

Extreme cases of colour pattern and size in Levantine Viper, *Macrovipera lebetina* (L., 1758) from the West of Euphrates Basin (Southern Anatolia, Turkey)

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Abstract. A male *Macrovipera lebetina* showing unusually prominent orange blotches, collected from Anamur (Mersin, Turkey) on November 2nd 2010, has been assigned to *M. l. euphratica* due to its colour-pattern and other morphological characters. Furthermore, we registered a record of the maximum total body length for this species from a female specimen [230 cm], which was killed by villagers, from Dikmece village (Hatay) in October 2011.

Key words: *Macrovipera lebetina euphratica*, size record, Southern Anatolia, Turkey.

The genus *Macrovipera* Reuss, 1927 consist of four species: *M. deserti* (Anderson, 1892), *M. lebetina* (Linnaeus, 1758), *M. mauritanica* (Duméril&Bibron, 1848), and *M. schweizeri* (Werner, 1935), ranging from southern Europe, north-western Africa to western and Central Asia (Werner 1988, Ananjeva et al. 2006, Stümpel & Joger 2009, Reptile Database 2011). *M. lebetina* is found in semi-deserts and steppe habitats of the Near East countries (Jordan, Syria, Turkey, Iraq, Iran and Azerbaijan) northeastwards to Central Asia (Turkmenistan, Uzbekistan, Tadjikistan, Kirgizstan and Afghanistan) (Joger 1984, Werner 1988, Mallow et al. 2003, Ananjeva et al. 2006). In Turkey, the species inhabits southern and eastern Anatolia (Baran 1976, Göçmen et al. 2006, Budak & Göçmen 2008, Stümpel & Joger 2009).

During our field trip to the region of Anamur (Mersin, Turkey, lat.: 36.0901°, long.: 32.8301°, 66m a.s.l.), we caught a male *M. lebetina* on November 2nd 2010, which is now deposited in the Zoological Museum of Harran University (ZMHRU, 2010/62). The specimen is an adult male. Total body length is 94cm, snout-vent length - 82cm, tail length - 12cm, head width - 28.85mm, head length - 43.48mm, distance between nostrils - 8.23mm. The number of ventrals (excluding anal) is 165, number of subcaudals - 42, number of dorsal scale rows at mid-body - 25, number of supralabials (L/R) is 10/10, number of sublabials - 12/12, number of supraoculars - 4/4, number of canthals - 3/3, apicals - 3, number of scales between supraocular rows - 9, number of scales arranged in a ring around the eyes (circumoculars, including supraoculars) - 17/18, and number of scales arranged in a ring around the nostrils (circumnasals) - 6/6. Top of the head is grey-brown and immaculate. There are two small blackish vertical supralabial bands below each eye (Fig. 1). The postocular stripe is blackish ventrad and lightening to bright grey dorsad. The dorsal colour is grey with brick-orange blotches, principally arranged in two dorsal and two lateral rows. The ventral is yellowish white with brown maculation. The general color pattern of the specimen (Fig. 1) is similar to that of *M. l. turanica* which inhabits southern Kazakhstan, Tajikistan and Uzbekistan (Ananjeva et al. 2006).

Göçmen et al. (2006) compared Cypriot and Southern Anatolian *M. lebetina* in terms of morphology and venom protein structure. They concluded that the southern Anatolian population is significantly different at the subspecific level from that of Northeastern Anatolia, and should be re-

named as *M. l. euphratica* (Martin, 1838), as suggested by Nilsson & Andrén (1988) and Franzen et al. (2008). In the recent



Figure 1. General view of *Macrovipera lebetina* male from Anamur (Mersin, Turkey).



Figure 2. A female *Macrovipera lebetina* killed by villagers from Dikmece village (Hatay, Turkey).

literature, the species has been separated into four major lineages based on mitochondrial DNA method which support the validity of the allopatric subspecies *lebetina*, *obtusa*, *turanica* and *cernovi* (Stümpel & Joger 2009). Even though some authors do not accept *M. l. euphratica* as a valid subspecies (e.g. Joger 1984, Mallow et al. 2003, Stümpel & Joger 2009), our results support this notion. In conclusion, our results support that the southern Anatolian *M. lebetina* population should be identified as subsp. *euphratica*, but final clearance awaits a profound analysis.

Furthermore, we observed a female specimen killed by villagers from Dikmece village (Hatay, Turkey, lat.: 36.2932°N, long.: 36.1517°E, 256m a.s.l.) in October 2011 (Fig. 2). Its measured total body length was 230 cm. The size of *M. lebetina* generally reaches 100 – 180 cm (Budak & Göçmen 2008). Up to now, the recorded maximal total body length was 214 cm (Mallow et al. 2003). Our record is the largest total body length for *M. lebetina*, registered so far.

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