

# Implementation of the Biodiversity Information and data System for Coastal Ecosystems in Nigeria

**Programme:**BID

**Project ID:** BID-AF2020-022-NAC

**Project lead organization:**Center for Biodiversity Conservation and Ecosystem Management, University of Lagos

**Project implementation period:**5/4/2021 - 31/3/2023

**Report approved:** 3/5/2023

## Final Narrative Report

### Executive Summary

Coastal and marine environments are tremendously biodiverse however, human activities, pollution, land use and development along coastlines, have put stress on these environments limiting the rates of growth and reproduction of coastal flora and fauna thus biodiversity is drastically reduced. This project leveraged partnership between five academic and 2 policy making institutions towards mobilization of biodiversity data in coastal ecosystems in Nigeria.

The project began with a kick off meeting of project partners which was held virtually. The project implementation plan was discussed and modalities for the successful implementation of the project were outlined. Two members of the project team (Dr. T.O. Onuminya and A.C. Iloh) were selected to participate in the training sessions organized by GBIF. Thereafter, personnel were employed and trained to assist in the data mobilization activities while Microsoft Excel package was adopted for data management. Herbaria and Museums were visited across the Nigerian coastal cities for specimen data mobilization. This was followed by data cleaning and publication on the GBIF portal as well as IUCN redlisting of the species.

A 3-day capacity building workshop was held in blended mode featuring a total of 158 participants from institutions across the 6 geopolitical zones of the country as well as the NgBIF network, GBIF support person and the AFROBIS node manager. A call for participations and partnership was made and this was followed by evaluation of the workshop by participants and completion of the self assessment form. Proceedings of the meeting was shared on the University of Lagos website and other news publishing outlets. Similarly, the project partnered with the Institutional based GBIF grant at the University of Lagos to train Members of the Lagos state Ministry of Environment on Data Mobilization for policy development.

For monitoring of the project, meetings of partners were held either through WhatsApp or Zoom. A policy dialogue and stakeholders meeting was held at the end of the project. This featured about 64 participants, who attended both virtually and in-person, towards evidence-based development of conservation policies for coastal ecosystems in Nigeria.

#### Key achievements

This project collaboration enabled capacity building in biodiversity data mobilization, publication and management with 158 participants trained from institutions across the 6 geopolitical zones of Nigeria ( <https://unilag.edu.ng/?p=11458>).

Similarly, the partnership has enhanced the mobilization of 30,823 biodiversity data including 24,416 occurrence data and 6,407 checklist datasets (<https://www.gbif.org/project/BID-AF2020-022-NAC/implementation-of-the-biodiversity-information-and-data-system-for-coastal-ecosystems-in-nigeria#datasets>). Of these, about 18,000 higher plants, 4,000 animals, 6,000 planktons and 2,000 other species (fungi, protozoans, and cyanobacteria) were recorded from coastal ecosystems in Nigeria.

IUCN red listing of the species recorded showed that a total of 7 species are Extinct (animals belonging the genus Cercopithecus commonly known as the blue monkeys), 1 species is Extinct in the wild (the plant Okoubaka aubrevillei), 23 species are Critically Endangered, 148 species are Endangered (including Milicia excelsa, Triplochiton scleroxylon, Hymenocardia acida, Kigelia africana etc), 231 species are Vulnerable, 439 species are Near Threatened, 8301 are Least Concerned, 112 are Data Deficient while 11, 887 species are Not Evaluated. The highest number of Vulnerable and Near Threatened species was recorded in south-south region of the Nigerian coast and they are largely plant species. On the other hand, the largest number of Endangered species was recorded in the south western coast and these are largely faunas. A plant Okoubaka aubrevillei was found to be extinct in the wild as only a few record of the species was observed. This could be as a result of its wide use in ethnomedicine. The mobilized data and red listing information provided is expected to inform policymakers and aid the concerted efforts to protect coastal biodiversity.

At the end of the project, stakeholders and policy makers from six government agencies engaged in a dialogue to assess the project deliverables and provide policy directions for governmental implementation towards species conservation. It was agreed that there is a need for sustainable use and exploitation of resources by the rural

communities in these marine and coastal regions of Nigeria. The communique has been shared with heads of each of the policy making institutions (see attached) to facilitate a ministerial press release.

Also, a data paper on record of the Nigerian Coastal Biodiversity and their IUCN status is being compiled for publication.

#### Key Impact

The project has brought about the following:

- Insight into spatio-temporal distribution of coastal biodiversity for improved conservation schemes.
- Synergy between data producers and data users towards implementation of national biodiversity strategy and action plans.
- Enhanced data-mobilization relationships and responsibilities for effective assessment of biodiversity data in Nigerian coastal cities.
- Increased capacity for biodiversity data handling.
- Improved access to and use of accurate biodiversity information in conservation and development planning.

#### Key Lessons Learnt

- Biodiversity is fast disappearing and the coastal ecosystems is not exempted from the scenario.
- Many species have migrated, as a result of unfavorable environmental conditions, into other habitats.
- As a results, a many are endangered and in danger of extinction especially in the wild.

Therefore, there is a need to encourage periodic assessment and create awareness of findings for improved policy and decision making while encourage private investments in biodiversity conservation programs.

A major challenge we encountered was prolonged industrial action which incapacitated some partners from delivering on the project outputs. As a result, sustaining interest of partners became a bit of challenge to deal with. Furthermore, with respect to the project implementation, we experienced increase in prices of some budgeted items; notwithstanding the project was able to progress smoothly.

## Progress against milestones

**Has your project completed all planned activities?: No**

**Has your project produced all deliverables: No**

**Rationale:** Deliverables not provided are based on the uncompleted activities above and there are no further plans to make this happen. Additionally, the data paper is still being compiled for publication in a journal. This will be submitted in due course.

