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Biometrical comparisons of *Artemia* Cysts, Chorion Thickens and nauplius in three Iranian habitats.

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Abstract

Considering nutritional value of *Artemia* nauplius, it's widely used feeding shrimp post larvae, early life stages of sturgeon larvae, ornamental fish and marine fish larval. In order to comparison some important characteristics of *Artemia* cysts, were collected from three different location across Iran including Urmia lake, Maharloo lake and Meighan of Arak. Different biometric characteristics were measured and analyses. Cysts were hatched under identical standard conditions and measured as the length of Instar I nauplius. To determine the cyst diameter and chorion thickness, cysts were cultured in D & K after nocturnal incubation, decapsulated. Then decapsulated and non-decapsulated cyst diameters measured by binocular loup equipped with micrometer eye lenses. Data were statistically analyzed by SPSS software and tested by ANOVA, Duncan test. results of these comparisons on means of chorion layer thickness, cysts diameter ranges in 3 geographical habitats of Iran to introduce to larvae-culturists showed that The largest nauplii were obtained as Instar I, belongs to *Artemia* from Urmia lake and the smallest one belongs to *Artemia* from Meighan desert of Arrack at sizes of 511.8, 504.9 micrometer respectively. Also the largest to smallest means of cysts diameters were due to Urmia lake Maharloo Lake and Meighan desert area of Arrack. (285.4, 281.3 and 280.1 respectively). although the chorion thickness of Urmia lake *Artemia* was smaller than other strains.

Keywords: *Artemia*, Cysts, Decapsulated cysts, Nauplius, Chorion Thickens