

Raising the profile of data for the conservation of four forested African landscapes

Programme:BID

Project ID: BID-AF2020-140-REG Project lead organization:A Rocha Kenya Project implementation period:1/4/2021 - 31/3/2023 Report approved: 31/5/2022

Narrative Midterm report

Executive Summary

This ambitious regional project is progressing well. To date our achievements include:

- Holding a virtual inception meeting on 04/05/2021 where the project lead, Dr. Colin Jackson, presented the project goals and ambitions to all project partners and during which roles and responsibilities were discussed.

- Running our planned trainings for this consortium of partners on data mobilisation and participating in the GBIF-led trainings.

 Four organisations publishing four datasets onto GBIF.
 Expanding the GBIF network by registering ARU as a publisher on 08-11-2021 and registering ABRI in the GRSciColl

Monitoring and evaluation:

-The Project Coordinator has been holding regular meetings with partners every week to offer technical support and mentorship in relation to data mobilization. She has also been receiving regular M&E support from ARI.

-Through this monitoring, we know that eight partners are making good progress while one partner, KWS, who holds smaller datasets, has not yet started entering data according to Darwin Core Standard

Equally, we have come to realise that we overestimated the number records for six datasets during our proposal writing.

Changes

-We only foresee making minor changes to our proposed approach. Over the coming weeks, we want to see ABRI start publishing its records. And we will be holding regular virtual and where possible in person meetings with KWS that has not yet started entering data according to DwC Standard. We plan to digitise additional datasets to compensate records falling short of the estimated numbers as per the proposal. Alongside this, we will start to focus on putting this data to use and further communicate our progresses to our identified audiences.

Progress against milestones

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

Dataset published:

Dataset

Occurrences of birds in eastern and central Uganda forests, 1993 to https://doi.org/10.15468/rwmkzm 1995

DOI

A checklist of Mushrooms of Ayum Forest Reserve, Bono	https://doi.org/10.15468/agbv9n
Region,Ghana	
An Initial Checklist of Mammals of the A Rocha Dakatcha Nature Reserve, Kenya, 2022	https://doi.org/10.15468/p4wacc
A checklist of terrestrial mammals in Atewa Range Forest Reserve, Ghana	https://doi.org/10.15468/jca6ge

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

Name of the workshop participant: Judith Adhiambo Ochieng

Certification obtained: Basic Badge

Report on Activities

Activity progress summary

Progress of the project

Over this reporting period, and as per our proposal, our focus has been on getting this regional project started, participating in GBIF training and offering training to all needing project partners on data mobilisation, offering mentorship, mobilising and publishing our first datasets.

A virtual inception meeting was held on 04/05/2021 where a total of 15 participants from 10 partner organisations attended. The project lead, Dr. Colin Jackson explained what GBIF is, clarified on project ambitions and the individual roles and responsibilities of project partners

Four training sessions have been held so far on: (1) data entry according to DwC standard (24/05/2021), (2) data cleaning using openRefine (22/09/2021), (3) metadata writing (29/09/2021) and (4) data publishing (13/10/2021). A total of 15, 10, 13, 13 people attended the trainings respectively Additionally, more trainings have been scheduled to happen in 2022: (1) best practices in data collection, (2) data analysis, (3) data processing and (4) data presentation

Eight out the nine organisations involved with data mobilization have already made great strides with data entry and metadata writing and should be able to publish further datasets by February-March 2022.

Because the COVID-19 pandemic restricted partners from visiting their offices at the time of submitting the proposal, we have come to realise that there was overestimation of records by some partners (ABRI and NMK-Mammalogy & Omithology) as submitted in the proposal, but plans have been underway to compensate for the numbers by making plans to publish additional datasets as reflected in the new deliverables section and mining for more additional records e.g. by NMK-Ornithology. The six datasets with overestimated records include:

ABRI is falling short of a total of 54,865 records from the datasets listed below:

-Occurrence dataset: Butterfly collections from Atewa Forest in Ghana- Estimated records as per proposal was 25,000. Actual records are 4,729

-Occurrence dataset: Butterfly collections from coastal forests in Kenya- Estimated records as per proposal was 20,000. Actual records are 7,648

-Occurrence dataset: Butterfly collections from Busoga forests of south eastern Uganda including Mabira, Jinja and Bugwe- Estimated records as per proposal was 25,000. Actual records are 2,378

-Occurrence dataset: Butterfly collections in south east Nigeria- Estimated records as per proposal was 900. No records available for this dataset

NMK- Mammalogy is falling short of 2,000 records from the dataset listed below:

-Occurrence dataset: A Mammal collection from coastal forests in Kenya- Estimated records as per proposal was 4,000. Actual records are 2,000

NMK-Ornithology is falling short of 1,042 records from the dataset listed below:

-Sampling Event: Bird records from the Tana River Forest- Estimated records as per proposal was 2,000. Actual records are 958

Mentoring on data mobilization started on 24th May 2021 and is ongoing. Weekly meetings have been happening between the Project Coordinator, Judith Ochieng, sometimes with GBIF technical support team (Laban Musinguzi) and the data clerks. Depending on their needs, Judith and Laban have been providing technical support especially with regards to understanding the DwC terms and data interpretation. A Rocha International Science Director, Jeremy Lindsell and M& E expert, Nicholas, have also been supplementing the mentorship with regards to data mining, data interpretation and taxonomy especially for ARG and ARU

A Rocha Uganda, A Rocha Kenya, A Rocha Ghana and CSIR-FRI have already published datasets as reflected in the above section

Mid term project meeting was held on December where a total of 23 participants were available. The main agenda for the meeting was to fast track the process of data publishing by project partners and share the milestones achieved so far in the project.

