Mobilisation and digitisation of natural history collections at the University of Papua New Guinea, Papua New Guinea

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Programme: BID
Project ID: BID-PA2020-009-INS
Project lead organization: Centre for Biodiversity and Natural Products – University of Papua New Guinea
Project implementation period: 1/7/2021 - 30/6/2023
Report approved: 10/11/2022

Narrative Midterm report

Executive Summary

Achievements to date

Despite late start of project due to Covid-19, we are delighted to inform that we have achieved the following:

1) Project staff member (Janet Gagul) has attained a basic level badge for the BID Capacity Enhancement Workshop that was conducted from 02 August – 19 September 2021. The badge arrived on 7 April 2022.

2) We have organised a 'data mobilisation' training for our collection staff (plus other interested personnel) from 14 – 18 February 2022. A total of 10 people attended the training, and were awarded participation certificates by the University of Papua New Guinea. Project staff and collection managers needed the training in order to commence the data mobilisation work. Positive feedbacks were received from the participants, and the commencement of data cleaning started in April 2022 (refer to report attached).

3) Project lead drafted (the 14 – 18 February 2022) training report (narrative and financial) and submitted to our institution for their records and accountability of GBIF funds (see attachments)

4) We have published 9 plant families (237 records)

5) The ICT team has created a website link for the Centre for Biodiversity and Natural Products, which is currently active. Previously, nothing happened when you clicked on the name, on the main UPNG website.

Starting March 2022, we (project team) have been having regular meetings (twice a week) to progress data mobilisation work forward, to meet the first milestone deadline (May 2022). We have now published some records of plants in the first milestone, and will continue to work on cleaning other databases. Currently more work is required to clean data, and with our first data cleaning experience with the plants database, it will be easy to clean data in other collections.

Progress against milestones

Has your project published at least one dataset through GBIF.org?: Yes

Dataset published:

Dataset DOI

Has at least one member of your project team received certification following the BID capacity enhancement workshop?: Yes

Name of the workshop participant: Janet Gagul

Certification obtained: Basic Badge

Report on Activities

Activity progress summary

CBNP activity progress summary (July 2021 – May 2022).

July 2021 – Nov 2021

(1) Each collection manager was tasked to plan their activity how they see fit for their collection, and to set their work place up for GBIF BID work

(2) Each manager was requested to provide a brief summary of their collection (last entry date, why it stopped, what program they used to store data/database, how many records (family, genus, species) they have in their database

(3) They were also tasked to provide some information on equipment/resources they require to progress forward

Information provided by the collection managers became the guide for the project lead to use, and to understand what was required for each collection. That also help the project lead to provide guidance and assistance they required and to seek further assistance from the institution for the data mobilisation work.

We are currently discussing what items to purchase to help us with the data work with the BID allocated funds for IT.

December 2021 – holiday period

January 2022 – February 2022

(1) Announcement and invitation were sent out to collection managers, curators and other interested staff for data mobilisation training

(2) Logistics preparation and organisation of funds for the training. This includes requesting UPNG to release funds from GBIF BID project account, bringing of trainer (GBIF mentor for PNG, Penniel Lamei) to UPNG, accommodating him for the duration of training, and sending him back

(3) Training commencement: 14 – 18 February 2022. Ten people attended the training and attained certificates for participating. Participants were asked to reflect on the training, and give their feedback. Some of the things they shared are reported (see report attached)

(4) Project lead drafted and submitted reports (narrative and financial to the UPNG) (see attachments)

March 2022 – May 2022

(1) The data mobilisation training enriched the collection managers, and equipped them with the tools and skills they required to commence the databasing work

(2) A meeting was called by project lead to plan project activities (10 August 2021, attached as Email #1). In that meeting, each collection manager was asked to talk about their collection. This was useful for the team to know what each person was doing, what needs to be done, in order to plan the way forward as a team. After listening to all, the team decided that we work on the plants database, which was better, organised, but also contains the highest records. Hence, we scheduled time in the day for officers to work on the database. The reason we scheduled times was because these officers have core functions that are required by the university. We had to schedule in such a way, so they do not neglect their functions, or the BID project work does not interfere with their responsibilities.

