S Y M P O S I U M

NEW RESULTS ON PERMOCARBONIFEROUS FAUNA

SEPTEMBER 24 – 28, 1990

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extrascapulars are present. The dermosphenotic lies with its median margin next to the frontal and the parietal. The dermopterotic doesn't reach the frontal. It lies by the side of the parietal only. The maxilla has a narrow downward sloped posterior plate and a long slender anterior process which reaches the premaxilla. The dentition consists of numerous small outer teeth and large conical inner teeth. The infraorbital series consists of a large posterior infraorbital and two slender anterior infraorbitals. The antorbital doesn't process teeth. It lies beneath the nasal and lateral to the premaxilla and the postrostral. The opercular is long, but not very narrow. In the anterior edge of its ventral part lies a triangular accessory opercular. The branciostegal rays are numerous (14-19). Large triangular lateral gular plates are enclosing a drop-shaped median gular plate. The parasphenoid possesses only two posterior processes. The visceral skeleton is well developed. A palatoquadratum and several dermoplatina were found. The lower jaw consists of a small and long dentale with a dentition similar to that of maxilla, a somewhat shorter splenial, a small angular and several coronoids. The branchial skeleton isn't completely conserved. The hyomandibular is well developed. It is angular and possesses a processus opercularis. The shoulder girdle is also well developed. It consists of a round triangular shaped suprascapular, a long and narrow supracleithrum, a broad cleithrum with an acuminate dorsal part and an oval clavicula. A pair of large compact otoliths is present.

The palaeoniscid described above closely resembles *Rhabdolepis macropterus*. It mainly differs from it in the absence of an accessory opercular separating the opercular completely from the subopercular. But it also resembles *Elonichthys germari*. Recently taken observations have shown that the type of *Elonichthys germari* is closely related to the palaeoniscid described above (SCHINDLER & SCHNEIDER in prep.). So this palaeoniscid will be designed to the genus *Elonichthys* under the name *Elonichthys palatinus* n.sp.

SCHNEIDER, Jörg & ZAJÍC, Jaroslav

Revision of permo-carboniferous xenacanthodian sharks from Middle Europe.

Based on the functional classification and phylomorphogenesis of xenacanthodian teeth (SCHNEIDER, 1988) the type specimens of GOLDFUSS 1847 and FRITSCH 1889-1893 have been revised. The investigation of articulated skeletons yielded a puzzling pattern of anatomical features resulting from distinctive mosaic evolution. Consequently each taxon is characterized by the functional defined combination of skeleton elements according to the construction set principle.

By means of the type specimens and additional older and new samples from type localities the following genera could be defined as below (shortened):

Xenacanthus BEYRICH, 1848: Teeth-cusps only with smooth nonserrated lateral cutting edges. Pectoralis bibasal, axial biserial. Pelvis axial unserial. Caudalis diphycerc. Radialia of the fins with ceratotrichia. Dorsal spine at the neurocranium.

Misceracanthus n.g.: teeth-cusps principially as in *Xenacanthus*. Pectoralis ? unibasal, axial biserial. Pelvis axial uniserial. Caudalis diphycerc. No ceratotrichia. Dorsal spine at the neurocranium.

Bohemiacanthus n.g.: Teeth-cusps exept of lateral cutting edges with mostly simple carinae labial and lingual. Pectoralis (?) unibasal, axial biserial. Pelvis axial uniserial. Caudalis diphycerc. Dorsal spine at the neurocranium.

"Xenacanthus" plicatus (FRITSCH 1883) - group: Teeth-cusps with *Hybodus*-sculpture. No articulated skeletons are known apart from one crushed cranium from Lebach (see SCHNEIDER 1988).

Triodus JORDAN, 1849: Characterized by the generally y-shaped (simple dichotomous) carina labial on the lateral tooth cusps. Skeletal anatomy see SCHWIND (in prep.). (*Triodus* in the sense of HAMPE 1988 is a mixture of different forms).

Orthacanthus AGASSIZ (after HEIDTKE 1982): Teeth cusps with serrated lateral cutting edges, labial and lingual surface smooth. Pectoralis tribasal, axial biserial. Pelvis axial uniserial. Caudalis heterocerc (derived diphycerc). Dorsal spine above the shoulder girdle.

The phyletic relationships between this genera, i.e. the classification in the family-level remains open up to now.

SCHULTZE, Hans-Peter & HEIDTKE, Ulrich

A rhizodopsid rhipidistian (Sarcopterygii, Osteichthyes) from The Lower Rotliegendes (Lower Permian) of Palatine, W-Germany.

In 1986 the authors described the first rhizodopsid remains from the Lower Permian of Palatinate, W-Germany. A complete specimen dorsoventrally flattened has been discovered in the meantime. It is described here and compared with other rhizodopsid rhipidistians.