

SHORT COMMUNICATIONS

FOUR CASES OF COMPLETE MELANISTIC ITALIAN WALL LIZARD [*Podarcis siculus* (RAFINESQUE-SCHMALTZ, 1810)] IN SOUTHERN ITALY AND SICILY ISLANDVincenzo Reina,¹ Filippo Spadola,¹ Manuel Morici,^{1*} Paola Sgroi,¹ and Antonino Marcianò¹*Submitted February 27, 2016*

In this short note are described some reports of a complete melanism in four Italian Wall Lizards (*Podarcis siculus*), recorded in Southern Italy and in Sicily Island. Moreover is shortly described the literature of the countless sightings of melanism in the genus *Podarcis*.

Keyword: *Podarcis siculus*; Italian wall lizard; melanism; Southern Italy; Sicily; Italy

Melanism (from μέλας — “black” in Greek) is an excess of skin pigmentation that looks black or almost black. It refers to a phenotype in which the pigmentation of an organism is entirely or almost completely ex-

pressed. Melanism appears occasionally in countless reptiles (Potes and Tejado, 2002; Galan et al., 2011). For the species *Podarcis*, the presence of partial or total melanism is commonly found in insular populations. Some examples are the population of Lilford’s Wall Lizard (*Podarcis lilfordi*) and of Ibiza Wall Lizard (*Podarcis pityusensis*) found in the Balearic Islands (Mertens 1915, 1924; Salvador 1979; Galan et al., 2011; Buades et al.,

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TABLE 1. Reports of Melanistic Specimens or Population of *Podarcis* spp.

Year	Species	Finding site	Type	Melanism	Authors
1979	<i>Podarcis lilfordi</i>	Balearic Islands, Spain	Population	Partial	Salvador
1984	<i>Podarcis sicula campestris</i>	Casaccia, Bracciano, Italy	1	Complete	Parisi & Galliano
1984	<i>Podarcis hispanica</i>	Salamanca, Spain	1	Complete	Pérez-Mellado
1986	<i>Podarcis muralis maculiventris</i>	Pavia, Italy	1	Partial	Zuffi
1991	<i>Podarcis muralis</i>	La Rioja, Spain	1	Complete	Zaldívar
1991	<i>Podarcis muralis</i>	Spain	1	Complete	Arribas
1992	<i>Podarcis muralis</i>	Cantabria, Spain	Population	Partial	Barbadillo and Sánchez-Herraiz
1994	<i>Podarcis hispanica atrata</i>	Balearic Islands, Spain	1	Complete	Castilla
1994	<i>Podarcis muralis</i>	Medium Rhine, Germany	1	Complete	Sound
2001	<i>Podarcis bocagei</i>	Portugal	1	Partial	Sá-Sousa & Brito
2004	<i>Podarcis carbonelli berlengensis</i>	Berlengas Island, Portugal	1	Complete	Ferreira et al.
2004	<i>Podarcis siculus</i>	Cilento, Italy	Population	Complete	Fulgione et al.
2004	<i>Podarcis muralis</i>	Mecsek Hills, Hungary	Population	Partial	Trócsanyi and Korsós
2005	<i>Podarcis sicula</i>	Padna, Koprsko, Slovenia	1	Partial	Krofel
2011	<i>Podarcis bocagei</i>	Avion, Ourense, Spain	1	Partial	Galan et al.
2011	<i>Podarcis hispanica</i>	Ciudad Rodrigo, Salamanca, Spain	1	Complete	García-Muñoz



Fig. 1. First case of melanistic form of Italian wall lizard (*Podarcis sicula*). An adult male Italian wall lizard was found basking in the morning sun in the territory of Montalbano Elicona, Sicily Island. Photo courtesy of Vincenzo Reina.

2013), the peculiar population of Capri's Blue Wall Lizard (*Podarcis sicula coeruleus*) living just in the Faraglione of Capri (Mertens 1915, 1924; Bruschi et al. 2006; Capula et al., 2008), and the Aeolian Wall Lizard (*Podarcis raffoneis*) located in some spots in the Aeolian Islands (Mertens 1952, 1955; Speybroeck and Crochet, 2007). Moreover, there are numerous reports of melanistic single specimens or population of *Podarcis* spp. found in the inland and in major Mediterranean Islands. In Table 1, we list some of the most significant reports. The Italian Wall Lizard (*Podarcis sicula*, Order Squamata) is present in whole peninsular Italian territory, in major islands (Sicily and Sardinia) and in most of the small islands. Outside of Italy is present in Slovenia, Croatia, Montenegro and some non-indigenous (introduced) populations are at various locations in the Mediterranean (Portugal, Spain, France, North Africa and Turkey), and in the USA (Kolbe et al., 2013). The common coloration is extremely variable: it can be green, brownish, grayish or darker, with varying spots and stripes of different color. Reports of melanistic specimens of Italian Wall Lizard on the Italian territory are relatively frequent. Great significance have the report of a large melanistic population of *Podarcis sicula campana* (Fulgione et al., 2004), as well as the report of a case of complete melanism in *Podarcis sicula campestris* (Parisi and Galliano,

1984). A melanistic form of Italian Wall Lizard had not been previously known in Sicily (personal communication). Four reports of melanistic Italian wall lizard are further described.

