

# Status of Greater Flamingos *Phoenicopterus roseus* in Kerala

C. P. Arjun & R. Roshnath

Arjun, C. P., & Roshnath, R., 2018. Status of Greater Flamingos *Phoenicopterus roseus* in Kerala. *Indian BIRDS* 14 (2): 43–45.

C. P. Arjun, Malabar Awareness and Rescue Center for Wildlife, Kannur, Kerala, India; National Institute of Advanced Studies, Indian Institute of Science Campus, Bengaluru, Karnataka, India.

R. Roshnath, Malabar Awareness and Rescue Center for Wildlife, Kannur, Kerala, India; Department of Animal Science, School of Biological Sciences, RT Campus, Central University of Kerala, Kasaragod, Kerala, India. E-mail: [roshnath.r@gmail.com](mailto:roshnath.r@gmail.com) [Corresponding author]

Manuscript received on 16 October 2017.

Greater Flamingos *Phoenicopterus roseus* are the most widespread of the six species of the Flamingo family (Phoenicopteridae); they are native to Africa, Asia, and the Middle East, and their breeding migration extend towards Kazakhstan, and Europe too (Birdlife International 2016). In India they breed in the Greater Rann of Kachchh (Ali & Ripley 1987; Rasmussen & Anderton 2012), and are widespread winter visitor in the plains (Grimmett *et al.* 2011). Flamingos roost, and nest, in the undisturbed shallow regions of inland wetlands, tidal mudflats, lagoons, estuaries, lakes, large alkaline lakes, open shores, and salt pans (Ramesh & Ramachandran 2005). Only a few studies have recorded the distribution and migration of Greater Flamingos in India (Rao 1983; Sugathan 1983; Singh 1987; Ramesh & Ramachandran 2005), and in Kerala there have been no studies till date. Hence, this article aims to demonstrate the migrant nature of flamingos in Kerala.

The occurrence data of the Greater Flamingo, in Kerala, were collected from eBird ([www.ebird.org](http://www.ebird.org)), research articles, news reports, and social media platforms like the Facebook group, Birdwatchers of Kerala, and the Yahoo! Group, Kerala birder. All the sightings that had not been uploaded into eBird were first uploaded. Then the data were downloaded, which included details like date, location, and abundance. These data were compiled and analysed to understand the pattern of Flamingo visits into Kerala. Multiple observations from the same locations, within a season, were considered as a single sighting, as it is more likely to be the same flock of birds, and wherever possible, images uploaded by birders were crosschecked.

The species was not reported from the state until 1991 (Ali 1969; Neelakantan *et al.* 1993), when D. N. Mathew reported an unknown number on 04 February 1991 from the Purathur Estuary of Bharathapuzha River, Malappuram District (Sashikumar *et al.* 2011). Subsequently others birders also recorded these five birds, in the same month, and at the same location (Neelakantan *et al.* 1993; Sashikumar *et al.* 2011). On 21 December 1991, C. Sashikumar spotted a single bird in the Kattampally wetlands of Kannur District. In 1993, Manoj V. Nair reported a single bird from Veli-Akkulam in Thiruvananthapuram District; on 03 December 1993, Sathyan Meppayur saw an individual at the Kadalundi Estuary in Kozhikode District. In December 1995, P. K. Ravindran reported six birds from the Purthaur Estuary in Malappuram District (Sashikumar *et al.* 2011).

In the twenty-first century, there were more sightings from all over the state (Table 1). The highest number of birds was

sighted in 2016 at Alappuzha (N=10, 01 adult and 09 immature birds). Most of the sightings were recorded from the wetlands of central Kerala (Malappuram, Thrissur, Ernakulum, and Kottayam; N=8), followed by northern Kerala (Kannur and Kozhikode; N=5, Fig. 1).

Greater Flamingos prefer coastal wetlands, but willingly explore all types of wetlands (Tere 2005). Similarly, in Kerala, birds preferred saline and brackish wetlands (N=11) as compared to freshwater wetlands (N=7; mainly fresh-water portions of Kole), though all of these are coastal wetlands in nature, lying below the mean sea level.