## Report on Activities

### Summary of the implementation of the project activities

**Project Kick-off** meeting was held in May 2021 where partners and other stakeholders met and agreed on modalities useful for achieving the set goals for the project. Following the inception meeting, partners agreed to adopt the Microsoft excel package as **data management system** for cataloguing of specimen data for easy access, sorting and management.

**Data Mobilization** activities began thereafter with visit to museums and herbaria within the region for possible data capture and mobilization. This was followed by training of personnel (IT students, Project and Technical assistants) employed to assist with the project activities.

Essentially taxonomic, spatial, collection and descriptive data were mobilized from voucher record, individual collection records and published literatures. Darwin Core format was used for data gathering and both occurrence and checklist datasets were mobilized. Plants, animals, cyanobacteria, planktons, fungi and protozoan specimen data including about 24,400 occurrence and 6,400 checklist datasets were mobilized and cleaned using the Open Refine software.

**Capacity building workshop** was held in December 2022 relationships were established with representatives from the various participating institutions at the workshop (<https://www.gbif.org/project/BID-AF2020-022-NAC/implementation-of-the-biodiversity-information-and-data-system-for-coastal-ecosystems-in-nigeria#news>). Participants capacity was strengthened to develop data sharing framework and mobilize biodiversity data for publication to GBIF and AFROBIS sites. The success of the workshop was evaluated by participants and they completed the self assessment forms.

**Imaging of specimen** was not done due to high cost associated with the purchase of a scanner and also because most of the data mobilized were without associated specimen images. Data Publication was achieved through the GBIF IPT portal from Jan 2022 till date.

**Data Publication** was achieved using the GBIF Integrated Publishing Toolkit (IPT). This was done at regular intervals as soon as data mobilization and cleaning were completed. About 15,000 datasets were published through the platform (<https://www.gbif.org/project/BID-AF2020-022-NAC/implementation-of-the-biodiversity-information-and-data-system-for-coastal-ecosystems-in-nigeria#datasets>).

**A policy dialogue meeting** was held in March 2023 to engage with relevant policy making institutions in Nigeria (<https://von.gov.ng/stakeholders-dialogue-on-ways-to-boost-nigerias-biodiversity-projection/>). The project outputs were presented to create awareness on the status of coastal biodiversity in Nigeria and a means of advocacy for its conservation. Following the dialogue, conclusions were reached and recommendations made, these were compiled in a communique and shared with the various institutional heads for policy implementation and advocacy. As part of the **end of project meeting**, the project partners engaged with relevant stakeholders and these were noted for improvement of future projects.

Progress made in the project generally is **evaluated and monitored** through regular meeting via WhatsApp or Zoom where updates are given on the progress of the project. Also, progress of work done in the project was reported to the GBIF office at midterm and the end as required.

### Completed activities

#### Activity: Kick-off Meeting

**Description:** Meeting with Collaborating partners on agreements on data sharing and exchange

**Start Date - End Date:** 25/5/2021 - 26/5/2021

**Verification Sources:** Attendance list and minutes are attached.

#### Activity: Development of workflows for Data collection

**Description:** Training of collaborative institutions and project staff on data handling and processing

**Start Date - End Date:** 1/6/2021 - 26/1/2022

**Verification Sources:** Minutes of the meeting

#### Activity: Capacity Building

**Description:** Hands on training in data cleaning and mapping techniques, Taxonomy; Geographic and time Checks

**Start Date - End Date:** 13/12/2021 - 15/12/2021

**Verification Sources:** See attachments and the links below:

<https://unilag.edu.ng/?p=11380> <https://unilag.edu.ng/?p=11458>

[https://www.linkedin.com/posts/university-of-lagos\\_gbif-bid-team-holds-3-day-workshop-dec-13-activity-6874765364941615104-509D](https://www.linkedin.com/posts/university-of-lagos_gbif-bid-team-holds-3-day-workshop-dec-13-activity-6874765364941615104-509D)

<https://www.facebook.com/1850514788525976/posts/3127953327448776/>

<https://local.google.com/place?id=8306873736164007940&use=posts&lpsid=8690432730570969882>

#### Activity: Data Mobilization

**Description:** Mobilization of coastal Plant, Animal and microbial specimen data

**Start Date - End Date:** 1/6/2021 - 31/3/2023

**Verification Sources:** See project summary attached below and <https://www.gbif.org/project/BID-AF2020-022-NAC/implementation-of-the-biodiversity-information-and-data-system-for-coastal-ecosystems-in-nigeria#datasets>

## Activity: Data Publication

**Description:** Publication of the mobilized specimen data on the GBIF portal and association with the OBIS portal.

**Start Date - End Date:** 3/1/2022 - 31/3/2023

**Verification Sources:** <https://www.gbif.org/project/BID-AF2020-022-NAC/implementation-of-the-biodiversity-information-and-data-system-for-coastal-ecosystems-in-nigeria#datasets>

<https://obis.org/dataset/f0e60097-4d31-4a02-863d-77cf9eecd3>

## Activity: Advocacy and Policy dialogue

**Description:** Inter-Ministerial dialogue and collaboration on biodiversity Information implementing plan for the Nigerian Coastal Environment

**Start Date - End Date:** 21/3/2023 - 21/3/2023

**Verification Sources:** <https://sciencenigeria.com/gbif-project-solution-to-revolutionise-nigerias-ecosystem-say-stakeholders/>

<https://theeagleonline.com.ng/shetsco-partners-unilag-on-information-biodiversity/>

[https://www.linkedin.com/posts/unilag-nigeria\\_gbif-bid-project-team-holds-policy-dialogue-activity-7047177022896246784-eA7V?](https://www.linkedin.com/posts/unilag-nigeria_gbif-bid-project-team-holds-policy-dialogue-activity-7047177022896246784-eA7V?utm_source=share&utm_medium=member_desktop)

[utm\\_source=share&utm\\_medium=member\\_desktop](https://www.linkedin.com/posts/unilag-nigeria_gbif-bid-project-team-holds-policy-dialogue-activity-7047177022896246784-eA7V?utm_source=share&utm_medium=member_desktop)

## Activity: Stakeholders End of Project Meeting

**Description:** Facilitation of an Inter-Ministerial meeting between the Federal Ministry of Science and Technology and The Federal Ministry of Environment on the use of existing data published.

