

LACERTA BILINEATA (western green lizard): FIELD INJURY. Reptiles sustain natural injury for many reasons including attacks by predators, accidents and intrasexual conflicts (Borczyk, 2004; Gregory & Isaac, 2005; Meek, 2007). Injuries have important consequences for population ecology, including loss of body condition, reduced mobility and decreased alertness to predators, factors that may ultimately impact on survival (Harris, 1989). This note reports on a field injury in a western green lizard *Lacerta bilineata*. On 31 April 2010 an adult male *L. bilineata* was found alive, but apparently immobile, on a minor road near the village of Chasnais in the Vendée, France (46°27'N). The road was bordered by a hedgerow and woodland on one side and agricultural land and a grassy clearing on the other. The weather was sunny with air temperature approximately 20°C. The lizard presented no resistance and was easily collected. It measured 105 mm snout to vent length and had a partly regenerated tail. It had sustained head trauma with lacerations to the right eye and jaw musculature that appeared to have been caused by the teeth of another animal (Fig. 1A).

The lizard was housed in a vivarium and given basic medical treatment (antibiotics and wound care) and after three days began feeding on wax worms and mealworms dusted with a multivitamin supplement. General recovery was relatively rapid, healing taking no more than 14 days, with improvement to the eye wound noticed on 20 May. General recovery was apparent by 6 June. Perhaps unexpectedly, the lizard appeared to have regained use of the injured eye, although vision may have been impaired to some extent since it did not open fully (Fig. 1B). The lizard was released on 26 June. Reptiles frequently suffer head injuries in the field and survive (Borczyk, 2004; Meek, 2007), although in this instance possible limited eye use would surely limit survivorship potential, reducing abilities to detect predators and secure prey items.

Predators of *L. bilineata* are numerous in the locality, as indicated by the frequency of individuals with tail loss, which has been related to the abundance of *Hierophis viridiflavus* (Rugiero & Luiselli, 2004; Luiselli et al., 2005), a common species in the area. Other potential predators include mustelids and birds of prey.

Given the lizard's immobile condition and location when found, however, it might be expected that a predator would have followed up the attack. A second possibility is intraspecific combat. This species is highly territorial, particularly during April and May when male combat is intense, with serious injury and even death resulting from encounters (Beebee & Griffiths, 2000). Adult males in this area measure up to 119 mm snout to vent length (Meek, 2009; Meek pers. obs.) and a smaller male might be expected to fare poorly in such encounters. If the injury did indeed result from male combat, it highlights the consequential costs of such behaviour by increasing the probability of additional life threatening situations, including mortality from road traffic (Lebboroni & Corti, 2006; Meek, 2009) and increased vulnerability to predators.

REFERENCES

- Beebee, T.J.C. & Griffiths, R.A. (2000). *Amphibians and Reptiles*. London: HarperCollins.
- Borczyk, B. (2004). Causes of mortality and bodily injury in grass snakes (*Natrix natrix*) from the 'Stawy Milickie' nature reserve (SW Poland). *Herpetol. Bull.* **90**, 22-26.
- Gregory, P.T. & Isaac, L.A. (2005). Close encounters of the worst kind: patterns of injury in a population of grass snakes (*Natrix natrix*). *Herpetol. J.* **15**, 213-219.
- Harris, R.N. (1989). Nonlethal injury to organisms as a mechanism for population regulation. *Am. Nat.* **134**, 835-847.
- Luiselli, L., Angelici, F.M., Di Vittorio, M., Spinnato, A. & Politano, E. (2005). Analysis of a herpetofaunal community from an altered marshy area in Sicily; with special remarks on habitat use (niche breadth and overlap), relative abundance of lizards and snakes and the correlation between predator abundance and tail loss in lizards. *Contributions to Zoology* **74** (1/2) (2005) <<http://dpc.uba.uva.nl/ctz/vol74/nr01/art03>>.
- Meek, R. (2007). Non-lethal injury in Hermann's tortoise, *Testudo hermanni*, in Croatia and Montenegro. *Herpetol. Bull.* **100**, 23-29.
- Meek, R. (2009). Patterns of reptile road-kills in

the Vendee region of western France. *Herpetol. J.* **19**, 135-142.

Lebboni, M. & Corti, C. (2006). Road killing of lizards and traffic density in central Italy. *Herpetologia Bonnensis: Proceedings of the 13th Ordinary General Meeting of Societas Europaea Herpetologica*. Pp. 81-82.

Vences, M., J. Köhler, T. Ziegler & W. Böhme (Eds.). SEH.

Rugiero, L. & Luiselli, L. (2004). Ecological notes on two colubrid snakes (*Coluber viridiflavus* and *Elaphe longissima*) in a suburban habitat (Rome, central Italy). *Herpetol. Bull.* **87**, 8-12.

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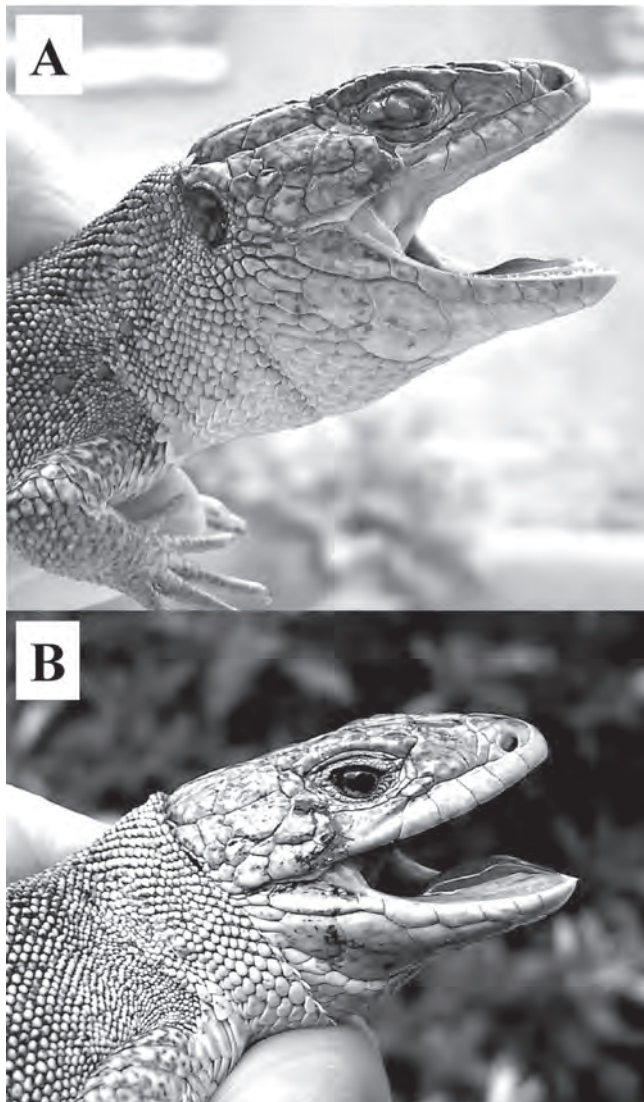


Figure 1. Western green lizard *Lacerta bilineata* showing lacerations to right eye and jaw musculature (A) and after recovery (B).