

## **Oligocene freshwater limestones on the eastern slope of the «Rauracian depression»: new biostratigraphic data.**

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During the Upper Oligocene (Chattian), the Swiss Molasse Basin was connected with the Southern Rhine Graben (see e.g. paleogeographic maps from Berger 2005). This connection («Rauracian depression», Baumberger 1927) enabled the transportation of alpine micaceous sands to the north. In the southernmost Jura synclines, these sandstones (Molasse alsacienne, Blättermolasse) may reach a thickness of several hundred meters. Occasionally, thick freshwater limestones are intercalated. Three major levels of freshwater limestones have been recognized by Baumberger (1927): the lower (Oensingen), middle (Matzendorf) and upper (Delémont) freshwater limestones.

During the past 10 years important new samples from some mammal faunas related to the freshwater limestones have been collected, and new geological data has been gathered. Mammal biostratigraphy mostly confirms the previous calibration of some scattered outcrops of freshwater limestones on the eastern slope of the «Rauracian depression». One important difference is the succession of the Mümliswil and Oensingen mammal faunas. According to the faunas, which both can be placed in MP 26, both limestones are related to the lower freshwater limestone level. However, the Mümliswil mammal fauna is considered here to be older than the Oensingen mammal fauna, which contradicts the previous classification of Baumberger 1927, and Mayo 1980.

Additionally, a large number of mammal faunas clearly show the diachronous onset of the molasse sedimentation on the mesozoic substratum at the eastern slope of the «Rauracian depression» and the subjurassic area.

### REFERENCES

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