**Start Date - End Date:** 21/3/2023 - 21/3/2023

**Verification Sources:**

[https://us02web.zoom.us/rec/share/m4RP1vb2I1TN5\\_O5ImuBvzd6OrszDgxxUkiRusiinYpNmUaTo2\\_oK0GZAqQ5L4.OBaKLGnLc78y\\_JhX](https://us02web.zoom.us/rec/share/m4RP1vb2I1TN5_O5ImuBvzd6OrszDgxxUkiRusiinYpNmUaTo2_oK0GZAqQ5L4.OBaKLGnLc78y_JhX)

Passcode: 6L%\$Ynf!

Other links: <https://unilag.edu.ng/?p=20533>

## Activity: Evaluation and Monitoring

**Description:** Evaluation of project progress and submission of reports to GBIF

**Start Date - End Date:** 30/6/2021 - 31/3/2023

**Verification Sources:** See assessment forms, feedback forms attached as well as links below.

<https://gbif.fluxx.io/dashboard/index>

<https://www.gbif.org/project/BID-AF2020-022-NAC/implementation-of-the-biodiversity-information-and-data-system-for-coastal-ecosystems-in-nigeria#about>

## Report on Deliverables

### Deliverables - Summary

A total of 58 datasets have been published (Occurrence data including 24,416 records and Checklist data comprising 6,407 records).

Capacity has been build across the country in biodiversity data mobilization, publication and management.

The idea of constructing a website to serve as National Informatics clearing house was jettisoned for upgrading of the already existing website managed by the GBIF national node.

Quality specimen data on Nigeria coastal biodiversity is made available on the GBIF portal.

IUCN status of the species recorded are made available.

Inter-ministerial partnerships is strengthened amongst participating ministries.

A communique emanating from policy dialogue has been shared amongst policy makers to facilitate ministerial Press briefing on the Level of National Biodiversity Informatics Action Plan for The Nigerian Coastal Environment.

A data paper is being compiled for publication in a biodiversity data journal.

### Deliverables produced by the project

### Dataset deliverables

#### Dataset

**Dataset type:** Checklist

**Dataset scope:** A CHECKLIST OF PHYTOPLANKTON AND PLANTS OF SOUTH WESTERN REGION OF THE NIGERIAN COASTAL ENVIRONMENTS

**Number of records:** 839

**Data holder:** University of Lagos

**Data host institution:** University of Lagos

**% complete:** 100%

**Status update:** Completed

**DOI:** <https://doi.org/10.15468/6q5z4r>

**Expected date of publication:**

## Dataset

**Dataset type:** Checklist

**Dataset scope:** Checklist of Phytoplanktons and Plants in the South-South Zone of the Nigerian Coastal Environments

**Number of records:** 760

**Data holder:** University of Lagos

**Data host institution:** University of Lagos

**% complete:** 100%

**Status update:** Completed

**DOI:** <https://doi.org/10.15468/m9tc82>

**Expected date of publication:**

## Dataset

**Dataset type:** Checklist

**Dataset scope:** A Checklist of Zooplanktons, Macrobenthos and Animals of South Western Region of the Nigerian Coastal Environments

**Number of records:** 343

**Data holder:** University of Lagos

**Data host institution:** University of Lagos

**% complete:** 100%

**Status update:** Completed

**DOI:** <https://doi.org/10.15468/pmgek8>

**Expected date of publication:**

## Dataset

**Dataset type:** Checklist

**Dataset scope:** A Checklist of Plants and Animals in the Delta Coastal Environments

**Number of records:** 341

**Data holder:** University of Calabar

**Data host institution:** University of Calabar

**% complete:** 100%

**Status update:** Completed

**DOI:** <https://doi.org/10.15468/rmj94n>

**Expected date of publication:**

## Dataset

**Dataset type:** Checklist

**Dataset scope:** Checklist of Animals in the South-Sothorn Nigerian Coast

**Number of records:** 213

**Data holder:** University of Lagos

**Data host institution:** University of Lagos

**% complete:** 100%

**Status update:** Completed

**DOI:** <https://doi.org/10.15468/uctw62>

**Expected date of publication:**

## Dataset

**Dataset type:** Checklist

**Dataset scope:** A Checklist of Flora and Fauna of Ikot-Abasi, Akwa-Ibom State, Nigeria

**Number of records:** 219

**Data holder:** University of Calabar

**Data host institution:** University of Calabar

**% complete:** 100%

**Status update:** Completed

**DOI:** <https://doi.org/10.15468/aytrf6>

**Expected date of publication:**

## Dataset

**Dataset type:** Occurrences

**Dataset scope:** Biodiversity of Delta Coastal Environment, Delta State, Nigeria

**Number of records:** 4,655

**Data holder:** University of Calabar

**Data host institution:** University of Calabar

**% complete:** 100%

**Status update:** Completed

**DOI:** <https://doi.org/10.15468/j9r2up>

**Expected date of publication:**

## Dataset

**Dataset type:** Occurrences

**Dataset scope:** An occurrence record of plants in Coastal Environments within Emohua Local Government Area, Rivers State, Nigeria  
**Number of records:** 1,595  
**Data holder:** University of Calabar  
**Data host institution:** University of Calabar  
**% complete:** 100%  
**Status update:** Completed  
**DOI:** <https://doi.org/10.15468/av3eae>  
**Expected date of publication:**

#### Dataset

**Dataset type:** Occurrences  
**Dataset scope:** Flora of Coastal Environment in Cross-River State, Nigeria  
**Number of records:** 1,641  
**Data holder:** University of Calabar  
**Data host institution:** University of Calabar  
**% complete:** 100%  
**Status update:** Completed  
**DOI:** <https://doi.org/10.15468/k8xupm>  
**Expected date of publication:**

