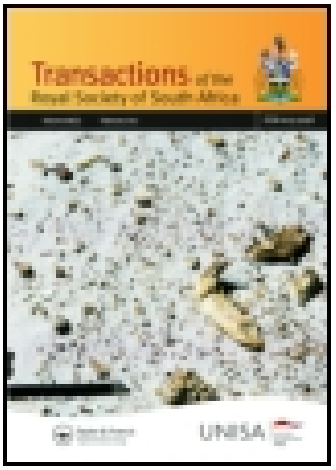

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ON TWO NEW THEROCEPHALIAN REPTILES (GLANOSUCHUS MACROPS AND PRISTEROGNATHUS BAINI)

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ON TWO NEW THEROCEPHALIAN REPTILES (*GLANOSUCHUS MACROPS* AND *PRISTEROGNATHUS BAINI*).

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(Read March 30, 1904.)

(Plate VI.)

Glanosuchus macrops, g. n. et sp. n.

This new genus and species is founded on a fairly complete skull discovered by Mr. Snyman at Knoflok's Fontein, near Van der Byl's Kraal in the Gouph. It is the skull of a moderately large Therocephalian reptile with the teeth fairly well preserved and with the greater part of each mandible in position. The specimen has been subjected to a considerable degree of pressure, which has not only produced some distortion but has made the bone in some parts extremely brittle. In addition to this the bone, except in parts that are much weathered, is so like the matrix that in one or two regions one is unable to say with certainty what is bone and what matrix. It is thus impossible to give as complete a description of the skull as one should like, and in the figures of the skull I have been obliged to depart from my usual practice of only drawing what is bone.

The skull bears some little resemblance to one or two of the already known Therocephalians, especially Scylacosaurus, Scymnosaurus, Ælurosaurus, and Pristerognathus, but its dentition shows it to be distinct from any of those genera. From the occipital condyle to the front of the snout the skull measures almost exactly 12 inches, and the greatest width across the temporal arches has probably been about 6 inches. The snout is moderately long and powerfully developed, with the nostrils directed more forwards than outwards. The orbits are relatively rather small, and are situated behind the median transverse plane. The temporal fossæ, though imperfect, have probably extended back beyond the plane of the

occipital condyle. The dentition of the upper jaw is five large pointed incisors and a sixth small one, one large canine, and apparently five small simple molars.

The premaxillary is fairly well seen on both sides of the skull. It is a moderately strong bone, and passes up between the nasal and the maxillary. There is evidence of there having been a strong internasal process. Posteriorly the bone is overlapped as in other Therocephalians by the maxillary.

The nostrils are oval openings, looking forwards, outwards, and slightly upwards. Each is about $1\frac{1}{4}$ inch in length and about $\frac{1}{2}$ inch in depth.

The nasal bones are, as in other Therocephalians, remarkable for being broader in front than behind. They are not ancylosed as in Lycosuchus.

The maxillaries are well developed, but so far as displayed do not present any features of special interest.

The frontal region is very distinctly concave, both transversely and antero-posteriorly. In the antero-posterior direction the concavity, though not very deep, extends from the front of the frontal bone to near the parietal foramen.

The lachrymal, prefrontal, and postorbital bones are not sufficiently well preserved to admit of description.

The parietal region is about half the breadth of the frontal region. The parietal foramen is large.

The jugal appears to have been well developed.

The squamosal bone is almost entirely absent, but it must have been a larger bone than in Lycosuchus to accommodate the muscles of the lower jaw.

The occiput is very imperfect and not well displayed. The condyle is large and single, and bears considerable resemblance to that in Dicynodon. The upper part of the occiput (? supra-occipital) slopes slightly forwards.

The palate has only been slightly cleared of matrix, but it is manifest that it agrees pretty closely with that in Scylacosaurus. The pterygoids have large transverse processes which descend almost to the lower margins of the mandibles. Immediately in front of the line of the transverse processes there are situated a number of small, round, pointed teeth. The pterygoids posteriorly after lying side by side for a short distance pass outwards and backwards to meet the quadrates.

The dentition differs from that of any of the Therocephalians in which the full dentition is known. There are on each side five large pointed subequal incisors, each of which has a flattened and

finely serrated posterior border. Behind the fifth incisor is a small pointed tooth which I regard as a sixth incisor. The maxillary teeth comprise a single large canine and apparently five small pointed molars. The canine is somewhat flattened behind and has a finely serrated edge, but so far as preserved the anterior part of the tooth is smooth and rounded. The three anterior molars are fairly well preserved, and in the second and third at least both the anterior and posterior edges have fine serrations. The fourth molar appears to be lost and the fifth is very imperfect.

The mandible has the dentary bone relatively rather more largely developed than in Lycosuchus. A somewhat oblique section of the jaw near the plane of the posterior border of the orbits shows the dentary above resting on the surangular with the angular and what is apparently the splenial below.

The following are the principal measurements of the skull and teeth :—

Length of skull, snout to occipital condyle	315 mm.
Breadth of snout above canines	79
Estimated interorbital width	55
Estimated width in temporal region	145
Length 1st incisor–5th incisor inclusive	48
Height of 2nd incisor	24
Length from 5th i–front of c (upper part)	12
Length of canine	17·6
Length from c–front of m^1	16
Length m^1–m^5 inclusive	45·3
Length of m^2	6·5

Pristerognathus baini, n. sp.

This new species is founded on an imperfect snout of a small Therocephalian. It was obtained many years ago by Mr. T. Bain in the Western Karroo, but the exact locality is unknown. It was recently presented to the South African Museum by Mr. J. M. Bain together with a number of other interesting specimens collected at various times by Mr. T. Bain.

The specimen consists of the snout, broken off in the region of the canine teeth. It does not seem to present any character by which it can be distinguished generically from Pristerognathus of Seeley, but it is a distinct species from *P. polyodon* Seeley. As in that species, so in this, the dental formula is $\frac{i6}{i3}$.

The following are the principal measurements:—

Length from i^1–i^3 inclusive	14·3 mm.
,, ,, i^4–i^6 ,, ...	14·6
,, of i^1	5
,, ,, i^2	5·2
,, ,, i^3	5·7
,, ,, i^4	6
,, ,, i^5	4·2
,, ,, i^6	3·2

REFERENCE TO PLATE.

FIG.

1. Side view of skull of *Glanosuchus macrops*, × ·31.
2. Upper ,, ,, ,, ,, × ·31.
3. Under ,, ,, ,, ,, × ·31.
4. Section of mandible of ,, ,, × ·4.
5. ,, ,, pterygoids of ,, ,, at plane A, fig. 3, × ·31.
6. ,, ,, ,, ,, ,, ,, ,, B, fig. 3, × ·31.
7. Side view of snout of *Pristerognathus baini*, nat. size.
8. Under ,, ,, ,, ,, nat. size.