

# First record of *Colotis amata* (Fabricius, 1775) in North Africa (Lepidoptera: Pieridae)

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## Abstract

*Colotis amata* (Fabricius, 1775) is associated with desert habitats in the Afrotropical and Oriental biogeographic region. There is little information available on the Papilionoidea that live in the Saharan regions, as evidenced by the fact that this species was recently discovered in southern Algeria close to Timiaouine. The expansion of the distribution area towards the North may be explained by the presence of its host plant in this area and in the pattern of distribution of some species.

**Keywords:** Lepidoptera, Pieridae, *Colotis amata*, distribution range, Algeria.

## Primera cita de *Colotis amata* (Fabricius, 1775) en el norte de África (Lepidoptera: Pieridae)

## Resumen

*Colotis amata* (Fabricius, 1775) está asociada a hábitats desérticos en la región biogeográfica Afrotropical y Oriental. Se dispone de poca información sobre los Papilionoidea que viven en las regiones saharianas, como demuestra el hecho de que esta especie se haya descubierto recientemente en el sur de Argelia, cerca de Timiaouine. La expansión del área de distribución hacia el Norte puede explicarse por cambios en las principales rutas migratorias y en el patrón de distribución de algunas especies.

**Palabras clave:** Lepidoptera, Pieridae, *Colotis amata*, área de distribución, Argelia.

## Premier signalement de *Colotis amata* (Fabricius, 1775) en Afrique du Nord (Lepidoptera: Pieridae)

## Resumé

*Colotis amata* (Fabricius, 1775) est associé aux habitats désertiques de la région biogéographique Afrotropical et Oriental. Peu d'informations sont disponibles sur les Papilionoidea qui vivent dans les régions sahariennes, comme en témoigne le fait que cette espèce a été récemment découverte dans le sud de l'Algérie, près de Timiaouine. L'expansion de l'aire de répartition vers le Nord peut s'expliquer par la présence de sa plante hôte dans cette zone et par le schéma de répartition de certaines espèces.

**Mots clés:** Lepidoptera, Pieridae, *Colotis amata*, aire de distribution, Algérie.

## Introduction

The Papilionoidea that inhabit the southern Mediterranean regions, with the exception of the

butterflies of Morocco (Pierre et al. 2008), are poorly studied, despite the fact that various studies on European ones have been carried out (e.g., Lafranchis, 2000; Tolman & Lewington, 2014; De Prins, 2016). Algeria, however, is starting to be an exception, with the regular appearance of publications since 2015 (Remini & Moulai, 2015; Kacha et al. 2017; Berkane et al. 2019, Haddad et al. 2020; Daunicht & Moulai, 2022), especially in the northeast of the country. In fact, remarkable discoveries or rediscoveries are still possible, such as those of *Cydalima perspectalis* (Walker, 1859) (Haddad et al. 2020), *Zygaena theryi* Joannis, 1908 (Daunicht & Moulai, 2022) and *Azonus jesous* (Guérin-Méneville, 1849) (Bougaham et al. 2023). The Saharan region is still largely unknown, with the exception of Speidel & Hassler (1989) study, which described the lepidopterological species in Hoggar and Tassili in Algeria.

The Afrotropical region is the distribution area to the majority of Genus *Colotis* Hübner, [1819]. This genus has 60 species, of which 44 are found in the Afrotropical regions and 11 whose biogeographic origins are in the Palearctic and Oriental regions. In North Africa, there are four species (Tennent, 1996), namely *Colotis chrysonome* (Klug, 1829), *Colotis phisadia* (Godart, 1819), *Colotis liagore* (Klug, 1829), and *Colotis evagore* (Klug, 1829), and all four species are present in Algeria. However, *Colotis amata* (Fabricius, 1775) is not cited by Tennent (1996).

On November 2, 2022, at Timiaouine, Hadoun Abdellah photographed a *Colotis amata* (Fabricius, 1775) perched on the *Salvadora persica* L. plant while visiting Bordj Badji Mokhtar region of Southern Algeria (Figure 1). Throughout its distribution range, this species mainly consumes the same plant stated there (Larsen, 2005a). One of us (A. Hadoun) verified the identification after examining the synthesis studies done on butterfly species known from West Africa (Larsen, 2005a), which every time orientated him to *Colotis amata*. The two photos illustrated in Figure 2 (a, b) clearly show the upper side of the male has a salmon pink ground color, with a black spot at apex of cell (Figure 2a). Additionally, the underside of the wings has a greenish-yellow color (Figure 2b). The antennae, head, thorax, and abdomen are black, the antennae speckled with white, the head and thorax are covered with fuscous-green hairs (Figures 2a, b). This species was observed in the village of Tawendert, which is located in the southeast of the commune of Timiaouine (20°23'22.57"N, 2°5'58.74"E, 669 m.). This Saharan area is characterized by the following plants *Salvadora persica*, *Balanites aegyptiaca* (L.) Delile, and *Acacia* sp. (Figure 3). This discovery was made 15 kilometers from the border between Algeria and Mali.

This is the first observation of this species in North Africa, particularly in southern Algeria. It is widely distributed in Afro-tropical areas. In North Africa, the small salmon Arab is not observed, and could be explained by the fact that certain areas of this region, such as the Sahara, are unexplored and that this species has gone unnoticed.

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