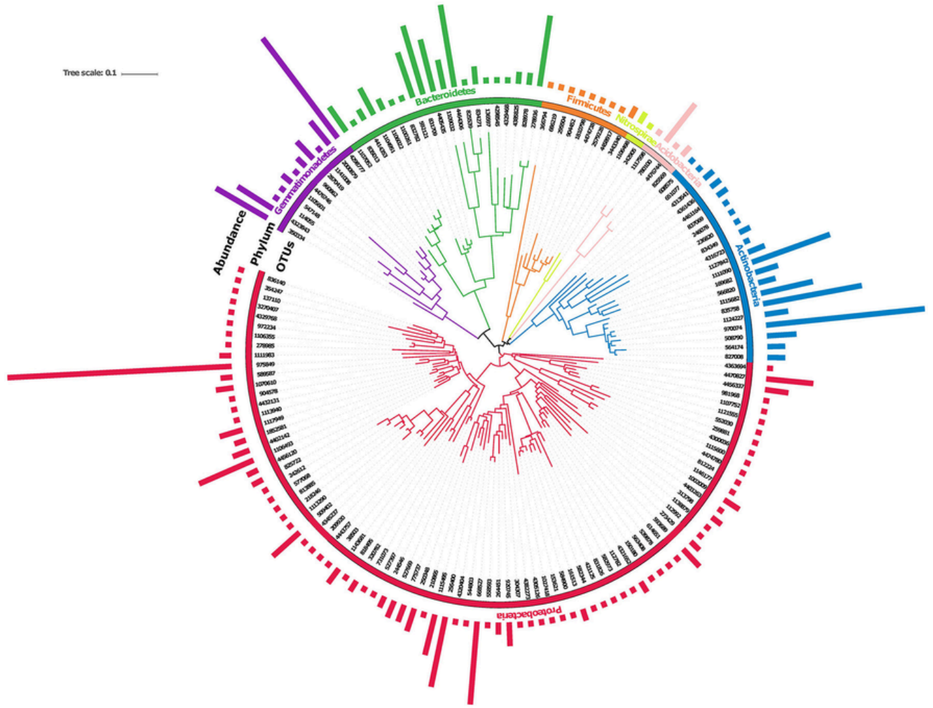
Introdução à Metabarcoding para Análises Ambientais





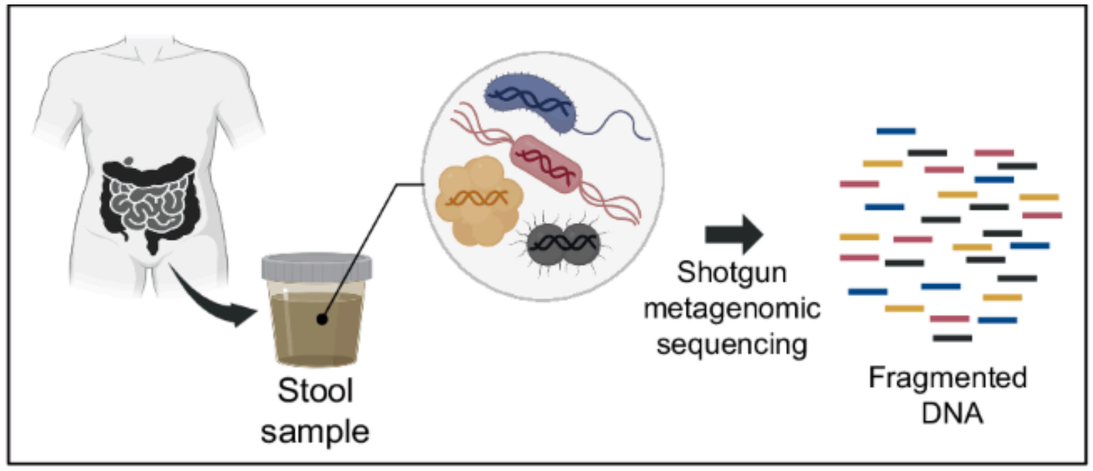
O que vocês acham que é Metagenômica?

