

INTISARI

ANALISIS STRUKTUR HISTOLOGI LIDAH DAN SIFAT SEKRESI DARI GLANDULA LIDAH PADA MUSANG LUWAK (*Paradoxurus hermaphroditus*) DAN GARANGAN JAWA (*Herpestes javanicus*)

Musang luwak (*Paradoxurus hermaphroditus*; *Viverridae*) dan garangan jawa (*Herpestes javanicus*; *Herpestidae*) merupakan mamalia dengan behavior dan pola pakan yang berbeda. Perbedaan behavior dan pola makan diduga mempengaruhi struktur anatomi dan histologi lidah pada kedua spesies tersebut. Penelitian ini bertujuan untuk menganalisis struktur lidah secara histologi dan sifat sekresi kelenjar lidah pada *Paradoxurus hermaphroditus* dan *Herpestes javanicus*.

Sebanyak 1 ekor musang luwak dan 1 ekor garangan jawa tangkapan alam digunakan dalam penelitian ini. Identifikasi spesies dilakukan di Laboratorium Sistematika Hewan, Fakultas Biologi Universitas Gadjah Mada. Musang luwak dan garangan jawa dianestesi dengan ketamin dosis 10mg/kg BB dan xylazine dosis 2 mg/kgBB kemudian dilakukan perfusi menggunakan larutan NaCl 4% dilanjutkan paraformaldehid 0,9% pH 7,4. Lidah dipreparir, diambil dan direndam dalam larutan paraformaldehid selama 24 jam, kemudian di proses pembuatan blok parafin. Blok parafin dipotong menjadi slide dengan ketebalan 5 µm dan diwarnai dengan *hematoxylin-eosin*, *alcian blue*, *periodic acid Schiff*, dan *Masson's Trichrome* kemudian diamati di mikroskop yang dilengkapi dengan kamera.

Papila pada lidah musang luwak ditemukan papilla fungiform, *arrowhead* filiform, *giant arrowhead* filiform, *scale-like* filiform, *conical*, dan sirkumvalat. Papila pada lidah garangan jawa ditemukan papila fungiform, *conical-like* filiform, *leaf-like* filiform, *conical*, dan sirkumvalat. Lidah musang luwak dan garangan jawa pada bagian radix ditemukan glandula Weber yang menghasilkan sekresi *neutral mucin* dan *acid mucin*. Serat kolagen ditemukan tersebar pada semua lamina propria dan sebagian tunika muskularis pada kedua lidah hewan dengan intensitas kolagen lebih tinggi pada *apex*.

Kata kunci: *Paradoxurus hermaphroditus*, *Herpestes javanicus*, lidah, morfologi, histologi

ABSTRACT

HISTOLOGICAL STRUCTURE ANALYSIS OF THE TONGUE AND SECRETION TYPE OF LINGUAL GLAND IN ASIAN PALM CIVET (*Paradoxurus hermaphroditus*) AND SMALL ASIAN MONGOOSE (*Herpestes javanicus*)

The Asian palm civet (*Paradoxurus hermaphroditus*; *Viverridae*) and the small Asian Mongoose (*Herpestes javanicus*; *Herpestidae*) are mammals with different behavior and feeding patterns. Differences in behavior and diet are thought to affect the anatomical structure and histology of the tongue in the two species. This study aims to analyze the histological structure of the tongue and the nature of the secretions of the tongue glands in *Paradoxurus hermaphroditus* and *Herpestes javanicus*.

Each one of civet and mongoose were used in this study. Species identification was carried out at the Animal Systematics Laboratory, Faculty of Biology, Gadjah Mada University. The Asian palm civet and the small Asian mongoose were anesthetized with ketamine at a dose of 10 mg/kg BW and xylazine at a dose of 2 mg/kg BW then perfused using 4% NaCl solution followed by paraformaldehyde 0.9% pH 7.4. The tongue was prepared, taken and soaked in a solution of paraformaldehyde for 24 hours, then the paraffin block was made. Paraffin blocks were cut into slides with a thickness of 5 m and stained with hematoxylin-eosin, alcian blue, periodic acid Schiff, and Masson's Trichrome and then observed in a microscope equipped with a camera.

Papillae on the tongue of the Asian palm civet are fungiform papillae, arrowhead filiform, giant arrowhead filiform, scale-like filiform, conical, and circumvalate. Papillae on the tongue of the small Asian mongoose are fungiform, papillae, conical-like filiform, leaf-like filiform, conical, and circumvalate. The radix region of tongue of the civet and mongoose, Weber's glands are found which produce the secretion of neutral mucin and acid mucin. Collagen fibers were found scattered in all of the lamina propria and some of the tunica muscularis in both animal tongues with higher collagen intensity at the apex.

Keywords: *Paradoxurus hermaphroditus*, *Herpestes javanicus*, tongue, morphology, histology