Going forward, data collection training is expected to happen in 2022 before the end of June. The project team have already conducted a meeting to plan for three physical trainings that is, Gede (February/March), Atewa forest (February/March), and Shimba Hills (May). The participants for these trainings are community scouts, rangers and forest guides. A virtual training session with project partners is scheduled for March 2022 to build the capacity of the organisations with little to no experience in data collection such as Eden Creation Care Initiative and A Rocha Uganda.

Training and on-going mentoring in putting data to use: This is scheduled to start in 2022 but some partners have already made progress in putting data to use. E.g., A Rocha Uganda has started using data on plants from the 90's reports which are expected to be published under the project to guide their restoration plans for West Bugwe forest. Tree selection for different projects have been decided based on the report

Developing of outputs and dissemination of project outputs in scheduled to begin in May 2022 this year and continue till the end of the project.

Monitoring & Evaluation has been ongoing from May 2021. The Project Coordinator (PC) and the Monitoring and Evaluation expert (M&E) have been meeting bimonthly using Microsoft teams where the PC has been providing the M&E updates on the status of the project and vice versa. These meetings have also helped to resolve project related issues in good time

New activities

- No significant new activities expected so far

Delayed activities, causes, possible impact on the project and expected new dates

Data entry work according to Darwin Core Standard has not yet started for the Wildlife Training and Research Institute (WTRI), previously known as Kenya Wildlife Services(KWS). KWS management and research departments were splitting to become autonomous government institutions in the last quarter of 2021. This delayed our engagement with them affecting activities such as data mining. However it is worth mentioning there is good progress so far with potential to improve. KWS data clerk was trained in December on data mobilization and currently they are in the process of data mining. Further, the Project Lead and the Project Coordinator will be visiting WTRI offices in Mombasa in February-March to fast track the process of mobilizing their datasets. The data entry according to DwC is scheduled to begin in February 2022.

It is also important to mention that WTRI are contributing just a small fraction of the datasets set to be published under our project i.e., 1.3%. This will not significantly affect the project as they would be able to publish by 31/03/2023.

Completed activities

Activity: Inception meeeting

Description: Inception meeting for the project participants; Initial meetings to engage with stakeholders -e.g. conservation authorities, local gov, NGOs Start Date - End Date: 12/4/2021 - 30/6/2021 Verification Sources: Please refer to minutes of inception meeting uploaded in the Reports attachments section- Inception_Meeting_04May21_Minutes

Activity: Training and on-going mentoring -Data Mobilisation

Description: Training sessions - Data mobilisation - Training from the national nodes supplemented by training by organisations with current GBIF experience ARK, ARG, NMK Start Date - End Date: 1/5/2021 - 30/9/2021

Verification Sources: Please refer to documents uploaded in the report attachment section: GBIF_1st_training, GBIF_2nd_training, GBIF_3rd_training, GBIF_4th_training

Report on Deliverables

Datasets deliverables:

-Four datasets have been published as indicated in the section above.

-WTRI is in the process of data mining and is set to begin data entry according to DwC standard perhaps in February.

-Because most partners were not aware of the differences between the data classes when submitting the proposal, some data classes have been changed to match the information available. E.g., CSIR-FRI will be publishing more checklists instead of sampling event datasets as submitted in the proposal. A Rocha Uganda will be publishing occurrence data for the birds instead of checklists as previously indicated in the proposal

Because COVID-19 restricted the movement of people to visiting their offices, partners overestimated the records available for publishing as submitted in the proposal -All datasets are expected to be published by 31/12/2022 with an exception of WTRI which is expected to publish before the end of March 2023.

New deliverables

New datasets are expected to be published under the project to compensate for the errors we made in our record estimates during our proposal writing. ABRI, which holds a significant amount of data for the project (53% of the total), is expected to publish an additional dataset of c.20,000 records of the genus Acraea. from different locations in Africa to compensate for the numbers. -NMK-Mammalogy section is expected to compensate for the numbers by publishing data from Mammal Atlas Kenya project (MAKENYA) from different locations in Kenya.

Delays

-As highlighted in the activity progress summary

Progress towards deliverables

Dataset deliverables

A checklist of Mushrooms of Ayum Forest Reserve, Bono Region, Ghana

Dataset type: Checklist Dataset scope: This dataset is of mushrooms collected from the Ayum forest reserve in the Bono Region of Ghana in 2015. Number of records: 15 Data holder: CSIR-FRI Data host institution: Department of Marine and Fisheries Sciences, University of Ghana % complete: 25% Status update: Originally the dataset was submitted in the proposal as a sampling event with the title 'Collections of Mushrooms from Ayum Forest, Ghana, 2015'. We later realized the information available was limited, and changed it to a checklist. 15 out of the 60 records submitted have been published. DOI: https://doi.org/10.15468/agbv9n Expected date of publication:

A checklist of terrestrial mammals in Atewa Range Forest Reserve, Ghana Dataset type: Checklist

Dataset scope: A updated compilation of all confirmed and accepted mammal records from Atewa Forest, Ghana. Number of records: 67 Data holder: ARG Data holder: ARG Data host institution: Department of Marine and Fisheries Sciences, University of Ghana % complete: 97% Status update: 67 out of 69 records submitted in the proposal have been published DOI: https://doi.org/10.15468/jca6ge Expected date of publication:

An Initial Checklist of Mammals of the A Rocha Dakatcha Nature Reserve, Kenya, 2022

Dataset type: Checklist Dataset scope: A checklist construed from mainly camera-trapping data of mammals from A Rocha Dakatcha Nature Reserve Number of records: 26 Data holder: ARK Data holder: ARK Mathematical Construction: National Museums of Kenya % complete: 100% Status update: A total of 26 records of mammals have been published so far. One additional record was added to the list of 25 records as submitted in the proposal DOI: https://doi.org/10.15468/p4wacc Expected date of publication:

