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NOTES ON GEOGRAPHIC DISTRIBUTION

First confirmed record of *Amaurospiza concolor relicta* (Griscom, 1934), Slate-blue Seedeater (Passeriformes, Cardinalidae), from central Oaxaca, Mexico

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Abstract. *Amaurospiza concolor relicta* (Griscom, 1934) is a passerine songbird in the family Cardinalidae is a year-round resident across Mexico, in the states of Jalisco, Colima, Morelos, Guerrero, and Oaxaca. Here, we document the first photographic evidence of this species in the Valles Centrales region of Oaxaca. This discovery extends the known range of this subspecies within the Mexican state of Oaxaca and enhances our understanding of its distribution.

Key words. Monte Albán archaeological zone, Neotropics, passerines, Oaxaca city, range extension, southern Mexico

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INTRODUCTION

Amaurospiza concolor Griscom, 1934, Slate-blue Seedeater, is a passerine bird distinguished by its robust, conical bill. Males have an almost uniform slate-blue plumage, whereas females exhibit a warm cinnamon-brown coloration and lack a distinctive pattern. Juveniles resemble females but show a more vivid rufous coloration on the ventral side, with cinnamon wing bars (Birds of the World 2025a).

The subspecies *relicta* has a complex taxonomic history. Originally, it was classified as *Amaurospizopsis relictus* Griscom, 1934, in a different genus from *Amaurospiza concolor*. However, there is no evidence supporting its status as a distinct species, and it is currently regarded as a subspecies of *A. concolor* (Orr and Ray 1945; Areta et al. 2023). Molecular phylogenetic studies indicate that *A. concolor* is closely related to a clade comprising *Amaurospiza aequatorialis* Sharpe, 1888, Ecuadorian Seedeater; *Amaurospiza carrizalensis* Lentino & Restall, 2003, Carrizal Seedeater; and *Amaurospiza moesta* (Hartlaub, 1853), Blackish-blue Seedeater. Within the genus *Amaurospiza*, *A. concolor* has two subspecies, the nominotypical *A. concolor concolor* and *A. concolor relicta* (Griscom, 1934) (Birds of the World 2025a).

Amaurospiza concolor concolor is distributed from southern Mexico (Chiapas) to western and central Panama, including localities in Guatemala, Belize, Honduras, El Salvador, Nicaragua, and Costa Rica, whereas *A. concolor relicta* is confined to the Pacific slope and interior of southwestern Mexico, with records in Jalisco, Colima, Morelos, and the Sierra Madre del Sur in Guerrero, as well as the coast of Oaxaca (Howell and Webb 1995; Birds of the World 2025a). Currently, *A. c. relicta* is not known from (Birds of the World 2025a) or thought to be potentially distributed in the Valles Centrales region of Oaxaca (VCO) (CONABIO 2025); no records of this subspecies in this region exist prior to June 2023. Considering the above, we report here the first record of *A. concolor relicta* from the Monte Albán Archaeological Zone (MAAZ) in the VCO, Mexico (Figure 1). We provide photographic evidence for our record, which is corroborated by subsequent records from the eBird citizen-science database.

METHODS

On 30 June 2023, we recorded the species during a quarterly sampling for the project Biodiversidad de los Valles Centrales de Oaxaca (Biodiversity of the Valles Centrales region of Oaxaca), which encompasses

