# Viralization and Microbialization dominate global ecology

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**Abstract**

Bacteria and bacteriophage are the most abundant biological agents on Earth. They are also ubiqutous. Their interactions with the biosphere and with each other have major impacts on a global scale. Here, we hypothesize

## Introduction

### Hypothesis and background

- Every ecosystem can be divided into microbialized and viralized. In viralized ecosystems, phages are virulent and lyse bacteria. This occurs because bacteria are producing ATP (catabolic environment) . In microbialized systems, phages are dormant, and bacteria grow fast and dominate. Anaerobic metabolism dominates. Our hypothesis is based on the Daisyworld model.

### Knowledge gap

The impact of bacterial and bacteriophage activity on the biosphere has not been studied before

### How to fill the knowledge gap

We propose a scale-free classification of biological systems: any ecological system can be classified as viralized or microbialized

## Methods

## Results

## Discussion