

Early to middle Miocene mustelids from Göriach (Styria, Austria): food preferences

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Mustelids have a high diversity in food preferences and locomotion. They range from carnivorous members, like *Mustela*, to more omnivorous badgers and mollusk-crushing otters. The aim of this work is to differentiate the modern European Mustelidae on the base of their food preference. We combine traditional tooth measurements (taken after FRISCIA et al. 2007), which we correlate with a newly developed dental mesowear analysis, based on the carnassial dentition. For the mesowear study, landmark analysis of the carnassials were used. Principal component analysis was performed for the interpretation of the results. These results are used to determine the dietary preferences of the early to middle Miocene mustelids from Göriach near Turnau (Styria, Austria). The following fossil taxa were included in our analysis: *Potamotherium miocenicum*, *Lartetictis dubia*, *Trocharion albanense*, *Trochictis depereti* and *Taxodon* sp. described by TOULA (1884) and THENIUS (1949).

To visualize the disparities, outgroups were taken for each feeding type. Felids (lion, wild cat, lynx and the fossil saber tooth cat) are typically known to be hypercarnivores. The crushing feeding type is represented by the sea otter and the omnivorous type by the badger.

Based on the results of this study it is possible to differentiate three feeding types: 1) carnivorous (*Mustela* and *Gulo*); 2) omnivorous (*Martes*); 3) crushing (*Lutra*). The Miocene mustelids from Göriach plot clearly in the omnivorous to crushing niche, close to the otters, badgers and the martins.

References

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