



The Effect of Cultivation System on the Survival of Three Scale Pattern Phenotypes of Carp (*Cyprinus carpio*, Linne 1758)[#]

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Abstract: The monitoring work was developed during twelve months period in one pond of Klosi fish farm of Elbasan. The first evaluation of scale pattern phenotypes of carp was done on fingerlings of age of one month and then in the same date every successive month. The analyses of fish samples showed that the population of carp was mixed one composed from both three scale pattern of phenotypes: scaled phenotype (SSnn, Ssnn) , the reduced scale phenotype called "mirror" (ssnn) and scattered scaled phenotype (SsNs). From twelve samples the predominant phenotype was scaled pattern of carp, considered as "wild type". The average frequency of scattered phenotype resulted to be 8.9 % and that of mirror 7.8 %. The dynamic of assessed frequencies of three phenotypes during the 12 months of growing period was different. The frequency of scaled carp was increased and that of two other phenotypes was decreased. Selective mortality caused from differences on survival indicators between analyzed phenotypes must have been the main reason for the changes that happened in the dynamic's frequencies during the growing period. In extensive conditions of rearing the scaled phenotype pattern of carp showed the highest survival compared with two other phenotypes.

Key words: *carp, scale pattern phenotype, frequency, survival*

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