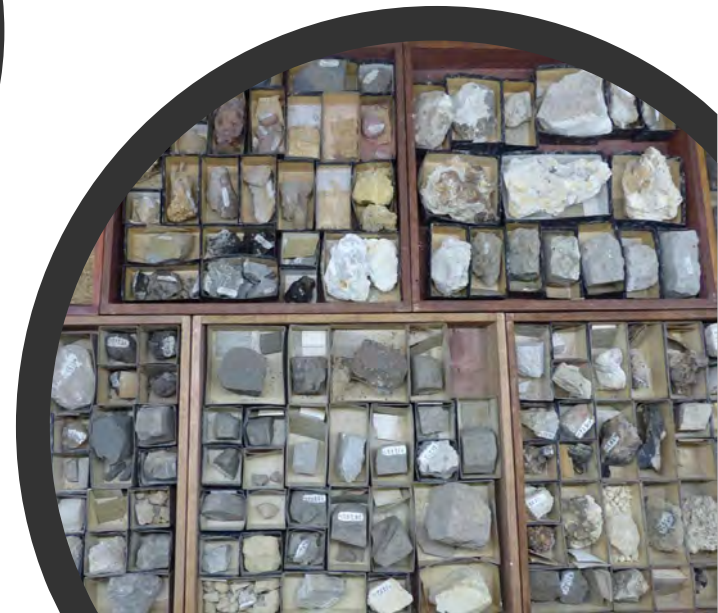




Engaging the public in the study and conservation of biological collections

Larissa Smirnova (RMCA)



- 6 million insects
- 1 million fish
- 300,000 spiders
- 200,000 amphibians
- 150,000 birds
- 135,000 mammals
- 80,000 wood samples
- 41,000 reptiles



AFRICA
museum



Cultural Anthropology and
History



Biology



Earth Sciences

Citizen science vs volunteering?

The practice of “citizen science” involves members of the public (“citizen scientists”) working with professional scientists to complete a research project.


- Citizen scientists **produce, collect or analyze** data (photos, scans, metadata about collections and archives, observations).
- The data will (sooner or later) be published in **open access**.
- The data is used in research. There is a **research question**.
- Citizen scientists participate in **various steps** of the research.
- Volunteers **assist** with inventory, collection maintenance or conservation tasks not directly related to research.
- Volunteers sometimes also produce **data**. The data is mainly used for internal purposes.
- The data is not used in research. There is **no research question**.

Crowdsourcing, when contributors collect data in isolation and submit findings online, with little training or opportunities for direct social interaction with other citizen scientists

Crowdsourcing projects of AfricaMuseum on DoeDat platform run by Meise Botanic garden (www.doedat.be)

Transcription of labels

DOE·DAT · The collection of Odonates from the AfricaMuseum
 Gynacantha_bullata_elongata_Fraser.jpg
 Barcode: Gynacantha bullata elongata Fraser



Barcode: Gynacantha bullata elongata Fraser
 Taxon: Gynacantha bullata


1. Identification

Scientific name as database: Gynacantha bullata elongata Fra
 Scientific name as given: Gynacantha bullata
 Taxon author:
 Year of taxon name publication:
 Type status:

2. Collection data
 Collection date (from) DD MM YYYY (to) DD MM YYYY
 Collector (standardized):
 Collector as given:
 Miscellaneous:

3. Spatial data
 Locality as given:
 Altitude: from to
 Coordinates as given:
 Mapping tool: Mapping tool

DOE·DAT · Type materiaal uit de Lepidoptera collectie (de vlinders, de dikkopjes en de macrovinders) DSCN5415_DSCN5416.jpg
 Barcode: RMCA-1007
 Taxon: Salia pectueli sangbae Heog



Barcode: RMCA-1007
 Taxon: Salia pectueli sangbae Heog


1. Identificatie

Latijnse naam zoals gegeven: Salia pectueli sangbae Heog
 Autoursnaam van Taxon: Heog
 Type status: holotype
 Habitat:

2. Inzamelgegevens
 Inzameldatum* (van) DD MM YYYY (tot) DD MM YYYY
 Verzamelaar zoals gegeven: J. Peeters
 Divers:

3. Specificaties lokaliteit
 Locatie zoals gegeven: R. C. A. Rds. Sangba
 Hoogte: van tot
 Coördinaten zoals gegeven:
 Als de geografische coördinaten niet worden vermeld op het etiket, zoek ze aan de hand van de cartografische tool hieronder:
 Cartografische tool
 Lengtegraad:
 Breedtegraad:
 Onzekeetheit coördinaten (meter):

