

## Late Viséan pelagic chondrichthyans from northern Europe

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The relatively rich assemblages of shark teeth from pelagic limestone (Mississippian, late Viséan, late Asbian–middle Brigantian) of three northern European regions: the Rhenish Mountains (Westenfeld Quarry, Germany), the Holy Cross Mountains (Todowa Grząba at the edge of Ostrówka Quarry, Poland), and Derbyshire (Cawdor Quarry, Matlock, England, UK) display certain similarities, with the absolute predominance of the teeth of Falcatidae (small Symmoriiformes) and the constant presence of *Thrinacodus* spp. The largest and most diverse assemblage from Todowa Grząba contains at least three species of a falcatid *Denaëa*, a xenacanthimorph *Bransonella nebraskensis*, a newly described phoebodontid *Thrinacodus dziki* sp. nov., a few ctenacanthiform and euselachian teeth, and two abraded euchondrocephalan dental elements. Anachronistidae, common in the most of late Viséan pelagic faunas, are absent from Todowa Grząba and Westenfeld. The material under study differs from the shallow-water chondrichthyan fauna, hitherto described from the Mississippian carbonate platform facies, by its taxonomic content (particularly almost total absence of Euchondrocephali), generally lower diversity, and higher frequency of small teeth.

**Key words:** Chondrichthyes, teeth, Carboniferous, Mississippian, England, Germany, Poland.

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