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Yellowish instead of green - A case of leucism in the Italian pool frog *Pelophylax bergeri*

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We present here the first documented case of leucism in the Italian pool frog *Pelophylax bergeri*. Leucism is a pigmentary anomaly similar to albinism and involves partial or total absence of integumentary pigmentation giving an individual a whitish to yellowish appearance (Duellman & Trueb, 1994; Henle et al., 2017). However animals with leucism are characterised by eyes with normal iris rather than red or pink of those with albinism.

During field investigations carried out for a monitoring survey on the herpetological fauna of the Sirente Massif (Abruzzo, central Italy) one leucistic female *Pelophylax bergeri* was found on 28 September 2023 in a large drinking trough fed by a spring located at 1355 m a.s.l., in the municipality of Secinaro (Province of L'Aquila, Abruzzo, central Italy). Integumentary pigment of this individual was completely lacking on body, head and limbs (Fig. 1A). The head and dorsal side were light yellow, the ventral side white. The iris was dark. The individual was active and appeared in good health. In the same drinking trough and on the same date 18 normally pigmented individuals (10 males, 8 females) were observed (Fig. 1B). After collecting, all individuals were sexed, photographed and released in the same collection place.

Pelophylax bergeri is native to peninsular Italy, Sicily, Corsica and Elba Island (Capula et al., 2007; Dufresnes et al., 2016; Di Nicola et al., 2019). This species belongs to a sinklepton, i.e. a particular species group composed by two closely related taxa from the genetic point of view, one of which (*P. bergeri*) is the parent species, and the other (*P.* kl. *hispanicus*) is the hybridogenetic hybrid or klepton hybrid (Dubois & Ohler, 1994; Günther & Plötner, 1994; Capula et al., 2007; Dubey & Dufresnes, 2017). The genetic makeup of the Italian hybridogenetic hybrids has recently been analysed and a new endemic lineage of eastern-Mediterranean origin as one parental ancestor of *P.* kl. *hispanicus* identified. Apparently, this ancestor "is nowadays extinct in the wild but its germline subsists through its hybridogenetic descendant (*P*. kl. *hispanicus*), which can thus be considered as a semi living fossil" (Dubey & Dufresnes, 2017). *Pelophylax bergeri* and *P.* kl. *hispanicus* are morphologically and chromatically very similar (Capula et al., 2007) and they often coexist in the same habitat (Capula et al., 2007; Di Nicola et al., 2019).

To date cases of partial or complete albinism and leucism within the European frogs of the genus *Pelophylax* have been documented for tadpoles and adults of *P. epeiroticus, P.* kl. *esculentus*, *P. kurtmuelleri, P. lessonae, P. perezi* and *P. ridibundus* (see Dubois, 1979; Meyer & Grosse, 1997; Pabijan et al., 2004; Monzò & Navarro-Lozano, 2021). Thus to our knowledge the case we report here is the first documented record of leucism for *P. bergeri*.

Figure 1. Adults *Pelophylax bergeri* from the drinking trough in the municipality of Secinaro (Province of L'Aquila, Abruzzo, central Italy) - **A.** Leucistic female, **B.** Normal pigmented female

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