

First recorded predation of a Mediterranean Centipede, *Scolopendra cingulata* Latreille, 1789, by a North African Ocellated Lizard, *Timon pater* (Lataste, 1880), in Chr  a National Park, Algeria

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Predation events documented across species' ranges provide critical insights into the biogeographical mechanisms underlying interspecific interactions (Cotoras and Vallejos, 2021). Numerous instances of predation by herpetofauna on a wide range of prey species have been reported from various habitats (Sloggett 2012; Roudil et al., 2024; Khashab and Jablonski 2025; Mesonero et al., 2025).

The North African Ocellated Lizard, *Timon pater* (Lataste, 1880), is a diurnal lacertid endemic to the Maghreb, distributed across northern Morocco, Algeria, and Tunisia (Rouag et al., 2006; Arnold et al., 2007; Mamou et al., 2014; Saoudi et al., 2017; Nouira et al., 2022). Initially considered a geographic form of *Lacerta lepida* (now *Timon lepidus*), it was later elevated to species rank based on morphological, karyological, and molecular evidence confirming its genetic distinctiveness (Bischoff, 1982; Paulo et al., 2008).

Trophically, lacertids are recognised for their opportunistic and generalist feeding behaviour with a diet largely composed of terrestrial invertebrates, predominantly insects (Arnold, 1987; P  rez-Mellado

and Corti, 1993; Lo Cascio and Capula, 2011). However, their trophic ecology is characterised by notable plasticity, with prey selection influenced by numerous environmental and biological factors (Carretero, 2004). In *Timon pater*, the diet is dominated by arthropods, particularly beetles (Coleoptera), orthopterans (Orthoptera), and ants (Formicidae), but also includes molluscs, especially gastropods (Rouag et al., 2006). Nevertheless, regional data, such as those from the Aur  s Mountains (Mount Chelia), indicate a marked dominance of beetles in the diet composition (Saoudi et al., 2017). Despite these contributions, knowledge on the feeding ecology of *T. pater* remains fragmented, and a detailed characterisation of its trophic preferences is still lacking.

The Giant Centipede, *Scolopendra cingulata* Latreille, 1789, commonly referred to as the Mediterranean Centipede, is systematically classified within the order Scolopendromorpha and the family Scolopendridae (Haupt, 1993). It is the largest centipede species occurring in Europe and the most widespread representative of its genus (Oeyen et al., 2014), typically associated with Mediterranean environments and humid habitats (Abrous-Kherbouche, 1996; Lewis, 2010). This myriapod is easily recognised by its powerful forcipules and its highly variable, often striking colouration, with body tones ranging from brownish-yellow to olive, often marked with darker transverse bands (Haupt, 1993). In addition to its ecological role as an active nocturnal predator, *S. cingulata* is medically significant due to its venom, which can inflict painful bites. Although severe envenomation remains rare, some cases have resulted in necrotising fasciitis or neurological complications (Serinken et al., 2005; Voigtl  nder, 2011; Yao et al., 2013). Furthermore, recent studies have highlighted the biomedical potential of its venom, including the discovery of bioactive peptides with potent analgesic,

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cytotoxic, and anticoagulant properties (Kong et al., 2013).

On 30 April 2025, at approximately 12:25 h, we observe a lizard predating on a centipede in the Magtaa Lazrag area (36.4702°N, 3.0086°E; elevation 1200 m), located within Chr  a National Park (Fig. 1). This park is one of the main protected areas in northern Algeria and has been part of the UNESCO Man and the Biosphere Programme since 2002. It represents a site of high ecological value, hosting a remarkable diversity of Mediterranean forest landscapes and habitats, making it an ideal location for observing herpetofauna. The predation event between the reptile and its prey was documented photographically using a Nikon Coolpix P1000 camera, during an educational field outing conducted near an agricultural area, along the banks of a natural wadi used for irrigation. The reptile was identified as the North African Ocellated Lizard (*Timon pater*) based on the full set of diagnostic morphological features characteristic of the species (Fig. 2A). This identification is further supported by the known ecological requirements of *T. pater*, which exhibits a marked preference for mountainous and high-altitude environments, in agreement with previous records (Schleich et al., 1996; Bouam et al., 2017).

