

PRELIMINARY STUDY OF USING *Amorpha* spp.
AS LIVE FOOD FOR COLERAETUM CORAL,
Favaria fardiculifera

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**A PRELIMINARY STUDY OF USING *Artemia salina* AS LIFE FOOD FOR
SCLERACTINIAN CORAL, *Galaxea fascicularis*.**

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ABSTRACT

This study was undertaken to assess feasibility of using *Artemia salina* nauplii as life food for coral, *Galaxea fascicularis*. The coral specimens were fed with *Artemia salina* nauplii at 1.0×10^2 , 2.0×10^3 , 4.0×10^3 , 6.0×10^3 , and 1.0×10^4 ind. l^{-1} under light and dark conditions. Under light condition, optimal feeding rate of *Galaxea fascicularis* was 113.6 ± 5.10 ind. $polyp^{-1} \text{ hour}^{-1}$ while under dark condition, optimal feeding rate of *Galaxea fascicularis* was 77.1 ± 20.64 ind. $polyp^{-1} \text{ hour}^{-1}$. Feeding of *Galaxea fascicularis* was not significantly different ($p > 0.05$) under light and dark conditions. However, feeding rates changed significantly with time ($p < 0.05$) when the corals are fed with high nauplii density. To determine digestibility of *Artemia salina* nauplii by *Galaxea fascicularis*, the gastrovascular cavity's contents of the polyps were withdrawn using a 1-ml syringe at 10, 30, 60, 90, 120, 180, 420 minutes. The gastrovascular contents were observed and captured by using a microscope with digital camera attachment (Motic). *Artemia salina* nauplii are highly acceptable by *Galaxea fascicularis*. Complete digestion of *Artemia salina* nauplii by *Galaxea fascicularis* was observed after 180 minutes. These results indicate that *Artemia salina* nauplii are feasible and a potential life food for maintaining *Galaxea fascicularis* under captivity.

ABSTRAK

Kajian ini bertujuan untuk mengkaji kebolegunaan naupli *Artemia salina* sebagai makanan hidup untuk batu karang, *Galaxea fascicularis*. Spesimen batu karang telah diberi naupli *Artemia salina* pada densiti 1.0×10^2 , 2.0×10^3 , 4.0×10^3 , 6.0×10^3 , dan 1.0×10^4 ind. l⁻¹ dalam keadaan yang cerah dan gelap. Dalam keadaan cerah, kadar pemakanan optima *Galaxea fascicularis* ialah 113.6 ± 5.10 ind. polip⁻¹ jam⁻¹ manakala dalam keadaan gelap, kadar pemakanan optima *Galaxea fascicularis* ialah 77.1 ± 20.64 ind. polip⁻¹ jam⁻¹. Pemakanan *Galaxea fascicularis* tidak dipengaruhi secara nyata ($p > 0.05$) oleh keadaan cerah dan gelap. Tetapi, apabila batu karang diberi dengan naupli yang berdensiti tinggi, kadar pemakanan adalah berbeza dalam hari yang berlainan ($p < 0.05$). Untuk menentukan pencernaan naupli *Artemia salina* oleh *Galaxea fascicularis*, isi kandungan dalam polip batu karang telah dikeluarkan pada masa 10, 30, 60, 90, 120, 180, dan 420 minit dengan menggunakan 1-ml jarum. Isi kandungan tersebut telah diperhatikan dan ditangkap gambar dengan menggunakan mikroskop berkamera digital (Motic). Naupli *Artemia salina* adalah boleh diterima oleh *Galaxea fascicularis*. Pencernaan sepenuh naupli *Artemia salina* oleh *Galaxea fascicularis* didapati berlaku selepas 180 minit. Keputusan menunjukkan bahawa naupli *Artemia salina* merupakan makanan hidup yang sesuai dan berpotensi untuk memelihara *Galaxea fascicularis*.