

รายงานวิจัย



เรื่อง

การตรวจสอบโครงสร้างโดยละเอียดของกระบวนการสร้างอสุจิของหอยฝา
เดี่ยวบางชนิดในกลุ่ม Potamididae

**Ultrastructural investigations of spermatogenesis in some
Potamidid gastropods**

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ABSTRACT

Euspermatogenesis and euspermatozoa of *Cerithidea obtusa* (Lamarck, 1822) from the mangrove forest at Southern Thailand have been examined using transmission electron microscopy. The morphological changes during spermiogenesis are described with the following phenomena : nucleus condensation; acrosome formation; development of midpiece and axonemal complex. The euspermatogenesis of *Cerithidea obtusa* exhibits many common features resemble those of other cerithioideans, except that the presence of the only one moderate sized nucleolus in the nucleus of the primary spermatocyte and the remarkably prominent rough endoplasmic reticulum found throughout the spermiogenesis are possibly unique features in this species. During spermiogenesis, concomitantly with the change of nuclear shape, the fine nuclear chromatin of early spermatids changes to fibrillar, lamellar and finally very compact material with the basal invagination. The specific character found during acrosome differentiation was notable. The mature acrosome is a long tapering antero-laterally compressed cone with a non defined axial rod. The midpiece of the euspermatozoon reveals four equally straight mitochondrial elements around the axoneme. It is suggested that the pronounced similarities existing in *Cerithidea obtusa* (potamididae) comparing to the species in Family cerithiidae may indicate the phylogeny relationship, while the differences among this species and other potamidid snails are considerably interesting. In addition, the further studies focusing on the ultrastructure of euspermatogenesis among gastropods in the Family potamididae are necessary.

Key words: *Cerithidea obtusa*, cerithioidean, spermatogenesis, spermiogenesis
