

A STILLBIRTH OBSERVATION ON THE DAREVSKY'S VIPER, *Vipera darevskii* Vedmederja et al. (1986)

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ABSTRACT. We present an unusual stillbirth observation of Darevsky's Viper (*Vipera darevskii*) for the first time from north-eastern Turkey. A female specimen has given stillbirths in captivity, a juvenile and two embryos in October, 2016.

KEY WORDS. *Viperidae*, *Vipera darevskii*, Darevsky's Viper, stillbirth, reproduction, Turkey

Darevsky's viper, *Vipera darevskii* is known from Turkey and Armenia which is one of the rarest species among vipers. It is classified critically endangered by the IUCN and its range is less than 100 km² in Turkey. The distribution situation is also similar with Armenia, Mount Legli, in the south-eastern region of the Javakheti (Geniez & Teynie 2005; Mebert et al. 2015). In Turkey, *Vipera darevskii* is known from Artvin and Ardahan provinces (Mebert et al. 2016). It belongs to true vipers (subfamily: *Viperinae*) which shows the distribution in Europe, Asia and Africa including generally ovoviviparous species (Mallow et al. 2003). The activity period of the species depends on the altitude and generally starts from early April, finishes until the end of October. Mating season is a bit different from the one that generally occurs in April or May (Başođlu & Baran 1980, Kariş & Göchmen 2016). Ethical permission (Ege University Animal Experiments Ethics Committee, 2010#43) as well as special permission (2011#7110) field studies from the Republic of Turkey, Ministry of Forestry and Water Affairs were recieved.

We captured a male and a female *Vipera darevskii* on our field trip at the

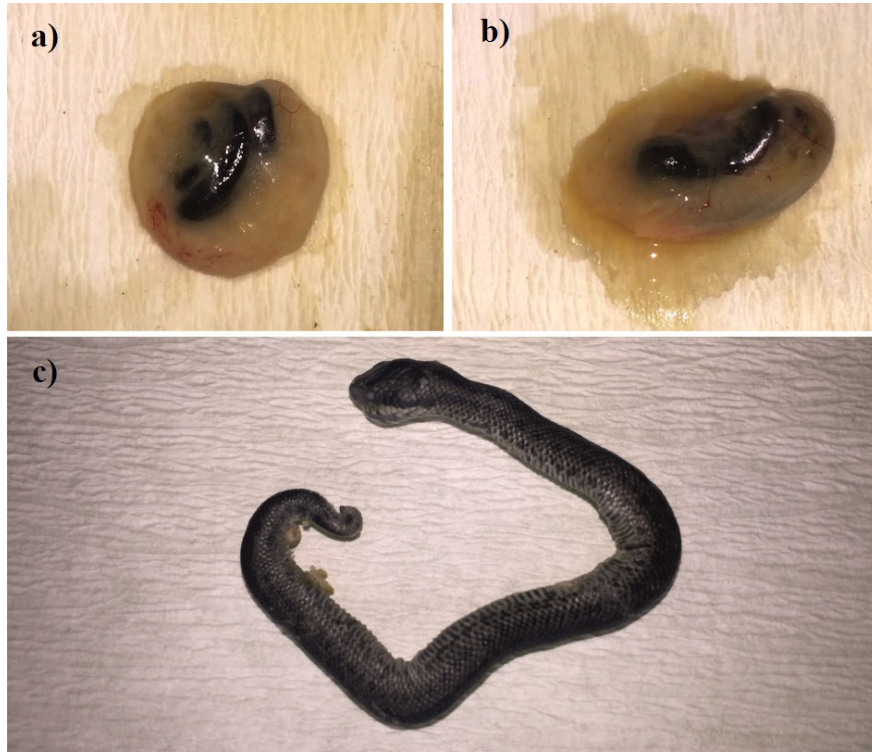


Figure 1. Embryos (a, b) and a dead juvenile (c) which occurred after stillbirth of *Vipera dorevskii*

vicinity of Zekeriyaköy (Ardanuç, Artvin), on June 2, 2016. The individuals were brought to the laboratory and kept in a terrarium for our venom studies (Sroka et al. 2017). After we kept the individuals in captivity, an unusual situation has occurred. The female specimen gave three stillbirths on October 3, 2016. One was a dead juvenile viper and the others were embryos which still covered with jelly layer. The embryos' size was approximately 3 cm length and their shapes were changeable because of the jelly layers covering the outer side of the embryos (Figure 1). We weighed and measured the dead juvenile and found that snout-vent length 820 mm, tail length 120 mm and the weight were 1,15 gr. We fixed the dead ones in 96% methanol in case possible DNA studies and then released the mature vipers to their natural habitat in Zekeriyaköy village, Artvin province. There is only one successfully birth observation of *Vipera dorevskii* was given by Shiryaev (2003) and seven juveniles were born from one female specimen under captivity in early April. We thought that this

affair occurred because of getting stressed in gestation period of the female viper in the laboratory. This event is the first record of *Vipera darevskii*'s stillbirth observation.

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