Distribution of Red-fan Parrot Deroptyus accipitrinus with notes on its breeding behaviour in Loreto, Peru

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El llamativo Loro de Abariaco Deroptyus accipitrinus es raro y poco conocido en la Amazonía peruana. Presentamos nuevos registros en el departamento de Loreto, entre los años 2005 y 2019, en ambas orillas del río Amazonas. Discutimos las implicancias biogeográficas y las posibles causas de su peculiar distribución en Perú. Adicionalmente, reportamos el primer nido documentado en el país y describimos de manera sistemática las conductas observadas en el nido.

Red-fan Parrot Deroptyus accipitrinus is widely distributed in the Guianas and eastern Amazonia, but is much rarer in the western Amazon3,32. Two subspecies are recognised, with the nominate distributed north of the Amazon River in eastern Amazonia, and D. a. fuscifrons south of the Amazon, but apparently also ranging north of it in western Amazonia4,5. The species is categorised as Least Concern by BirdLife International, but Peruvian legislation treats the infrequently observed Peruvian populations as Near Threatened4,5.

The first Peruvian record was a specimen obtained by Bamón Olall at ‘Andosas’, on the upper Pastaza River in 19406. This record agrees geographically with recent reports of the species from the Pastaza basin in Ecuador7,8. Aside of a sighting from the floodplain of the Morona River, mentioned without details by Juniper & Parr9, no further Peruvian records were obtained for more than 60 years until 2003, when a Field Museum of Natural History (Chicago) expedition encountered the species along the middle Yavari River (at Quebrada Línana and Buena Vista, see Fig. 1)10, >500 km south-west of Andosas. There is another specimen from the same area collected by T. della in July 2003, deposited at the Museo de Historia Natural Javier Prado de Lima (MUSM 30631; T. della pers. comm.). The lack of records in the intervening area suggests a local and disjunct range in northern Peru10. Socolar et al.31 discussed numerous bird species with patchy distributions in northern Amazonian Peru and provided two possible geographic explanations for these patterns, based on ancestral / relictual distributions and recent / contemporary connectivity, respectively.

Here we report the presence of D. accipitrinus at ten additional localities in dpto. Loreto. All populations on both banks of the Amazon are assignable to D. a. fuscifrons (see below). We additionally present the first Peruvian observations of the species’ reproductive behaviour, and discuss possible factors governing its fragmented Peruvian distribution.

Study area and Methods

Our records were made during numerous expeditions in dpto. Loreto between 2005 and 2019. All observations were made in the drainages of the Morona, Itaya, Campuya and Yavari Rivers (Fig. 1, Table 1). The regional climate is uniformly hot and humid, with a mean annual temperature of 26.5°C and rainfall between 2,400 and 3,100 mm at Iquitos11.

The surveyed river basins differ substantially in geography and geomorphology (Fig. 1). The Morona is a large north-bank tributary of the Marañón in far western Loreto. The Itaya is a smaller north-bank tributary of the Amazon, draining the lowlands between the Nanay and Tigre Rivers. The only major road in central Loreto, the Iquitos-Nauta highway, crosses the Itaya and divides the basin into a lower portion bordering the Amazonian floodplain, and a poorly explored upper portion, which is reported to contain significant poor-soil formations (R. Aquino pers. comm.) and might harbour a variety of poor-soil forest bird specialists12. The Campuya is a medium-sized tributary of the Putumayo River13. The Yavari and its tributary the Yavari-Mirim are south-bank tributaries of the Amazon along the Peru / Brazil border, characterised by extensive white-sand beaches during periods of low water14. Although the region is climatologically homogeneous, our records are distributed across three major geologic formations: the Pastaza (Morona River), the Nauta (Itaya and Campuya Rivers) and the Pebas formations (Yavari River). Differences in soil chemistry across these formations produce important variations in floristics, avifauna and forest types6,15,16. Nevertheless, all four regions include habitats associated with poor soils (i.e., highly weathered terraces and areas of black-water drainage).

Our expeditions in these four basins used the rivers for access. Thus, most of our sampling occurred in areas with both upland (terra firme) and seasonally flooded (várzea / igapó) habitats in close proximity to rivers.