

ESTE TRABAJO FUE REVISADO POR PARES Y POR UN COMITÉ CIENTÍFICO, Y HA SIDO ACEPTADO PARA SU PUBLICACIÓN EN LA REVISTA NUESTRAS AVES. SIN EMBARGO, AÚN NO HA SIDO MODIFICADO PARA SU PUBLICACIÓN FINAL, POR LO QUE ESTA VERSIÓN Y LA FINAL PODRÍAN NO SER IGUALES.

NEW RECORDS AND MIGRATORY INSIGHTS OF THE RUFIOUS-CHESTED DOTTEREL (*Zonibyx modestus*) IN COASTAL PERU

NUEVOS REGISTROS Y PERSPECTIVAS MIGRATORIAS DEL CHORLITO PECHO CANELA (*Zonibyx modestus*) EN LA COSTA DE PERÚ

Enver Ortiz^{1,2*}, Ruth De La Cruz^{2,3}, Luis Elorgio La Madrid-Sandoval⁴, María del Carmen Díaz-Suárez⁴, Omar A. Ubillus-Tolentino⁴, Patricia Saravia-Guevara⁴, Gonzalo Quiroz-Jiménez⁴, Daniel A. Peña-López¹ & Nicole A. Henriod-Cariat⁵

¹Centro de Ornitología y Biodiversidad - CORBIDI. Santa Rita 105, Of. 202, Huertos de San Antonio, Santiago de Surco, Perú

²Programa de Monitoreo Marino Costero ejecutado por WSP para Pluspetrol, Pisco, Perú

³Universidad Nacional San Luis Gonzaga de Ica, Ciudad Universitaria, Av. Los Maestros S/N, Ica, Perú

⁴Servicio Nacional de Áreas Naturales Protegidas por el Estado (SERNANP), Lima, Perú

⁵Avitour Perú Birdwatching Lima, Perú

*eortiz@corbidi.org

ABSTRACT: We report four new austral winter records (2021–2025) of the Rufous-chested Dotterel on the Peruvian coast, increasing national records to eight and representing the northernmost non-breeding occurrences of the species. Plumage and moult observations suggest phenological variation and support a Pacific migratory route, demonstrating movements exceeding 2,000 km, including adults and a juvenile observed.

KEYWORDS: *Austral winter vagrant, neotropical shorebird, Los Pantanos de Villa Wildlife Refuge, Paracas National Reserve, Rufous-chested Dotterel, vagrancy*

RESUMEN: Reportamos cuatro nuevos registros invernales (2021–2025) del Chorlito Pecho Canela o Chorlo Chileno en la costa peruana, elevando el total nacional a ocho y representando los registros no reproductivos más septentrionales. Observaciones de plumaje y muda sugieren variación fenológica y respaldan una ruta migratoria pacífica, con desplazamientos superiores a 2.000 km.

PALABRAS CLAVE: *ave playera neotropical, Chorlo Chileno, divagante austral invernale, Refugio de Vida Silvestre Los Pantanos de Villa, Reserva Nacional de Paracas, vagabundeo*

The Rufous-chested Dotterel (*Zonibyx modestus*) is a Charadriid shorebird endemic to southern South America, with an estimated continental population between 133,000 and 163,000 individuals (Arcaya-Orrego et al. 2025). The species breeds from September to January, mainly in southern Patagonia including Isla Grande de Tierra del Fuego in Argen-

tina and Chile (Hayman et al. 1986; García-Walther et al. 2017; Martínez-Piña 2023; Fig. 1). Following breeding (March–April), birds move along the Atlantic Flyway to wintering areas that extend to Uruguay and Argentina (Hayman et al. 1986; eBird 2026) and into south-eastern Brazil (Simpson & Simpson 2011). A portion of the population also migrates via the Pacific

Flyway to non-breeding sites reaching Antofagasta in northern Chile (Fjelds  & Krabbe 1990; eBird 2026).