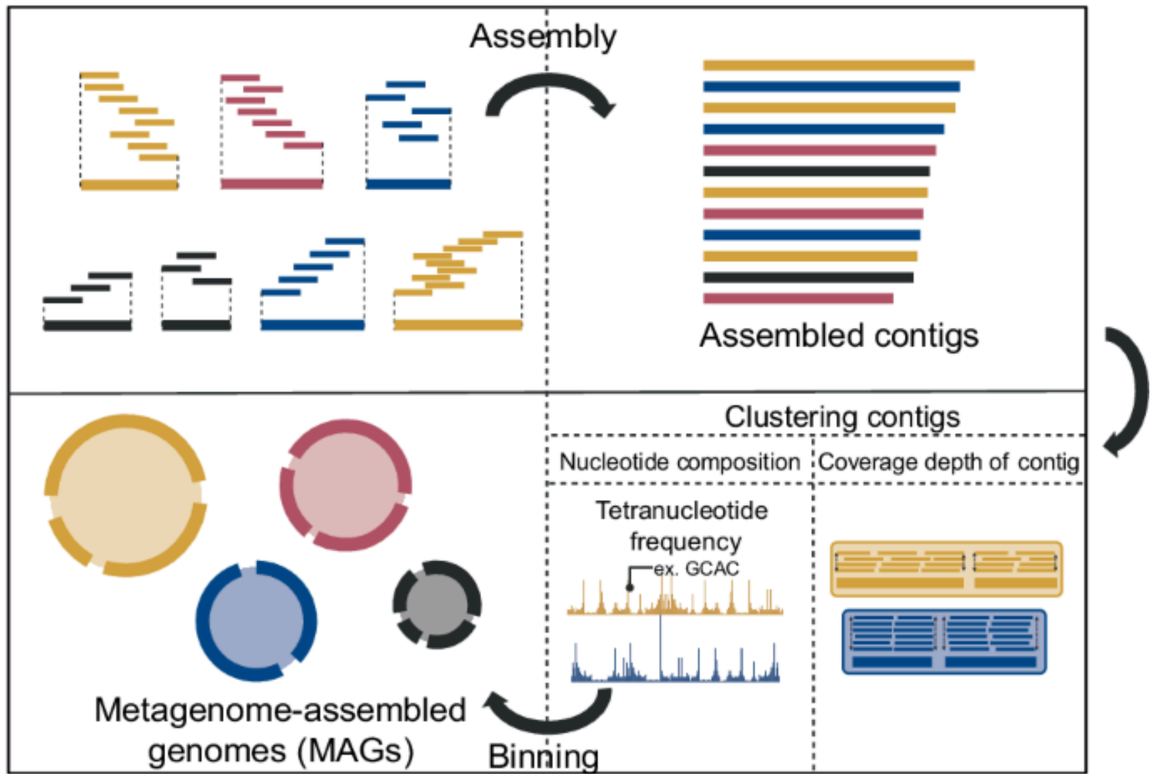
Meta - “Além”, “ir além”

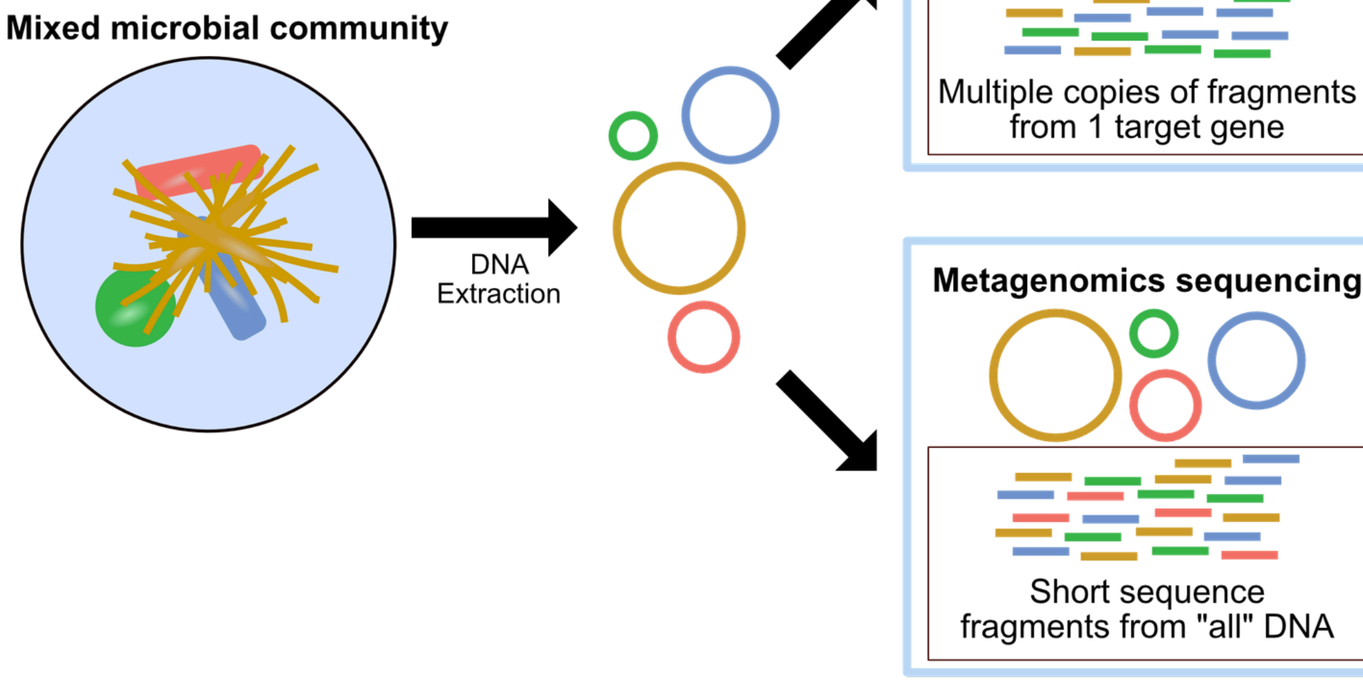
Genômica - Estudo do material genético como um todo

O que vocês acham que é Metagenômica?

E o Metabarcoding?

