

## Distribution extension of *Agama impalearis* (Boettger, 1874) (Reptilia: Agamidae), with a new record from Batna province, north-eastern Algeria

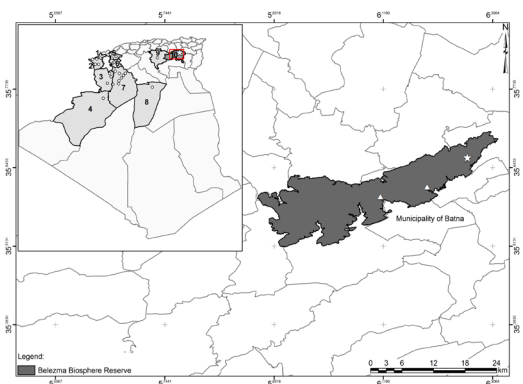
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The African genus *Agama* Daudin, 1802 comprises diverse, common and widespread reptiles throughout the continent (Leaché et al., 2014). There are seven *Agama* species in North Africa (Gonçalves et al., 2012), colonizing a wide variety of arid and semi-arid habitats (Schleich et al., 1996). Among these species, *Agama impalearis* Boettger, 1874 occurs across North Africa where it is found in areas north of the Sahara in Morocco and northern Algeria (Sindaco and Jeremčenko, 2008). The distribution of this agamid lizard in Algeria is based on historical records, which relate mainly to the north-western part of the country (Sindaco and Jeremčenko, 2008; Figure 1). Hence, there are virtually no records of *A. impalearis* in north-eastern Algeria.

In order to determine species richness and diversity of the herpetofauna in the Belezma Biosphere Reserve, we conducted field surveys from April 2015 to October 2016. The biosphere reserve is located north-western of the municipality of Batna in Batna province, north-eastern Algeria (35.5919° N–35.6911° N and 5.9032° E–6.3152° E, Figure 1). It consists of a variety of vegetation types including cedar forests, pine forests, and shrublands (maquis). On August 26 of 2015 at 12:34 am, we found an adult of *A. impalearis* (Figure 2) in the Belezma Biosphere Reserve (35.6597° N, 6.2633° E, 1076 m elevation; Figure 1), climbing an oak tree, in an area of maquis-type vegetation dominated by Holm oak

(*Quercus ilex*) trees. The individual has a greyish head; yellow back with irregular reddish brown spots and a yellowish vertebral line with lighter and darker spots; grey legs and tail with dark spots. Due to law restrictions the specimen was photographed but not collected.

This observation of *Agama impalearis* in the Belezma Biosphere Reserve represents the first record of the species in Batna province and north-eastern Algeria. It also expands its geographic distribution from the nearest known location, by ca. 185 km northeast of municipality of Bou Sâada, province of M'Sila. To date this is the southernmost record of *A. impalearis* in the north-eastern region, with a straight-line range extension of 148 km from the Mediterranean Sea.



**Figure 1.** Current distribution map of *Agama impalearis* in Algeria. 1. Aïn Témouchent province; 2. Telemcen province; 3. Naâma province; 4. Béchar province; 5. Mascara province; 6. Saïda province; 7. El Bayadh province; 8. Ghardaïa province; 9. M'Sila province; 10. Batna province (current record). Records in the provinces from 1–9 were obtained from Sindaco and Jeremčenko (2008). White circles: historical records; White star: new record; White triangles: other possible localities.

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**Figure 2.** Adult *Agama impalearis* from the Belezma Biosphere Reserve, Batna province, north-eastern Algeria. Photo by Messaoud Saoudi.

We also report two additional possible localities for *A. impalearis* within the Belezma Biosphere Reserve (Figure 1). The phytophysiognomy of the biosphere reserve is characterized predominantly by the maquis-type vegetation, therefore, this species might be found in various other localities in the area.

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