First case

In the month of May, year 2013, in the territory of Montalbano Elicona, province of Messina (Sicily Island), an adult specimen of Italian wall lizard was found while it was basking in the morning sun (about 10 a.m.). The place of encounter is in a highland at 1151 m a.s.l., in an area formed by calcareous sediment and clastic rocks (37°59' N 15°2' E). The observed specimen was with a total and uniform black livery (Fig. 1), it measured about 13 cm, but unfortunately it was not weighed, because promptly escaped to the capture. Since the morphological characteristics (big head), presumably the lizard was a male. The lizard was apparently in excellent health condition, watchful and very active. The area of signaling was covered with a dense Mediterranean shrub, and the most present floral species were Sicilian heather (*Erica sicula*), strawberry trees (*Arbutus unedo*), common bracken (*Pteridium aquilinum*), sage-leaved rock rose (*Cistus salvifolius*) and hairy thorny broom (*Calicotome infesta*). Unlike all the other side of the Sic-



Fig. 2. Second case of melanistic form of Italian wall lizard (*Podarcis sicula*). A complete melanistic adult male of Italian wall lizard was found basking on the top of a rock in the Argimusco plateau, Sicily Island. Photo courtesy of Francesco Pensabene.



Fig. 3. Third case of melanistic form of Italian wall lizard (*Podarcis sicula*). This melanistic Italian wall lizard was found during a walking in Aspromonte National Park, Calabria Region. Photo courtesy of Antonino Marciànò and Paola Sgroi.



Fig. 4. Handling of a melanistic form of Italian wall lizard (*Podarcis sicula*) found in Aspromonte National Park. The lizard was gently handled in order to identify the sex, and to generally evaluate the health conditions. Photo courtesy of Antonino Marcianò and Paola Sgroi.



Fig. 5. Aspect of the head of melanistic form of Italian wall lizard (*Podarcis sicula*) found in Calabria region. Since the big head the lizard was a male. Photo courtesy of Antonino Marcianò and Paola Sgroi.

ily Island, within the territory of Messina, the common Sicilian Wall Lizard (*Podarcis wagleriana*) has never been reported. During the day of the finding, only other

specimens of *P. sicula* have been seen, but with normal greenish livery.

Second case

During a walking near Argimusco plateau (height 1133 m, Montalbano Elicona, 37°58' N 15°32' E), province of Messina (Sicily Island), on April 26, 2015, a complete melanistic Italian wall lizard was found basking on the top of a rock (Fig. 2). Since the morphological characteristics (big head), presumably the lizard was a male. Unluckily was just taken a picture. The area of signaling was similar to the above described first case report. During the day of the finding, only other specimens of *P. sicula* have been seen, but with normal greenish livery.

Third case

During a walking in Aspromonte National Park (altitude 1738 m, 38°9' N 15°55' E), province of Reggio Calabria (Calabria Region), in the month of May, year 2015, a melanistic form of Italian wall Lizard was found (Fig. 3). The lizard was gently handled in order to identify the sex, and to generally evaluate the health conditions (Fig. 4). It has a complete and black color uniformly distributed on the dorsal side. The head was also completely black (Fig. 5). Observing more closely, the ven-

tral side of the trunk was grayish and the tail was somewhat lighter. The femoral pores were yellowish-orange, the lizard was an adult male (Fig. 6). The lizard was in good health conditions. During the day of the finding, only other specimens of *P. sicula* have been seen, but with normal greenish livery.

Fourth case

During the early spring, year 2015, another melanistic form of Italian wall lizard was found in the urban countryside of the town of Riardo (altitude 125 m, 41°15' N 14°8' E), province of Caserta (Campania Region). The lizard was exploring around, and repentantly escape, therefore just a picture was made (Fig. 7). Probably, also this lizard was an adult male (big head), but cannot be confirmed.

Our reports should contribute to the knowledge of the rarity of the color variations of the livery of these species, not only recognizing the species and describing its morphology, but also defining its habitat and, where possible, the behavior of the reported specimens. Finally, performing a thorough examination of the existing literature, especially concerning on the genus *Podarcis*, we noted the lack of similar citations to ours and the lack of reports of complete melanism in Italian Wall Lizard in Sicily Island and in Calabria; contrariwise in Campania a population was described by Fulgione et al. (2004), exactly in Cilento.



Fig. 6. Aspect of the ventral side of a melanistic form of Italian wall lizard (*Podarcis sicula*) found in Calabria region. Note the grayish ventral side and the yellowish-orange femoral pores; the lizard was an adult male. Photo courtesy of Antonino Marciànò and Paola Sgroi.

Acknowledgments. The authors are grateful for the photos provided by Adam Boudierka and Carmelo Batti; likewise authors would like to thank Francesco D'Aleo for the great advises, and Emanuele Galletta, Francesco Cavallaro, Umberto



Fig. 7. Fourth case of melanistic form of Italian wall lizard (*Podarcis sicula*). This melanistic form of Italian wall lizard found near the town of Riardo, Campania region. Since the morphological characteristic, we can suppose that was an adult male. Photo courtesy of Adam Boudierka and Carmelo Batti.

Schiavone and Alessandro Bonelli for the immeasurable support in research and data collection.

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