Butterflies of Atewa

Dataset type: Occurrences Dataset scope: Butterfly collections from Atewa Forest in Ghana Number of records: 4,729 Data holder: ABRI Data host institution: National Museums of Kenya % complete: 85% Status update: Data digitization and entry according to DwC standard is complete. Currently in the process of data cleaning and metadata writing. There was an overestimation of records available for publishing for this dataset. Proposal stated 25,000 records but actual records are 4,729 DOI: Expected date of publication: 2022-03-31

Butterflies of Kenya coastal forests

Dataset type: Occurrences Dataset scope: Butterfly collections from coastal forests in Kenya Number of records: 7,648 Data holder: ABRI Data holder: ABRI Data host institution: National Museums of Kenya % complete: 95% Status update: Data digitization and entry according to DwC standard is complete. Metadata is currently under review. There was an overestimation of records available for publishing for this dataset. Proposal stated 20,000 records but actual records are 7,648 DOI: Expected date of publication: 2022-02-28

Butterflies of eastern Uganda key forests

Dataset type: Occurrences Dataset scope: Butterfly collections from Busoga forests of south easternUganda including Mabira, Jinja and Bugwe Number of records: 2,378 Data host institution: National Museums of Kenya % complete: 85% Status update: Data digitization and entry according to DwC standard is complete. Data cleaning and metadata writing are yet to be done. There was an overestimation of records available for publishing for this dataset. Proposal stated 25,000 records but actual records are 2,378 DOI: Expected date of publication: 2022-03-31 Butterflies of south-eastern Nigerian forests Dataset type: Occurrences Dataset scope: Butterfly collections in south east Nigeria including Cross River Number of records: 0 Data holder: ABRI Data holder: ABRI Data host institution: National Museums of Kenya % complete: 0% Status update: No records available for this dataset. DOI: Expected date of publication:

Butterflies of a key coastal forest in East Africa: Shimba Hills

Dataset type: Checklist Dataset scope: Shimba Hills butterfly checklist Number of records: 380 Data holder: ABRI Data holter: ABRI Data host institution: National Museums of Kenya % complete: 51% Status update: 195 records entered according to DwC standard. Data entry still ongoing DOI: Expected date of publication: 2022-04-30

Trees of Atewa Forest

Dataset type: Sampling Event Dataset scope: Trees over 10 cm dbh identified to species level from 34 quarter hectares plots in Atewa Forest, Ghana in 2015 Number of records: 3,800 Data holder: ARG Data holder: ARG Data host institution: Department of Marine and Fisheries Sciences, University of Ghana % complete: 10% Status update: Some fields of the DwC Standard have been entered, data entry still ongoing DOI: Expected date of publication: 2022-05-31

Camera trap data from Atewa Forest

Dataset type: Sampling Event Dataset scope: Mammal observations from terrestrial camera trapping in Atewa Forest, Ghana in 2016 Number of records: 1,300 Data holder: ARG Data host institution: Department of Marine and Fisheries Sciences, University of Ghana % complete: 0% Status update: Data entry according to DwC standard not started DOI: Expected date of publication: 2022-07-31

Bird ringing data from Kenyan coastal forests, 1993

Dataset type: Sampling Event Dataset scope: Ringing data from KIFCON forest surveys (1991-1993) Number of records: 1,004 Data holder: NMK- Ornithology Data host institution: National Museums of Kenya % complete: 70% Status update: 1,004 entries digitized and entered according to DwC standard. Data cleaning and metadata writing are yet to be done. DOI: Expected date of publication: 2022-05-31

Bird specimens from Shimba Hills and other Kenyan coastal forests

Dataset type: Occurrences Dataset scope: Specimen records from museum collection Number of records: 500 Data holder: NMK-Ornithology Data host institution: National Museums of Kenya % complete: 40% Status update: c.200 records entered according to DwC standard. Data entry still ongoing DOI: Expected date of publication: 2022-11-30

Bird records from the Tana River Forest

Dataset type: Sampling Event Dataset scope: Research project observation records from the Tana Forest GEF project Number of records: 958 Data holder: NMK-Omithology Data host institution: National Museums of Kenya % complete: 90% Status update: Data digitization and entry according to DwC standard is complete. Data cleaning and metadata writing are yet to be done. There was an overestimation of records available for publishing for this dataset. Proposal stated 2,000 records but actual records are 958 DOI: Expected date of publication: 2022-06-30

Timed species counts of key Kenya coastal forests Dataset type: Sampling Event Dataset scope: Timed species counts carried out during Spotted Ground Thrush surveys along the Kenya Coast, 2003 Number of records: 4,285 Data holder: Individual Researcher Data holder: Individual Researcher

Data host institution: National Museums of Kenya % complete: 52% Status update: 2,270 records entered according to DwC standard. Data entry still in progress DOI: Expected date of publication: 2022-09-30

A Mammal collection from coastal forests in Kenya

Dataset type: Occurrences
Dataset scope: Specimen records from a museum collection for Shimba and coastal Kaya forests
Number of records: 2,000
Data holder: NMK-Mammalogy
Data holder: NMK-Mammalogy
Data host institution: National Museums of Kenya
% complete: 8%
Status update: 77 records entered according to DwC standard. Data cleaning has been done.
Currently the metadata is being reviewed in readiness for publishing. An additional c.300 records have
been entered according to DwC. The first dataset will be published by end of February 2022. There
was an overestimation of records available for publishing for this dataset. Proposal stated 4,000
records but actual records are 2,000
DOI:

