Marsh Bulletin 8(1)(2013)58-64

MARSH BULLETIN

Amaricf_Basra office@yahoo.com
abdulalwan@yahoo.com
.marshbulletin@yahoo.com

Effect of pH on hatching and survival of Larvae of common carp *Cyprinus carpio* (Linnaeus, 1758)

Jassim H. Saleh ; Faleh M. Al- Zaidi ; Nawras A. Al- Faiz
Marine Scince Center - University of Basrah

Abstract

Artificial hatching of common carp eggs was fulfilled in Marine Sciences Center hatchery. Fertilized eggs was taken from hatchery and was distributed in seven concentrations of pH (4.5, 5.5, 6.5, 7, 8.5, 9, 9.5). The results show that segmentation of eggs begin in each concentration especially in the critical concentrations (4.5, 5.5, 9 and 9.5). Then the eyes were formed and other organs respectively. After 48 hours hatching occurs by 85% in all concentrations. Hatched larvae were distributed on the same concentrations, survival rates of larvae in concentrations (4.5, 5.5, 6.5, 7, 8.5, 9 , 9.5) were 50% , 54% , 60% , 95% , 90% , 20% , 0 respectively after 24 hours from hatching.

1- Introduction

pH of the water is one of the most important environmental factors affecting fish farming. Excessive acidification as well as alkalization are detrimental to fish development. According to EIFAC criteria (1971) water pH safe for fish ranges from 6.5 to 8.5. The effect of acidity on fish was confirmed at first once by Dahl (1926). In carp ponds temporary alkalisation may occur during hot summer, usually due to algal blooms, reaching sometime pH over 10.0 (Alabaster and Lloyd 1980).

Chemical parameters of water in lakes and rivers regard that have effect on organisms by any food of level in ecological systems (Wright *et al*. 1975). Researchers often interested in the impact of low and high concentration of pH on the survival of fish, especially salmon when there is a significant loss of stock due to a low concentration of pH in the rivers, west