Growth of four generations of Zebra-snout Seahorse, Hippocampus barbouri (Jordan & Richardson, 1908) in captivity

ABSTRACT

This study was conducted to determine the effect of different generations affecting the size of Hippocampus barbouri in captivity. Seahorse in-house breeding was carried out in Fisheries Research Institute, Penang. Adults H. barbouri were conditioned prior to breeding. All newborn H. barbouri juveniles were transferred to rearing tank once they were born. Growth of H. barbouri juveniles was measured at 10 days interval, up to 60 days. Results showed that different F2 H. barbouri juveniles recorded the smallest size when compared to other generations at day 10 after birth. However, starting from day 50 after birth to day 60 after birth, F2 H. barbouri juveniles recorded the best growth when compared to other generations. Although F3 H. barbouri juveniles had better growth from day 10 of birth until day 40 of birth, the growth was limited after day 50 of birth. F4 and F5 H. barbouri juveniles had similar finding as F3. One of the possible reasons was due to feeding. At initial stage of life, H. barbouri juveniles were fed with newly hatch Artemia nauplii. Starting from day 40, H. barbouri juveniles were weaned over to live Mysis and adult Artemia. Inconsistency supply of live mysids due to monsoon season might affect growth of H. barbouri. Moreover, nutritional content of adult Artemia was another concern. To conclude, culture of H. barbouri in captivity is feasible, where growth of H. barbouri can reach maximum height of 72 mm at day 60 of birth, with the survival rate of more than 43%.

Keyword: Seahorse; Hippocampus barbouri; Inbreeding; Growth; Captivity