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KURZE MITTEILUNG / SHORT NOTE

Lacerta bilineata DAUDIN, 1802 predates on juvenile *Coronella austriaca* LAURENTI, 1768

(Squamata: Lacertidae, Colubridae)

Lacerta bilineata DAUDIN, 1802 erbeutet junge *Coronella austriaca* LAURENTI, 1768

(Squamata: Lacertidae, Colubridae)

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KURZFASSUNG

Eine männliche Westliche Smaragdeidechse (*Lacerta bilineata* DAUDIN, 1802) wurde beim Überwältigen und Fressen einer etwa 20 cm langen Schlingnatter (*Coronella austriaca* LAURENTI, 1768) beobachtet. Der gesamte Vorgang dauerte über eine halbe Stunde. Dies ist der erste Nachweis von Predation einer Schlingnatter durch eine Westliche Smaragdechse. Beide Arten können wechselseitig Feinde von juvenilen Individuen der jeweils anderen Art sein. Aufgrund des reichen Beutetierangebotes von Mauer- und Zauneidechsen, Blindschleichen und Heuschrecken im Untersuchungsgebiet (Weinberge der Stadt Boppard, Mittelrheintal, BR Deutschland) sollte der beobachtete Vorgang als Ausnahme betrachtet werden.

ABSTRACT

A male Western Green Lizard (*Lacerta bilineata* DAUDIN, 1802) was observed when catching and swallowing a juvenile (20 cm) Smooth Snake (*Coronella austriaca* LAURENTI, 1768). The whole procedure took more than 30 minutes. This is the first record of *L. bilineata* preying on *C. austriaca*. In syntopy, both species are mutual predators on young individuals of the other species. Due to the rich prey spectrum composed of Wall Lizards, and Sand Lizards, Slow Worms, and crickets in the observation area (vineyards near the city of Boppard, Middle Rhine valley, Germany), this record should be seen as an exceptional event.

KEY WORDS

Squamata: Lacertidae, Colubridae; *Lacerta bilineata* preys upon *Coronella austriaca*, ecology, Middle Rhine valley, Germany

On July 11th, 1996, a male Western Green Lizard *Lacerta bilineata* DAUDIN, 1802, was observed predating on a juvenile (about 20 cm long) Smooth Snake *Coronella austriaca* LAURENTI, 1768 in the vineyards near the city of Boppard (Middle Rhine Valley, Germany). The struggle of the reptiles was heard already from a distance of 20 meters. After half an hour, the lizard had overpowered the snake and started to swallow it under great difficulties. Upon my approach, the lizard withdrew into the dense vegetation where the procedure of swallowing was completed. One month later (August 11th, 1996), when the lizard was caught in a radiotracking study, it weighed 48.5 g, with a snouth-vent length of 12.6 cm and a total lenght of 32.3 cm.

This is the first report on the predation of *C. austriaca* by *L. bilineata*. Similar to the related species *L. schreiberi* BEDRIAGA, 1878 and *L. viridis* LAURENTI, 1768, the Western Green Lizard is omnivorous at its northern distribution border (VANCEA & FUHN 1959; DIAZ 1995). The diet comprises all kinds of invertebrates, small mammals, and fruits (NETTMAN & RYKENA 1984). Predation of small lizards and snakes as mentioned for *L. viridis* by SCHREIBER (1912), HOLEC & KMINIAK (1970), and BRUNO & MAUGERI (1977) may or may not refer to *L. bilineata*. The study of ANGELICI & al. (1997) made in the distribution centre of *L. bilineata*, shows that this lizard feeds mainly on insects. However, its prey spectrum changes seasonally (ROLLINAT 1934) and even occasional cannibalism against juveniles has been reported (WEBER 1957; ANGELICI & al. 1997).

In contrast, juvenile Western Green Lizards have been reported as a prey of the Smooth Snake (ENGELMANN 1988; JOORIS 1995). In the vineyards of Boppard, *Podar-*

cis muralis (LAURENTI, 1768), *Anguis fragilis* (LINNAEUS, 1758), and *Lacerta agilis* LINNAEUS, 1758 occur in high densities, thus, representing potential prey for this snake. Under comparable conditions, *P. muralis* was the major prey of the Smooth Snake, while *L. bilineata* was of minor importance (RUGIERO & al. 1995).

This surprising record cannot be explained by the habitat conditions in the Middle Rhine valley. Reduced prey availability at the northern distribution border of *L. bilineata* could be a possible explanation for the predation of *C. austriaca*. Analysis of the insect fauna in the vineyards of Boppard (FROEHLICH 1990; NIEHUIS 1991) revealed a high species diversity. In summer, crickets can be found in great numbers excluding temporal reduction of prey (like in spring or autumn) as an explanation. Thus, the predation observed seems to be an exceptional event rather than a regular behaviour in cases of reduced invertebrate prey resourses.

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