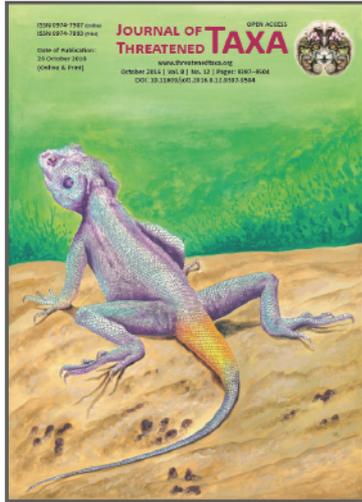


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### SHORT COMMUNICATION

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Santosh Sharma & Dinesh Bhatt

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## MIGRATORY PALLAS'S GULL *LARUS ICHTHYAETUS* (PALLAS, 1773): A NEW RECORD FROM SIKKIM, THE EASTERN HIMALAYA, INDIA

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**Abstract:** The present study documents the first sightings of the migratory Pallas's Gull at two different locations (Cholamu Lake and Singtam Valley) in the eastern Himalayan state of Sikkim in India. We recommend that long term surveys are required to determine and establish the distribution and status of the species in the state.

**Keywords:** Bird migration, Central Asian Flyway, Cholamu Lake, East Asian - Australasian Flyway, Pallas's Gull, Sikkim, Singtam Valley.

Migration is the regular seasonal journey undertaken by a number of birds in response to changes in food availability, habitat or weather (Berthold et al. 2001). In recent decades, understanding the pattern and timing of migration has become of great importance to the conservation of migratory bird species (Boere & Stroud 2006; Li & Mundkur 2007). The Indian subcontinent lies in the Central Asian Flyway (CAF) and the East Asian-Australasian Flyway (EAAF) and is a host to migratory waterbird species from the Palaearctic region (Alfred & Nandi 2000). Out of 1,180 species of birds found in the Indian subcontinent, 459 species are winter visitors (BirdLife International 2016). There are also reports that a lot of migration occurs across many areas along the length of the Himalaya from Kashmir to Arunachal Pradesh. Ducks and geese constitute about 85% of the

migrant populations to the Indian subcontinent (Kumar et al. 2003, 2005). With regard to India, only 2.8% work has been conducted on bird migration (Narwade et al. 2012). Consequently, there is a dearth of in-depth information of migratory patterns of waterbirds in the Indian subcontinent.

As far as the eastern Himalayan state of Sikkim, India is concerned; there have been sightings on some migratory birds, e.g., Ruddy Shelduck *Tadorna ferruginea*, Osprey *Pandion haliaetus*, Black-necked Grebe *Podiceps nigricollis*, Little Grebe *Podiceps ruficollis*, Common Merganser *Mergus merganser*, Coot *Fulica atra*, Bar-headed Goose *Anser indicus*, Northern Pintail *Anas acuta*, Mallard *Anas platyrhynchos*, Baer's Pochard *Aythya baeri*, and Tufted Duck *Aythya ferina* (Ganguli-Lachungpa 1990a,b, 1992, 1994, 1998, 2003; Chettri et al. 2005). The present study documents the first sightings of Pallas's Gull (*Larus ichthyaetus* Pallas, 1773) for the state.

### RESULTS AND DISCUSSION

On 06 September 2013 the first sighting (unpublished) of a non-breeding individual was made by Satyadeep Chettri at Cholamu Lake (28.011°N & 88.756°E; elevation

