

# Some behavioural observations of wintering Lesser *Charadrius mongolus* and Greater *C. leschenaultii* Sand Plovers in Goa, India

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We visited Goa (India) from 1st to 15th November 2006 on an ornithological excursion and stayed at a small hotel, “Horizon Beach Resort”, on Velsao beach, South Goa. From here we made many birding trips to different protected areas of Goa.

Velsao beach is well known for its regular and large aggregations of Brown-headed Gulls *Larus brunnecephalus* during winter. Lainer (2004) counted up to 5,000 birds and we confirmed that number nearly every day. Lesser *Charadrius mongolus* and Greater *C. leschenaultii* Sand Plovers are also common in that area. According to Lainer (2004) flocks of 500 are not rare but the ratio of the two species, within flocks, can vary considerable. The race, *C. m. atrifrons* is presumed to be the commonest over wintering plover on the coast of India and Sri Lanka (Henry 1955, 1998; Ali & Ripley 1980; Cramp & Simmons 1983; Ali 1996; del Hoyo *et al.* 1996; Glutz von Blotzheim *et al.* 1999).

Almost daily we counted 400–600 of these plovers between Velsao and Cansaulim beaches, most of them being Lesser Sand Plovers. But sometimes it is difficult to assign these birds to a species, especially when they are in their winter or first year plumage (Makatsch 1981; Hayman *et al.* 1986; Nadler & Königstedt 1986; Colston & Burton 1988; Glutz von Blotzheim *et al.* 1999).

We observed that both species spent the night on the sandy beach, above the high-tide line, looking like scattered pebbles at twilight (see also Ali & Ripley 1980). During the day too they mostly rested there. While relaxed, the plovers sat or stood on a beach that had no shade, some in little sand cavities, behind washed- or blown-up plastic waste, shells of coconuts and also on stretches of sand covered with beach morning glory *Ipomoea pes-caprae*. Often the plovers rested together with hundreds of Small Pratincoles *Glareola lactea*. Generally they tolerated an



Fig. 1. Birds among beach morning glory.

Rainer Mönke

approach up to 6–8 m without any reaction. In the inner Asiatic highlands, during their breeding season, Lesser Sand Plovers have a flushing distance of 50–150 m and are considered amongst the shyest of plovers (Schäfer 1938; Gebauer & Nadler 1992).

When flushed by roaming dogs, human beings or low-flying helicopters, the flocks flew low and fast, across beach and sea, invariably returning quickly to the same resting places. In flight they called intensively, “Prrritt, prrritt, trruitt” or “Drrrüiitt, drüiitt”. Gebauer & Nadler (1992), who studied the breeding behaviour of Lesser Sand Plovers in the Chinese province of Quinghai, described these calls as “*Erregungsruf*”—uttered by the birds during contact with either conspecifics or enemies. Regarding wintering Lesser Sand Plovers in Sri Lanka, Henry (1955, 1998) wrote, “As they fly, a flock keeps up a continuous musical piping”.

Surprisingly, though numerous raptors like Black *Milvus migrans* and Brahminy *Haliastur indus* Kites, flew over the beach and sea, the plovers did not seem threatened by them nor show any escape reaction.

During low tide, large areas of tidal mud flats emerged and the Lesser and Greater Sand Plovers foraged there together with Dunlins *Calidris alpina*, Sanderlings *C. alba*, Great Knots *C. tenuirostris*, Greenshanks *Tringa nebularia* and some Whimbrels *Numenius phaeopus*.

In the late forenoon of 8th November we observed, for the first time, as the water decreased, at the beginning of low tide, some Lesser Sand Plovers running briskly to the just-wet areas and lying down there with outstretched wings and legs. They stayed in that position for a few seconds, even up to one minute. No sooner was the wet mudflat dried by the hot sun, they stood up and ran to another wet area and repeated the process. While lying prone on the wet mudflat they appeared cautious and shy and we could not approach closer than about 30–50 m. For some time we were astonished by this behaviour but soon realised and were quite convinced that this peculiar behaviour served the purpose of thermoregulation. The prone bird's body was cooled by the evaporation of water from the wet mud flat. The Lesser Sand Plovers gave out their excessive heat by pressing their bodies to the wet ground. Another cooling down method was the use of aerial convection currents for evaporation brought about by, running or flying with wet feathers. We measured (with a 0.2°C scale thermometer) the air temperature on a shaded part of the beach, at a height of 1 m above the ground, as 32°C–34°C; the bare sand surface of the beach was up to 60°C; the seawater was 28°C and the just-wet mudflat was about 33°C. For Greater Sand Plovers we cannot confirm such activities with certainty.

The use of water for foot-wetting and belly-soaking in the Charadriiformes is often mentioned in literature (Thompkins

1942; Gatter 1971; Wassenich 1974; Maclean 1975; Beck & Maclean 1976; Ginn 1977; Steinbach 1977; Schardien & Jackson 1979; Nisbeth 1983; Collias & Collias 1984; Goutner 1984; Grant 1987; Mathiasson 1988) but we could not find any instance of the behaviour of Lesser Sand Plovers that we observed at Velsao beach.

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Rainer Mönke

Fig. 2. Lesser Sand Plover.