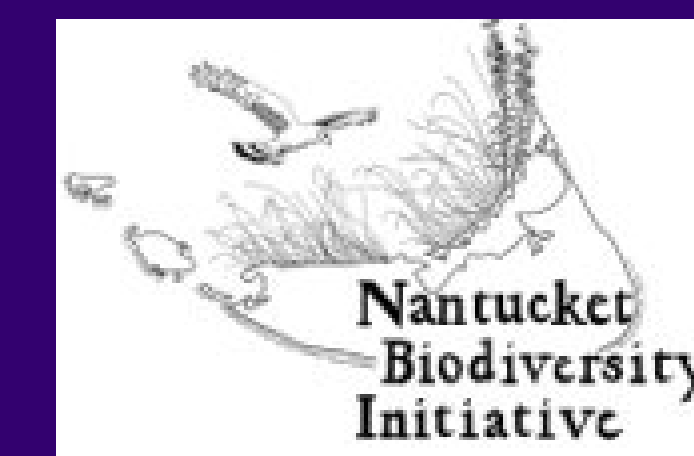
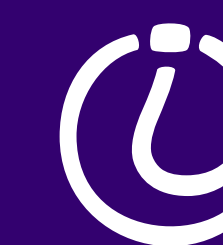


# Nantucket Biodiversity Digital Repository



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## CHALLENGE: RESEARCH OUTPUTS DESERVE FINDABILITY

The Nantucket Biodiversity Initiative (NBI) is a consortium of non-profit organizations on Nantucket Island, MA that supports researchers studying biodiversity on the islands of Nantucket, Tuckernuck, and Muskeget. Since 2005, NBI has sponsored five research projects each year with grant funding and logistical support, but the reports and datasets from these projects were stored offline. NBI wanted to make these resources findable, citable, and available under the standards of open science.

