

ABSTRAK

IDENTIFIKASI MORFOLOGI BUNGLON POHON (*Bronchocela jubata*) DENGAN METODE SCANNING ELECTRON MICROSCOPE (SEM) DAN MIKROSKOP CAHAYA

Wong Yue Shuen

20/457577/KH/10479

Pembimbing: Prof. drh. Dwi Liliek Kusindarta, MP. Ph.D.

Bunglon pohon (*Bronchocela jubata*) merupakan spesies bunglon lokal asli dari Indonesia yang digolongkan ke dalam Kelas Reptilia, Ordo Squamata dan Famili Agamidae. Bunglon pohon merupakan hewan predator yang bersifat karnovora. Jadi, lidah menjadi organ sensoris yang penting dalam membantu bunglon pohon mendapatkan makanan. Penelitian ini bertujuan untuk mengetahui morfologi dan histologi lidah bunglon pohon (*Bronchocela jubata*) dengan menggunakan *Scanning Electron Microscope* (SEM) dan pewarnaan histokimia hematoxilin eosin (HE). Empat ekor bunglon pohon diperoleh dari Daerah Istimewa Yogyakarta tanpa memperhatikan jenis kelamin untuk digunakan dalam penelitian ini. Identifikasi species dilakukan di Laboratorium Sistematika Hewan Fakultas Biologi University Gadjah Mada. Bunglon dieutanasi sesuai prosedur yang telah disetujui tim etik Fakultas Kedokteran Hewan Nomor 133/EC-FKH/Int./2024, kemudian diambil organ lidahnya. Dua sampel diproses untuk pengamatan SEM dan dua sampel lainnya diproses menjadi blok parafin dan diwarnai dengan pewarnaan HE. Hasil pewarnaan diamati di bawah mikroskop cahaya dan difoto menggunakan *OptiLab Viewer*. Hasil pengamatan SEM ditemukan pada permukaan dorsal lidah bunglon memiliki papilla yang berbentuk *scale like* dan papila lentikularis. Hasil pengamatan HE menunjukkan lidah bunglon pohon memiliki tunika mukosa tersusun atas lamina epitelium mukosa dan lamina propria mukosa, dan tunika muskularis terdiri dari serabut otot yang tersusun secara longitudinal, transversal, dan sirkuler disertai *hyoglossus muscle*, *salivary glands*, dan *taste bud*. Penelitian ini diharapkan dapat berkontribusi dalam pemahaman adaptasi fungsi lidah dan perilaku bunglon dalam kehidupan sehari-hari.

Kata kunci: *Bronchocela jubata*, lidah, *Scanning Electron Microscope*, histologi.

ABSTRACT

IDENTIFICATION OF THE MORPHOLOGY FEATURE OF (*Bronchocela jubata*) WITH THE METHODE OF SCANNING ELECTRON MICROSCOPE AND LIGHT MICROSCOPE

Wong Yue Shuen

20/457577/KH/10479

Pembimbing: Prof. drh. Dwi Liliek Kusindarta, MP. Ph.D.

The green crested lizard (*Bronchocela jubata*) is a native local lizard species of Indonesia from the Reptilia class, Squamata order, and Agamidae family. This forest lizard are predatory species and exhibits a carnivorous nature. Therefore, the tongue serves as a sensory organ allows green crested lizard in foraging. This research aims to determine the morphology and histology structure of the green crested lizard (*Bronchocela jubata*) tongue using a scanning electron microscope (SEM) and histochemistry stains hematoxylin eosin (HE). Four adult green crested lizards, were chosen from the Special Region of Yogyakarta Indonesia without regard to sex. Species identification has been done at the Animal Systematics Laboratory of Biology Faculty, University Gadjah Mada. The animal were euthanised and its tongue removed accordance with the approved procedures by the Ethics Committee of the Faculty of Veterinary Medicine with attached license number 133/EC-FKH/Int./2024. Two tongue samples were observed using SEM and two other samples were processed into paraffin blocks, and stained with HE. The histology staining results were observed using a light microscope and photographed with *OptiLab Viewer* software. In SEM observation showed that the dorsal surface of the lingual structure consists of scale like papillae and conical papillae. The result of histology staining using HE showed the lingual structure contains mucosa layer that composed of laminar epithelial mucosa and lamina propria mucosa followed up by muscle layer mainly muscle fibers that consists of longitudinal, transverse dan circular muscles were found. Hyoglossus muscle, slivary glands dan taste bud were present. The research is expected to contribute the understanding in adaptation of tongue function and its behavior in daily life.

Keywords: *Bronchocela jubata*, lidah, *Scanning Electron Microscope*, histologi.