Spizaetus

Neotropical Raptor Network Newsletter

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Falco deiroleucus in Ecuador

Cathartes aura in Venezuela

Asio stygius in Ecuador

Athene cunicularia in Venezuela

Spizaetus

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New records of Orange-breasted Falcon (*Falco deiroleucus*) for the inter-Andean region south of Ecuador

By **Paul A. Molina**

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The Orange-breasted Falcon (*Falco deiroleucus*) has historically been present from southern Mexico to northern Argentina. Currently, it is considered a rare resident throughout its range of distribution (Berry et al. 2020). In Ecuador it is distributed in the Eastern foothills and locally in lowlands from 1400 to 2900 m a.s.l. (Freile and Restall. 2018). There are specific records in Baeza, Lago Agrio, Loreto and Yasuní National Park (Berry et al. 2020). In the inter-Andean region

Figure 1. **Orange-breasted Falcon (*Falco deiroleucus*) perched on a branch of a Cypress (*Cupressus sp.*) 15/11/2018. Photo © Paul A. Molina.**

Figure 2. **Orange-breasted Falcon (*Falco deiroleucus*) perched on a branch of a Cypress (*Cupressus sp.*) 15/11/2018. Photo © Paul A. Molina.**

of Ecuador there is only one record near the city of Quito in northern Ecuador (Carrión and Vargas 2008). Its diet consists of medium-sized birds and bats (Berry et al. 2020; Baker et al. 2012), and it nests on high ledges (Berry et al. 2020) and sometimes in tall trees (Berry et al. 2010).

This species is listed as Endangered (EN) on the Ecuadorian Red List (Freile et al. 2019), and internationally as Near Threatened (NT) (BirdLife International 2022). It is a species of discontinuous distribution and is difficult to detect (Berry et al. 2010), so it is important to report new records of this species. Here I report the first records for the species in the southern inter-Andean region of Ecuador. The objective of this manuscript is to report new records of the Orange-breasted Falcon for southern Ecuador.

First Record

On 11 October 2018, an adult was observed perched on a branch of a Cypress (*Cupressus* sp.), in Ayancay, Cañar, Ecuador (2°48'59.0"S; 78°54'18.4"W) at 2,490 m a.s.l. This area is dominated by crops and introduced vegetation The individual was observed preening, vocalizing, and sometimes, with its beak, it folded the leaves of the branch where it remained perched for approximately 6 hours (Fig. 1). On 15 November 2018, an Orange-breasted Falcon was again observed on the same perch, so it is likely the same individual.

Second Record

On 17 June 2022, an adult was observed in Cuenca, Ecuador (2°54'35.3" S; 78°59'15.4" W) at 2,489 m a.s.l., 13.6 km from the first record,

near a recreational park in an urban area where Eucalyptus (*Eucalyptus globulus*) and shrubby riverside vegetation predominate. On this occasion, the individual was observed in the upper part of a Eucalyptus. It was feeding on a swallow, possibly Blue-and-white Swallow (*Pygochelidon cyanoleuca*), which is common in this area. The individual was interrupted by an American Kestrel (*Falco sparverius*), which made flights and vocalizations very close to the Orange-breasted Falcon, forcing it to leave the area (video at: https://bit.ly/3OAsAVj).

Conclusion

These records correspond to the first in the inter-Andean region in southern Ecuador for the Orange-breasted Falcon, expanding its known range of distribution in the inter-Andean zone. In general, there is a gap in the literature on the ecology of the Orange-breasted Falcon, so the information derived from citizen science may be relevant to expand knowledge regarding the distribution and potential movements of the species. Furthermore, this information may be useful in determining potential factors (e.g. habitat disturbance or loss) that may lead to range changes.

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New records of color aberrations in two subspecies of Turkey Vulture *Cathartes aura ruficollis* and *Cathartes aura meridionalis*, in Venezuela

By **Luis A. Saavedra**[1] and **Edwin Mora**[2]

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The combination of different pigments and the structure of the feathers are the factors responsible for determining the coloration of birds (Hill and McGraw 2006). The most common pigments in birds are melanins, and there are two forms: eumelanin and pheomelanin (Fox and Vevers 1960, Lubnow 1963). Based on its concentration and distribution within the feather, eumelanin is responsible for the colors black, gray, and dark brown, while pheomelanin is responsible for warm reddish brown to pale beige (van Grouw 2013).