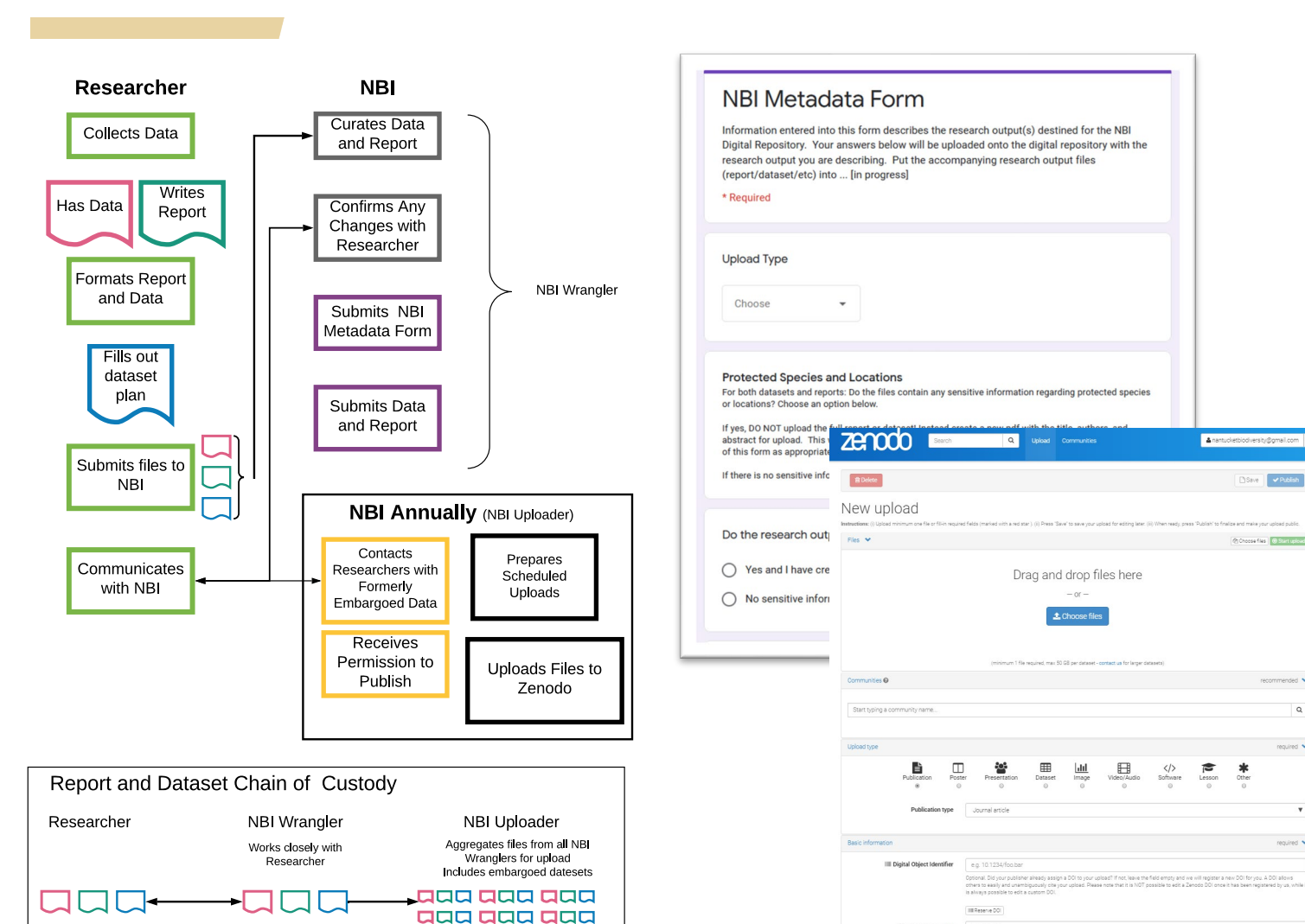


NBI funds biodiversity research and organizes a conference every two years. It is a collaboration of Nantucket science non-profits. Clockwise from top left: NBI Committee members, NBI conference, NBI Citizen Science trip, and a researcher studying bats

## OPEN SCIENCE

- Increases reproducibility
- Lowers barriers to access
- Increases opportunities for collaboration across space and specialization
- Speeds innovation and knowledge creation

## WORKFLOW



Clockwise from left: Workflow, NBI Metadata form, Zenodo upload page. The workflow ties in with NBI's organizational structure to make the curation and upload process as efficient as possible

## Controlled Keyword Vocabularies

- Based on NBI reports and domain specific terms
- Important for search consistency
- Controlled vocabularies include: geography, study type, specific location, and study method

## Other Considerations

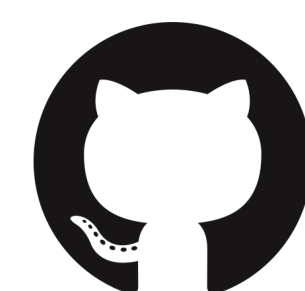
- Global Biodiversity Information Facility (GBIF) for subject identifiers
- Special keyword for NBI grant funded projects
- Provide simple but detailed data curation instructions

## Tools



### Google Drive

- File Storage
- Google Form
- Controlled Vocabularies
- Accessible to NBI Members



