

ABSTRAK

IDENTIFIKASI MORFOLOGI DAN STRUKTUR DORSAL LIDAH BURUNG MERBAH CERUKCUK MENGGUNAKAN SCANNING ELECTRON MICROSCOPE DAN LIGHT MICROSCOPE

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Merbah cerukcuk (*Pycnonotus goiavier*) merupakan burung yang termasuk dalam ordo *Passeriformes*, famili *Pycnonotidae* yang menyebar di Sumatera, Jawa, Bali, dan Kalimantan. *Pycnonotus goiavier* merupakan burung yang memakan biji-bijian serta serangga. Penelitian ini bertujuan untuk memberikan informasi mengenai morfologi lidah menggunakan *Scanning Electron Microscope* (SEM) dan struktur histologinya dengan pewarnaan *Hematoxylin Eosin* (HE).

Sebanyak empat ekor merbah cerukcuk diperoleh dari Daerah Istimewa Yogyakarta digunakan dalam penelitian ini. Hewan diidentifikasi di Laboratorium Sistemika Hewan, Fakultas Biologi, Universitas Gadjah Mada. Penggunaan hewan telah disetujui oleh tim etik Fakultas Kedokteran Hewan, Universitas Gadjah Mada dengan nomor 179/EC-FKH/int./2025 (Lampiran 1). Preparasi sampel dilakukan dengan dekapitasi pada burung kemudian organ yang akan dijadikan sampel diambil. Selanjutnya sampel diproses untuk persiapan analisis menggunakan SEM dan pewarnaan *Hematoxylin Eosin*. Hasil pewarnaan tersebut kemudian diamati dengan mikroskop cahaya dan diambil gambar dengan menggunakan OptiLab Viewer.

Hasil pengamatan dengan SEM dengan perbesaran 25x, 30x, 75x, 90x, 100x, 300x menunjukkan adanya *processus needle like shaped* pada regio *apex*, batas *sulcus medianus* yang lebih detail, *conical papillae* pada transisi *corpus* dan *radix*, serta sebaran *orificium glandula saliva* pada regio *radix*. 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 *entoglossum bone* dan *basibranchial bone* yang mendominasi lidah.

Kata kunci: *Pycnonotus goiavier*, histologi, morfologi lidah, *Scanning Electron Microscope*, *Hematoxylin Eosin*

ABSTRACT

MORPHOLOGICAL IDENTIFICATION AND DORSAL STRUCTURE OF THE TONGUE OF THE YELLOW VENTED BULBUL USING A SCANNING ELECTRON MICROSCOPE AND A LIGHT MICROSCOPE

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The Yellow Vented Bulbul (*Pycnonotus goiavier*) is a bird belonging to the order Passeriformes, family Pycnonotidae, found in Sumatra, Java, Bali, and Kalimantan. *Pycnonotus goiavier* is a seed- and insect-eating bird. This study aims to provide information on tongue morphology using a Scanning Electron Microscope (SEM) and its histological structure with Hematoxylin and Eosin (HE) staining.

A total of four Yellow Vented Bulbul specimens obtained from the Special Region of Yogyakarta were used in this study. The specimens were identified at the Animal Systematics Laboratory, Faculty of Biology, Gadjah Mada University. The use of animals was approved by the Ethics Committee of the Faculty of Veterinary Medicine, Gadjah Mada University, under number 179/EC-FKH/int./2025 (Lampiran 1). Sample preparation involved decapitating the birds, followed by the removal of the organs to be used as samples. Subsequently, the samples were processed for analysis using SEM and *Hematoxylin Eosin* staining. The stained specimens were then observed under a light microscope and photographed using OptiLab Viewer.

Observations using SEM at magnifications of 25x, 30x, 75x, 90x, 100x, and 300x revealed the presence of needle-like processes in the apex region, a more detailed border of the median sulcus, conical papillae at the transition between the corpus and radix, and the distribution of salivary gland orifices in the radix region. Histological observations using HE staining revealed that the tongue consists of the mucosal epithelial lamina (LEM), the mucosal lamina propria (LPM), and the muscular lamina (LM). The entoglossal bone and basibranchial bone were also found to dominate the tongue.

Keywords: *Pycnonotus goiavier*, histology, tongue morphology, Scanning Electron Microscope, *Hematoxylin* and *Eosin*