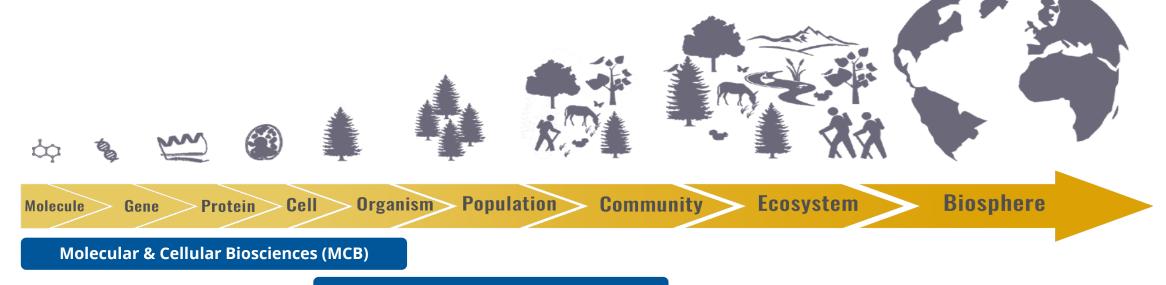


How the NSF BIO Divisions Support Research Across Scales



**Integrative Organismal Systems (IOS)** 

**Environmental Biology (DEB)** 

**Biological Infrastructure (DBI)** 



### THINK BOLDLY ABOUT...

**IDEAS** – WHERE ARE THE NEXT FRONTIERS?

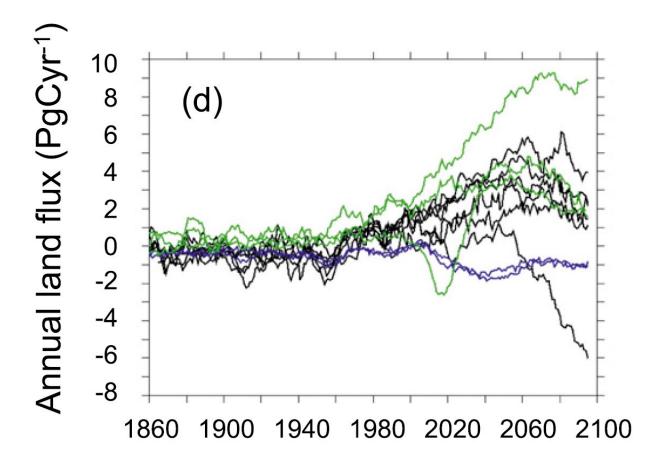
**TOOLS** – WHAT ARE THE NEXT BIG THINGS?

PEOPLE- HOW DO WE MAKE CONTINENTAL SCALE BIOLOGY EQUITABLE, INCLUSIVE AND RELEVANT TO SOCIETY?



**IDEAS** – WHERE ARE THE NEXT FRONTIERS?

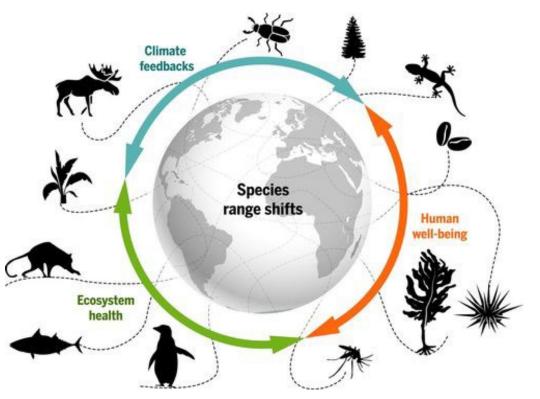
# WHERE IS ALL OF THE CO<sub>2</sub> GOING TO GO???

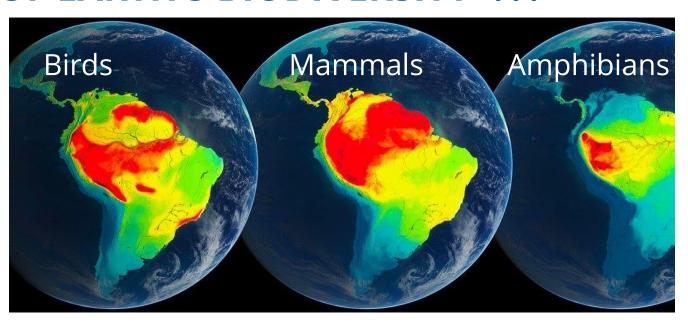


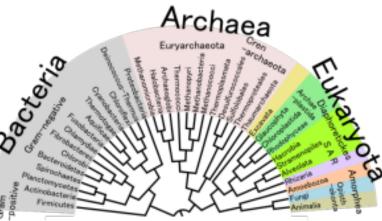


**IDEAS** – WHERE ARE THE NEXT FRONTIERS?

### WHAT IS THE FUTURE OF EARTH'S BIODIVERSITY ???









**TOOLS** – WHAT ARE THE NEXT BIG THINGS?

### **HOW CAN INFRASTRUCTURE & OPEN DATA BE LEVERAGED?**



LTER NETWORK







**TOOLS** – WHERE ARE THE NEXT BIG THINGS?

## **HOW CAN ML, AI AND CLOUD COMPUTING HELP?**





**PEOPLE** – HOW DO WE MAKE CONTINENTAL SCALE BIOLOGY EQUITABLE, INCLUSIVE AND RELEVANT TO SOCIETY?

Environmental Data Science Innovation and Inclusion Lab



Solutions-oriented Science
Diverse Participation
Workforce Development

### Synthesis Center and Convergent Research on Emerging Environmental Data Science (§1)

- > EDS Decadal Research Agenda
- > Diverse Leadership Capacity Building

Cyberinfrastructure and Data Analytics Tools (§6)

- > UX for Use of Scalable Compute
- > Collaborative Coding and Analysis

Goals

Team Science:
Diversity & Culture of Inclusion (§2)

- > ESIIL WGs
- > Increase Team Science Impact

Student Research
Use of Big Data
Open Source
Software Citations
Environmental and
Data Science Collaborations

Education, Training, and Diversity (§5)

- > Increase EDS Workforce Diversity
- > Capacity Building
- > Open EDS Education

Long-term Outcomes

Collaboration Team Science

Student Recruitment
Confidence
Continued Learning

New EDS.org Users