### GitHub

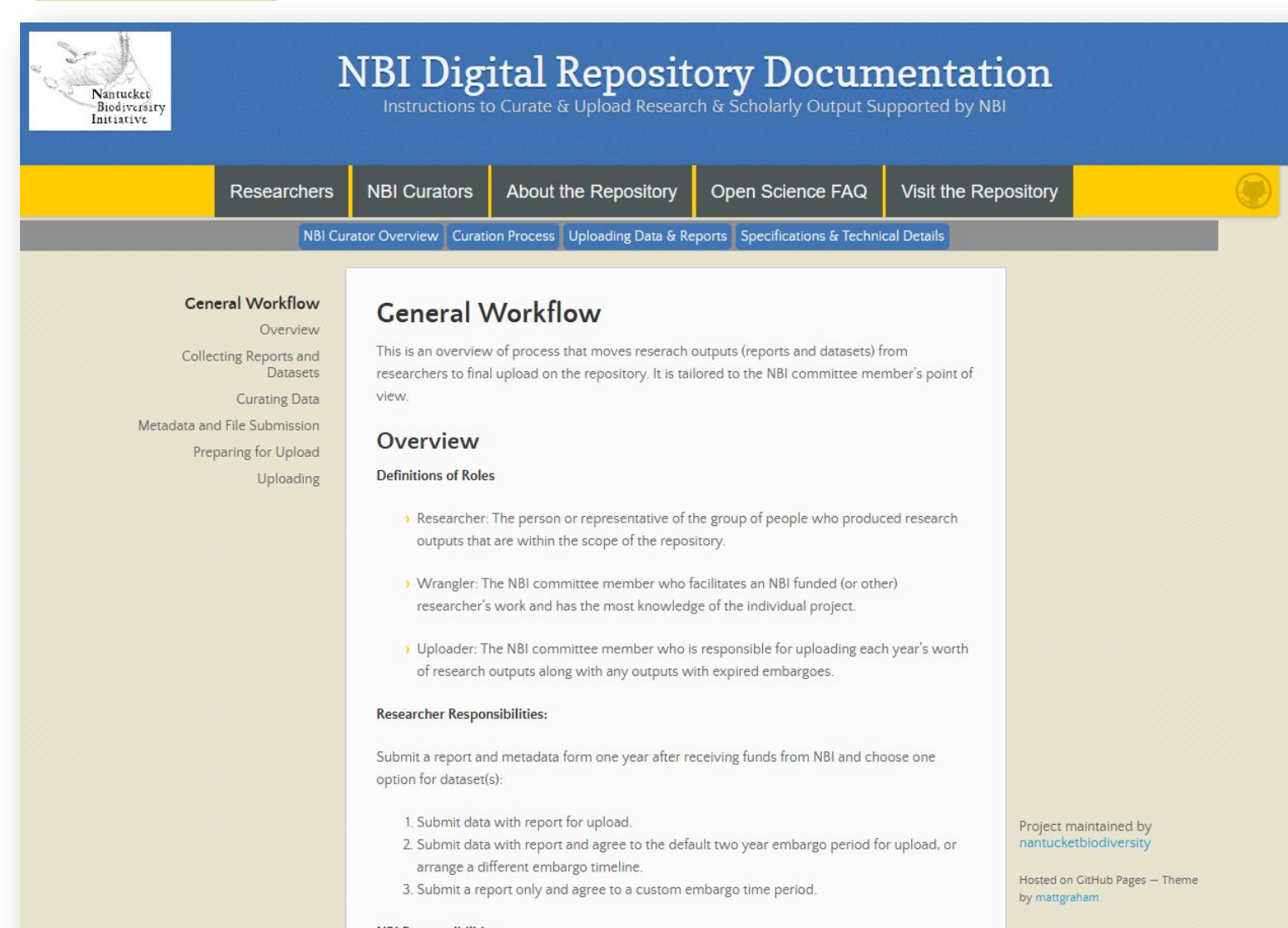
- Documentation
- Hosts Website
- Collaborative workspace



