

CONFIRMED RECORD OF RED-FOOTED BOOBY *SULA SULA* FROM LAKSHADWEEP SEA, NORTHERN INDIAN OCEAN

CHULLIKAD LALAN VISHNULAL¹, HARICHANDRAN PRASITHA NISANTH²,
RAVEENDHIRAN RAVINESH¹, & NARAYANANE SARAVANANE¹

¹Centre for Marine Living Resources and Ecology, Ministry of Earth Sciences, Atal Bhavan, LNG Road, Puthyuvypin South, Ochanthuruthu, Kochi, 682508, Kerala, India (ravineshr08@gmail.com)

²Department of Aquatic Biology and Fisheries, University of Kerala, Thiruvananthapuram, 695581, Kerala, India

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ABSTRACT

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The Red-footed Booby *Sula sula* occurs across tropical and subtropical oceans, nesting on islands and coastal areas. It is identified by its distinctive red feet, long wings, and sharp bill. However, confirmed reports are rare. Here we report, with photographs, the presence of a Red-footed Booby from the Union Territory of Lakshadweep, northern Indian Ocean. This record adds to the collective understanding of the species' presence and distribution in the region.

Key words: distribution, Lakshadweep, Indian Ocean, Red-footed Booby

INTRODUCTION

The Red-footed Booby *Sula sula* is a member of the family Sulidae (Nelson, 1978). It occurs throughout the subtropical and tropical areas of the Atlantic, Pacific, and Indian oceans, breeding on islands along adjacent coasts, including northern Australia, the Caribbean Sea, and Hawai'i (Enticott & Tipling, 2002; Mayr & Cottrell 1979; Nelson, 1978; Nelson et al., 2006). The species has also been sighted rarely as a vagrant in Sri Lanka (Bandara & Amarasinghe, 2012). However, confirmed reports of the species in the northern Indian Ocean are rare.

We report the species' presence between Bangaram Island and Minicoy Island in the Lakshadweep Sea, off the southwestern coast of India (Fig. 1). The nearest known breeding colony to this location is the Chagos Archipelago, about 1,500 km to the south (Votier et al., 2024). In the Indian Ocean, it also nests on Seychelles and Christmas Island (Diamond, 1994; Nelson, 1978; Reville & Stokes, 1994; Votier et al., 2024). Photographic records on eBird and published reports show the Red-footed Booby in Sri Lanka, in the Maldives, and on the southwestern coast of India (Fig. 1).

OBSERVATIONS

Cruise numbers 402 and 404 aboard the fishery oceanographic research vessel (FORV) *Sagar Sampada* aimed to investigate the biodiversity of the Lakshadweep Sea (Ravinesh et al., 2024). During the survey, an adult dark morph Red-footed Booby *Sula sula* was encountered near Bangaram Island (11°02'N, 072°25'E), first on 12 February 2024 between 6h30 and 8h45 and again near Minicoy Island (07°58'N, 073°24'E) on 07 April 2024 between 14h45 and 15h40 (Fig. 1). Photographs were taken using a Fujifilm GFX100S mirrorless camera equipped with a GF100–200 mm telephoto zoom lens. Red-footed Booby had previously been reported from the Lakshadweep Sea, e.g., by Ali et al. (1996) and Grimmitt et

al. (2011), but sightings were unconfirmed. This report provides the first photographic evidence of the species, an adult dark morph (Fig. 2 A–C), from the Union Territory of Lakshadweep.

There are four keys to identifying this species. First, its red-coloured totipalmate feet contrast against the dark brown plumage of the dark morph; in flight, the feet are prominent against the darker underbody and tail feathers (retrices). Second, the face and throat are typically bare, showing a bluish skin. Third, its bill is long and pointed, with the tip of the upper mandible slightly curved downwards. The bill is often pinkish or bluish-grey and has pale scapulars. Finally, the wings have black remiges and greater primary coverts with uniform dark wing linings.

The documentation of pelagic birds, as accomplished here, is essential for biodiversity conservation and ecological marine research. Comprehensive documentation helps to identify shifts in species' populations and distributions, enabling timely interventions to protect these birds and maintain the ecological balance of marine habitats. The acquired data guide conservation efforts such as the designation of marine protected areas and policy to mitigate threats such as overfishing, pollution, and habitat destruction.