Aberrations in the plumage of birds is a frequent occurrence (van Grouw 2013, van Grouw 2018). Some of the most reported are albinism, leucism, and progressive graying. Albinism is the easiest to determine due to the total absence of melanin (van Grouw 2013, van Grouw 2018). Leucism is the complete or partial loss of pigmentation in the feathers or skin. It is a congenital and hereditary condition, where different degrees of extension of the white plumage are observed, ranging from a few white feathers (partially leucistic) to completely white plumage. However, these individuals always have eyes of normal color (van Grouw 2013). On the other hand, in graying the pigmentation of the feathers is progressively lost in each molt until it shows a completely white plumage, and it has been suggested that graying may have a hereditary origin, being associated with senescence (van Grouw 2013, van Grouw 2018).

Leucism and progressive graying are difficult to distinguish in field observations, especially when the latter reaches an advanced stage (van Grouw 2018). The white pattern caused by leucism is normally irregular and bilaterally symmetrical, so the presence of some outer white primary feath-

Figure 1. **Turkey Vulture (*Cathartes aura ruficollis)* with aberrant plumage obsereved in El Teresero, Barinas State, Venezuela. Photo © Edwin Mora**

ers on both sides or some white feathers on the face is typical (van Grouw 2013). On the contrary, progressive graying in its early phase shows randomly distributed white feathers, often on the head, back and flanks. The bill and legs are not affected (van Grouw 2013).

The Turkey Vulture (*Cathartes aura*) is a species with a wingspan that can reach 180 cm. It is blackish-brown in coloration and has a bare reddish head (Phelps and Meyer de Schauense 1994). It has a wide distribution from southern Canada to Cape Horn and the Malvinas Islands (Ferguson-Lees and Christie 2001).

This species maintains several subpopulations that can be recognized as subspecies. Particularly, in Venezuela converge *C. a. ruficollis*, which is a resident of the region, and *C. a. meridionalis*, which is a boreal migratory species and is only present between October and April (Kirk et al. 2020). The resident subspecies has a white-yellow stripe on the nape, which is its main difference from the migratory subspecies, which retains a completely reddish head and neck (Hilty 2003).

Records of aberrations in plumage coloration in *C. aura* have been frequent in various regions throughout its distribution. For example, cases

have been reported in North America (Jones 1933, Gross 1965, Tinajero and Rodríguez-Estrella 2010), Mexico (Molina et al. 2018), Cuba (Ferrer-Sánchez and Rodríguez-Estrella 2014, Hernández-Borroto and Salas 2021), Jamaica (Zeiger et al. 2017), Peru (Figueroa et al. 2011), and Venezuela (Sainz-Borgo et al. 2016). This note aims to report two new observations of aberrations in plumage color in *C. a. ruficollis* and *C. a meridionalis* in Venezuela.

On 6 November 2019, an individual *C. a. ruficollis* with aberrant coloration (Fig. 1) was observed, in El Teresero (160 m a.s.l.), 16 km southwest of Barinas, Barinas State, Western Plains of Venezuela. The individual was recorded feeding on carrion at the edge of a road together with two individuals of the same species, a Lesser Yellow-headed Vulture *(Cathartes burrovianus)* (Fig. 2), two Black Vultures *(Coragyps atratus),* and a Crested Caracara*(Caracara plancus*).

Additionally, on 14 November 2020, an individual *C. a. meridionalis* with aberrant coloration (Fig. 3) was observed northeast of the city of Mérida (1600 m a.s.l.), Mérida State, Andes of Venezuela. The individual was observed flying together with a large number of conspecifics, and several Broad-winged Hawks (*Buteo platypterus*). These observations were made during the moni-

Figure 2. **Vultures that were observed together with the individual *Cathartes aura ruficollis* with aberrant coloration observed in El Teresero, Barinas state, Venezuela. Left, individual Lesser Yellow-headed Vulture (*Cathartes burrovianus)*. Right, Turkey Vultures (*Cathartes aura ruficollis*) with normal coloration. Photo © Edwin Mora.**

toring of migratory raptors at the Cinco Águilas Blancas raptor observation and counting station (Saavedra and Escalona-Cruz 2021). The two observed individuals showed white feathers on the neck, abdomen, back, and lesser coverts. However, only the individual of *C. a. meridionalis* had white feathers on the primaries and secondaries, as well as on the primary and secondary coverts. The presence of irregularly shaped and non-symmetrical white patches, as well as the normal colored head, eyes, beak, and legs, suggest a condition of progressive graying for the two individuals.

