

In quest of the *Pteraichnus* trackmaker: Comparisons to modern crocodilians

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The *Pteraichnus* trackmaker is usually hypothesized to be either a pterosaur or a crocodilian. Though the latter interpretation is recently not widely accepted, more experimental work on trackways of extant crocodilians is necessary to settle the debate. Here, the trackways of three species of modern crocodiles (*Paleosuchus trigonatus*, *Crocodylus porosus*, and *Tomistoma schlegelii*) in all major gaits and postures, namely sprawling, walking and running, were compared with *Pteraichnus* trackways. In all experimentally generated crocodilian trackways pentadactyl manus tracks are recognized, the external width between pes tracks is wider than the corresponding internal width between manus tracks, and tail marks are usually present. All crocodilian trackways collected in the present study revealed significant differences from *Pteraichnus*, which strongly suggests a non-crocodilian origin of *Pteraichnus*.

Key words: Crocrodilia, *Pteraichnus*, trackway, gait, posture, kinematics, neoichnology

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