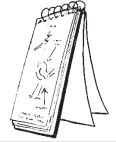


Short Communications



First breeding record of the Purple Gallinule *Porphyrio martinica* in Fernando de Noronha Archipelago, Brazil

Purple Gallinule *Porphyrio martinica* occurs in natural and degraded aquatic environments, mainly freshwater, including swamps, marshes, lagoons, riverbanks and reservoirs, from southern USA to northern Argentina, Brazil and Uruguay⁶. Resident throughout most of its distribution, it carries out a short-distance partial migration between northern Central America and southern North America⁸; however, its seasonal movements in many regions, such as southern Brazil, Argentina and Paraguay, remain to be documented. Wandering individuals have already been found in isolated places in the Pacific and Atlantic oceans, such as the Azores and Tristan da Cunha archipelagos⁸. The species is a common resident in Brazil, and occurs throughout the country, including the Fernando de Noronha Archipelago (21 km²), located in the Atlantic Ocean c.345 km off mainland Brazil and belonging to the state of Pernambuco⁵⁻⁷.

The species was first recorded in Fernando de Noronha in June 1986, when two immatures were observed at Açude da Ema/Boldró, a medium-sized freshwater reservoir⁴. The species was then observed at Açude do Xaréu, the largest freshwater reservoir on the island, in August 2000 (an adult and a juvenile⁷), January 2005 (a juvenile with blue-blotched plumage) and October 2022 (a subadult; <http://www.wikiaves.com/5099392>), in addition to occasional sightings in other years (João Paulo, pers. comm.). Due to the paucity of records, in 2008 the species was classified as an occasional or accidental visitor to Fernando de Noronha⁷.

On 28 September 2023, a young Purple Gallinule (with blue contour feathers on the body, a result of moult⁸), was observed at Açude da Quixaba (3°51'30.87''S, 32°26'15.95''W; 71 m elevation), a

small freshwater reservoir (c.35 m long x 70 m wide), located in the central part of the island of Fernando de Noronha. The bird came out of low vegetation and flew over the water surface, hiding in dense bushy vegetation on the east bank of the reservoir. The record was made during fieldwork for a project to monitor birds in freshwater reservoirs on the island.

On 3 October 2023, a group of Purple Gallinules was found in Lagoa da Vila dos Três Paus, another small freshwater reservoir (c.35 m long x 60 m wide), located next to the airport runway in the central part of the island (3°51'12.45''S, 32°25'21.76''W; 57 m elevation). This reservoir is surrounded by low, dense vegetation, probably molasses grass (family Poaceae), with shrubby vegetation in its eastern part and 70% of the water surface covered by Water Lettuce *Pistia stratiotes*, an exotic and invasive species (Fig. 1). Eight individuals were observed, comprising four adults, two juveniles (plumage with varying patches of blue due to moult⁸) and two newborn chicks, which had black plumage and a beak with white spots and a red base. The chicks were following one of the adults, walking partially hidden among the marginal and floating vegetation of the lagoon.

The next day, six individuals were observed at the same location, comprising (only) two adults, a juvenile and three chicks (Fig. 2; macaulaylibrary.org: ML618085603). The two adults took turns searching for food for the chicks. Most of the time, only one adult searched for food in the open area of the lagoon. Once food was found, the adult delivered it to the chicks, which were hidden in the marginal vegetation and guarded by the other adult. Most of the time, the chicks remained (with one or both adults) close to the vegetation, but one of the chicks accompanied a foraging adult c.3 m from the vegetation edge into an open area of floating vegetation (Fig. 2A and B). On two occasions, the three chicks left cover together to frequent



Figure 1. Lagoa da Vila dos Três Paus, Fernando de Noronha, Pernambuco, Brazil (Fabio Schunck).



Figure 2. Family of Purple Gallinule *Porphyrio martinica* in Lagoa da Vila dos Três Paus, Fernando de Noronha, Brazil, 4 October 2023 (Fabio Schunck). **A** Adult with two of the chicks; **B** adult with one chick; **C** juvenile individual (helper), with a yellow beak and the first blue feathers on its body.

the vegetation edge, retreating to dense cover at the slightest sign of danger. The adults mainly captured small gastropods (macaulaylibrary.org: ML618086436), rummaging through dense aquatic vegetation at the water surface. At times, the two adults would go out together to look for food in more distant locations, while a juvenile helper individual^{3,8} (Fig. 2C) fed and cared for the three chicks among the dense vegetation.

This breeding record in Fernando de Noronha changes the status of Purple Gallinule from occasional or accidental visitor to resident, with a population of at least 10 individuals present in two freshwater reservoirs on the island, Lagoa da Vila dos Três Paus and Açude da Quixaba. The latter location needs further investigation since the presence of a young individual may also indicate local reproduction, assuming that this young bird might also be a breeding helper as observed in Lagoa da Vila dos Três Paus. These two reservoirs have dense edge vegetation, a typical habitat for the species⁸. The presence of two juvenile individuals in Lagoa da Vila dos Três Paus, including the young helper that was taking care of the smaller chicks, a typical behaviour of the species^{3,8}, indicates that the adult birds have been reproducing there for an extended period of time and achieving success in raising offspring.

The freshwater reservoirs of Fernando de Noronha have high potential for recording new birds for South America, as has already happened with Corn Crake *Crex crex* in 2012² and Allen's Gallinule *Porphyrio alleni* in 2018¹. Therefore, these places would repay medium and long-term monitoring and censuses, in addition to various ornithological explorations, and are great locations for birdwatching activities.

Acknowledgements

I thank Rafael, Virginia and Maria Clara Robles for their friendship, logistical help and receptivity in Fernando de Noronha; the ICMBio team for their field support, especially Ricardo Araújo and Lucas Penna, in addition to other employees; Juvenal and Ivone from Vila dos Três Paus, for welcoming me to their property; Eduardo Hortal, for help with botanical identification and João Paulo, for providing some information.

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Received 11 June 2023; final revision accepted 29 April 2024; published online 6 July 2024.