Alternatively, according to van Grouw 2013, pigment cell loss can sometimes occur due to disease disorders or nutritional deficiencies. In the latter case, the bird is unable to extract sufficient amounts of tyrosine from its food, which causes a disturbance in melanin synthesis (van Grouw 2018). Studies carried out on the Carrion Crow (*Corvus corone*), a species with mostly scavenging habits similar to those of the vultures, demonstrated that deficiencies in feeding could cause loss of pigmentation in their feathers (Harrison 1963, Terluin 2009). In this sense, the loss of pigmentation in scavengers such as vultures could also be associated with dietary deficiencies.

Lastly, for Venezuela only one case of plumage aberration (progressive graying) has been recorded for *C. a. ruficollis* (Sainz-Borgo et al. 2016). The observations presented here represent the second for the species in the country. In this sense, studying the cases of aberrations in the plumage of birds can shed light on aspects such as environmental contamination, influence of urban areas on the species, frequency in the same population and inbreeding processes (Molina et al. 2018, van Grouw 2018).

Figure 3. **A Turkey Vulture *Cathartes aura meridionalis* with aberrant plumage coloration, observed in the city of Mérida, Mérida State, Venezuela. Photo © Luis A. Saavedra**

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New records of Stygian Owl (*Asio stygius*) in southern Ecuador

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The Stygian Owl (*Asio stygius*) is distributed from northwestern Mexico to northern Argentina (Birdlife International 2009). In Ecuador it is a resident throughout the Andean region, inhabiting semi-open terrain, agricultural fields and forest edges between 1,700 and 3,100 m a.s.l. (Freile & Restall, 2018). Additionally, it has been proposed that it may be present in the valleys and inter-Andean hills and their foothills (Olmedo et al. 2019).

The Stygian Owl is a difficult-to-observe nocturnal species (Miller 1952; Schmitt et al. 2013). In Ecuador, most of the records have been concentrated in the north (Cadena et al. 2018). In southern Ecuador, the records of this species are scarce. Thus, the objective of this manuscript is to report the observation of new records of the species for southern Ecuador.

Figure 1. **Two juvenile Stygian Owls (*Asio Stygius*) in the Yunguila Reserve, Azuay, Ecuador Photo © Paul Molina, September 2021.**

First Record

On 25 June 2020 at 01:00 hrs., in Llacao, a rural area of Cuenca, Azuay, we heard and recorded an individual vocalizing. It called for approximately 20 min (Table 1). Subsequently, 38 days after the first record, the vocalization of an individual was recorded again in the same location.

Second Record

On 4 February 2021, at the State University of Cuenca, a Stygian Owl was observed perching approximately 6 m high in an Ash (*Fraxinus* sp.). Over the next 10 days, an individual was observed (Fig. 2) in the area. Unfortunately, it was found one day in a lethargic state, and died shortly after. Subsequent analyses were able to determine that the individual had suffered a traumatic injury to the skull.

Third Record

On 20 August 2021, in Tablón, Azuay, an individual was observed perched on a Pine (*Pinus* sp.) tree (Pacheco & Vanegas, 2021), approximately 400 m from an individual Striped Owl *(Asio clamator*), which was also perched on a Pine branch (Molina, 2021).

Fourth Record

On 7 September 2021 two juveniles (Fig. 1) were observed in the Jocotoco Conservation area in the Yunguilla Valley, Azuay. At the time of observation, the two individuals were perched at approx. 12 m high. They remained on the same branch throughout the day until 18:30 hrs. In accordance with the observations of Cadena et al. (2018), it was possible to determine that these individuals were approximately two months old, based on the white down on their head, small

***Table 1*: Dcoumented records of Stygian Owl (*Asio stygius*) in southern Ecuador. (V), Recorded Vocalization, (P) Photograph.**