(3) Data cleaning of plants database, with 327 records in 9 families published

(4) Regular meetings were held, to go through the data cleaning, and if there were any issues, what were they, and how do we address them as a team

(5) Registered to become a publisher on GBIF network (25 May 2022)

(6) Requested SPREP for IPT access to publish (27 May 2022)

(7) Published 327 records from 9 plant families

(8) Reporting (narrative and financial) by the project lead (31 May 2022)

We have met the milestone deadline by:

(i) Publishing some plants data (327 records). Our first data was published (31 May 2022)

(ii) Submitting reports (both narrative and financial) by 31 May 2022.

Activity: Training and capacity building for BID project staff

Description: A data mobilisation training was conducted for project staff
Start Date - End Date: 14/2/2022 - 18/2/2022
Verification Sources: A training report was submitted to our institution. This report is attached here for GBIF records

Activity: Data cleaning of plant collection

Description: Data cleaning was focussed on the plant collection, as it currently holds the highest number of records, compared to the other collections (entomology, zoology, fish)
Start Date - End Date: 1/3/2022 - 30/5/2022
Verification Sources: Nine plant families comprising 327 records were published (31 May 2022).

Report on Deliverables

Deliverables progress summary

From March 2022 – May 2022, all collection managers have been joining forces to organise and clean plant collection database. After the data mobilisation training in February 2022, we have realised cleaning was time consuming, because we are new to the tools and skills, hence we prioritised to work together on one database (plant collection) which is currently the largest. With the experiences the collection managers attained from

working with the plant database, they proceeded with their respective collections, which happened after the first milestone (May 2022). To date nine plant families comprising 237 records has been published. We (team) are happy with the current plan, and have discussed that we would publish records from other collections (entomology, zoology and fish), once we have cleaned them. We are hereby delighted to announce that we have published some snakes data from the zoological collection (164 records) on 5th August 2022.

Progress towards deliverables

Dataset deliverables

Herbarium – preservation of plant specimens

Dataset type: Occurrences
Dataset scope: Preserved plant specimens arranged alphabetically in families in folders. Inside each folder, genera folders are arranged also alphabetically, with the species in them. These information is entered into the XLS spreadsheet in the computer.
Number of records: 23,000
Data holder: Centre for Biodiversity and Natural Products, University of Papua New Guinea
Data host institution: Centre for Biodiversity and Natural Products, University of Papua New Guinea
% complete: 1%
Status update: Five plant families have been cleaned and data is ready to publish
DOI:
Expected date of publication: 2022-05-30

Entomological collection – preservation of insect specimens

Dataset type: Occurrences
Dataset scope: Preserved insect specimens arranged alphabetically in 'insect orders' in boxes and labelled. Information of the insects is entered into the computer, in an XLS spreadsheet.
Number of records: 14,000
Data holder: Centre for Biodiversity and Natural Products, University of Papua New Guinea
Data host institution: Centre for Biodiversity and Natural Products, University of Papua New Guinea
% complete: 1%
Status update: Data sorting is done, awaiting cleaning and standardisation
DOI:
Expected date of publication: 2022-07-30

Zoological collection – preservation of mammals, reptiles and amphibians, and fishes specimens

Dataset type: Occurrences
Dataset scope: Preserved zoological specimens arranged alphabetically in 'orders' in jars and labelled. Information of the specimens is entered into the computer, in an XLS spreadsheet.
Number of records: 13,000
Data holder: Centre for Biodiversity and Natural Products, University of Papua New Guinea
Data host institution: Centre for Biodiversity and Natural Products, University of Papua New Guinea
% complete: 1%
Status update: Data sorting is progressing, awaiting cleaning and standardisation
DOI:
Expected date of publication: 2022-10-30

Fish collection – preservation of fish specimens

Dataset type: Occurrences
Dataset scope: Preserved fishes specimens arranged in 'orders' in jars and labelled. Information of the specimens is entered into the computer, in an XLS spreadsheet.

