

ABSTRAK

IDENTIFIKASI MORFOLOGI LIDAH BUNGLON TAMAN (*Calotes versicolor*) DENGAN METODE SCANNING ELECTRON MICROSCOPE (SEM) DAN MIKROSKOP CAHAYA

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Calotes versicolor merupakan reptil dari ordo Squamata, keluarga Agamidae. Bunglon ini ditemukan di Asia Tenggara, Asia Selatan, Oseania, bahkan Indonesia. Bunglon menggunakan lidah, untuk menangkap dan menelan mangsanya. Penelitian ini bertujuan agar mengetahui morfologi lidah bunglon taman dengan *Scanning Electron Microscope* (SEM) dan mikroskop cahaya.

Empat bunglon dewasa bernomor surat 002/BI/SH/I/2024 diidentifikasi di Laboratorium Sistematika Hewan Fakultas Biologi Universitas Gadjah Mada. Spesimen di-euthanasia mengikuti prosedur Tim Etik Fakultas Kedokteran Hewan Universitas Gadjah Mada (No.136/EC-FKH/Int./2024), kemudian lidah diambil. Lidah dicuci dengan NaCl fisiologis dan *PBS working*, lalu dua sampel disimpan dalam larutan fiksasi SEM. Dua sampel lainnya disimpan dalam paraformaldehyde 4% selama 6-8 jam untuk pewarnaan hematoksin eosin.

Sampel kemudian disiapkan dan diamati menggunakan SEM dan mikroskop cahaya. Didapati berbagai macam gambaran lidah secara makroskopis dan mikroskopis.

Pengamatan dilakukan dan ditemukan berbagai struktur lidah seperti *papillae plumose*, *taste bud*, *taste pore*, glandula saliva, hingga berbagai macam otot. Diperlukan penelitian lanjutan dengan penambahan sampel agar data lebih lengkap.

Kata kunci: *Calotes versicolor*, lidah, *Scanning Electron Microscope*, mikroskop cahaya, Hematoksin eosin

ABSTRACT

MORPHOLOGY IDENTIFICATION OF GARDEN CHAMELEON (*Calotes versicolor*) TONGUE USING SCANNING ELECTRON MICROSCOPE (SEM) AND LIGHT MICROSCOPE METHODS

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Calotes versicolor is a reptile of the order Squamata, family Agamidae. This chameleon is found in Southeast Asia, South Asia, Oceania, and even Indonesia. Chameleons use their tongue to catch and swallow their food. This study aims to determine the morphology of the garden chameleon tongue by Scanning Electron Microscope (SEM) and light microscopy.

Four adult chameleons with letter number 002/BI/SH/I/2024 were identified at the Laboratory of Animal Systematics, Faculty of Biology, Gadjah Mada University. Specimens were euthanized following the procedures of the Ethics Team of the Faculty of Veterinary Medicine, Gadjah Mada University (No.136/EC-FKH/Int./2024), then the tongue was removed. The tongue was washed with physiological NaCl and PBS working, then two samples were stored in an SEM fixation solution. The other two samples were kept in 4% paraformaldehyde for 6-8 hours for hematoxylin eosin staining.

Samples are prepared and observed using SEM and light microscopy. Various macroscopic and microscopic features of the tongue were found.

Observations were made and found various tongue structures such as plumose papillae, taste buds, taste pores, salivary glands, and multiple muscles. Further research is needed with additional samples for more complete data.

Keywords: *Calotes versicolor*, tongue, Scanning Electron Microscope, light microscope, Hematoxylin eosin