#	Date	Location	Coordinates	Source
1	1993	Sozoranga, Loja	04°21'S; 79°47'W, 1400 m s. n. m.	Schmitt et al., 2013. (V)
2	1994	Angashcola, Loja	04°36'S; 79°44'W, 2550 m s. n. m.	Schmitt et al., 2013. (V)
3	2006	Reserva Utuana (Jocotoco), Loja	04°36'S; 79°44'W, 2550 m s. n. m.	Eliot Miller (P) (https://ebird.org/checklist/
4	2010	Reserva Yunguilla, (Jocotoco), Azuay	3° 17' 60" S; 79° 17' 60" W, 1199 m s. n. m.	Cadena et al., 2018 (V) (P)
5	2016	El Faique, Zaruma	3°41'49.2 S; 79°37'19.2"W, 933 m s. n. m.	Cadena et al., 2018 (P)
6	2020	LLacao, Azuay	2°50'31.5"S; 78°57'17.0"W, 2533 m s. n. m.	Paul Molina (V) (https://ebird.org/checklist/S70943251)
7	2021	Universidad Estatal, Cuenca, Azuay	2°54'02.9"S; 79°00'34.0"W, 2534 m s. n. m.	Carrasco, Pacheco & Vanegas (P)
8	2021	El Tablón, Azuay	2°50'02.1"S; 78°55'18.0"W, 2733 m s. n. m.	Pacheco & Vanegas (P)
9	2021	Reserva Yunguilla, (Jocotoco), Azuay	3°13'36.9"S; 79°16'30.3"W, 1748 m s. n. m.	Molina & Garcia (P) (https://ebird.org/checklist/S94695392)

Figure 2. **Stygian Owl (*Asio Stygius*) at the Universidad Estatal, Azuay, Ecuador Photo © Xavier Bravo, February 2021.**

tufts and poorly-defined barring on the belly, which is characteristic of this species.

Conclusion

In the present manuscript, four new records and the first evidence of reproduction of the Stygian Owl in southern Ecuador have been presented. These records contribute to the limited knowledge of the species. Likewise, the evidence presented can be considered as a baseline for future studies on the natural history and ecology of the Stygian Owl in Ecuador.

Acknowledgements

I thank Kabir Montesinos for sharing the University of Cuenca record, also Francisco Sornoza for carrying out the taxidermy of the individual, and Xavier Bravo for sharing his photographs.

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Reports of Burrowing Owl (*Athene cunicularia*) occupation of urbanized environments and agricultural areas for shelter and breeding in Venezuela

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Records of Burrowing Owls (*Athene cunicularia*) inhabiting urbanized environments (under sidewalks, in concrete rubble, structures under construction, abandoned underground conduits, pipes, among others) are frequent. Apparently, this species adapts to the use of urban structures when appropriate burrows are lacking. In agricultural areas there are reports that this species inhabits areas near roadsides or lagoons, where the use of pesticides on various crops could affect them.

In this publication we present three cases of Burrowing Owl pairs that took refuge on the roofs of houses, roof drainage channels, or the space between the roof and the wall. In one of the cases, a family of owls was observed, which could indicate successful reproduction in one of these structures. Our prediction is that in the future, *Athene cunicularia* will not only be able to use these above-ground, high structures to improve their hunting strategies, to avoid activities that could disturb them or to avoid being preyed upon by other species as has been previously documented - but also for successful breeding, as reported in this publication.

