

## INTRODUCTION/BACKGROUND

Microbiomes are vital communities of microbes essential for human health, while the skin, comprising the epidermis, dermis, and subcutaneous layer, is the body's largest organ. Surfers are categorized by their surfing activity and location.

Research Question:

- Based on surfing activities and locations, how many different bacteria are found in a surfer's system?

## HYPOTHESIS

Surfers with thinner wetsuits will be found with more bacteria than surfers with thicker wetsuits.

## PROGRAMS

R Studio  
Excel

## REFERENCE

Summer Wetsuit Buying Guide - Circle One. (2022). Retrieved 28 June 2022, from <https://www.circle-one.co.uk/buyer-guides/summer-wetsuit-buying-guide/>  
HSE - Skin at work: Work-related skin disease – Skin structure and function. (2022). Retrieved 28 June 2022, from <https://www.hse.gov.uk/skin/professional/causes/structure.htm>  
Gabriel, M. (2022). Wetsuit Thickness & Temperature. Retrieved 28 June 2022, from <https://www.cleantinesurf.com/wetsuit-guide/wetsuit-thickness/>

## DATA SETS & VISUALS

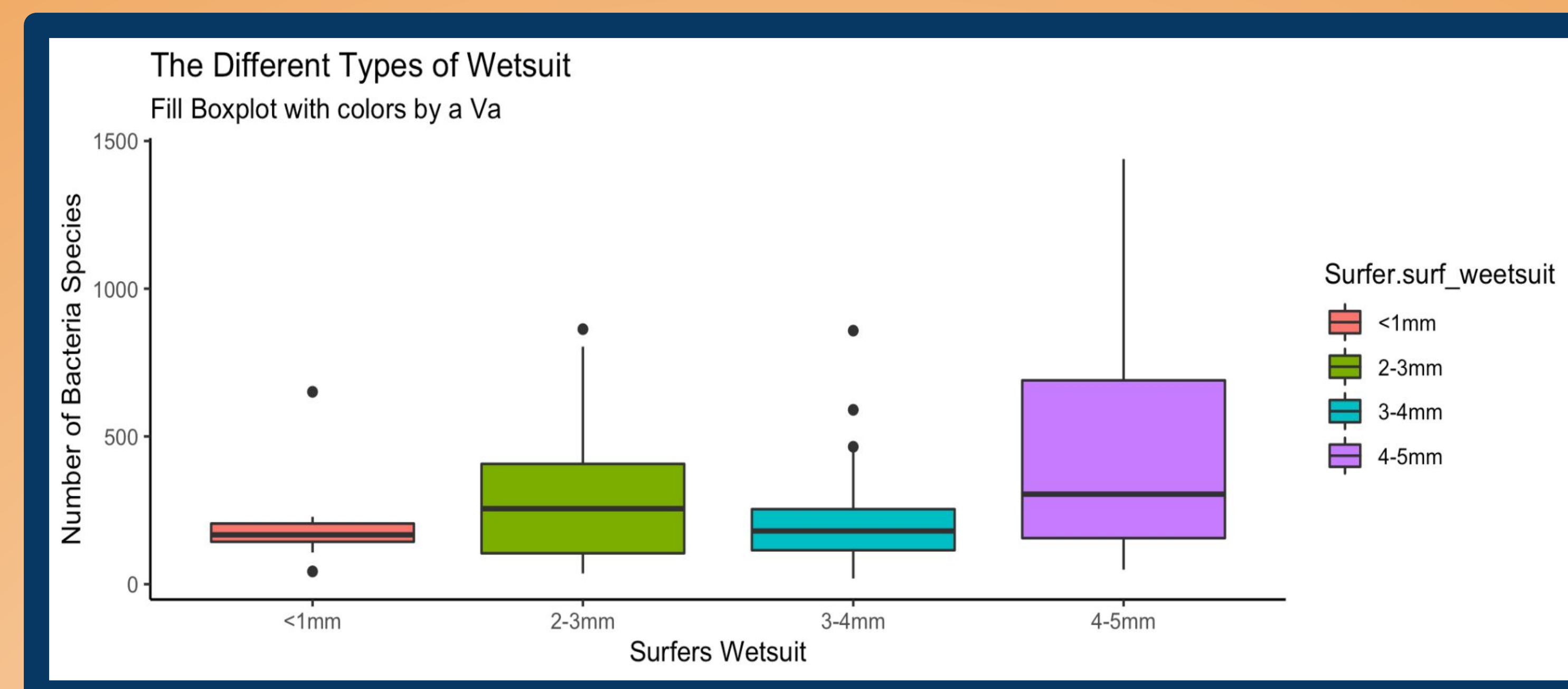


Figure1: Describes the different types of wetsuits surfers use. The X-axis is how the wetsuits are measured.

