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HYPOMELANISM IN THE SAND LIZARD, *LACERTA AGILIS* (SQUAMATA: LACERTIDAE)

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Many species of reptiles show a great variability in their pattern and coloration. Besides "normal" colour variability, anomalies in colour and pattern may sometimes occur. *Lacerta agilis* is a European lizard species which has been well studied for a long time and therefore several colour and pattern anomalies have been described (see Baranov et al. 1976; Bischoff 1984 for review). Most papers dealing with colour anomalies in this species refer to the occurrence of melanism (e.g. Grüll 1989; Petzold 1972; Trofimov and Tzvelykh 1979) but as far as I know, there are no reports of colour anomalies caused by complete or partial absence of melanin, i.e. albinism, hypomelanism and leucism. Therefore, in this paper, I present a record of a hypomelanistic specimen in *L. agilis* from the Czech Republic.

On 29th June 1996 I collected a gravid female of *L. agilis* (Fig. 1) on a submontane meadow of the Beskydy Mts. (Czech Republic: Frýdek-Mistek Distr.: Ostravice, alt. 550m, Fig.2). At first look the captured specimen has apparently lighter dorsal blotches and ocelli on the flanks in comparison with conspecific (Fig. 3). Dark rings of ocelli were Clay Colour (colour 123B after Smithe 1975) and blotches were somewhat darker, Clay Colour to Cinnamon (colour 123A). The ground colour of the back and flanks was Beige (colour 219D) separated by two Lavender (colour 77) dorsolateral bands. The throat and belly were Sulphur Yellow (colour 157). Black pigmentation was confined only to the eyes and several dots on the posterior part of the belly.

After capture, the female was kept in a terrarium for two weeks, where it laid 9 eggs. Eight juveniles hatched and all were normally pigmented. It was not possible to carry out hybridization experiments, leaving three possible explanations of how to interpret these findings: (1) the colour anomaly was not determined genetically, (2) the offspring were F1 crosses between recessive homozygote (hypomelanistic female) and dominant homozygote ("normally" coloured male) which could be consistent with results obtained by breeding a hypomelanistic male of *Elaphe obsoleta* with a normally pigmented female (Bechtel HB and Bechtel E 1981), and (3) there is some other pattern of inheritance.

Recently, an aberrant female was deposited at the Silesian Museum, Opava (SMO720).

It is relatively difficult to decide how to name such colour aberrations without using the dopa reaction (the histochemical test which demonstrates the presence of tyrosinase). Normally pigmented eyes and black dots, though in minimal numbers, on the body suggested the presence of melanin at least in some melanophores. Therefore I used the term hypomelanistic in the case described here in the sense of a definition by Hechtel (1995) but it could also be possible, as the same author stated, that the hypomelanistic specimens were actually true albinos even though they contained some melanin.



Fig. 1. A hypomelanistic female *Lacerta agilis*



Fig. 2. Collection locality in the Beskydy Mts. for the specimen in Fig. 1.



Fig. 3. A typically colored female of *L. agilis* from the same locality.

Generally, the reports of albinism seem to be much lower in lizards than in snakes (Bechtel HB 1995). For example Dyrkacz (1981) reviewed 85 instances of albinism in snakes but only 5 in lizards. Bechtel HB (1995) offered several explanations why the occurrences of albinos in lizards could be so rare: (1) higher vulnerability to predation because of diurnal activity and low position in food chain in comparison with snakes, (2) higher susceptibility to excessive UV radiation, (3) lower attention of herpetologists for aberrant lizards than for snakes. I have no data about the first two reasons, however the third reason seems to be an important factor in this case. Hypomelanistic specimens of *L. agilis* are not more colourful than wild types as is typical in albinos of other species. Thus, when such hypomelanistic specimens are found, their coloration could be considered as part of normal colour variation as was suggested by Rahmel (personal communication) who found similar, weakly coloured, specimens of *L. agilis* in eastern Austria and Lower Saxony (NW Germany). Does anybody have similar information from other countries? Any such information will be much appreciated.

I wish to thank H.B. Bechtel (Valdosta) for critical comments on the MS, L. Kořál (Muchovice) and his family for housing and food during field work at Ostravice and U. Rhamel (Delmenhorst) for valuable comments and information.

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Erratum and apology

Hypomelanism in the Sand lizard, *Lacerta agilis*,
by Lumír Gvoždík, Bulletin Number 70, 20-22.

The captions to Figs. 1 and 3 in this article (page 21) were unfortunately transposed. Fig. 1 shows a typically coloured female *L. agilis*, and Fig 3. a hypomelanistic one. The cover photograph also shows a normal coloured specimen and not a hypomelanistic one as indicated. We apologize for this and also a number of typographical errors that appeared in the article. It has not usually been possible in the past to provide authors with an opportunity to check their typeset manuscripts, and so mistakes of this nature have perhaps inevitably 'slipped through' undetected from time to time. The situation is clearly far from ideal, however, and I hope shortly to find a means of providing authors with page proofs.