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Article XXVI.—ON SOME NEW GENERA AND SPECIES OF DICYNODONT REPTILES, WITH NOTES ON A FEW OTHERS.

By R. Broom.

The following new types have all been collected either by the Rev. J. H. Whaits or by myself. Until comparatively recently I have always hesitated about naming species of *Dicynodon* unless the characters were strikingly distinctive. We did not know what variations might be due to age or sex. Further it was impossible in the figures of most of Owen's types to make out a number of the most important sutures. We now know that *Oudenodon* is the female of *Dicynodon*, and we further know that the large majority of small *Dicynodons* are not young specimens, but small species. We do not yet know how far some of the specimens with small molars, such as *Prodicynodon*, *Diœlurodon*, or *Pristerodon*, may possibly be young *Dicynodons*. The probabilities, however, seem to me much in favor of most of these belonging to distinct genera, though one specimen at the British Museum of what seems to be *Dicynodon microtrema* has a number of small molars. This point however only affects one of the species described in the present paper: in none of the others are there any molars.

Eocyclops longus gen. et sp. nov.

This new genus and species is founded on a specimen discovered by the Rev. J. H. Whaits in the Nieuwveld. The skull consists of most of the top, and of the right side, but almost the whole of the left side is lost and most of the occiput. The snout is relatively fairly broad and short, the whole preorbital portion measuring about 120 mm., or only slightly more than $\frac{1}{2}$ of the whole skull. The orbit is large and is entirely in the anterior half of the skull. The frontal region is broad. There are two low elongated nasal bosses above the back of the nostrils and less distinct low bosses above the orbits. The pineal foramen is large and oval. It is entirely surrounded by a very prominent ring of thickened parietal bones, standing out about 10 mm. above the general surface. There is no trace at least to be seen on the surface of a preparietal and in this the type differs so markedly from

Dicynodon that it must be placed in a different genus. The drawing of this region if compared with the drawings of the similar region in the following species will show how markedly different is the structure. The manner

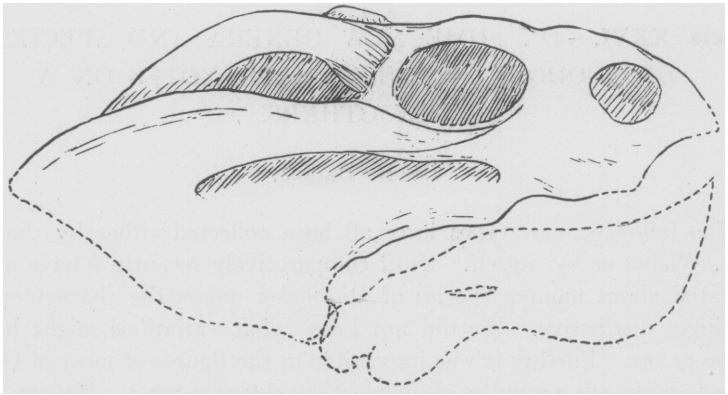

Fig. 1. Side view of skull of *Eocyclops longus*. About $\frac{1}{5}$ nat. size.

in which the postfrontal extends outwards along the postorbital arch is a character found only in very few *Dicynodon* species and never quite to the degree here shown. Behind the pineal the postorbitals approach each other nearly completely covering the parietals. The squamosal is of great length. In front it forms a long wedge shaped process which fits between the jugal and the maxilla, the maxilla passing back below the squamosal to near the back of the orbit. There is no trace of a tusk in the specimen and the caniniform process is feeble and situated nearly under the back of the nostril.

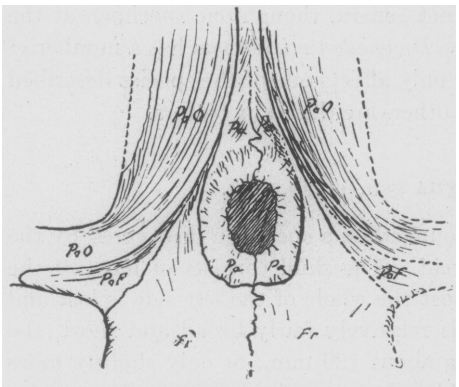

Fig. 2. The pineal foramen and its relations in *Eocyclops longus*. About $\frac{2}{5}$ nat. size.

The specimen agrees so closely with the type of *Oudenodon magnus* that there is I think no doubt both belong to the same genus. In *O. magnus* so far as can be seen in the type there is no prepariental, and the pineal is surrounded by the parietals probably exactly as in this better preserved specimen. It is quite possible that ultimately the bones described by Owen as *Platypodosaurus robustus* will prove to belong to the same genus in which case the genus will have to

take Owen's name. As there is in the meantime no direct evidence it will cause least confusion to place the forms in a new genus.

Both the known specimens are tuskless and from the very feeble nature of the caniniform process I think it not improbable that unlike *Dicynodon* both sexes are tuskless.

