

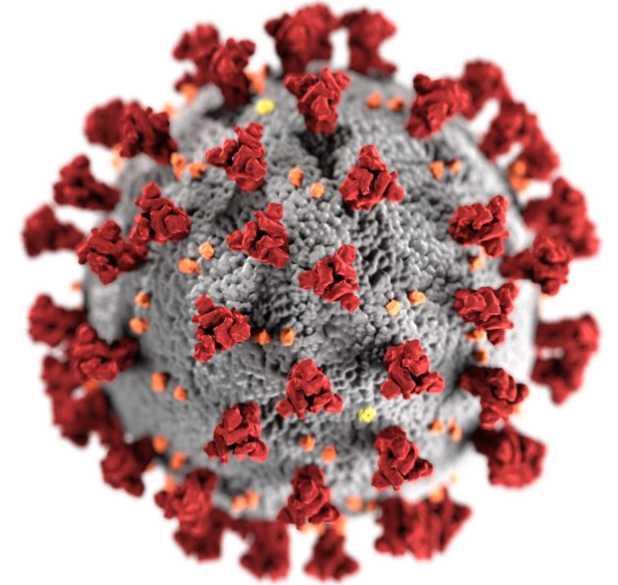


# Discuss:

## Zooming in on COVID19 in our lives



@idbdeb @soltislab



<https://bit.ly/covid19digidata4>

Deborah Paul, Florida State University; Pamela Soltis, University of Florida  
Digital Data IV: Harnessing the Data Revolution ~ Amplifying Collections with  
Biodiversity Information Science  
2 June 2020 virtually via Indiana University



## (Re)inventing “normal”: local to global

In (re)constructing our day-to-day lives, most of us seem to be living in “perpetual beta” both for our work lives and our home lives. We note other changes around us too, in society, economies, nature, and ecosystems.



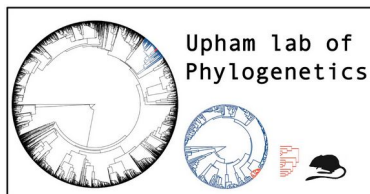


## Change brings challenges ~ and opportunities

This COVID-19 pandemic, zoonoses, and pathogens in general, provide key opportunities to highlight the value of collections and foster much-needed cross-discipline collaboration and changes in standards of practice.

*~with these ideas in mind~*

We're here to share our experiences and to hear your stories, ideas, insights, thoughts, and concerns.





# COVID19 spurring action and change

## ViralMuse Task Force

- need long-term relationship for virology community and natural history museums
- pursue a multi-disciplinary conversation to build a fundamental bridge between natural history collections and public health
- focus on the need for explicit, verifiable host-species, host-pathogen relationships and evolution
- *BioScience* Viewpoint (in press). **Integrating Biodiversity Infrastructure Into Pathogen Discovery and Mitigation of Epidemic Infectious Diseases...**

computer science,  
mammalogy,  
microbiology,  
virology, disease  
ecology, botany,  
biodiversity data  
informatics, data  
standards science,  
taxonomy,  
systematics, ...







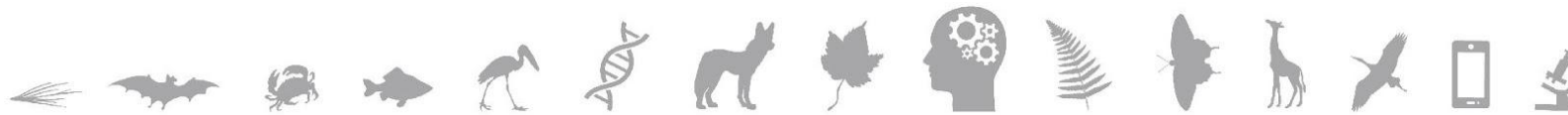
# COVID19 spurring action and change

## CETAF-DiSSCo COVID19 Task Force

computer science,  
mammalogy,  
microbiology,  
virology, disease  
ecology, botany,  
biodiversity data  
informatics, data  
standards science,  
taxonomy,  
systematics, ...



