Notes on the rediscovery of the Baudó Oropendola *Psarocolius cassini* in Chocó, Colombia

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Psarocolius cassini es conocida solamente en tres lugares del Daríen colombiano, en el departamento del Chocó, donde había sido registrada por última vez en 1945. En julio de 1997 y abril de 1999 la especie fue encontrada nuevamente cerca del parque Nacional Ensenada de Utría. La observación de los individuos occurrió en el dosel del bosque primario, al nivel del mar, a 1 km de la costa. La vegetación de la planicie costera está constituida por bosque tropical húmedo con una estructura del dosel peldonado, donde sobresalen arboles altos con abundantes epífitas. Las observaciones arrojaron también las primeras informaciones sobre la vocalización, el comportamiento y la ecología de la especie. La poca abundancia y las preferencias de un habitat singular hacen de *Psarocolius cassini* una especie muy sensible a la destrucción del bosque primario en su área restringida de distribución.

Introduction

Baudó Oropendola *Psarocolius cassini* is endemic to the lowlands of dpto. Chocó, north-west Colombia, where it is known from four specimens and a sight observation of a flock. Birds were recorded from the middle río Truando (07°07'N 77°23'W) in 1858 (adult male; type-specimen), upper Río Baudó (05°32'N 76°59'W) in 1940 (two specimens), and Río Dubasa (05°19'N 76°57'W) in 1945 (a female collected from a group of 10 birds)[2,3,6]. Additionally Rodriguez[11] mentioned that the species occurs along the río Juradó (07°06'N 77°46'W), but presented no evidence for this. There have been no confirmed records of *Psarocolius cassini* since 1945[7].

The species is considered very rare and classified as Endangered[2,3]. Collar *et al.*[2] noted that the rediscovery of the *Psarocolius cassini* is of highest priority and that details of the species' ecological requirements are urgently required if an effective conservation plan is to be developed. Here, I report the rediscovery of *P. cassini* just north of the Ensenada Utría National Park and provide the first descriptions of its behaviour, vocalisations and ecology.

Field observations

On 17 July 1997, c.4.5 km north of the Ensenada Utriá National Park boundary (at 06°04'N 77°23'W), I noticed two unusual oropendolas foraging high in the canopy with a flock of c.25 Chestnut-headed Oropendola *Psarocolius wagleri*. They were larger than the *P. wagleri* with bare cheeks and bicoloured not pale ivory-coloured bills. When one perched in the open, the presence of bright chestnut on the closed wings, flanks, upper back and rump indicated that they were *P. cassini*, based on the description in Hilty & Brown[6]. Having consulted additional literature[7,10], I was doubtful of the identification due to bill and cheek patch colorations. I concluded that this observation was not sufficiently detailed to confirm the rediscovery of *P. cassini*.

In April 1999, I again visited the El Valle and the Ensenada Utría National Park areas. After seven days of fieldwork in the park, on 23 April 1999 along the path from El Valle to the National Park boundary, I encountered the same oropendola as I had observed in July 1997. At 13h35, six individuals of *P. cassini* were observed feeding on fruits in the canopy of primary forest at 06°04'N 77°22'W.

Figure 1. Baudó Oropendola *Psarocolius cassini*, Ensenada Utría National Park, Colombia, 23 April 1999 (Ralf Strewe)

Figure 2. Forest along the río Valle, Ensenada Utría National Park, with the Serranía de Baudó in the background, April 1999 (Ralf Strewe)

They were obviously larger than *P. wagleri*. The distinct bare cheek patch was entirely pink. The mantle, flanks and closed wings were wholly rich chestnut; only the primary tips were blackish and the wings appeared solid chestnut when closed. The bill was largely black, tipped orange-red. The tail was lemon-yellow with the central tail feathers blackish. Females were similar to males, but distinctly smaller and duller in coloration.

