

	<i>Descending.</i>	<i>Ascending.</i>
A. Size of Life-system, -	1. Potential.	1. Potential.
B. Functional, - - - -	2. Retroferent.	2. Preferent.
" - - - -	3. Pervertive.	3. } Perfunctionative.
" - - - -	4. Defunctionative.	4. }
C. Incremental, - - - -	5. Amplificative.	5. Concentrative.
" - - - -	6. Multiplicative.	6. Limitative.
D. Structural, - - - -	7. Analytic.	7. Synthetic.
" - - - -	8. Simplificative.	8. Differentiative.
" - - - -	9. Elliptic.	9. Completive.
" - - - -	10. Phytozoic.	10. Holozoic.
E. Postural, - - - -	11. Postural.	11. Postural.
F. Embryological, - - -	12. Prematurative.	12. Permaturative.

The remaining terms fall into both columns.

With *ascending* grade, the changes are mostly *concentrative*; with *descending*, they are *diffusive* or *decentrative*.

2. Additional Observations.

1. *Typical, Degradational and Hemitypic forms.*—Typical species are those within type-limits, and *degradational* those outside of the same.⁴ But, as groups of all grades have each their own type and type-limits, species may be typical in one relation, and degradational in another; as Fishes, for example, while degradational Vertebrates, have still their own type and type-limits, the Teliosts being the typical Fishes, or those within these limits.

The characteristics of a type, in any case, are those fundamentally distinctive of the group. As to that of the animal kingdom at large,—we observe that an animal is (1) a fore-and-aft, (2) cephalized, (3) forward-moving organism. The type-idea is hence expressed in a structure having (1) fore-and-aft and dorso-ventral polarity; (2) a head at the forward extremity containing the seats or organs of the senses, as well as the mouth and mouth organs; and (3) the power of locomotion, if not also limbs for the purpose. Consequently Radiates, as they fail in the first criterion, are not within type-limits; neither are any *attached* species of animal, and only in a partial degree species without limbs for locomotion.

Again, the Vertebrate-type, in addition to having the characteristics of the animal type and the vertebrate structure, is essentially terrestrial, and, therefore, the requisite limbs and structure for terrestrial life are in the type-idea. Fishes are therefore outside of type-limits, or are degradational species.

The Mammal-type, the highest under Vertebrates, in addition to the characteristics of the Vertebrate type, has that of being viviparous in its births, embracing under this quality, that of sustaining the embryo by placental nutrition until its maturity

⁴ The term *degradational* has no reference to any method of origin by degradation: it implies only that the forms so called represent or correspond to a degraded condition of the type.