Formulation of a cheaper diet for fry of golden molly, *Poecilia latipinna* (L)

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Artemia nauplii are high cost live food. So aim of this study was to investigate the low cost live food for *Poecilia latipinna. Mesocyclops thermocyclopoides* and *Thermocyclops decipiens* were used as live food. Three replicates for each diet were used, with twenty fries of golden molly, *P. latipinna* in each tank. They were fed with two cyclopoid copepod sps *M. thermocyclopoides* and *T. decipiens*. Cow dung and mixed phytoplankton culture was used to feed two cyclopoid prey sps. Mixture of phytoplankton culture (*Chlorella, Kirchneriella, Aphanocapsa, Scenedesmus, Selenastrum* and *Chlamydomonas*) supplemented with baker`s yeast on growth (by weight and length), percentage survival rate and Specific Growth Rate (SGR) of golden molly, *P. latipinna* fry were evaluated. *Artemia* nauplii were used to feed fish fry as a control.

After 3weeks, fry nursing period, significantly highest ($P<0.001$) final length of 18.08 ± 1.12 mm, final fresh weight of 85.33 ± 20.04 mg, survival rate of 100.00 ± 0.00 %, and specific growth rate9. 45 ± 0.23 %, with a corresponding was obtained for the fry fed with a 50: 50 combination of *Artemia* and *M. thermocyclopoides* fed on cow dung than all the other diets. A diet of *T. decipiens* alone fed with phytoplankton resulted in the final length of 13.55± 0.80mm, final fresh weight of 41.19±13.47 mg, survival rate of 70.00± 5.00 % and specific growth rate of 6.08± 0.86 % which was significantly lower than that for larvae fed the diet of *Artemia* alone. However, *Artemia* alone did not show diet superiority over any of the two 50:50 combinations of *Artemia* and *M. thermocyclopoides* diets.

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