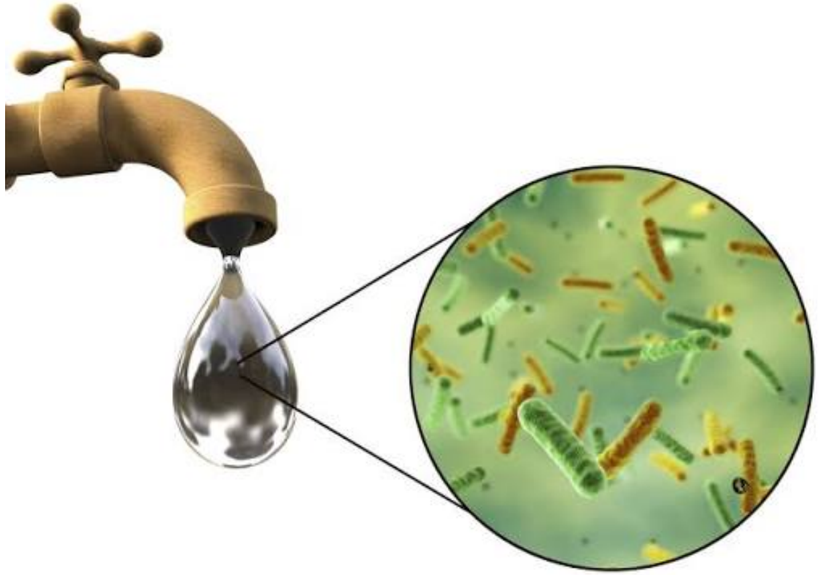


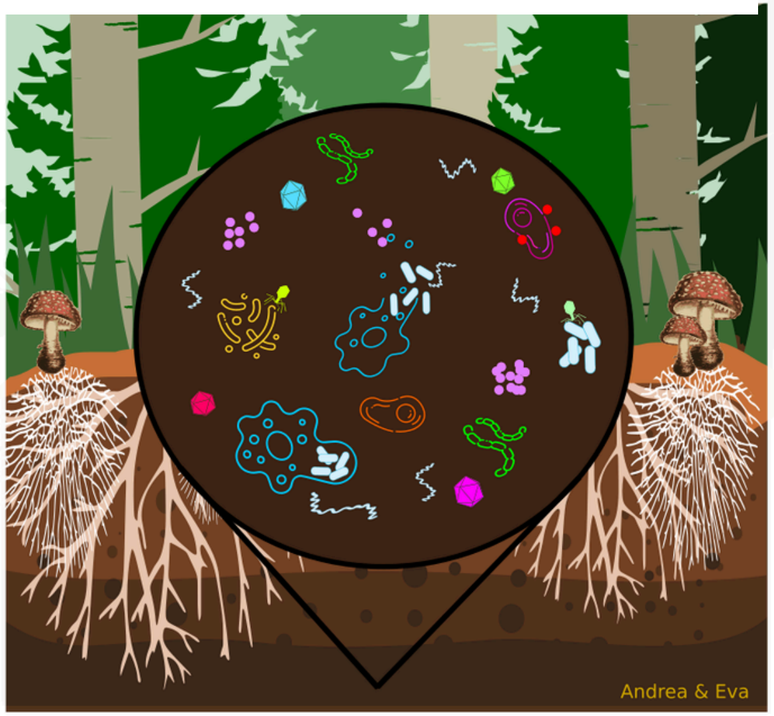


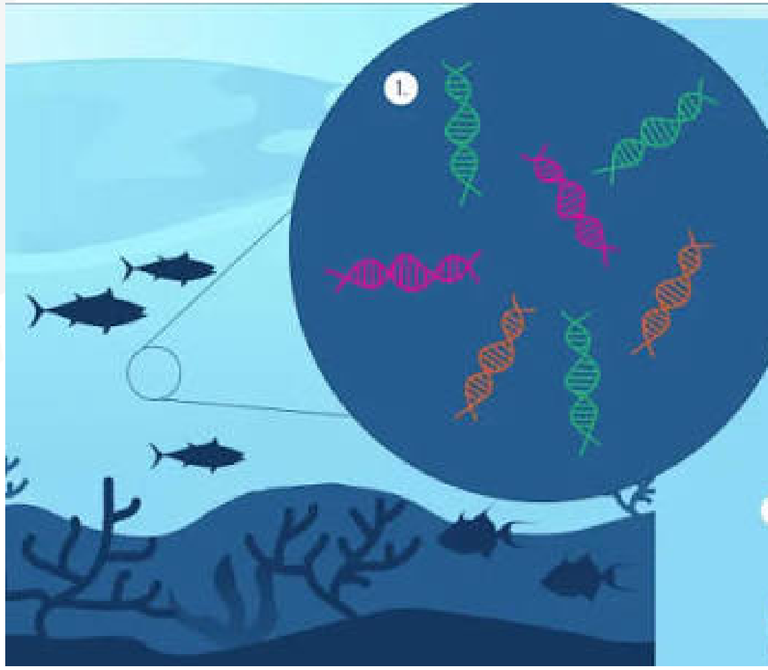


Que perguntas podemos fazer sobre microorganismos no ambiente?









