The state of biodiversity data in Africa

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AFRICA RISING CONFERENCE: MOBILIZING BIODIVERSITY DATA FOR SUSTAINABLE DEVELOPMENT - 19 – 22 MAY 2015
MAP OF GBIF COUNTRY PARTICIPANTS

- Voting Participants
- Associate Country Participants
- Participants with signature of 2012 MOU pending
GBIF BY THE NUMBERS

533,667,297 species occurrence records

14,123 datasets

663 data-publishing institutions

http://www.gbif.org | 06 MAY 2015
Trend in biodiversity data relating to Africa

- Blue line: All data available through GBIF about biodiversity in Africa
- Red line: Data published by country participants in Africa

Species Occurrence records in millions

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<th>Year</th>
<th>2008</th>
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• Over 9 million occurrence records in total
• Over 8 million records about Africa
• 12 African countries publishing in total
• Of these 7 African countries publish less than a million records covering the entire continent (54 African countries)
• 4 African countries publish species checklist data
DATA PUBLISHING FROM OTHER REGIONS ABOUT AFRICA

• Over 11 million occurrence records in total
• Published by:
  Europe 38%
  International organizations 32%
  North America 29%
  Others 1%
• Published by: 38 countries + 10 international organizations outside Africa
CITATIONS IN PEER-REVIEWED RESEARCH

Annual number of peer-reviewed publications using GBIF-mediated data

- 2008: 52
- 2009: 89
- 2010: 148
- 2011: 169
- 2012: 229
- 2013: 249
- 2014: 357
- 2015 (Jan-Apr): 116

04 MAY 2015
Data on the timber species of Angola were obtained through a combination of bibliographic sources and the study of... 2253 [herbarium] records from 62 providers available through the GBIF data portal.

- Study identifies 18 key timber trees in Angola, documents biogeographic patterns and identifies conservation priorities
- Results suggest increasing risks to 11 spp. and highlight importance of studying historic tropical herbarium collections
• GBIF data applied to compare four early-stage planning approaches
• Consideration of scientific and political factors assisted the national government in plan to increase its marine protected area coverage

"the work presented here provides a foundation for the national level analyses needed to...increase MPA coverage by at least one million hectares"
Mapping the zoonotic niche of Ebola virus disease in Africa

David M Pigott, Nick Golding, Adrian Mylne, Zhi Huang, Andrew J Henry, Daniel J Weiss, Oliver J Brady, Moritz UG Kraemer, David L Smith, Catherine L Moyes, Samir Bhatt, Peter W Gething, Peter W Horby, Isaac I Bogoch, John S Brownstein, Sumiko R Mekaru, Andrew J Tatem, Kamran Khan, Simon I Hay

- Modelled environmental niches of three bat species associated with Ebola transmission
- Occurrence records accessed via GBIF
- At-risk areas cover 22 countries, population of 22 million
- Helps to prioritize surveillance and diagnostic capacity in at-risk areas

DOI: 10.7554/eLife.04395
A simple, rapid methodology for developing invasive species watch lists
Katelyn T. Faulkner a,b,*, Mark P. Robertson b, Mathieu Rouget c, John R.U. Wilson a,d

• Used more than 20m records via GBIF for 884 species on Global Invasive Species Database (GISD)
• Modelled likely invasion success for South Africa based on environmental suitability, propagule pressure
• Identified watch list of 400 potential invaders
• Methodology applicable to any region

http://dx.doi.org/10.1016/j.biocon.2014.08.014
Records published through GBIF over time now serves as a CBD indicator for Target 19 on sharing knowledge.

‘With the advances made in building systems to share data, information and knowledge on biodiversity, a significant part of this target is judged to be on track.

“However, to meet all components of the target, further efforts are needed on investment in data mobilization and the coordination of models and technologies that can be readily applied to decision making.”

Growth in species occurrence records published through GBIF
• Official observer to IPBES plenary
• Provides expert resource person to Task Force on Data and Knowledge
• Named as source of data in scoping documents for several IPBES assessments
• Identified as ‘potential strategic partner’ for IPBES on provision and access to biodiversity data - partnerships to be formalised during 2015

http://www.gbif.org/resource/80927
BID: BIODIVERSITY INFORMATION FOR DEVELOPMENT

A multi-year EU-funded programme to increase the availability and use of biodiversity information in research and decision-making in Africa, the Caribbean and the Pacific

Goal

BID hopes to improve the management of natural capital in these three regions, enabling the use of biodiversity information as evidence in decision-making that supports human well-being.

Objectives

- Improving the availability of biodiversity data
- Capacity enhancement for biodiversity information management
- Integration of biodiversity information into policy and decision-making processes