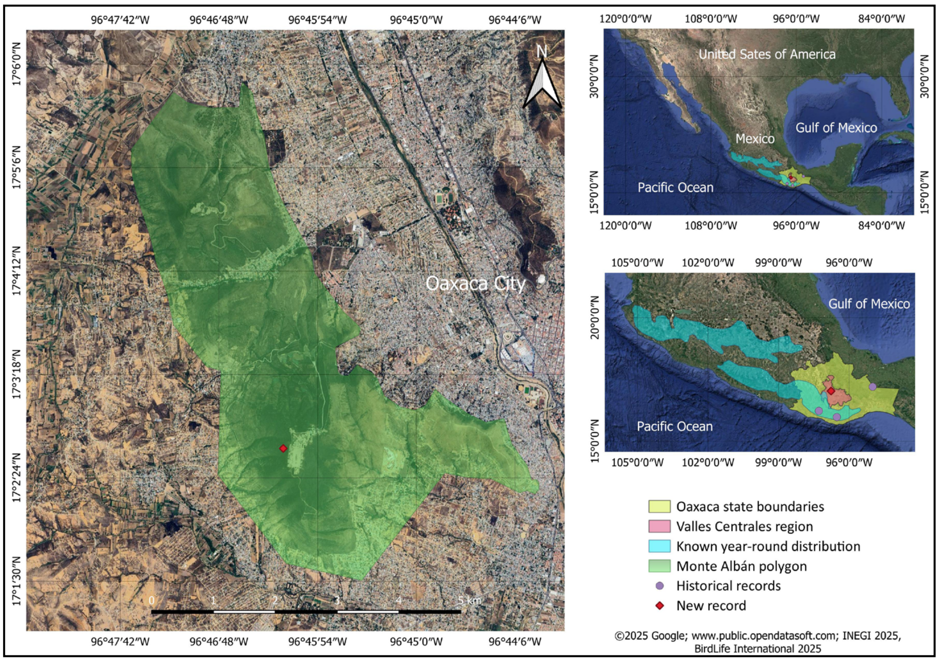

Figure 1. Geographic location of the documented record (red diamond) of *Amaurospiza concolor relicta*, within the Monte Albán polygon (green), Valles Centrales region (pink), Oaxaca state (yellow), Mexico. The known range of the species is shown in light blue. (Map generated using QGIS v. 3.40.6; QGIS 2025).

the MAAZ. The sampling method employed six 12 m mist nets to capture birds. We measured, weighed, and subsequently released the captured birds. To identify birds, we used a field guide (Howell and Webb 1995) and Birds of the World (2025b). We used a Nikon Coolpix L340 digital camera and the camera in an Apple iPhone X to document our record. The known range of *Amaurospiza concolor relicta* is from Bird Life International (2025).

RESULTS

Amaurospiza concolor relicta **(Griscom, 1934)**
Figure 2

New record. MEXICO — Oaxaca • Valles Centrales region, Oaxaca city, Monte Albán archaeological zone; 17°02′39″N, 096°46′13″W, 1888 m elev.; I. de J. Morales-Leal, D.F. Díaz-Porras & J.M. Calderón-Patrón obs.; mist-nets trapping; 30.VI.2023; 1♀ and 1♂.

Identification. Morphological analysis effectively differentiated *A. concolor* from *Cyanocompsa parellina* (Bonaparte, 1850), Blue Bunting, another species recorded at MAAZ. The male had the characteristic darker blue color of *A. concolor*, specifically slate-blue allover its body and wing coverts, while the remiges exhibited a black edge with a slate-blue border. The rectrices (tail feathers) were predominantly blackish with an external wash of slaty blue. The facial sides, ear coverts, and throat were blackish. In contrast, *C. parellina* (Birds of the World 2025c) has a more bluish appearance; that is, the male has a bright sky-blue forehead, which darkens into a deeper blue shade with darker feather bases on the crown. The anterior and posterior regions to the eye are blackish, with a bright-blue cheek patch. The upper parts are a combination of deep black and blue, with the rump bright ultramarine. The shoulder is ultramarine, the upperwing coverts are deep blue, the remiges are dull black, and the rectrices have a blue edging on the outer webs. The chin, throat, breast, and belly are deep blue, often appearing greyish blue on the lower flanks. The iris is dark brown, the bill is blackish, and the lower mandible frequently exhibits a pale bluish-grey hue. The legs are blackish brown.

The female had cinnamon-brown upperparts and ochraceous-tawny underparts. The remiges were dusky brown with cinnamon-brown edges. Although the female plumage closely resembled that of female *C. parellina*, the simultaneous capture of both female and male individuals suggests they were flying as a pair. Furthermore, the morphometric measurements of both specimens (Table 1) were generally consistent with those proposed for *A. concolor relicta* (Orr and Ray 1945).

