

**The first record of *Monomorium minimum* (Buckley, 1867)
(Hymenoptera: Formicidae)
in the Western Palearctic region
(Touggourt oasis, Algerian Sahara)**

Ant species can be transferred between regions, as observed in the case of the sub-family Myrmicinae, which accounts for approximately 50% of all transferred species (McGlynn 1999). The genus *Monomorium*, consisting of 388 acknowledged species and subspecies, demonstrates remarkable diversity and widespread distribution within the Myrmicinae subfamily (Pontieri & Linksvayer 2021; Sharaf et al. 2021), especially in the tropical and subtropical regions of the world; moreover, its members show a great diversity in habitats and morphology (Klotz et al. 2008). One species, *Monomorium major*, has been reported in Algeria (Barech et al. 2017).

In the context of studying the diet of a Blue-cheeked Bee-eater (*Merops persicus*), more than

100 samples of pellets were collected from Touggourt oasis (Algerian Sahara, 33° 03' 31" N, 6° 03' 54" E, 73 m a.s.l.) (Figure 1). During April 2022, pellet samples were procured from a small swamp in the center of date palm groves, covering an area of approximately 100 meters.

After analyzing the pellet samples and determining their components, we found the remains of ants' heads in dozens of samples (Figures 2 and 3). The preliminary results indicate that these ants' heads belong to the subfamily Myrmicinae. Later, more taxonomic investigations determined that this ant was *Monomorium minimum* (Buckley, 1867).

Monomorium minimum, or as it is called, "the little black ant", is a very small ant with about 1.8 mm of body length (LeBrun et al. 2015) and is native to the U.S. (Rao & Vinson 2004). We were surprised by the presence of this type of ant in this area because its distribution is only recorded in the Nearctic (Adams & Traniello 1981, Alder & Silverman 2005, Herbert & Horn 2008, McCoshum et al. 2016) and the Indo-Malaysian region (Anusuyadevi & Sevarkodiyone 2018).

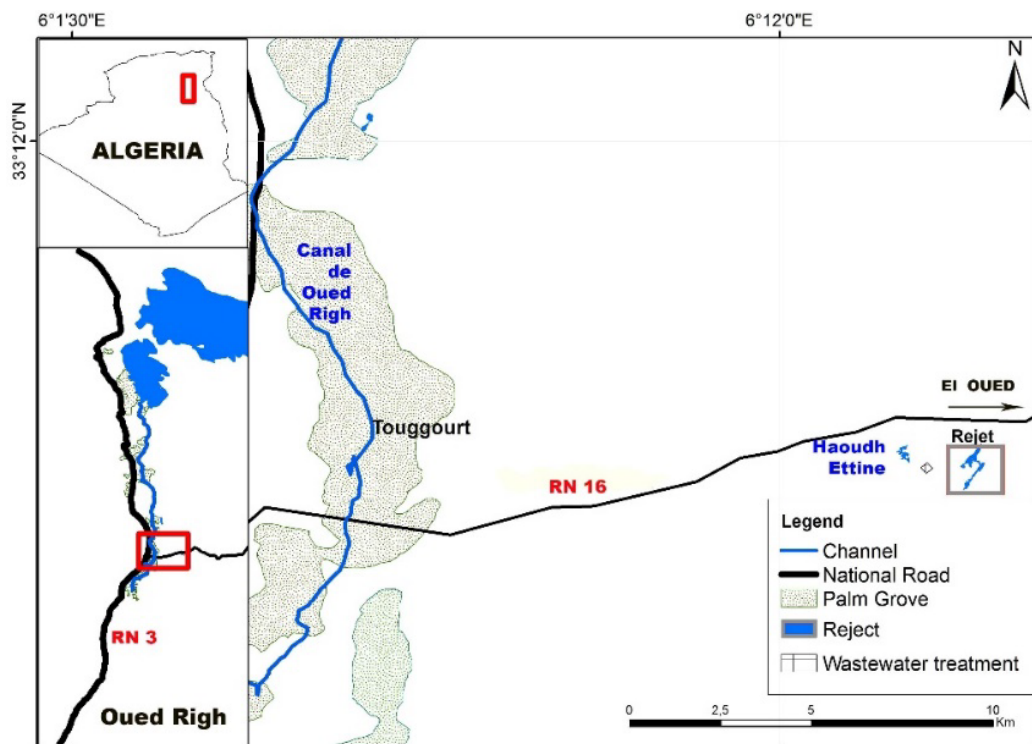


Figure 1. Blue-cheeked Bee-eater pellet sampling site (Touggourt oasis, Algerian Sahara)



Figure 2. Head of *Monomorium minimum* extracted from Blue-cheeked Bee-eater pellets (Touggourt oasis, Algerian Sahara, Western Palearctic)

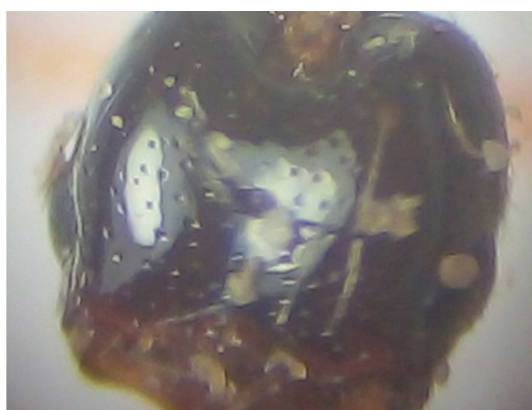


Figure 3. Dorsal face of *Monomorium minimum* extracted from Blue-cheeked Bee-eater pellets (Touggourt oasis, Algerian Sahara, Western Palearctic)

Monomorium minimum has been observed to effectively compete with red fire ants for both territory and food (Muniaraj et al. 2022). The latter option constitutes a legitimate threat to wildlife, livestock, and public health while also causing agricultural problems (Chen et al. 2016, Wang & Chen 2015).

Monomorium minimum is a species of ant that is capable of being transported. It is possible that it was inadvertently brought into new countries through trade interactions. However, the presence of this ant in the diet of the blue-cheeked bee-eater suggests that it is already present in the neighboring biotopes. This observation prompts multiple inquiries

concerning the invasive potential of this ant species in a novel habitat and its potential pre-existence in said habitat. Research is still ongoing, but we hope this note will help interested researchers identify this ant species in its new environment and help answer the many questions raised by this discovery.

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