Dado nosso de cada dia...

Qual é o impacto da aridez no perfil de microbioma dos solos?

▸ mSystems. 2017 May 30;2(3):e00195-16. doi: 10.1128/mSystems.00195-16

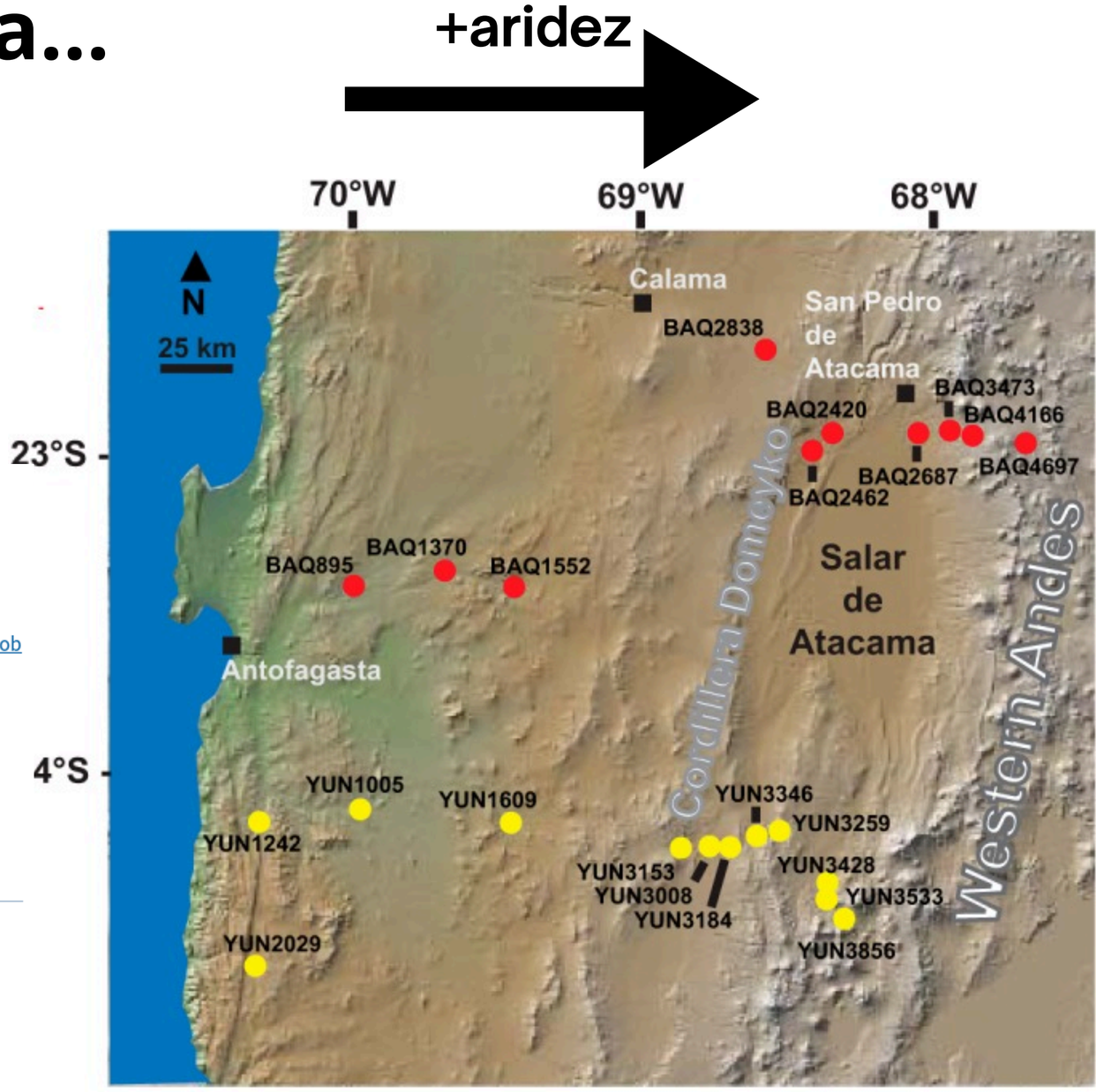
Significant Impacts of Increasing Aridity on the Arid Soil Microbiome

Julia W Neilson [a,✉], Katy Califf [b], Cesar Cardona [c], Audrey Copeland [a], Will van Treuren [d], Karen L Josephson [a], Rob Knight [e], Jack A Gilbert [f], Jay Quade [g], J Gregory Caporaso [b], Raina M Maier [a]

Editor: Haiyan Chu[h]

