HISTOLOGICAL DIFFERENCES BETWEEN SEXUALLY IMMATURE AND MATURE ASIAN WATER MONITOR’S (Varanus salvator) PARYPHASMATA

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ABSTRACT

This research was conducted to compare the histological features between sexually mature and immature Asian Water Monitor’s (Varanus salvator) hemipenis paryphasmata and to obtain a better understanding the function of the paryphasmata. This research used 18 samples of Asian Water Monitor hemipenis with two categories; 9 samples of Asian Water Monitor with SVL ≤ 40 cm and 9 samples of those with SVL > 40 cm that were randomly selected from Asian Water Monitor slaughtering place in Gang Nyambek, Pagerwojo, Buduran, Sidoarjo. Snout Vent Length of male Asian Water Monitor were measured before slaughtering, hemipenes were collected and stored in plastic pots prefilled with 10% formaldehyde, making organ microscopic slide set with Hematoxylin-Eosin (HE) stained paraffin method. Specimens are observed histologically under microscope with 40x, 100x, and 400x magnification for both of the hemipenes. Data of the histological features forming paryphasmata of Asian Water Monitor’s hemipenis are presented descriptively. The thickness of the hemipenis epidermis, loose connective tissue, and dense connective tissue were measured for each sample. There were differences on paryphasmata of Asian Water Monitor with SVL > 40 cm to those of ≤ 40 cm. Asian Water Monitor’s hemipenis paryphasmata was perfectly developed on Asian Water Monitor with SVL > 40 cm. Paryphasmata of Asian Water Monitor is possibly became larger as the large amount of blood is filling this structure when the hemipenis is erected that is used as a hook inside vagina.

Keywords: asian water monitor, Varanus salvator, hemipenis, paryphasmata, histological features