



Arrival and Departure of Pallas's Gulls *Larus ichthyaetus* in Kerala, Southern India

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Abstract

Arrival and departure dates of Pallas's Gulls *Larus ichthyaetus* were assessed in the Kadalundy-Vallikkunnu Community Reserve on the southwest coast of India, and secondary information was collated from Migrant Watch to evaluate arrival and departure dates elsewhere in the country. Generally the birds arrived at Kadalundy in November or early December and departed in the second half of April or first half of May. A review of existing information across the country has shown that the dates of arrival vary with latitude. Further, we highlight the possibility that some Pallas's Gulls remain throughout the summer in Kadalundy-Vallikkunnu Community Reserve, something which has not been reported before in India.

1. Introduction

Pallas's Gull *Larus ichthyaetus* is a large gull and one of five species of gulls that spend the winter on the southwest coast of Kerala, south India (Ali & Ripley 1983, Jayson 2002, Aarif 2006). The breeding range of the species extends from southern Russia to Mongolia, and the wintering range from the eastern Mediterranean through the Middle East to India (Birdlife International 2011). Like many other gulls, it breeds colonially in marshes and on islands in lakes in the temperate zone and spends the winter on tropical coasts (Olsen & Larsson 2003). A notable population spends the winter along the coasts of India. As an understanding of the movement patterns of migratory birds is a prerequisite for their effective conservation (Muzaffar *et al.* 2008), information pertaining to the arrival and departure dates of wintering birds is necessary.

Until recently, little information was available on this subject in India. However, a recently established e-group, Migrant Watch, is documenting the arrival of wintering birds in India and making the information available in a downloadable format. Against this background, we have been documenting the arrival and departure dates of Pallas's Gulls in one of their wintering grounds on the west coast of India, Kadalundy-Vallikkunnu Community Reserve, and now have data from seven years in the 2000s.

2. Materials and Methods

Kadalundy-Vallikkunnu Community Reserve is one of the major wintering destinations for gulls and terns on the west coast of India. The Community Reserve is located at the mouth of the Kadalundy River where it drains into the Arabian Sea (Fig. 1). This wetland is located in Tirur, Taluk of Malappuram District (14°49'36" to 11°08'28" N, 75°49'36" to 75°51'20" E). Three square kilometers of the wetland were

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declared as a community reserve in 2008. At low tide, about eight hectares of mudflats are exposed, and these attract many waterbirds. We adopted the total count method to determine the abundance of wetland birds. For this purpose, we established several counting spots to avoid repeated counts of the same birds. Since we were counting birds throughout the year, we were able to document the arrival and departure dates of the migratory species. These counts were carried out for seven years from 2005 to

2011. The first sighting of a bird in a season was considered as the arrival date of that species in that season and similarly the last sighting of a bird was considered as the departure date of the species. Arrival and departure dates of Pallas's Gulls elsewhere in India in the last four seasons were collated from Migrant Watch and are compared with our observations at Kadalundy-Vallikunnu Community Reserve.