We document four new non-breeding-season sightings of the Rufous-chested Dotterel at two sites on Peru's south and central coasts, strengthening evidence that these coastlines are used during the wintering period. Paracas Bay (13 50'S, 76 16'W) is a site of approximately 300 ha, protected within the Paracas National Reserve since 1975. It includes sandy, muddy, clay beaches, intertidal mudflats. Los Pantanos de Villa (12 13'S, 76 59'W) is a 3.6 ha of protected natural area categorized as wildlife refuge. Both locations are categorized as RAMSAR and IBA sites (Senner & Angulo Pratolongo 2014; Fig. 2).

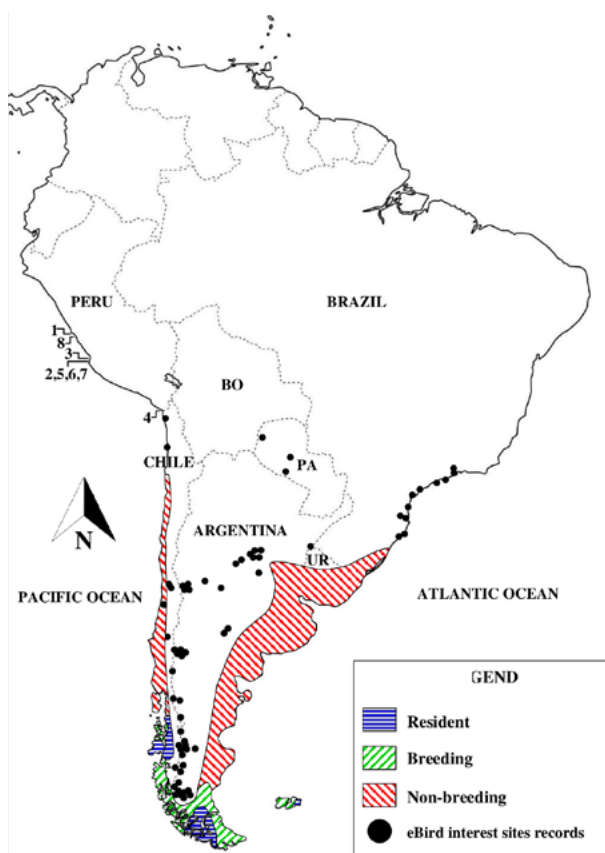


Figure 1. Distribution of Rufous-chested Dotterel (*Zonibyx modestus*) in South America. Black circles represent records retrieved from available online sources up to June 22, 2025, indicating more than one sighting at the same location outside the species' known range. The numbers in Peru correspond to the species' historical and new records in the country (Table 1).

Figura 1. Distribuci n del Chorlito Pecho Canela o Chorlo Chileno (*Zonibyx modestus*) en Sudam rica. Los  rculos negros representan registros obtenidos de fuentes en l nea disponibles hasta el 22 de junio de 2025, e indican m s de un avistamiento en una misma localidad fuera del rango conocido de la especie. Los n meros en Per  corresponden a los registros hist ricos y nuevos de esta especie para el pa s (Tabla 1).

In Peru, the species is a very rare vagrant during winter (Schulenberg et al. 2010), with only four documented records (Table 1). Sightings span from coastal ecosystems, including intertidal mudflats, muddy and clay beaches, and inland habitats such as wetlands, grasslands, and swamp meadows (Plenge 1974; Plenge et al. 1989; Schmitt & Pariset 2005; Vizcarra et al. 2009). The first Peruvian record (~2,000 km north of central Chile) is notably the northernmost non-breeding season record for the species (Plenge 1974).