#### Dataset

**Dataset type:** Occurrences  
**Dataset scope:** Flora of South-Southern Nigeria Coastal Environments  
**Number of records:** 2,690  
**Data holder:** University of Lagos  
**Data host institution:** University of Lagos  
**% complete:** 100%  
**Status update:** Completed  
**DOI:** <https://doi.org/10.15468/wxak7w>  
**Expected date of publication:**

#### Dataset

**Dataset type:** Occurrences  
**Dataset scope:** Biodiversity of Bayelsa Coastal Communities, Nigeria  
**Number of records:** 1,192  
**Data holder:** University of Calabar  
**Data host institution:** University of Calabar  
**% complete:** 100%  
**Status update:** Completed  
**DOI:** <https://doi.org/10.15468/8655ac>  
**Expected date of publication:**

#### Dataset

**Dataset type:** Occurrences  
**Dataset scope:** PHYTOPLANKTON AND FLORA COMPOSITION OF SOUTH WESTERN REGION OF THE NIGERIAN COASTAL ENVIRONMENTS  
**Number of records:** 6,590  
**Data holder:** University of Lagos  
**Data host institution:** University of Lagos  
**% complete:** 100%  
**Status update:** Completed  
**DOI:** <https://doi.org/10.15468/7jub7t>  
**Expected date of publication:**

#### Dataset

**Dataset type:** Checklist  
**Dataset scope:** IUCN Red list of some Plants and Animals along the Nigerian Coast  
**Number of records:** 207  
**Data holder:** University of Lagos  
**Data host institution:** University of Lagos  
**% complete:** 10%  
**Status update:** Assessment ongoing  
**DOI:** <https://doi.org/10.15468/y8jysn>  
**Expected date of publication:** 2023-05-31

#### Dataset

**Dataset type:** Checklist  
**Dataset scope:** Marine Fishes and Shell Fishes of the Nigerian Coastal Environments  
**Number of records:** 114  
**Data holder:** University of Lagos

**Data host institution:** University of Lagos  
**% complete:** 100%  
**Status update:** Completed  
**DOI:** <https://doi.org/10.15468/n46zck>  
**Expected date of publication:**

#### Dataset

**Dataset type:** Checklist  
**Dataset scope:** A Checklist of Biodiversity in the Ogun River, Ogun State, Nigeria  
**Number of records:** 56  
**Data holder:** University of Lagos  
**Data host institution:** University of Lagos  
**% complete:** 100%  
**Status update:** Completed  
**DOI:** <https://doi.org/10.15468/mqruz8>  
**Expected date of publication:**

#### Dataset

**Dataset type:** Checklist  
**Dataset scope:** A Checklist of some Bacteria and Fungi around the UNILAG Lagoon  
**Number of records:** 17  
**Data holder:** University of Lagos  
**Data host institution:** University of Lagos  
**% complete:** 100%  
**Status update:** Completed  
**DOI:** <https://doi.org/10.15468/63g4gt>  
**Expected date of publication:**

#### Dataset

**Dataset type:** Checklist  
**Dataset scope:** A Checklist of Coastal Flora of South Eastern Nigeria  
**Number of records:** 36  
**Data holder:** University of Lagos  
**Data host institution:** University of Lagos  
**% complete:** 100%  
**Status update:** Completed  
**DOI:** <https://doi.org/10.15468/nbx69n>  
**Expected date of publication:**

#### Dataset

**Dataset type:** Checklist  
**Dataset scope:** A Checklist of Coastal Fauna of South-Eastern Nigeria  
**Number of records:** 10  
**Data holder:** University of Lagos  
**Data host institution:** University of Lagos  
**% complete:** 100%  
**Status update:** Completed  
**DOI:** <https://doi.org/10.15468/jaubgv>  
**Expected date of publication:**

#### Dataset

**Dataset type:** Occurrences  
**Dataset scope:** Flora of Bonny Coastal Environment, Rivers State, Nigeria  
**Number of records:** 770  
**Data holder:** University of Calabar  
**Data host institution:** University of Calabar  
**% complete:** 100%  
**Status update:** Completed  
**DOI:** <https://doi.org/10.15468/ps6d8x>  
**Expected date of publication:**

#### Dataset

**Dataset type:** Occurrences  
**Dataset scope:** Biodiversity of Some Coastal Communities in Akwa-Ibom State, Nigeria  
**Number of records:** 1,148  
**Data holder:** University of Calabar  
**Data host institution:** University of Calabar  
**% complete:** 100%  
**Status update:** Completed  
**DOI:** <https://doi.org/10.15468/59km9e>