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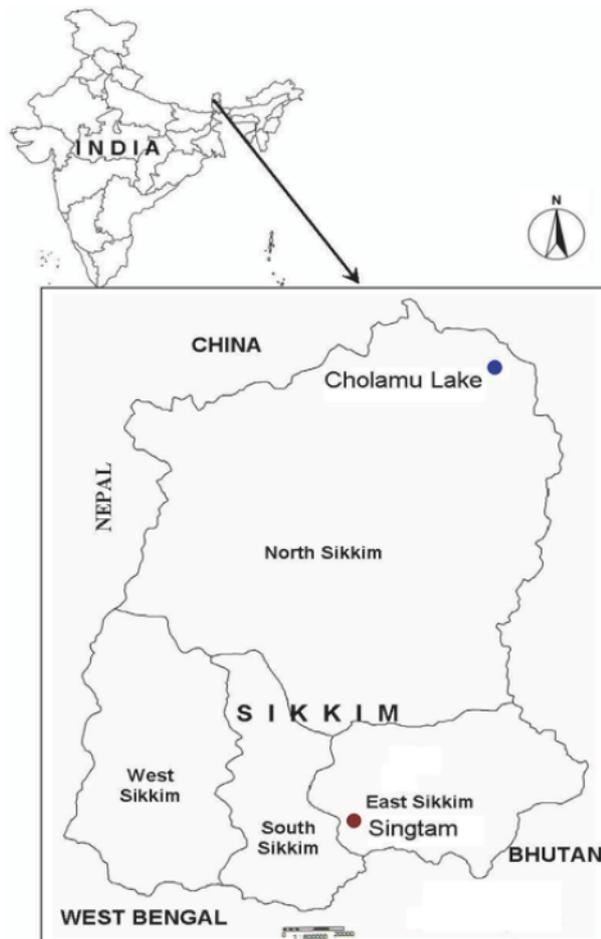
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**Figure 1. Location of observation sites (Cholamu Lake and Singtam urban town in Sikkim)**

5,330m), North District of Sikkim (Fig. 1). It was also the first photographic record of the species from Sikkim (Image 1).

On 21 March 2014, we started a bird survey from Singtam towards the Sirwani, on the road parallel to Teesta (Image 2). On the way at a distance of about 100m, we sighted a solitary bird on the river bed of Teesta in the Singtam Valley between Singtam Town, East Sikkim, (27°13.908'N & 88°29.549'E, elevation 355m) and Sirwani Village (27°14.506'N & 88°28.989'E; elevation 382m, about 2km from Singtam) at 07:42hr (Image 3) and 07:50hr (Image 4). This is the second photographic record of Pallas's Gull in Sikkim (Images 3 and 4).

There is no published information of this species in the Sikkim Himalaya (Ganguli-Lachungpa 1990a,b, 1992, 1994, 1998, 2003; Acharya & Vijayan 2011; Leepage 2014). Hence, our observations constitute a new record for the Sikkim State.

A review of the literature reveals that the species



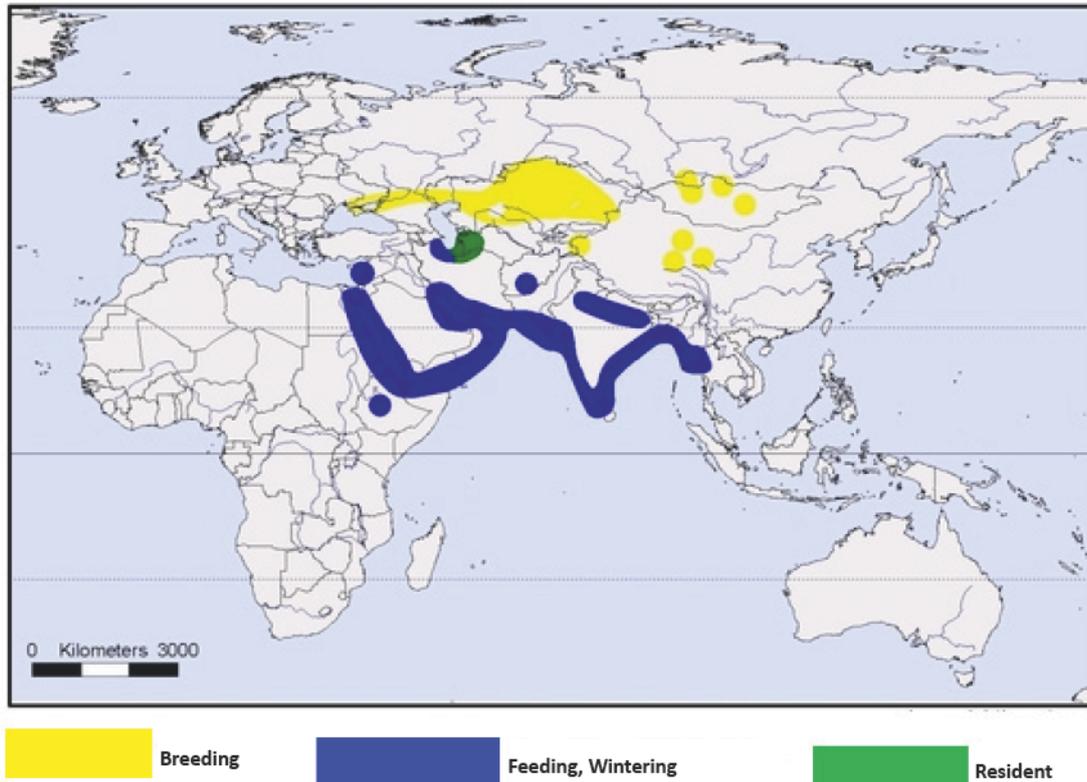
**Image 1. Pallas's Gull in non-breeding plumage flying near Cholamu Lake, northern Sikkim (sighting on 6 September 2013)**



