

# Larval cultivation of a marine fouling species, acorn barnacle

## *Amphibalanus Amphitrite*

Ting-Hsuan Lin(林庭瑄), Chih-Chuang Liaw(廖志中), Hsiu-Chin Lin\*(林秀瑾)

Department of Marine Biotechnology and Resources, National Sun Yat-Sen University, Kaohsiung, 80424, Taiwan.

### Abstract

Our target species is acorn barnacles *Amphibalanus amphitrite*, phylum Arthropoda, class Thecostraca, Family Balanidae. *A. Amphitrite* is one of the major marine fouling species. They can attach on man-made structures and hull surface, eventually lead to hydrodynamic drag, consuming extra fuel, rusting steel and economic loss.

Barnacle larvae are planktonic and have six nauplius stages, then transformed into non-feeding cyprids. Cyprids start to produce cement proteins that have a distinct and specific role in underwater adhesion. They used antennules to search suitable place for settlement, then become permanently sessile (Fig.1). It is one of strongest glue found in organism.

The purpose of this study is to establish the laboratory setting for barnacle larvae cultivation and subsequent tests on anti-fouling marine natural products.