

I. THE CLASSIFICATION OF ANIMALS BASED ON THE PRINCIPLE OF CEPHALIZATION.—No. III. CLASSIFICATION OF HERBIVORES.

II. NOTE ON THE POSITION OF AMPHIBIANS AMONG THE CLASSES OF VERTEBRATES.

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ART. I.—*The Classification of Animals based on the principle of Cephalization.*—No. III. *Classification of Herbivores.*¹

THE principle of cephalization and its applications rest on the following simple facts:

(1.) An animal is embodied or concentrated force, which force manifests polarity in the results of its action in development, that is, in the oppositeness of the anterior and posterior extremities of the structures evolved and also in the dorso-ventral relations of these structures.

(2.) The *primary* potential centre is in the head, or more precisely, in the cephalic nervous mass—an animal being fundamentally a cephalized organism. But, besides this, there may be one or more *secondary* centres.

(3.) Species differ (*a*) in the amount of force concentrated; (*b*) in the degree of control of the systemic force over vegetative growth and development; (*c*) in the distribution of the force along the principal (or fore-and-aft) axis—that is, in its being concentrated mainly anteriorly, or diffused, to a greater or less degree, from the cephalic extremity posteriorly toward the caudal extremity or pole.

(4.) The differences just mentioned are expressed in the structure of the organism; and all such expressions are necessarily expressions of grade.

(5.) Each of these kinds of differences must have expression, or, be apparent, (*a*) through the various circumstances attending

¹ For Article I, see the last volume of this Journal (vol. xxxvi), pp. 315, 440; and for Article II, this volume, p. 10.