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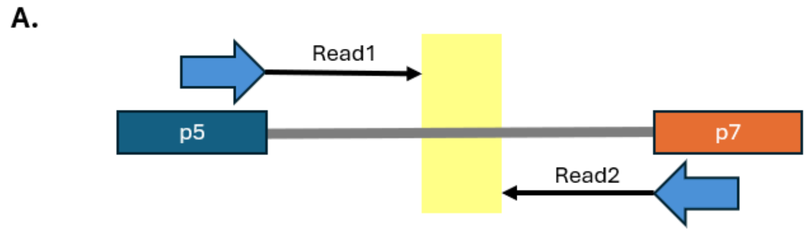
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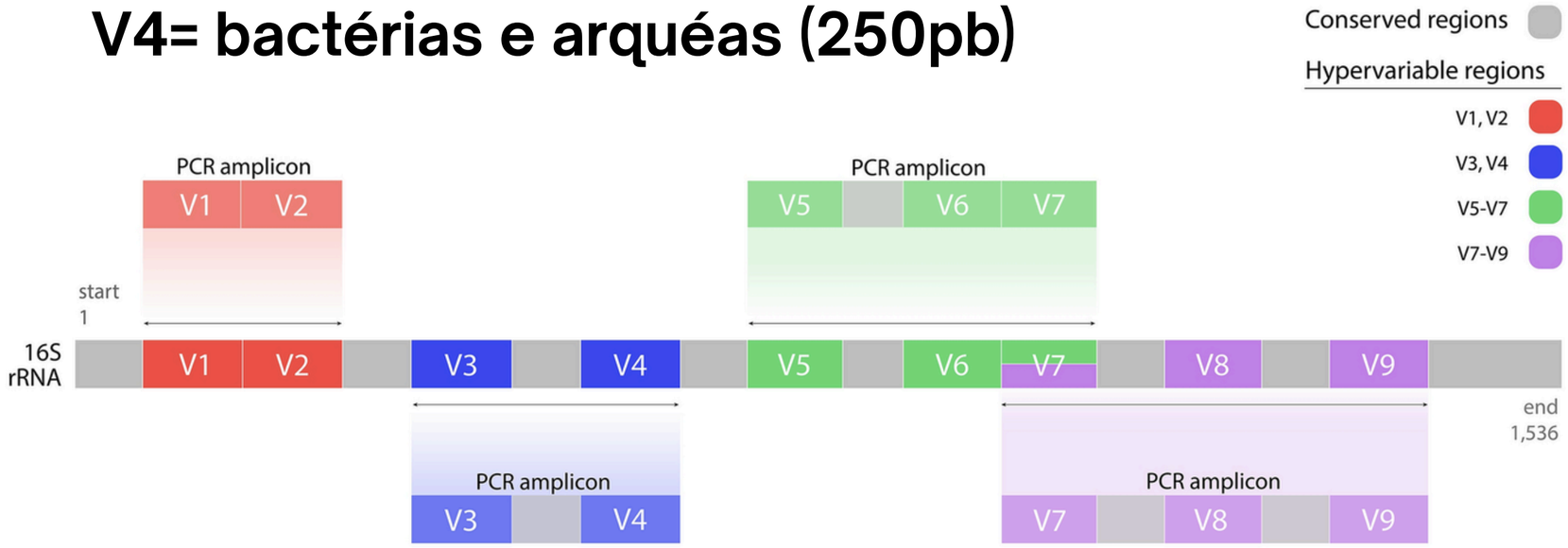
Nosso passo-a-passo

