

ABSTRAK

IDENTIFIKASI MORFOLOGI DAN STRUKTUR HISTOLOGI LIDAH BURUNG CEKAKAK JAWA (*Halcyon cyanoventris*) MENGUNAKAN *SCANNING ELECTRON MICROSCOPE* (SEM) DAN PEWARNAAN HEMATOKSILIN EOSIN

Fadhli Faaza Widikusuma

19/442186/KH/10110

Penelitian pada lidah burung yang pernah dilakukan menunjukkan bahwa lidah burung berbentuk segitiga memanjang dan terletak di bagian bawah rongga paruh antara paruh atas dan paruh bawah. Penelitian ini bertujuan untuk mengetahui morfologi dan struktur histologi dari lidah burung cekakak jawa (*Halcyon cyanoventris*) menggunakan *Scanning Electron Microscope* (SEM) dan Hematoksilin Eosin (HE). Sebanyak dua ekor burung cekakak jawa diperoleh dari Daerah Istimewa Yogyakarta tanpa memperhatikan jenis kelamin dalam penelitian ini. Identifikasi spesies dilakukan di Laboratorium Sistematika Hewan Fakultas Biologi Universitas Gadjah Mada. Burung dieutanasi lalu diambil organ lidahnya. Satu sampel diproses untuk pengamatan menggunakan *Scanning Electron Microscope* (SEM), satu sampel lainnya diproses dan diwarnai dengan pewarnaan Hematoksilin Eosin (HE). Hasil pewarnaan diamati di bawah mikroskop cahaya dan difoto menggunakan *OptiLab Viewer*. Pada pengamatan SEM, ditemukan beberapa bentukan yaitu *lingual folding*, *sulcus median*, *longitudinal eminence*, *transverse eminence*, *longitudinal eminence*, *orifice of the lingual gland*, *lingual wing*, *laryngeal mound* serta ditemukan papila namun tidak ditemukan *taste bud*. Hasil pewarnaan HE menunjukkan lidah cekakak jawa tersusun atas lamina epitelium mukosa, lamina propia dan lamina muskularis. Terdapat bentukan berupa *lingual glands*, *taste buds*, dan beberapa bentuk papilla. Secara keseluruhan, dapat disimpulkan bahwa lidah burung cekakak jawa berbentuk segitiga memanjang dengan pembagian region lidah meliputi *apex*, *corpus*, dan *radix*. Lidah burung cekakak jawa berperan dalam memanipulasi makanan serta membantu sistem deglutisi dan gustatory. Masih perlu penelitian lebih lanjut tentang morfologi, struktur histologi, dan fisiologi dari *Halcyon cyanoventris* untuk meningkatkan wawasan mengenai morfologi, histologi, dan fisiologi dari burung tersebut.

Kata kunci: *Halcyon cyanoventris*, lidah, *Scanning Electron Microscope*, Hematoksilin Eosin, histologi

ABSTRACT

IDENTIFICATION OF THE MORPHOLOGICAL AND HISTOLOGICAL STRUCTURE OF THE TONGUE OF JAVANESE KINGFISHER (*Halcyon cyanoventris*) USING SCANNING ELECTRONIC MICROSCOPE (SEM) AND HEMATOXYLIN EOSIN STAINING

Fadhli Faaza Widikusuma

19/442186/KH/10110

Studies of bird tongues that have been conducted show that the bird's tongue has an elongated triangular shape and is located at the bottom of the beak cavity between the upper and lower beaks. This study aims to determine the morphology and histological structure of Javan kingfisher (*Halcyon cyanoventris*) tongue using scanning electron microscope (SEM) and eosin hematoxylin (HE). A total of two Javan Cekakak birds were obtained from Yogyakarta Special Region without regard to gender in this study. Species identification was carried out at the Animal Systematics Laboratory, Faculty of Biology, Gadjah Mada University. The bird is euthanized and its tongue is removed. One sample was processed for observation using a scanning electron microscope (SEM), the other sample was processed and stained with hematoxylin eosin (HE) staining. The staining results were observed under an optical microscope and photographed using the OptiLab Viewer. In the SEM observations, several formations were found, namely, lingual fold, median sulcus, longitudinal eminence, transverse eminence, longitudinal eminence, lingual gland orifice, lingual wing, laryngeal mound and taste buds, but no taste buds were found. HE staining results showed that Javan kingfisher tongue was composed of laminar mucosal epithelium, lamina propria and lamina muscularis. There are formations in the form of lingual glands, taste buds and several forms of papillae. Overall, it can be concluded that the tongue of the Javanese kingfisher has the shape of an elongated triangle with the division of the region of the tongue including the apex, body, and base. The Javan Kingfisher's tongue plays a role in food handling and aids swallowing and taste systems. Further research is still needed on the morphology, histological structure and physiology of *Halcyon cyanoventris* to better understand the morphology, histology and physiology of these birds.

Keywords: *Halcyon cyanoventris*, tongue, Scanning Electron Microscope, Hematoxylin Eosin, histology