

Article Title: Integrating remote sensing with ecology and evolution to advance biodiversity conservation (Paper 1)

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What is the purpose/goal of this study?

The purpose of this study is to highlight when combining evolutionary observations and remote sensing data, it can monitor and conserve biodiversity. The goal of this study is to advocate for and enhance the understanding of, and to protect, life on earth.

Why is this issue significant/why do we care?

This issue is significant because without field work and data collection of species, genetics, and the ecosystem, many things can be overlooked or missed. So, combining remote sensing with conservation efforts, plus the other skills such as field work, lab data, and data collection it helps with more effective efforts and meeting biodiversity targets.

What words/vocab do you need to know to make this make sense? Define them here.

I have never read a paper of this level before, so many of the words used I haven't been exposed to or understand yet. A few words that I know and can define are biodiversity, biogeography, and remote sensing. Remote sensing is the scanning of the Earth by satellite or high-flying aircraft in order to obtain information about it. Biodiversity is the variety of life in

the world or in a particular habitat or ecosystem. Biogeography is the branch of biology that deals with the geographical distribution of plants and animals.

What approach are they taking in this study (e.g., specific qualitative or quantitative methods)

Since the paper is a perspective piece, I would say they are taking a qualitative method. The paper is an outline of the five key biodiversity science areas that can benefit from remote sensing. The paper includes diagrams and compares numbers, DNA sequencing, and genetic mutations. They use multiple data types for representation.

What are the results of the study? If there are figures, write a sentence summarizing each figure/table.

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Does the data make sense based on your experiences?

This data does not make sense, especially since I haven't been primarily exposed to data to this extent. The argument makes sense, but I rarely have any experience to connect this to. The data exposed me to things I never learned about before, such as biodiversity, genetic diversity, and remote sensing.

How is this pushing the field forward and helping society?

This is pushing the field forward and helping society by proposing remote sensing with ecological and field work. It pushes toward having more biodiversity monitoring, which can help improve accuracy and provide better data.