

# Do Geckos Have Tastebuds?

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## Introduction

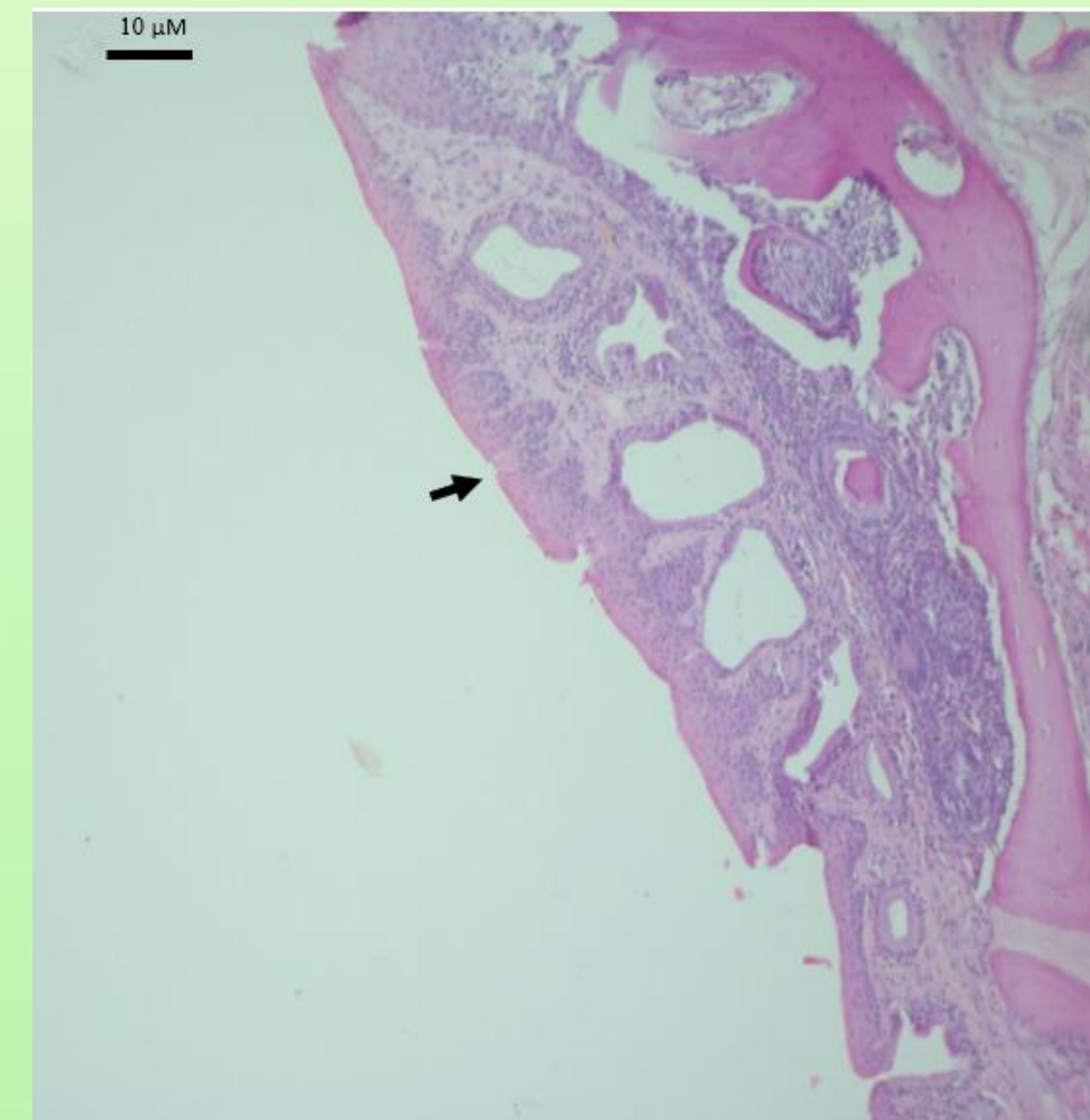
The occurrence of tastebuds in lizards has not been very well documented. A previous study found that the Gekkonid family has tastebuds within the lining of the lower jaw epithelium. The purpose of this study was to examine the lining of the upper jaws of *Christinus marmoratus*, an Australian gecko.

## Methods and Materials

This study used preprepared histological slides of upper jaw of 6 specimens of *Christinus marmoratus*. Slides were prepared using a hematoxylin and eosin stain.

