

**Friday plenary poster session V17**

**OVERVIEW OF MARINE REPTILES FROM THE TURONIAN OF  
THE OPOLE AREA, SOUTHWEST POLAND**

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Turonian strata in the Opole area are well known for their well-preserved invertebrate fossils. Amongst the earliest descriptions is Leonhard's 1897 monograph "Die Fauna der Kreideformation in Oberschlesien", in which some isolated tetrapod elements, including mosasauroid and plesiosaurian teeth as well as a fragmentary bone named *Plesiosauridarum* were listed. Part of Leonhard's material is now curated in the collection of the Department of Paleozoology of University of Wrocław. Further, yet undescribed, specimens were found in the collection of the Ruhrmuseum in Essen. At present several plesiosaurian teeth, one mosasauroid tooth and a paddle element (? a plesiosaurian mesopodial) are available. Leonhard assigned the first-named to *Polyptychodon interruptus*. These are slender, yet conical with strong apicobasal striations, which justify reference to pliosauiromorph plesiosaurians. They differ from typically more massive teeth of Late Cretaceous pliosauids (*Brachauchenius*/*Megacephalosaurus*) and those found in coeval strata of the Bohemian Cretaceous Basin (BCB, Czech Republic) and more closely resemble teeth of polycotylids. Interestingly, a similar tooth has recently been described from Turonian strata of the Saxonian Cretaceous Basin (SCB, Germany). So far, mosasauroids are unknown from the SCB; however, a tethysaurine mosasauroid was described from the BCB. A recurved mosasauroid tooth crown, assigned to *Liodon anceps* by Leonhard (along with a second one tooth that could not be relocated) shows well-developed carinae, strong lingual folds and finer ornament adapically and a near-smooth labial side with faint facetting. A comparison with coeval, or slightly younger, material from England is needed to assign this material to a genus, or family. Leonhard's mysterious *Plesiosauridarum* could not be relocated, yet on the basis of his description and illustration, it can be identified as a damaged mosasauroid vertebra. In conclusion, a diverse marine reptile fauna comprising pliosauiromorph plesiosaurs with more slender teeth than those found in coeval strata of the Czech Republic, but similar to a tooth from the SCB and mosasauroids are found. Notably, neither protostegids, which are important faunal components in the SCB and BCB, nor elasmosaurids, which are likewise present in both basins are represented in the material from the lower (lower middle?) Turonian of the Opole area.



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