**Image 2. General habitat of the sighting area near Teesta River, Singtam Valley**

breeds in a few very small, scattered localities from the Black Sea (Ukraine), east to Lake Balkhash (Kazakhstan) and northwestern Mongolia (Del Hoyo et al. 1996). It's breeding range in western China is largely limited to lakes of the Qinghai-Tibet plateau (Liao et al. 1984; Jian et al. 1991; Wang 1991). Qinghai Lake (3,260m), on the northern part of the Qinghai-Tibet plateau is home to approximately 15,000 gulls (Liao et al. 1984; Zhang et al. 2008). The non-breeding (northern wintering) range covers the coastal areas extending from the eastern Mediterranean to the Red Sea, southcentral Ethiopia, southern Caspian Sea and the northern Indian Ocean east to Myanmar, rarely to Thailand (Del Hoyo et al. 1996; Burger et al. 2013). According to Ali (2002), it is a non-breeding visitor to the coasts and larger rivers of the Indian subcontinent; also Sri Lanka and lower region of Nepal. Zhang et al. (2014) has reported the Bay of Bengal, with extensive areas of coastal mudflats as an important non-breeding area for Pallas's and other gull species (Fig. 2).

From Migrant Watch (MW) database (e-group), arrival and departure dates (2008–2014) of Pallas's Gull across different parts in India were compiled. An analysis of the observations revealed that the birds are observed



Source: [www.groms.de](http://www.groms.de) (after Del Hoyo et al. 1992–2001)

Figure 2. Distribution of Pallas's Gull across the world



Image 3. Pallas's Gull with breeding plumage near Teesta River bed, Singtam Valley, eastern Sikkim (sighting on 21 March 2014 at 07:42hr)



Image 4. Pallas's Gull with breeding plumage flying over river Teesta in the Singtam Valley (sighting on 21 March 2014 at 07:50hr)

to arrive from the second week of September onwards and they start migrating north and leaving the country between 8 March and 13 May. As per the MW database, the favoured non-breeding sites have been mostly in the southern and coastal states of India such as Gujarat, Karnataka, Tamil Nadu, Maharashtra, Odisha, Kerala, and West Bengal, with a few sightings in the northern states of Uttar Pradesh, Punjab and Uttarakhand (Table 1). It was also evident that the arrival date of the species varies with latitude, with birds arriving in the northern

states a little earlier than in the southern states.

According to Aarif et al. (2011) the earliest arrival date was 14 September 2008 in West Bengal. Our 6 September sighting is consistent with the findings of Zhang et al. (2014) of satellite tracked birds departing from Qinghai Lake between 2 and 14 August and arriving between 3 November and 3 December in West Bengal (India), which lies due south of Sikkim.

