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Ornithology

Northern Shoveler *Spatula clypeata*: a possible first breeding record for Algeria

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Abstract

Breeding events of a waterbird species outside of their normal breeding grounds could be important to address how population changes on wintering areas are impacted by changes elsewhere in the birds' annual cycle. In this note we confirm the first breeding record of Northern Shoveler *Spatula clypeata* in Algeria. The breeding site was a saline lake, Sebkhet El-mahmel, located 180 km from the Mediterranean Sea and subject to a semi-arid climate. The area was visited on 16 June 2019 and the species was confirmed as a pair of Northern Shoveler accompanied by eight juveniles. The Northern Shoveler is an unmistakable waterbird species in the northern hemisphere due to its distinctive bill. The female and her juveniles looked healthy and they spent almost the entire daytime foraging and swimming.

Introduction

The Northern Shoveler *Spatula clypeata* is a Holarctic duck species with a large breeding range which encompasses central and western North America and Eurasia from western Europe eastwards to the Pacific Ocean. It winters south of their breeding areas. In North Africa, the Northern Shoveler is one of the most widespread and abundant wintering duck species. For example, in Morocco the average wintering population of the species is more than 30,000 individuals in at least 60 sites, which represent c. 23% of the total population of wintering ducks (Anatidae) in the country (Ouassou et al. 2017, Qninba et al. 2017). It is also one of the most widespread wintering duck species in Tunisia; it can attain an abundance of more than 23,000 individuals (Azafzaf et al. 2015). For Algeria, the Northern Shoveler is also one of the commonest wintering duck species. During surveys of 100 wetlands across the country between 2002–2008, Samraoui & Samraoui (2008) confirmed that the species was present in 47 of the surveyed sites. For example the Guerbes-Sanhadja wetlands, a complex of several sites covering an area of 1700 ha hosted up to 1100 birds (Amor Abda et al. 2015), Lake Tonga (1200 birds) (Elafri et al 2016), Garaet Timerganin (380 birds) (Metallaoui et al. 2014) and Lake Mekhada (1001 birds) (Bourafa et al. 2018). Shovelers spend an average of eight months of their annual cycle in wetlands of the southern Mediterranean basin (Khemis et al. 2017). They start leaving their wintering grounds from February, and continue until May. However, some individuals stay in summer at a number of sites across Northwest Africa, where the first breeding record was observed in 1971 at Dayet Afouragh in the Middle Atlas, in Morocco. Since then a number of other breeding events have been recorded, especially in Moroccan coastal wetlands such as Massa estuary and Sidi Boughaba Lake (Thévenot et al. 2003). In addition, Isenmann et al. (2005) cited some old summering records of Northern Shovelers in Tunisia but without confirmation of their breeding status. These findings extend the possibility for bird surveyors to discover new breeding

sites for other North African wetlands. In the region of Khenchela, north-eastern Algeria, we found Sebkhet El-mahmel inhabited by some breeding pairs of the Northern Shoveler accompanied with their juveniles. Confirmation of breeding in this area could be a useful indicator of a species level response to environmental change.

Methods and Materials

Sebkhet El-Mahmel (35°23'39.60"N, 7°19'53.57"E), area 950 ha, is a high altitude saline marsh located in the heart of the northern Algeria's wild and arid Khenchela District (Figure 1), the Arabic word 'Sebkhet' is consistently used in Algeria and Tunisia to indicate a saline marsh. This natural wetland contains a variety of aquatic plants and is surrounded by several cereal crops; it harbours an important avifauna (Halassi et al. 2022).

Results

During June 2019 Ayeb Slimane, nature photographer, informed Telailia Salah that he had found a dabbling duck with a large spatulate bill at Sebkhet El-Mahmel (35°23'39.60"N, 7°19'53.57"E), a saline marsh about 10 km southeast of the city of Khenchela, in northeastern Algeria. The area was visited on 16 June 2019 and the nesting species was confirmed as a pair of Northern Shovelers accompanied by eight juveniles, an unmistakable waterbird species in the northern hemisphere due to its large bill (Figure 2). The female and their juveniles looked healthy and they spent almost the entire daytime foraging and swimming. As far as we know, this is the first breeding record for North Africa apart from Morocco.

