

Morphological Comparison of the Gustatory Papillae of New Zealand White Rabbits (*Oryctolagus cuniculus*) and Egyptian Fruit Bats (*Rousettus aegyptiacus*) Using Scanning Electron Microscopic Examinations

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Abstract : This research presents a comparison of the morphological structure of the gustatory papillae in New Zealand white rabbits as domestic mammals and Egyptian fruit bats as wild mammals. In this study, the tongues of adult healthy New Zealand white rabbits and Egyptian fruit bats of both sexes were used. In the New Zealand white rabbits, there are three types of the gustatory papillae; fungiform, foliate and circumvallate papillae while the Egyptian fruit bats tongue contain only two types; fungiform and circumvallate papillae. In New Zealand white rabbits, there only one subtype is the round shape fungiform papillae while in Egyptian fruit bats, there are two subtypes; small rectangular fungiform papillae and large round fungiform papillae. In New Zealand white rabbits, there only two circumvallate papillae while in Egyptian fruit bats, there are three papillae. The shape, size, number, and distribution of the lingual papillae were varied according to their location within the tongue (region-specific) in relation to the feeding habits, strategies for obtaining food, climate conditions, and types of food particles.

Keywords : morphology, circumvallate papillae, fungiform papillae, foliate papillae

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