**Expected date of publication:**

**Dataset**

**Dataset type:** Occurrences

**Dataset scope:** Zooplanktons, Macrobenthos and Animals of South Western Region of the Nigerian Coastal Environments

**Number of records:** 1,677

**Data holder:** University of Lagos

**Data host institution:** University of Lagos

**% complete:** 100%

**Status update:** Completed

**DOI:** <https://doi.org/10.15468/mp5c7p>

**Expected date of publication:**

**Dataset**

**Dataset type:** Occurrences

**Dataset scope:** A Record of Fauna in South-Southern Region of the Nigerian Coastal Environments

**Number of records:** 883

**Data holder:** University of Lagos

**Data host institution:** University of Lagos

**% complete:** 100%

**Status update:** Completed

**DOI:** <https://doi.org/10.15468/aw3p7q>

**Expected date of publication:**

**Dataset**

**Dataset type:** Occurrences

**Dataset scope:** A Record of Fauna in South-Southern Region of the Nigerian Coastal Environments

**Number of records:** 883

**Data holder:** University of Lagos

**Data host institution:** University of Lagos

**% complete:** 100%

**Status update:** Completed

**DOI:** <https://doi.org/10.15468/aw3p7q>

**Expected date of publication:**

**Dataset**

**Dataset type:** Occurrences

**Dataset scope:** Biodiversity of Onne Local Government Area, Rivers State, Nigeria

**Number of records:** 208

**Data holder:** University of Calabar

**Data host institution:** University of Calabar

**% complete:** 100%

**Status update:** Completed

**DOI:** <https://doi.org/10.15468/yyapgv>

**Expected date of publication:**

**Dataset**

**Dataset type:** Occurrences

**Dataset scope:** Biodiversity of Ogun River Coastal Communities, Ogun State, Nigeria

**Number of records:** 287

**Data holder:** University of Lagos

**Data host institution:** University of Lagos

**% complete:** 100%

**Status update:** Completed

**DOI:** <https://doi.org/10.15468/8zs4u8>

**Expected date of publication:**

**Dataset**

**Dataset type:** Checklist

**Dataset scope:** Biodiversity of Ogun River Coastal Communities, Ogun State, Nigeria

**Number of records:** 287

**Data holder:** University of Lagos

**Data host institution:** University of Lagos

**% complete:** 100%

**Status update:** Completed

**DOI:** <https://doi.org/10.15468/x6hn8r>

**Expected date of publication:**

## Dataset

**Dataset type:** Occurrences  
**Dataset scope:** Flora of Lagos Coastal Environment, Lagos, Nigeria  
**Number of records:** 206  
**Data holder:** University of Calabar  
**Data host institution:** University of Calabar  
**% complete:** 100%  
**Status update:** Completed  
**DOI:** <https://doi.org/10.15468/uvws84>  
**Expected date of publication:**

## Dataset

**Dataset type:** Occurrences  
**Dataset scope:** Coastal Flora of South Eastern Nigeria  
**Number of records:** 378  
**Data holder:** University of Lagos  
**Data host institution:** University of Lagos  
**% complete:** 100%  
**Status update:** Completed  
**DOI:** <https://doi.org/10.15468/82bfqz>  
**Expected date of publication:**

## Dataset

**Dataset type:** Occurrences  
**Dataset scope:** Herbarium specimens held at the University of Calabar, Cross River State, Nigeria  
**Number of records:** 101  
**Data holder:** University of Calabar  
**Data host institution:** University of Calabar  
**% complete:** 100%  
**Status update:** Completed  
**DOI:** <https://doi.org/10.15468/wg98qj>  
**Expected date of publication:**

## Dataset

**Dataset type:** Checklist  
**Dataset scope:** A Checklist of plants in Coastal Environments within Emohua Local Government Area, Rivers State, Nigeria  
**Number of records:** 214  
**Data holder:** University of Calabar  
**Data host institution:** University of Calabar  
**% complete:** 100%  
**Status update:** Completed  
**DOI:** <https://doi.org/10.15468/apmdvw>  
**Expected date of publication:**

## Dataset

**Dataset type:** Checklist  
**Dataset scope:** A checklist of flora of Ogbia Coastal Areas, Bayelsa State, Nigeria  
**Number of records:** 87  
**Data holder:** University of Calabar  
**Data host institution:** University of Calabar  
**% complete:** 100%  
**Status update:** completed  
**DOI:** <https://doi.org/10.15468/c7b2uu>  
**Expected date of publication:**

## Dataset

**Dataset type:** Checklist  
**Dataset scope:** A Checklist of flora of coastal environments in Cross-River State, Nigeria  
**Number of records:** 234  
**Data holder:** University of Calabar  
**Data host institution:** University of Calabar  
**% complete:** 100%  
**Status update:** Completed  
**DOI:** <https://doi.org/10.15468/a7v3xa>  
**Expected date of publication:**

## Dataset

**Dataset type:** Checklist



**Dataset scope:** A Checklist of Plants in the Bonny Coastal Environments, Rivers State, Nigeria  
**Number of records:** 142  
**Data holder:** University of Calabar  
**Data host institution:** University of Calabar  
**% complete:** 100%  
**Status update:** Completed  
**DOI:** <https://doi.org/10.15468/5jkghu>  
**Expected date of publication:**

#### Dataset

**Dataset type:** Checklist  
**Dataset scope:** Endemic vertebrates of the Nigerian Coastal Environments  
**Number of records:** 36  
**Data holder:** University of Lagos  
**Data host institution:** University of Lagos  
**% complete:** 100%  
**Status update:** Completed  
**DOI:** <https://doi.org/10.15468/yjwh5r>  
**Expected date of publication:**

#### Dataset

**Dataset type:** Checklist  
**Dataset scope:** Common Plants of the Nigerian Coastal Environments  
**Number of records:** 54  
**Data holder:** University of Lagos  
**Data host institution:** University of Lagos  
**% complete:** 100%  
**Status update:** Completed  
**DOI:** <https://doi.org/10.15468/8hrds>  
**Expected date of publication:**

#### Dataset

**Dataset type:** Checklist  
**Dataset scope:** A checklist of flora and fauna of Onne Local Government Area, Rivers State, Nigeria  
**Number of records:** 153  
**Data holder:** University of Calabar  
**Data host institution:** University of Calabar  
**% complete:** 100%  
**Status update:** Completed  
**DOI:** <https://doi.org/10.15468/66jfh5>  
**Expected date of publication:**

#### Dataset

**Dataset type:** Checklist  
**Dataset scope:** A Checklist of flora and fauna of Biseni, Bayelsa State, Nigeria  
**Number of records:** 320  
**Data holder:** University of Calabar  
**Data host institution:** University of Calabar  
**% complete:** 100%  
**Status update:** Completed  
**DOI:** <https://doi.org/10.15468/dxetu9>  
**Expected date of publication:**

#### Dataset

**Dataset type:** Checklist  
**Dataset scope:** A Checklist of Flora of Ibeno, Akwa-Ibom State, Nigeria  
**Number of records:** 79  
**Data holder:** University of Calabar  
**Data host institution:** University of Calabar  
**% complete:** 100%  
**Status update:** Completed  
**DOI:** <https://doi.org/10.15468/386v2y>  
**Expected date of publication:**