Greater Flamingos are regular winter visitors, in large numbers, to the south-eastern coasts of India, presumably migrating from Gujarat over peninsular India (Nagarajan & Thiyagesan 1996; Balachandran 2006; Balachandran 2012). They were thought to

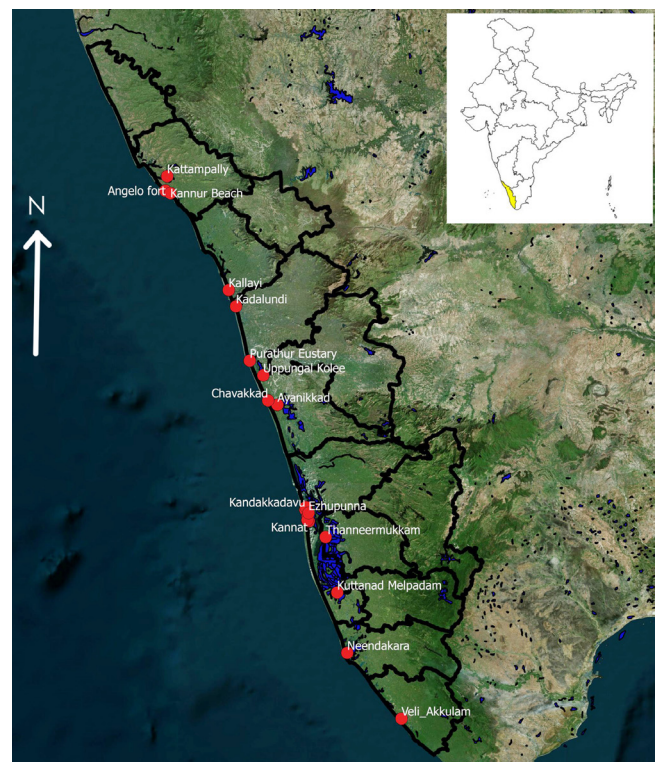


Fig. 1. Distributional records of Greater Flamingoes in Kerala (Source: eBird).

**Table 1.** Year wise sighting reports of Greater Flamingos (*Phoenicopterus roseus*) in Kerala from 1991 to 2017

District	Site	1991	1993	1995	1996	2000	2004	2008	2014	2015	2016	2017
Kannur	Angelo fort									1	1	
	Chemballickund											8
	Kattampally	1							1			
Kozhikode	Kadalundy Estuary		1									
	Kallayi Estuary						1					
Malappuram	Purathur Estuary	5		6	6							
	Uppugal Kole							1				
Thrissur	Ayinikkad (Kole Wetlands)									1		
	Charakkad (Kole Wetlands)										1	
	Mullookayal (Kole Wetlands)									1		
Ernakulam	Chellanam Wetlands											3
	Kandankadavu Wetlands										3	3
Alappuzha	Ezhupunna											3
	Pallithode wetlands, Thuravoor									2	3	3
	Melpadam wetlands										10	
	Changaram wetland									1		
	Neendakara/Ezhupunna wetlands									1	3	
Kottayam	Thannermukkam					1						
	Poovathumkari Wetlands								1	1	1	
Thiruvananthapuram	Veli-Akkulam		1									

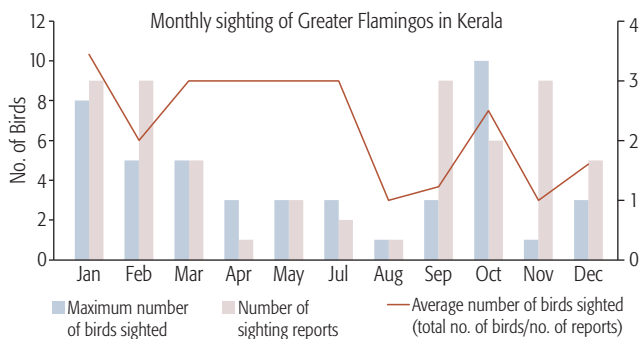


Fig. 2: Seasonality records of Greater Flamingos in Kerala 1991-2017.

be rare winter visitors in Kerala (Sashikumar *et al.* 2011), which the present summary agrees with. In Kerala, these birds were reported throughout the year, but the maximum numbers of

sightings were in September–November, and January–February (Fig. 2), which demonstrates both autumn passage, and a wintering predilection.

The larval delivery in coastal habitats, with the effect of chlorophyll production, was reported highest in September–October, and lowest in June–July (Navarrete

*et al.* 2005). Phytoplankton and larvae are a rich source of food for benthic fauna, which form a major part of a Flamingo's diet (Ramesh & Ramachandran 2005). Since the data on age classes of Flamingos sighted in Kerala were unavailable to us—from the photographs that were uploaded in eBird [15], and newspaper reports, and Facebook [16]—we concluded that most of the birds that had visited the state were either juveniles or sub-adults. The strong monsoon winds from the Bay of Bengal, towards southern peninsular India (Pal *et al.* 2017), could be a reason for disorienting young birds during their migration to the eastern coast, making them straggle to the coasts of Kerala.

