ARTEMIA SALINA (L.) COLLECTED FROM ÇAMALTI SALTERN (IZMIR) AND ITS USE AS A NUTRIENT MATERIAL IN FISH CULTURE

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Résumé

Artemia salina, se trouvant dans cértaines régions du monde, a été aussi trouvée dans la Saline de Çamalti à Izmir. Au cours de ces recherces on s'est servi des nauplii et metanaupli d'A. salina comme nourriture aux Loups (Dicentrarchus labrax) à l'âge de 10 à 60 jours.

Summary

Artemia salina can be found in certain regions of the world. One of these is Çamalti Saltern, Izmir. In the present investigation the sea bass (Dicentrarchus labrax) larvae between 10th and 60th days were fed on A. salina nauplii and metanaupli under laboratory conditions.

Artemia salina is an important food material for aquaculture there fore we have decided to study on this subject.

In order to collect A. salina eggs from salt plots and canals used for transportation of excessive water, plancton scoop nets were used, these eggs were washed with fresh-water and removed from the residual materials and they were dried up for 48 hours in open air. After these operations, eggs are kept alive for a long time in nylon bags. It is possible to obtain the nauplii from dry eggs in sea water at 20°C and 35 ‰ salinity in 24 to 36 hours.

Çamalti Saltern is at Northern Coast of Izmir Bay and its salt production area is about 28.000 square meters. Salinity of this area range from 39-225 ‰ in different plots. As from October, temperature falls below 15°C and only eggs can be seen in these plots. In spring, the temperature raises gradually, hatching occurs and juveniles can be seen to appear. In salt plots, the value of pH is 7.2-8.0 (UYSAL, 1973).

The diameters of eggs collected from this region change between 200-230 µ. Under laboratory conditions, the hatching experiments were carried out at 35 ‰ salinity and 20°C temperature. Hatching ratio was about 63 ‰. A. salina nauplii show (+) phototaxis, there fore it is very easy to separate nonhatching eggs from others by light.

After 10 days from hatching, especially instar I,II,IIIth nauplii and metanaupli of A. salina could be given to sea bass larvae under laboratory conditions at 26 ∓ 2°C. In this rearing experiment, the mean growth attained on the 60th day, for larvae is 27 mm and maximum 35 mm.

Many different kinds of food diets for sea bass were tried in many aquacultural investigations. According to the results of these increase in lenght was reported by ARCARASE (1972) as 25 mm. LUMARE-VILLANI (1973) as

25 mm. Our observations indicated that Artemia salina eggs from Çamalti Salt Mine are very reliable food sources for rearing as we found increase in lenght in 60 days as 27 mm.

References

GIRIN,M. 1976: Original des fiches d'information sur le bar, la daurade, la sole, et le turbet, pour le Manuel de Mariculture C.R.S.

UYSAL,H. 1973: Çamalti tuzlasi ve Civarinda bulunan Artemia salina (L.) da tabii gross beta aktivitenin tesbiti ve ortamin ekolojik şartlari mevsimlik varyasyonlari hakkinda araştirmalar.