The prey item was identified as the Giant Centipede (*Scolopendra cingulate*) based on its distinctive external morphology, with an estimated total body length of approximately 12 cm (Fig. 2B). It was initially observed moving on the rocky substrate. Shortly thereafter, the lizard suddenly emerged to capture it, seizing the prey by the anterior end of its body. The attack was followed by a series of vigorous shaking movements before the complete ingestion of the prey, starting with the head. The entire predation sequence lasted approximately 13 minutes (Fig. 3).

This observation is particularly noteworthy given that *Scolopendra* centipedes possess venomous forcipules capable of delivering painful and potentially harmful envenomation in humans and other animals (Bouchard et al., 2004; Yildiz et al., 2006; Malta et al., 2008; De Haro, 2009). According to these authors, the venom secreted by these myriapods can induce intense local reactions such as inflammation, oedema, and occasionally tissue necrosis at the bite site. Despite this, the reptile was able to handle and consume the prey without any visible adverse effects, suggesting either an evolved resistance or behavioural adaptations to avoid envenomation during capture and ingestion.

The observed predation on *S. cingulate* may thus

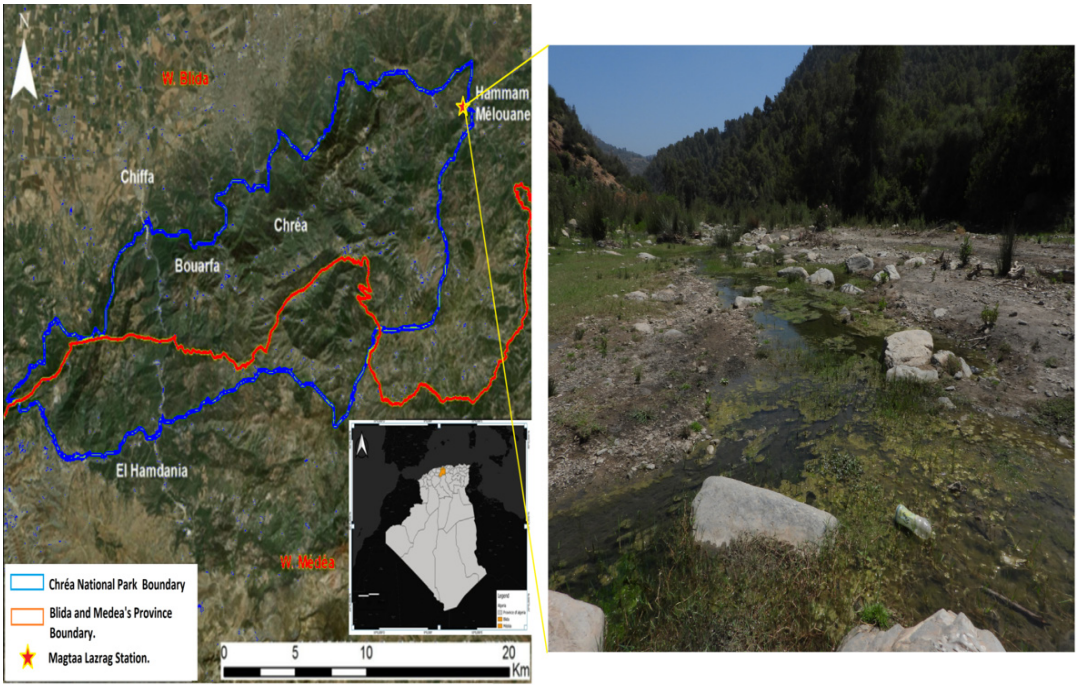


Figure 1. Geographical location of the Magtaa Lazrag study area in Chr  a National Park.