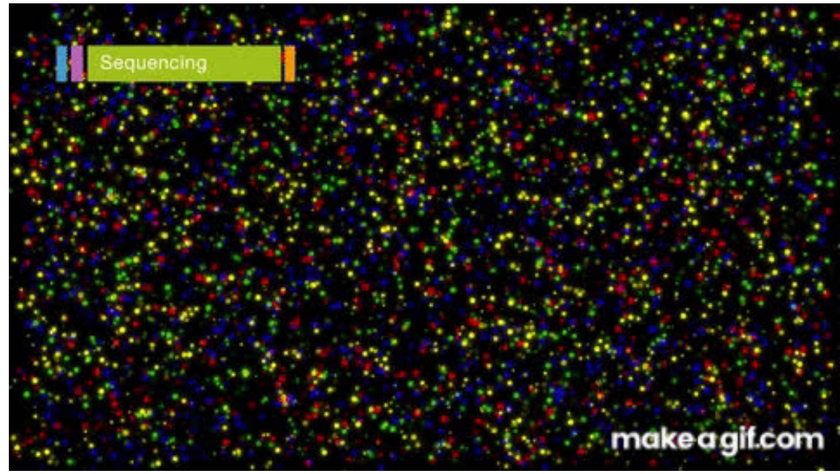
1. Amplificar e sequenciar





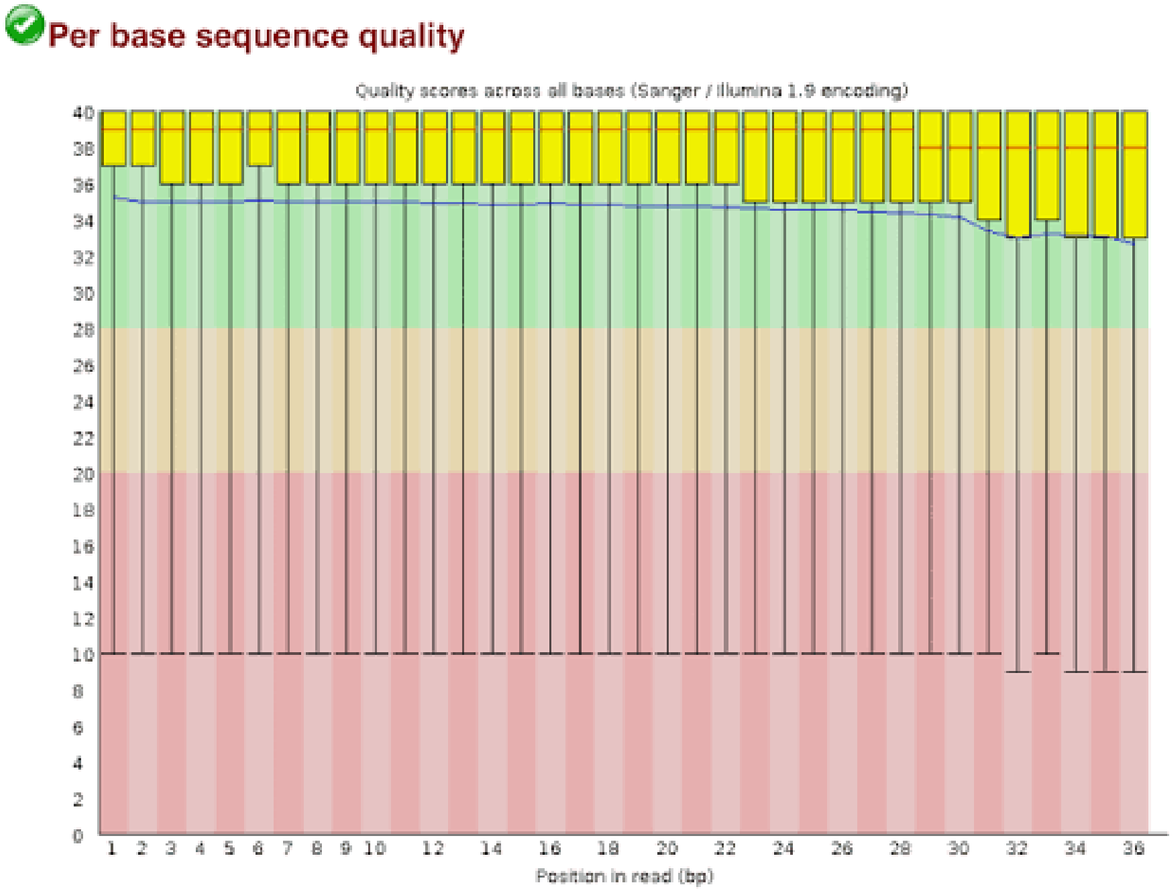
V4= bactérias e arquéas (250pb)





Nosso passo-a-passo

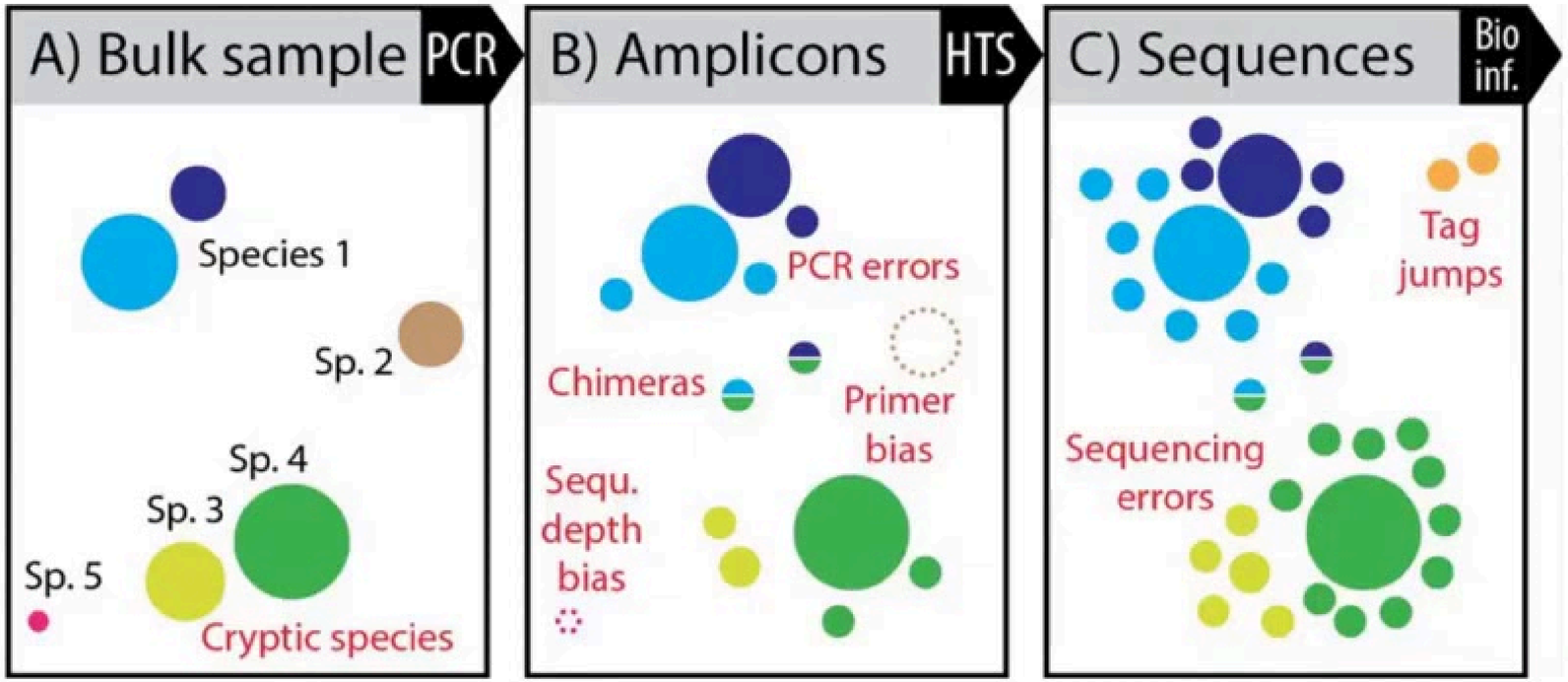
2. Ver qualidade das *reads*, filtrar e agrupar