Expected date of publication: 2022-02-28

Shrubs and tree species of eastern Uganda key forests

Dataset type: Checklist Dataset scope: Data for West Bugwe and Igwe-Luvunya, plus South Busoga,Bukaleba, Mabira, Mukono, Mpanga, Mpigi, Zika Forest Reserves Number of records: 2,400 Data holder: ARU Data host institution: Uganda node % complete: 0% Status update: Data entry according to DwC standard not started DOI: Expected date of publication: 2022-10-31

Butterflies of eastern Uganda key forests

Dataset type: Occurrences Dataset scope: Data for West Bugwe and Igwe-Luvunya, plus South Busoga,Bukaleba, Mabira, Mukono, Mpanga, Mpigi, Zika Forest Reserves. Based on field surveys. Number of records: 1,780 Data holder: ARU Data holder: ARU Data host institution: Uganda node % complete: 0% Status update: Data entry according to DwC standard not yet started DOI: Expected date of publication: 2022-10-31

Hawkmoths and Silkmoths of eastern Uganda

Dataset type: Occurrences Dataset scope: Data for West Bugwe and Igwe-Luvunya, plus South Busoga,Bukaleba, Mabira, Mukono, Mpanga, Mpigi, Zika Forest Reserves. Based on field collection. Number of records: 9,800 Data holder: Public reports - Personal data sets Data host institution: Uganda node % complete: 0% Status update: Data entry according to DwC standard not yet started DOI: Expected date of publication: 2022-12-31

Small mammals of eastern Uganda key forests

Dataset type: Occurrences Dataset type: Occurrences Dataset scope: Data for West Bugwe and Igwe-Luvunya, plus South Busoga,Bukaleba, Mabira, Mukono, Mpanga, Mpigi, Zika Forest Reserves. Based on specimen collection. Number of records: 429 Data holder: Public reports - Personal data sets Data holder: Public reports - Personal data sets Data host institution: Uganda node % complete: 50% Status update: Data entry according to DwC standard and data cleaning in progress DOI: Expected date of publication: 2022-06-30

Bird ringing data from of north-eastern Nigeria

Dataset type: Sampling Event Dataset scope: Ornithological survey results from mist-netting for north-eastern Nigeria Number of records: 52 Data holder: Eden Creation Care Initiative Data host institution: Nigeria node % complete: 20% Status update: Data has been entered in excel sheet but not formatted according to DwC standard DOI: Expected date of publication: 2022-07-31

Avian survey data from north-eastern Nigeria

Dataset type: Occurrences Dataset scope: Omithological survey results for north-eastern Nigeria Number of records: 65 Data holder: Eden Creation Care Initiative Data host institution: Nigeria node % complete: 0% Status update: Data entry according to DwC standard not started DOI: Expected date of publication: 2022-11-30

Avian survey data from of south-eastern Nigeria

Dataset type: Occurrences Dataset scope: Omithological survey results for south-eastern Nigeria Number of records: 200 Data holder: Eden Creation Care Initiative Data host institution: Nigeria node % complete: 86% Status update: 172 records entered according to DwC standard and data has already been cleaned. The metadata is currently under review DOI: Expected date of publication: 2022-03-19

Systematic avian survey data from north-eastern Nigeria

Dataset type: Sampling Event Dataset scope: Results from ornithological surveys involving mist-netting and point count surveys from north-eastern Nigeria Number of records: 300 Data holder: Eden Creation Care Initiative Data host institution: Nigeria node % complete: 0% Status update: Data entry according to DwC standard not started DOI: Expected date of publication: 2022-11-30

A collection of mushrooms from Atewa Forest, 2013

Dataset type: Sampling Event Dataset scope: Mushroom collections from Atewa Forest, Ghana in 2013 Number of records: 50 Data holder: CSIR-FRI Data host institution: Department of Marine and Fisheries Sciences, University of Ghana % complete: 0% Status update: Data entry according to DwC standard not started DOI: Expected date of publication: 2022-11-30

Collections of mushrooms from Atewa Forest, 2015 Dataset type: Sampling Event Dataset scope: Mushroom collections from Atewa Forest, Ghana in 2015 Number of records: 50 Data holder: CSIR-FRI Data host institution: Department of Marine and Fisheries Sciences, University of Ghana % complete: 0% Status update: Data entry according to DwC standard not started DOI: Expected date of publication: 2022-11-30

Mushrooms of WLI AGUMATSA, Ghana, in 2013

Dataset type: Occurrences Dataset scope: Mushroom collections from WLI AGUMATSA , Ghana in 2013 Number of records: 20 Data holder: CSIR-FRI Data host institution: Department of Marine and Fisheries Sciences, University of Ghana % complete: 0% Status update: Data entry according to DwC standard not started DOI: Expected date of publication: 2022-11-30

Mushrooms of Afadzato Forest, Ghana

Dataset type: Sampling Event Dataset scope: Mushroom collections from Afadzato Forest, Ghana in 2013 Number of records: 20 Data holder: CSIR-FRI Data host institution: Department of Marine and Fisheries Sciences, University of Ghana % complete: 0% Status update: Data entry according to DwC standard not started DOI: Expected date of publication: 2022-11-30

Mushroom collections from Kakum Forest, Ghana in 2015

Dataset type: Occurrences Dataset scope: Ad hoc mushroom collections from Kakum Forest, Ghana in 2015 Number of records: 100 Data holder: CSIR-FRI Data host institution: Department of Marine and Fisheries Sciences, University of Ghana % complete: 0% Status update: Data entry according to DwC standard not started DOI: Expected date of publication: 2022-12-31

A collection of mushrooms from Bia Biosphere Reserve, Ghana, in 2001

Dataset type: Sampling Event Dataset scope: Mushroom collections from Bia Biosphere Reserve, Ghana in 2001 Number of records: 50 Data holder: CSIR-FRI Data host institution: Department of Marine and Fisheries Sciences, University of Ghana % complete: 0% Status update: Data entry according to DwC standard not started DOI: Expected date of publication: 2022-11-30