#### Dataset

**Dataset type:** Checklist  
**Dataset scope:** A Checklist of Flora and Fauna of Tibidaba, Bayelsa State, Nigeria  
**Number of records:** 88  
**Data holder:** University of Calabar  
**Data host institution:** University of Calabar

**% complete:** 100%  
**Status update:** Completed  
**DOI:** <https://doi.org/10.15468/y8qjhh>  
**Expected date of publication:**

#### Dataset

**Dataset type:** Checklist  
**Dataset scope:** A Checklist of Plants in the Lagos Coastal Environments  
**Number of records:** 119  
**Data holder:** University of Calabar  
**Data host institution:** University of Calabar  
**% complete:** 100%  
**Status update:** Completed  
**DOI:** <https://doi.org/10.15468/4unvyg>  
**Expected date of publication:**

#### Dataset

**Dataset type:** Checklist  
**Dataset scope:** A Checklist of Flora and Fauna of Clough Creek, Bayelsa State, Nigeria  
**Number of records:** 225  
**Data holder:** University of Calabar  
**Data host institution:** University of Calabar  
**% complete:** 100%  
**Status update:** Completed  
**DOI:** <https://doi.org/10.15468/2qrffw>  
**Expected date of publication:**

#### Dataset

**Dataset type:** Occurrences  
**Dataset scope:** Coastal Fauna of South-Eastern Nigeria  
**Number of records:** 26  
**Data holder:** University of Lagos  
**Data host institution:** University of Lagos  
**% complete:** 100%  
**Status update:** Completed  
**DOI:** <https://doi.org/10.15468/t4rngq>  
**Expected date of publication:**

#### Dataset

**Dataset type:** Occurrences  
**Dataset scope:** Nucleotide Sequence record of some Bacteria and Fungi around the UNILAG Lagoon  
**Number of records:** 17  
**Data holder:** University of Lagos  
**Data host institution:** University of Lagos  
**% complete:** 100%  
**Status update:** Completed  
**DOI:** <https://doi.org/10.15468/6u9jqd>  
**Expected date of publication:**

#### Dataset

**Dataset type:** Occurrences  
**Dataset scope:** Macroinvertebrates of Orogodo River, Delta State, Nigeria  
**Number of records:** 13  
**Data holder:** Federal University of Technology Minna  
**Data host institution:** University of Lagos  
**% complete:** 100%  
**Status update:** Completed  
**DOI:** <https://doi.org/10.15468/9z6mqb>  
**Expected date of publication:**

#### Dataset

**Dataset type:** Checklist  
**Dataset scope:** A checklist of Macroinvertebrates of Orogodo River, Delta state  
**Number of records:** 13  
**Data holder:** Federal University of Technology Minna  
**Data host institution:** u  
**% complete:** 100%  
**Status update:** Completed  
**DOI:** <https://doi.org/10.15468/xrxz7m>  
**Expected date of publication:**

#### Dataset

**Dataset type:** Checklist  
**Dataset scope:** A Checklist of Flora and Fauna of Rivers State, Nigeria  
**Number of records:** 75  
**Data holder:** Niger Delta University  
**Data host institution:** University of Lagos  
**% complete:** 100%  
**Status update:** Completed  
**DOI:** <https://doi.org/10.15468/n37j64>  
**Expected date of publication:**

#### Dataset

**Dataset type:** Checklist  
**Dataset scope:** Plants of Amadi-ohi Sacred Groove, Ozuzu, Rivers, Nigeria  
**Number of records:** 25  
**Data holder:** Niger Delta University  
**Data host institution:** University of Lagos  
**% complete:** 100%  
**Status update:** Completed  
**DOI:** <https://doi.org/10.15468/7ka36e>  
**Expected date of publication:**

#### Dataset

**Dataset type:** Checklist  
**Dataset scope:** Plants of Kue-Nyama-Gwara Sacred Groove, Ka-Gwara-Babbe, Rivers, Nigeria  
**Number of records:** 38  
**Data holder:** Niger Delta University  
**Data host institution:** University of Lagos  
**% complete:** 100%  
**Status update:** Completed  
**DOI:** <https://doi.org/10.15468/nq3hpg>  
**Expected date of publication:**

#### Dataset

**Dataset type:** Checklist  
**Dataset scope:** Plants of Kue-Yaategbara Sacred Groove, Kwama-Ken-Kha, Rivers, Nigeria  
**Number of records:** 73  
**Data holder:** Niger Delta University  
**Data host institution:** University of Lagos  
**% complete:** 100%  
**Status update:** Completed  
**DOI:** <https://doi.org/10.15468/5gm2z4>  
**Expected date of publication:**

#### Dataset

**Dataset type:** Checklist  
**Dataset scope:** Plants of Ludee-Lueke Sacred Groove, Yorkha, Rivers, Nigeria  
**Number of records:** 71  
**Data holder:** Niger Delta University  
**Data host institution:** University of Lagos  
**% complete:** 100%  
**Status update:** completed  
**DOI:** <https://doi.org/10.15468/tbwhac>  
**Expected date of publication:**

#### Dataset

**Dataset type:** Checklist  
**Dataset scope:** Plants of Oko-Ohia Ala Sacred Groove, Umuaja Afara, Rivers, Nigeria  
**Number of records:** 32  
**Data holder:** Niger Delta University  
**Data host institution:** University of Lagos  
**% complete:** 100%  
**Status update:** Completed  
**DOI:** <https://doi.org/10.15468/btnqyd>  
**Expected date of publication:**

#### Dataset

**Dataset type:** Checklist  
**Dataset scope:** Plants of Onura Sacred Groove, Alesa, Nigeria  
**Number of records:** 99  
**Data holder:** Niger Delta University  
**Data host institution:** University of Lagos  
**% complete:** 100%  
**Status update:** Completed  
**DOI:** <https://doi.org/10.15468/zsq95g>  
**Expected date of publication:**

