Pliensbachian Radiolaria from a slide in the Hallstatt Mélange in the Teltschengraben east of Bad Mitterndorf and their evidence for the reconstruction of Liassic Hallstatt facies Zone (Northern Calcareous Alps, Salzkammergut area, Austria)

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In the Hallstatt Mélange northwest of Bad Mitterndorf in the Teltschengraben occur a slide of Pliensbachian marly radiolarite in late Middle to early Late Jurassic sediments. The matrix consist in radiolarites, cherty limestones and marls, dated by radiolarians as late Middle Jurassic (Bathonian-Callovian). The slide of the Pliensbachian cherty sediment is lithological and in microfacies nearly identical as the matrix and belongs to the Dürrnberg Formation of the liassic outer shelf area of the Northern Calcareous Alps (Hallstatt Zone) at the northeastern rim of the Tethys Ocean.

The big slide of the Dürrnberg Formation in the upper part of the Strubberg Formation consist of cherty marls and cherty limestones. The radiolarians mostly occur as calcite but partly they are very well preserved. The Pliensbachian slide consits of Wackestones to packstones, party rich in crinoids containing mostly recrystallised radiolarians. The sediments are mostly bioturbated, the matrix consists of cherty marls and cherty limestones. Only few radiolarians are preserved as quartz and can be solved out with HF.

We determine following radiolarians: *Foremania sandilandsensis* Whalen and Carter, *Canoptum dixoni* Pessagno and Whalen, *Parahsuum longiconicum* Sashida, *Laxtorum* sp., *Laxtorum* sp., *Parahsuum mostleri* (Yeh), *Praecaneta* ? sp., *Parahsuum edenshawi* (Carter), *Parahsuum simplum* Yao, *Katroma megasphaera* Yeh and Cheng, *Katroma* cf. *bicornus* De Wever, *Katroma angusta* Yeh, *Bagotum* cf. *modestum* Pessagno and Whalen, *Lantus obesus* (Yeh), *Lantus* sp. A, *Gorgansium* sp. 1, *Lantus* sp. A, Nassellaria NA2 sensu YAO, *Orbiculiformella callosa* (Yeh), *Spongotropus* sp., *Praeconocaryomma* sp. 2 sensu Carter in progress, *Spongotripus* sp. B sensu Yao, *Paronaella* sp. 1, *Pantanellium inornatum* Pessagno and Poisson, *Paronaella* bona (Yeh), *Paronaella tripla* De Wever, *Paronaella* bona (Yeh), *Homoeparonaella lowryensis* Whalen and Carter, *Hagiastrum* sp. 1, *Hagiastrid* g. et sp. indet G sensu Yao (new species) Whalen and Carter, *Cyclastrum* sp. A (new species), *Crucella spongase* De Wever, *Archaeohagiastrum longipes* Baumgartner. Middle and Late Jurassic as well as Early Jurassic radiolarian faunas from cherty sedi-

ments have been studied in the Northern Calcareous Alps in recent times. The Middle to Late Jurassic radiolarian faunas are well known from taxonomic and biochronological point of view, whereas some problems remain. By this, in the Northern Calcareous Alps these radiolarian faunas are used for the reconstruction of the basin dynamics and the reconstruction of the destruction of the distal European continental margin in late Middle to Late Jurassic due to the closure of the Tethys Ocean.

Early Jurassic radiolarian assemblages in the Northern Calcareous Alps as well as in the Tethyan realm are rare (Gorican et al. 2003). Hettangian to Sinemurian radiolarian assemblages in the Northern Calcareous Alps are described by Kozur & Mostler (1990) for the continent near part (lower nappe system) of the Northern Calcareous Alps and from Gawlick et al. (2001) for the continent far part (Hallstatt Mélange). The discovery of a well-preserved and diverse radiolarian fauna in Teltschengraben northwest of Bad Mitterndorf represents the first record of Pliensbachian radiolarians in the northwestern Tethys. A complete assemblage is illustrated in order to allow comparisons with other regions.

The dating of the cherty slide as Pliensbachian is of high evidence, because this is the first occurence of sediments younger as Sinemurian in the Hallstatt Zone of the Northern Calcareous Alps. This shows, that the northwestern passive Tethys margin persist until Pliensbachian. So the closure of the Tethys Ocean in this region is younger than Pliensbachian, but older as Bathonian.

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