DADA2

Amplicon Sequencing. Exactly. Version 1.14

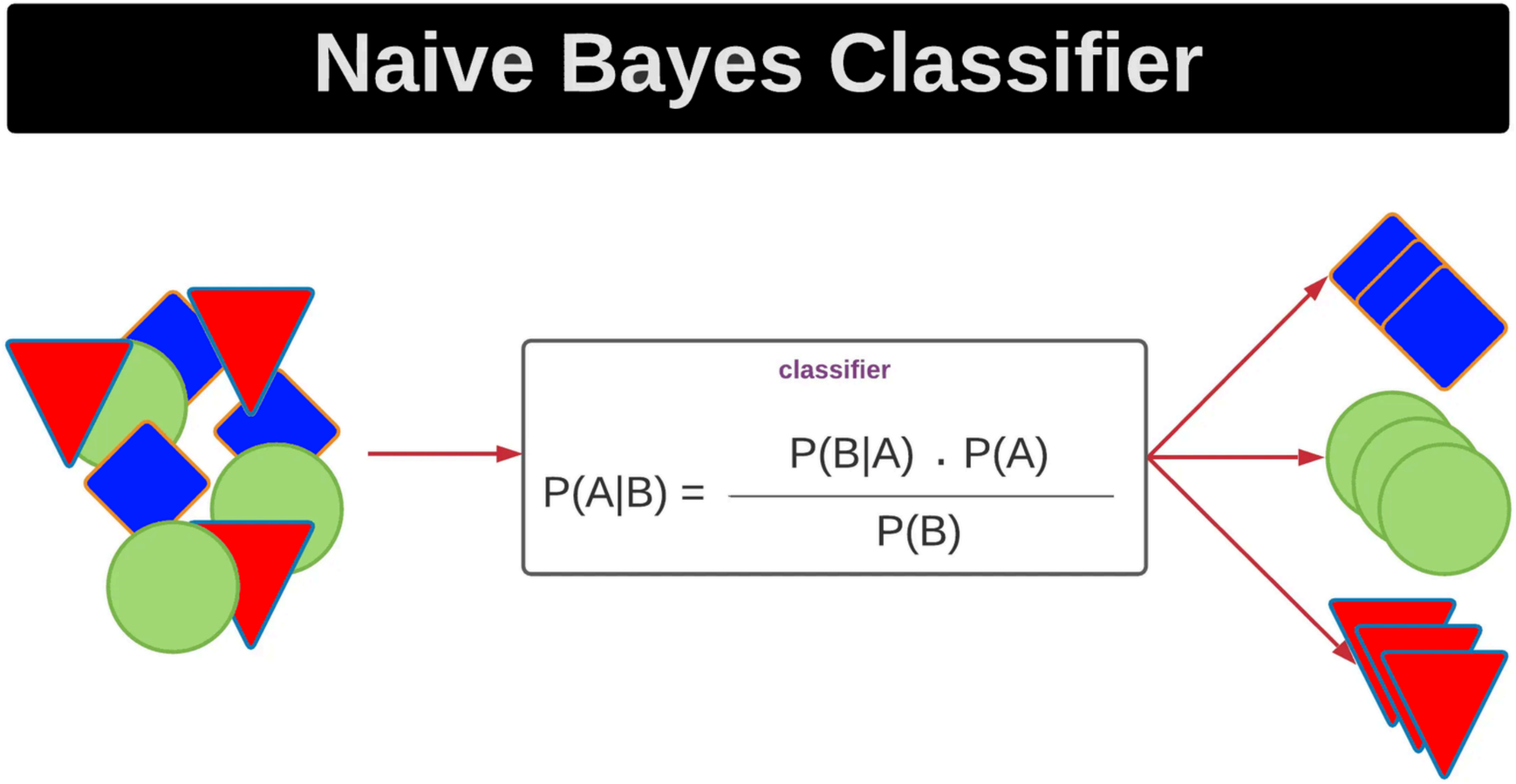
Denoising and Clustering

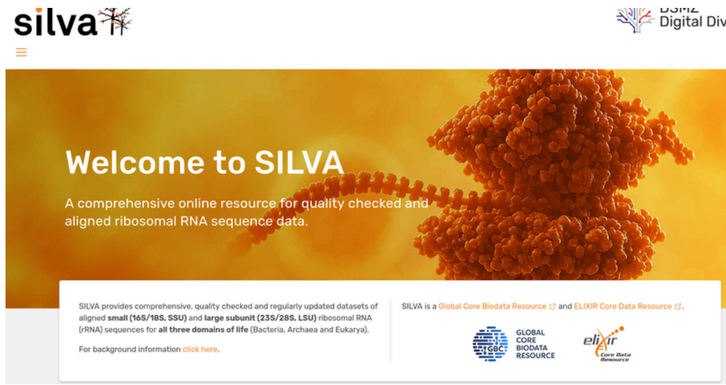


Benjamin J Callahan, Paul J McMurdie & Susan P Holmes The ISME Journal 2017