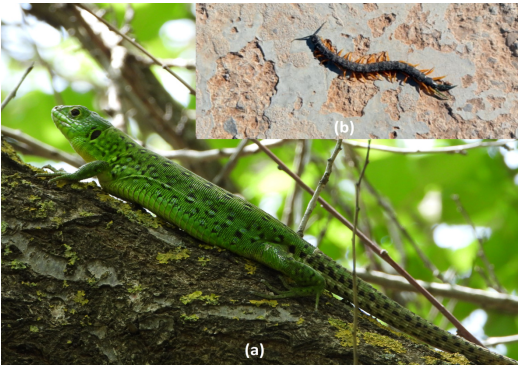


Figure 2. Field observations of the North African Ocellated Lizard (a) basking on tree branches and a Giant Centipede (b) on rocky substrate. Photos by Mustapha Aroudj.

represent a rare or underreported trophic interaction, warranting further investigation into the chemical ecology of predator-prey dynamics involving venomous arthropods and their reptilian predators. Further

ecological and dietary investigations are therefore recommended to better define the trophic niche of this species and to assess its functional role within North African ecosystems.

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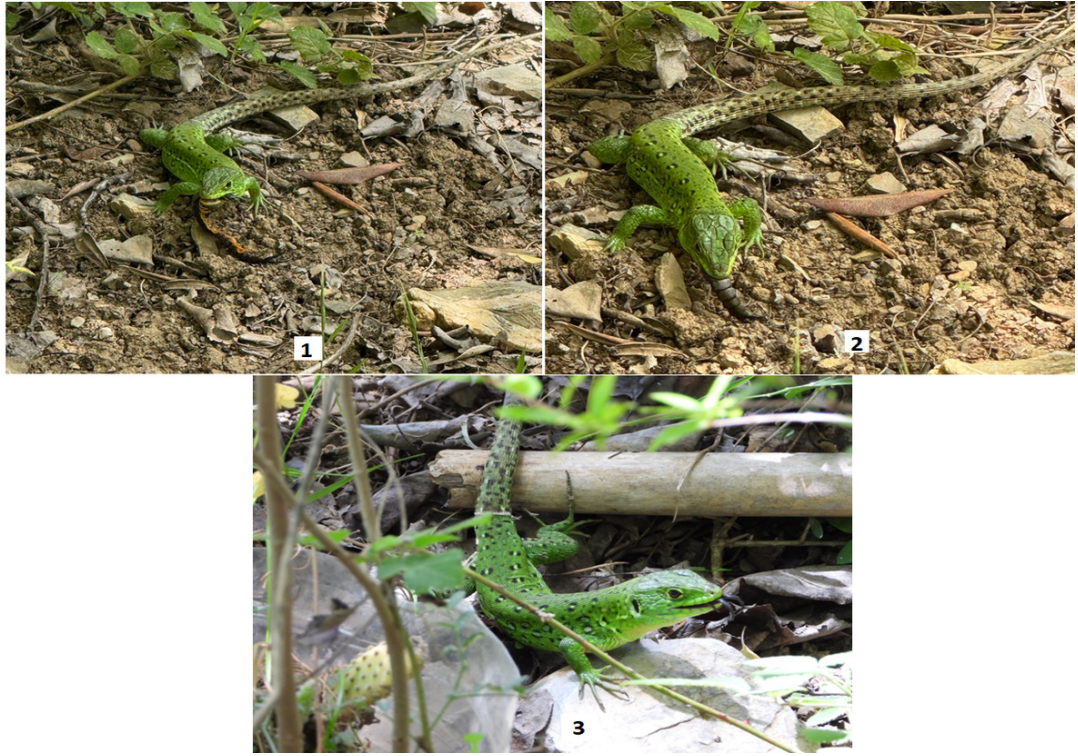


Figure 3. Capture (1) and ingestion (2/3) sequences of the Mediterranean Centipede by the North African Ocellated Lizard. Photos by Mustapha Aroudj.

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