

Structure and development of the egg of the glossiphoniid leech *Theromyzon rude*: Reorganization of the fertilized egg during completion of the first meiotic division

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Reorganization of the fertilized egg during completion of the first meiotic division was studied in the glossiphoniid leech *Theromyzon rude*. Rotation of the meiotic spindle, presumably as a result of changes in the length and arrangement of astral fibers, allows one of its poles to approach the prospective animal pole (AP), which appears as a differentiated region of the ectoplasm. The peripheral spindle pole is greatly modified during its anchorage to the AP and is dismantled upon emission of the first pole cell. Meanwhile, the central spindle pole is less modified and is reused during the second meiotic division. Redistribution of microvilli, as well as rearrangement of the ectoplasmic actin lattice, lead to remodeling of the egg surface. Emission of the first pole cell is preceded by a contraction wave that seems to arise by condensation of subcortical actin filaments at the equator of the egg. Poleward displacement of this wave causes evagination of the AP and ooplasmic segregation