The number of Flamingo sightings, post 2010, had increased, which may be due to an increase in number of birders in southern India. The south-eastern coasts are the main wintering areas of the Greater Flamingos, but when spotted in Kerala, these birds should be considered winter stragglers, or mainly autumnal passage migrants.

## Acknowledgements

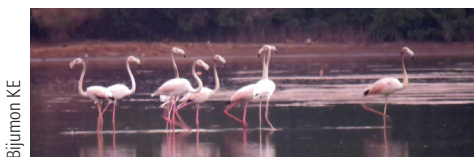
We are grateful to all the bird watchers who contributing their observation in eBird and Bird watchers of Kerala (Facebook Group). We express our sincere gratitude Praveen J., Sandeep Das and S Prasanth Narayanan for their suggestions and reviewing the manuscript. We also thank Bijumon KE and Prasoon Kiran for their photographs. We retrieved relevant literature from the online 'Bibliography of South Asian Ornithology' (Pittie 2017).

## References

- Ali, S., & Ripley, S. D., 1987. *Compact handbook of the birds of India and Pakistan together with those of Bangladesh, Nepal, Bhutan and Sri Lanka*. 2nd ed. Delhi: Oxford University Press. Pp. i–xlii, 1 l., 1–737, 52 ll.
- Ali, S., 1969. *Birds of Kerala*. 2nd ed. Bombay: Oxford University Press. Pp. i–xxiii, 1–444.
- Balachandran, S., 2006. The decline in wader populations along the east coast of India with special reference to Point Calimere, south-east India. In: Boere, G. C., Galbraith, C. A., & Stroud, D. A., (eds.). *Waterbirds around the world*. Edinburgh, UK: The Stationery Office. Pp. 296–301.
- Balachandran, S., 2012. Avian diversity in coastal wetlands of India and their conservation needs. Uttar Pradesh State Biodiversity Board. Pp. 155–163.
- BirdLife International. 2016. *Phoenicopterus roseus*. The IUCN Red List of Threatened Species 2016: e.T22697360A86051591. <http://dx.doi.org/10.2305/IUCN.UK.2016-3.RLTS.T22697360A86051591.en>. Downloaded on 23 July 2017.



15. An immature Greater Flamingo in Ayikkara harbour, Kannur.



16. Eight sub-adult Greater Flamingos in Chemballickund, Kannur.

- Grimmett, R., Inskipp, C., & Inskipp, T., 2011. *Birds of the Indian Subcontinent*. 2nd ed. London: Oxford University Press & Christopher Helm. Pp. 1–528.
- Nagarajan, R., & Thiayagesan, K., 1996. Waterbirds and substrate quality of the Pichavaram wetlands, southern India. *Ibis* 138 (4): 710–721.
- Navarrete, S. A., Wieters, E. A., Broitman, B. R., & Castilla, J. C., 2005. Scales of benthic-pelagic coupling and the intensity of species interactions: From recruitment limitation to top-down control. *Proceedings of the National Academy of Sciences USA* 102 (50): 18046–18051.
- Neelakantan, K. K., Sashikumar, C., & Venugopalan, R., 1993. *A book of Kerala birds. Part 1*. Trivandrum: World Wide Fund for Nature-India. Kerala State Committee. Pp. i–xxxii, 1–146.
- Pal, J., Chaudhuri, S., Mukherjee, S., & Chowdhury, A. R., 2017. Probing for suitable climatology to estimate the predictability of monsoon onset over Kerala (MOK), India. *Theoretical and Applied Climatology* 130(1–2): 59–76.
- Pittie, A., 2017. Bibliography of South Asian Ornithology. URL: <http://www.southasiaornith.in>. [Accessed on 10 October 2017]
- Ramesh, D. A., & Ramachandran, S., 2005. Factors influencing Flamingo (*Phoenicopterus roseus*) distribution in the Pulicat lagoon ecosystem, India. *Wetland Ecology & Management* 13: 69–72.
- Rao, A. N. J., 1983. A theory on the flight corridor of Flamingoes in Southern India. *Mayura* 4 (2): 6–8.
- Rasmussen, P. C., & Anderton, J. C., 2012. *Birds of South Asia: the Ripley guide*. 2nd ed. Washington, D.C. and Barcelona: Smithsonian Institution and Lynx Edicions. 2 vols. Pp. 1–378; 1–683.
- Sashikumar, C., Praveen J., Palot, M. J., & Nameer, P. O., 2011. *Birds of Kerala: status and distribution*. 1st ed. Pp. 1–835. Kottayam, Kerala: DC Books.
- Singh, G., 1987. Flamingo migration in Punjab. *Cheetal* 28 (3): 17–19.
- Sugathan, R., 1983. Some interesting aspects of the avifauna of the Point Calimere Sanctuary, Thanjavur District, Tamil Nadu. *Journal of the Bombay Natural History Society* 79 (3): 567–575.
- Tere, A., 2005. Ecology of greater flamingo *Phoenicopterus roseus* and lesser flamingo *Phoenicopterus minor* on the wetlands of Gujarat. PhD thesis. The M. S. University of Baroda, Gujarat. 📄

