tinguish them from the two lowest classes (the single-nostriled and tubular-hearted animals). Hence we may unite them in the natural main group of *Double-nostriled* animals (Amphirrhina). Finally, these Amphirrhina on the whole are much more closely related to those animals with round mouths or single nostrils than to the skull-less or tube-hearted animals. We may, therefore, with full justice class the single and double-nostriled animals into one principal main group, and contrast them as *animals with skulls* (Craniota), or *bulbular hearts* (Pachycardia), to the one class of *skull-less animals*, or animals with *tubular hearts*. This classification of the Vertebrate animals proposed by me renders it possible to obtain a clear survey of the nine classes in their most important genealogical relations. The systematic relationship of these groups to one another may be briefly expressed by the following table.

A. Skull-less Animals (Acrania)				1. Tubular hearts	1. Leptocardia
B. Animals with Skulls (Craniota) or Thick Hearts (Pachycardia)	*a.* Single-nostriled animals *Monorrhina*			2. Round-mouths	2. Cyclostoma
	b. Double nostriled animals *Amphirrhina*	I. Non-Amnionate Anamnia		3. Fish	3. Pisces
				4. Mud-fish	4. Dipneusta
				5. Sea-dragons	5. Halisauria
				6. Batrachians	6. Amphibia
		II. Amnionate. Amniota		7. Reptiles	7. Reptilia
				8. Birds	8. Aves
				9. Mammals	9. Mammalia

The only one representative of the first class, the small *lanceolate fish*, or Lancelet (Amphioxus lanceolatus) (Plate XIII. Fig. *B*), stands at the lowest stage of organization