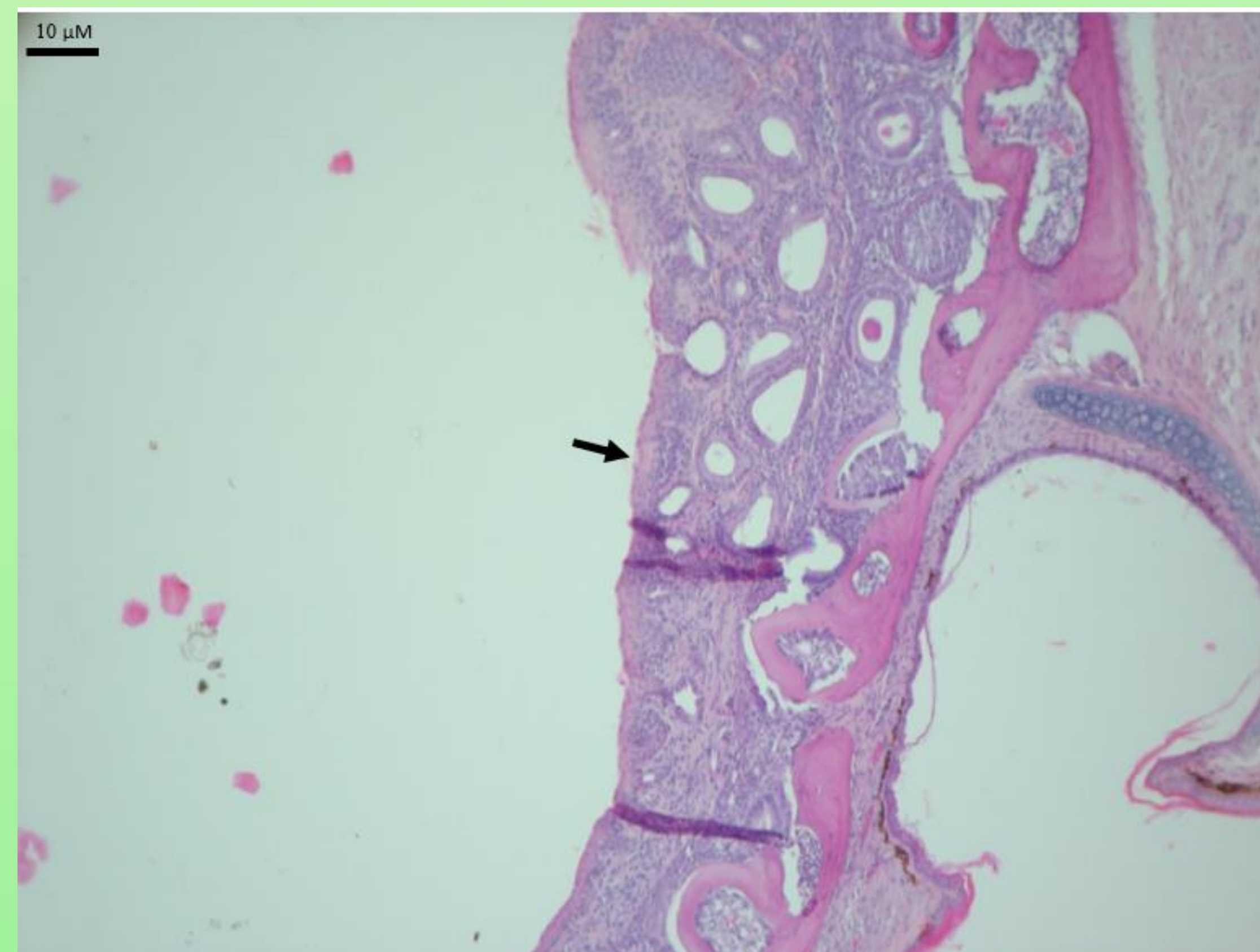
## Results

Taste buds were found within 3 specimens. An overall total of 7 tastebuds were found within 3 of the specimens. 3 of the specimens had no evidence of tastebuds.



**Figure 3: CM4-Slide 10**

A photo of a tastebud found in specimen 4, slide 10. Scale bar= 10 μm



**Figure 2: CM4-Slide 4**

An example of a tastebud found in specimen 4, slide 4. Scale bar of 10 μm

## Conclusion

Previous studies have shown the absence of tastebuds on the tongue of Gekkonid lizards, but not in other lizards. This absence may be due to the fact that geckos utilize their tongue to clean the scale covering found on their eyeballs. Geckos have been found to have many tastebuds on the lining of the lower jaw, and the absence of tastebuds on the top jaw may indicate that their sense of taste is focused in the lining of the lower jaw.

## References

Schwenk, K. (1985). Occurrence, Distribution and Functional Significance of Taste Buds in Lizards. *Copeia*, 1985(1), 91. <https://doi.org/10.2307/1444795>



**Figure 1: Photo of *Christinus Marmoratus***

*Christinus marmoratus*. The Reptile Database. (2022). Retrieved 3 April 2022, from <https://reptile-database.reptarium.cz/species?genus=Christinus&species=marmoratus>.