To understand how long the species may stop in the Sikkim State on migration, we surveyed the

Table 1. Migration (Arrival and departure) dates of Pallas's Gulls at different sites in different states of India between 2008 and 2014

First sighting during arrival	No. of individuals	Location	Last sighting during departure	No. of individuals	Location
14.ix.2008	7	Henry Island, West Bengal	8.iii.2010	1	Lakhota Lake, Jamnagar, Gujarat
22.ix.2008	3	Okhla Bird Sanctuary, Noida, Uttar Pradesh	17.iii.2010	2	Ranjitsagar Dam, Jamnagar, Gujarat
28.ix.2008	3	Ganga barrage, North embankment, Kanpur, Uttar Pradesh	15.iv.2009	3	Kadalundy-Vallikkunnu Community Reserve, Kerala
9.x.2011	50	Murud beach, Murud, Maharashtra	18.iv.2014	2	Tank near Kala Pond, Bhavnagar, Gujarat
12.x.2013	1	Kelambakkam Backwaters, Kelambakkam, Tamil Nadu	22.iv.2005	103	Kadalundy-Vallikkunnu Community Reserve, Kerala Kadalundy-Vallikkunnu Community Reserve, Kerala
19.x.2008	1	Yamuna Banks, Noida, Uttar Pradesh	23.iv.2007	1	Kadalundy-Vallikkunnu Community Reserve, Kerala
28.x.2008	2	Ropar Barrage, Ropar, Punjab	10.v.2008	10	Kadalundy-Vallikkunnu Community Reserve, Kerala
9.xi.2008	2	Gazoledoba, Gazoledoba, West Bengal	13.v.2010	6	Kadalundy-Vallikkunnu Community Reserve, Kerala
15.xi.2008	1	Karwar (unspecified, Karwar, Karnataka)	16.v.2006	10	Kadalundy-Vallikkunnu Community Reserve, Kerala
22.xi.2009	5	Chhari dhandh conservation reserve, Nakhatrana, Gujarat			
22.xi.2009	6	Khijadiya Bird Sanctuary, Jamnagar, Gujarat			
28.xi.2010	2	Bedi Bundur, Jamnagar, Gujarat			
29.xi.2010	2	Khijadia Bird Sanctuary, Jamnagar, Gujarat			
3.xii.2009	50	Kadalundi estuary, Kadalundi, Kerala			
4.xii.2008	30	Chilika Lake, Odisha			
19.xii.2010	1	Poshitra coast, Dwarka, Gujarat			
24.xii.2012	NA	Chilika Lake, Odisha			
27.xii.2012	NA	Bhitarkanika mangroves, Bhitarkanika National Park, Odisha			
29.xii.2008	2	Yamuna Banks, Agra, Uttar Pradesh			
30.xii.2013	1400	Manauli Island, Tamil Nadu			
24.i.2014	4	Haripura Reservoir, Bajpur, Uttarakhand			
27.i.2010	1	Chitrapu-Mulki, Mulki, Karnataka			

NA = Not ascertained; Source: Migrant Watch database and Arif et al. 2011

Singtam Valley area for five days following the 21 March observation. We, however, failed to see any more birds and conclude that the individuals may have proceeded northward. The timing of our observation falls within the northward migration revealed by Zhang et al. (2014) where marked birds departed from their non-breeding sites in the Bay of Bengal between 18 February and 30 March and arrived in Qinghai Lake between 23 March and 2 May.

