bone, but are fixed in the back of the fused premaxillaries as shown in Fig. 1.

This new type of Anomodont I propose to name *Eumantellia mirus*, after Gideon A. Mantell, one of the greatest of our early palæontologists, and chiefly remembered by his discovery of *Iguanodon*.

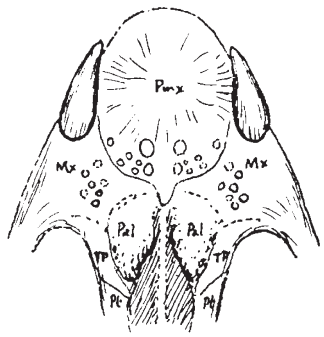

FIG. 1. Palate of *Eumantellia mirus*, g. et sp. nov. Natural size.

Though *Eumantellia* is too late in time to have been the ancestor of the Dicynodonts and the Endothiodonts, it must be morphologically very near to the common ancestor. The loss of the premaxillary teeth would result in a primitive Endothiodont such as *Prodicynodon*, and the further loss of the molars would result in a primitive Dicynodont. Possibly we may yet discover an earlier type with an unspecialised premaxillary, and incisor teeth in front.

It is manifest that *Eumantellia* must be placed in the Anomodontia, but it seems necessary to make it the type of a new family Eumantellidæ.

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Retinoscopy of *Loris*

IN connexion with a study on the affinities of the lorisiform Primates, I have had the opportunity, through the kindness of Prof. F. O'B. Ellison, of the Physiology Department of this College, of examining the retina of the living Slender loris with the aid of a Gullstrand large simplified ophthalmoscope.

An adult female animal was placed under very slight ether anæsthesia, sufficient to enable the head to be manipulated freely into the desired position. Two drops of 1 in 10,000 atropin solution were placed in one eye. This dilated the pupil fully in a few minutes, the other pupil remaining contracted in its normal slit-like condition. The instrument was easily focused on the retina and the animal did not move the eyeball about unduly during the examination.

The retina gave a very brilliant reddish golden reflex with minute scintillating spots due to the presence of a tapetal layer. This masked the detail somewhat, but was overcome by the use of a green filter. The optic disc consisted of a very darkly pigmented central area, surrounded by a paler ring and then by a marginal zone of lighter pigment. From the disc emanated six large vessels and some smaller delicate ones. There were three temporal vessels, upper, middle and lower, and likewise three on the nasal side. A fair-sized vessel corresponding in position to a macular artery arose from the disc between the middle and lower temporal vessels. This artery passed transversely outwards and divided into two branches, the upper of which crossed over a branch of the middle temporal vessel and then returned again. No spot where the retina was differentiated to form a macula could be seen. This does not preclude the possibility, however, that on microscopic examination of sections a primordium maculæ such as has been described by Woollard[1] in *Tarsius* may not be found.

There are in the peripheral parts of the retina of *Loris* a number of small transversely running vessels. One of these at least appeared to be an anastomotic channel between the lower temporal and the lower nasal vessels. The central artery of the retina in *Loris* therefore is not an end-artery in the anatomical sense.

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[1] Woollard, H. H., "The Retina of Primates", *Proc. Zoo. Soc.*, 1927.

Cystine and Protein Relationship of Grasses

AN interesting relationship between the cystine content and the protein content of grasses collected through different periods of the year has been established. A coefficient of correlation of + 0·923 for 10 pairs, indicating an almost perfect relationship between the protein content and the cystine content of the grasses throughout the year, is demonstrated. The accompanying curves (Fig. 1) show a marked fall in both the protein and cystine contents of the grasses through the winter months, with a corresponding rise of both during the commencement of the rainy season during September and October. As would be expected, the rainfall curve shows a fair correlation between protein and cystine contents.

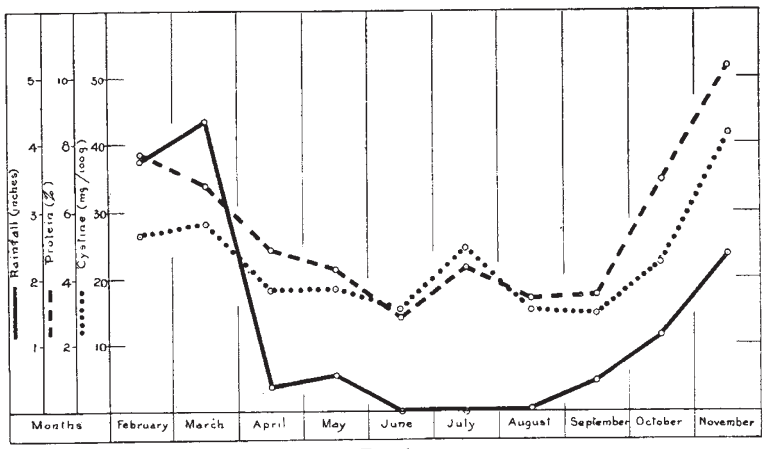

FIG. 1.

The grasses were collected at random during ten successive months from the University of Pretoria farm in 1932. The protein analyses were carried out by Mr. F. N. Bonsma at the University of Pretoria and the cystine analyses were undertaken at this