

## Comparative anatomy of molluscs

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The phylum Mollusca is characterized by a diversity of body plan. Animals of extant molluscs are categorized into seven major types, namely (1) shell-less vermiform aplacoporans, (2) polyplacophorans with eight shell plates and repetition of internal organs, (3) monoplacophorans with a single shell and internal iteration, (4) bivalves with shells divided into right and left, (5) gastropods diagnosed by the operculum and ontogenetic torsion, (6) cephalopods with the arms/tentacles modified from the foot, (7) antero-posteriorly elongated tusk-like scaphopods. In addition, novel forms have been found in fossils, and they are regarded as ancestral molluscs connecting intermediate missing links or allegedly assigned to molluscs. One of keys to understanding of diversification of molluscan body structure is comparison of organogenesis in ontogeny. This viewpoint further needs investigation of development-controlling genes and leads into comparative genomic research.

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