

C725610 : MAJOR ZOOLOGY
KEY WORD:

TRANSPLANTED MANTLE PIECES/PEARL FORMATION /
FRESHWATER PEARL MUSSEL
PERMSAK YEEMIN: SIZES AND SHAPES OF TRANSPLANTED
MANTLE PIECES FOR PEARL FORMATION IN FRESHWATER
PEARL MUSSELS *Hyriopsis(Hyriopsis)bialatus* AND *Pseudodon
vondembuschianus ellipticus*, THESIS ADVISOR: ASSOC. PROF.
SOMSAK PANHA , Ph.D. 104 pp. ISBN 974-637-049-9

The formation of pearls by the freshwater mussels, *Hyriopsis (Hyriopsis) bialatus* and *Pseudodon vondembuschianus ellipticus* by transplanting various sizes and shapes of the mantle pieces were studies. The pearl sacs of the two species completely formed within less than 15 days. For the *H.(H.) bialatus*, transplanted circle mantle piece (4mm. radius, C4) yielded the highest percentage of forming a pearl sac (81%) while transplanted triangle mantle piece (2mm. for eachside, T1) and circle transplanted mantle piece yielded the lowest percentage. (71%) For the *P. vondembuschianus ellipticus*, transplanted circle mantle piece (4mm. radius, C4) and transplanted square mantle piece (8mm., S4) yielded the highest percentage of forming a pearl sac (86%) while transplanted triangle mantle piece (2mm. for each side, T1) yielded the lowest percentage. (74%) The pearl sac growth depended on sizes of transplanted mantle piece. In conclusion sizes of transplanted mantle piece effect the pearl formation. Shapes of transplanted mantle piece may influence on the pearl shapes because the pearl shapes have high diversity. Surface of the pearl sac and calcium carbonate crystals of the two species are different. A lot of small balls are seen on the surface of pearl sac of *P. vondembuschianus ellipticus* while the net-liked was seen on the surface of pearl sac of *H.(H.) bialatus*. Calcite calcium carbonate crystals at the same stage of *P. vondembuschianus ellipticus* are bigger than one of *H.(H.) bialatus*.

ภาควิชา.....ชีววิทยา.....

สาขาวิชา.....สัตววิทยา.....

ปีการศึกษา.....2540.....

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