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A Remarkable Lacertilia Find in Potočka zijalka (Slovenia)

KARL L. RAUSCHER*)

RAUSCHER, K.L., 2004. A Remarkable Lacertilia Find in Potočka zijalka (Slovenia). — Mitt. Komm. Quartärforsch. Österr. Akad. Wiss., 13:49–50, Wien.

Abstract

The find of two lower jaw ossicles in Potočka zijalka cave is related to *Lacerta agilis* L. (Sand Lizard).

Keywords: Potočka zijalka, Slovenia, *Lacerta agilis*, lower jaw ossicles, dentalia

Zusammenfassung

Zwei Unterkieferknöchelchen aus der Potočka zijalka-Höhle werden *Lacerta agilis* L., der Zauneidechse zugeordnet.

Schlüsselwörter: Potočka zijalka, Slowenien, *Lacerta agilis*, Unterkieferknöchelchen, Dentalia

Izveček

V članku sta opisani spodnji čeljustnici kuščarice najdeni v Potočki zijalki in pripadata vrsti *Lacerta agilis* L.

Ključne besede: Potočka zijalka, Slovenija, *Lacerta agilis*, spodnji čeljustnici, zobje

1. Introduction

From one of the former excavations (see also PACHER, 1998) we have two lower jaw ossicles, which have been already attributed to *Lacerta agilis*.

2. Terminology and Description

2.1. Terminology of dentalia

The terminology of dentalia follows the description by RAUSCHER (1992), see fig. 1.

cd Crista dentalis
df Contact of the Lamina horizontalis with the

Spleniale
cv Crista ventralis
f Foramina pro rami nervorum alveolarium inferiorum
fb Facies buccalis
fd Facies dentalis
ic Incisura coronoidea
lh Lamina horizontalis
o Orificium canalis nervi alveolaris inferioris
pa Processus angularis
pc Processus coronoideus
ps Processus supraangularis
sd Sulcus dentalis
sis Sinus supraangularis
sm Sulcus meckeli
sy Symphysis mandibularis (short: Symphysis)

2.2. Description of the dentalia

Class: Reptilia
Order: Squamata OPPEL, 1811
Suborder: Sauria MCCARTNEY, 1802
Family: Lacertidae BONAPARTE, 1831

Lacerta agilis L. (Sand Lizard)
(fig. 2)

Material: 2 big dentalia of adult specimens preserved as fragments (1 sin., 1 dext.).

Finding place: Potočka zijalka in Slovenia

Finding layer: Micro-mammal layer

In rostro-caudal extension the dentalia of *Lacerta agilis* are elongated lower jaw elements. They are rather narrowly developed in dorso-ventral direction. The symphysis region is rather well rounded in both dentalia. The Facies buccalis is completely smoothly developed in both elements, without any structure. The Foramina pro rami nervorum have an elliptical shape. The Crista dentalis shows a weak but characteristic undulating course in both lower jaw elements. The Crista ventralis is slightly irregularly developed. The Sulcus dentalis is clearly developed, and the rostral strongly developed Lamina horizontalis regularly tapers off toward caudal and ends in an irregularly formed structure. The surface of the Facies dentalis is smooth (RAUSCHER, 1992).

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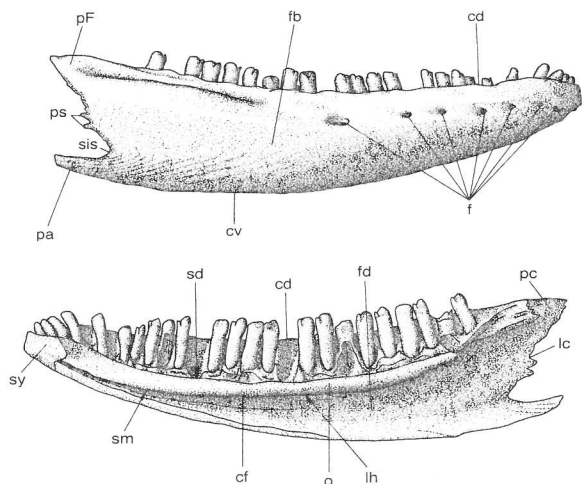


Figure 1: Dentale dext. of *Lacerta viridis* (LAURENTI, 1768), Green Lizard, Museum of Natural History in Vienna, Inv.no. 672, 4.5-fold magnification; top: Dentale exterior view, bottom: Dentale interior view. Drawing by K. Rauscher.

The Processus coronoideus, the Processus supraangularis, the Sinus supraangularis, the Processus angularis, and the Incisura coronoidea respectively are missing in both specimens. Despite these missing anatomical details, the available combinations of characteristics justify a classification as *Lacerta agilis*.

Up to now there are only very vague attempts for the description of Lacertilia-teeth in literature (RICHTER, 1994). These specifications on the teeth refer above all to the number of tooth cusps (e.g. "bicuspid" or "biconodont" or "tricuspid"). Further specifications are generally not mentioned on the teeth of Lacertilia. The teeth can be (predominantly) well observed at the lingual side, and on the whole they are formed in a narrow and cylindrical manner. The teeth show a typical pleurodont fixing. In the anterior part of the dentalia the teeth have single cusps or are more bicuspid, the main cusp mostly has a truncated conical form. For most of the posterior teeth the main cusp moves into the direction of the vertical axis of the tooth. Due to this situation a more or less tricuspid tooth is developed (ROČEK, 1984).

3. Discussion

The find of two jaw ossicles of *Lacerta agilis* L. do not allow any far-reaching or further statements. It is known that the Sand Lizard can occur up to an altitude of 2000 m above sea level in southern regions (Balkan peninsula). It is, however, quite possible, that the two ossicles were brought to this region by birds. A comparison with Austrian finding places of *Lacerta agilis* shows that the Sand Lizard pre-

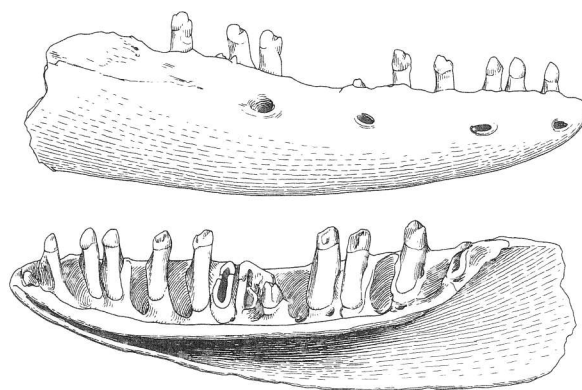


Figure 2: Dentale dext. of *Lacerta agilis* L., Sand Lizard, 1758, Potočka zijalka, Slovenia, 8.5-fold magnification; top: Dentale exterior view, bottom: Dentale interior view. Drawing by N. Frotzler.

dominantly lives in areas with annual heat figures of over +80° C and is independent of the average annual amounts of precipitation (CABELA et al., 2001). The highest finding place of *Lacerta agilis* known up to now in Austria is at the Großkaarspeicher in Carinthia at an altitude of approximately 1700 m above sea level (GRÜNWARD, 1994).

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