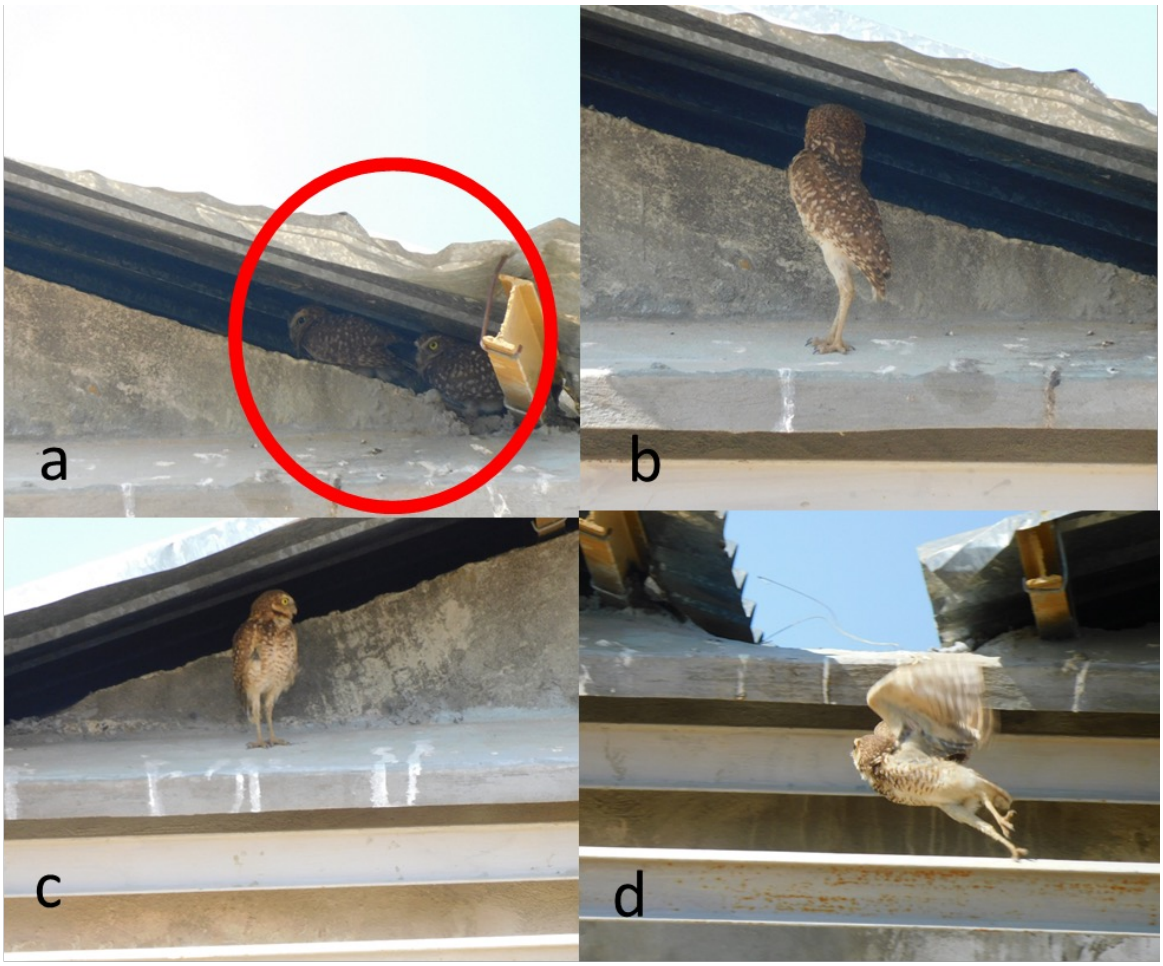
Most research on Burrowing Owl habitats indicate that this species builds its own burrows on flat or slightly sloping terrain with sparse vegetation, dominated by grasslands, agricultural areas, dunes and coastal areas (Hudson 1920; Canevari et al. 1991). In addition, these owls often use abandoned burrows excavated by burrowing mammals. For example, the subspecies *A. c. hypugaea* seems to have a preference for burrows made by Prairie Dogs (*Cynomys ludovicianus*) that they use both for nesting and for shelter (Butts 1973, Plumpton 1992, Hughes 1993, Pezzolesi 1994).

According to the evidence, this type of burrow helps reduce overcrowding in the nest, controls the load of ectoparasites, and is a defense against potential predators (Thomsen 1971, Butts 1973, Thompson 1984, Plumpton 1992). Other studies carried out in Argentina indicate that this species also uses caves built by Vizcachas (*Lagostomus maximus*) and Armadillos (*Chaetophractus villosus*). Additionally, their use of man-made structures has been reported (Machicote et al. 2004, Martinelli 2010).

Burrowng Owls are considered tolerant to considerable levels of anthropogenic disturbance (Pérez and Zambrano 2019), and seem able to tolerate drastic habitat changes (Kavanagh 2002). They are also known for their ability to adapt to the availability of prey according to abundance, and are considered an opportunistic and generalist species (Salas et al. 2022).

Despite these characteristics, *Athene cunicularia* populations in North America have declined in recent decades as a result of habitat loss, pesticide use, and direct persecution (Holroyd et al. 2001; Conway et al. 2006), although there is some conflicting evidence on these points (Moulton et al. 2006).