A collection of mushrooms from Bia Biosphere Reserve, Ghana, in 2015 Dataset type: Sampling Event Dataset scope: Mushroom collections from Bia Biosphere Reserve, Ghana in 2015 Number of records: 49 Data holder: CSIR-FRI Data host institution: Department of Marine and Fisheries Sciences, University of Ghana % complete: 0%

Status update: Data entry according to DwC standard not started DOI: Expected date of publication: 2022-11-30

Mushroom collections from Dodowa and Armahia Forests, Ghana in 2015

Dataset type: Sampling Event Dataset scope: Mushroom collections from Dodowa and Armahia Forests, Ghana in 2015 Number of records: 50 Data holder: CSIR-FRI Data host institution: Department of Marine and Fisheries Sciences, University of Ghana % complete: 0% Status update: Data entry according to DwC standard not started DOI: Expected date of publication: 2022-11-30

A species list of the birds of Atewa Forest

Dataset type: Checklist Dataset scope: A updated compilation of all confirmed and accepted bird records from Atewa Forest, Ghana. Number of records: 239 Data holder: ARG Data holder: ARG Data host institution: Department of Marine and Fisheries Sciences, University of Ghana % complete: 85% Status update: All records entered according to DwC standard. Data cleaning and metadata writing is yet to be done. DOI: Expected date of publication: 2022-04-30

A species list of the butterflies of Atewa Forest

Dataset type: Checklist Dataset scope: A compilation of butterfly records from Atewa Forest, Ghana Number of records: 573 Data holder: ARG Data host institution: Department of Marine and Fisheries Sciences, University of Ghana % complete: 80% Status update: All records entered according to DwC standard. Data cleaning and metadata writing are yet to be done DOI: Expected date of publication: 2022-05-31

Spotted Ground Thrush records on the Kenya coast, 2003 Dataset type: Sampling Event Dataset scope: Records of the Endangered Spotted Ground Thrush in Kenya in 2003 Number of records: 15 Data holder: NMK, individual Data host institution: National Museums of Kenya % complete: 10% Status update: Data is digitized but not formatted to DwC standard DOI:

Expected date of publication: 2022-08-31

Butterfly species lists of key eastern Uganda forests

Dataset type: Occurrences Dataset scope: Data for West Bugwe and Igwe-Luvunya, plus South Busoga,Bukaleba, Mabira, Mukono, Mpanga, Mpigi, Zika Forest Reserves. Based on field surveys Number of records: 800 Data holder: public reports, personal data Data host institution: Uganda node % complete: 0% Status update: Data entry according to DwC standard not started DOI: Expected date of publication: 2022-12-31

Camera Trap records from the A Rocha Dakatcha Nature Reserve

Dataset type: Sampling Event Dataset scope: Records of birds and mammals from two years of camera trapping in Dakatcha Woodlands KBA Number of records: 8,000 Data holder: ARK Data holder: ARK Data host institution: National Museums of Kenya % complete: 0% Status update: Data entry according to DwC standard not started DOI: Expected date of publication: 2022-12-31

A checklist of birds of A Rocha Dakatcha Nature Reserve Dataset type: Checklist Dataset scope: Species list of birds of Dakatcha Nature Reserve Number of records: 201 Data holder: ARK Data holder: ARK Data host institution: National Museums of Kenya % complete: 86% Status update: 174 records done according to DwC standards. Data cleaning has been done. The metadata is currently under review DOI: Expected date of publication: 2022-03-31

A species list of butterflies of A Rocha Dakatcha Nature Reserve

Dataset type: Checklist Dataset scope: A list of species recorded from the A Rocha Dakatcha Nature Reserve Number of records: 110 Data holder: ARK Data host institution: National Museums of Kenya % complete: 80% Status update: 131 records entered according to DwC standard. Data cleaning and metadata writing are yet to be done DOI: Expected date of publication: 2022-04-30

A birder's records from Dakatcha Woodlands KBA Dataset type: Occurrences Dataset scope: 20 years of notebook data from an observer visiting Dakatcha - by locality Number of records: 1,500 Data holder: ARK Data holder: ARK Mata holder: ARK Status update: Data entry according to DwC terms not yet started DOI: Expected date of publication: 2022-11-30

An initial list of higher plants from Dakatcha Woodlands KBA

Dataset type: Checklist Dataset scope: Confirmed species list of plants in Dakatcha Reserve and the wider Dakatcha KBA Number of records: 250 Data holder: ARK, personal datasets Data host institution: National Museums of Kenya % complete: 93% Status update: 298 records entered according to DwC standards. Metadata is being reviewed 48 additional records have been added to the 250 records submitted in the proposal DOI: Expected date of publication: 2022-04-30

A butterfly collection from the A Rocha Dakatcha Nature Reserve

Dataset type: Occurrences Dataset scope: Records of butterflies sampled across the Dakatcha Nature Reserve 2018-2021 Number of records: 400 Data holder: ARK Data holder: ARK Data host institution: National Museums of Kenya % complete: 0% Status update: Data entry according to DwC standard not started DOI: Expected date of publication: 2022-12-31

A collection of invertebrates from Dakatcha Woodland Dataset type: Occurrences Dataset scope: Sampling within the Dakatcha Nature Reserve, from fieldwork carried out primarily

Number of records: 1,500 Data holder: ARK, NMK Data holder: ARK, NMK Data holder: Other and the second s

A collection of invertebrates from Gede Ruins National Monument forest

Dataset type: Sampling Event Dataset scope: Invertebrate sampling from Gede Ruins National Monument forestland adjacent farmland, 2011 Number of records: 2,000 Data holder: ARK, NMK Data host institution: National Museums of Kenya % complete: 0% Status update: Data entry according to DwC standard not started DOI: Expected date of publication: 2022-12-31

