

# **BRUNOVISTULIAN TERRANE (CENTRAL EUROPE) AND ISTANBUL ZONE (NW TURKEY): LATE PROTEROZOIC AND PALEOZOIC TECTONOSTRATIGRAPHIC DEVELOPMENT AND PALEO GEOGRAPHY**

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There are close similarities between the Brunovistulian terrane and the Istanbul Zone both in the Neoproterozoic and Paleozoic. The geological structure, lithology and geochronology of the Cadomian Brno Massif show broad fit with the Bolu Massif. Their Gondwanian or Baltican affinity is still poorly constrained and remains a matter of discussion. The Vendian and Cambrian sequences recognized in central Malopolska, Brunovistulian and Moesian terranes correlate well with the Scythian platform. In the Istanbul Zone the presence of the pre-Ordovician sedimentary sequences has not been confirmed and may be only anticipated. In Paleozoic the best fit was attained in the Devonian-Carboniferous interval. The sedimentary record in the Zonguldak and Istanbul belts closely compares to the Moravian Karst and Ludmirov facial developments of the Brunovistulian Terrane. The correlation is reinforced by a good fit of main Variscan deformation phases attributed both in the Brunovistulian Terrane and the Istanbul Zone to the late Viséan-early Namurian and Westphalian-Stephanian intervals. This supports, together with the paleobiogeographic data, the interpretation that the Istanbul and Zonguldak belts can be regarded as counterparts of the Rhenohercynian and Subvariscan Zone in Central Europe. The Istanbul Zone was juxtaposed in pre-Jurassic time against the Sakarya Zone viewed here as a part of the Armorican terrane assemblage.

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**Fig 1** Correlation scheme of lithological development in the Brunovistulian terrane (BVT), Malopolska terrane (MaT), Moesian terrane (MT), western part of the Scythian platform (SP), Zonguldak terrane Zo and Istanbul terrane (Ist).

1 – crystalline basement; 2 – Vendian flysch; 3 – Cambrian molasse; 4 – shales and arenites; 5 - shales; 6 – Devonian conglomerates and sandstones ; 7 - limestones; 8 – Culm flysch ; 9 – coalbearing molasse; 10 - arenites; 11 – alternation of shales, arenites and conglomerates; 12 - Silurian-Devonian flysch; 13 – epizonal metamorphosed sediments;