### Zenodo

- Established Repository
- Mints DOIs
- Communities group uploads

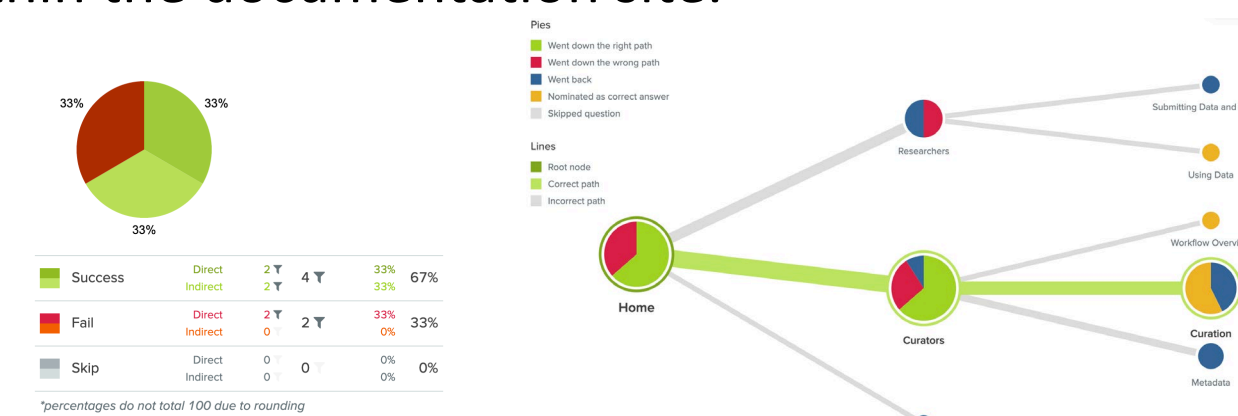
## DOCUMENTATION



The documentation site hosted on GitHub contains information for researchers, a curation protocol, and general resources for NBI Committee members

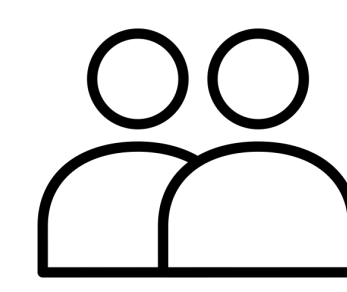
## Testing

Two studies with users to test the findability of information within the documentation site.



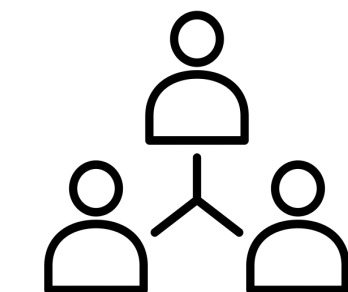
Results from the second treejack test. We analyzed the paths users took as they attempted to find specific information by navigating through a mock-up hierarchy of the documentation site pages, helping us increase usability.

## Users



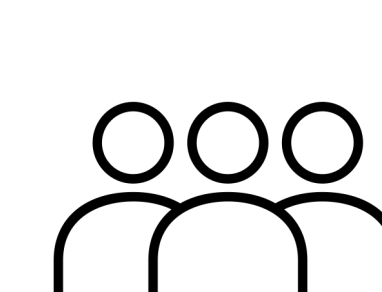
### Researchers

- Diverse backgrounds
- Mixed data curation skills
- Uncertainty about data sharing