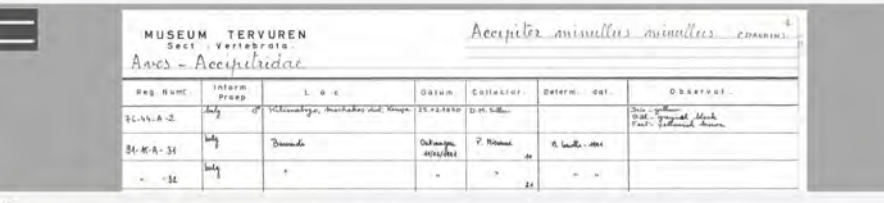
DOE·DAT · Registers van de vogelcollectie van het AfrikaMuseum birds0015.jpg



Details document

Numéro	Désignation	Origine	Dates	Renseignements Div.	Expéditeur	Numéro du catalogue	Justification	Observations	Extra
111	petits oiseaux trois sp.	Bas Congo	reçu en Janvier 99	ce sont les différentes.	Weyns Ve envol		empl. 111: onder. redet. M. Louette, 19...		
112	Toucan Tockus albator	Bas Congo	reçu en Janvier 99		Weyns Ve envol				
113 A-B	merles métalliques 2	Tle de Mataba	reçu en Janvier 99		yeux Jaunes. bec et p.				
114	Tisserin - Melano Te.	Bas Congo: Boma	reçu en Janvier 99		yeux Jaunes; bec noir.				
115	oiseaux fauve et arbori	Bas Congo: Boma	reçu en Janvier 99		pas d'indications Det.				
116	oiseau à bec Jaune. pl.	Bas Congo: Boma	reçu en Janvier 99		yeux et bec Jaunes. p.				
117	oiseau gris Turdus oliv.	Bas Congo: Boma	reçu en Janvier 99		yeux. bec et pattes Ja.				
118	grives (4 specimens)	Bas Congo: Boma	reçu en Janvier 99		oiseaux de passage x				
119	espèce de moineau à	Bas Congo: Boma	reçu en Janvier 99		pas d'indications				
120	Tourterelle Streptopell.	Bas Congo: Boma	reçu en Janvier 99		pas d'indications				

DOE·DAT · Aves registerfiches Test AVES_Registerfiches_LetterA_013.jpg



MUSEUM TERVUREN
 Sect. : Vertebrata
 Aves - Accipitridae
 Accipiter minutillus minutillus (DARRIN)

REG. NUM.	INFORM. PREP.	L. O. S.	DEURS.	CHANGERS.	DETERM. DAT.	OBJETS DE...
31-A-2	July					
31-A-34	July					
31-A-36	July					

Total of 44 projects (completed and running)

Why we need them?

Conservation of the (biological) collections include the following actions:

- Maintenance (care): preparation, storage, loans...
- Documentation: labeling, verification of existing registers, detection of discrepancies, errors...
- Digitization (computerization): databasing, photographing, quality check, standardization...

At every step involvement of citizens is possible and welcome!

Why they need us?

Self-directed motives*:

- Have a personal interest in the topic studied
- Desire to learn something new
- Desire to discover something new
- Desire to spend time in nature
- Socializing with like-minded people

Altruistic motives:

- Desire to volunteer for a cause
- Wish to contribute to science
- Feel it is important to help





CRESCO
Citizen Rescuers for
Collections
Sept – Nov '23

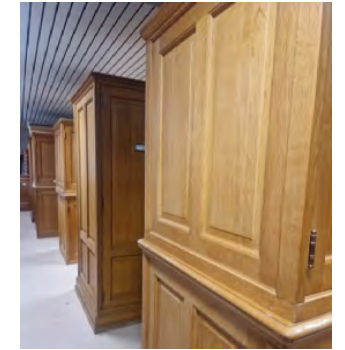
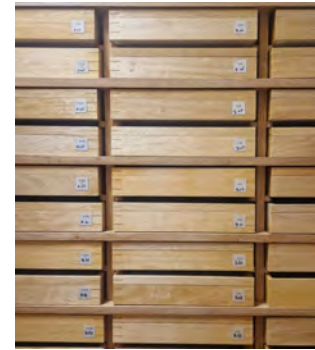
- CRESCO has received funding from the IMPETUS consortium and is part of the IMPETUS Accelerator for Citizen Science program.
- Coordinator: Luiza Mitrache

CS use case Africamuseum

Issue: Most items in scientific collections are never studied.