The following are the principal measurements of the skull:

Greatest length	440 mm.
Greatest breadth	about 320 "
Interorbital width	100 "
Interotemporal width	48 "

Dicynodon whaitsi sp. nov.

This new species of *Dicynodon* is founded on a large skull discovered by the Rev. J. H. Whaits at Nieuwveld. The skull is somewhat crushed and the occiput is lost and most of the squamosals, but otherwise the specimen is well preserved. The anterior two thirds of both jaws are also present.

In many ways the skull differs from the typical *Dicynodon* and the question has been very seriously debated whether to make it the type of a new genus, but as in all essentials it agrees with *Dicynodon,* I know of no good character by which the new genus could be defined. In size and general proportions it agrees more closely with *D. leoniceps* Owen than with any other described species.

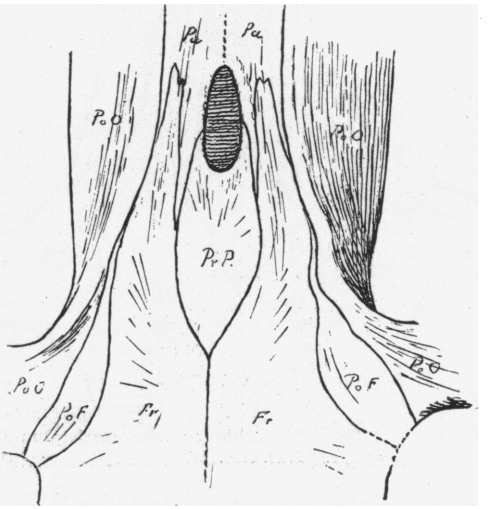

Fig. 3. The relationships of the preparietal in *Dicynodon whaitsi.* × ½.

The snout is narrow and deep and the nostrils large. The orbits are placed near the middle of the head. The postorbital arch is powerful. The parietal region is broad, and the posterior portions of the postorbitals unusually well developed.

The pineal foramen is situated well behind the postorbital arch. Behind and on about ⅔ of each side it is bordered by the parietals. The rest of the foramen is bordered by the large preparietal. The frontals extend back on each side of the preparietal to nearly the plane of the back of the

foramen. The postfrontals are moderately large. The relations of the bones in this region will best be understood by the figure given.

The following are some of the principal measurements:

Front of premaxilla to back of orbit	280 mm.
Greatest length of skull	probably about 530 "
Interorbital width as preserved	89 "
" " if uncrushed	about 100 "
Intertemporal width at back of pineal foramen	85 "
Length of pineal foramen	27 "
Width of pineal foramen	10 "
Width across nasal bosses	72 "

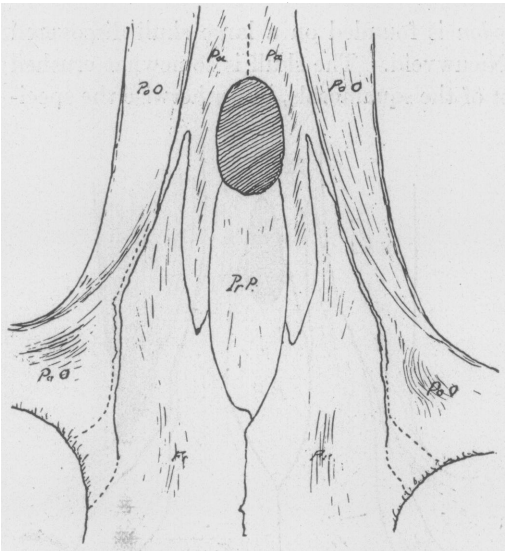

Fig. 4. The relationships of the preparietal in *Dicynodon platyceps*. Nat. size.

The specimen is a female with no trace of tusk showing outside though the caniniform processes are well developed. Inside the bone however, forming a sort of core for the large maxillary ridge, is the remains of a massive tusk. This tusk is not in a tooth cavity but seems almost to form part of the maxilla. The cavity in which the tusk developed has been obliterated by the developing bone and it is quite manifest that the tusk could never become a functional tooth.

Of described species the nearest ally to *D. whaitsi* is probably *D. prognathus* (Ow.), though the affinity is not very close.

Dicynodon platyceps sp. nov.

This new species of *Dicynodon* is founded on a number of skulls, six of which are practically perfect, found by me in the shale of the river bed about three fourths of a mile below New Bethesda, C. C. To avoid any possible confusion the specimen whose pineal region I figure will be regarded as the type.

Though the skull is more flattened than in most species it is considerably longer than broad. The orbits look upwards and outwards. The type specimen is a female but when tusks are present they are relatively feeble, and the caniniform processes in the female are small. The supraorbital margins are elevated causing the frontal region to lie in a hollow. The pineal foramen is large. On three sides it is bounded by the parietals and in front is a large preparietal. The relations of the neighboring bones will be seen in the figure given.

