

## First record of leucism in the Italian newt *Lissotriton italicus*

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We present here a record of leucism in the Italian newt *Lissotriton italicus*. This pigmentary anomaly involves partial or total absence of integumentary pigmentation, giving an individual a whitish to yellowish appearance, but with the eyes retaining normal colouring of the iris (Duellman & Trueb, 1994; Henle et al., 2017).

*Lissotriton italicus* is a tiny salamander (maximum total length: females 94.7 mm, males 80.4 mm) endemic to central and southern Italy (Scillitani & Tripepi, 2007; Di Nicola et al., 2019). With a total length of up to 95 mm for the larger females this species is the smallest of the European newts (Raffaëlli, 2007).

On 6 May 2009, during an entomological survey of the Sila Mountains (Calabria, southern Italy) (Mazzei et al., 2006) three leucistic *L. italicus* (1 male, 2 females) were observed in a pond close to the Machinella stream, in the municipality of Pallagorio (Province of Crotona, Calabria, southern Italy; 39° 19'30.67" N, 16° 53'39.97" E). Integumentary pigment of these individuals was almost completely lacking on body, head, limbs and tail (Fig. 1A). In the same pond and on the same date 14 normally pigmented adult specimens (8 males, 6 females) were observed (Fig. 1B).

To date there have been reports of albinism and leucism in at least 15 species of European salamanders (see Corsini et al., 2002; Modesti et al., 2011; Lunghi et al., 2017; Capula & Aloise, 2023 for the studied species). However, to our knowledge there is currently no record for *L. italicus*. Thus the case we report here is the first documented record of leucism for the species.

### REFERENCES

- Capula, M. & Aloise, G. (2023). Albinism in the southern spectacled salamander *Salamandrina terdigitata*. *The Herpetological Bulletin* 164: 46.
- Corsini, S., Ferretti, M., Pastorino, V., Prati, A., Alario, G. & Salvidio, S. (2002). *Speleomantes ambrosii* (Ambrosi's Cave Salamander). Albinism. *Herpetological Review* 33: 123.
- Di Nicola, M., Cavigioli, L., Luiselli, L. & Andreone, F. (2019). *Anfibi & Rettili d'Italia* Edizioni Belvedere, Latina. 568 pp.
- Duellman, W.E. & Trueb, L. (1994). *Biology of Amphibians*. Baltimore, John Hopkins University Press. 670 pp.



**Figure 1.** *Lissotriton italicus* from a pond in the municipality of Pallagorio (Province of Crotona, Calabria, southern Italy) – **A.** Leucistic adult female, **B.** Normally pigmented adult male

- Henle, K., Dubois, A. & Vershinin, V. (2017). Studies on anomalies in natural populations of amphibians. *Mertensiella* 25: 9–48.
- Lunghi, E., Monti, A., Binda, A., Piazzini, I., Salvadori, M., Cogoni, R., Riefolo, L.A., Biancardi, C., Mezzadri, S., ... & Manenti, R. (2017). Cases of albinism and leucism in amphibians in Italy: new reports. *Natural History Sciences* 4(1): 73–80.
- Mazzei, A., Novello, M.G., Bonacci, T. & Brandmayr, P. (2006). Comunità di Coleotteri Carabidi in habitat su suoli argillosi della formazione Gessoso-Solfifera in Calabria: conseguenze di una possibile 'desertificazione'. In *Ecologia. Atti del XV Congresso Nazionale della Società Italiana di Ecologia*. Comoglio, C., Comino, E. & Bona, F. (Eds.). (Torino, 12–14 settembre 2005). 1–7 pp.
- Modesti, A., Aguzzi, S. & Manenti, R. (2011). A case of complete albinism in *Lissotriton vulgaris meridionalis*. *Herpetological notes* 4: 395–396.
- Raffaëlli, J. (2007). *Les Urodeles du monde*. Condé-sur-Noireau, Penclen Edition. 480 pp.
- Scillitani, G. & Tripepi, S. (2007). *Lissotriton italicus* (Peracca, 1898). In *Fauna d'Italia. Vol XLII. Amphibia*. Lanza, B., Andreone, F., Bologna, M.A., Corti, C. & Razzetti, E. (Eds.). Edizioni Calderini, Il Sole 24 ORE, Editoria specializzata S.r.l., Bologna. 239–246 pp.

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