SUPPLEMENTARY ONLINE MATERIAL FOR

A re-evaluation of goniopholidid crocodylomorph material from Central Asia: Biogeographic and phylogenetic implications

by

Thomas J.D. Halliday, Marco Brandalise De Andrade, Michael J. Benton, and Mikhail B. Efimov


Character coding for redescribed material, and changes to *E. delfsi*

Changes in coding of *Eutretauranosuchus delfsi*
Character coding for redescribed material, and changes to *E. delfsi*

All characters and character states are as found in Andrade *et al.* (2011). The following are the states assigned to *Kansajsuchus extensus*, “*Sunosuchus*” cf. *thailandicus* (formerly “*Sunosuchus*” *shartegensis*), PIN 2229 (formerly *Turanosuchus aralensis*) and some changes to *Eutretauranosuchus delfsi*.

*Kansajsuchus extensus*:

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*PIN 4174-1*

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*PIN 2229*

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Changes in coding of *Eutretauranosuchus delfsi*

2 – Skull geometry: relative position of tooth row, quadrate articular facet and occipital condyle – (Unknown to 1 tooth row at a lower level than quadrate, aligned to occipital condyle)

3 – Skull geometry: relative position of tooth row and occipital condyle – (Unknown to 0 unaligned)

4 – Skull geometry: relative position of quadrate and occipital condyles (Unknown to 1 aligned)

8 – Rostrum: relation with the skull at maturity in lateral view (Unknown to ½ Smooth decrease in height from skull/a poor fit)

28 – Foramen at premaxilla-maxilla suture (Unknown to 0 absent)

29 – Perinarial crests: presence and morphology (Unknown to 0 absent, surface even)

31 – Naris: orientation in the sagittal plane (Unknown to 2 dorsal)

32 – Shape of naris (Unknown to 0 subcircular)

33 – Naris distance to snout (Unknown to 0 close)

34 – Presence of anterior narial notch (Unknown to 0 absent)

35 – Presence of lateral narial notch (Unknown to 0 absent)

36 – Composition of naris posterior border (Unknown to 1 premaxilla)

37 – Presence and morphology of narial bar (Unknown to 0 absent)

38 – Projection of internarial bar relative to premaxilla (Unknown to – inapplicable)

39 – Presence of dorsal projection of anterior rami of premaxilla (Unknown to 0 does not project)

59 – Presence of posterodorsal process of premaxilla at contact with maxilla and nasal (Unknown to 1 present)

60 – Morphology of premaxilla-maxilla suture (Unknown to 1 complex with anterior directed process from maxilla)

61 – Rostrum: presence of wedge like maxillary process (Unknown to 1 present)

62 – Premaxilla morphology anterior to naris (Unknown to 2 broadly meet at vertical wall)

65 – Shape of premaxilla in dorsal view (Unknown to 3 paddle shaped)

95 – Lacrimal proportional length (Unknown to 0 AP/ML closer to 2 or smaller)

97 – Posteroventral process of the lacrimal (Unknown to 0 absent)

99 – Prefrontal-lacrimal crest dorsal to orbit (Unknown to 0 absent)

100 – Transverse rostral crest: presence (Unknown to 0 absent)

101 – Transverse frontal crest: presence (Unknown to 0 absent)

104 – Crests margining the border of the sup-temp-fen (0 absent to 1 present)

160 – Orbit composition of anterior border (Unknown to 2 lacrimal and prefrontal)

184 – Jugal fit to maxilla (Unknown to 0 continuous)

196 – Postorbital bar: number of projections (Unknown to [1/2] one/two projections)

204 – Quadratojugal participation in intertemporal foramen (Unknown to 0 participates)

257 – Ectopterygoid posterior ramus (Unknown to 0 reaches posterior tip)

335 – Participation of splenial in symphysis (Unknown to 1 present)

340 – Dentrity distal end (Unknown to 1 long, reaches posteriorly to the orbit)

345 – Extension of surangular anterior lateral ramus (Unknown to 1 long)

368/9 – Tooth cross-section (Unknown to 1 circular)

370/1 – Faceted/laminar teeth (Unknown to 0 absent)

378 – Carinae (1 present to 0 absent)