Solution: Improve collection accessibility by photographing specimens and transcribing labels.

Innovation: working with Ukrainian refugees and developing new democratic tools and methods for the digitization of collections.



Objectives: create a community of citizen scientists with gender balance and respect for diversity, and digitize 7000 collection items.



Join the tree squad in the AfricaMuseum

Do you prefer using machines and technology? Researcher Ruben De Blaere needs your help to digitize the Tervuren wood collection and develop state-of-the-art wood identification



Join the bird squad in the AfricaMuseum

Would you rather be more hands-on? You can join Annelore Nackaerts, collection manager, and Larissa Smirnova, research assistant, inside the AfricaMuseum. They are currently cleaning and



Join the bug squad from home

Volunteer online on the platform DoeDat, from the comfort of your own home! Wouter Dekoninck, Entomology collection curator at the Institute of Natural Sciences, needs your help to



Communcation online and on-site
How we reached the target group



Social impact

- 26 citizen scientists (14 on site)
- 50% women
- 43% had a migrant background
- 171 event participants
- 56,000 on social media

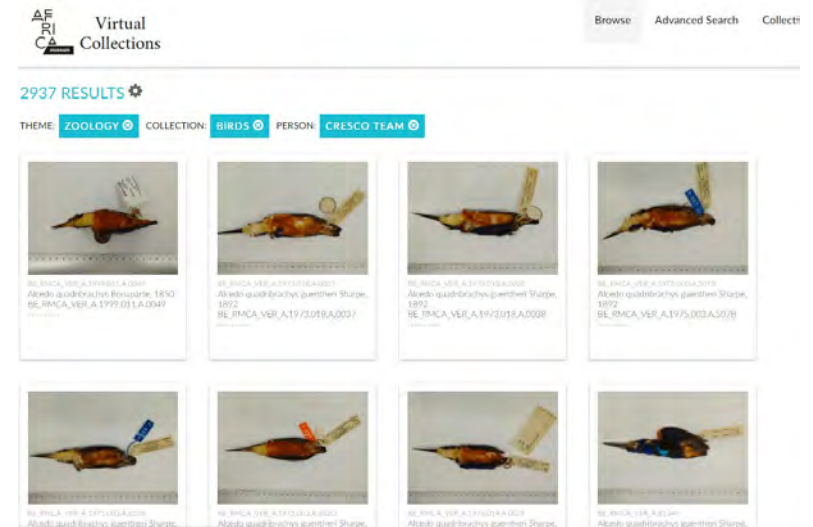
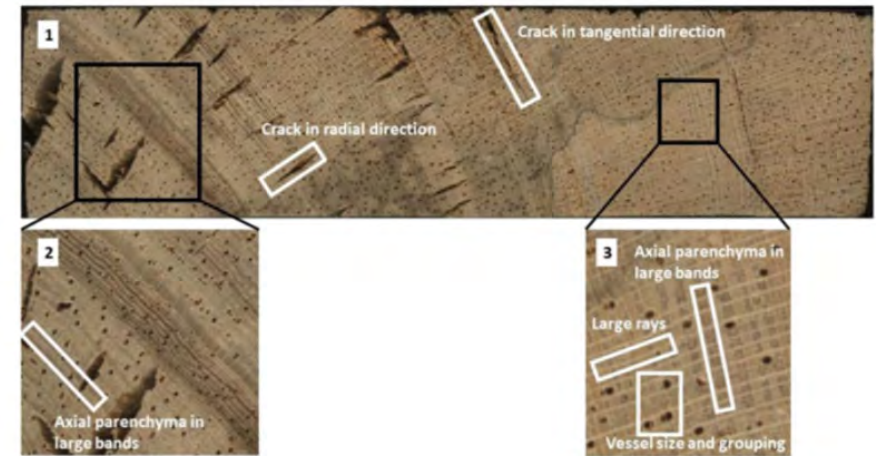
On site:

- 90% more confidence in the AfricaMuseum
- 64% would register for nature conservation training
- 73% more skills in scientific research



Scientific and economic impact

- 3 published datasets
- Contribution to SmartWoodID, the first reference database of wood samples for AI training
- New methods for wood samples and for the digitization of glass slides
- Minimum cost savings: €26,800





Some atmospheric photos: happy faces – the best reward!



Film, film,
film!

