

## Modification of nutritional properties of microalgae for Artemia breeding

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### Abstract

Artemia (brine shrimp) is used as a live-feed stuff for seed fish in fish hatcheries and aquarium fisheries. [Nutritional](#) properties of Artemia is in close relationship with the nutritional facts of the microalgae it is fed by. In this study, 20 different microalgae and cyanobacteria (indigenous strains from [Dunaliella](#), Isochrysis, [Phaeodactylum](#), Tetraselmis, [Nannochloropsis](#), Spirulina, Synechocystis, Synechococcus, Chlamydomonas, Chlorella, and Scenedesmus genus) were supplied to [A.franciscana](#) as food source and growth characteristics of A.franciscana were followed during 10 days of growth. Seven microalgae strains were selected for Artemia breeding and Dry weight, total protein, starch and lipid contents of microalgae and A.franciscana were recorded. Then, microalgae were exposed to N-, S-, P-deprivation and high salt stress for 5 days of incubation. Total lipid, protein and carbohydrate

contents of those strains were recorded and 5-days stress exposed microalgae were supplied to [A. franciscana](#) as only food source. Lastly total lipid, protein and carbohydrate content of A.franciscana was followed during 10 days of growth. In most cases, feeding A.franciscana with D.tertiolecta was superior to other strains studied.

### Biography:

Zeynep Elibol Çakmak has completed his PhD in 2013 from Kırıkkale University. Dr. Çakmak has been working as an academics instructor in Bioengineering Department of İstanbul Medeniyet University, Istanbul, Turkey. She has published more than 15 papers in reputed journals. Her focus lies in the field of microalgal biotechnology. Nowadays she has been working on a project regarding alteration of nutritional properties of microalgae for increased nutritional value of Artemia as fish food source.

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