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NEW REPORT ON *PODARCIS SICULUS* IN EASTERN LIGURIA (NW ITALY)

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ABSTRACT

This work reports a population of the Italian wall lizard (*Podarcis siculus*), observed for the first time along the Entella River in Carasco (Metropolitan City of Genoa, Liguria, NW Italy) in spring 2024. Nine field surveys were carried out between March and June in 2024, 2025 and 2026. During these surveys, multiple individuals, including adults and juveniles, were recorded. We review the species distribution along the Ligurian coast and southern France, discussing the status of natural populations and framing the introduction vectors of non-native ones. Given the historical records in the neighboring areas and the increasing occurrence of newly introduced populations of *P. siculus* in Italy and worldwide, we highlight the importance of monitoring this population and assessing its interactions with *P. muralis*.

KEY-WORDS: Italian wall lizard, Liguria, Introduction, Competition.

SHORT NOTE

The Italian wall lizard is endemic to the Italian Peninsula, Sicily and Dalmatia with higher density in central and southern Italy, while in the northern part the distribution is discontinuous. *Podarcis siculus* was also introduced in many countries outside its distributional range, in particular in the Iberian Peninsula, southern France, southern Switzerland, Turkey and the Balkans, as well as North Africa and the USA (Sacchi, Liuzzi & Restivo in: Razzetti et al., 2025).

In Liguria, according to the Ligurian Observatory of Biodiversity (Li.Bi.Oss, Regione Liguria; Sacchi, Liuzzi & Restivo in: Razzetti et al., 2025), the reports are concentrated in the province of La Spezia, especially along lower River Magra, from Ameglia to Vezzano Ligure, where the subspecies *P. s. campestris* naturally occurs. An individual of the species was occasionally observed in 1995 in the Vado Ligure Ferry Terminal (SV), most likely passively transported from Corsica, where the species was historically introduced (Vacher & Geniez, 2010). Similar cases of accidental transport of *P. siculus* through commercial shipments have been reported in Great Britain, where several individuals were found in grape shipments imported from Italy (Clemens & Allain, 2021). Stable introduced populations occur on Palmaria Island (Portovenere, SP) and in the area of Ventimiglia (IM), due to the expansion of an introduced nucleus from Menton in the 50s (Oneto et al., 2021). In France, the species has also been introduced in the Var (Toulon and Hyères archipelago; Orsini 1984) and in the Alpes-Maritimes

departments, where historical records date back to 1893 (Renet et al., 2026) and more recently near Bordeaux in southwest France (Berroneau et al., 2022), where introductions have been associated with the olive trade.

In April 2024, the presence of the species was first suspected based on photographs posted on social media (photos posted by Sam Rizzardi on Facebook) near Carasco (GE) and was subsequently confirmed by the authors through nine surveys conducted between March and June in 2024, 2025, and 2026. During these surveys, we detected multiple individuals (ranging from 5 to 12), including juveniles (May 2026), indicating successful local reproduction. Specimens showed dorsal patterns attributable to the "campestris" (typical of the central-northern populations of the Italian peninsula) and "reticulated/campestris" (more frequent in southern or transitional populations) phenotypes (Figure 1). The location of the observations is shown in Figure 2.

Figure 1. Two of the individuals observed along the Entella River showing dorsal patterns attributable to the "reticulated/campestris" (A) and "campestris" (B) phenotypes. Photo by Giacomo Rosa.

This site is approximately 40 km away from the nearest natural site (La Spezia; Oneto et al., 2021) and is of potential biogeographic and conservation interest. Indeed, in the 1950s and 1960s the species was reported in the surrounding areas of Sestri Levante, Portofino and Cavi di Lavagna (specimens preserved at the Museo Civico "G. Doria" in Genoa). Furthermore, the same site is inhabited by the native *Podarcis muralis,* which is common in the surrounding areas. Consequently, determining whether the presence of this population is due to an introduction (whose causes are, at the moment, unknown) or to a relict population would contribute to a better understanding of the regional distribution of the species. Also, in case of introduction, studying this population would provide an opportunity to investigate the interaction dynamics with *P. muralis*, which are context-dependent and often difficult to describe (Sacchi et al., 2026).

