rivers and lakes with sand banks, estuarine mudflats and ploughed paddyfields (Ali & Ripley 1987; Sashikumar et al. 2011). They are known to breed together (Bharucha et al. 1988; Neelakanthan 1990). In Kerala, most of the records of the two species were from the



River Tern eggs. © C. Sivakumar



River Tern chick. © C. Sivakumar



Table 1. Details collected from the nesting site.

Date	Small Pratincole			River Tern		
	Egg	Chick	Juvenile	Egg	Chick	Juvenile
17.iv.2019	28	-	-	3	-	-
26.iv.2019	18	7	-	-	2	-
04.v.2019	7	4	-	-	2	-
14.v.2019	3	3	2	-	-	-
30.v.2019	-	2	17	-	-	1

northern districts. Breeding records have come from Velayani, Kalady, Mangalam dam, Thirunnavaya, Shoranur, and Shendhurney dam (Neelakanthan 1990; Sashikumar et al. 2011).

In Periyar Lake, the thuruthus get exposed when water level recedes. This temporary habitat is utilised by bird species such as the White-browed Wagtail *Motacilla maderaspatensis* and Paddyfield Pipit *Anthus rufulus* for nesting. The inaccessibility of the thuruthus to potential egg predators such as the Mongoose (Striped-neck *Herpestes vitticollis* and Brown *H. fuscus*) make them safe nesting site for these bird species. Elephants *Elephas maximus*, however, are attracted to the islands because of the fresh grass and there is a chance that they might trample the eggs. Monitor Lizard *Varanus bengalensis* is also a potential threat. In addition, fishermen use the thuruthus for rest during the night. They leave behind fishing nets and breeding birds might get entangled and die as was the case with one White-browed Wagtail. In order to make the islands safe, accessibility must be denied at least during the breeding season (February to May) for fishermen. The discovery of the nesting site is yet another significant reason for not increasing the height of the stored water level in the Mullaperiyar dam to 46m, especially since the River Tern is a globally threatened species.

#### References

- Ali, S. & D.S. Ripley (1987). *Compact Handbook of the Birds of India and Pakistan. 2nd Edition.* Oxford University Press, 737pp.
- Bharucha, E.K., P.P. Gogte & T.P. Gole (1988). A new nesting colony of river terns and pratincoles. *Journal of the Bombay Natural History Society* 85(1): 191–193.
- Neelakanthan, K.K. (1990). Breeding of the River Tern *Sterna aurantia* in Kerala. *Journal of the Bombay Natural History Society* 87(1): 144–145.
- Santharam, V. (1989). Birdwatching in Thekkady. *Blackbuck* 5(3): 21–26.
- Sashikumar, C., J. Praveen, M.J. Palot & P.O. Nameer (2011). *Birds of Kerala. Status and Distribution.* DC Books. Kerala, 835pp.
- Sreekumar, E.R., P. David, V.K. Silpa & P.O. Nameer (2018). *Bird diversity of Periyar Tiger Reserve, southern Western Ghats.* Periyar Tiger Conservation Foundation, 77pp.

**Acknowledgements:** We thank the Tiger Cell Team (Ramesh Babu, Ecologist, Periyar Tiger Conservation Foundation. Rahul) and Karthik, Tiger Monitoring Assistant, Periyar Tiger Conservation Foundation. Kuttan, Pandian, Ponnappan, Field Assistants, Periyar Tiger Conservation Foundation for their support.

**J. Patrick David<sup>1</sup>, C. Sivakumar<sup>2</sup>, Silpa V. Kumar<sup>3</sup> & Georgi Matchachan<sup>4</sup>**

<sup>1</sup> Conservation Biologist, <sup>2</sup> Tiger Monitoring Assistant, <sup>3</sup> Secretary, <sup>4</sup> Executive Director, Periyar Tiger Conservation Foundation, Thekkady, Kerala 685509, India. Emails: <sup>1</sup> patdavid28@gmail.com (corresponding author), <sup>2</sup> sivakumarwild@gmail.com, <sup>3</sup> silpa\_vkumar@yahoo.com, <sup>4</sup> fdpttkdy@gmail.com

**Citation:** David, J.P., C. Sivakumar, S.V. Kumar & G. Matchachan (2020). First breeding record of the Small Pratincole *Glareola lactea* and River Tern *Sterna aurantia* in Periyar Lake, Periyar Tiger Reserve, Kerala, India. *Bird-o-soar* #40, In: *Zoo's Print* 35(2): 25–27.