

ABSTRACT

This study assessed the growth, survival and changes in food selection of juvenile Hippocampus comes fed either Artemia salina, Pseudodiaptomus sp. or the mixture of both from 0-30 days after birth (DAB). The height (Hr), weight (W), head length (Ls), snout depth (Ds), and orbital diameter (Do) of 30 DAB seahorses fed Pseudodiaptomis diet ($H_1=40.28+2.95$ mm, $W=0.20\pm 0.07$ g, $Ly=7.48+1.72$ mm, $Ds=1.62+0.14$ mm, and $Do=0.67+0.01$ mm) and mixed diets ($Hi=4151\pm 0.89$ mm, $W=0.2120.02$ & $L=8.92\pm 0.13$ mm, $Ds=1.59\pm 0.05$ mm, and $Do=0.69+0.01$ mm) were significantly higher than those fed Artemia diet ($H=18.6\pm 0.0$ mm, $W=0.019+0.001$ g, $Ly=4.6\pm 0.0$ mm, $D=1.0\pm 0.0$ mm, and $Do=0.42+0.00$ mm) ($P<0.05$). The onset of mortality of the

seahorse was delayed in the mixed diet until they were 6 DAB, while it was at 3 DAB in the Artemia and the Pseudodiaptomus diets. Survival in all treatments did not vary significantly in 0 to 4 DAB and 13 to 30 DAB seahorses ($P>0.05$). The seahorses readily fed on *A. salina* nauplii and Pseudodiaptomus sp. nauplii in the single diets. They preyed exclusively on Pseudodiaptomus sp., rejecting *A. salina*, when fed mixed diet, but shifted from nauplii, with food electivity index () range from $-0.070.47$ to $-0.05+0.05$ to adult Pseudodiaptomus sp. ($E=-0.17\pm 0.42$ to 0.42 ± 0.03) as they grew older. Feeding Artemia, Pseudodiaptomus and mixed diets to *H. comes* resulted to similar survival, but diets with Pseudodiaptomus sp. resulted to better growth than with *A. salina*, proving the

importance of copepod as prey item of seahorse. A diet with Pseudodiaptomus sp. is most suitable in rearing 0-30 DAB juvenile *H. comes*.