#### Dataset

**Dataset type:** Checklist  
**Dataset scope:** Checklist of Plants in Niger Delta Region of Nigeria  
**Number of records:** 188  
**Data holder:** Niger Delta University  
**Data host institution:** University of Lagos  
**% complete:** 100%  
**Status update:** Completed  
**DOI:** <https://doi.org/10.15468/44tbp5>  
**Expected date of publication:**

#### Dataset

**Dataset type:** Checklist  
**Dataset scope:** Plants of Omakuru and Obite Sacred Groove, Etche Local Government, Rivers, Nigeria  
**Number of records:** 80  
**Data holder:** Niger Delta University  
**Data host institution:** University of Lagos  
**% complete:** 100%  
**Status update:** Completed  
**DOI:** <https://doi.org/10.15468/yh8xrw>  
**Expected date of publication:**

#### Dataset

**Dataset type:** Occurrences  
**Dataset scope:** Macrobenthos of Atlantic Ocean by Ikike, Akwa-Ibom State, Nigeria  
**Number of records:** 52  
**Data holder:** University of Lagos  
**Data host institution:** University of Lagos  
**% complete:** 100%  
**Status update:** Completed  
**DOI:** <https://doi.org/10.15468/u2crjj>  
**Expected date of publication:**

#### Dataset

**Dataset type:** Checklist  
**Dataset scope:** Checklist of Macrobenthos around Ikike, Akwa-Ibom State, Nigeria  
**Number of records:** 52  
**Data holder:** University of Lagos  
**Data host institution:** University of Lagos  
**% complete:** 100%  
**Status update:** Completed  
**DOI:** <https://doi.org/10.15468/8qbea9>  
**Expected date of publication:**

#### Dataset

**Dataset type:** Checklist  
**Dataset scope:** Checklist of flora in Ogba Zoo, Edo State, Nigeria  
**Number of records:** 571  
**Data holder:** University of Benin  
**Data host institution:** University of Lagos  
**% complete:** 100%  
**Status update:** Completed  
**DOI:** <https://doi.org/10.15468/pdxuz5>  
**Expected date of publication:**

#### Dataset

**Dataset type:** Checklist  
**Dataset scope:** Checklist of flora and fauna of Bayelsa State, Nigeria  
**Number of records:** 184  
**Data holder:** Niger Delta University

**Data host institution:** University of Lagos  
**% complete:** 100%  
**Status update:** Completed  
**DOI:** <https://doi.org/10.15468/2dz5u4>  
**Expected date of publication:**

## Other deliverables

### Increased Capacity of broader scientific community

**Description:** Provide training in biodiversity informatics for data mobilization, publication and use.

**% complete:** 100%

**Status update:** A 3 day capacity building was held in December 2021 and 158 people were trained.

**Sources of verification:** Day 1:

[https://us02web.zoom.us/rec/share/139XmY0ypCHd9MSMGsFlAUAAkdIqlisODzLPwAjaRbgtDiA9cDHkxxBOHHnGbmB5.jII4UEQFqYz4eHGIPasscode: iR2!5\\*P1](https://us02web.zoom.us/rec/share/139XmY0ypCHd9MSMGsFlAUAAkdIqlisODzLPwAjaRbgtDiA9cDHkxxBOHHnGbmB5.jII4UEQFqYz4eHGIPasscode: iR2!5*P1) Day 2:

<https://us02web.zoom.us/rec/share/0Z1Q4AKIzK4nqCNNXbyIbxV7XSF8RXhbnOVw7PjfiIoxPv0MjIII4iv6Udq1jPjA.ICPGwM-FCAUuWmguPasscode: V##&2+w@> Other links: <https://unilag.edu.ng/?p=11458> <https://unilag.edu.ng/?p=11380> [https://www.linkedin.com/posts/university-of-lagos\\_gbif-bid-team-holds-3-day-workshop-dec-13-activity-6874765364941615104-509D](https://www.linkedin.com/posts/university-of-lagos_gbif-bid-team-holds-3-day-workshop-dec-13-activity-6874765364941615104-509D)

<https://www.facebook.com/1850514788525976/posts/3127953327448776/> <https://local.google.com/place?id=8306873736164007940&use=posts&lpsid=8690432730570969882> Also see attached documents.

### Data Assessment

**Description:** Establishment of a National Informatics clearing house to effectively monitor data for publication in the GBIF portal meets all standards for publication.

**% complete:** 0%

**Status update:** It was concluded that this would be a duplication of existing website.

**Sources of verification:** <http://www.ngbif.org.ng/> <https://ipt-nigeria.gbif.fr/>

### Access to quality specimen data

**Description:** Specimen Data are prepared for Taxonomy; Geographic and time Checks, data handling and processing through the Nigerian Informatics Pipeline adapted from the Darwin Core standard uploaded in the GBIF IPT.

**% complete:** 100%

**Status update:** All mobilized datasets have been published and made publicly accessible.

**Sources of verification:** <https://www.gbif.org/project/BID-AF2020-022-NAC/implementation-of-the-biodiversity-information-and-data-system-for-coastal-ecosystems-in-nigeria#datasets>

### Environmental information system up-grade

**Description:** Update on the Red List Index, Living Planet Index, Protected Area Overlays with Biodiversity is available

**% complete:** 60%

**Status update:** The red listing of the species is yet to be concluded

**Sources of verification:** <https://doi.org/10.15468/y8jysn>

### Implementation of Conservation policies for coastal areas

**Description:** Facilitation of an Inter-Ministerial meeting between Project partners, the Federal Ministry of Science and Technology and The Federal Ministry of Environment on the use of existing data published.

**% complete:** 80%

**Status update:** The MOA has been drafted but final endorsement yet to be done.

**Sources of verification:** See attached.

### Publicity of project results

**Description:** Press briefing on the Level of National Biodiversity Informatics Action Plan for The Nigerian Coastal Environment.