Sikkim lies along the western part of the East Asian-Australasian flyway as well as in the Central Asian Flyway and the state's wetlands including Khecheopalri Lake (1,790m), Tsomgo Lake (3,660m), Gurudongmar Lake (5,180m) and Cholamu Lake (5,330m), and the different river valleys are important stop-over sites for different migratory bird species. The high altitude (>5,000m) wetlands are well protected due to

government legislations but the low elevation (300–700 m) riverine wetland/areas located along Singtam and Rangpo stretch in East Sikkim have been declared as an industrial corridor of the state. They are subjected to various types of anthropogenic threats, including sand/boulder mining, encroachment, deforestation and habitat fragmentation. These threats may affect these stopover sites of the Pallas's Gull and other migratory species. Zhang et al. (2014) have reported that the numbers of Pallas's Gull breeding at Qinghai Lake had fallen dramatically from over 87,000 in the 1970s to about 15,000 in present times, attributed mainly due to local tourism linked to rapid economic development in the Qinghai-Tibet plateau. Moreover, recently Pallas's Gull has been found to feed on toxic Lunartail Puffer *Lagocephalus lunaris* around the coastal areas of Purba Midnapur, West Bengal to Talsari, Odisha (Datta et al.

2016).

Long term monitoring of this species is required to determine its arrival and departure dates, stopover areas, migration routes and habitat requirements in and around the state of Sikkim.

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#### Article

**Identifying orchid hotspots for biodiversity conservation in Laos: the limestone karst vegetation of Vang Vieng District, Vientiane Province**

-- Pankaj Kumar, Stephan W. Gale, André Schuiteman, Somsanith Bouamanivong & Gunter A. Fischer, Pp. 9397–9417

#### Communications

**On the occurrence of Common Baron (Lepidoptera: Nymphalidae: Limenitidinae: *Euthalia aconthea* Cramer, 1777) in the Delhi area and analysis of abiotic factors affecting its distribution in India**

-- Rajiv K. Singh Bais, Pp. 9418–9433

**Diversity and seasonality of polypore fungi in the moist deciduous forests of Peechi-Vazhani Wildlife Sanctuary, Kerala, India**

-- A. Muhammed Iqbal, Kattany Vidyasagaran & P. Narayan Ganesh, Pp. 9434–9442

#### Short Communications

**Camera trapping the Palawan Pangolin *Manis culionensis* (Mammalia: Pholidota: Manidae) in the wild**

-- Paris N. Marler, Pp. 9443–9448

**Migratory Pallas's Gull *Larus ichthyaetus* (Pallas, 1773): a new record from Sikkim, the eastern Himalaya, India**

-- Santosh Sharma & Dinesh Bhatt, Pp. 9449–9453

**An inventory of herpetofauna from Wadi Sayq, Dhofar, Oman**

-- Lawrence Derek Ball & James Stefan Borrell, Pp. 9454–9460

**Species diversity and spatial distribution of snakes in Jigme Dorji National Park and adjoining areas, western Bhutan**

-- Bal Krishna Koirala, Dhan Bdr Gurung, Phurba Lhendup & Sonam Phuntsho, Pp. 9461–9466

**New records of petiolate potter wasps (Hymenoptera: Vespidae: Eumeninae) from Bhutan**

-- Tshering Nidup, Thinley Gyeltshen, P. Girish Kumar, Wim Klein & Phurpa Dorji, Pp. 9467–9472

**Recent records of the Pale Jezebel *Delias sanaca sanaca* (Moore, 1857) (Lepidoptera: Pieridae) from Mussoorie hills, western Himalaya, India**

-- Arun P. Singh, Pp. 9473–9478

**An observation on the fruit feeding behavior of butterflies in some areas of Bangladesh**

-- Tahsinur Rahman Shihan, Pp. 9479–9485

#### Notes

**Range extension of the endangered Salim Ali's Fruit Bat *Latidens salimalii* (Chiroptera: Pteropodidae) in the Anamalai Hills, Tamil Nadu, India**

-- Claire F.R. Wordley, Eleni K. Foui, Divya Mudappa, Mahesh Sankaran & John D. Altringham, Pp. 9486–9490

**A checklist of butterflies of Dakshina Kannada District, Karnataka, India**

-- Deepak Naik & Mohammed S. Mustak, Pp. 9491–9504