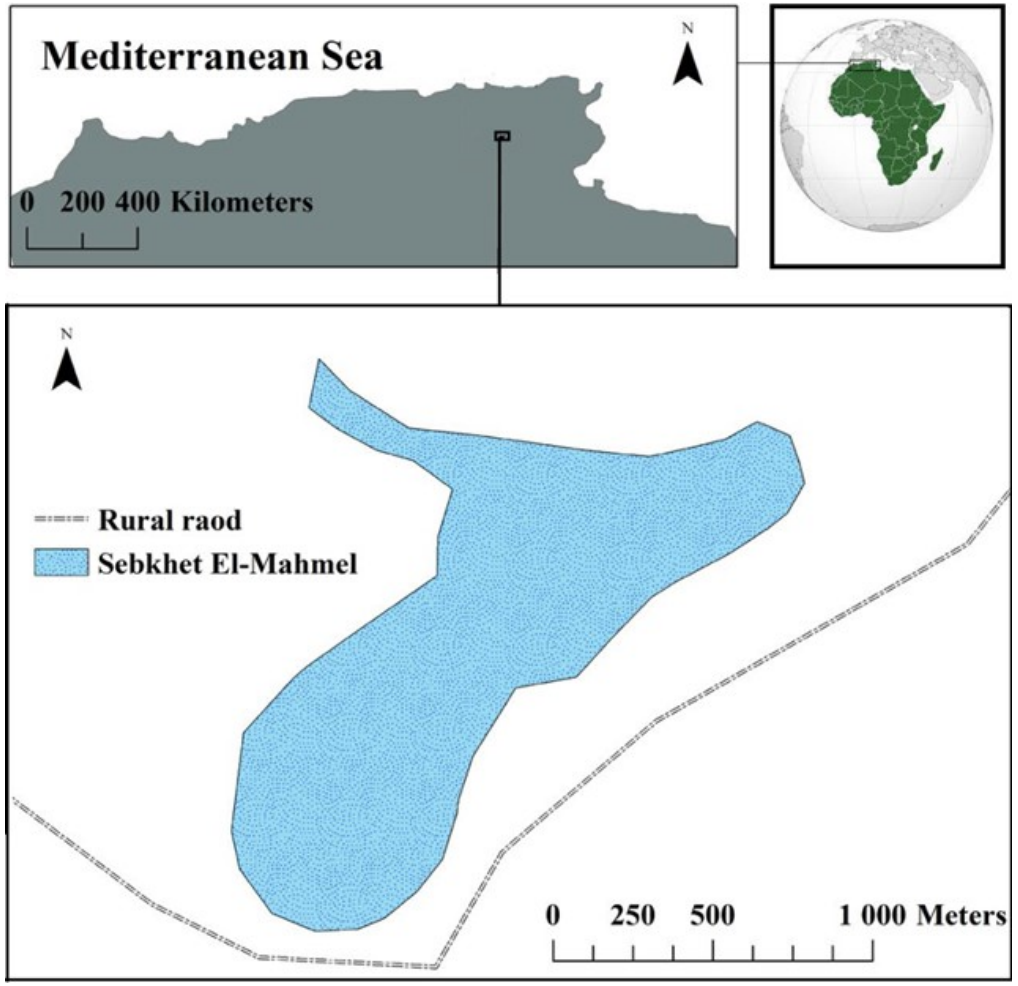

Figure 1: Location of the observation site (Sebkhet El-Mahmel).

Discussion

As a northern-latitude species, the breeding of Northern Shoveler in Africa has been recorded occasionally only in Morocco, where the first breeding case was observed at Dayet Afouragh in the Middle Atlas in 1971. Since then a number of other breeding events have been recorded especially in coastal wetlands such as Massa estuary and Sidi Boughaba Lake (Thévenot et al. 2003). As far as we know, there has been no previous breeding record elsewhere in Northwest Africa. In Algeria, a detailed study identified 43 breeding waterbird species out of a total 99 found in the country; the remainder including the Northern Shoveler are wintering and/or passage migrants (Samraoui et al. 2011). In Tunisia, Isenmann et al. (2005) cited some old summering records which may suggest the possibility of nesting, but they added that this has never been proven.

Figure 2: Eight chicks of Northern Shoveler accompanied by their mother (photographed in 19 June 2019 by A.S).

The location of the breeding pairs of Northern Shoveler in Algeria is the farthest to the south-east of its breeding range. The occurrence of breeding events of this species in such an area could be an important clue to understanding how population changes in wintering areas are impacted by changes elsewhere in the birds' annual cycle (Roberts & Conover 2015). Also, the occurrence this duck species in under unusual environmental conditions suggests that the it might be more tolerant to semi-arid climate than expected. This suggests that it might be able to adapt to climate change in its range.

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