The three new records in Paracas National Reserve were adults. Two were recorded in the El Sequ n area, 4.7 km west of La Aguada Bay, and the other one in the west corner of La Aguada. Over a period of nineteen days (June 26th to July 15th), we observed one individual at El Sequ n undergoing the molt from pre-alternate to alternate plumage. This

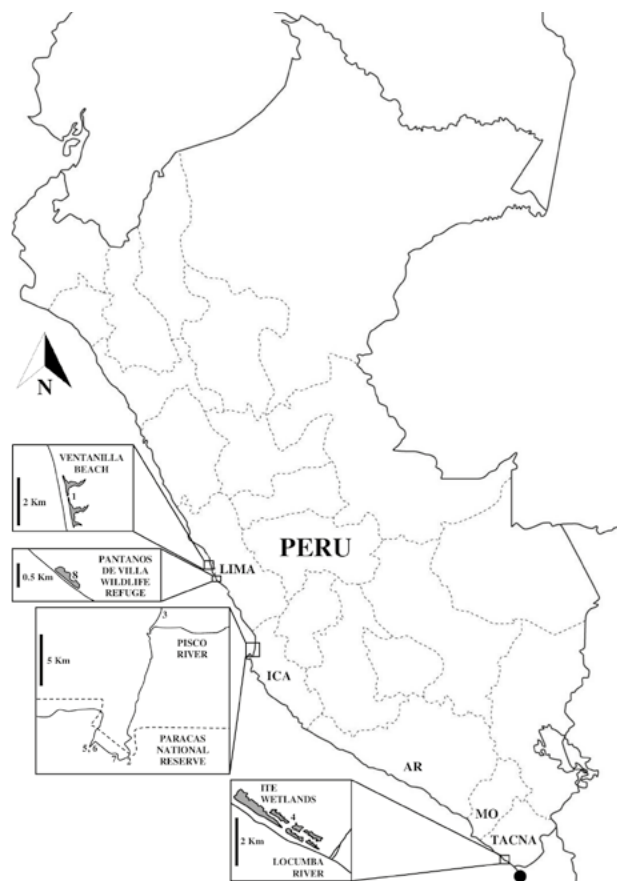


Figure 2. Detail of historical and new records of the Rufous-chested Dotterel in Peruvian territory, indicating its presence in the central and southern coastal regions of Peru.

Figura 2. Detalle de los registros hist ricos y actuales del Chorlito Pecho Canela o Chorlo Chileno en territorio peruano, indicando su presencia en las regiones costeras central y sur del Per .

Table 1. Historical and current records of the Rufous-chested Dotterel (*Zonibyx modestus*) in Peru. *: Birds were collected in the field. BP: basic plumage, PAP: pre-alternate plumage, AP: alternate plumage, based on Martínez-Piña (2023).

Tabla 1. Registros históricos y actuales del Chorlito Pecho Canela o Chorlo Chileno (*Zonibyx modestus*) en Perú. *: Especímenes colectados en campo, BP: plumaje básico, PAP: plumaje pre-alterno y AP: plumaje alterno, según Martínez-Piña (2023).

Historical order record	Bird numbers, age, sex and plumage type	Place & region	Observation date & seasons	Source
1st	1 adult female* AP	20 Km N of Jorge Chávez International Airport Ventanilla beach, Lima	10-17 June, 1972 Autumn	Plenge, 1974
2nd	1 adult male* AP	North of Santo Domingo Paracas National Reserve, Ica	22 June, 1975 Winter	Plenge et al. 1989
3rd	1 adult - AP	Caucato wetlands, Pisco, Ica	25 August, 1995 Winter	Schmitt & Pariset 2005
4th	2 adults - PAP	Ite wetlands, Tacna	13 July, 2008 Winter	Vizcarra et al. 2009
5th	1 adult - PAP	El Sequión, Paracas National Reserve, Ica	10 June, 2021 Autumn	This report
6th	1 adult - PAP->AP	El Sequión, Paracas National Reserve, Ica	26 June - 22 October, 2022 Winter / Spring	This report
7th	1 adult - BP->AP	La Aguada – El Sequión Paracas National Reserve, Ica	13 May – 16 July, 2023 Autumn / Winter	This report
8th	1 juvenile - BP	Laguna Marvilla Pantanos de Villa Wildlife Refuge, Lima	3 May – 5 June, 2025 Autumn	This report

