The phylogenetic implications of re-describing the English crocodyliform specimens referred to *Pholidosaurus*

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Abstract (*250 word limit*):
Pholidosauridae was a clade of longirostrine crocodyliforms that radiated across Europe, Asia, Africa and the Americas between the Middle Jurassic to Late Cretaceous. The type genus of this clade, *Pholidosaurus*, is poorly understood and even the number of valid species referable is uncertain. There is considerable instability in this part of the crocodyliform tree, as previous phylogenetic analyses do not agree upon whether Pholidosauridae is monophyletic or not. Preliminary results based on a first-hand re-scoring of the type specimen of *Pholidosaurus purbeckensis* for different phylogenetic analyses (both in preparation modifications of published datasets) unfortunately does not resolve this issue. When *P. purbeckensis* is treated as separate OTU, a monophyletic *Pholidosaurus* is not recovered. The first matrix finds *P. purbeckensis* and *P. schaumbergensis* to be distantly related (i.e. a polyphyletic *Pholidosaurus*), whereas in the second matrix both *Pholidosaurus* species form a polytomy with Dyrosauridae and a large clade constituting most of Pholidosauridae (in this matrix the inclusion of *P. purbeckensis* greatly decreases the level of resolution). The on-going in-depth re-description and re-scoring of English *Pholidosaurus* specimens will help determine whether the genus is monophyletic. This further descriptive work will provide a platform from which the internal relationships of the Pholidosauridae can be investigated.