

COMUNICACIÓN CORTA/SHORT COMMUNICATION

New records of Cinereous Harrier *Circus cinereus* (Accipitridae) in the high Andes of southern Ecuador

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Editado por/Edited by: Andrea V. Nieto

Recibido/Received: 23 Noviembre 2021 Aceptado/Accepted: 29 Septiembre 2022

Publicado en línea/Published online: 13 December 2022

Nuevos registros del Aguilucho Cinéreo *Circus cinereus* (Accipitridae) en los Andes del sur del Ecuador**Resumen**

El Aguilucho Cinéreo *Circus cinereus* es una especie localista en Ecuador, que habita en herbazales agrícolas y páramo desde el norte hasta el centro-sur de los Andes. Se conoce poco acerca de su distribución en el sur del país. En esta región, los registros son escasos y no han sido debidamente documentados. Presentamos el primer registro en video de una hembra adulta y un avistamiento de un macho adulto en los páramos del Área Nacional de Recreación Quimsacocha, provincia de Azuay, suroeste del Ecuador. Nuestros hallazgos sugieren que *C. cinereus* puede estar localmente distribuido más al sur de la distribución actualmente conocida y que prefiere hábitats abiertos, particularmente el páramo de almohadilla, humedales y marismas en los altos Andes y los valles húmedos interandinos.

Palabras clave: Ecosistema páramo, Área Nacional de Recreación Quimsacocha, rapaz, vegetación de almohadilla.

Abstract

Cinereous Harrier *Circus cinereus* is a local species in Ecuador, occurring in agricultural grasslands and páramo from north to central-south Andes. Little is known about its distribution in southern Ecuador. In this region, records are scarce and have not been adequately documented. We present the first video record of an adult female and a sighting of an adult male in the páramo of Quimsacocha National Recreation Area, Azuay province, southwest Ecuador. Our findings suggest that *C. cinereus* may be locally distributed further south of the currently known distribution and that it prefers open habitats, particularly cushion páramo, wetlands, and marshes in the high Andes and humid inter-Andean valleys.

Keywords: Cushion vegetation, páramo ecosystem, raptor, Quimsacocha National Recreation Area.

Cinereous Harrier *Circus cinereus* occurs in the southern lowlands of South America, from Argentina and Chile, through Uruguay, southeastern Brazil, Paraguay, Bolivia, Peru, and along the high Andes of Ecuador and Colombia (Fjeldså & Krabbe, 1990). *Circus cinereus* occupies distinct habitats including pastures, croplands, and natural grasslands throughout arid or semi-arid zones (Thiollay, 1994). In the high Andes, the species prefer marshes, reed beds, wetlands, páramo, and small woody vegetation surrounded by bunchgrass (Fjeldså & Krabbe, 1990; Ferguson-Lees & Christie, 2001).

Circus cinereus is considered as vulnerable in Ecuador (Freile *et al.*, 2019), but as least concern globally (BirdLife International, 2022). It inhabits agricultural terrains, shrubby grasslands, and páramo from north to south-central Andes of Ecuador, above 3000 m a.s.l. (Ridgely & Greenfield, 2001; Henry & Aznar, 2009; Freile & Poveda, 2019). It is common to see *C. cinereus* foraging at the ground level in open habitats, occasionally descending to the plains, and perching on the ground or at low heights, but seldom in trees or bushes (Jiménez & Jaksic, 1988; Fjeldså & Krabbe, 1990).

There are scarce and infrequent records of *C. cinereus* in southern Ecuador, even in highly visited and studied places, and the few available observations are undocumented and do not include descriptions of the habitats occupied (Henry & Aznar, 2009). We present new records of *C. cinereus*, including the first documented one, of this species in southern Ecuador, within Quimsacocha National Recreation Area, Azuay province.

In the páramo ecosystem of Quimsacocha National Recreation Area (hereafter, Quimsacocha; Fig. 1), we video-recorded an adult female perched on the ground (Fig. 2) on 21 October 2020 (-3.047359, -79.248029, 3805 m a.s.l.). On 1 December 2020, we observed an adult male in flight outside the limits of Quimsacocha (-3.042191, -79.216438, 3765 m a.s.l.), 3.55 km east of the first locality. Individuals were identified by plumage (Fjeldså & Krabbe, 1990; Ridgely & Greenfield, 2001; Ferguson-Lees & Christie, 2001; Freile & Restall, 2018). The adult female was greyish-brown with numerous white dots on the back and chestnut to white underparts, while the adult male was grey on the back with rufous and pale grey underparts.

Cushion páramo covered by *Plantago rigida* (Plantaginaceae) and *Oreobolus ecuadorensis* (Cyperaceae) (Neil, 1999; Minga & Verdugo, 2007) was the dominant habitat where we recorded the species. The cushion páramo is an open habitat in humid areas associated with tussock grass of the genus *Calamagrostis* (Poaceae), with a short vegetation profile and little shrub cover of the genus *Loricaria* (Asteraceae) (Minga & Verdugo, 2007; Minga *et al.*, 2013).

