

# FEEDING STRATEGY OPTIMIZATION OF STARRY STURGEON (*ACIPENSER STELLATUS*, PALLAS 1771) WITH ARTEMIA NAUPLII

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## Abstract

*The importance of feeding live food in the first stages of fish life is crucial, because the organism is not fully developed, the accessory glands and the enzymatic equipment of the digestive tract are also insufficiently developed. Natural food brings a supply of vitamins, enzymes, and hormones with a major role in the process of digestion and absorption of the food, very important in the ontogenetic development and in increasing the immunity of fish in the larval and postlarval stages. Internationally, over the years, numerous studies have been carried out on the feeding of fish with Artemia, but the present study aims to optimize the process of feeding Artemia nauplii to freshwater fish reared in a recirculating system. This brine shrimp can survive a limited amount of time in fresh water, after which it rapidly decomposes and, due to its high protein content, becomes a water pollutant for the recirculating system. From the point of view of the costs for cyst decapsulating and the energy costs for hatching, they are too costly to afford feeding "ad libitum" with nauplii the fish larvae. The use of the minimum amount of live Artemia nauplii depends on the resistance of the nauplii in fresh water, expressed in a maximum time interval of 3.5 hours, after which vital activity and very low survival are recorded. The optimal Artemia nauplii feeding requirement of starry sturgeon with an average weight of  $0.26 \pm 0.15$  g and an average length of  $3.78 \pm 0.8$  cm is about 2.26% B.W. representing a maximum of 4.5 g wet mass of nauplii administered per 1,000 of larvae daily.*

**Key words:** starry sturgeon, feeding, Artemia nauplii