SURVIVAL OF NURSERY-REARED JUVENILE MILKFISH, *Chanos chanos* AT DIFFERENT TRANSPORT DENSITY, TEMPERATURE AND ANAESTHETIC COMBINATIONS

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A Master's Thesis Presented
to the Graduate Faculty of the
Institute of Aquaculture
College of Fisheries and Ocean Sciences
University of the Philippines Visayas

In Partial Fulfilment of the Requirements
for the Degree of
Masters of Science in Fisheries
Major in Aquaculture

JUNE 2020

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ABSTRACT

Experiments were conducted to optimize transport conditions of nursery cultured juvenile milkfish in a closed plastic bag based transport system. In the first experiment combined effects of temperature (25-27°C, 20-22°C and 15-17°C) and anesthetics (2-phenoxyethanol at 200 mgL^{-1} for initial sedation and 80 mgL^{-1} for transport sedation) on oxygen consumption and survival of juvenile milkfish, *Chanos chanos,* were evaluated. Another experiment was conducted to optimize transport conditions at fish densities of 200, 400, 600, 800 and 1000 gL^{-1} for 4, 8. 12, 16 and 20 hour duration. The study showed no significant difference on oxygen consumption rates of milkfish juveniles subjected to various water temperature range and anesthetic combinations. Temperature range of 20 to 22°C in combination with anaesthetic (2-phenoxyethanol) application was the best condition for long duration confinement of milkfish juvenile in closed plastic transport bags. The study established the optimum juvenile milkfish transport density and the effective transport duration. With anaesthetic application (2-phenoxyethanol), juvenile milkfish density of 600 gL^{-1} is effective for 20 hours of transport duration, 800 gL^{-1} for 8 hours of transport duration and 1000 gL^{-1} effective for 4 hours transport duration. These results provide a practical protocol for the transport of juvenile milkfish from the nursery culture area to the grow-out production area.

Key Words: Milkfish juvenile, transport temperature, 2-phenoxyethanol, transport density, *Chanos chanos*, survival, physico-chemical parameters