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# Second documented observation of the Sahara Orangetail Grass Lizard *Philochortus zolii* (SCORTECCI, 1934) in Algeria and its new distribution in Africa.

KARIM HADDAD, HAROUN NEMOUCHI and BILEL BENGUEDOUAR, January 2024

## Abstract

An adult lacertid lizard of approximately 25 cm total length, with a long brownish red tail climbing on a tree trunk was observed on July 23, 2023 in the municipality of Tagmart-East, in the wilaya of Tamanrasset, Algeria. The observation was published on the iNaturalist platform and led to the determination of *Philochortus zolii*. The observed climbing behavior seems to be typical for *Philochortus zolii*. It is the second observation of the species for Algeria.

**Keywords:** *Philochortus zolii*, New observation, Distribution, Ahaggar, Hoggar, Algeria.

## Résumé

Un lézard adulte près de 25 cm de long, menu d'une longue queue rouge brunâtre a été observé grimpant sur un tronc d'arbre faite le 23 juillet 2023 à la commune de Tagmart-Est, dans la wilaya de Tamanrasset. L'observation a été publiée sur la plateforme iNaturalist et a conduit à la détermination de *Philochortus zolii*. Le comportement grimpant observé semble être typique de *Philochortus zolii*. C'est la deuxième observation de l'espèce pour l'Algérie.

**Mots-clés:** *Philochortus zolii*, Nouvelle observation, Distribution, Ahaggar, Hoggar, Algérie.

## Introduction

An extensive detailed description of *Philochortus zolii* (SCORTECCI, 1934) was made by ANGEL (1936). He described the species as new to Algeria and named it *Philochortus lhotei*. This name was given in honor of HENRI LHÔTE, who had collected and presented this specimen of a female *Philochortus* to the Museum of Natural History in Paris, together with other reptiles and amphibians while traveling from the Hoggar Mountains in Algeria to Agadez in Niger. The specimen studied, as noted by ANGEL (1936), was collected in a steppe area near the well of In Abezou, located approximately 100 km southwest of the well of In Abangarit (both localities in Niger). It is worth noting that In Abangarit (Niger) is located 185 km south of In Guezzam (Algeria) and 170 km south of the Algerian-Nigerien border. By following a straight line, In Abangarit is located 227 km northwest of Agadez (Niger).

## Previous observations

When doing research in existing literature, we found

only seven records of *Philochortus zolii* throughout North Africa. In this work, we add an old record from Algeria, which was overlooked in recent publications (LE BERRE 1989, SCHLEICH et al. 1996, BAHA EL DIN 2006, TRAPE et al. 2012, NAIA et al. 2021): Two specimens collected by T.J. PAPENFUSS, R.C. DREWES and E. J. MORRIS on May 18, 1974 in the Tamanrasset area. All observations are listed in table 1.

The two overlooked Algerian specimens are housed at the “Institute for Biodiversity Science and Sustainability of the California Academy of Science”, in the Herpetology Collections Database of the California Academy of Science museum with catalogue numbers 138637 and 138638. LAUREN SCHEINBERG (Collection Manager Herpetology) provided photographs of these specimens (see image 1).

IN DEN BOSCH (2020) provides comprehensive information on his observations in the *Philochortus zolii* habitat and their husbandry.

Country	#	Location	Source	Notes
Lybia	1	El Barkat oasis, 8 km south of Ghat in the Fezzan.	ZAVATTARI 1937	
	2	Near Ajedabia in western Cyrenaica.	MARX 1968	Ajedabia is located approximately 160 km south of Benghazi, on the coastal highway leading to Tripoli in the Gulf of Syrte.
Egypt	3	Wadi El Natrun.	BAHA EL DIN 2006 IN DEN BOSCH 2020	Previously mistakenly identified as belonging to <i>Philochortus intermedius</i> .
Niger	4	In Abezou.	ANGEL 1936 MARX 1968 TRAPE et al. 2012	
Mali	5	Bourem.	MARX 1968	Along with the one from Niger, previously considered as the only known representatives of <i>Philochortus lhotei</i> but now recognised as representing <i>Philochortus zolii</i> (MARX 1968).
Mauritania	6	In the coastal peripheral zone of the Diawling National Park.	NAIA et al.2021	
Algeria	7	3 km east of the city of Tamanrasset on the road to Adriane and 2 km west of the Adriane road, (22° 47' 12" N / 5° 34' 0" E) at an altitude of 1,407 m.	Herpetology Collections Database CAS	Two specimens were collected on May 18, 1974 by T.J. PAPENFUSS, R.C. DREWES and E.J. MORRIS: Cat.-No=138637 and Cat.-No=138638.
	8	500 m east of the village of Tagmart-Est and 18 km in a straight line north of Tamanrasset airport (22.974551 N / 5.417977 E) at an altitude of 1,419 m.	HADDAD et al. 2024	New record - this observation.

