

## BIOMETRICAL ANALYSIS OF POSTCRANIAL ELEMENTS OF FOSSIL URSIDS FROM MIDDLE EUROPEAN SITES

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A detailed study, which has been carried out on long bones and metapodia of *Ursus deningeri* and *Ursus spelaeus*, will be presented in this poster. One aim of this project, which was financially supported by the German Society of Research (DFG), is to make a distinction between these two species using further clear distinctive marks. Therefore, 249 measurements on 16 different skeletal elements (Humerus, Ulna, Radius, Metacarpals I-V, Femur, Tibia, Fibula, Metatarsals I-V) of 2890 specimens of exclusively adult individuals have been selected for this study. The samples originated from the sites: Deutsch-Altenburg/Lower Austria, Hundsheim/Lower Austria and Repolusthöhle/Styria in Austria; Goyet/Condroz/Ardennes in Belgium; Château/Saône-et-Loire in France; Einhornhöhle/Scharzfeld/Harz, Erpfingen/Schwabian Alb, Mosbach-Sande close to Wiesbaden and Zoolithenhöhle/Franconian Alb in Germany; Bacton/Norfolk, Banwell Bone Cave/Somerset and Westbury-sub-Mendip/Somerset in the United Kingdom.

The data sets have been statistically analysed using univariate and multivariate tests like the Analysis of Variance, Discriminant Analysis, Factor Analysis, Correlation Analysis and Regression Analysis in SAS and SPSS to divide the two groups significantly. A further aim, within this context, is to classify the finds of fossil ursids from Einhornhöhle as belonging to one of the two species. This poster will present a short review of the past discussion (NIELBOCK, 1987; RODE, 1935; SCHÜTT, 1968) and a re-examination of those particular fossil finds. It will be demonstrated that the material from Einhornhöhle shows characteristics of both species, which implies an intermediate state between *Ursus deningeri* and *Ursus spelaeus*.

### References:

- NIELBOCK, R-D. (1987): Holozäne und jungpleistozäne Wirbeltierfaunen der Einhornhöhle im Harz - Paläontologisch-biostratigraphische Untersuchungsergebnisse der Höhlengrabung 1985-87 TU Clausthal-Zellerfeld. - Diss. Clausthal. 1-194.
- RODE, K. (1935): Untersuchungen über das Gebiss der Bären. - Monographien zur Geologie und Paläontologie Serie II: 1-163.
- SCHÜTT, G. (1968): Die cromerzeitlichen Bären aus der Einhornhöhle bei Scharzfeld. - Mitteilungen aus dem Geologischen Institut der Technischen Hochschule Hannover, Diss. 7: 1-121.

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