

Colour abnormalities in *Coronella austriaca* (Laurenti, 1768) in Croatia

Neuobičajena obojenja kod *Coronella austriaca* (Laurenti, 1768) u Hrvatskoj

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Production of colour in reptiles depends on cells called chromatophores. There are four kinds of chromatophores in the skin: melanophores for black, erythrophores for red, xanthophores for yellow and iridophores, which do not contain true pigment, and are in fact reflective cells that produce white when it reflects incident light. They also account for other colours such as blue and khaki (Bechtel, 1978). Abnormalities may occur during chromatogenesis, resulting in the absence of some pigments. Such abnormalities are well known in European Viperinae (Krecksak, 2008), but are also reported for some species of European Colubridae. The Smooth snake (*Coronella austriaca*) is one of those species, with just a few observed cases of colour abnormalities: a case of melanism (Pernetta & Reading, 2009), partial albinism (Lenders, 1989), lutinism or leucism (Niebergall, 2008) and albinism (Happ, 1994). Here we present two recorded cases of genetic discolouration in Smooth snakes from Croatia: presumably anerythristic (Fig. 1a) and presumably hypomelanistic (Fig. 1b). Hypomelanism stands for the reduction of dark pigment - melanin, and anerythristism signifies absence of red pigment. The hypomelanistic Smooth snake was observed in July 2012, at Tijarica Donja, Dalmatia (X: 5652863, Y: 4830212), and the anerythristic Smooth snake in April 2009, at Stubičke Toplice, Hrvatsko zagorje. For comparison, we present two specimens of common colouration (Fig. 1c, from April 2009, Grmošćica (Zagreb), and 1d, from August 2010, Mt Poštak).

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Figure 1. Smooth snake (*Coronella austriaca*) (a) anerythristic (author: Tihana Kralj), (b) hypomelanistic, (c) common colouration, (d) common colouration (author: Boris Lauš)

Slika 1. Smukulja (*Coronella austriaca*) (a) aneritristična (autor: Tihana Kralj), (b) hipomelanistična, (c) uobičajena obojenost, (d) uobičajena obojenost (autor: Boris Lauš)