

Table 2 Embryonic development of *Heteropneustes fossilis*

Stages	Description of Morphological events
Unfertilized egg	Round, greenish and slightly adhesive with a mean diameter of 1 mm.
Zygote	The zygote swelled up. It was translucent with jelly chorion wall.
Fertilized eggs	Expansion of yolk away from the chorion wall. Accumulation of cytoplasm at the anterior part to form animal pole (blastodisc) and yolk at the posterior part to form. Vegetal pole. All cell divisions occurred in the blastodisc.
2- cell stage	First cleavage at the animal pole. Meroblastic type of division producing 2 cells.
4- cell stage	Second cleavage producing four cells at the animal pole. Line of division perpendicular to the first line of division (meroblastic).
8- cell stage	Each of the four cells divided into two producing eight cells arranged in two rows of four cells.
16- cell stage	Fourth cleavage producing sixteen cells that now becomes difficult to count as consecutive divisions led to reduction in cell size.
32-cell stage	Fifth cleavage producing 32 cells
64-cell stage	Sixth cleavage producing 64 cells.
Morula	Further divisions leading to the formation of multicellular blastodisc
Blastula	Cell flattened out forming epiboly, as embryonic shield on the animal pole
Gastrula	Formation of germinal ring with two somites
Advanced gastrula	Formation of cephalic and caudal edges, with 22 somites and rudimentary eyes Embryonic shield Initiation of wriggling movement, olfactory pit, and otolith, cardiac beats to aid rudimentary fluid movement.
25 myotome stage	Body segmentation completed. First fluid movement initiated as heart contraction started beating initially once per 60 mins. This gradually increases with increase in time.
Pre hatching stage	Wriggling movement increased as chorion wall still enclosed the embryo, heart beat increased to 68 times per minute.
Hatching	Rupture of the chorion wall as embryo contracts and tail first emerged, followed by the trunk and head region.