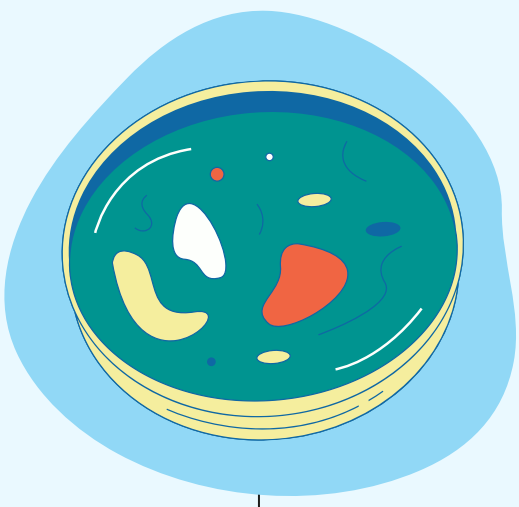
Microbial Interactions

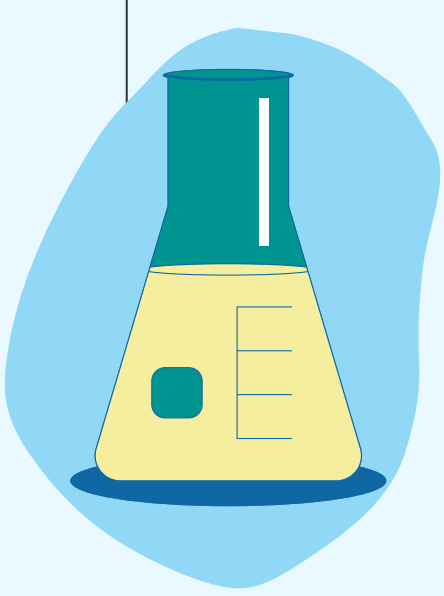


WHAT

In microbial ecology, it is important to not only analyze the diversity and abundance of taxa present in a community, but it is equally important to understand the interactions between microbiota in the environment.

WHY

This is important to microbial ecologists because microbiota can have specific interactions with one another that affect the overall community structure.

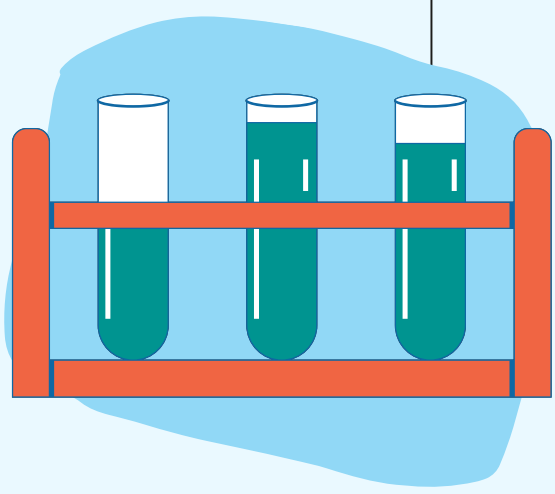


WHO

Many microbiota engage in symbiotic relationships of mutualism, commensalism, and parasitism. Some can even create competitive exclusion and prevent growth of other taxa in co-culture.

WHEN

These dynamic relationships affect what type of microbiota can grow in a community at any time. However, it is mainly done when the community feels threatened by a bacterial or fungal invader.



HOW

Microbiota can do this by changing the pH of an environment or outcompeting other taxa for resources.

IN CONCLUSION

All microbes in an environment play a role with one another in some facet, and the goal of microbial ecology is to explain that role. This is important for the future of medicine and overall public health as microbes are everywhere!

Reference: Faust, K., Raes, J. Microbial interactions: from networks to models. Nat Rev Microbiol 10, 538–550 (2012). https://doi.org/10.1038/nrmicro2832