The following are some of the principal measurements:

Snout to end of squamosal	280 mm.
Greatest width	217 "
Basal length	195 "
Interorbital width	43 "
Intertemporal	33 "
Width between tips of caniniform processes	70 "

The affinities of the species are more nearly with Owen's *Dicynodon megalops* than with any other described species. *D. leptorhinus* (Ow.) has a similar large preparietal but a relatively very much larger postfrontal.

I have examined a series of 7 good skulls and a considerable number of imperfect ones varying in length from 90 mm. to 350 mm., and an imperfect one considerably larger, all from the same locality and apparently all the same species. Though there is considerable variation in the size and shape of the preparietal, it is always large and its relations to the frontals, parietals and pineal foramen are constant. In the young skull the postfrontals are much more distinct by being less covered up by the postorbitals. The size of the pineal varies but slightly.

Dicynodon feliceps *Owen.*

This species was founded by Owen on a single skull in the British Museum. Lydekker in his Catalogue of Fossil Reptiles and Amphibia in the British Museum (1890) refers a number of other specimens to the same species. Some of these latter specimens I have not examined, but the large skull No. 47056 is in my opinion quite distinct.

At Kuilsport I obtained 3 or 4 skulls which agree so closely with Owen's *D. feliceps* as to leave no doubt in my mind that they are the same species. They further agree so closely in size as to render it practically certain that the type is a full grown specimen. From Beaufort West Commonage I have also a further series of specimens which though from perhaps 300 feet lower level also appear to belong to the same species.

In the female there is a rudimentary tusk which probably in old speci-

mens projects a short way from the bone. One specimen probably female has a small tusk, another has the tusk in the bone almost exactly as in the specimen of *Dicynodon dubius* figured by Owen.

Dicynodon ictidops sp. nov.

This new genus is founded on the best of a number of small *Dicynodon* skulls from Beaufort West Commonage found by Mr. Whaits. Four skulls

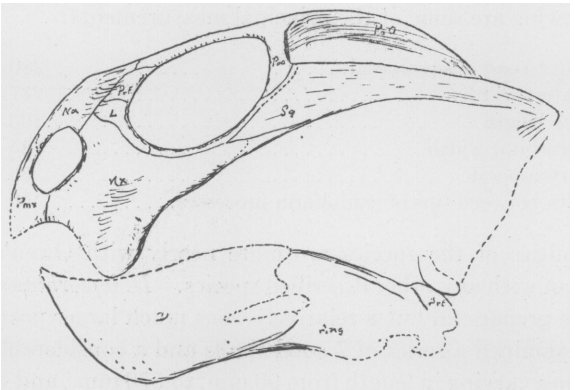

Fig. 5. Side view of skull of *Dicynodon ictidops.* Nat. size.

agree sufficiently closely to leave little doubt they are the same species, and all are of about uniform size and unusually small.

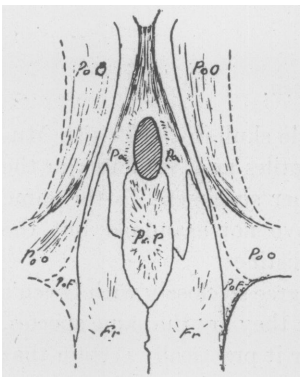

Fig. 6. Preparietal region in *Dicynodon ictidops.* About $\frac{3}{4}$ nat. size.

The best preserved specimen which I take as the type is a young female. There is no trace of tusks to be seen, but in another specimen which is also probably female there is a small tusk which perhaps shows through the margin of the bone. The type and all the other specimens are narrow skulls in which the orbits look more outwards than upwards and also to some degree forwards. The nostrils are large and rounded, and the septomaxillary if present does not show on the facial surface. The tusk of the male passes almost directly downwards and is relatively small. The zygomatic arch immediately below the base of the postorbital arch is very deep. The relationships of the bones around the preparietal are shown in the figure given.

The following are the principal measurements of the skull:

Snout to end of squamosal	75 mm.
Greatest width	about 50 "
Basal length	63 "
Interorbital width	11 "
Intertemporal width	12 "
Width between tips of caniniform processes	about 23 "

Dicynodon moschops sp. nov.

This new species is founded on a skull discovered by me near Oudeberg, in the Graaff Reinet district. The type is now in the Am. Mus. Coll. No. 5325. It is from a spot a few miles from the farm Poortje where lies the

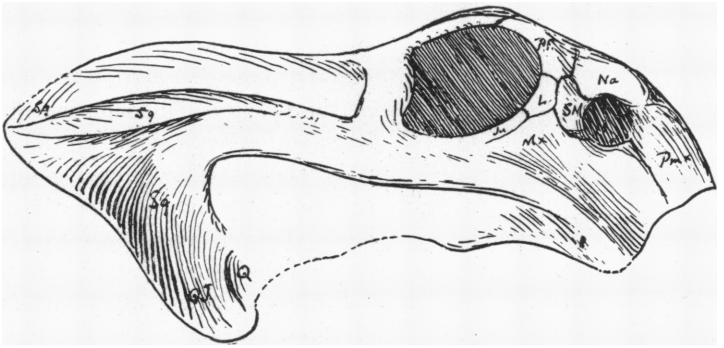

Fig. 7. Side view of skull of *Dicynodon moschops*. $\frac{3}{4}$ nat. size.