**% complete:** 70%

**Status update:** A press briefing held after the end of project meeting (See attached) however the ministerial press briefing will hold following consideration of the communique and further engagement with necessary stakeholders.

**Sources of verification:** See attached.

### Manuscript Publication

**Description:** Peer reviewed publication of project results in high impact and reputable open access journal.

**% complete:** 40%

**Status update:** The manuscript is being compiled for publication.

**Sources of verification:** N/A

## Events

## A 3-day Capacity Workshop on Digitization of Coastal Biodiversity in Nigeria

**Dates:** 2021-12-13 - 2021-12-15

**Organizing institution:** University of Lagos

**Country:** Nigeria

**Number of participants:** 158

**Comments:** Other verification means are attached

**Website or sources of verification:** <https://unilag.edu.ng/?p=11458>

### Events

#### Strategic Policy Dialogue and Stakeholders Engagement Meeting

**Dates:** 2023-03-21 - 2023-03-21

**Organizing institution:** University of Lagos

**Country:** Nigeria

**Number of participants:** 64

**Comments:**

[https://us02web.zoom.us/j/6L%\\$Ynf!](https://us02web.zoom.us/j/6L%$Ynf!)

Passcode: 6L%\$Ynf!

Other links: <https://unilag.edu.ng/?p=20533>

<https://sciencenigeria.com/gbif-project-solution-to-revolutionise-nigerias-ecosystem-say-stakeholders/>

<https://theeagleonline.com.ng/shetsco-partners-unilag-on-information-biodiversity/>

[https://www.linkedin.com/posts/unilag-nigeria\\_gbif-bid-project-team-holds-policy-dialogue-activity-7047177022896246784-eA7V?](https://www.linkedin.com/posts/unilag-nigeria_gbif-bid-project-team-holds-policy-dialogue-activity-7047177022896246784-eA7V?utm_source=share&utm_medium=member_desktop)

[utm\\_source=share&utm\\_medium=member\\_desktop](https://von.gov.ng/stakeholders-dialogue-on-ways-to-boost-nigerias-biodiversity-projection/)

<https://von.gov.ng/stakeholders-dialogue-on-ways-to-boost-nigerias-biodiversity-projection/>

**Website or sources of verification:** <https://unilag.edu.ng/?p=20533>

### Communications and visibility

Results from the project are being communicated through the university website and other news publishing outlets (See attached and links below).

<https://unilag.edu.ng/?p=20533>

<https://sciencenigeria.com/gbif-project-solution-to-revolutionise-nigerias-ecosystem-say-stakeholders/>

<https://theeagleonline.com.ng/shetsco-partners-unilag-on-information-biodiversity/>

[https://www.linkedin.com/posts/unilag-nigeria\\_gbif-bid-project-team-holds-policy-dialogue-activity-7047177022896246784-eA7V?](https://www.linkedin.com/posts/unilag-nigeria_gbif-bid-project-team-holds-policy-dialogue-activity-7047177022896246784-eA7V?utm_source=share&utm_medium=member_desktop)

[utm\\_source=share&utm\\_medium=member\\_desktop](https://unilag.edu.ng/?p=11458)

<https://unilag.edu.ng/?p=11458>

<https://unilag.edu.ng/?p=11380>

[https://www.linkedin.com/posts/university-of-lagos\\_gbif-bid-team-holds-3-day-workshop-dec-13-activity-6874765364941615104-509D](https://www.linkedin.com/posts/university-of-lagos_gbif-bid-team-holds-3-day-workshop-dec-13-activity-6874765364941615104-509D)

<https://www.facebook.com/1850514788525976/posts/3127953327448776/>

<https://von.gov.ng/stakeholders-dialogue-on-ways-to-boost-nigerias-biodiversity-projection/>

Other means of communication include press conferences (See attached), scientific publications (in progress) and press release/ministerial briefings (in progress).

### Monitoring and evaluation

#### Final Evaluation

The GBIF support personnel assigned to the project has been quite helpful in providing necessary assistance as at when due. The project team held quarterly meetings to monitor progress on achievement of various timelines and challenges encountered were promptly attended to. Self study forms were completed and this has provided insights into the various areas of support needed by the project partners and collaborators (See attached).

#### Best Practices and Lessons learned

**Stakeholder Analysis:** This was done at the project inception and helped to identify functional stakeholders that will be involved in the project, their roles and level of influence. It also assisted the project partners to identify triggers and come up with mitigative measures to deal with them. Stakeholders with positive perceptions were identified and engaged as project advocates.

**Data Mobilization:** Proper and comprehensive classification of specimens had to be done and this was validated through the GBIF portal. Google Maps was used to get the coordinates (<https://www.google.com/maps>) for many specimens while those with verbatim coordinates were converted to decimal using GPS converter.

**Data Publishing:** This was achieved with GBIF-IPT and with minimal errors were recorded.

**Workshop:** initial trainings organized by GBIF for project team members paved the way for successful delivery of the workshop. The node and GBIF Monitor assigned to the project were also on hand to provide support as needed. Most participants were ready to learn and a number have been able to replicate the training in their institutions with our support.

**Policy dialogue:** This revealed that there are a lot of interested stakeholders in Coastal biodiversity conservation and a concerted effort is needed to achieve success.

#### Post Project activities

Publication of a biodiversity data paper.

## Sustainability

### Sustainability Plans

To ensure sustainability of this project, 5 Undergraduates, 4 Project Assistants, 1 Senior Assistant and 4 Technical Assistants were trained to further the mobilization activities beyond the project timeline. Similarly, at least 3 persons each were trained in each of the partner institutions. Also, to foster understanding and appreciation of biodiversity by the general public and other stakeholders, presentations made on this project are made publicly available for use.

### Impact of COVID-19 pandemic on project implementation

There has been no major impact of covid-19 on the project.

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**GBIF leads the Biodiversity Information for Development (BID), a programme funded by the European Union. The programme provides supplementary support for activities addressing the needs of regional researchers and policymakers through mobilization and use of biodiversity data.**