Figure 1. **Photographic record of a pair of Burrowing Owls living on the roof of a shed for more than two years, without apparent reproductive success.**



Methods

We made direct observations in the field to record different aspects related to Burrowing Owl ecology. The reports presented here were made in the states of Guárico (8°56'18.114" N; 67°24'11.0844'' W) and Lara (10° 8' 54.582''N; 69° 51' 31.6908''W). We also conducted structured interviews with seven people from Guárico State who had reported the presence of Burrowing Owls in their homes or neighborhoods. In the interviews, four questions related to the reported cases and general knowledge of this species were asked: i) Do you know this species?, ii) What name do you identify it with?, iii) Do you think it is some kind of owl? and iv) How long have you been observing it in this space?

Additionally, we noted other comments that came up in conversations in Lara State. Finally, using photographic records and satellite images, we analyzed the probable reasons why *A. cunicularia* could be using these man-made spaces.

Results from Guárico State

Guárico State is a region whose main economic activity is dominated by rice cultivation. In the "La Diablera" plot, a pair of *A. cunicularia* was recorded on the roof of a warehouse where rice is stored. The pair was in a small space, similar to a drainage channel between the ceiling and the concrete wall (Figure 1). The pair was observed on 6 November 2021 and 21 February 2023. According to the results of the surveys, all people correctly identified the species. These owls have probably been at the site for more than two years. However, to date, there is no evidence of nesting at the site.

Results from Lara State

Satellite images show the expansion of the Ali Primera urban development between 2007 and 2014. This development was built within a natural area that met all the characteristics of Burrowing Owl habitat (Figure 2). In fact, after the establishment of this urban area, pairs of

Figure 2. **Urban encroachment en Ali Primera, Lara State, a) year 2007, b) year 2023.**

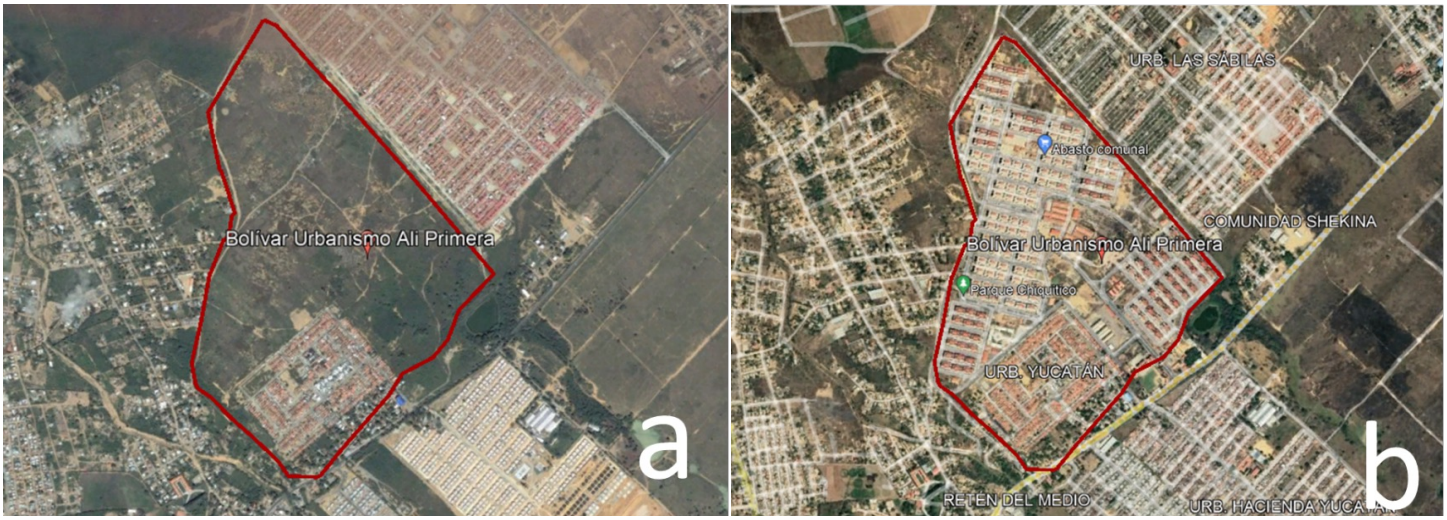


Figure 3. **a) Family of Burrowing Owls on the roof and in a drainage channel; Figures b and c) a pair beneath the loose roof tiles.**

Burrowing Owls began to be observed using various man-made structures. For example, on 2 May 2021, two pairs of *A. cunicularia* were observed using the roofs of houses as a refuge. One of the pairs was sheltering under loose roof tiles (Figure 2 b,c) and according to community feedback, breeding events have never been observed. Another pair took refuge under the loose tiles, and also took advantage of a drainage channel. This pair was observed together with three juveniles (Figure 3a).

