

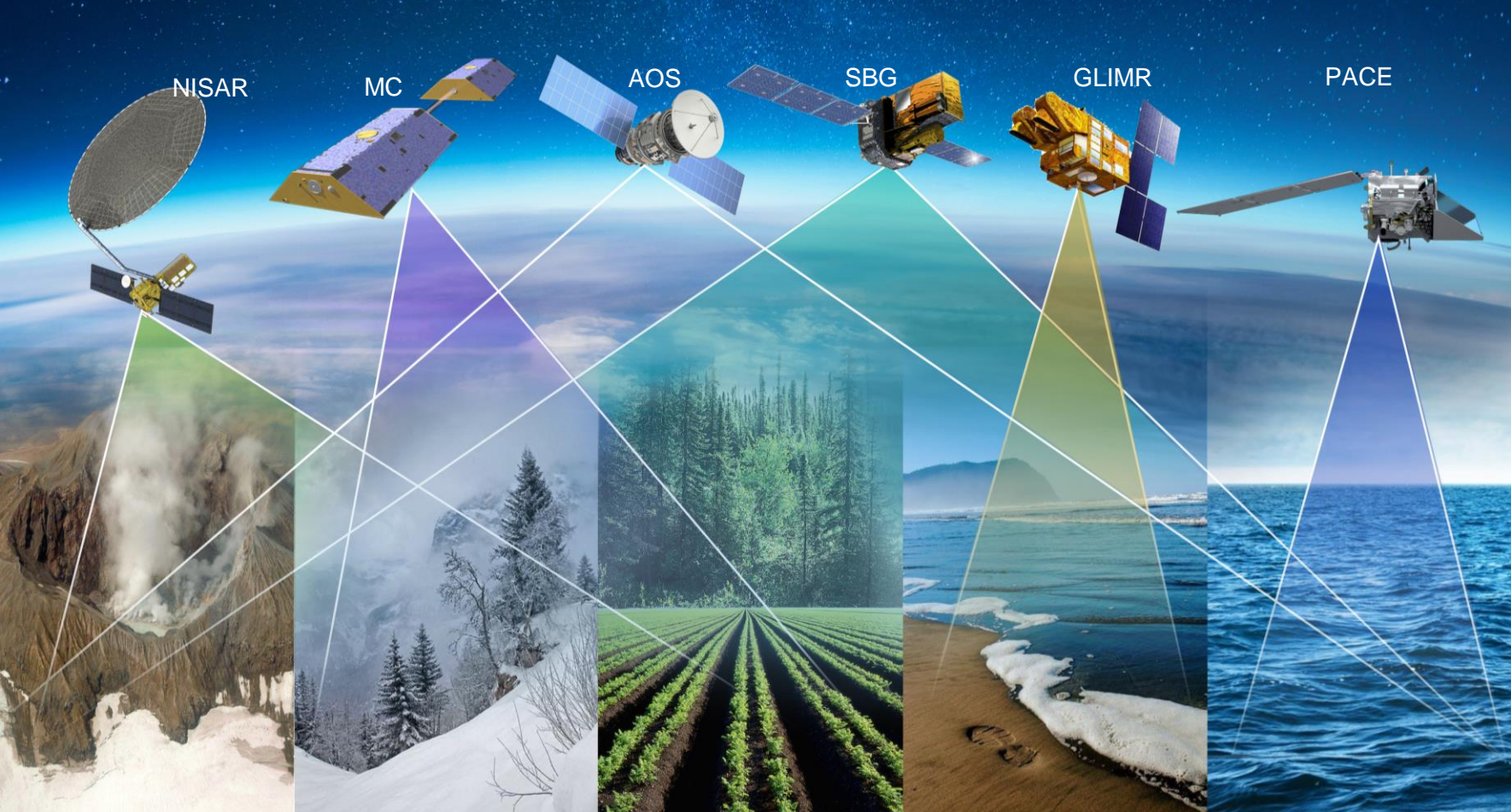
**2022 Biodiversity and Ecological Forecasting Team Meeting**  
**The Hotel, College Park, MD**

