

## Use of Cyclopoid Copepod *Apocyclops dengizicus* as Live Feed for *Penaeus monodon* Postlarvae

### ABSTRACT

In this study, the suitability of cyclopoid copepod *Apocyclops dengizicus* as a live food for black tiger shrimp, *Penaeus monodon*, postlarvae was investigated. After 14 d, *P. monodon* postlarvae (PL1) had survival rates of  $41.7 \pm 2.9\%$  (mean  $\pm$  SE),  $28.7 \pm 1.2\%$ ,  $56.3 \pm 3.7\%$ ,  $4.4 \pm 1.9\%$ , and  $2.8 \pm 1.0\%$  when fed *A. dengizicus* (CC), *Artemia nauplii* (AN), mixture of *A. dengizicus* and *Artemia nauplii* (CC + AN), artificial shrimp feed (SF), and microalga *Tetraselmis tetraele* (TT), respectively. Specific growth rates (SGRs) of *P. monodon* were maximum ( $14.2 \pm 0.6\%/d$ ) in CC + AN, followed by CC ( $11.0 \pm 0.4\%/d$ ), AN ( $9.3 \pm 0.7\%/d$ ), SF ( $6.1 \pm 0.2\%/d$ ), and TT ( $6.0 \pm 0.5\%/d$ ). The total n-3 fatty acids of postlarvae increased from 20.6 to 25.8% when fed with CC, 28.8% with AN, and 29.0% with CC + AN. Better survival and SGRs of *P. monodon* postlarvae could be attributed to docosahexaenoic acid : eicosapentaenoic acid : arachidonic acid ratio of CC (10.2:3.2:1) diet. The results of this study showed that *A. dengizicus* has a potential to be used as a substitute live feed for *P. monodon* postlarvae because of better survival, growth, and high polyunsaturated fatty acids.