badly weathered cast of the skeleton of a *Dicynodon* a portion of which was figured by Owen (S. Af. Fossil Rept., plate lii) and correctly described by him as remains of a "young or small dicynodont reptile," and later refigured and described by Seeley under the name *Eurycarpus Oweni* and believed to be probably a Pareiasaurian. The reason for referring to this old specimen is that it is not improbable that the skull I am now describing is the skull of the same species as the Poortje specimen. Though Owen and Seeley had only the casts of a series of badly weathered vertebrae and portions of limbs and a rough drawing made by Mr. T. Bain I have had an opportunity of examining the actual specimen in the rock. The skull is only represented by the impression of the lower borders of the two jaws and by the points of the tusks. It is quite certainly a species of *Dicynodon* but it will never be possible to say with certainty to what species it belongs. The fact that the skull I am describing from Oudeberg is from near the same horizon and similar in size renders it possible that it may be the same species.

The skull on which I make this new species is nearly perfect but lacks the lower jaw, and part of the left squamosal is lost. There is only a very slight degree of crushing and most of the sutures can be satisfactorily made out. The specimen is a female. There are quite a large number of characters in which it differs from all other known species.

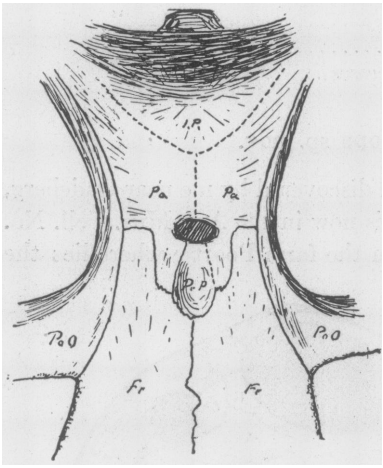

Fig. 8. The pineal foramen and its relations in *Dicynodon moschops*. About $\frac{1}{2}$ nat. size.

The whole skull is robustly built. The snout is broad and bent down markedly. The chief bending takes place near the front of the frontal bone somewhat after the manner seen in *Lystrosaurus* but to a very much less degree. The nostrils are relatively small, and roofed over by a very marked somewhat flattened projection of the nasals. The septomaxillary is large and appearing on the face joins with the lacrymal, and completely separates the nasal from the maxillary. The distance from the nostril to the orbit is about the same as the diameter of the nostril. The prefrontal forms a marked supraorbital ridge. The frontals are broad, and the interorbital portion is somewhat convex. The postfrontals are almost entirely hidden between the frontals and postorbitals. The preparietal is small. The pineal foramen is unusually small and remarkable in being broader than long. The parietal region is broad and the interparietal very large and forming a considerable part of the upper surface of the skull.

The following are the principal measurements of the skull:

Snout to end of squamosal	230 mm.
Greatest width	225 "
Basal length	182 "
Interorbital width	60 "
Intertemporal width	45 "
Width between tips of caniniform processes	70 "

Dicynodon tylorhinus sp. nov.

The skull which forms the type of this new species is, with the exception perhaps of *Dicynodon strigiceps* Owen, the most strikingly peculiarly shaped

skull of a *Dicynodon* known. The skull was found by me on the farm Wilgebosch near New Bethesda C. C. It lacks a small part of the parietal region and most of both zygomatic arches and it is a little crushed. The snout is very broad and the whole preorbital portion extremely short. The beak is also very short and the nostrils small. Above the nostrils the nasals are

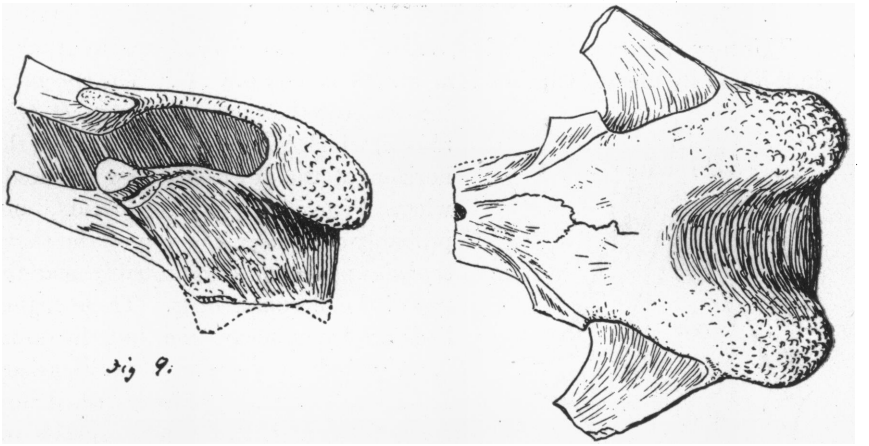

Fig. 9. Side view of snout of *Dicynodon tylorhinus*. ½ nat. size.
Fig. 10. Upper view of snout of *Dicynodon tylorhinus*. ½ nat. size.