Checklist of the Mammals of Shimba Hills National Park

Dataset type: Checklist Dataset scope: A collation of mammal records from Shimba Hills National Park Number of records: 40 Data holder: KWS Data host institution: National Museums of Kenya % complete: 0% Status update: Data entry according to DwC standard not started DOI: Expected date of publication: 2023-03-31 Plants of Shimba Hill and Mwaluganje Conservation Areas Dataset type: Sampling Event Dataset scope: Results from botanical surveys taking place in 2012 within the Shimba Hills National Park Number of records: 620 Data holder: KWS Data holder: KWS Data host institution: National Museums of Kenya % complete: 0% Status update: Data mining process still on going, data entry according to DwC standard not started. DOI: Expected date of publication: 2023-03-31

Reptiles of Shimba Hill and Mwaluganje Conservation Areas

Dataset type: Sampling Event Dataset scope: Results from herps surveys in Shimba Hills forests in 2012 Number of records:55 Data holder: KWS Data holder: KWS Data host institution: National Museums of Kenya % complete: 0% Status update: Data entry according to DwC standard not started DOI: Expected date of publication: 2023-03-31

Small Mammals Diversity in Shimba Hills, Mkongani and Mwaluganje ConservationAreas

Dataset type: Sampling Event Dataset scope: Results from small mammal surveys taken place in 2012 in Shimba Hills National Park and adjacent community conservation areas Number of records: 130 Data host institution: National Museums of Kenya % complete: 0% Status update: Data entry according to DwC standard not started DOI: Expected date of publication: 2022-03-31

Counts of elephant and other large mammals in Shimba Hills, Mkongani and Mwaluganje Conservation Areas

Dataset type: Sampling Event Dataset scope: Aerial survey of large mammals of Shimba Hills and adjacent community conservation areas, Kenya, 2012 Number of records: 100 Data holder: KWS Data holder: KWS Data host institution: National Museums of Kenya % complete: 0% Status update: Data entry according to DwC standard not started DOI: Expected date of publication: 2023-03-31

Birds in Shimba Hills, Mkongani and Mwaluganje Conservation Areas

Dataset type: Sampling Event Dataset scope: Surveys of birds recorded in Shimba Hills National Park and adjacent community conservation area, 2012 Number of records: 250 Data holder: KWS Data host institution: National Museums of Kenya % complete: 0% Status update: Data mining process still ongoing. Data entry according to DwC standard not started DOI: Expected date of publication: 2023-03-31

Invertebrates in Shimba Hills, Mkongani and Mwaluganje Conservation Areas Dataset Type : Sampling Event

Dataset type: Sampling Event Dataset scope: Surveys of invertebrates within the Shimba Hills and adjacent community conservation areas during 2012 Number of records: 400 Data holder: KWS Data holder: KWS Data host institution: National Museums of Kenya % complete: 0% Status update: Data mining process is still ongoing. Data entry according to DwC standard not started DOI: Expected date of publication: 2023-03-31

Ticks on wildlife in the Shimba Hills Dataset type: Sampling Event Dataset scope: Sampling of ticks on mainly large mammals found within Shimba Hills National Park, Kenya Number of records: 50 Data holder: KWS Data host institution: National Museums of Kenya % complete: 0% Status update: Data entry according to DwC standard not started DOI: Expected date of publication: 2022-12-31

Species lists of birds of key eastern Uganda forests

Dataset type: Sampling Event Dataset scope: Data for West Bugwe and Igwe-Luvunya, plus South Busoga,Bukaleba, Mabira, Mukono, Myanga, Mipji, Zika Forest Reserves. Based on field surveys. Number of records: 1,368 Data host institution: GBIF Secretariat % complete: 42% Status update: 582 records already published on GBIF portal. More records are yet to be appended. The data class for this dataset was changed from a sampling event to occurrence based on the information available from reports and spreadsheets DOI: https://doi.org/10.15468/rwmkzm Expected date of publication:

Birds of south-eastern Nigeria forests

Dataset type: Sampling Event Dataset scope: Ornithological survey results for South-Eastern Nigeria Number of records: 2,000 Data holder: APLORI Data host institution: Nigeria node % complete: 85% Status update: Data entered according to DwC standards. Data cleaning and metadata yet to be done. An additional 86 records were added to the proposed 2,000 making it a total of 2,086 DOI: Expected date of publication: 2022-10-31 Ringing and collection records of birds in key forests of eastern Uganda Dataset type: Occurrences Dataset scope: Data for West Bugwe and Igwe-Luvunya, plus South Busoga,Bukaleba, Mabira, Mukono, Mpanga, Mpigi, Zika Forest Reserves. Based on mist netting records and specimen collection. Number of records: 682 Data holder: Public reports - Personal data sets Data hold: institution: Uganda node % complete: 0% Status update: Data entry according to DwC standard not started DOI: Expected date of publication: 2022-11-30

Bird records from the Taita Hills Forests

Dataset type: Sampling Event Dataset scope: Bird records taken from biodiversity surveys and research in the Taita Hills Forests Number of records: 6,000 Data holder: NMK & Individuals Data host institution: National Museums of Kenya % complete: 90% Status update: Al records have been entered according to DwC standard. Data is cleaned. Metadata needs to be drafted before publishing. An additional 20,000 records have been added to the proposed

records of 6,000 as submitted in the proposal **DOI:**

Expected date of publication: 2022-06-30

Other deliverables

Posters

Description: Posters displaying Red List species for the key forest sites addressed by this project and thus the forest's importance to raise awareness with wildlife authority staff, schools and other members of the public

% complete: 0% Status update: To be produced starting in May 2022 Sources of verification: N/A

RedListed species booklet

Description: A rapid reference booklet for managers and decision-makers that highlights the Red List assessment process, its global recognition for conservation and thus its relevance to the site/forest in question. Included will be the checklist of Red Listed species for that site. % complete: 0%

Status update: To be produced starting in May 2022 Sources of verification: N/A

Digital species checklists in user-friendly format

Description: Species lists of key taxa in each forest site considered will be produced in Excel in a format which make them easy for managers and decision-makers to easily access and use them. Red Listed species will be highlighted together with other relevant conservation status categories. A hyperlink will be included to take the user directly to the Red List webpage for each species where it exists.