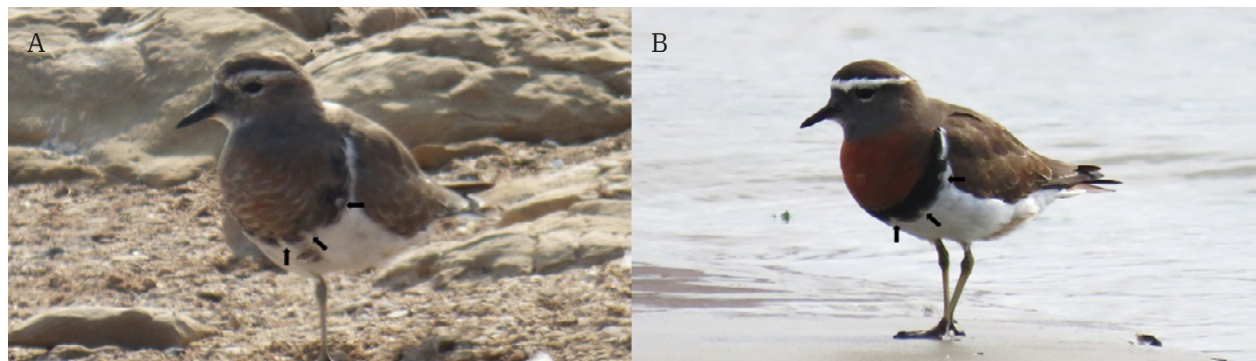


Figure 3. Photographic evidence of Rufous-chested Dotterel in Peru, taken at El Sequión within the Paracas National Reserve, shows the same individual (6th recorded sighting) photographed on June 26th in pre-alternate plumage (A) and again on July 15th in alternate plumage (B) in 2022. Black arrows indicate the diagnostic chest-feather pattern confirming the identity of the same individual. Photographs: Ortiz E.

Figura 3. Evidencia fotográfica del Chorlito Pecho Canela o Chorlo Chileno en Perú, obtenida en El Sequión, dentro de la Reserva Nacional de Paracas, que muestra al mismo individuo (sexto registro) fotografiado el 26 de junio de 2022 en plumaje pre-alterno (A) y nuevamente el 15 de julio de 2022 en plumaje alterno (B). Las flechas negras señalan el patrón distintivo de las plumas del pecho que permite confirmar que se trata del mismo individuo. Fotografías: Ortiz E.

change was marked by a distinctive pattern in the chest feathers (Fig. 3). Combined with other Peruvian records (Plenge 1974; Plenge et al. 1989), this observation suggests that the Rufous-chested Dotterel acquires alternate plumage much earlier in Peru than in Chile (July to late October; Kusch & Marin 2004). The fourth record was a juvenile individual observed at Los Pantanos de Villa Wildlife Refuge (Table 1). The bird was identified as a juvenile due to the presence of buffy tips on the secondary coverts.

Rufous-chested Dotterel individuals in Peru

may be vagrants from southern non-breeding areas in Caldera Beach, central Chile, approximately 1,000 km south of the Peruvian border (Philippi 1964; Vukasovic & Matus 2018; eBird 2026). Alternatively, they could be migrants that breed in Chile and reach the subtropical zone on the central coast of Peru (12°S) through the Pacific Flyway route to spend the non-breeding season (Fjeldsø & Krabbe 1990; Blanco et al. 2004; eBird 2026). We suggest that the birds observed in Peru migrated from southern Chile, where the closest known breeding locations are 2,500 km to the south in Llanquihue (Philippi 1964), the Guaité-

cas Islands, and the Chiloé Island (Johnson & Goodall 1965). These new Peruvian records indicate that migratory movements of this neotropical shorebird may be greater than previously considered.