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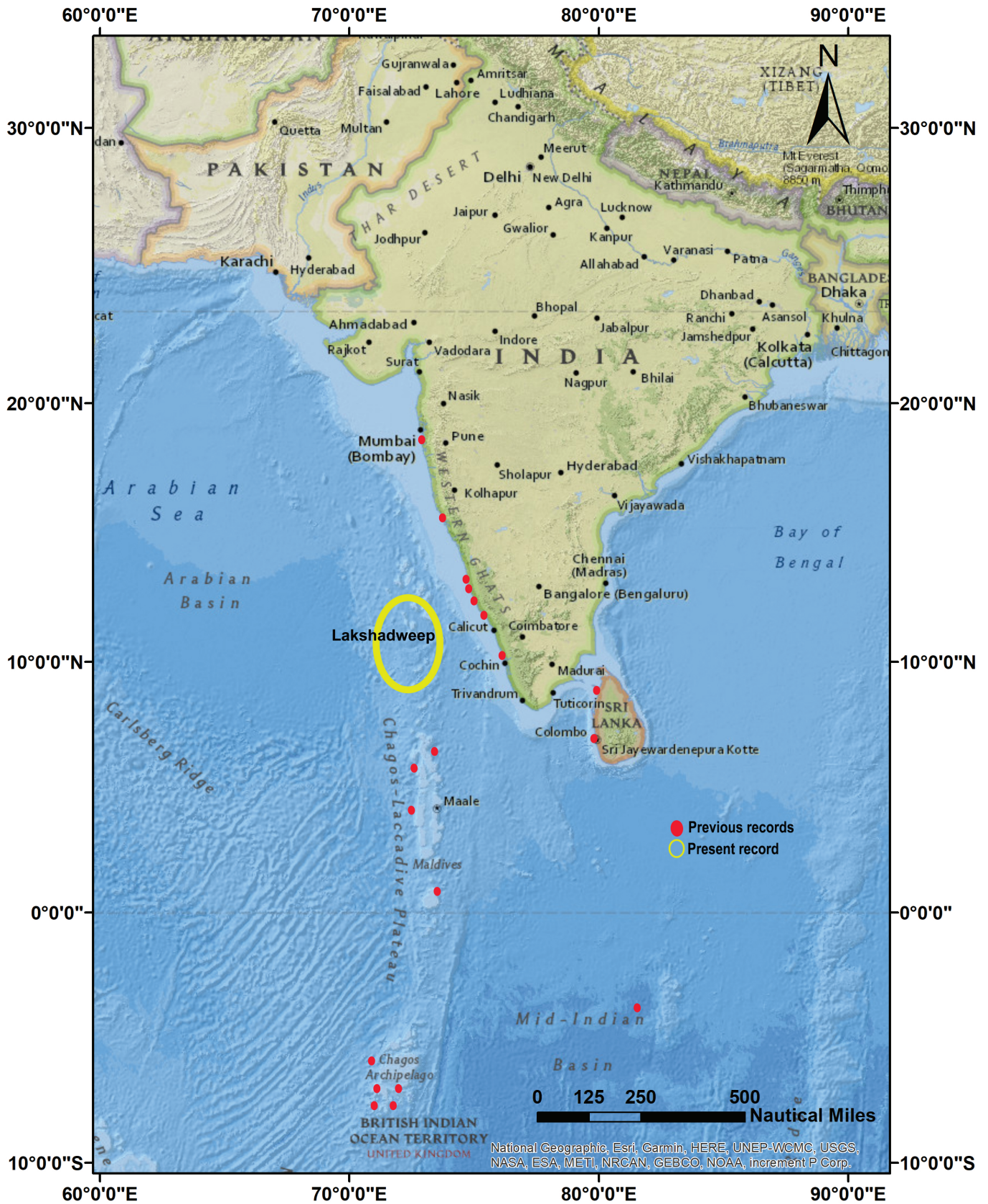


Fig. 1. Maps showing the present record of Red-footed Booby *Sula sula* from the Union Territory of Lakshadweep, India, in relation to the locations of previous records. Image created using ArcGIS 10.8.

