

ABSTRAK

IDENTIFIKASI MORFOLOGI DAN STRUKTUR HISTOLOGI LIDAH KADAL PANANA (*Tiliqua gigas*) MENGGUNAKAN SCANNING ELECTRON MICROSCOPE (SEM) DAN PEWARNAAN HEMATOKSILIN EOSIN

Adelia Rahmi Triagustin

21/473760/KH/10843

Kadal panana (*Tiliqua gigas*) merupakan kadal berukuran besar yang termasuk dalam famili Scincidae, yang tersebar di Indonesia, khususnya di Maluku dan Papua. *Tiliqua gigas* merupakan hewan yang hidup di habitat terestrial dan termasuk hewan omnivora. Penelitian ini bertujuan untuk menambah informasi mengenai morfologi dan struktur histologi lidah *Tiliqua gigas* menggunakan *Scanning Electron Microscope* (SEM) dan pewarnaan Hematoksilin Eosin (HE).

Sebanyak tiga ekor kadal panana diperoleh dari Daerah Istimewa Yogyakarta digunakan dalam penelitian ini. Hewan diidentifikasi di Laboratorium Sistematika Hewan, Fakultas Biologi, Universitas Gadjah Mada. Penggunaan hewan dan prosedur penelitian telah disetujui oleh tim etik Fakultas Kedokteran Hewan, Universitas Gadjah Mada, dengan nomor 138/EC-FKH/int./2024 (Lampiran 1). Preparasi sampel dimulai dengan overdosis anestesi, kemudian dekapitasi, dan selanjutnya diambil lidahnya. Sampel diproses untuk persiapan analisis menggunakan SEM dan pewarnaan Hematoksilin Eosin. Pengamatan preparat histologis diamati dengan mikroskop cahaya dan difoto menggunakan OptiLab Viewer.

Hasil pengamatan dengan SEM menunjukkan perbedaan papila di masing-masing regio: regio *apex* terdapat *pointed filiform papilla* (PFP) dan *flat filiform papilla* (FFP), regio *corpus* terdapat *serrated filiform papilla* (SFP) dan *flat filiform papilla* (FFP), dan regio *radix* terdapat *conical papilla* (CP) dan *flat filiform papilla* (FFP). Hasil pengamatan histologi dengan pewarnaan HE menunjukkan bahwa lidah tersusun atas lamina epitelialis mukosa (LEM), lamina propria mukosa (LPM), dan lamina muskularis (LM). Ditemukan juga kluster sel goblet di epitel antarpapila dan melanin di tunika muskularis regio *apex* dan *corpus anterior*.

Kata kunci: Hematoksilin Eosin, histologi, lidah, *Scanning Electron Microscope*, *Tiliqua gigas*.

ABSTRACT

***IDENTIFICATIONS MORPHOLOGIES AND STRUCTURES
HISTOLOGIES PANANA LIZARD'S TONGUE (*Tiliqua gigas*)
USING SCANNING ELECTRON MICROSCOPE (SEM)
AND HEMATOXYLIN EOSIN STAIN***

**Adelia Rahmi Triagustin
21/473760/KH/10843**

Panana lizards (*Tiliqua gigas*) are large lizards belonging to the Scincidae family, which are distributed in Indonesia, especially in Maluku and Papua. *Tiliqua gigas* lives in terrestrial habitats and is an omnivore. This study aims to add information about the morphology and histology structure of *Tiliqua gigas* tongue using Scanning Electron Microscope (SEM) and Hematoxylin Eosin (HE) staining.

A total of three panana lizards obtained from Yogyakarta Special Region were used in this study. Animals were identified at the Animal Systematics Laboratory, Faculty of Biology, Gadjah Mada University. The use of animals and research procedures were approved by the ethics team of the Faculty of Veterinary Medicine, Gadjah Mada University, with number 138/EC-FKH/int./2024. Sample preparation began with an overdose of anaesthesia, then decapitation, and then the tongue was taken. Samples were processed in preparation for analysis using SEM and Hematoxylin Eosin staining. Observation of histological preparations was observed with a light microscope and photographed using OptiLab Viewer.

The results of observations with SEM show differences in papillae in each region: the apex region has pointed filiform papilla (PFP) and flat filiform papilla (FFP), the corpus region has serrated filiform papilla (SFP) and flat filiform papilla (FFP), and the radix region has conical papilla (CP) and flat filiform papilla (FFP). Histological observations with HE staining showed that the tongue is composed of lamina epithelialis mucosa (LEM), lamina propria mucosa (LPM), and lamina muscularis (LM). Goblet cell clusters were also found in the interpapillary epithelium and melanin in the tunica muscularis of the apex and corpus anterior regions.

Key words: Hematoxylin Eosin, histology, tongue, Scanning Electron Microscope, *Tiliqua gigas*.