

January 10, 1867.

Lieut.-General SABINE, President, in the Chair.

The following communication was read:—

“On the Appendicular Skeleton of the Primates.” By ST. GEORGE MIVART, F.Z.S., Lecturer on Comparative Anatomy at St. Mary’s Hospital. Communicated by Prof. HUXLEY. Received November 22, 1866.

(Abstract.)

The author began by mentioning the principal variations found in the order Primates, as to the absolute and relative length of the pectoral limb with and without the manus; and then taking each bone separately, described the modifications undergone by each in all the genera of the order*; as also the relative size of the segments and bones of the limb compared to each other and to the spine. The pelvic limb was then similarly treated of, and, in addition, its segments and bones were compared with the homotypal segments and bones of the pectoral limb.

The author after this reconsidered the question as to the use of the terms “hand” and “foot,” and the applicability of the term “Quadrumanous” to Apes and Lemuroids.

He controverted the position lately assumed by Dr. Lucae†, that both anatomically and physiologically the pes of apes is more like the human hand than the human foot. At the same time he recommended the use of unambiguous homological terms, such as “manus” and “pes” (already adopted by some) instead of “hand” and “foot,” in all treatises on comparative anatomy.

Tables of the dimensions and proportions of the limbs, their segments, and bones were then given, exhibiting the variations presented in these respects throughout the whole series of genera.

The author then considered the more peculiar forms of the order, beginning with Man.

The principal resemblances and differences in form, size, and proportion between the human appendicular skeleton and that of other primates were given in detail, followed by a list of those points in which man differs, as to the bony structure of his limbs, from all other primates.

The limb-skeletons of the Orang, Marmoset, Indri, Slender Lemur, Tarsier, and Aye-aye were then similarly reviewed, and lists given of the absolute peculiarities found in each.

The conclusion arrived at from these comparisons was, that Man differs less from the higher Apes than do certain primates below him from each

* Except certain Lemuroids, of which no specimens exist in this country.

† Abhandlungen von der Senckenbergischen Naturforschenden Gesellschaft. Frankfurt, 1865, vol. v. p. 275.

other; and that he, *thus judged*, evidently takes his place amongst the members of the suborder *Anthropoidea*.

A list of the principal osteological variations presented by the several groups and genera of the order, before unmentioned, was then given; and the author concluded by stating what he believed to be the degrees of affinity existing between the various forms, as far as could be ascertained from the consideration of the appendicular skeleton exclusively.

January 17, 1867.

WILLIAM SPOTTISWOODE, Esq., Vice-President, in the Chair.

The following communications were read:—

- I. “Actinometrical Observations among the Alps, with the Description of a new Actinometer.” By the REV. GEORGE C. HODGKINSON. In a Letter to Professor STOKES, Sec. R.S. Communicated by Professor STOKES. Received December 2, 1866.

SIR,—I have the honour to forward you an account of some actinometrical observations made last summer on the summit of Mont Blanc and at Chamonix, and at the same time to thank the Committee of the Royal Society for the grant which they were so good as to vote me for that object.

I reached Chamonix on the 7th of July, in bad weather, which had been prevailing for some time, but which ushered in a fine week very opportunely for my work. After allowing a few days for the weather to settle and for the snow to consolidate, I left Chamonix in the afternoon of Friday the 13th for the Grands Mulets, having previously arranged for a corresponding series of observations being taken the next morning in the valley. Leaving the Grands Mulets at about 2½ A.M. on the 14th, I reached the summit of Mont Blanc about 8 A.M., and proceeded at once to work.

I had brought with me from England two of Newman's mountain-barometers, a thermobarometer of Casella, six small thermometers graduated on the stem (three for the dry-, and three for the wet-bulb observations), three of the tubes described in Appendix (A), with two of the actinometers in each. I carried besides an aneroid by Cooke, which proved to be of excellent quality. The third set of apparatus was taken in some faint hope that I might be able to arrange for a third set of simultaneous readings at the Grands Mulets. In this I was disappointed. Notwithstanding the greatest care had been taken, one of the barometers was found on the Brevent on the 9th to be deranged, and one of the actinometers to be broken; and on the 12th a second actinometer was broken at Chamonix by an accident. I thought it best to leave the remaining barometer for the valley observations, and to depend upon the thermobarometer, as being more portable and less liable to fracture, for the readings on the summit. I was eventually obliged to rest satisfied with a single observation of this; and the downward range of the small thermometer unfortunately proved too