

INTISARI

ANALISIS MORFOLOGI LIDAH ULAR KOBRA JAWA (*Naja sputatrix*) MENGGUNAKAN SCANNING ELECTRON MICROSCOPE (SEM) DAN PEWARNAAN HEMATOKSILIN EOSIN

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Indonesia merupakan negara yang kaya berbagai jenis flora dan fauna. Salah satunya adalah kobra jawa (*Naja sputatrix*) yang merupakan salah satu satwa endemik Indonesia. Ular Kobra Jawa atau *Javan spitting cobra* (*Naja naja sputatrix*) termasuk dalam Ordo *Squamata*, Subordo *Serpentes*, Famili *Elapidae*, dan Genus *Naja*. Lidah dari ular kobra jawa ini memiliki bentuk seperti garpu dan memiliki permukaan halus, memiliki fungsi untuk merasakan getaran udara dan tanah di sekitarnya dengan cara memilih partikel - partikel kecil yang kemudian di salurkan ke organ *Jacobson*. Tujuan dari penelitian ini mendeskripsikan morfologi lidah kobra jawa dengan *Scanning Electron Microscope* dan struktur histologi lidah kobra jawa (*Naja sputatrix*) dengan pewarnaan Hematoksin Eosin (HE). Penelitian dilakukan dengan sampel 6 ekor kobra jawa yang didapatkan dari Daerah Istimewa Yogyakarta tanpa memperhatikan jenis kelamin kemudian diidentifikasi pada Laboratorium Sistematika Hewan, Fakultas Biologi, Universitas Gadjah Mada. kepala kobra jawa dipreparasi dan dibersihkan dengan larutan NaCl fisiologis dan PBS working. Selanjutnya sampel disimpan dalam larutan fiksatif SEM (glutaraldehyde 1,5% (Chem cruz), paraformaldehid 1,5% (Nacalai Tesque), Hepes (Chem cruz), dan Phosphate Buffer Saline (PBS) working (Nacalai Tesque) selama minimal enam sampai delapan jam untuk SEM. Penelitian ini dilakukan analisis dengan menggunakan *Scanning Electron Microscope* (SEM) dan pewarnaan histokimia dengan Hematoksin eosin (HE) Hasil analisis deskriptif menggunakan SEM, tidak ditemukan adanya papilla lidah dan juga *taste buds* akan tetapi pada bagian lidah terdapat bentukan seperti *Microfacets*, dan *Micropores*. Pengamatan histologi menunjukkan lidah tersusun atas tunika mukosa dan tunika muskularis. Tunika mukosa tersusun atas lamina epitelialis mukosa dan lamina propria mukosa serta terdapat melanosit, dan tidak ditemukan adanya papilla dan juga *taste buds* pada pengamatan histologi. Lidah kobra jawa tidak memiliki papilla lidah dan *taste buds* serta tersusun atas beberapa lapisan musculus.

Kata kunci: Kobra Jawa, Lidah, *Naja sputatrix*, Scanning Electron Microscope, Pewarnaan Histokimia.

ABSTRACT

ANALYSIS MORPHOLOGICAL TONGUE STRUCTURE OF THE JAVAN COBRA (*Naja sputatrix*) USING SCANNING ELECTRON MICROSCOPE (SEM) AND HEMATOXYLIN EOSIN STAINING

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Indonesia is a country rich in various types of flora and fauna. One of them is the Javan cobra (*Naja sputatrix*) which is one of Indonesia's endemic animals. The Javan spitting cobra (*Naja naja sputatrix*) belongs to the Order Squamate, Suborder Serpentes, Family Elapidae, and Genus *Naja*. The tongue of the Javan cobra is shaped like a fork and has a smooth surface. It has a function to sense the vibrations of the air and the ground around it by selecting small particles which are then channeled to Jacobson's organs. The purpose of this study was to describe the morphology of the tongue of the Javan cobra using a Scanning Electron Microscope and the histological structure of the tongue of the Javan cobra (*Naja sputatrix*) with Hematoxylin Eosin (HE) staining. The study was conducted with a sample of 6 Javan cobras obtained from the Special Region of Yogyakarta without regard to gender and then identified at the Animal Systematics Laboratory, Faculty of Biology, Gadjah Mada University. Javan cobra heads were prepared and cleaned with physiological NaCl and PBS working solution. Subsequently, the samples were stored in a solution of SEM fixative (1.5% glutaraldehyde (Chem cruz), 1.5% paraformaldehyde (Nacalai Tesque), Hepes (Chem cruz), and Phosphate Buffer Saline (PBS) working (Nacalai Tesque) for a minimum of six to eight hours for SEM. This study was analyzed using a Scanning Electron Microscope (SEM) and histochemical staining with Hematoxylin eosin (HE). The results of descriptive analysis using SEM, did not find any papillae of the tongue and also taste buds but on the tongue there were formations such as Microfacets and Micropores. Histological observation showed that the tongue was composed of tunica the mucosa and tunica muscularis. The tunica mucosa was composed of mucosal epithelial lamina and mucosal lamina propria and there were melanocytes, and there were no papillae and no tastebuds on histological observation. The Javan cobra's tongue did not have tongue papillae. and taste buds and are composed of several layers of muscles.

Keywords: Histochemical staining, *Naja sputatrix*, Javan Spitting Cobra, Tongue, Scanning Electron Microscope.