developed into two prominent knobs that almost took like rudimentary horns. When the skull is viewed from above the nasal knobs completely hide not only the nostrils but all the front of the beak, and as will be seen in the figure of the side view of the skull they pass forward well in front of the premaxillary. The beak is broad and rounded and unusually short. The frontal region is moderately flat and rather broad. The preparietal is large, and the postfrontals if present are completely hidden by the frontals and postorbitals. The postorbitals apparently nearly meet behind the pineal foramen. The loss of the contact between the occiput and the front half of the skull causes a little doubt as to the exact length but there is no doubt the portion of the skull behind the postorbital arch is considerably longer than the part in front.

The following are the principal measurements:

Snout to end of squamosal	probably about	190 mm.
Greatest width	probably about	190 "
Basal length	probably about	155 "
Interorbital width		45 "
Intertemporal width	about	20 "
Width between tips of caniniform processes	about	20 "

The drawings are from the specimen in its crushed condition. The view of the upper surface would require very little modification to represent the uncrushed condition but the side view gives rather a misleading idea. The orbit was probably nearly round and the nostril fairly large.

Dicynodon lissops sp. nov.

This new species is founded on a nearly complete but somewhat crushed skull found by me at Wilgebosch near New Bethesda C. C. The specimen is from near the same horizon as *D. tylorhinus*, which is about 900 feet above the horizon of the township New Bethesda where *Dicynodon platyceps* occurs, and probably very near the top of the *Cistecephalus* zone, and also probably near the top of the Permian beds. These higher beds are by no means rich but the fauna is an entirely new one. So far there are known two new as yet undescribed *Gorgonopsians* and three new species of *Dicynodon*. Isolated bones represent one or two other forms.

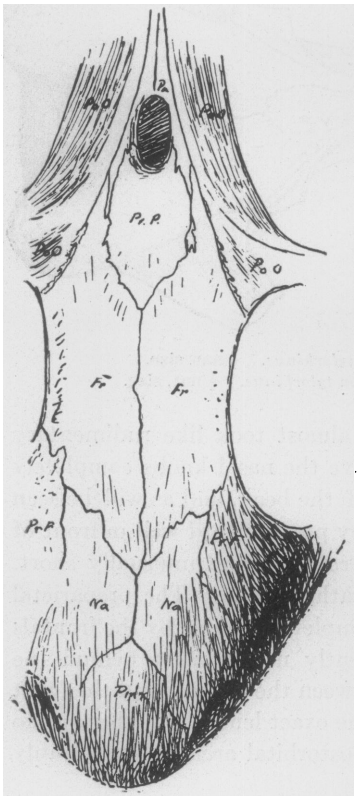

Fig. 11. Top of part of skull of *Dicynodon lissops*. Nat. size.

In general size and appearance this new species is not unlike *D. lacerticeps* Owen, but it differs in having the eye much further forward, the part of the skull behind the postorbital arch being about equal in length to the part in front, and also in a number of other details.

The nostril is fairly large and rounded and situated well forward. There is a well developed septomaxillary which however only shows to a slight extent on the face. There is scarcely any of the thickening so commonly seen on the nasals above the nostrils, the whole snout being rounded and smooth. The tusks are well developed and pass downwards and forwards in about the same direction as in *D. lacerticeps*. The orbit is relatively much smaller than in *D. lacerticeps*. The frontals pass forward to within 10 mm. of the internasal process of the premaxilla. The arrangement of the bones in the prefrontal

region is unusual and I include this in the figure. The preparietal is large and the space left between it and the postorbital for the frontal, parietal and postfrontal is very narrow. In the temporal region the postorbitals are very long and approach each other closely only leaving a narrow part of the parietals between.

The following are the principal measurements:

Snout to end of squamosal	about 160	mm.
Width owing to crushing very uncertain	probably about 110	"
Basal length	about 133	"
Interorbital width	23	"
Intertemporal width	13	"
Width between bases of tusks	about 35	"

Dicynodon leontops sp. nov.

This new species of *Dicynodon* is founded on a specimen of the large *Dicynodon* that occurs at Bethulie, O. F. S. The hills on the south side of the Orange River opposite Bethulie have yielded specimens of *Lystrosaurus* and probably also the hills in the immediate neighborhood, as a specimen I have is said to have come from there, but the shales on which Bethulie itself stands have yielded no remains of *Lystrosaurus* but in them I obtained a good skull of a large *Dicynodon*, portions of two other still larger skulls and numerous limb bones and vertebrae. Probably all these large forms belong to one species. The type specimen on which I formed the species was found by me in the river bed about a mile below the township. It consists of the complete skull with the arches crushed, but with both tusks preserved, with the complete lower jaws and with the first dozen vertebrae in series.

