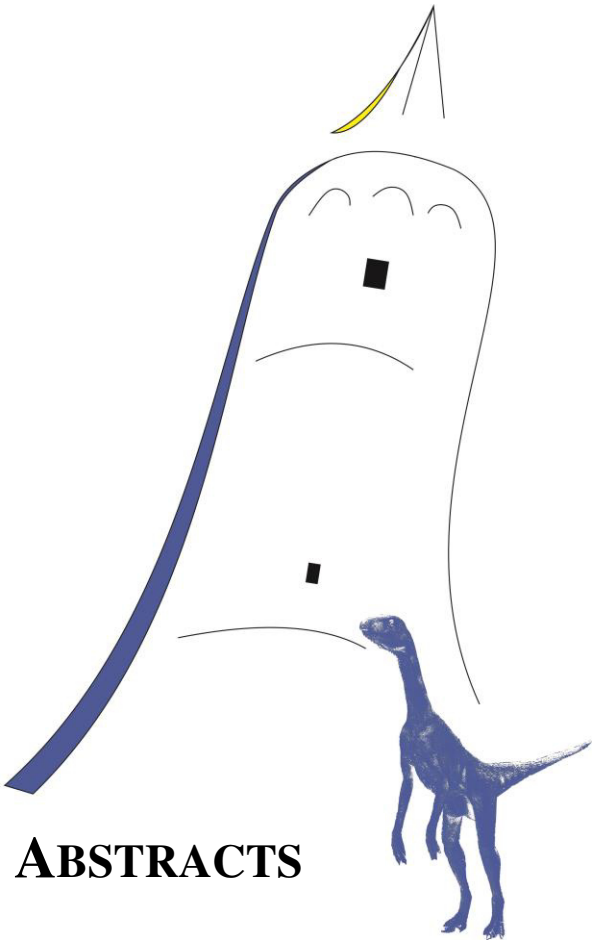
EUROPEAN ASSOCIATION OF VERTEBRATE PALAEONTOLOGISTS

EAVP
European Association of Vertebrate Palaeontologists

XIII ANNUAL MEETING

OPOLE, POLAND, 8-12 JULY 2015



ABSTRACTS

Comparative anatomy and systematics of Cretaceous mammal tracks of Angola

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The recent discovery of mammal tracks in the upper Aptian of Catoca (Lunda Sul, Angola) has triggered analysis of Mesozoic mammal morphotypes. About two dozen Mesozoic mammal track occurrences are known to date, often dubiously identified, mostly from Africa, a few from South and North America and Europe. Among Cretaceous mammal ichnomorphotypes, *Brasilichnium elusivum* from Brazil, *Schadipes crypticus* from Colorado and the controversial *Agadirichnus elegans* from Morocco are tetradactyl. The marsupial *Duquettichnus kooli*, from British Columbia, is the only known pentadactyl mammal ichnomorphotype from the Cretaceous. The association of features in the Catoca tracks makes them unique for the Mesozoic, such as being together mesaxonic, pentadactyl, plantigrade, wider than longer, relatively large in size (length 2.7 cm, width 3.0 cm), with short, straight and distally rounded digits, and no claw marks. In particular, the orientation of digits is autapomorphic: medial digits (II–IV) project anteriorly, while both digits I and V are more divergent and project anterolaterally.

The Angolan tracks (with digit II and III the longest, digit V shortest, and a total digit divarication of 118°) are comparable to footprint and digit proportions of *Ameghinichnus* tracks from the Hettangian (Lower Jurassic, ~200 myr) of New Jersey, and in the total digital divarication to *Ameghinichnus patagonicus* from the Callovian/Oxfordian boundary (Middle/Upper Jurassic, ~163.5 myr) of Argentina. Nevertheless, the Catoca morphotype cannot be attributed to any known Mesozoic mammal-like track morphotype and thus represents a new ichnomorphotype.