Of the two pairs, only one (located in the drainage channel) managed to reproduce that season. It should be noted that excrement and some pellets were observed on the drainage channel and walls. We searched the neighboring areas to see if any burrows were present. However, only one hole was found under a sidewalk about 60 cm deep. But we did not find any excrement or pellets to indicate it was in use by Burrowing Owls.

Discussion

In the Venezuelan plains, Burrowing Owls might be limited in their abilty to remain in the same territory for a whole year, due to the fact that during the rainy seasons these areas tend to flood (Neiff 2001). According to the records in eBird (2023), the presence of this species decreases in this area during the rainy season. In this case, they could be moving to other non-flooded areas where they could be building new burrows during this time.

Likewise, in Guárico State, many areas within Burrowing Owl habitat are flooded both in winter and in summer to maintain rice production. Many natural burrows are distributed along the edges of the rice paddies, which, in turn, are also along very busy roads used by large and heavy vehicles that generate high levels of sediment in the air and noise pollution. Additionally, the water levels could occasionally make it impossible for them to establish natural burrows. Though in this region there are some areas with less-traveled roads, these tend to be near riparian forests which are not usually inhabited by Burrowng Owls, since they prefer habitats with little or no vegetation.

All these factors could be influencing the observed pairs' use of urban structures for refuge. Arroyo et al. (2007) establish that the scarcity of natural cavities or burrows limits the presence of certain bird species that require these structures in order to reproduce. If these spaces are not adequate, species such as the Burrowing Owl - which can also use abandoned burrows excavated by other burrowing animals - may experience a reduction in their reproductive success, which could affect the distribution, abundance, and population dynamics of the species.

At the same time, the presence and increase of the population of a species in developed, urban, or rural areas may depend on whether there are suitable anthropogenic structures for nesting (Luévano-Esparza et al. 2015). Our observations in Lara and Guárico States demonstrated that Burrowing Owls can use urban structures as refuge or nesting space. However, there were several observations of this species using urban structures where it is unknown if they were used during the reproductive season (Figure 4). However, our observations of Burrowing Owls in the Ali Primera community indicate that there could have been reproductive success due to the similarity that the drainage channel has with natural burrows and the active presence of the reported family group.

Haug et al. (1993), establishes that the nests of owls are easily identified by the presence of feathers, droppings, pellets, and humus with eggshell fragments. All these remains (with the exception of eggshells) were observed on and around the drainage channel. Although there

is no concrete evidence of reproductive success, we suggest monitoring in detail the use of urban structures occupied by this species to gain a better understanding of if and how these sites are used for breeding.

Other reasons why Burrowng Owls could be using anthropic structures may be due to the decrease in colonization territories for juveniles of this species, or to the fact that these structures provide a better vantage point for spotting possible terrestrial predators in urban areas, such as dogs and cats. Belthoff and King (2002) highlight the importance of high perches, finding an association between the perch and hatchling productivity.

Although Burrowing Owls are categorized as Least Concern, there is evidence that populations may be declining due to fragmentation and destruction of its habitat that is frequently converted to agricultural land (Smith and Lomolino 2004, Griebel and Savidge 2007). In agricultural areas in Venezuela, the expansion of rice fields are having a negative effect on this species.

At the same time, urban expansion is an accelerated process of overexploitation of natural resources that contributes to the degradation of the habitat of many species (Romero et. al. 2009), reducing natural areas around cities that support flora and fauna. Due to the Burrowing

