

**Biologie und Ökologie der beiden nahverwandten Orthopteren-Arten  
*Barbitistes constrictus* (BRUNNER VON WATTENWYL 1887) und  
*Barbitistes serricauda* (FABRICIUS 1798)**

**im Kamptal**

**im Nationalpark Thayatal**

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*Barbitistes serricauda* and *Barbitistes constrictus* are two closely related Ensifera-species within the family of Phaneropteridae.

Both species are highly associated with woodland habitats, which is rare among orthopterans. Until the use of bat detectors as a method of mapping orthopterans was introduced, they were only rarely observed systematically, because the imagines dwell in treetops and evidence of their presence was in most cases a discovery by chance. With this device, the species can easily be detected through their species-specific song at 18-30 (37) kHz. Since then, more in-depth information about their biology and ecology has been collected.

In 2017, „Die Heuschrecken Österreichs“ (Zuna-Kratky et. al.) was published, merging information about the distribution of all native orthopteran species. In Austria, *B. constrictus* is only found on the Bohemian Massif, while *B. serricauda* inhabits all Austrian provinces and is only missing in areas where *B. constrictus* is found. Within the scope of the two diploma theses, habitats in the Thayatal (Lisa Reiss) south of the Czech border, which is the only region in Austria where the two species seem to occur syntopic, and the Kamptal (Lisa Liska), where the species seem to be spatially separated, have been analyzed. Randomized woodland areas (47 areas in the Thayatal and 51 areas in the Kamptal) of 225 m<sup>2</sup> each were examined in terms of the presence or absence of one of the *Barbitistes*-species, the sealevel and the composition of the vegetation using Braun-Blanquet analysis. Indicator values of the occurring plant species provide information about climate parameters, since climate and vegetation seem to be key factors in the distribution of orthopteran species. The main aim of the two diploma theses is to find clues to the distribution pattern of *B. constrictus* and *B. serricauda* in the examined areas.