

First documented record of *Progne subis* (Hirundinidae) from Rio Grande do Norte State, Brazil

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Abstract

We report the first confirmed record of the Purple Martin (*Progne subis* Linnaeus, 1758) for the state of Rio Grande do Norte, Brazil. The record was obtained on 19 February 2025 in the municipality of Lajes/RN, located in the Central Potiguar mesoregion, where the Caatinga biome predominates. This finding represents a significant addition to the avifauna of Rio Grande do Norte, as it expands the known distribution of the species in northeastern Brazil. The confirmation of its occurrence in Lajes contributes to updating the state bird checklist and may support future surveys aimed at detecting additional regional populations.

Keywords: Distribution, Caatinga, genus *Progne*.

Primeiro registro documentado de *Progne subis* (Hirundinidae) para o Rio Grande do Norte, Brasil

Resumo

Relatamos o primeiro registro confirmado da andorinha-azul (*Progne subis* Linnaeus, 1758) para o estado do Rio Grande do Norte, Brasil. O registro ocorreu em 19 de fevereiro de 2025, no município de Lajes/RN, situado na mesorregião Central Potiguar, área de predominância do bioma Caatinga. Trata-se de um acréscimo relevante para a avifauna potiguar, uma vez que amplia a distribuição conhecida da espécie no Nordeste brasileiro. A confirmação da ocorrência em Lajes contribui para a atualização da lista de aves do estado e pode subsidiar futuros levantamentos voltados à detecção de novas populações regionais.

Palavras-chave: distribuição, Caatinga, gênero *progne*.

1. Introduction

The Purple Martin (*Progne subis* Linnaeus, 1758) is the largest member of the family Hirundinidae in the Americas and exhibits pronounced sexual dimorphism: adult males display entirely iridescent dark blue plumage, whereas females and juveniles exhibit a grayer coloration, with a pale ventral region and brownish dorsal feathers (Niles et al., 1972; Sick, 1997; Turner, 2004).

From a biogeographical perspective, *P. subis* is a long-distance migratory species. It breeds widely in North America and undertakes seasonal southward movements, primarily wintering in South America during the austral summer (Sick, 1997), where its occurrence has been recorded from Colombia to Argentina (Ridgely; Tudor, 1980). In Central America, records of the species range from Mexico to Panama (Fraser et al., 2013; IUCN, 2025). During migration, individuals are often observed in large flocks, typically associated with open habitats, water bodies, and coastal areas.

In Brazil, the species has been recorded in multiple states, predominantly along the Atlantic coast, in the Caatinga, and in the Amazon region (Azevedo-Júnior et al., 2004; Valente et al., 2011), occurring in nearly all Brazilian states (WikiAves, 2025). Nevertheless, no confirmed records existed for Rio Grande do Norte,

representing a gap in the knowledge of the species' distribution in northeastern Brazil.

Thus, this article aims to report the occurrence of *Progne subis* in the state of Rio Grande do Norte, Brazil.

2. Materials and Méthods

2.1 Registration location

On 19 February 2025, we observed an individual of *P. subis* in the municipality of Lajes, Rio Grande do Norte (5°39'40" S and 36°7'21" W) (Figures 1 and 2), within the Central Potiguar mesoregion. The observation occurred in an area dominated by Caatinga vegetation. The individual was observed and identified based on diagnostic plumage and body size, consistent with species descriptions (Turner 2004).

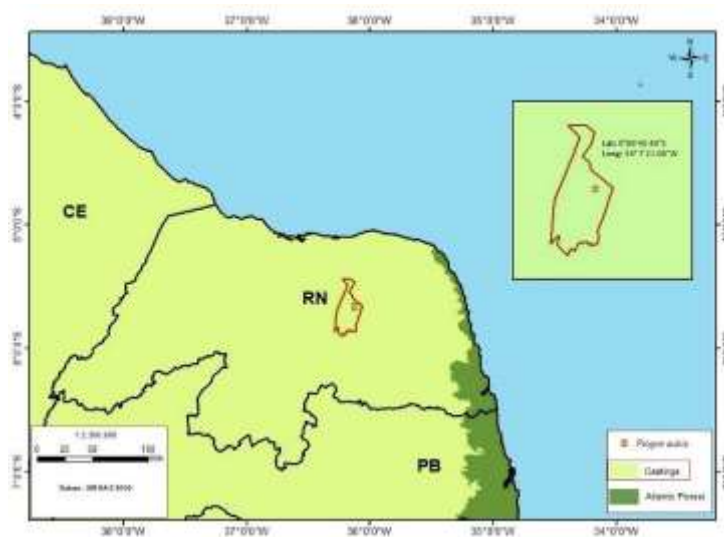


Figure 1. Record location of *Progne subis* in Rio Grande do Norte, Brazil. Source: Glauber Souto, 2025.

3. Results

A pair of *Progne subis* was observed on February 19, 2025, at 07:00 h, with the male being photographically recorded (Figure 2). During the observation, active foraging behavior was documented, with the individual rapidly leaving its perch to capture flying insects. The foraging activity occurred in association with *Progne chalybea* individuals. The observation period lasted 15 minutes, after which the bird was still engaged in foraging activity.



Figure 2. Photographic record of *Progne subis* in Rio Grande do Norte, Brazil. Source: Glauber Souto, 2025.

4. Discussion

The record of *Progne subis* in Rio Grande do Norte was expected, as the species was cited as highly likely to occur by Sagot-Martin et al. (2020). According to Santos et al. (2021), *Progne subis* is broadly distributed across Brazil, being reported from 23 states (with the exception of Rio Grande do Norte, Sergipe, and Santa Catarina). Accordingly, our study provides a new record for Brazil, extending the species' presence to 24 states. The species is notably well represented in the Brazilian Northeast, and its occurrence in Rio Grande do Norte was anticipated (Sagot-Martin et al., 2020). Furthermore, Santos et al. (2020) reported that the Northeast ranks as the third region in Brazil with the highest number of *P. subis* records.

5. Conclusions

This record constitutes the first documented occurrence of *Progne subis* in Rio Grande do Norte, extending its known distribution in northeastern Brazil. It updates the state avifaunal checklist and highlights the importance of systematic ornithological surveys in the Caatinga, particularly for migratory species. The record also suggests that additional individuals or populations may use the region as a migratory corridor or stopover site, underscoring the need for further monitoring to better understand the species' occurrence patterns in the region.

6. Authors' Contributions

Glauber Henrique Borges de Oliveira Souto: fieldwork, writing, and photographic documentation. José Arthur Felipe Pequeno: field data collection and writing review. Vanessa Kayne Medeiros Santos: manuscript review and editing. Raissa Danielle Praxedes Grangeiro: manuscript review and editing.

7. Conflicts of Interest

No conflicts of interest.

8. Ethics Approval

Not applicable.

9. References

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