% complete: 0% Status update: To be produced starting in May 2022 Sources of verification: N/A

Species checklists

Description: Checklists of popular taxa such as birds and mammals or butterflies produced in an attractive and user-friendly format to share with and thus promote tourism and environmental education

% complete: 0%

Status update: To be produced starting in May 2022 Sources of verification: N/A

Technical summary reports on data and data gaps

Description: A technical report by scientists that goes into greater depth regarding the biodiversity of a site and thus its importance for conservation. The papers would highlight key gaps in our knowledge, list other current resources relevant to the site, highlight issues or species or serious conservation concern and give some recommendations to managers / decision-makers as to how best to address

% complete: 0%

Status update: To be produced starting in May 2022 Sources of verification: N/A

Shapefiles

Description: Digital files of GIS layers for forest sites (e.g. boundary, tracks and trails, vegetation, key taxa of interest, wetlands etc) available for managers, researchers and interested members of the public for use to create their own maps % complete: 0%

Status update: To be produced starting in May 2022 Sources of verification: N/A

Publications

Description: Papers published in relevant scientific journals highlighting datasets of interest from some of the sites considered. These may include data papers publishing actual datasets % complete: 0% Status update: To be produced starting in May 2022 Sources of verification: N/A

 Regular posts about project progress, outputs, successes on social media

 Description: Regular posts on A Rocha and other partner social media accounts (e.g. FaceBook, Twitter, Instagram)about the project

 % complete: 30%

 Status update: Project updates have been made through Facebook, Instagram and Twitter. But a lot more updates are expected to happen in 2022 given part of our focus will be disseminating information to forest managers and the larger public about the output of our project

 Sources of verification: https://www.instagram.com/edencci.nigeria/p/CZKecrcb4R/?

 utm_medium=copy_link https://m.facebook.com/story.php?

 story_fbid=5088812041137187&id=1025827160769049

 https://www.instagram.com/p/CZHysAPB6MD/?utm_medium=copy_link

 https://www.arocha.or.ke/news/the-bid-gbif-2021-2023-project/

 https://www.arocha.or.ke/news/the-bid-gbif-2021-2023-project/

 https://www.arocha.or.ke/news/the-bid-gbif-2021-2023-project/

 https://www.arocha.or.ke/news/the-bid-gbif-2021-2023-project/

 https://www.instagram.com/p/CVxey01AOcF/?utm_wdf4308523/10159780365063524/?

 _cf__[0]=AZX5yO6HaVKHrEUCnTbku1LWXc248W4fwTzqWUWQZRqu1YUW30X0035cXogyeEINMMByfb0M_GrjAMnBWr3pIm8SEfUAxUoA66xVVi2dS_h3gEhi

 jL088BYqc5u9QyvoUUKVx4mUMGGR0Uihdt4sfAjiHWbThGM&_tn__=%2C0%2CP-R

 https://www.instagram.com/p/CVxey01AOcF/?utm_source=ig_web_copy_link

 https://www.instagram.com/pCVXegVAACF?utm_source=ig_web_copy_link

https://www.instagram.com/arochauganda/p/CY8kazDpKql/2utm_medium=copy_link https://www.instagram.com/p/CZbjbGCowJs/?utm_source=ig_web_copy_link https://twitter.com/arochakenya/status/1487066889444540422?t=N7wO3P2OIMhHI_Qui7A8sw&s=19

Articles in newsletters and magazines about the project

Description: Articles in A Rocha and other magazine outlets about GBIF and the overall project

% complete: 0% Status update: These are expected to be published in 2022 Sources of verification: N/A

Public seminars

Description: Physical meetings and presentations to the public OR virtual webinars where the project and its outputs / results are presented to raise awareness about GBIF, BID and the specific available data outputs from the project % complete: 5% Status update: These meetings are expected to happen starting July 2022 Sources of verification: N/A

Training workshop for best practice in data collection

Description: Workshops to train scouts / rangers in best practice for future data collection - to improve data quality in the future. % complete: 0%

Status update: Three trainings have been scheduled to happen before the end of June 2022 as follows: Gede-February/March Atewa forest-February/March Shimba Hills-May Sources of verification: N/A

Inception meeting

Description: A virtual meeting drawing together all partners to introduce GBIF, the project, it's aims and expected outputs.

% complete: 100% Status update: A virtual meeting with all partners was held on 04/05/2021 to introduce GBIF and the project ambitions. Individual roles and responsibilities were also agreed upon in this meeting Sources of verification: Please refer to the reports attachments section

Data mobilisation mentorship

Description: Mentorship and training, both in small groups and one-on-one, mostly virtually but some face-to-face interactions to train and expose project staff to details of good quality data management, writing of high quality metadata etc.

% complete: 60%

Status update: Four trainings have been conducted with the project team so far on: -data entry according to DwC standard -data clean using openRefine -metadata writing -data publishing The Project Coordinator has also been doing bespoke mentorship on data mobilisation with project partners

Sources of verification: Please refer to the Reports attachment sections for sources of verification

Presentations of project outputs to Decision-makers and Protected Site Management

Description: Seminars, workshops and presentations to small groups of key individuals who play a lead role in biodiversity conservation related decision-making. The aim is to share the project results, raise awareness of the tools for conservation that have arisen from the data mobilisation and invite them to give further input and suggestions on how we as scientists can produce tools and outputs that are tailored to their specific needs.