**Table 1.** All records of *Philochortus zolii* throughout North Africa.



**Image 1.** *Philochortus zolii* at the Institute for Biodiversity Science and Sustainability of the California Academy of Science.

### This observation

In July 2023, HAROUN NEMOUCHI and BILLEL BENGUEDOUAR, both naturalists and members of the EcoCirta association of Constantine made a seven-day prospecting trip with friends in the Ahaggar Cultural Park in the area of Tamanrasset, Algeria. On the 23rd of July, while strolling along the edge of a nearby road, 500 m east of the village of Tagmart-Est and 18 km in a straight line north of Tamanrasset airport, they observed an acacia tree (22.974551 N / 5.417977 E) at an altitude of 1,419 m. In this tree, HAROUN NEMOUCHI was able to photograph a lizard at 11:31 am with a very long tail exceeding the length of its body (snout-vent) by more than double (see image 2 and 3), a characteristic of *Philochortus zolii* noted in SCORTECCI (1934) and TRAPE et al. (2012). After that observation, the photos were shown to Tuareg guides who confirmed that this species was known from the region in southern Algeria. The photo of this lizard was uploaded on the iNaturalist platform where it was determined as *Philochortus zolii* by MICHAEL KRONIGER.

Later this was confirmed by SIEGFRIED TROIDL and by PHILIPPE GENIEZ, who noted that this climbing attitude seems to be the typical behavior of *P. zolii*. This observation of an adult *P. zolii* is only the second documented record of the species in Algeria and the eighth for North Africa. This new observation expands the knowledge about the global distribution of this species and highlights the need for local conservation authorities for the importance in protecting the population found.

### Discussion

The Ahaggar Cultural Park is located in the wilaya (“province”) of Tamanrasset, in the extreme south of Algeria. It extends over an area of 633,887 km<sup>2</sup>, including the Hoggar massif, which covers an area of around 50,000 km<sup>2</sup> and is rich in archaeology and history, with archaeological sites dating from 600,000 to 1 million years ago. The massif’s highest point, the Tahat, at 2,918 metres above sea level, is also Algeria’s highest mountain. The rugged terrain is made up of peaks and cliffs of basalt and



**Image 2.** *Philochortus zolii* in the area of Tamanrasset, Algeria.



**Image 3.** *Philochortus zolii* in the area of Tamanrasset, Algeria.

porphyry. The region enjoys more moderate temperatures and higher rainfall than the surrounding desert region at lower altitudes (BOUSQUET 1992). The massif is home to several remarkable species of flora and fauna. For these reasons, the region is highly inaccessible and difficult to sample, especially given the large areas without roads or tracks, which makes accessibility to potentially rich localities virtually impossible. The current observation suggests that the region is under-sampled. Additional new species of flora and fauna will be likely be discovered in southern Algeria, and there are numerous recent examples (VIECHEC & HADDAD 2019, HADDAD & AFOUTNI 2019, 2020, 2022, HADDAD & BEKKOUCHE 2021, HADDAD et al. 2021, CHETIBI et al. 2023). Increasing sampling efforts are needed to uncover observations from other remarkable species, likely occurring in fragmented and isolated populations throughout North Africa.

The current new observation calls for a revision of the species distribution map in Africa. The latest IUCN assessment and distribution mapping (WAGNER et al. 2013) needs updating.

*Philochortus zolii* is highly endangered across its distribution, occurring in relict sites threatened by progressive desertification, conversion of pasture to arable land, and even sea level rise. The species is listed as endangered under criteria B2ab (ii, iii) (2), so conservation measures must be taken to protect and conserve the species and its habitat.

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**Image 4.** Habitat impression of the area of Tamanrasset, Algeria.