Nosso passo-a-passo

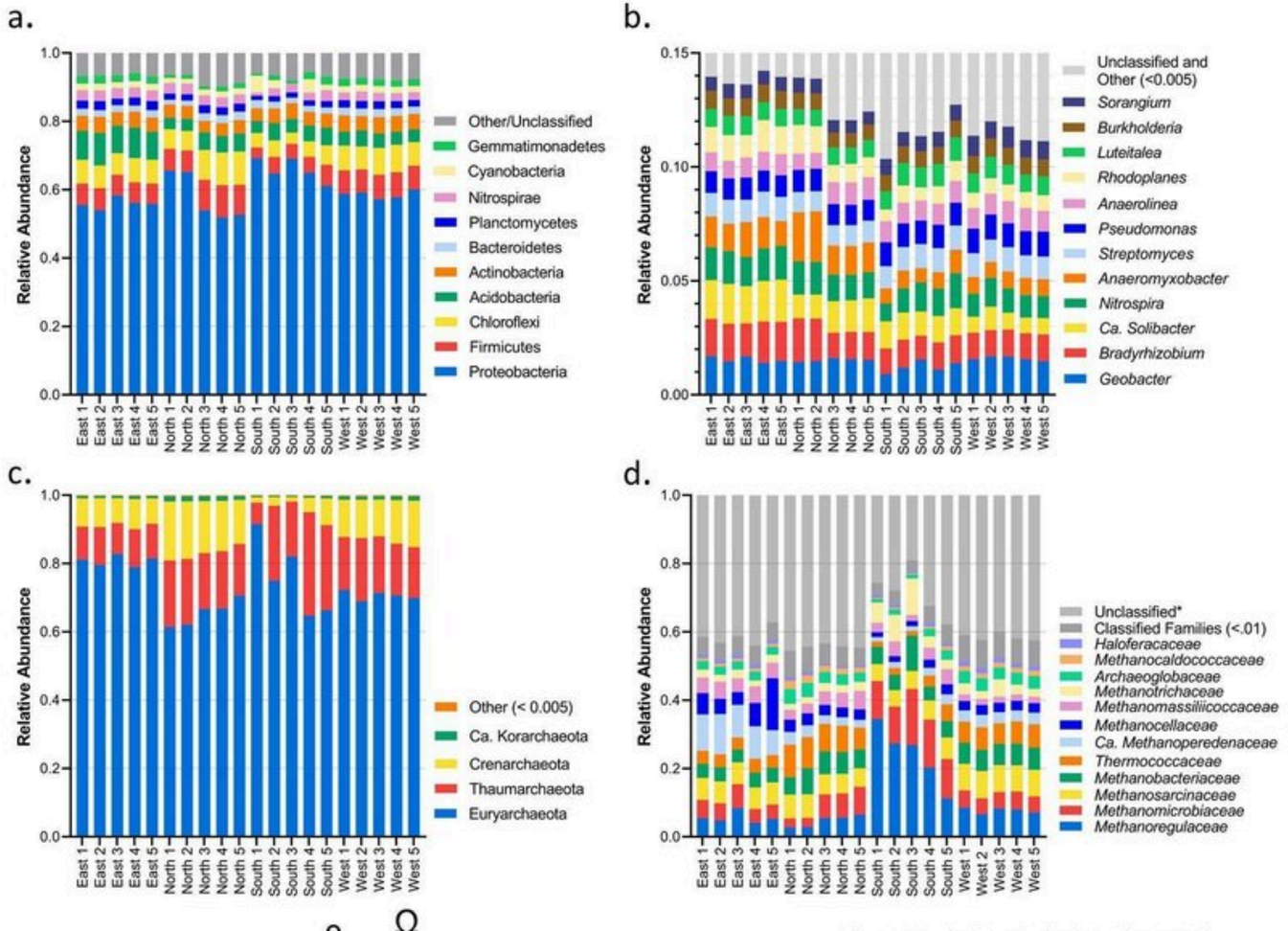
3. Descobrir o que são os grupos





Nosso passo-a-passo

4. Análises de composição taxonômica (riqueza de táxons)



Nosso passo-a-passo

5. PCoA da diversidade genética

