Call for Applications

SANBI-GBIF training workshop in Data Management and Cleaning - Supporting Science, Policy and Sustainable Development

DATE: 22nd - 24th February 2022

Venue: Colophon Room, CBC Building, Kirstenbosch, Cape Town

Deadline for submissions: 10th December 2021

Background

SANBI is the home of the South African Node of the Global Biodiversity Information Facility (GBIF) and is funded by the Department of Science and Innovation. Its vision is to contribute to South Africa's sustainable development by facilitating access to biodiversity and related information on the internet.

This course ties into SANBI-GBIF's strategy to develop biodiversity informatics skills nationally. Through this course, it is intended to focus on Data Management and Cleaning of primary biodiversity data, to ensure that data and the information derived from this is relevant and can ultimately be used for improved decision making.

Through this course it is intended to introduce participants to the GBIF landscape and Knowledge Management Platform or research infrastructure. Participants will also be introduced to key software packages to manage, clean and visualize data such as the R package and QGIS. Participants will also learn about R basics, issues with biodiversity data and the need for data cleaning, getting a standardized taxonomy, resolving coordinate issues and biodiversity geo-referencing.

Workshop Information

The course will be conducted by Dr Vernon Visser from the Centre for Statistics in Ecology, Environment and Conservation (SEEC) at the University of Cape Town. Ms Hannelie Snyman (SANBI) and Ms Fatima Parker-Allie (SANBI-GBIF) will form part of the training team. The venue

will be the Colophon Room in the CBC Building at Kirstenbosch from Tuesday the 22nd of February to Thursday the 24th of February 2022. The course will be conducted in English.

For logistical reasons and COVID considerations the workshop numbers are limited. Interested members are requested to please complete and return the application form attached by the **10th December 2021.**

All participants will have to bring a laptop to work on during the course.

Target Audience and Minimum requirements for participants

The target audience for this course would include stakeholders from research organisations, museums, herbaria, provincial organisations, government officials dealing with biodiversity data, biodiversity information practitioners, academics, and students.

Minimum Requirements:
1. Relevant bachelor's degree in natural or earth science such as biology, botany, zoology, forestry, geography, or a related field of biodiversity informatics, or Geographic Information Systems (GIS). Participants have found some prior experience in using R is helpful for this course, although this is not a requirement.
2. Criteria for selection of participants will include:
   a. Relevance of work / study to the course
   b. Commitment to apply and disseminate skills
3. An effort will be made to ensure there is a racial, gender and national institutional representation among the participants

Application pack
The application pack must include:
- A completed application form (attached)
- A motivation (one page or less)
- A letter of support from your supervisor or institution
- A copy of your CV

Please send the attached completed application form, brief CV and letter of support from your supervisor by 10th December 2021.

Cost

No registration fee will be charged for the course. Refreshments and lunch will be provided. Participants are required to arrange their own transport and accommodation. Participants will need to have the use of a laptop throughout the training. SANBI-GBIF will consider applications for financial assistance for a limited number of participants. If assistance is available, expenses covered include economy airfare, accommodation, and ground transport. Bookings will be made by the SANBI-GBIF office. If you require funding, please indicate this on the application document (see below) and include a letter of motivation and CV with the application documents.

For any queries please contact Fatima Parker-Allie at SANBI, Cape Town. Telephone: (021) 799-8698 or email F.Parker@sanbi.org.za

Workshop agenda

This is a provisional agenda. The timing and some details of this agenda might change.

Day 1

- Setting the Scene
- Introduction to the Global Biodiversity Information Facility (GBIF)
- Introduction to R basics
- Using R to get GBIF data

Day 2

- Overview of issues with biodiversity data and of the need for data cleaning (e.g., resolving taxonomic issues, spatial sampling biases, coordinate errors and georeferencing, outliers, native / alien, cultivated or "non-wild" specimens)

- Hands-on data cleaning in R and QGIS using GBIF data:
  - Taxonomy - e.g., dealing with synonyms, names from different databases, same taxon name but distinct distributions, etc.
  - Correcting coordinate errors
  - Georeferencing
    - Identifying outliers

Day 3

- Data management and quality control – experiences from SANBI and broader implementation with museums and herbaria
- Data management in support of science and the policy landscape
- Hands-on biodiversity data cleaning using biodiversity informatics tools in R and QGIS using GBIF data continued:
  - Determining whether a record represents a native or alien occurrence
  - Identifying cultivated or "non-wild" specimens using locality information, GBIF metadata, coordinates overlaid on other spatial data, such as land cover layers

Application form for SANBI-GBIF training workshop in Data Management and Cleaning - Supporting Science, Policy and Sustainable Development

22nd – 24th February 2022

Please complete the application form and return it by 10th December 2021 to
F.Parker@sanbi.org.za

PERSONAL INFORMATION:

Title and first names:					
Surname:					
Designation:					
South African citizenship	❐ YES	❐ NO	❐ OTHER	If OTHER please specify:	
Gender:	Male ❐			Female ❐	
Race:	African ❐	Coloured ❐	Indian ❐	White ❐	
Current postal address:					
Telephone number:					
Mobile number:					
E-mail address:					
Place of employment or study	Name:				
	Postal address:				

SANBI-GBIF has limited funding to support selected participants.

Do you require SANBI-GBIF funding: ☐ Yes ☐ No
If you require funding, please enclose a short motivation letter and your CV (max. 2 pages long).

Please complete the questions below:

Provide a brief outline of your current work and/or academic experience and how it is relevant to this course.

Describe the project(s) / research in which you are planning to apply the skills, tools and experiences gained during the workshop over the next year.

Are there any intended products, such as research papers, that this course will contribute to?

Please indicate whether you are willing to support future SANBI-GBIF Biodiversity Data Management and Cleaning training initiatives (e.g., as a trainer, and/or leading a discussion session at the Foundational Biodiversity Information Programme Forum), to support the development of a community of practice in this work area.

Have you ever used R?

If yes to the above

How do you rate your ability in R from 1 to 10