

Bioinformatics

Biology is the study of life and living organisms. Life is really complex, and in order to study it, scientists collect a lot of data. In fact, we've collected so much data that we've even had to create a new science called bioinformatics just to understand it all.

Bioinformatics uses biology and computer science to turn biological data into information that you and I can understand. In our case, we use bioinformatics to turn data created by DNA sequencing technology into information about the organisms that survive in specific environments.

Bioinformatics helps us answer questions like....

1. Does this organism have the capacity to capture carbon dioxide (CO₂) from the atmosphere?
2. How similar are two organisms to each other and thousands of other organisms?
3. What environments are the most diverse and what organisms live there?



Hot Spring
in New Zealand

A typical workflow for our datasets involves cleaning up errors from sequencing technology, grouping organisms by how similar they are, and using known databases to assign names and unique traits to individuals or groups of organisms.

We've set up a couple different levels of bioinformatics activities for you to try. Good Luck!