# **Some Program Updates**

**Woody Turner and Keith Gaddis**  
**Earth Science Division**  
**NASA Headquarters**  
**September 22, 2022**



# Getting to the Earth System Observatory (ESO)



**Solid earth**  
 Aerosols — AOS  
 Gases — SBG  
 Surface Deformation — NISAR  
 Surface Composition and Geologic Hazards — SBG

**Watersheds**  
 Precipitation — AOS  
 Ice Mass Evolution — NISAR  
 Snow Albedo and Melt — SBG  
 Total water storage — MC

**Ecosystems and agriculture**  
 Boundary Layers — AOS  
 Ecosystem Structure — NISAR  
 Vegetation Type and Physiology — SBG

**Land-sea continuum**  
 Phytoplankton, Organic Matter, Sediment — SBG, GLIMR, PACE  
 Boundary Layers — AOS

Water cycle: precipitation, storage, snow and ET

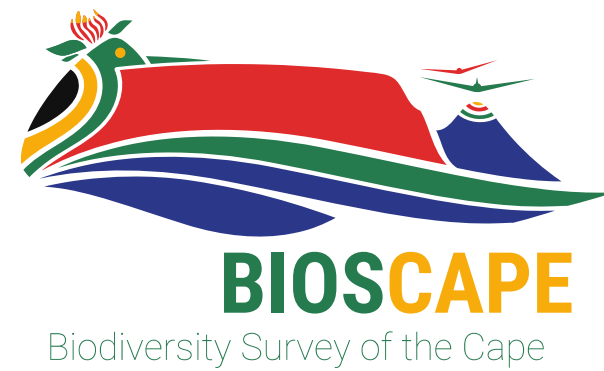
Water cycling

Ecosystem biomass and composition

Transport from terrestrial through aquatic to coastal environments

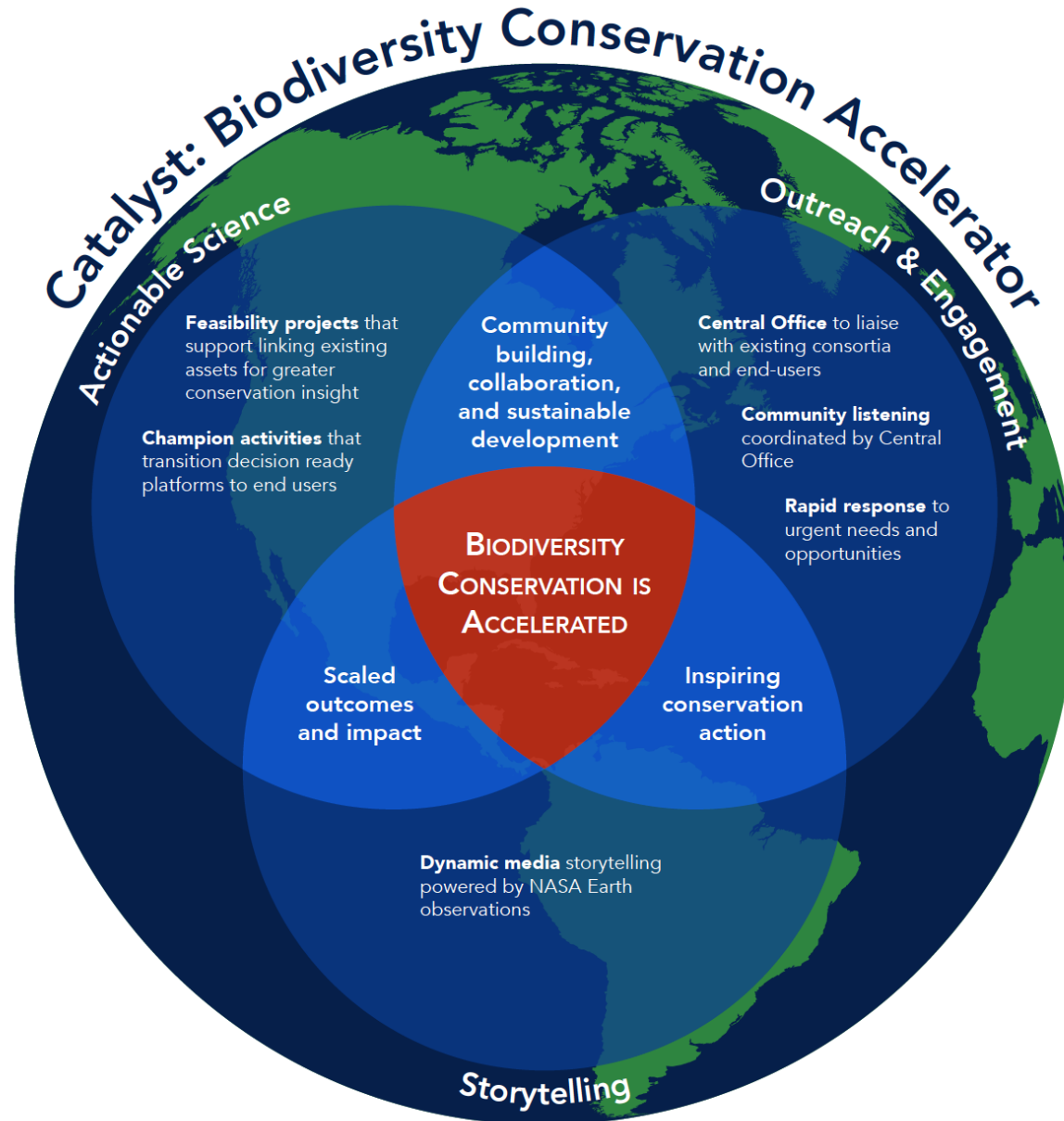
# Next Team Meeting = CC&E Joint Science Workshop!

