

### 5. Connecting Links

Some plants and animals show some morphological characters by which they can be related to two different groups; hence they are called as 'connecting links'.



In Peripatus, characters like segmented body, thin cuticle and parapodia-like organs are present. Similarly, these animals show tracheal respiration and open circulatory system similar to arthropods. This indicates that Peripatus is connecting link between annelida and arthropoda.



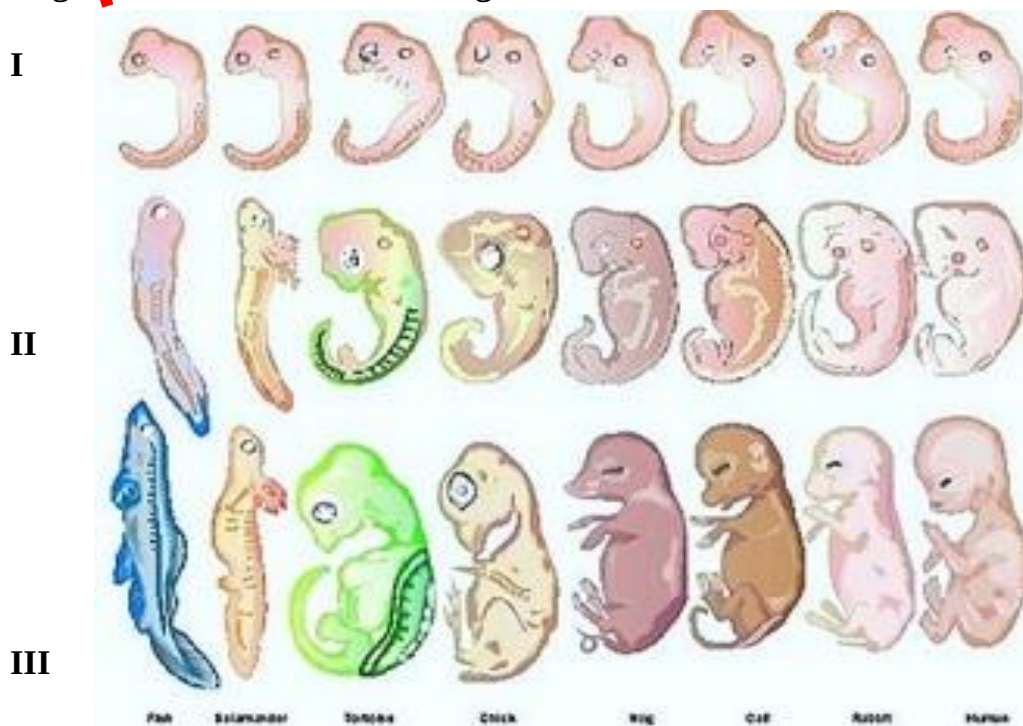
Similarly, duck billed platypus lays eggs like reptiles but shows relationship with mammals too due to presence of mammary glands and hairs.



Lung fish performs respiration with lungs irrespective of being fish. These examples indicate that mammals are evolved from reptiles and amphibians from fishes.

### 6. Embryological Evidences:

Comparative study of embryonic developmental stages of various vertebrates given in the picture shows that all embryos show extreme similarities during initial stages and those similarities decrease gradually. Similarities in initial stages indicate the common origin of all these animals.



Fish Salamander Tortoise chick pig cow rabbit human

**Embryos during different stages**