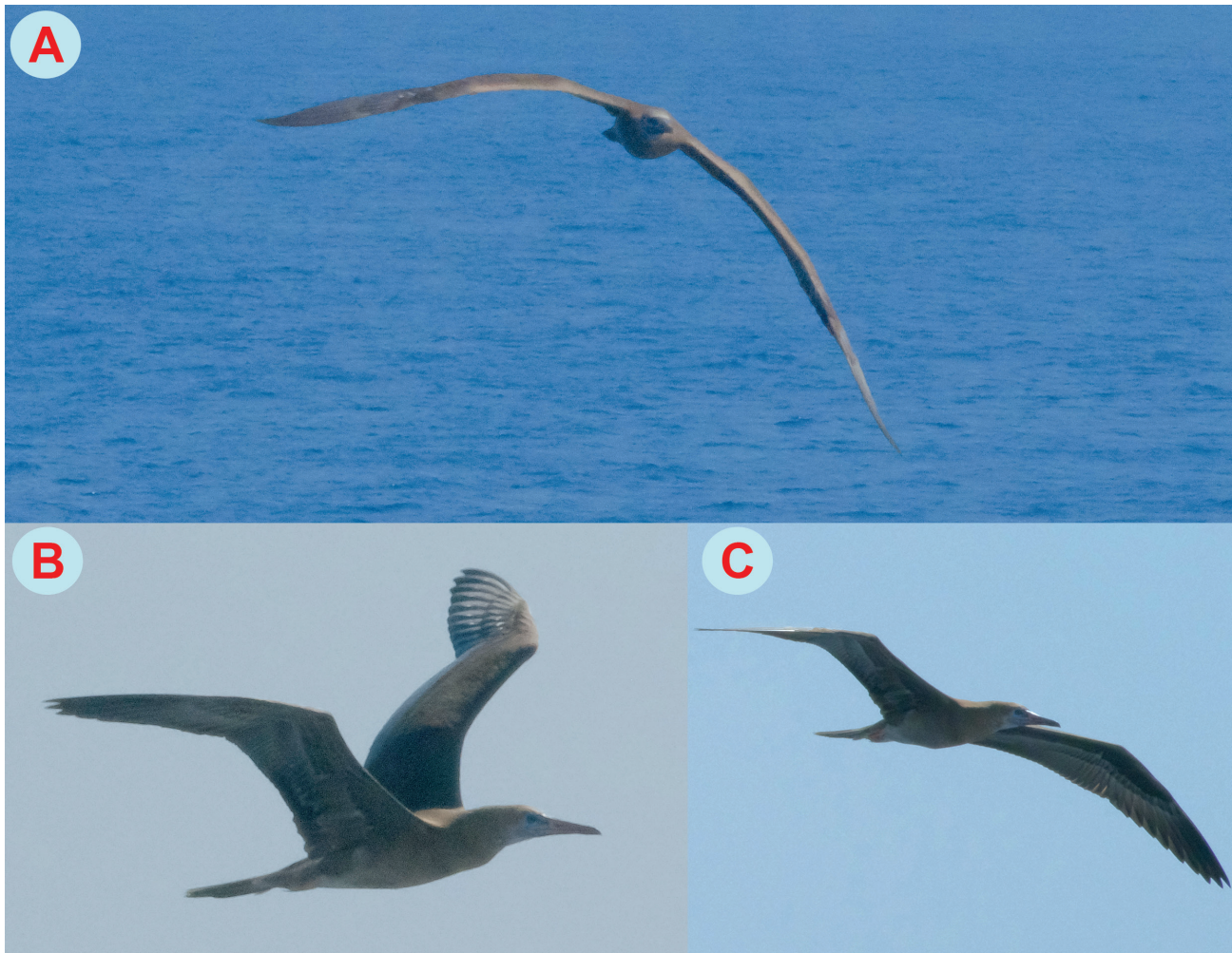


Fig. 2. Diagnostic photographs of the Red-footed Booby *Sula sula* observed in Union Territory Lakshadweep, India, in February and April 2024. A) The golden-brown plumage of the brown (dark) morph. B) The long pointed wing with golden-brown upperwing coverts and paler underwing coverts, pointed pinkish bill, and bluish skin of the face and throat. C) Golden-brown colouration of the breast, belly, and flank region; whitish colouration of the vent region, and reddish feet. Photo credit: Raveendhiran Ravinesh, © Deep Ocean Mission

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