

Anisa Kusuma Rahayu, 2018. Komparasi Histologi Dinding Tubuh *Colochirus quadrangularis* dan *Acaudina rosettis* di Selat Madura. Skripsi ini di bawah bimbingan Dr. Dwi Winarni, M.Si dan M. Hilman Fu'adil Amin, S.Si., M.Si. Departemen Biologi, Fakultas Sains dan Teknologi, Universitas Airlangga, Surabaya.

ABSTRAK

Penelitian ini bertujuan untuk mengetahui histologi dinding tubuh teripang (*Colochirus quadrangularis* dan *Acaudina rosettis*) di Selat Madura, serta membandingkan struktur keduanya. Dari masing-masing spesies diambil sebanyak 5 sampel. Sampel dimasukkan dalam $MgCl_2$ 7% untuk relaksasi, dinding tubuh dipisahkan dari organ-organ dalam larutan *Neutral Buffered Formalin* (NBF). Kemudian dinding tubuh teripang dipisahkan menjadi bagian dinding dorsal (anterior, median, posterior) dan ventral (anterior, median, posterior) kemudian didekalsifikasi dan dilakukan pembuatan sediaan histologi dengan metode parafin dengan pewarnaan hematoksin eosin (HE). Pengukuran ketebalan dilakukan menggunakan aplikasi *imageJ*. Hasil penelitian menunjukkan bahwa penyusun dinding tubuh *C. quadrangularis* dan *A. rosettis* terdiri atas lapisan kutikula, epidermis, dan dermis. Berdasarkan data yang diperoleh diketahui bahwa lapisan dermis merupakan lapisan yang paling dominan. Perbedaan antara *C. quadrangularis* dan *A. rosettis* terletak pada struktur yang ada pada epidermis, dermis, sistem pembuluh air, dinding *coelom*, dan dominasi otot.

Kata kunci: histologi dinding tubuh, *Colochirus quadrangularis*, *Acaudina rosettis* kutikula, epidermis, dermis, Selat Madura, teripang

Anisa Kusuma Rahayu, 2018. Comparative Histology of the Body Walls *Colochirus quadrangularis* and *Acaudina rosettis* in the Madura Strait. This study was under supervision of Dr. Dwi Winarni, M.Si and M. Hilman Fu'adil Amin, S.Si., M.Si. Department of Biology, Faculty of Science and Technology, Airlangga University, Surabaya.

ABSTRACT

This study aimed to determine the histology of the sea cucumber's body walls (*Colochirus quadrangularis* and *Acaudina rosettis*) in Madura Strait, as well as comparing the structure of both. *Colochirus quadrangularis* and *Acaudina rosettis*. From each species, 5 samples were collected. Samples were included in MgCl₂ 7% for relaxation, body walls separated from organs by *Neutral Buffered Formalin* (NBF). The walls of the sea cucumber are separated into the dorsal walls (anterior, median, posterior) and ventral walls (anterior, median, posterior), and then decalcated and made a histology preparation by paraffin method with Hematoxylin eosin (HE) staining. Measurements of thickness was done using *imageJ* application. The results showed that the composition of *C. quadrangularis* and *A. rosettis* body walls consisted of the cuticle, epidermis, and dermis layers. Based on the data obtained was known that the dermis layer was the most dominant layer. The difference between *C. quadrangularis* and *A. rosettis* lies in the structure of the epidermis, dermis, vascular system, walls *coelomic*, and muscle dominance.

Keywords: histology of the body walls , *Colochirus quadrangularis*, *Acaudina rosettis*, cuticle, epidermis, dermis, Madura Strait, sea cucumber