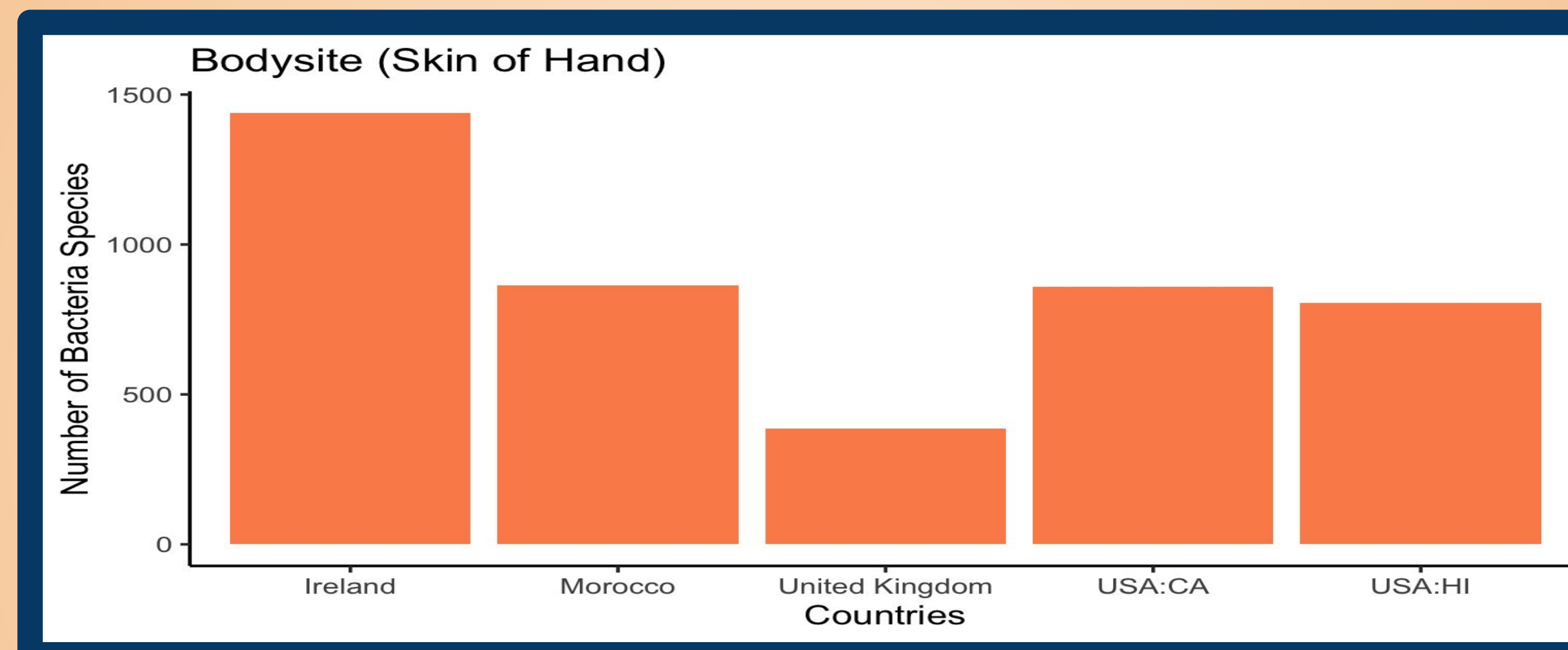


Figure 2: Shows data of bacteria found on surfers skins of hand in different countries

