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RESEARCH ARTICLE

First record of the non-native species Monk Parakeet *Myiopsitta monachus* (Boddaert, 1783) in Algeria

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ABSTRACT

Non-native and range-expanding bird species have been increasingly reported in Algeria in recent years. On 5 August 2023, one individual of the Monk Parakeet *Myiopsitta monachus* was observed in an urban environment in Marsa Ben M'Hidi (35°04′52.72″N, 2°12′16.73″W), Tlemcen Province, north-western Algeria, 600 m away from the Algerian–Moroccan border and about 71 km from the nearest known population, in Melilla. This is the first documented record of the species in Algeria. The bird was either an escaped or released captive or a stray individual from neighbouring populations. A single observation does not demonstrate establishment, but the record is relevant for the early detection and monitoring of non-native birds in the Maghreb.

Keywords: *Myiopsitta monachus*; Monk Parakeet; non-native species; first record; Algeria

1. Introduction

Terminology in invasion biology is inconsistent, and many partly overlapping terms are in use, such as alien, non-native, exotic, introduced, naturalised and invasive[1–9]. These terms refer to different stages of the invasion process and are not interchangeable[1,8,10]. A non-native (alien, introduced) species is one that has been moved by human activities beyond its native range. It is considered established when it maintains self-sustaining populations in the new area, and invasive when it also spreads beyond its point of introduction; ecological or economic impacts are often part of the definition[1,8,10,11]. The introduction of non-native species occurs mainly through three pathways: (i) accidental escapes from captivity; (ii) accidental introductions

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through trade and tourist routes; (iii) intentional introductions (releases for hunting, ornamental purposes or biological control, or by 'animal rights' groups)[12,13].

Invasive species can have a range of ecological and economic impacts, which vary with the species and the environmental context, including: alteration of ecosystem processes; extinction of species due to competition, predation, and hybridization; changes in community structure; alteration of genetic diversity; transmission of diseases; as well as economic losses such as crop damage[14–24]. For example, invasive species have been identified as a leading cause of animal extinctions[18], and introduced birds are a recognised and growing conservation problem[14,20]. Documenting new occurrences of non-native species is therefore important, because early detection allows the risk of establishment and impact to be assessed before management becomes difficult.

The Monk Parakeet (*Myiopsitta monachus*), a member of the family Psittacidae[25], is native to South America and common in the subtropical and temperate zone lowlands of Bolivia, southern Brazil, Paraguay, Uruguay, and Argentina, where it nests in a variety of habitats, such as forests, forestry plantations, orchards, savannas, and urban areas[26–29]. Accidental escapes and local intentional releases have resulted in the establishment of non-native populations in Europe, North America, Asia, and the Maghreb[30–32], where the species is considered invasive and, in some cases, a pest [33]. These designations are context-dependent, however, and do not necessarily apply to every area where the species has been introduced. International trade has been an important source of such introductions: after the species was listed in CITES Appendix II in 1981, hundreds of thousands of wild-caught birds were imported into the European Union[34], which makes escapes from captivity a likely source of free-living birds. In North Africa, the species has so far been reported from Morocco and Melilla (see Results and discussion).

This note reports the first documented occurrence of the non-native Monk Parakeet (*Myiopsitta monachus*) in Algeria, in Marsa Ben M'Hidi, Tlemcen Province, north-western Algeria, and discusses its possible origin in the light of records from neighbouring Morocco and Melilla. Because it concerns a single individual, we do not assess whether the species is established or invasive in Algeria.

2. Materials and methods

Marsa Ben M'Hidi is a Mediterranean coastal town in the extreme northwest of Tlemcen Province, northwestern Algeria (35°04′54″N, 2°12′17″W), immediately adjacent to the Algerian–Moroccan border. The region has a Mediterranean climate, with hot, dry summers and mild, wetter winters[35,36].

Periodic surveys were conducted in urban and semi-urban areas of the Tlemcen region to monitor bird activity and detect non-native species, including individuals that may have escaped from captivity or been deliberately released. The Monk Parakeet (*Myiopsitta monachus*), however, was not detected during these periodic surveys but was documented opportunistically during an incidental visit to the study area on 5 August 2023. Birds were observed directly using 10 × 50 binoculars[37,38], and photographs were taken by Abdelkader Bekkouche to document the observation and support species identification. The Monk Parakeet was identified based on its characteristic combination of green upperparts, a grey forehead, face and breast, blue flight feathers, a long-graduated tail, and a pale bill.

Finally, the location map and the distribution map showing previous and new records were produced with QGIS version 3.16.14 "Hannover"[39]. The previous records shown on the map are occurrence records downloaded from GBIF (GBIF.org, accessed October 2026), selected using species name, and supplemented with the literature records cited in Results and discussion.

