

**MANNAR ISLAND: A CENTRE FOR THE MOVEMENT OF WATERBIRDS WITHIN THE PALK BAY AND GULF OF MANNAR**

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The Mannar Island of northwestern Sri Lanka is a critical site of the Central Asian Flyway. Despite this recognition, our understanding of its usage by migrant waterbirds is limited. We initiated a waterbird tracking program in Mannar in 2020, using GPS tagging to fill that gap. By July 2022, 21 waterbirds of 11 species were tagged and monitored their movement within the Palk Bay and Gulf of Mannar, during the non-breeding season, along northward/southward migrations and as summer loiterers. The movement of birds within Mannar Island and the adjacent mainland was observed linking the key wetlands, including Rama's Bridge and Urumalei mudflat, Korakulam tank, Erukkalampiddy lagoon, Vankalei Sanctuary and Vidataltivu Nature Reserve. The birds moved along Mannar's both coasts and across Mannar Island. Further, four main movement corridors across the region were observed: (A) along the northwest coast from Mannar via Iranativu, Jaffna across Palk Strait to Point Calimere and above, (B) along Rama's Bridge via Dhanushkodi to Point Calimere and above, (C) direct northward route across Palk Bay and (D) Mannar to Dutch Bay across Gulf of Mannar. The crab plover, *Dromas ardeola* (130,690 data points from five birds), utilized three routes, A, B and C. Brown-headed gull, *Chroicocephalus brunnicephalus* (1,260 data points, two birds), using A and C routes. In contrast, lesser crested tern, *Thalasseus bengalensis* (10,106 data points, two birds), used A and D routes. Eurasian wigeon, *Mareca penelope* (4,017 data points, two birds), and arctic skua, *Stercorarius parasiticus* (152 data points, one bird), took only route A, as Heuglin's gull, *Larus heuglini* (3,880 data points, three birds), solely used route B. Grey plover, *Pluvialis squatarola* (11,147 data points, one bird), took direct route C. Iranativu Island, Pooneryn, Chavakachcheri Lagoon and Kayts of Jaffna, Rama's Bridge and Point Calimere were identified as key stepping stones for waterbird movement across the region. This study highlights the connectivity of wetlands across the Palk Bay-Gulf of Mannar region and the necessity of preserving this network. This study provides the first unbiased records of waterbird movement across the region that would be highly useful in conservation planning and making informed management decisions in the rapid development process in northwest Sri Lanka.

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