

New Wenlock-Pridoli (Silurian) acanthodian fishes from Lithuania.

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Five new monotypic acanthodian genera and five new species are described from the Silurian (Wenlock to Pridoli) of Lithuania. Two new genera and species, Vesperalia perplexa and Fecundosquama basiglobosa, belong to climatiiform and three, Arenaceacanthus arcuatacanalis , Bracteatacanthus assiduus, and Rohonilepis breviornatus, to ischnacanthiform acanthodians. Vesperalia perplexa has high-crowned scales with ridges that cross the entire surface or frequently fade mid-crown and after a smooth area continue on the posterior edge. Stranggewebe in the crowns of V. perplexa scales has large oriented lacunae and a well-developed system of main vascular canals. Fecundosquama basiglobosa scales have an undeveloped neck, a crown with only marginal sculptural incisions and have an unusually large deep base. Simple bone-like mesodentine in the crowns of F. basiglobosa scales lacks principal vascular canals. Arenaceacanthus arcuatacanalis has diagnostic scales with anterior ridges that fade out at one-third of crown length, and crowns composed of simple acellular meso- and durodentine with the original arcuate radial vascular canals over the base. Bracteatacanthus assiduus scale crowns have short ridges of asymmetric profile and an antero-median sulcus, whereas scales of Rohonilepis breviornatus have sharp symmetric subradial crown ridges sloping towards the base. Scale crowns of *B. assiduus* and R. breviornatus are composed of dentine and durodentine, but the former is distinguished by a second area of multibranched radial vascular canals positioned high in the neck.

Key words: Acanthodii, Climatiiformes, Ischnacanthiformes, morphology, histology, Silurian, Lithuania.

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