Few undocumented records come from the southern Andes of Ecuador. A record from Cañar province, from the XIX century, suggested that *C. cinereus* might be present in the region (Salavadori & Festa, 1990). Seven additional reports (Carrasco, 2009; Bjorklund, 2010; Tinoco, 2013; Cisneros-Heredia, 2018; Matamoros, 2018; Molina, 2022; Normand, 2022) correspond to new occurrences in Azuay province (Cajas National Park and San Gerardo) and Cañar province (Ingapirca Ruins) (Fig. 1). Our results contribute to the few documented records of *C. cinereus* in the southern Ecuadorian Andes. Our two new records suggest that the distribution range of *C. cinereus* extend further south of the current distribution in Ecuador, and that it is locally distributed across the high-Andes of Azuay and Cañar provinces. Within our study region, the species occupied the páramo ecosystem, suggesting that it also prefers natural grasslands, particularly cushion páramo and high-altitude agricultural landscapes across the Ecuadorian Andes.

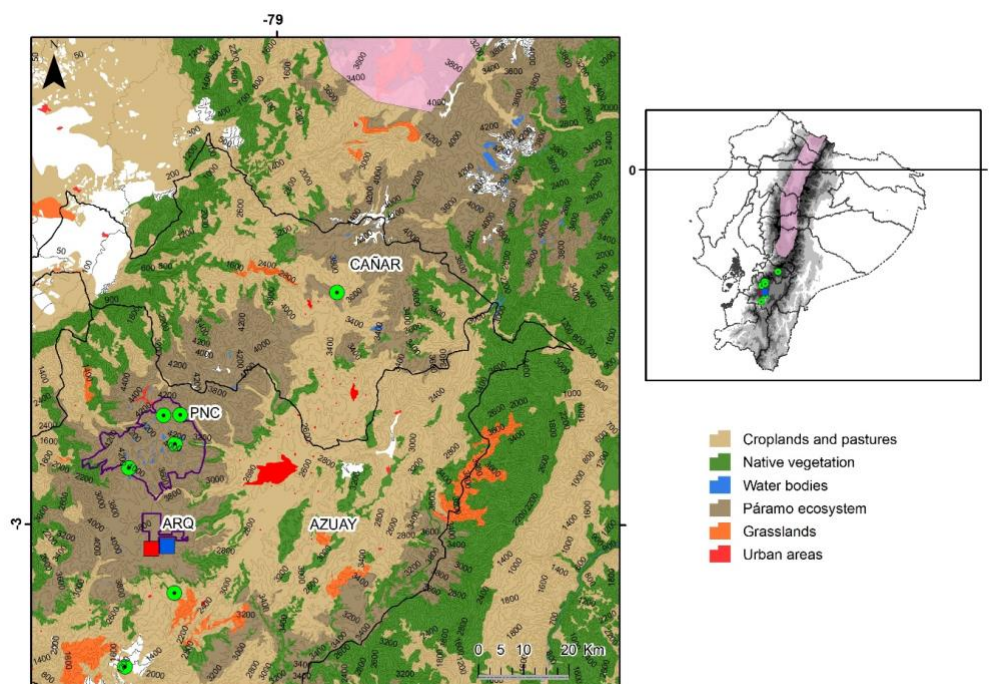


Figure 1: Occurrences of Cinereous Harrier *Circus cinereus* in southern Ecuador. The green-filled circles with dots are eBird reports (2022). Red (adult female) and blue (adult male) squares are new reports from this study. The purple polygons represent the national system of protected areas (PNC: Cajas National Park; ARQ: Quimsacocha National Recreation Area). The pink-filled polygon is the species distribution range in Ecuador by Ridgely *et al.* (2007), but modified according to Ridgely & Greenfield (2006) and Freile & Restall (2018).

ACKNOWLEDGMENTS

We thank the constant support to our research activities of Jacinto Guillén, Raffaella Ansaloni, and Andrés López, from Universidad del Azuay. We thank Eduardo Barnuevo for his field assistance. We also acknowledge Vicente Jaramillo, Soledad Avendaño, and Fernando Carrión, from INVMETALS Ecuador (now Dundee Precious Metals, Ecuador [DPMECUADOR S.A.]) as well as Mark Thorpe and Jorge Barreno for their continued support to our research. We thank David Siddons for verifying the English in the manuscript. The logistical support came from Hari González and park manager staff of Cajas National Park and Quimsacocha National Recreation Area, as well as to Empresa Pública de Telecomunicaciones, Agua Potable, Alcantarillado y Saneamiento de Cuenca (ETAPA-EP). This study was funded by Vicerrectorado de investigaciones, Universidad del Azuay (under grant 2017-0131; 2018-003; 2022-0054), DPMECUADOR S.A. and ETAPA-EP (under grant 78010200001).

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Figure 2: Adult female Cinereous Harrier *Circus cinereus* in Quimsacocha National Recreation Area, Azuay province, 21 October 2020 (video capture) (Barros, 2020).