

عنوان مقاله:

Research Article: Time-dependent changes of alkaline, neutral, and acid protease activities, molecular weight distributions, and proximate compositions of live feeds

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خلاصه مقاله:

In this study, alkaline, neutral, and acid enzyme activities, molecular weight distributions, and proximate compositions of live feeds were determined in a time-dependent manner. Samples were taken from three different live feeds and Artemia cysts. R refers to rotifer, A-0 refers to non-enriched Artemia / A. nauplii, and A-1 refers to enriched Artemia / A. metanauplii. Sampling was done at 0th, 6th, 12th, and 18th h (T) and before enrichment as R (R-0) and A-1 (A-1-0). Depending on time, while enriched rotifers have high acid enzyme values at pH 3 and 4, neutral and alkaline enzyme values of enriched Artemias were higher ($p < 0.05$). Time-dependent decreases were detected in the enzyme activities of enriched Artemia and rotifers. Live feeds enriched for up to 12 hours should be used with a molecular weight fraction of $2,532 \text{ Da} \geq$ ($p < 0.05$). When marine finfish such as European sea bass and gilthead sea bream are started feeding, their digestive enzymes have alkaline and then acid characteristics. On the other hand, in this study, it was determined that rotifer enzymes had higher acid protease activities and A. metanauplii had higher alkaline protease enzyme activities. Considering this situation, A. nauplii should be given together with rotifers and A. metanauplii should be started as soon as possible. In addition, considering the enzyme activity values of the rotifers used as the first feed, the use of rotifers that are not enriched in terms of the contribution of live feeds to the larval digestive system should also be taken into account.

کلمات کلیدی:

Protease, Molecular weight, Proximate, Rotifer, Artemia, Live feed

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