

Pterosauria of the Great Oolite Group (Bathonian, Middle Jurassic) of Oxfordshire and Gloucestershire, England

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The current understanding of UK Middle Jurassic pterosaur taxonomy is under-developed, leading to it being previously considered a time of low diversity. This is despite the presence of a productive but under-studied pterosaur-bearing horizon extending over parts of Oxfordshire and Gloucestershire. This unit, informally called the Stonesfield Slate, is part of the Great Oolite Group and it produces the largest number of Middle Jurassic pterosaurs. There are over 200 specimens distributed across museums in the United Kingdom, America, and Australia, almost all of which are accessioned under the genus *Rhamphocephalus* and referred to three species: the type species *Rhamphocephalus prestwichi*, *Rhamphocephalus bucklandi*, and *Rhamphocephalus depressirostris*. This study reviews the British Middle Jurassic Pterosauria assemblage, evaluating both their systematics and taxonomic diversity. The holotype of *Rhamphocephalus*, an isolated skull table, is found to be a misidentified crocodylomorph skull and the genus is considered a nomen dubium. The holotype of *Rhamphocephalus bucklandi* is identified as missing and that of *Rhamphocephalus depressirostris* has characters diagnostic at a family level, not a generic or specific one. Both species are considered dubious. Detailed examination of the entire assemblage shows that rather than being monogeneric, the assemblage contains at least five pterosaur taxa, representing three families. This diversity includes the potential earliest occurrences of both Monofenestrata and Pterodactyloidea. A new genus, *Klobiodon rochei* gen. et sp. nov. is described based on a well-preserved mandible. The English Bathonian pterosaur assemblage is shown to be diverse and indicates that, as has been suggested in other studies, the low-diversity signal in the Middle Jurassic is at least partially artificial.

Key words: Pterosauria, *Rhamphocephalus*, Jurassic, Bathonian, Taynton Limestone Formation, UK, England, Stonesfield Slate.

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