

## SYSTEMATIC SURVEY

*Of the 4 Main-classes, 9 Classes, and 26 Sub-classes of Vertebrata.*

Gen. Morph. vol. ii. Plate VII. pp. 116-160.

I. Skull-less (*Acrania*), or Tube-hearted (*Leptocardia*).

Vertebrata without head, without skull and brain, without centralized heart.

|                                 |                                       |               |              |
|---------------------------------|---------------------------------------|---------------|--------------|
| 1. Skull-less<br><i>Acrania</i> | I. Tube-hearted<br><i>Leptocardia</i> | { 1. Lancelet | 1. Amphioxus |
|---------------------------------|---------------------------------------|---------------|--------------|

II. Animals with skulls (*Craniota*) and with thick-walled hearts (*Pachycardia*).

Vertebrata with head, with skull and brain, with centralized heart.

| <i>Main-classes<br/>of the Skulled<br/>Animals.</i> | <i>Classes<br/>of the<br/>Skulled Animals.</i> | <i>Sub-classes<br/>of the<br/>Skulled Animals.</i>                                                                                                    | <i>Systematic Name<br/>of the<br/>Sub-classes.</i>                                                                                        |
|-----------------------------------------------------|------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 2. Single-<br>Nostriled<br><i>Monorrhina</i>        | II. Round mouths<br><i>Cyclostoma</i>          | { 2. Hags, or Mucous<br>Fish<br>3. Lampreys, or<br>Pride                                                                                              | 2. Hyperotreta<br>(Myxinoida)<br>3. Hyperoartia<br>(Petromyzontia)                                                                        |
| 3. Non-am-<br>nionate<br><i>Anamnion-<br/>ata</i>   | III. Fish<br><i>Pisces</i>                     | { 4. Primæval fish<br>5. Ganoid fish<br>6. Osseous fish                                                                                               | 4. Selachii<br>5. Ganoides<br>6. Teleostei                                                                                                |
|                                                     | IV. Mud-fish<br><i>Dipneusta</i>               | { 7. Mud-fish                                                                                                                                         | 7. Protopteri                                                                                                                             |
|                                                     | V. Sea-dragons<br><i>Halisauri</i>             | { 8. Primæval<br>dragons<br>9. Snake-dragons<br>10. Fish-dragons                                                                                      | 8. Simosauria<br>9. Plesiosauria<br>10. Ichthyosauria                                                                                     |
|                                                     | VI. Batrachians<br><i>Amphibia</i>             | { 11. Mailed Batra-<br>chians<br>12. Naked Batra-<br>chians                                                                                           | 11. Phractamphibia<br>12. Lissamphibia                                                                                                    |
|                                                     | VII. Reptiles<br><i>Reptilia</i>               | { 13. Primary reptiles<br>14. Lizards<br>15. Serpents<br>16. Crocodiles<br>17. Tortoises<br>18. Flying reptiles<br>19. Dragons<br>20. Beaked reptiles | 13. Tocosauria<br>14. Lacertilia<br>15. Ophidia<br>16. Crocodilia<br>17. Chelonia<br>18. Pterosauria<br>19. Dinosauria<br>20. Anomodontia |
| 4. Amnion<br>Animals<br><i>Amnionata</i>            | VIII. Birds<br><i>Aves</i>                     | { 21. Long-tailed<br>22. Fan-tailed<br>23. Bush-tailed                                                                                                | 21. Saururæ<br>22. Carinatae<br>23. Ratitæ                                                                                                |
|                                                     | IX. Mammals<br><i>Mammalia</i>                 | { 24. Cloacal animals<br>25. Pouched animals<br>26. Placental animals                                                                                 | 24. Monotrema<br>25. Marsupialia<br>26. Placentalia                                                                                       |