

FEEDING INCIDENCE OF HANGROVE GOLDEN SNAPPER
(Lutjanus johnii) FEED WITH WILD ZOOPLANKTON

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**FEEDING INCIDENCE OF MANGROVE GOLDEN SNAPPER (*Lutjanus johnii*)
FEED WITH WILD ZOOPLANKTON**

NG BEE WAH

**This project is submitted in partial fulfillment of the requirement of the degree
of Bachelor of Science in Agrotechnology
(Aquaculture)**

**FACULTY OF AGROTECHNOLOGY AND FOOD SCIENCE
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ABSTRACT

'Ivlve's Electivity Index, E' is used to analyze the type of food selected by mangrove golden snapper (*Lutjanus johnii*) larvae. Two experiments were conducted and results showed that larvae commenced feeding on microalgae at Day 2 with the slight selection for *Nannochloropsis* sp. ($E = 0.205$) while for zooplankton the larvae tend to select rotifer on Day 3 with $E = 0.980$ but larvae started to choose for nauplii copepod from Day 5 till Day 7 ($E = 0.588$). In experiment 1, the survival rate, SR and specific growth rate, SGR of larvae are 0.14% and $4.4238\text{ \% day}^{-1}$ respectively. In experiment 2, *L.johnii* larvae are more incline to select *Isochrysis galbana* ($E = 0.333$) on Day 2. From Day 3 onwards till end of the experiment, larvae choose copepod's nauplii ($E = 0.6$ at Day 3). The SGR and SR are around $4.0227\text{ \% day}^{-1}$ and 0.28% respectively. In both experiments, larvae showed more tendencies to choose for nauplii copepod (from Day 4 onwards). Among the microalgae, larvae tend to choose for *Nannochloropsis* sp. as food in the early stage.

ABSTRAK

‘Ivlie’s Electivity Index, E’ telah digunakan untuk menganalisa corak pemilihan makanan oleh larva ikan *Lutjanus johnii*. Dua eksperimen telah dijalakan dan keputusan telah menunjukkan larva ikan telah mula memakan mikroalga pada hari kedua dengan lebih memilih kepada *Nannochloropsis* sp. ($E = 0.205$) manakala bagi zooplankton pula, larva lebih cenderung memilih rotifer ($E = 0.980$) pada awalnya iaitu pada hari ke-3 tetapi selepas hari ke-5 ia langsung tidak memilih rotifer sebaliknya lebih memilih kepada nauplii copepod ($E = 0.588$ pada hari ke-7). Dalam eksperimen pertama, larva telah menunjukkan kadar kemandirian sebanyak 0.14% dengan kadar tumbesaran sebanyak 4.4238 %hari⁻¹. Bagi eksperimen ke-2 pula, larva ikan *L.johnii* lebih cenderung memilih memilih *Isochrysis galbana* ($E = 0.333$) pada hari ke-2. Pada hari ke-3 hingga akhir eksperimen, larva ikan lebih cenderung memilih nauplii copepod ($E = 0.6$ pada hari ke-3). Larva telah menunjukkan kadar kemandirian sebanyak 0.28% dan kadar tumbesaran sebanyak 4.0227 %hari⁻¹. Kesimpulan daripada kedua-dua eksperimen, larva ikan lebih cenderung memilih nauplii copepod selepas pada hari ke-4. Manakala bagi mikroalga pula, larva lebih cenderung memilih *Nannochloropsis* sp.