DISCUSSION

Prior to our record, three records of *Amaurospiza concolor relicta* from the state of Oaxaca had been verified. The first record, dated 1941 (GBIF 2025), was from Moctum, Totontepec Villa de Morelos (17°14′52″N,

Figure 2. *Amaurospiza concolor relicta*, captured in the MAAZ, Valles Centrales region of Oaxaca, Mexico, 30.VI.2023. **A–D.** Male. **E–H.** Female.

Table 1. Morphometrics of *Amaurospiza concolor relicta* individuals captured in MAAZ.

Measurements	**Male**	**Female**
Wing length (mm)	72.5	67.3
Wingspan (mm)	192.8	190.0
Tail length (mm)	60.2	50.4
Tail width (mm)	22.2	17.0
Bill height (mm)	7.7	7.4
Bill width (mm)	5.7	4.2
Exposed culmen (mm)	9.7	10.0
Tarsus length (mm)	18.3	18.2
Weight (g)	16.0	15.0

096°00′18″W). The next record, in 1964 (GBIF 2025), was from Santa Catarina, Juquila (16°14′12″N, 097°17′12″W). The most recent record, in 2018 (eBird 2025), was documented in the Sierra de Miahuatlán, Candelaria Loxicha, Pochutla (15°58′59″N, 096°31′29″W). The first record is from the Sierra Mixe, located in the northeast of Oaxaca, while the latter two records are from the coastal region of Oaxaca.

To the best of our knowledge, there has been no prior documentation of this species in the VCO. Consequently, our documented observation represents the first confirmed record of *A. concolor relicta* in this area, thereby extending the known southeastern boundary of its year-round range. After the capture of these individuals in the MAAZ on 30 June 2023, four subsequent citizen-science observations, recorded from 26 September 2023 to 28 October 2024 (eBird 2025), support our finding. These records are particularly noteworthy given that this species is classified as Endangered under the Mexican Official Norm NOM-059 (SEMARNAT 2010).

Considering the potential confusion with *C. parellina*, recent citizen-science records indicate two observations of this species in the Central Valleys of Oaxaca, specifically in the MAAZ on 23 December 2023 at 17°02′39″N, 096°46′06″W and Santo Domingo Tomaltepec on 14 February 2024 at 17°04′30″N, 096°35′33″W (eBird 2025). However, the estimated abundance derived from eBird data (eBird 2024) suggests there is no established population in the VCO. However, these records should be interpreted with caution, as they may represent accidental occurrences. Furthermore, photographic evidence from sightings in Santo Domingo Tomaltepec distinctly show the paler blue coloration of *C. parellina* (https://macaulaylibrary.org/asset/615282671) in contrast to the darker hue of *A. concolor relicta*.

Importantly, the VCO, particularly the MAAZ polygon, is subject to continuous pressure from population growth and land-use changes, primarily driven by urban development. The MAAZ is encircled by urban expansion and, thus, a green island that warrants consideration as a protected area and a vital green space for the residents of Oaxaca. The use of this area by the Endangered *A. concolor relicta* represents a significant initial step towards the protection of MAAZ polygons.

In summary, although this is not the first record of *A. concolor relicta* outside its known range (GBIF 2025), our observation constitutes the first confirmed record in the VCO region. Additionally, there is old, additional evidence from the north of Oaxaca, but further research is necessary to assess whether these sightings represent vagrant individuals or an established yet previously overlooked population in the VCO. Systematic surveys and incidental records will enhance the understanding of species range and habitat preferences.

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ADDITIONAL INFORMATION

Conflict of interest

The authors declare that no competing interests exist.

Ethical statement

No ethical statement is reported.

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Author contributions

Conceptualization: IJML, DFDP. Investigation: DFDP, JMCP. Methodology: DFDP, IJML, JMCP. Resources: DFDP, JMCP. Supervision: DFDP, JMCP. Visualization: DFDP. Project administration: DFDP, JMCP. Validation: DFDP. Writing – original draft: DFDP. Writing – review and editing: DFDP, JMCP, IJML.

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Data availability

All data that support the findings of this study are available in the main text.

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