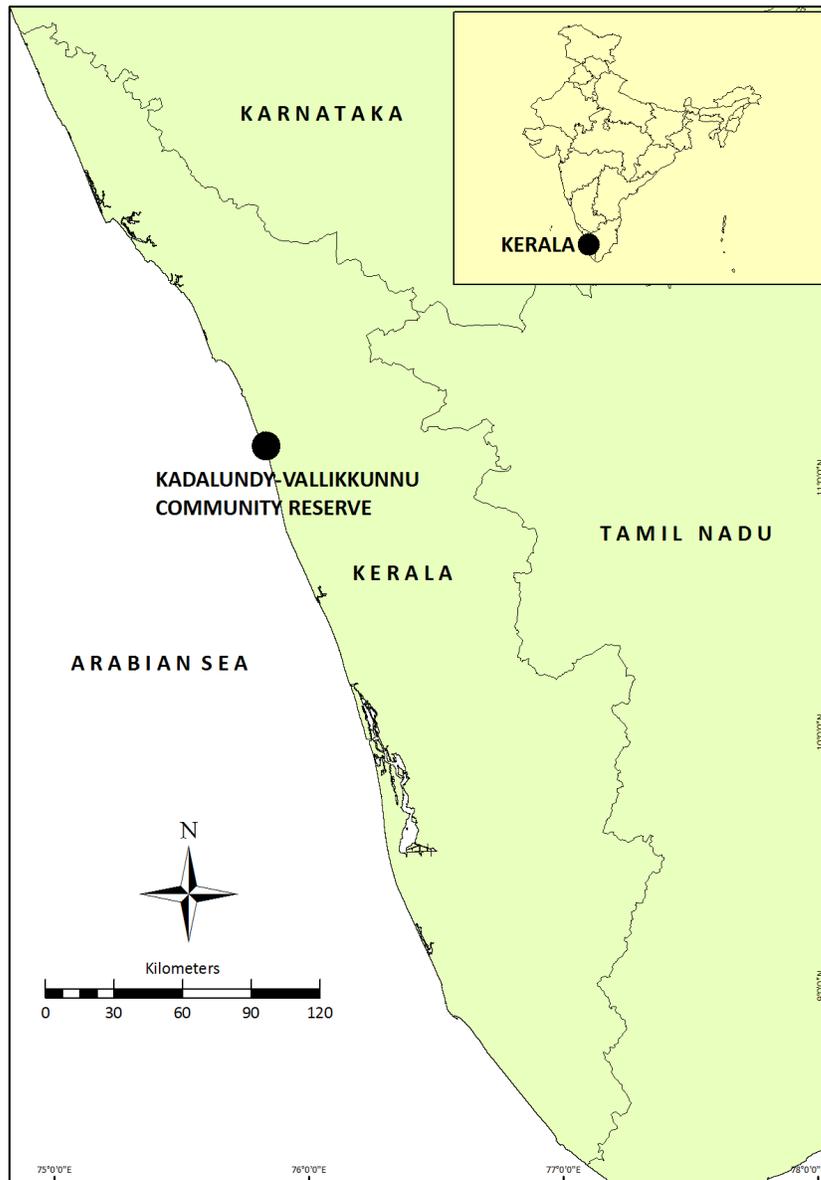


Fig. 1. Location of Kadalundy-Vallikunnu Community Reserve in Kerala State, India.

3. Results

The arrival and departure dates of Pallas's Gull in our study area are presented in Table 1. During the six years from 2005 to 2010, the arrival dates varied from 7 November to 5 December and departure dates from 15 April to 16 May. However, on 30 July 2011, two adult Pallas's Gulls were seen resting on an exposed sandbank in Kadalundy-Vallikkunnu

Community Reserve. This was the first time in seven years of continuous monitoring that Pallas's Gulls had been seen in July. Although arrival and departure dates vary across the wintering grounds, the arrival of birds in the wintering areas three months earlier than normal had not previously been recorded anywhere in India.

Table 1. Arrival and departure dates of Pallas's Gulls at Kadalundy-Vallikkunnu Community Reserve between 2005 and 2011.

Year	First sighting	No. of birds	Last sighting	No. of birds
2005/06	15 November	103	22 April	213
2006/07	20 November	163	16 May	10
2007/08	7 November	513	23 April	1
2008/09	5 December	97	10 May	10
2009/10	12 November	1	15 April	3
2010/11	18 November	12	13 May	6

Table 2. Arrival dates of Pallas's Gulls in different parts of India in 2008–2011. Data obtained from Migrant Watch database.

Arrival date	Location	City	State (from north to south)
28-10-2008	Ropar Barrage	Ropar	Punjab
29-12-2008	Yamuna Banks	Agra	Uttar Pradesh
28-09-2008	Ganga barrage, North embankment	Kanpur	Uttar Pradesh
19-10-2008	Yamuna Banks	Noida	Uttar Pradesh
22-09-2008	Okhla Bird Sanctuary	Noida	Uttar Pradesh
19-12-2010	Poshitra coast	Dwarka	Gujarat
29-11-2010	Khijadia Bird sanctuary	Jamnagar	Gujarat
28-11-2010	Bedi Bundur	Jamnagar	Gujarat
22-11-2009	Khijadiya Bird Sanctuary	Jamnagar	Gujarat
22-11-2009	Chhari dhandh conservation reserve	Nakhatrana	Gujarat
14-09-2008	Henry Island		West Bengal
09-11-2008	Gazoledoba	Gazoledoba	West Bengal
04-12-2008	Chilika Lake		Orissa
09-10-2011	Murud beach	Murud	Maharashtra
27-01-2010	Chitrapu-Mulki	Mulki	Karnataka
15-11-2008	Karwar (unspecified)	Karwar	Karnataka
12-11-2010	Kadalundy-Vallikkunnu Community Reserve	Kadalundi	Kerala

4. Discussion

Pallas's Gull is a wholly migratory species in nature, although immature birds sometimes remain in the wintering grounds throughout the year (Olsen & Larsson 2003, Birdlife International 2011). However, based on the available literature in India, there have been no reports of such incidents along the Indian coast. A few species, such as Lesser Sand Plover *Charadrius mongolus*, Whimbrel *Numenius phaeopus* and Common Redshank *Tringa totanus*, remain throughout the summer in the Kadalundy-Vallikkunnu Community Reserve, which presumably, therefore, provides

sufficient food resources for these birds during summer. In this context, the early sighting of two Pallas's Gulls is of interest as it suggests that this species may also be able to survive throughout the summer on the west coast of India. The arrival date of the species obviously varies with latitude, with birds arriving in the northern states a little earlier than in the southern states (Table 2). The earliest arrival date was in West Bengal, where the species was first recorded on 14 September 2008. Within the Kadalundy-Vallikkunnu Community Reserve, there was not much variation in the first and last sighting of the species (2005–

2011, Table 1) which can be attributed to climatic conditions in the wintering and breeding grounds (Muzaffar *et al.* 2008).

Although the west coastal region of Kerala has been well monitored through the Asian Waterbird Census (AWC), the over-summering of Pallas's Gulls had not been reported prior to 2011. This observation suggests that continuous monitoring of important wintering grounds throughout the year is required for a complete understanding of the patterns of movement of migratory waterbirds in their wintering range.

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