Among *Psarocolius* species, *P. cassini* is sympatric only with *P. wagleri*, which is relatively common in the area with two breeding colonies along El Valle path. *P. wagleri* is noticeably smaller than *P. cassini* and is almost entirely black, does not possess a cheek patch and has a pale bill. The closely related Black Oropendola *P. guatimozinus* is distributed through eastern Darién, around the Gulf of Urabá (north-west Colombia), the upper reaches of the río Sucio and east along the northern base of the Western and Central Andes to the middle Magdalena Valley; the ranges of *P. cassini* and *P. guatimozinus* are not known to overlap[5,7,10]. *P. guatimozinus* is distinguished from *P. cassini* by its largely black plumage with the exception of the lower mantle, rump, crissum and secondary coverts, which are dark chestnut but not rich bright chestnut. The upper mantle, flight feathers and tertials are black contrasting with the chestnut wing-coverts, secondaries and tertials. The bare cheek patch is blue and only the wattle and culmen base is pink[6,7,10]. As the photograph (Fig. 1) confirms, the oropendolas I observed had the all-pink face patch and bright chestnut closed wings, flanks and mantle characteristic of *P. cassini*. Following my detailed observations in April 1999, I am positive that the birds encountered in July 1997 were of the same species.

Behaviour

In July 1997, *P. cassini* was only observed briefly. The pair foraged on major horizontal branches laden with epiphytes and moss at or near the canopy, and principally near the trunk. In contrast, *P. wagleri* preferred the outer tree canopy.

In April 1999, the six birds (two males and four females) foraged in a canopy tree (Leguminoseae). After a few minutes, they moved to a clearing with *Cecropia* stands and foraged in dense leaf clusters. They associated with Black-chested Jay *Cyanocorax affinis*. No *P. wagleri* were present. Subsequently the birds visited the canopy of a tall emergent (Bombacaceae), where the males, especially, inspected the undersides of large horizontal branches for insects by leaning beneath them (in the manner of many *Tangara* species). Usually the males remained closer to the trunk and used larger branches while feeding, presumably because they are heavier and less agile than females, which are better able to forage on thinner branches and in the outer canopy. Once, the two males—an adult and an immature, which had a completely black bill—met on a large horizontal branch: the adult called intensively to the immature, while bowing forward, cocking its tail upward and spreading its wings while singing, comparable to the bow-display of Montezuma Oropendola *P. montezuma* or *P. guatimozinus*[7].

On 24 April 1999, I visited the locality again and at 14h05 four birds were present in the same emergent. Unfortunately the weather conditions were extremely bad with thunderstorms and heavy rain throughout most of the day. The birds stayed only a few minutes before departing to the south.

My observations of *P. cassini* provide no indication of when the species breeds. Interestingly, a nearby breeding colony of *P. wagleri* (06°04'N 77°23'W) with 62 nests was active as the females were constructing nests. In another colony of *P. wagleri* with 26 nests, close to the boundary of the national park, females were already feeding young.

Habitat preferences

My three observations of *P. cassini* are from humid lowland forest and forest edge in at 100–365 m. As the río Dubasa and río Truando specimen localities are beside rivers, it was supposed that the species preferred forest on sand deposits[2]. This preference is apparently confirmed by my records of *P. cassini* just 800 m (July 1997) and 1.2 km (April 1999) from the Pacific coast. The narrow coastal plain, underlain by the sandy deposits of historical beaches and alluvial sediments, extends north from the Ensenada Utría to the mouth of the río Valle where the plain is wider[8]. Its natural vegetation is wet tropical lowland forest.

In July 1997, *P. cassini* was observed close to the path from the bay of the Ensenada Utría to the village of El Valle. Outside the National Park boundaries the path passes through pastures, clearings, second-growth woodland and patches of primary forest. The area between the path and the beach is largely more heavily disturbed than that to the east, where primary forest occurs within 100 m of the track. The species was observed in a patch of relatively undisturbed forest with huge emergents and a natural structure. In April 1999, I found the species just 850 m from the first locality and 750 m east of the path. The observation was made in primary forest at the base of a 200–300 m-high ridge. Interestingly, I did not record the species in these hills, although two days of fieldwork were conducted there.

