

A STUDY ON THE REPRODUCTIVE BIOLOGY OF  
SHINE ORCHARD GOAWAN (*Trichogaster pectoralis*)

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**A STUDY ON THE REPRODUCTIVE BIOLOGY OF SNAKE-  
SKINNED GOURAMI (*Trichogaster pectoralis*)**

**BY**

**ADRINA SIM SIAW KIANG**

**This project report is submitted in partial fulfillment of the  
requirements for the Degree of Bachelor of Agrotechnology  
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## ABSTRAK

Kajian ke atas biologi pembiakan ikan sepat siam (*Trichogaster pectoralis*) telah dijalankan menggunakan kaedah histologi. Daripada keputusan, oogenesis boleh dibahagikan kepada enam peringkat. Spermiogenesis boleh dibahagikan kepada lima peringkat utama. Ikan sepat siam betina mencapai kematangan seksual pada panjang piawai  $13.34 \pm 0.60$  sm dan pada panjang penuh  $16.44 \pm 0.94$  sm. Ikan sepat siam jantan mencapai kematangan seksual pada panjang piawai  $13.60 \pm 0.56$  sm dan pada panjang penuh  $16.85 \pm 0.91$  sm.

Kajian telah dijalankan untuk mengkaji kesan pemberian makanan yang dilewatkan dan makanan tiruan yang berbeza ke atas kadar kemandirian dan kadar tumbesaran spesifik semasa pendederan larva ikan sepat siam (*Trichogaster pectoralis*). Daripada keputusan eksperimen, larva yang diberi makan pada hari ketiga selepas menetas menunjukkan kadar kemandirian dan kadar tumbesaran spesifik tertinggi iaitu pada 94.00% dan  $4.04 \pm 0.03\%$  hari<sup>-1</sup>. Larva yang diberi makan plankton tiruan menunjukkan kadar kemandirian tertinggi (93.67%) dan kadar tumbesaran spesifik tertinggi ( $3.47 \pm 0.45\%$  hari<sup>-1</sup>). Oleh itu, untuk mencapai kadar kemandirian dan kadar tumbesaran yang terbaik, larva sebaiknya diberi makan plankton tiruan bermula pada hari ketiga selepas menetas.

## ABSTRACT

A study on the reproductive biology of Snake-skinned gourami (*Trichogaster pectoralis*) was conducted using the histological methods. From the results, the oogenesis can be divided into six stages. The spermiogenesis can be divided into five main stages. The female Snake-skinned gourami reached sexual maturation at the standard length of  $13.34 \pm 0.60$  cm and at the total length of  $16.44 \pm 0.94$  cm. Male Snake-skinned gourami achieved sexual maturation at the standard length of  $13.60 \pm 0.56$  cm and at the total length of  $16.85 \pm 0.91$  cm.

A research was conducted to study the effects of delayed feeding and different artificial diets on the survival rate and the specific growth rate during the rearing of Snake-skinned gourami (*Trichogaster pectoralis*) larvae. From the results of the experiment, larvae fed on the third day after hatching showed the highest survival and specific growth rate each at 94.00% and  $4.04 \pm 0.03\%$  day<sup>-1</sup> respectively. Larvae fed with artificial plankton showed the highest survival rate (93.67%) and the highest specific growth rate ( $3.47 \pm 0.45\%$  day<sup>-1</sup>). Therefore, to achieved the best survival rate and specific growth rate , the larvae should be fed with artificial plankton starting on the third day after hatching.