The first record of a Slow-worm (*Anguis fragilis*) from the UK with blue ventral scales

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During a reptile translocation on 20 July 2016 at 09:30 hrs, a juvenile slow-worm *Anguis fragilis* was observed beneath an artificial refuge (roofing felt, 0.5 x 0.5 m). This individual was estimated at around 9 cm in length and had the typical dorsal colouration for *A. fragilis* given the size. It was not until capture that the blue ventral and subcaudal scales were observed. Juveniles typically have a colour pattern resembling an adult female with silver, copper, gold or bronze dorsal scales (Beebee & Griffiths, 2000). Juveniles also possess an enlarged black spot, known as a parietal spot, joining a black vertebral stripe that runs towards the end of the tail (Beebee & Griffiths, 2000; Platenburg, 1999). This is illustrated in Fig.1, which shows the anterior dorsal and posterior ventral of the lizard. The scales of the entire ventral surface of the lizard were a uniform pale blue colour.

The lizard was located within the district of Taunton, Somerset, England (alt. 25 m) but co-ordinates have been withheld due to confidentiality issues. The habitat was classified as semi-improved neutral grassland with sections of ruderal vegetation, intact hedgerows and fencing (JNCC, 2010). The wider area consisted of residential housing, arable and pastoral fields.

Blue colouration is well documented in *A. fragilis* with numerous studies focusing on the prevalence of dorsal blue spots in various populations (e.g. Capula et al., 1997; Platenberg, 1999; Sos, 2011). These blue spots can change in an individual over time, an aspect that was particularly thoroughly studied by Simms (1970). Completely blue ventral scales appear to be most unusual, however. In relation to UK, Beebee & Griffiths (2000) wrote "Both sexes have… a slate-grey, bluish or black belly…". Jablonski & Meduna (2010) described a male *A. colchica* with blue ventral scales, and Kaczmarek et al. (2016) described blue colouration of the ventral scales in two female *A. fragilis* from Poland.

It is possible that these observations are just a rare colour variation within populations but as Kaczmarek et al. (2016) hypothesised, high levels of sex hormones may be the cause. This hypothesis requires further study. Overall, further observations on blue ventral coloration in slow-worms would be welcome, since the true prevalence of this colour variation is unknown.

Figure 1. A juvenile slow worm showing typical dorsal colouration with blue ventral and subcaudal scales

ACKNOWLEDGEMENTS

I would like to thank EAD Ecology for the opportunity to report this observation. Thanks to Trevor Beebee for his comments on the photographed individual. A special thanks to Matt Jones, Matt Cowley and Filipe Serrano for their comments on earlier drafts of the manuscript and to Roger Avery for advice on the final published version.

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Accepted: 21 May 2017