

**THE CORRELATIONS BASED ON PALYNOLOGICAL DATINGS OF
THE METAMORPHICAL FORMATIONS IN THE CHRYSSTALLINE MASSIF
OF MARAMUREȘ AND EASTERN CARPATHIANS
- METAMORPHISM AND PALYNOLOGY -**

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Abstract: The datings based on the established palynological assemblages, which contoured the assemblage zones of the metamorphic formations and groups lito and present new data which allow the palynostratigraphical correlations of the Chrystalline Massif of Maramureș and the Eastern Carpathians.

Key words: Lito, palynological, correlations, metamorphical, groups.

Extended Abstract:

In the inferior basin of Vaser valley (where is the complete succession which outcrops in the Chrystalline Massif of Maramureș), as it was described and dated, the following metamorphic formations outcrop, from the oldest ones to the youngest ones:

- Bretila group;
- Rebra group with Voșlobeni and Ineu Formations;
- Negrișoara group with Pinu and porphyroids of Pietrosu Bistriței Formations;
- Tulgheș group with Căboia, Holdița and Leșu Ursului Formations;
- "Rozis group" with Permo-Triassic Formations;
- "Dovgorun group" with Jurassic Formations;

The relative ages, that represent the time of the accumulation of these formations and which were established based on the palynological assemblages of the litostratigraphical units evidenced in the inferior basin of Vaser, were supposed as follow:

- Bretila group, Rifean-Vendian;
- Rebra group, Vendian, eventually Upper Rifean at the basis;
- Negrișoara group, Vendian-Lower Cambrian;
- Tulgheș group, Lower Cambrian-Middle Cambrian;
- Stiol subgroup, Ordovician;
- "Rizin group", Permian-Middle Triassic;
- "Dovgorun group", Upper Triassic-Middle Jurassic.

The image of the lito and palynostratigraphical correlation of the metamorphic groups and formations of the inferior basin of Vaser valley with the metamorphic groups and formations of the Eastern Carpathians, could be outlined as follows:

- Bretila group, which has a still uncertain litstratigraphical division due to the lack of reference marks, is represented in the inferior basin of Vaser valley mainly by the gneissis formation with quartz-feldspatic rocks, namely of Lespedea in the infra-Bukovinean Nappe of Arieș in Rodna Mountains (Krütner, 1988); so the middle and upper parts of the group having a Rifean-Vendian age outcrop in the zone under investigation.

- Rebra Group, present in the perimeter under investigation by Voşlobeni (Rb2) and Ineu (Rb3) Formations, having relatively small thicknesses is correlable with the middle and upper parts of this group of the Eastern Carpathians, of Vendian age or older.

- Negrişoara Group, that outcrops in the basin of Vaser valley only with the porphyroids of Pietrosu Bistriţei (Cozia valley), but also with Pinu Formation (Ng1) in Rica basin, where it was proven, could be undoubtedly correlated with the formations of this group of Vendian, eventually Lower Cambrian age in the Eastern Carpathians.

- Tulgheş Group with its Holdiţa (Tg2) and Leşu Ursului (Tg3) Formations present in its superior valley (quartzites of Gligaru), are correlable based also on the palynologic assemblages with the similar formations of the Eastern Carpathians of Tulgheş Group (Cambrian).

- Stiol Subgroup, certainly present in the inferior basin of Vaser valley, is correlating with Repedea “series” ss. And Rusaia “series” (V. Iliescu, Krütner, 1975; V. Iliescu et al., 1976 and V. Iliescu, Krütner, 1978) in the sense of the first datings (V. Iliescu et al., 1975) that fixed an Ordovician age for their basis.

- “Rozin” Group defined like the infra-Bukovinean unit of Stînişoara (Brecia et al., 1976; Săndulescu, 1984) in the basin of Vaser valley is correlating with Rozin unit of Rahov massif (Hain et al., 1968; Bizova et al., 1971), this unit having a Permo-Triassic age.

- “Dovgorun” Group defined also as a metamorphosed infra-Bukovinean unit (Bizova et al., 1971; Zincenco et al., 1982) is correlating with Dovgorun “Formation” of Jurassic – Neocomian age (Gluşko, Kruglov, 1971) having present here only the Lower part, of Jurassic age.

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