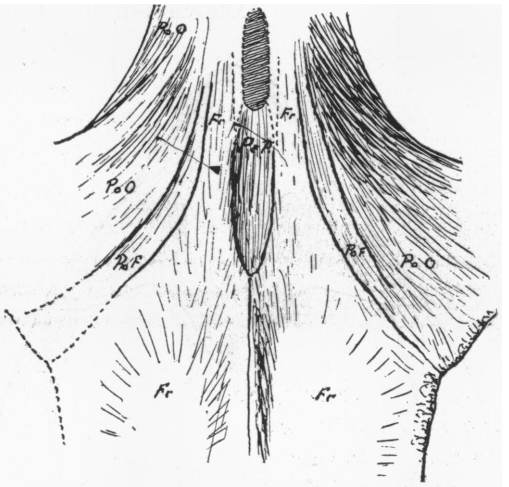

Fig. 12. Preparietal region in *Dicynodon leontops*. × $\frac{4}{5}$.

In general proportions the skull resembles *D. leoniceps* and *D. pardiceps* two species which are very closely allied though probably distinct. The frontal region is relatively narrower in the Bethulie type and the temporal

region much narrower than in these two species from lower horizons, and the arrangement of bones round the pineal differs considerably. The preparietal is small and narrow whereas in *D. leoniceps* and *D. pardiceps* it is large and broad, and the backward extension of the almost parallel processes of the frontals is very unlike the condition seen in either of those other species.

The following are the principal skull measurements:

Snout to end of squamosal	about 380 mm.
Interorbital width	60 "
Intertemporal width	21 "
Width between tusks, estimated from mandible	50 "

In the very large size of its limb bones *D. leontops* resembles *Kannemeyeria simocephalus,* but in the former the limbs are relatively larger. This Bethulie type is probably contemporaneous with *D. lissops* and *D. tylorhinus.* The horizons must be nearly the same, and some limb bones from Wilgebosch indicate a large *Dicynodon.*

Dicynodon planus sp. nov.

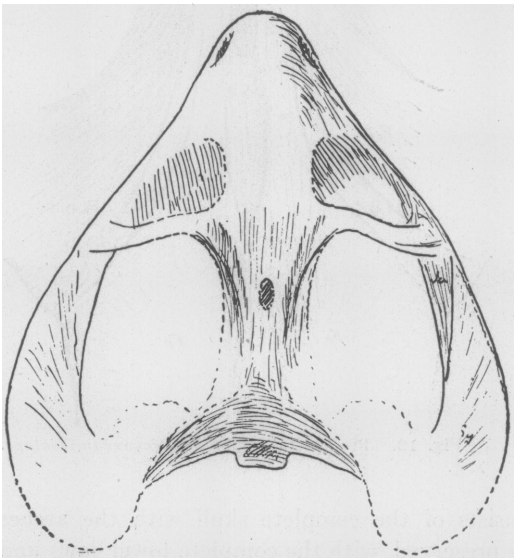

Fig. 13. Skull of *Dicynodon planus.* × about $\frac{2}{7}$.

This new species is founded on a medium sized skull found by me at Kuils Poort about 200 ft. below the nek. A second specimen was found at the nek which though less than half the size of the type skull seems to belong to the same species. In this second specimen though the skull is imperfect almost the whole skeleton is present in good condition.

The skull is about as broad as long. The orbits are large and look mainly upwards. The snout is longer and narrower than in most species and the nostrils which are relatively small are directed mainly outward. The temporal region is broad but the exact

width cannot be definitely stated as both margins of the postorbitals are imperfect. The preparietal is large and has on either side a large anterior process of the parietal. The postfrontals are unusually well developed.

The specimen is a female.

The following are the principal measurements of the type:

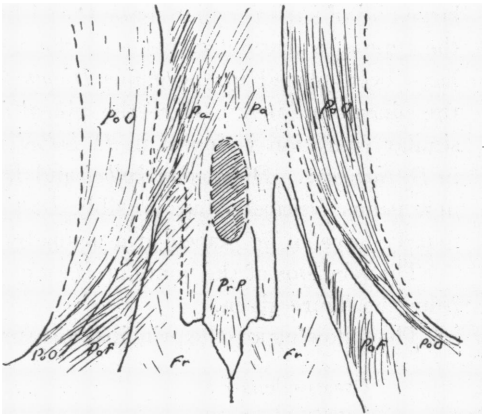

Fig. 14. Preparietal region in *Dicynodon planus*. Nat. size.

Greatest length — snout to squamosal	about 300 mm.
Greatest breadth	255 "
Interorbital	probably about 42 "
Intertemporal	probably about 38 "
Width between tip of caniniform processes, about	52 "

Diictodon galeops gen. et sp. nov.