- survey for research foci on animal virus carriers
- guidelines for preservation of viral evidence (for specimens and samples)
- a biodiversity-related knowledge COVID19 hub
- improve metadata registering practices on genetic material deposition



# COVID19 spurring action and change

## CETAF-DiSSCo COVID19 Task Force



- survey for research foci on animal virus carriers
- guide for preservation of viral evidence (for specimens and samples)
- a biodiversity-related knowledge hub
- Improve metadata registering practices on genetic material deposition

## ViralMuse Task Force

- need long-term relationship for virology community and natural history museums
- pursue a multi-disciplinary conversation to build a fundamental bridge between natural history collections and public health
- focus on the need for explicit, verifiable host-species, host-pathogen relationships and evolution
- *BioScience* Viewpoint (in press).  
**Integrating Biodiversity Infrastructure Into Pathogen Discovery and Mitigation of Epidemic Infectious Diseases...**

computer science,  
mammalogy,  
microbiology,  
virology, disease  
ecology, botany,  
biodiversity data  
informatics, data  
standards science,  
taxonomy,  
systematics, ...



# **BioScience** (in press). Integrating Biodiversity Infrastructure Into Pathogen Discovery and Mitigation of Epidemic Infectious Diseases

## Five Key Elements for Enhancing Future Resilience to Disease Outbreaks:

Collaborative development of guidelines for keeping **samples of both pathogens and hosts**.

Collaborative development of **metadata requirements for physical specimens and samples**.

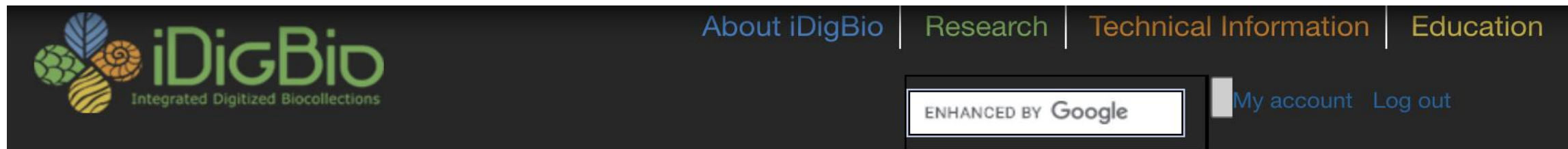
Expanded investment in **infrastructure, both cyber and physical**, to support archives of biological materials.

Increased communication and development of **new channels of dialogue and collaboration** among museum scientists, virologists, bioinformaticians, biomedical professionals, and disease ecologists.

Enhancement of **financial support and strong leadership from federal agencies, international partners, and private foundations** to develop proactive, multi-disciplinary approaches to future pandemics.



# iDigBio Directory of Genetic Resources Repositories



## DNA Banks and Genetic Resources Repositories in the United States

Wed, 2020-05-20 19:45 -- anonymous (not verified)

### Researchers

[Browse our specimen portal](#)



### Collections Staff

[Learn how your collection can benefit from our work](#)



### Teachers & Students

[Learning resources & opportunities to engage](#)



The following facilities in the United States maintain collections of nucleic acid extracts (DNA or RNA) or preserved tissues suitable for genetic and genomic studies of biodiversity.

These resources (listed alphabetically by institution) represent collections compiled by iDigBio in 2014 and updated in April and May, 2020. Each entry includes the name of the institution, a brief description, and institutional link. The list has expanded from 54 initial collections to 78 currently. Our immediate motivation for updating this list was to facilitate access to specimens and samples of possible hosts of SARS-CoV-2, the novel coronavirus responsible for the COVID-19 pandemic. These samples may also contain viral DNA. Digital access to natural history collections can play an important role in discovering samples and specimens for further study, including genetic analysis. Access to these samples may facilitate determining

<https://www.idigbio.org/content/dna-banks-and-genetic-resources-repositories-united-states>