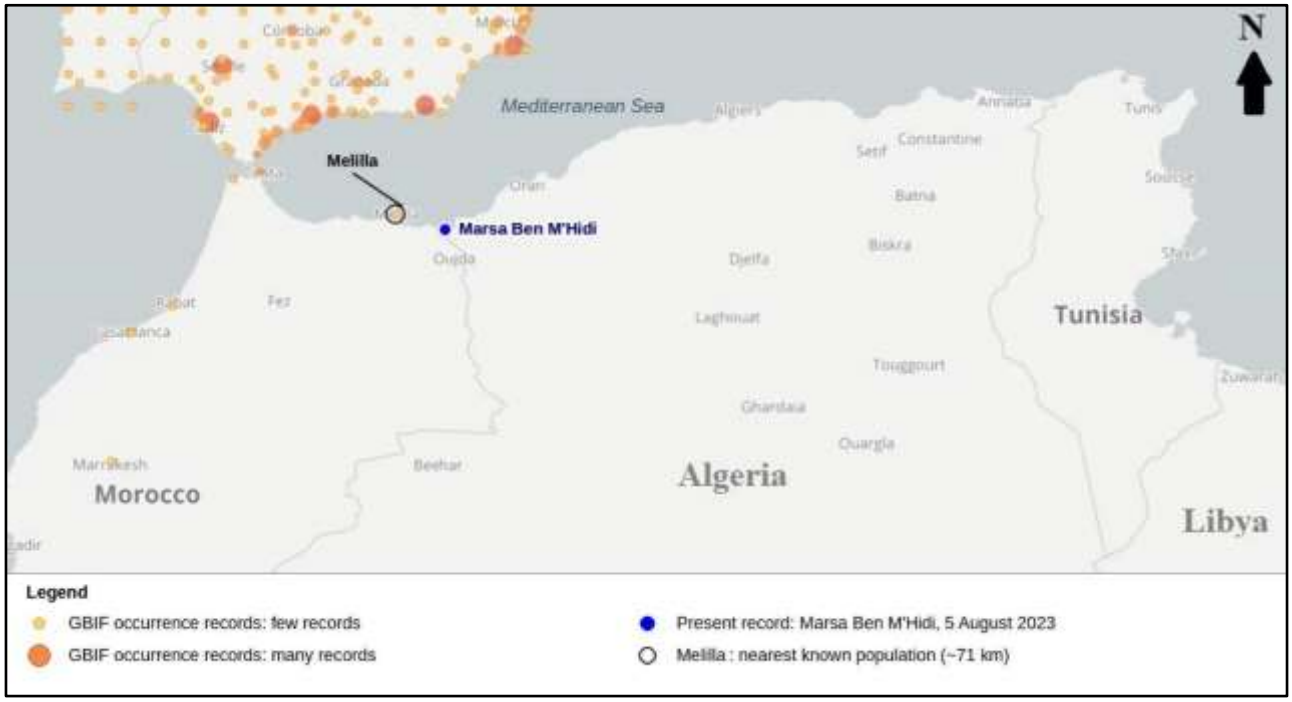


Figure 1. Occurrence records of the Monk Parakeet *Myiopsitta monachus* in north-western Africa and the western Mediterranean. Small and large orange circles: GBIF occurrence records (few and many records per location, respectively; GBIF.org, accessed October 2026). Blue circle: present record (Marsa Ben M'Hidi, 5 August 2023). Black ring: Melilla, nearest known population (~71 km).

3. Results and discussion

Taxonomic account

Order Psittaciformes Wagler, 1830

Family Psittacidae Rafinesque, 1815

Myiopsitta monachus (Boddaert, 1783), Monk Parakeet

New records. ALGERIA – **Tlemcen** • Marsa Ben M'Hidi; 35°04′52.72″N, 2°12′16.73″W; 4 m a.s.l.; 5 August 2023; Abdelkader Bekkouche obs.; 1 individual, sex undetermined.

A single Monk Parakeet was observed on 5 August 2023 in the town of Marsa Ben M'Hidi, Tlemcen Province, north-western Algeria, approximately 600 m from the Algerian–Moroccan border (**Figures 1, 2**). The bird was observed in an urban setting, specifically along a street lined with ornamental trees, approximately 300 m from the Mediterranean Sea. During the observation, the individual was seen foraging on cypress seeds for several minutes. The sighting was incidental and did not occur during the periodic bird surveys. The bird was observed directly and photographed. It remained calm and showed no apparent response to passers-by along the street.