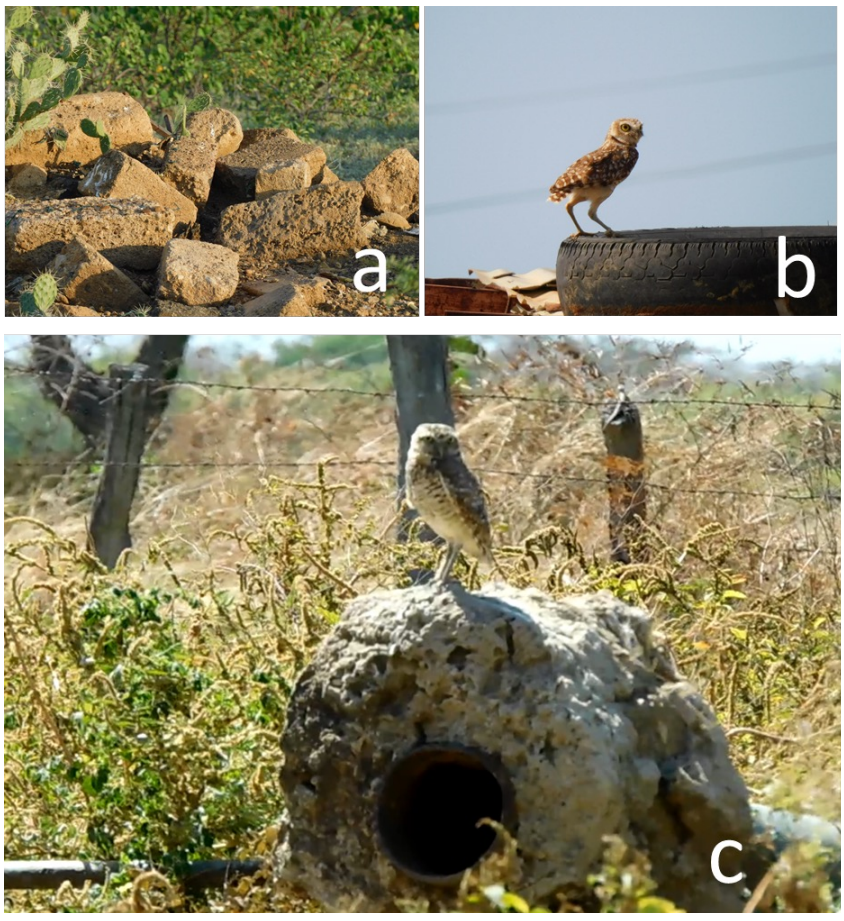


Figure 4. **Other observations of burrows in urban structures a) burrows in concrete rubble, b) refuge in a tire, c) burrow in an iron tube.**

Owl's ability to adapt to various environments, we believe that in the future this species may begin to use man-made structures that provide them with adequate conditions for breeding. However, if these structures are used only as refuge, and not as breeding habitat, this could interfere with the species' reproductive success.

Thus, it is important to further study the impact on habitat selection on this species, while favoring the conservation of adequate habitats with little human intervention so that this species can establish itself. In areas where the species is inhabiting urban structures, we recommend implementing the use of artificial burrows to favor reproductive success and promote the conservation of Burrowing Owl populations.

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Of Interest...

Grants

NEOTROPICAL BIRDING & CONSERVATION

https://www.neotropicalbirdclub.org/conservation/conservation-fund/

NBC offers research grants for conservation work or for research that may be beneficial to conservation. The prizes of US$1,500 and US$3,000 are for projects carried out by nationals and/or residents of countries in the Neotropics (ie, the Caribbean, Central America, and South America). The Juan Mazar Barnett Prize (up to US$5,000) is to encourage early-career neotropical bird researchers and conservationists. The application guidelines are available in English and Spanish. The deadlines are January 1 and July 1 of each year.

HMANA RESEARCH AWARD

https://www.hmana.org/hmana-research-award/

HMANA's research award supports field studies related to the ecology and migration behavior of raptors, population monitoring, and conservation. Up to two proposals will be funded for a total value of US$1,500 each per year.

Grants may be used for research aimed at understanding the connectivity between the breeding, migratory, and non-breeding distributions of raptor species or monitoring activities. The deadline for proposals is November 1, 2023.

Conferences

VI NEOTROPICAL RAPTOR CONFERENCE AND II SIMPOSIA ON BLACK-AND-CHESTNUT EAGLE AND HARPY EAGLE

Although we are still in the planning stage, it is with great pleasure that we announce the VI Neotropical Raptors Conference and the II Black-and-Chestnut Eagle and Harpy Eagle Symposia will take place in Pereira, Colombia in October 2024. We will be sending more information soon about the event, including exact dates, and how to register and present your work during the conference. Meanwhile, if you have any questions, you can contact Marta Curti directly at mcurti@peregrinefund.org.