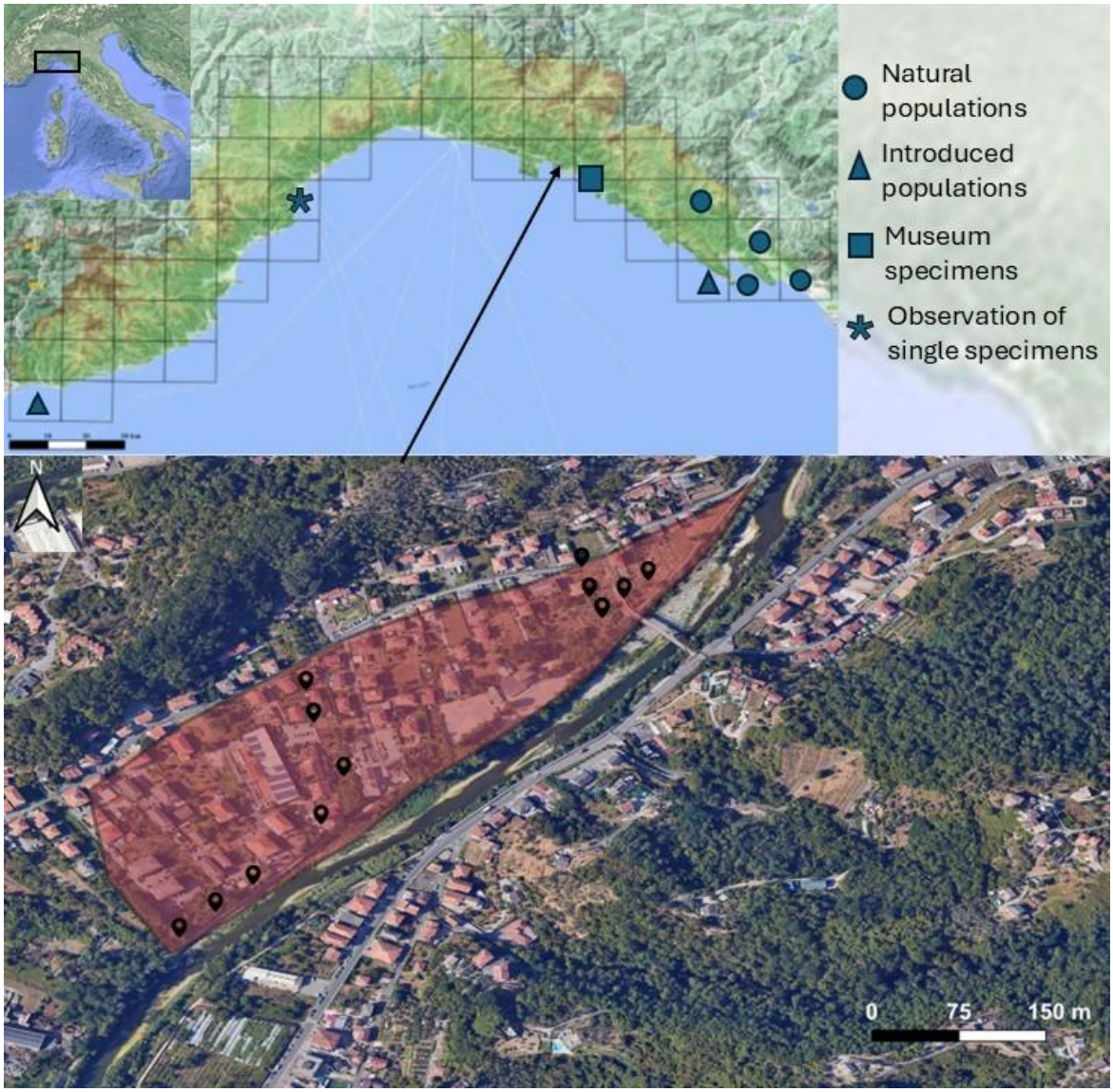

Figure 2. Regional distribution of *P. siculus* in Liguria, adapted from Oneto et al. (2021), and map of the monitored area (approximately nine hectares) with sighting points, indicated by black pins.

Therefore, future research should focus on demography and genetics of this population to clarify its status. For example, repeated counts could be useful to estimate population size and density (Rosa et al., 2022), allowing assessment of long-term viability and expansion rate along the riverbanks. Genetic analyses (using mitochondrial markers and microsatellites) would help to determine the geographic origin of the population, distinguishing between a native relictual lineage and an anthropogenic introduction. Finally, investigating the syntopic interaction with *P. muralis* would help to quantify microhabitat partitioning, thermal ecology, and potential interference competition.

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