- The 2023 NASA Biodiversity and Ecological Forecasting Team Meeting will be part of the NASA Carbon Cycle and Ecosystem Focus Area Joint Science Workshop, **May 8-12, 2023**, once again here at **The Hotel in College Park**.
- The Biological Diversity and Ecological Forecasting Programs will be meeting with the NASA
  - Terrestrial Ecology Program (Managers: Hank Margolis, Mike Falkowski)
  - Ocean Biology and Biogeochemistry Program (Managers: Laura Lorenzoni, Joel Scott)
  - Land Cover and Land Use Change Program (Managers: Garik Gutman, Krishna Vadrevu)
- Monday, May 8, and Tuesday, May 9, will likely be a Biodiversity and Ecological Forecasting stand-alone Meeting
- Wednesday, May 10, and Thursday, May 11, will be the Joint Science Workshop
- May 12 will likely be used for a DAAC workshop and perhaps a Marine Biodiversity Observation Network (MBON) meeting



- Lands and Seas of South Africa's megadiverse and highly endemic Greater Cape Floristic Region
- Focus: Measure and Understand region's phylogenetic, taxonomic, and functional biodiversity
- Deploy NASA G-III and G-V aircraft with three imaging spectrometers (PRISM, AVIRIS-NG, HyTES) covering the UV to TIR spectrum and a waveform lidar (LVIS) aboard
- Six weeks of science flights in fall (~October to December) 2023 out of Cape Town area
- Total Number of Researchers ~100: ~50% U.S. and 50% South African
- NASA funding 14 investigations; South Africa NRF funding 2 large NEOFrontiers Projects
- Key Science Themes
  - Distribution and Abundance of Biodiversity
  - Role of Biodiversity in Ecosystem Functions
  - Impacts of Biodiversity Change on Ecosystem Services
- Science Project Office Established (University of Buffalo/Wilson and UCA Merced/Hestir)
- Website: <https://www.bioscape.io/home>

# Catalyst





# FYI: Solicitations

- Ecological Forecasting (probably through ROSES22 amendments):
  - Geographically-focused call on conservation at scale
  - “More traditional” Ecological Forecasting topical solicitation
- Biological Diversity: FY23 Funding tied up in BioSCape and A.7 Biodiversity
- A.51 Applications-oriented Augmentation for Research and Analysis
  - An open call through March 29, 2023
  - Seeks to accelerate the transition of scientific research into societal benefits
  - Check it out—relevant to yesterday’s Guidebook discussion

## Other Stuff

- Take the survey, please! <https://tinyurl.com/2022BEF>
- In-Situ biodiversity data: repositories, standards, etc.
- Looking for undergraduate interns—Keith



**Thank You for a  
Great Meeting!**