## Confirmation records of Brown-capped Pygmy Woodpecker *Dendrocopos nanus* from Bangladesh

A. M. Saleh Reza, Nazmul Kamal Rony, & Selina Parween

Reza, A. M. S., Rony, N. K., & Parween, S., 2018. Confirmation records of Brown-capped Pygmy Woodpecker *Dendrocopos nanus* from Bangladesh. *Indian BIRDS* 14 (2): 45–46.

A. M. Saleh Reza, Department of Zoology, University of Rajshahi, Rajshahi 6205, Bangladesh. E-mail: [amsaleh@gmail.com](mailto:amsaleh@gmail.com) [Corresponding author]

Nazmul Kamal Rony, 54/1 Omarpur, Sapura, Rajshahi 6203, Bangladesh. E-mail: [nkamal912@gmail.com](mailto:nkamal912@gmail.com)

Selina Parween, Department of Zoology, University of Rajshahi, Rajshahi 6205, Bangladesh. E-mail: [selinaparween@yahoo.com](mailto:selinaparween@yahoo.com)

Manuscript received on 21 August 2017.

The Brown-capped Pygmy Woodpecker *Dendrocopos nanus* is reported to have a distribution in India, Nepal, and Sri Lanka, and considered widespread in the lowlands and plains of the Indian Subcontinent (Ali & Ripley 1987). However, its presence in Bangladesh is dubious as sightings are compounded with records of Grey-capped Pygmy Woodpecker *D. canicapillus* (Thompson & Johnson 2003). Here we present photographic records that confirm the presence of this species in Bangladesh.

Since 2005, we have been regularly birding in and around Rajshahi city (24.37°N, 88.65°E), situated in north-western Bangladesh. Two important birding areas include the Rajshahi University campus (24.37°N, 88.64°E; henceforth, RU), and the Padma River. The RU is situated on approximately three square kilometers of land, having diverse habitats including wetlands, open and scattered forests, hedges, fields, small patches of grasslands, croplands, plantations, orchards, and gardens. The RU is well covered by birders, with every site within the campus being visited at least twice a month; while some parts, like the Zoology Field Lab and surroundings, are birded for two hours almost every day.

On 06 March 2015, a single 'Pygmy Woodpecker' was photographed at the Zoology Field Laboratory at 1650 hrs, which was the first record of either of the above species from our campus. The photographs were not clear and hence the bird was tentatively left as a 'Pygmy Woodpecker.' In retrospect, this was indeed a Brown-capped Pygmy Woodpecker as all the black rectrices had white spots [17] and, in one of the photographs, its eyes appear to be pale. Grey-capped Pygmy Woodpeckers in the

hills south of Brahmaputra have white spots on their rectrices, but the central pair is solid black. After about two years, a bird was seen again and photographed in 05 May 2017 in the community forest site of RU at 0730hrs. This bird clearly showed white eyes, large white-speckled rectrices, and brown crown [18]—clearly separating it from the Grey-capped Pygmy Woodpecker, a species we are yet to record in RU.

Sen (2014) reported the presence of Brown-capped Pygmy Woodpecker in the adjoining Indian state of West Bengal. Harvey (1990) listed this species for Bangladesh, giving it the status of a rare resident or a visitor, without mentioning any specific reports. Thompson *et al.* (1994) commented that the species may be present in Bangladesh, but its status there required clarification, and further critical



17. Brown-capped Pygmy Woodpecker *Dendrocopos nanus* showing black rectrices with white spots (March 2015).