

A new population of the Italian cave salamander *Speleomantes italicus* Dunn, 1923 (Caudata Plethodontidae) in the Monti della Laga National Park, Abruzzo (Italy)

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ABSTRACT

Abruzzo (Italy) represents the southern limit of the distribution area of the Italian cave salamander *Speleomantes italicus* Dunn, 1923 (Caudata Plethodontidae). A new population of this species has been identified in the northern portion of the province of Teramo with the discovery of two specimens in an epigeal environment. The new site, located along the southern borders of the municipality of Valle Castellana, distant from the other known sites in the same province, represents an important report for the protection and conservation of the species.

KEY WORDS

Speleomantes italicus; Italian cave salamander; new population; Monti della Laga National Park; Abruzzo.

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INTRODUCTION

The Italian cave salamander *Speleomantes italicus* Dunn, 1923 (Caudata Plethodontidae) is a species of salamander endemic to the central-northern Italian Apennines, present in both hypogean and epigeal environments in the regions of Emilia Romagna, Tuscany, Umbria, Lazio, Marche and Abruzzo (Ambrogio & Mezzadri, 2017). The Abruzzo region represents the southern limit of the distribution of this species, which has been reported in the provinces of L'Aquila, Teramo and Pescara (Bruni et al., 2016; Ruggi, 2007). In the province of Teramo the species has currently been verified in 10 locations, in the municipalities of Cortino, Nerito, Tossicia, Isola del Gran Sasso, Civitella del Tronto and Pietracamela (Cameli et al., 2016). This study describes a new population found in the southern border of the municipality of Valle Castellana, within the Monti della Laga National Park.

RESULTS

In the morning of 27 October 2024, near Vallefara, in broad daylight, at 11:33 a first individual of *Speleomantes italicus* was found in the undergrowth under a layer of chestnut leaves (*Castanea sativa*), where, about 6 minutes and 10 meters away, a second specimen was found (Fig. 1). These measured approximately 100 and 93 mm respectively (total length) (Fig. 2, 3). The weather conditions at the time of the discovery were clear, with an outside temperature of about 20°C, and 80% humidity. The site (Fig. 4) with a north-facing exposure, is located at 933 m above sea level, near the border with the municipality of Rocca Santa Maria, approximately 8 km north and 10.5 km west of the nearest regional records, respectively in the localities of Intermesoli and Gole del Salinello (Bologna & Zapparoli, 1980; Osella & Di Marco, 1997; Lanza et al., 1995; Cameli et al., 2016) (Fig. 5). The closest records towards the

west and north are instead extra-regional, respectively those of the province of Rieti (about 17 km west), in Lazio, and Ascoli Piceno, (about 5 km north) in Marche (Fiacchini et al, 2008; Bruni et al., 2016).

DISCUSSION

The two Vallefara specimens were observed in an epigeal environment characterised by a marly-arenaceous terrain, similarly to what was de-



Figures 1–4. New site of *Speleomantes italicus* in Valle Castellana, Abruzzo (Italy). Fig. 1: dorsal view of the two specimens found. Fig. 2: first specimen with scale. Fig. 3: second specimen with scale. Fig. 4: site of discovery.

scribed for the stations found near Intermesoli and Tossicia (Cameli et al., 2016), part of the same formation. On the same day of the discovery, I had the opportunity to question two landowners of the inspected area, where one of the two claimed to have never seen the species in question before, while the other confirmed to have encountered these amphibians more than once, always on the surface in the same epigeal biotope, but further north-east (at a distance of at least 400 m), describing this species specifically and distinguishing it from the sympatric *Salamandra salamandra* (Linnaeus, 1758), and reconfirming the identification after showing him the photos taken shortly before. This could mean that the species is present in multiple micro-stations or is spread across a single large area, where further inspections, also in search of any neighbouring cave habitats, are necessary to define its density and extension. The location of the discovery is also located a few metres from the borders with the municipality of Rocca Santa Maria, where this species has never been reported.

The identification of new populations/stations is important for the protection and safeguard of this species, as well as being of biogeographical importance since the provinces of Teramo and Pescara represent the southern limit of its distribution, and are the ones in which the species can be considered effectively threatened (Lanza et al., 2006).

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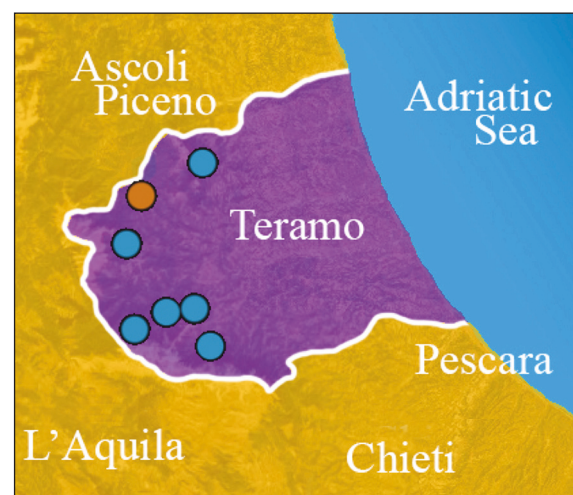


Figure 5. Map of the known populations/sites of *Speleomantes italicus* within the province of Teramo, Abruzzo. Orange dot represent the new described locality; blue dots indicate the verified localities reported in literature (six sites overlap in two of the dots).

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