This new genus and species is founded on a small skull discovered by me near Slachter's Nek, C. C. The skull is almost perfect but has lost the lower jaw. In general appearance it is not unlike *Dicynodon ictidops* or a young specimen of *Dicynodon feliceps*, but differs very strikingly from either of these forms.

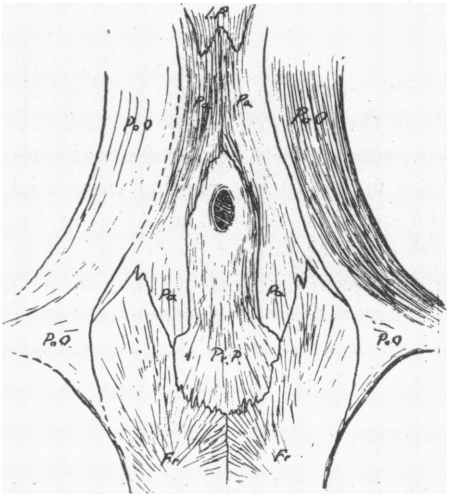

Fig. 15. The preparietal and its relations in *Diictodon galeops*. × 2.

The orbits are large and look more outwards than upwards, and the general proportions of the beak and nostril are similar to those of *D. ictidops*. There is no trace of septomaxillary showing on the face. The tusk is very slender and directed mainly downwards. The prefrontals are small. The preparietal is

large and of such peculiar shape that I have decided to make the specimen the type of a distinct genus. In the very large majority of species that have been placed in the genus *Dicynodon* the preparietal lies in front of the pineal foramen. Here the pineal is entirely in the preparietal. A similar condition is found in *D. kolbei* and *D. alticeps* and probably also in *D. tigriceps*. *Dicynodon kolbei* and *D. alticeps* I shall thus place in this new genus *Diictodon* but possibly *D. tigriceps* for other reasons will ultimately have to be placed in a genus by itself.

The relations of the bones on the top of the skull will best be understood from the figure given.

The following are the principal measurements of the skull:

Greatest length	98 mm.
Greatest breadth	about 60 "
Interorbital width	12 "
Intertemporal	14 "
Width between tusks at base	22 "

The geological horizon of the specimens is a little in doubt as very few fossils have been got in the same neighborhood, and it is thus difficult to correlate the beds with the better known ones of the Western Karroo. Most probably they are of the Upper *Endothiodon* zone.

Emydops minor *Broom.*

This species was recently described by me from a specimen I found at Kuilspoort in the Beaufort West district. The skull is very small and somewhat imperfect and much in the way of development is impossible. When the specimen was described I was unable to give any very striking characters on which to separate it from the genus *Dicynodon* but the great width of the parietal region seemed to suggest that it belonged to a different genus. The type is tuskless but I was unable to say whether there might be molars. I have since broken the specimen through and find at least two small pointed molars. One tooth of which part of the crown is shown shows that there are no posterior serrations as in *Pristerodon*. The discovery of small molars is further evidence in favor of the distinctness of the new genus *Emydops*. The restoration given of the bones of the pineal region shows the relationships of the various elements.

Emydops arctatus (*Owen*).

The specimen described by Owen as *Kistecephalus arctatus* quite certainly is not a species of *Kistecephalus* and there seems much reason to believe that

it belongs to the same genus as *Emydops minor*. I have recently examined the type, and the drawing I give is my interpretation of the bones of the

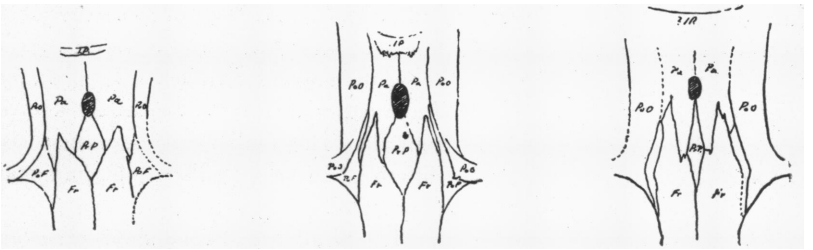

Fig. 16. Fronto-parietal region in *Emydops minor* Broom. $\frac{6}{5}$ nat. size.
Fig. 17. " " " " *Emydops longiceps* n. sp. Nat. size.
Fig. 18. " " " " *Emydops arctatus* (Owen). " "

frontal and parietal regions. The postorbitals are very large and make the parietal region unusually broad. The postfrontals are narrow, and the preparietal unusually small and narrow.

It is impossible to see in the type whether molars are present or not.

Emydops longiceps sp. nov.

This new species is founded on a number of skulls obtained by Mr. Whaits at Beaufort West. Some are tusked others tuskless, but all have a few small molars. The best specimen which I take as the type is a female with no trace of tusks.

The skull is long and narrow, and rather flat. The orbits are placed well forward and look upwards and outwards. The septomaxilla is moderate sized and appears on the face. The prefrontal is small. The frontal is very long and narrow. The postfrontal is very narrow posteriorly but in front broadens out to form a fair portion of the orbital margin. The preparietal is large. The parietals are moderately broad. The arrangement of the bones is best understood from the drawing given.