Number of records: 10,000
Data holder: Centre for Biodiversity and Natural Products, University of Papua New Guinea
Data host institution: Centre for Biodiversity and Natural Products, University of Papua New Guinea
% complete: 1%
Status update: Data sorting done, awaiting cleaning and standardisation
DOI:
Expected date of publication: 2022-10-30

Other deliverables

Events

Data mobilisation training

Dates: 2022-02-14 - 2022-02-18
Organizing institution: Centre for Biodiversity and Natural Products, University of Papua New Guinea, in collaboration with the Forest Research Institute
Country: Papua New Guinea
Number of participants: 10
Comments: Report for training was submitted to the Biological Sciences Division, School of Natural and Physical Sciences at the University of Papua New Guinea. Refer to attachment.
Website or sources of verification:

Events

Meetings

Dates: 2022-03-01 - 2022-05-31
Organizing institution: Centre for Biodiversity and Natural Products, University of Papua New Guinea
Country: Papua New Guinea
Number of participants: 5
Comments: We have had regular meetings to discuss project progress, challenges and to plan way forward after our data mobilisation training in February 2022. Find attached email correspondences, and meeting minutes and agendas.
Website or sources of verification:

Events

Preparing newsletter articles

Dates: 2022-03-01 - 2022-10-30
Organizing institution: Centre for Biodiversity and Natural Products, University of Papua New Guinea
Country: Papua New Guinea
Number of participants: 4
Comments: Each team member has been tasked to select an animal or plant of choice and write about them. One member has drafted an article on Dwarf Cassowary. Find this document attached.
Website or sources of verification:

Communications and visibility

Documents uploaded or to upload:
1. Updated information for CBNP website (attached)
2. Project staff profile (will be submitted as soon they are ready)
3. Events (e.g., data mobilisation training certificates) which happened from 14 – 18 February 2022
4. Badge attained from BID Capacity Enhancement workshop (attached)

Monitoring and evaluation

Monitoring and evaluation findings

CBNP implementation and monitoring plan for GBIF BID project and progress to date:

1) Training and capacity building – training for BID project staff was done (14 – 18 February 2022), a milestone accomplished to date.

2) Project collaborating partner (Forest Research Institute) has been very supportive, and has been engaged to conduct training for project team members, as they have prior experience with GBIF BID project. Project plans and progress so far will be communicated to them.

3) Once a month meeting prior to our data mobilisation training has been held. But as the first milestone was nearing (May 2022), we have switched (in March 2022) to having twice a week meetings to propel forward, to reach the milestone.

4) In our planning we have allocated tasks to project staff as follows:
(i) Project lead – oversees general management of the project, organises meetings, and communicates with project partners, and authorities in our institution, and drafts reports for GBIF. This person is a plant taxonomist and a researcher, and has great communication skills.
(ii) IT manager – oversees data entry and management, IT access, and corresponds with ICT with IT requests. He is the curator of plant collections, and is knowledgeable in the Internet of things, software/programs and general databasing, and is the most senior staff on the team.
(iii) Collection managers – are involved in the everyday management of the data in each collection (data cleaning, names checking, and updating their respective curators on progress, needs and challenges of curation and data entry). They also report to the project team at meetings of the progress. Currently, there are three graduate scientific officers that work in the collections.

Impact of COVID-19 pandemic on project implementation

Covid-19 scare has put stress on project members, and has delayed progress to certain extent as working from home was difficult for collection managers that required physical specimens on a daily basis. But we have managed to join forces once we have got into collection and worked as hard we we could to clean at least some data for publication. We have published: 1) 327 records of plants (9 families) in May, and 2) 164 records snakes (from zoological collections) in August 2022.