

incorrect reconstructions. Detailed attention to description of elements and their variation and detailed sample by sample logs of large faunas are required for stability in taxonomy in these early stages of Lower Ordovician multielement taxonomy.

#### **BRANSON & MEHL Localities – Historical Perspectives.**

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#### **Middle and Upper Triassic Conodont Zonation of the Tethyan Realm.**

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In the Middle-Upper Triassic there are the following conodont faunal provinces within the Tethyan realm: Asiatic, Dinaric (with Balkanide subprovince), Austroalpine, Westmediterranean-Arabian, Germanic, and Nevadic ones. Revised conodont zonations are established for all these conodont provinces. These zonations are correlated with the stratigraphic subdivision and with the ammonoid successions. A Middle-Upper Triassic standard conodont zonation is established and the conodont zonations of all faunal provinces are correlated with this standard zonation.

#### **Silurian Conodonts from Yokokura-yama, Shikoku, Japan.**

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The studied Silurian sequence about 80 metres thick have yielded the conodonts characteristic of the Llandovery-Wenlock boundary interval. The conodont fauna from the lower clastic part (ca. 40 m thick) are characterized by the more or less frequent occurrence of *Apsidognathus tuberculatus*, *Ozarkodina* sp. and *Panderodus* sp. and also by the more sporadic occurrence of *Ambalodus galerus* s. f., *Astrognathus tetractis* s. f., *Belodina* sp., *Carniodus carnulus*, *Hadrognathus staurognathoides*, *Llandoverygnathus pennatus*, *Pseudooneotodus tricornis*, *Pygodus lyra* and *Pterospathodus amorphognathoides*. In contrast the upper predominantly carbonate part have yielded *Dapsilodus* spp., *Ozarkodina excavata excavata*, *Panderodus* sp., *Pseudooneotodus beckmanni*, *P. bicornis* and *Walliserodus* sp. In this horizon the occurrence of *Kockelella ranuliformis* is noticeable although they are very low in the frequency of occurrence.

The described composition suggests that the lower clastic part are correlatable to the upper *celloni* and the *amorphognathoides*-Zones (latest Llandovery and earliest Wenlock) whereas the upper carbonate part to the lower or the lowest *patula*-Zone (early Wenlock). Zonal assignment of the uppermost part of the studied sequence remains not clear because except for the frequent occurrence of *Ozarkodina excavata excavata* and the rare occurrence of *Kockelella ranuliformis* no marker species of the *patula* or the *sagitta*-Zones have been recovered from this horizon in spite of closer examinations.

#### **Taxonomy and Phylogeny of some Lower Carboniferous Conodonts and Preliminary Standard Post-Siphonodella Zonation.**

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The attempt to synthesize a workable global conodont zonation of Upper Tournaisian and Lower Viséan (Osagean) strata resulted in a preliminary standard global zonation for the post-*Siphonodella*-pre-*Cavusgnathus* interval (pre-*Gnathodus bilineatus* in Europe) based on conodont faunas from Western Europe and Central and Western North America. The phylogeny and taxonomy of six genera –