# BEECEENet

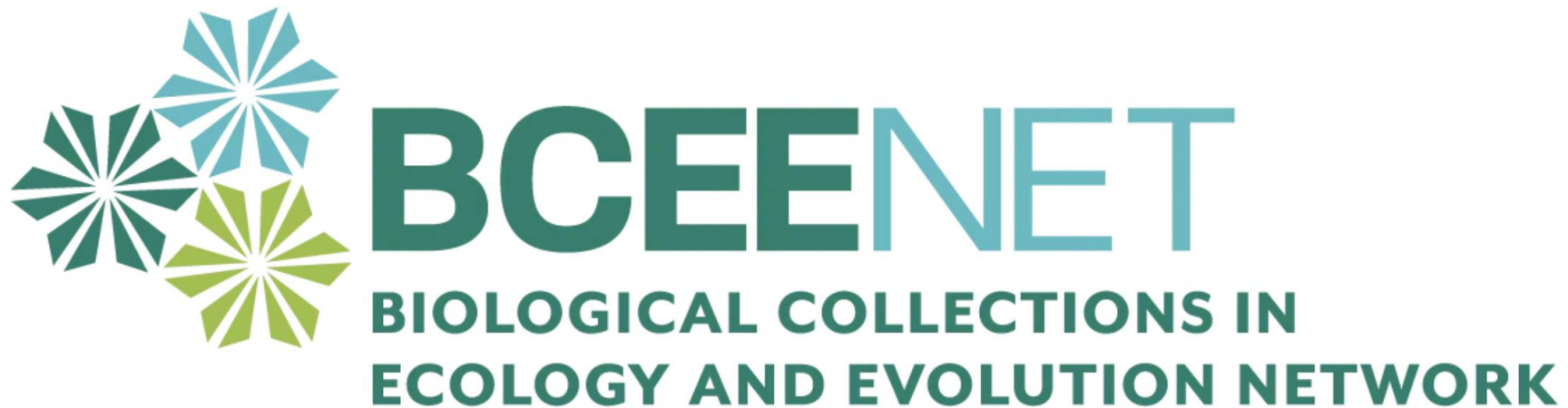


Who we are



**Welcome to the BCEE Network**

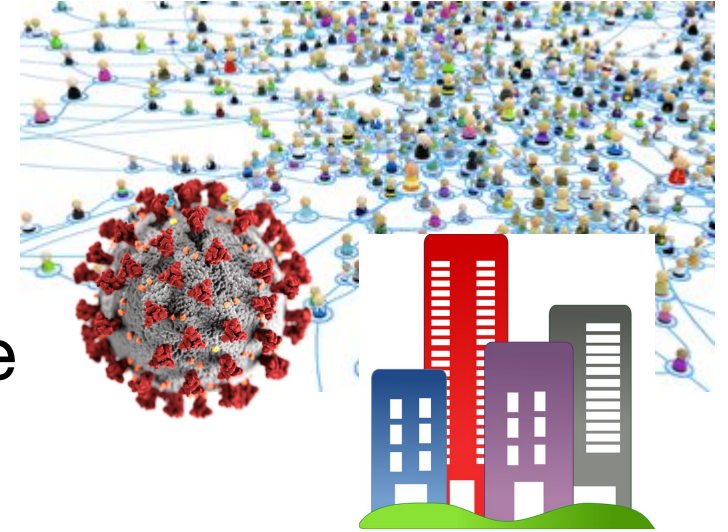
Welcome to the BCEE Network





## Discussion

- Who are the folks in the room?
- What topics / ideas would you like to explore
- Please share your experiences / insights / concerns / ideas / questions
- <https://bit.ly/covid19digidata4>





## Summary of our unconference conversation

This document will be read only after today  
<https://bit.ly/covid19digidata4>

Send questions to Pam or Deb  
(see linked document for emails)

Thank you so very much for your participation and engagement during what will likely continue to be one of the most challenging times of our entire lives.

