



EFFECTS OF TEMPERATURE ON SURVIVAL, GROWTH, REPRODUCTIVE
AND LIFE SPAN CHARACTERISTICS OF *BRANCHINECTA ORIENTALIS*
G. O. SARS, 1901 (BRANCHIPODA, ANOSTRACA) FROM IRAN

BY

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ABSTRACT

Branchinecta orientalis G. O. Sars, 1901 is a common inhabitant of seasonal water catchments in the northwest of Iran. Hatching, growth, survival, and reproductive characteristics of this species were studied at different temperatures in the laboratory. The Cumulative Hatching Success was significantly higher for specimens cultured at 21°C (85.27 ± 12.21%) compared to those hatched at 12, 15 and 27°C ($P < 0.05$). Hatching started on the same day (48.00 h after inundation) at temperatures of 21, 24 and 27°C), whereas this took more time at lower temperatures, slowest at 12°C (126.00 ± 0.58 h after inundation). The initial hatching fraction was the highest at 21°C (44.60 ± 18.69%) and lowest at 12°C (9.10 ± 8.28%). Total length was significantly longer at high temperatures, 12.38 ± 0.71 mm at 27°C, compared to 4.07 ± 0.42 mm at 12°C on day 15. Nevertheless, contrasting results were obtained for survival, being the lowest at 27°C (22 ± 4.00%) and highest at 12°C (93.07 ± 2.08%) on day 15 of growth. The animals reached sexual maturity significantly faster at 27°C (9.38 ± 1.09 days) compared to all other treatments. A significantly longer life span was detected at 12 and 15°C (63 days), and the higher cyst production at 18°C, compared to other experimental conditions ($P < 0.05$).

Key words. — *Branchinecta orientalis*, fairy shrimp, growth, survival, life span

RÉSUMÉ

Branchinecta orientalis G. O. Sars, 1901 est une espèce commune des eaux temporaires des bassins versants du nord-ouest de l'Iran. L'éclosion, la croissance, la survie et les caractéristiques de la reproduction de cette espèce ont été étudiées en laboratoire à différentes températures. Les succès de reproduction cumulé a été significativement plus élevé pour les spécimens élevés à 21°C

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