The following are the principal measurements of the skull:

Greatest length	about 78 mm.
Greatest breadth	about 60 "
Interorbital width	10 "
Intertemporal width	16 "
Width between caniniform processes	14 "

Emydorhynchus palustris gen. et sp. nov.

Of this new Anomodont I discovered at New Bethesda one good and three other fairly good skulls, and considerable portions of two other skeletons. The specimens agree so closely in size that we may safely assume they are mature animals. It is a small Anomodont allied to *Dicynodon* and essentially Dicynodont in structure, but differing in a number of important characters.

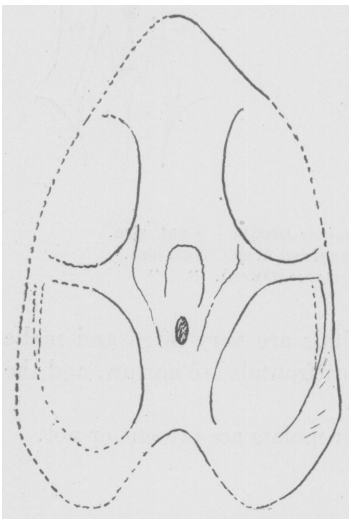

Fig. 19. Outline of the skull of *Emydorhynchus palustris.* Nat. size.

The skull has a very short preorbital portion, and no trace of tusks. As there are no tusks in any of the five known skulls we may assume that the species is tuskless like *Cistecephalus.* There does not appear to be a septomaxillary. If one is present it is very small and does not show on the face. The preparietal is large. I fail to detect a postfrontal. If there is one it must be very small. The postorbital on the other hand is unusually large and in shape differs from anything known in the Anomodonts. In front it is so broad as to roof over a part of the temporal fossa, but behind it rapidly narrows. The arches are slender and the squamosal unusually feeble. The figure given shows the relations of the bones of the top of the skull.

The following are the principal measurements:

From snout to back of squamosal	63 mm.
Greatest breadth	40 "
Interorbital width	10 "
Intertemporal	8 "

The shoulder girdle and limb bones are imperfectly ossified, the articular ends of all the long bones having been entirely cartilaginous.

Pristerodon mackayi *Huxley.*

In 1868 Huxley described very briefly under the above name a fairly good skull of a small Anomodont from East London. It is rather remarkable that he should have regarded the skull as that of a lizard as apart from the presence of teeth which in their mode of implantation in the jaw differ from

those of lizards there is not a single character of importance in which the skull differs from the skulls of *Dicynodon* described by Owen many years previously.

In 1876 Owen briefly described a skull from the same East London locality under the name *Oudenodon raniceps*. On examining this type of Owen's I discovered teeth exactly like those of *Pristerodon* and the general agreement of the skull is so close as to leave little doubt that *Oudenodon raniceps* is a synonym of *Pristerodon mackayi*.

In 1898 Seeley described a small skull from the same locality as *Oudenodon* (*Aulacocephalus*) *pithecops*. The skull agrees so closely when allowance is made for crushing with *Pristerodon mackayi* as to leave in my mind little doubt that this is another specimen of the same species.

One species has been described by me under the name *Opisthoctenodon agilis* which probably belongs to the genus *Pristerodon* though it is a very distinct species and from a much higher level. Another species which I described as *Opisthoctenodon brachyops* may prove to belong to the genus *Emydops*. Until the crowns of the teeth are known it will be impossible to decide.

A small skull from Victoria West though not showing the molars very satisfactorily is in my opinion *Pristerodon mackayi*. This determination is important as helping to settle the age of the Dromasaurian *Galechirus scholtzi* which also comes from Victoria West and from the same horizon as the *Pristerodon* specimen. Victoria West is far removed from any other localities that have yielded fossils and those got there have been so unlike any known from elsewhere that it was difficult to fix the age. At first I thought the forms might represent the unknown land forms of the *Lystrosaurus* zone, but Dr. A. L. duToit afterwards making a geological tour to Victoria West from the North thought it probable that the Victoria West beds belong to the *Pareiasaurus* zone, and any opinion of this sort expressed by duToit carries such weight that it may be accepted at least provisionally as probably correct. This discovery of *Pristerodon* confirms duToit's opinion. In the East London beds has been discovered a jaw named by me *Lycosuchus mackayi*. Now *Lycosuchus* is a typical genus of the *Pareiasaurus* zone and known from no other so that we may conclude *Pristerodon mackayi* is a species of the same zone, and hence that *Galechirus scholtzi* is a contemporary of *Pareiasaurus*. One other Dromasaurian *Galeops whaitsi* we know to be of this age, but the age of *Galepus jouberti* is still unknown as the locality where it was found is far from any other that has yielded fossils and no other form is known from the same locality.