Embryonic Development of Barbel (*Barbus barbus*)

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Abstract

Barbel (*Barbus barbus* L.) is rarely bred and reared in hatcheries, and data on the early development of this species are scarce. Thus, the aim of the study was to describe its embryonic development in detail. Eggs and sperm were obtained from artificially stimulated spawning. Fertilized eggs were incubated in ten 2000-ml aquaria filled with aerated dechlorinated tap water and maintained at a constant 18°C, the optimal temperature for embryonic development of barbel. The eggs swelled to a maximum of 18% during the first hour after fertilization. There were eight distinct stages of embryonic development: two blastomeres, eight blastomeres, small-celled blastula, embryo body formation, body segmentation, formation of brain and eye germs, change of yolk sac shape, and first movement of the embryo. Survival during development was over 81% and during hatching 74%. Of the newly hatched larvae, 88% were normal, 7% were dead, and only 5% had morphological abnormalities, the most common of which were yolk sac malformations, spinal cord curvatures, and heart edema.

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