Preparation and sharing of camera traps occurrence database in Asia, including >500,000 observations of >300 vertebrate species from >200 sites

Programme: BIFA
Project ID: BIFA6_005
Project lead organization: Small Mammals Conservation & Research Foundation
Project implementation period: 1/9/2021 - 31/12/2022
Report approved: 22/9/2022

Narrative Midterm report

Executive Summary

With the aim of mobilizing immense species occurrence data in GBIF, we reviewed 300 pieces of literature relevant to camera trapping studies between 2015- 2022 in South East Asia. We curated 3200 occurrence records of vertebrates from 124 sites including a geographical range of Nepal, India, Bhutan, Malaysia, Myanmar, Laos, Cambodia, Indonesia, China, Japan, and South Korea. The dataset includes occurrence records of vertebrates primarily mammals and birds. This information enriched our curated data records from camera trapping studies published between 1999-2015 in Thailand, Malaysia, Indonesia, and Singapore. The project published 772 occurrence records of vertebrates from Cambodia, China, Laos, Vietnam, and China in the GBIF portal to validate the database, and the remaining data will publish within the project duration. The progress is regularly monitored by the Co-PI and BIFA Asia contractors. The project advisor (Co-PI) conducted a monthly meeting to track the project progress and update of the project. There is no change in the projected activities. However, there is a delay in project delivery due to the project's lead circumstance in the project period, and a request for the extension of the project for the successful implementation of the project.

Progress against milestones

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

Dataset published:

Dataset	DOI
Sharing vertebrate occurrence data from camera traps in Asia	10.15468/r84kt7

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

Name of the workshop participant: Arjun Thapa

Certification obtained: Basic Badge

Report on Activities

Activity progress summary

The purpose activities of the project include literature review, data curation, development of R package, data visualization, workshop, and data publication. Based on the discussion with project team members, there is slight change in the project activity-R package due to the complexity between

ECL's existing data structure of online data visualization and analysis tool, and Darwin Core terminology. The project will write an important R code to upload data in GBIF in replace of developing R-package. The R code will be included in the data paper. We completed the literature review and data curation. Also, recently few data were added from Japan and South Korea that added effort to enrich data from the previous geographic range though most of the publications are in the native languages. During the project period, recently published CT-related literature will add and update in the existing data. Importantly, ECL has a prototype online visualization data in https://ecologicalcalcascadeshabl.shinyapps.io/Dataset (recently not available) and the final online visualization and analysis tool will be made available in mid-October 2022. An intensive workshop will be conducted in early October 2022 to finalize online visualization, and R code piloting and testing. Required code consisting of important variables related to camera trapping is in progress and will be finalized at mid of November.

Completed activities

Activity name: Literature Review

Description: 11100 occurrences consisting consists 490958 observations from Asia countries and other region. During the period, team reviewed 300 literatures of the camera traps in Asia between 2015-2022. Among them, 5600 occurrences consist 332991 observations from 254 sites belong Asia.
Start Date - End Date: 15/6/2021 - 20/8/2022
Verification Sources: https://www.gbif.org/dataset/84b5b072-2832-4c72-ad17-eb90bcb0c5ac

Activity name: Curate Database

Description: We harmonized existing data (1999-2015) and currently extracted data base(2015-2021). Data curate, process in Darwin Core terminology.
Start Date - End Date: 1/6/2022 - 15/8/2022
Verification Sources: Link will share after data upload in GBIF.

Report on Deliverables

Deliverables progress summary

- We published data to GBIF. We shared a recently curated database with an Asia contractor assigned to this project.

Progress towards deliverables

Title: Vertebrate species occurances from camera trap data

Type: Dataset
Status update: 11100 occurrence consisting 490958 observations. It includes Nepal, India, Bhutan, Malaysia, Myanmar, Laos, Cambodia, Indonesia, China, Japan, and South Korea in Asian and other region too.
Dataset scope: Occurrence
Expected number of records: 11100
Data holder: Arjun Thapa, Calebe Pereira, Mathew Luskin,
Data host institution: Small Mammals Conservation and Research Foundation
Sampling method: Literature survey
% complete: 75
DOI:
Expected date of publication: 2022-11-15

Title: R package for onboarding camera trap data

Type: Data Papers
Description: Project team changes this activity. Important R code that help to upload data to GBIF will include in the publish data paper.
Sources of verification: It will share in the data paper

Title: Online visualization and analysis tool

Type: Other
Description: ECL already tested online visualization existing data and will add recently curated data in the early October after finalization of the dataset
Sources of verification: It will share online through this link
https://ecologicalcascadeslab.shinyapps.io

Events

Workshop

Dates: 2022-10-09 - 2022-10-15
Organizing institution: Small Mammal Conservation and Research Foundation
Country: Nepal
Number of participants: 5
Comments: The workshop will organize in mid of the October in Nepal.
Website or sources of verification: It will share news link in institution webpage after workshop.

Communications and visibility

At present, we have published a single data in GBIF (DOI10.15468/r84kt7). We are drafting a manuscript based on the collected database and will submit it to the preview journal within the project duration.

Monitoring and evaluation

Monitoring and evaluation findings

We extracted camera trapping data from 300 published literature between 2015 and 2022 which included Nepal, India, Bhutan, Myanmar, China, Malaysia, Thailand, Laos, Cambodia, and Vientnam. Recenlty, we added data from Japan and South Korea which have a very limited data set for this study (most of the publications were in native languages). This will upgrade within the project duration. All these extracted data were compiled in our existing data set format. progress. A set of data were published in GBIF data portal. Most of the data (1/3rd) were formatted in the GBIF data format. We produced prototype data in the Ecological Cascade Lab. We have monthly meetings with project team members to measure activity.

Impact of COVID-19 pandemic on project implementation

An implemented project activities are not impacted by the covid. Due to covid issues (visa issue, logistic arrangement), we changed the venue of the workshop (Nepal instated of Thailand) which was agreed by the project's members.

GBIF leads the Biodiversity Information Fund for Asia (BIFA), a programme funded by the Ministry of the Environment, Government of Japan. The programme provides supplementary support for activities addressing the needs of regional researchers and policymakers through mobilization and use of biodiversity data.

GBIF