### NBI Members

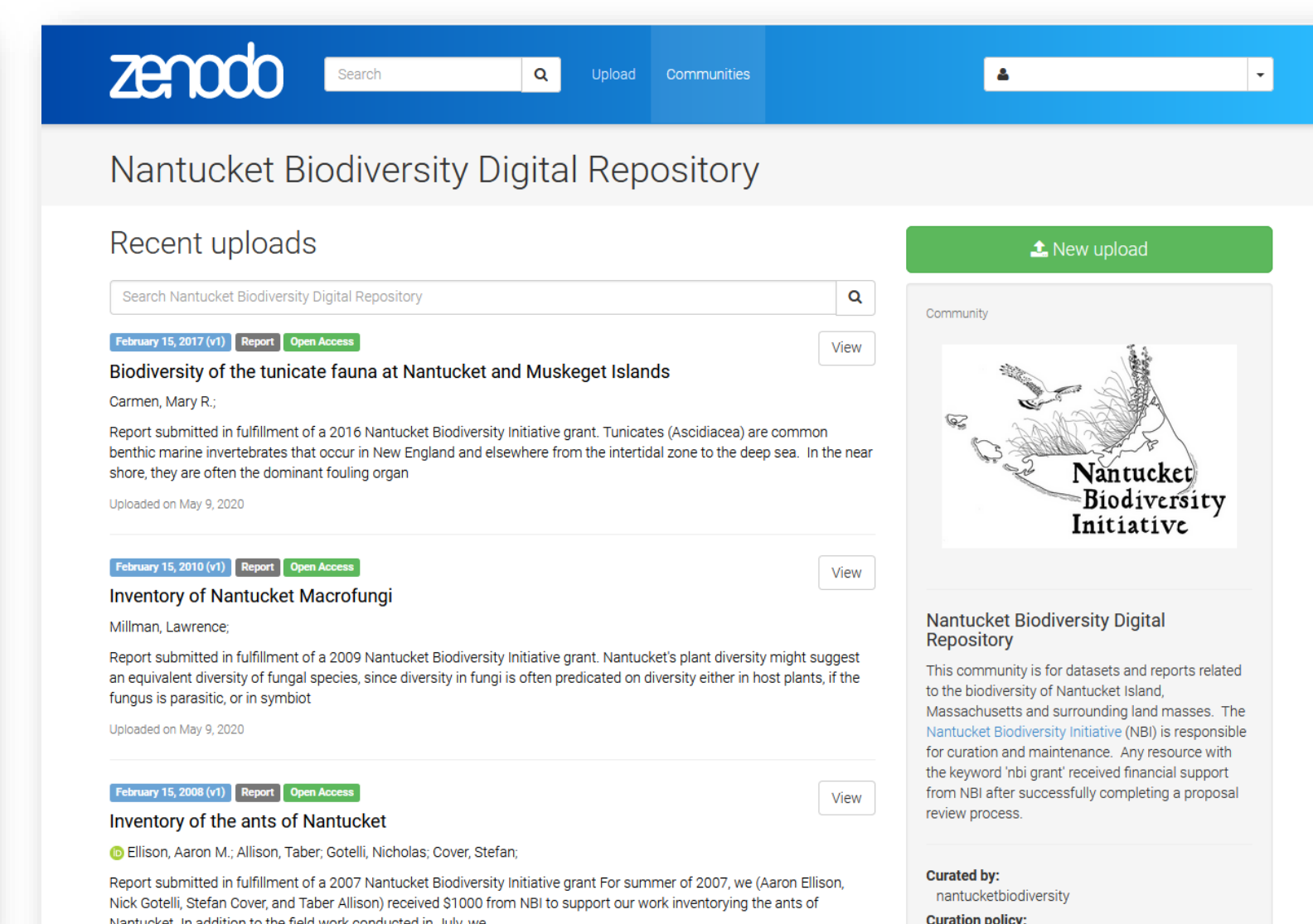
- Time is valuable
- Mixed data curation skills
- Work closely with researchers



### Future Users

- Students, journalists, educators
- Need search, browse function
- Need citation function

## REPOSITORY



The repository is a community on Zenodo. It is accessible to anyone and includes both search and browse features

## Impact

### The repository enables

- Easy summarization of NBI funded research for reporting
- Search and access for reports and datasets
- Persistent linking and citation for researchers' work

### Larger impacts include

- Advances open science principles, and uplifts NBI as an advocate for open scientific research and collaboration
- Sets an example for similar organizations
- Replicable by other organizations using the open source documentation and free tools
- Broadens access to the research outputs
- Opens the possibility of NBI funded research to lead to new scientific discoveries

## Acknowledgments

Sarah T. Bois, acting as NBI's representative in the role of sponsor, guided us and answered many questions. Karen Beattie provided access to all NBI reports and her maintenance of these files over the years made this project possible. We thank all the NBI committee members who helped with testing.