The presence of this bird near the border may have two possible origins. First, it may have escaped or been released from captivity. Although local bird sellers, who were contacted, did not confirm having sold this species, informal trade or private importation cannot be excluded. Second, it may be a stray individual

dispersing from the neighbouring area. The nearest known population is in Melilla, about 71 km away in a straight line (**Figure 1**), where colony nesting was first reported in 2012[40]. The nearby Moroccan city of Nador already hosts a feral population of Rose-ringed Parakeets, and the Monk Parakeet nests in neighbouring Melilla[41]. Whatever its origin, this is the first record of the species in Algeria. It occurred in an urban habitat similar to those the species has colonised elsewhere[42]. Urban parks and ornamental plantations are the habitats where the species would be most likely to persist and breed if further individuals arrived. Because only one individual was recorded on a single occasion, the record confirms the occurrence of the species at this locality but does not demonstrate that a population is established in Algeria.

The Monk Parakeet is regarded as a pest in some invaded regions, although its impact depends on local conditions. The species damages ornamental trees and fruit and vegetable crops, and builds bulky nests on power lines, utility poles and buildings, which can cause power outages and fires. Large colonies can also be a noise nuisance, because the birds are highly vocal and may disturb nearby residents[14,26,33,42–44]. None of these impacts can be inferred for Algeria from a single individual. They would become relevant only if a breeding population were to establish, and would then depend on whether crops, ornamental trees and electrical infrastructure occur near the colonies; they should be assessed if further individuals or nests are found.



Figure 2. Monk Parakeet *Myiopsitta monachus* at Marsa Ben M'Hidi, Algeria, 5 August 2023. A: resting; B: feeding on cypress seeds. Photographs: A. Bekkouche.

Algeria hosts several non-native or range-expanding bird species, some introduced by humans and others colonising naturally. Examples are the Red-billed Firefinch *Lagonosticta senegala*, the Rose-ringed Parakeet *Psittacula krameri*, the Eurasian Collared Dove *Streptopelia decaocto*, the Vitelline Masked Weaver *Ploceus vitellinus* and the Village Weaver *Ploceus cucullatus*[45–50], among others.

This record is noteworthy because the Monk Parakeet is not included in the major national avifaunal accounts of Algeria[51–53]. Furthermore, no records of the species from Algeria were retrieved from either eBird or GBIF during searches conducted in September 2026, using Algeria as the country filter and applying no date restrictions. Additional searches confirmed the absence of records for the period between August 2023 and September 2026. In neighbouring Morocco, the Moroccan Rare Birds Committee had accepted 12–13 records by the end of 2018, considering the species an introduced taxon whose establishment had been unsuccessful, despite occasional breeding attempts. Nesting had been documented in Tangier and Casablanca[32,41], while breeding in Rabat was also reported in 2018[54].

4. Conclusion

This study reports the first documented occurrence of the Monk Parakeet in Algeria, recorded at Marsa Ben M'Hidi, Tlemcen Province, only 600 m from the Algerian–Moroccan border and about 71 km from the nearest known breeding population in Melilla. A single individual was observed on a single occasion. The record therefore confirms the occurrence of the species at this locality but does not demonstrate an established population, and the species should be regarded as non-native, not invasive, in Algeria. Given the species' well-documented history of establishment from escaped or released captive individuals elsewhere in its introduced range, and the proximity of colonised areas in neighbouring Morocco and Melilla, both an accidental escape and a natural dispersal from Melilla remain plausible explanations. They cannot be distinguished with the data currently available. This record adds the Monk Parakeet to the growing list of non-native and range-expanding bird species documented in Algeria, alongside the Rose-ringed Parakeet, the Eurasian Collared Dove, and several weavers and firefinch species. Northern Algerian border regions may be potential entry points for non-native birds from the pet trade and from established populations in neighbouring countries, although a single record is insufficient to test this. Continued monitoring is needed to determine whether this occurrence represents an isolated event or the beginning of an established population, and we recommend that future surveys in the Tlemcen region target urban parks and ornamental plantations, where the species is most likely to persist and potentially breed[42], with the primary aim of detecting additional individuals. If an established population is confirmed, censuses, phenological status, range and ecological and economic impacts should then be assessed.

Author contributions

AB: Abdelkader Bekkouche, ME: Mayssara El Bouhissi, DR: Djalila Rabie, AC: Abdelwahab, Chedad

Conceptualization, AB and AC; methodology, AB, ME and AC; software, AC; validation, AC and DR; formal analysis, DR and AC; investigation, AB, data curation, AC and DR; writing—original draft preparation, AC, and DR; writing—review and editing, AC and DR; visualization, AC; supervision, AC. All authors have read and agreed to the published version of the manuscript.

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Conflict of interest

Authors declare that there is no conflict of interest.

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