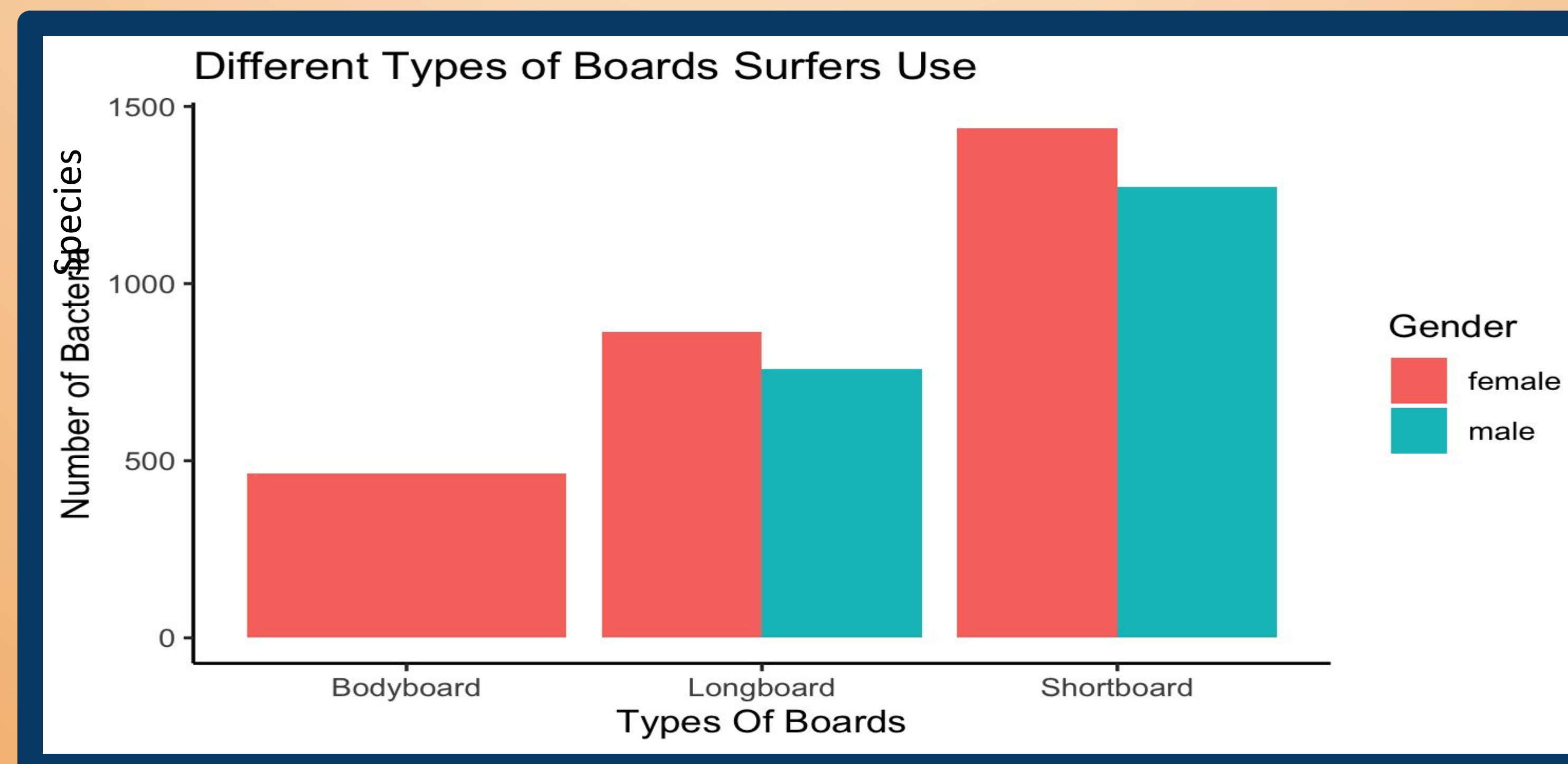


Figure 3: Types of surfboards surfers use

## DISCUSSION

The data suggests that surfers with thicker wetsuits have more bacteria on their skin compared to those with thinner wetsuits. Specifically, among surfers, those in Ireland have the most diverse bacteria on their hands. Also, figure 3 shows that women are more likely to use bodyboards than men.

## RESULTS & FINDINGS

Based on the data in figure 1, my initial hypothesis was proven wrong. Surfers wearing thicker wetsuits had higher levels of bacteria compared to those wearing thinner wetsuits. To further explore this, I plan to investigate multiple body sites and include both genders from different locations in my research.

## ACKNOWLEDGMENTS

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