The structure of the lowland forest consists of a rather open canopy (crowns of taller trees usually not touching), allowing sunlight to penetrate to the forest floor, although denser locally. The canopy is broken by tall emergents and the majority of the larger trees have many epiphites.

As my, and previous, records demonstrate, closed-canopy forests are not the preferred habitat of *P. cassini*; it appears comparable to *P. guatimozinus* which appears to avoid completely forested areas and is regularly noted along rivers[7,10]. The three earliest localities for *P. cassini* are close to large rivers and the only previous sight record, by K. von Sneidern in 1945, was made in riverine forest[2,7]. My observations were made c.4 km from the río El Valle, the closest large river, although the species was not recorded along it during one day in July 1997.

Studies undertaken in Ensenada Utría National Park have not recorded *P. cassini*[13], although Porteous & Acevedo[9] noted that *P. cassini* may occur there along with other globally threatened species. I made ornithological observations in the National Park for three days in July 1997 and four days in April 1999, principally around the bay of Ensenada Utría, but did not visit the interior of the park. As intensive fieldwork has been conducted around Ensenada Utría it appears unlikely that the species occurs in this area, which is surrounded by low ridges cloaked in undisturbed primary forest. Its absence may be explained by differing geology, topography and forest structure to my observation sites, which are situated just a few kilometres to the north. This further suggests that the species prefers forests on sand deposits along larger rivers or coastal plains.

Vocalisations

No descriptions or recordings of the vocalisations of *Psarocolius cassini* are available. The call is a loud nasal *wak* given by both sexes. This typical contact note was repeated frequently during foraging. The song is in two parts and resembles that of *P. guatimozinus* and *P. montezuma*[7]. The first part consists of a series of bubbly, conversational notes overlaid by metallic sounds. The second part is a loud, liquid gurgle *skol-l-l-l-l-woollii* accompanied by the bow-display and audible over long distance.

Current threats

As part of Colombia's development strategy, the Pacific region is coming under increasing pressure. New roads are under construction promoting an influx of settlers, conversion of primary forest into pasture and agricultural fields, mining and new exploitation by timber companies[1,4]. A number of potentially damaging projects have been proposed in the northern Chocó, such as the connection of the Pan-American highway across the lower Río Atrato valley and the construction of an inter-ocean canal using the Atrato and Truando rivers. Both projects could have a severe impact on the region's biodiversity[4,12].

The principal threats to the area of Bahia Solano and El Valle are indiscriminate felling of trees, expanding permanent agriculture, cattle raising and road building. The Serranía del Baudó still retains large expanses of tropical wet forest and, since 1987, part of the Serranía from sea-level to 1,400 m has been protected within the Ensenada Utría National Park (54,300 ha, terrestrial and marine)[9,13]. The *P. cassini* observation sites are outside the park boundaries. Only the neighbouring ridge is located within the park but not the coastal plain forest. This forest is under great threat, as a bridge over the río Valle is being completed in 1999. Access from El Valle village to the area south of the river will become easier and the trail to the Ensenada Utría will provide an entrance route for settlers.

Between July 1997 and April 1999 striking changes were evident in the forest, with increased logging, especially of emergents that the oropendolas depend on, and the extension of the track will accelerate process. It appears to be only a question of time before timber extraction and agricultural expansion destroy the primary lowland forest near sea-level in this region.

Von Sneidern (in Collar *et al.*[2]) mentioned that the species was possibly abundant on the Baudó and Dubasa rivers but that it had not been collected or observed more frequently owing to the difficulty in distinguishing it from other oropendolas when high in the canopy or in flight. In my experience, the lack of records of *P. cassini* is probably better explained by the species' natural rarity, requiring as it does a specialised habitat within a tiny range. This habitat is under great pressure from deforestation as large rivers and coastal plains are typically the first areas to be settled and exploited within the Chocó region. It appears probable that extensive deforestation throughout the northern Chocó has already caused a serious decline in the population of *P. cassini*[2].

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