% complete: 0%

Status update: Expected to happen starting in July 2022- March 2023 Sources of verification: N/A

Events

GBIF 1st training- An introduction to data entry(according to DwC Standard)

Dates: 2021-05-24 - 2021-05-24 Organizing institution: A Rocha Kenya Country: Virtual- Kenya, Uganda, Nigeria and Ghana Number of participants: 15 Comments: The Project Coordinator explained the differences between data classes i.e., checklist, occurrence and sampling event and explained the DwC terms File and folder naming which is a big part of data management was also clarified Website or sources of verification: Please refer to upload in the reports attachment section titled GBIF_1st_Training

Events

GBIF 2nd training- Data cleaning using openRefine

Dates: 2021-09-22 - 2021-09-22 Organizing institution: A Rocha Kenya Country: Virtual- Kenya, Uganda, Nigeria and Ghana Number of participants: 9 Comments: Participants were trained on how to clean data using openRefine Website or sources of verification: Please refer to upload in the reports attachment section titled GBIF_2nd_Training

Events

GBIF 3rd training- Metadata writing

Dates: 2021-09-29 - 2021-09-29 Organizing institution: A Rocha Kenya Country: Virtual- Kenya, Uganda, Nigeria and Ghana Number of participants: 11 Comments: Participants were trained on metadata writing as requirement when publishing data on GBIF Website or sources of verification: Please refer to upload in the reports attachment section titled GBIF 3rd Training

Events

GBIF 4th training- Data publishing

Dates: 2021-10-13 - 2021-10-13 Organizing institution: A Rocha Kenya Country: Virtual- Kenya, Uganda, Nigeria and Ghana Number of participants: 13 Comments: Participants were trained on data publishing using the IPT Website or sources of verification: Please refer to upload in the reports attachment section titled GBIF_4th_Training

Events

Inception meeting

Dates: 2021-05-04 - 2021-05-04 Organizing institution: A Rocha Kenya Country: Virtual- Kenya, Uganda, Nigeria and Ghana Number of participants: 15 Comments: The project lead introduced what GBIF is, clarified goals and ambitions including the individual role and responsibilities of project partners Website or sources of verification: Please refer to uploads in the reports attachment section titled Inception_Meeting_04May21_Minutes

Events

Mid term project meeting

Dates: 2021-12-02 - 2021-12-02 Organizing institution: A Rocha Kenya Country: Virtual- Kenya, Uganda, Nigeria and Ghana Number of participants: 23 Comments: The meeting was chaired by the Project Lead who introduced project partners and did a brief recap of project ambitions M& E expert shared the baseline survey results which help to prioritize the needs of project partners in relation to data mobilization work The Project Coordinator shared the project milestones and informed partners of the mid-term reporting requirements

Website or sources of verification: Please refer to uploads in the reports attachment section titled Mid term_Meeting_02Dec21_Minutes

Communications and visibility

Results of the project have been shared on the following social media (Facebook, Instagram and twitter) and blog platforms so far:

Results of the project including links to published datasets will be shared with project partners via an email, on websites and during our virtual meetings and trainings. Physical training workshops and meetings will be held with key stakeholders in 2021 and 2022 where project outputs will be shared.

Monitoring and evaluation

Monitoring and evaluation findings

This project has reached the mandatory milestones set out by GBIF for this mid-term report.

At the start of the project, we carried out a baseline survey to understand where each partner was at in relation to the project's objectives allowing us to better allocate our support and track the progress of each institution during the length of this project. This survey confirmed that this regional project hosts partners with a mixture of experiences, some already have experience over most of the digitising steps we are undertaking here, whilst it is new for others. Over the first ten months, we have seen particular progress from ARU, Eden Creation Care initiative and ABRI who previously had no experience in databasing and are now doing so.

We are aware that much work remains to meet our digitising targets. We have so far published 4 out of 55 datasets. Digitising biodiversity remains a lengthy, onerous and rewarding task.

Unfortunately, there were some overestimates in our number of records for 6 datasets (as explained above). But there was a good and open process in reporting these overestimates amongst partners. We have identified other datasets to mobilise and increased records for other datasets to compensate.

Managing a regional project with 12 partners is resource intensive. Thankfully this one is built on A Rocha's network across Africa. It also helps that the bulk of the dataset are held in the same country as the project lead allowing for in country greater support.

There is already evidence of project partners putting some of this project's mobilised data to use with ARU using it to inform its conservation approach in West Bugwe.

Impact of COVID-19 pandemic on project implementation

Impact

There was an overestimation of records available for publishing by some partners (ABRI and NMK-Mammalogy & Omithology) because at the time the proposal was being developed they could only access their offices intermittently and therefore did their best to estimate what was available. The Project Lead could also not travel to different places to ascertain what records were actually available because of the pandemic. If this was possible he could have started the discussions on compensating for the numbers earlier.

Discussions are still underway on the way forward by different partners that overestimated what is available for publishing but it is worth mentioning that NMK-Ornithology have already made available an additional of 20,000 additional records for the dataset titled 'Bird records from the Taita Hills Forests' to compensate for the numbers.

Suggested changes

-New additional datasets not listed in the proposal will be published to compensate for the numbers. ABRI will be publishing a total of c.20,000 records of Acraea specimens from different locations in Africa. NMK-Mammalogy will be publishing additional records of occurrences of mammals in Kenya. The data will be extracted from the Mammal Atlas Kenya project (MAKENYA) application.

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.