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REFERENCES

- Arcaya-Orrego N, Pantoja-Maggi V, Pyle P, Boesman PFD, Wiersma P, Kirwan GM (2025) Rufous-chested Dotterel (*Zonibyx modestus*), version 2.0. En: Birds of the World, Smith MG (ed). Cornell Lab of Ornithology, Ithaca, NY, USA. <https://doi.org/10.2173/bow.rucdot1.02>. Accedido el 13/1/2026
- Blanco DE, Lancot RB, Isaac JP, Gill VA (2004) Pastizales templados del sur de América del Sur como hábitat de aves playeras migratorias. *Ornitología Neotropical* 15 (Suppl.): 159-167
- eBird (2026). Species page: *Zonibyx modestus*. <https://ebird.org/species/rucdot1>. eBird: An online database of bird distribution and abundance. eBird: An online database of bird distribution and abundance. eBird, Ithaca, New York. Accedido el 13/1/2026
- Fjeldsø J, Krabbe N (1990) *Birds of the high Andes: A Manual to the Birds of the Temperate Zone of the Andes and Patagonia, South America*. Zoological Museum, University of Copenhagen & Apollo Booksellers, Copenhagen
- García-Walther J, Senner N, Norambuena HV, Schmitt F (2017) *Atlas de las Aves Playeras de Chile: Sitios importantes para su conservación*. Universidad Santo Tomás. Santiago de Chile
- Hayman P, Marchant J, Prater T (1986) *Shorebirds. An Identification Guide*. Houghton Mifflin Company, Boston
- Johnson AW, Goodall JD (1965) *The Birds of Chile and adjacent regions of Argentina, Bolivia and Perú. Vol. 1*. Platt Establecimientos Gráficos, Buenos Aires
- Kusch A, Marín M (2004) Distribución del Chorlo Chileno *Charadrius modestus* (Lichtenstein) (Charadriidae) en Chile. *Anales Instituto Patagonia (Chile)* 32: 69-78
- Martínez-Piña D (2023) *Las Aves de Chile. Guía de campo*. Museo Ediciones, Santiago de Chile
- Philippi RA (1964) Catálogo de las aves chilenas con su distribución geográfica. *Investigaciones Zoológicas Chilenas* 11: 1-179
- Plenge MA (1974) Notes on some birds in west-central Peru. *Condor* 76: 326-330
- Plenge MA, Parker III TA, R. A. Hughes RA, O'Neill JP (1989) Additional notes on the distribution of birds in west-central Peru. *Gerfaut* 79: 55-68
- Schmitt F, Pariset P (2005) Third record of Rufous-chested Plover *Charadrius modestus* in Peru. *Cotinga* 24: 111
- Schulenberg TS, Stotz DF, Lane DF, O'Neill JP, Parker III TA (2010) *Birds of Peru. Revised and updated edition*. Princeton University Press, New Jersey
- Senner NR, Angulo Pratolongo F (2014) *Atlas de las Aves Playeras del Perú. Sitios importantes para su conservación*. CORBIDI, Lima
- Simpson R, Simpson E (2011) Registro documentado da Batuíra-de-peito-tijolo *Charadrius modestus* (Charadriiformes: Charadriidae) em Paraty, Rio de Janeiro. *Atualidades Ornitológicas* 162: 18-19
- Vizcarra J, Hidalgo N, Chino E (2009) Adiciones a la avifauna de los Humedales de Ite, costa sur de Perú. *Revista Peruana de Biología* 16: 221-225
- Vukasovic MA, Matus R (2018) Chorlo Chileno *Charadrius modestus*. En: Medrano F, Barros R, Norambuena MH, Matus R, Schmitt F (eds) *Atlas de las aves nidificantes de Chile*. Red de Observadores de Aves y Vida Silvestre de Chile, Santiago de Chile, pp. 190-191