

- V. "Researches on the Structure, Organisation, and Classification of the Fossil Reptilia. IV. On a Large Humerus from the East Brak River, South Africa, indicating a New Order of Fossil Animals which was more nearly intermediate between Reptiles and Mammals than the Groups hitherto known." By H. G. SEELEY, F.R.S. Received April 5, 1888.

(Abstract.)

The late Mr. A. G. Bain sent to the British Museum a bone, No. 36,250, which the author regards as a right humerus. It is 32 cm. long. The crests at its proximal end are compared with those in the corresponding bone of *Saurischia*, *Ornithosaurs*, and *Anomodonts*; and they show a strong general resemblance to the crests seen in *Monotremes*, though their direction may be more reptilian. The distal end of the bone is entirely mammalian in plan. Its resemblances are about equally strong to *Edentata* and *Monotremata*, and there are evidences of more distant relationship with *Insectivora*, with certain *Marsupials*, seals, and other *Carnivora*. On the whole the evidence is insufficient to refer the fossil to the *Monotremata*. It is named *Propappus omocratus*. The author proposes to associate with it *Stereorachis* of Professor Gaudry, in an order named *Gennetotheria*. While the humerus of *Stereorachis* only differs from *Monotremes* in generic characters, and conforms in plan to the monotreme rather than the edentate type, the shoulder-girdle is intermediate between *Echidna* and the *Anomodont Keirognathus*, and the dentition resembles that of reptiles like *Lycosaurus* and other *Theriodonts*.

- VI. "Researches on the Structure, Organisation, and Classification of the Fossil Reptilia. V. On Associated Bones of a Small *Anomodont Reptile (Keirognathus cordylus, Seeley)*, showing the Relative Dimensions of the Anterior Parts of the Skeleton, and Structure of the Fore-limb and Shoulder-girdle." By H. G. SEELEY, F.R.S. Received April 5, 1888.

(Abstract.)

This specimen was collected by Mr. Thomas Bain at Klip Fontein, Fraser's Berg, and registered in the British Museum as 49,413.

The head is described in detail, and except in the very small size of the teeth, shows no difference of importance from the skulls attributed to *Dicynodon*.