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## **Biozonation of Sinemurian and Pliensbachian larger benthic foraminifera (Veľebit Mt., Croatia)**

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Sinemurian and Pliensbachian shallow-marine carbonates of Veľebit Mt. were deposited on a huge shallow marine carbonate platform which covered vast areas of the Southern Tethyan realm. In the Toarcian, this disintegrated into several smaller platforms (including the Apennineic, Apulian and Adriatic Carbonate Platforms), separated by deeper marine basins.

Detailed investigation of the continuous Sinemurian and Pliensbachian succession outcropping along the Gospiæ-Karlobag road (Kubus locality - Tišljær et al, 1991. *Excursion guide-book, The Second Int. Symp. on the Adriatic Carbonate Platform, Zadar, 1991, Institute of Geology, Zagreb, 1-49.*), allowed subdivision into 6 biostratigraphic zones, based on the distribution and stratigraphic ranges of Lower Jurassic litiolids:

- Biozone 1: *Mesoendothyra* sp. lineage zone, Early Sinemurian (= interval zone of Septfontaine, 1984. *Rev. Micropaléont.*, 27 (3): 209-229) - bounded by the first appearance of *Mesoendothyra* sp. and the first appearance of *Lituosepta recoarensis* CATI.
- Biozone 2: *Lituosepta recoarensis* lineage zone, Late Sinemurian (Septfontaine, 1984.) – bounded by the first appearances of *Lituosepta recoarensis* CATI and *Orbitopsella primaeva* Henson. Important taxa include: *Mesoendothyra* sp., *Lituosepta recoarensis*, *Planisepta compressa* (Hottinger), *Amijiella amiji* (Henson), *Haurania deserta* Henson, *Orbitopsella* sp.
- Biozone 3: *Orbitopsella primaeva* lineage zone (Septfontaine, 1984) or *Orbitopsella primaeva* abundance zone, Early Carixian – bounded by the first appearances of *Orbitopsella primaeva* Henson and *Orbitopsella praecursor* (Gümbel). Important taxa include: *Mesoendothyra* sp., *Lituosepta recoarensis*, *Planisepta compressa*, *Amijiella amiji*, *Haurania deserta*, *Orbitopsella primaeva*.

- Biozone 4: *Orbitopsella praecursor* taxon-range zone, Late Carixian (Sartoni & Crescenti, 1962. Giorn. Geol. (2a) 29: 161–304) – corresponding to the stratigraphic range of *Orbitopsella praecursor* (Gümbel). Important taxa: *Mesoendothyra* sp., *Paleomayncina termieri* (Hottinger), *Lituosepta recoarensis*, *Planisepta compressa*, *Amijiella amiji*, *Haurania deserta*, *Orbitopsella primaeva*, *O. praecursor*.
- Biozone 5: *Orbitopsella praecursor*–*Pseudocyclammina liassica* interval zone, Early Domerian – bounded by the last appearance of *Orbitopsella praecursor* (Gümbel) and the first appearance of *Pseudocyclammina liassica* Hottinger. Important taxa include: *Mesoendothyra* sp., *Paleomayncina termieri*, *Planisepta compressa*, *Amijiella amiji*, *Haurania deserta*, *Agerina martana* (Farinacci).
- Biozone 6: *Pseudocyclammina liassica* taxon-range zone, Late Domerian (Septfontaine, 1984) corresponding to the stratigraphic range of *Pseudocyclammina liassica* Hottinger. Important taxa include: *Mesoendothyra* sp., *Paleomayncina termieri*, *Planisepta compressa*, *Amijiella amiji*, *Haurania deserta*, *Agerina martana*, *Pseudocyclammina liassica*.

These established biozones correlate very well with contemporaneous deposits of Velebit Mt. (e.g. Mali Halan profile), as well as with other areas of the Karst Dinarides. In the wider Mediterranean realm these results almost completely correspond with the biozonation proposed – and correlated with ammonite zones – by Septfontaine (1984) in the High Atlas Mts. of Morocco.

Within the investigated Sinemurian and Pliensbachian shallow-marine inner platform carbonates of the Karst Dinarides, (completely lacking in ammonites and planktonic foraminifera), the determined biozones of larger benthic foraminifera represent a most important tool for stratigraphic correlation.