



RESEARCH DATA ALLIANCE

Research Data Alliance and Biodiversity Data

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RDA in a nutshell

The Research Data Alliance (RDA) builds the **social and technical bridges** that enable open sharing of data.



- **10,234** members from **137** countries
- **91** Interest Groups & Working Groups
- Researchers, scientists and data science professionals
- Multiple disciplines, domains and thematic fields
- A **neutral** space to develop and adopt **infrastructure recommendations**
- Promotes data-sharing practices and data-driven research.

RDA Vision

Researchers and innovators openly share data across technologies, disciplines, and countries to address the grand challenges of society.

Individual Membership is free at <https://www.rd-alliance.org/user/register>



What does RDA do?

Members come together through self-formed, volunteer, focussed Working Groups, exploratory Interest Groups to exchange knowledge, share discoveries, discuss barriers and potential solutions, explore and define policies and test as well as harmonise standards to enhance and facilitate global data sharing and re-use

RDA members collaborate together to tackle numerous infrastructure & data sharing challenges related to:

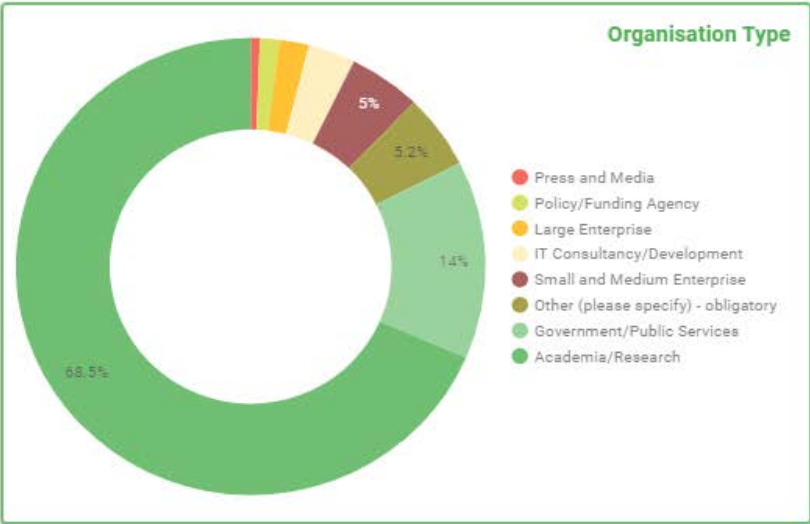
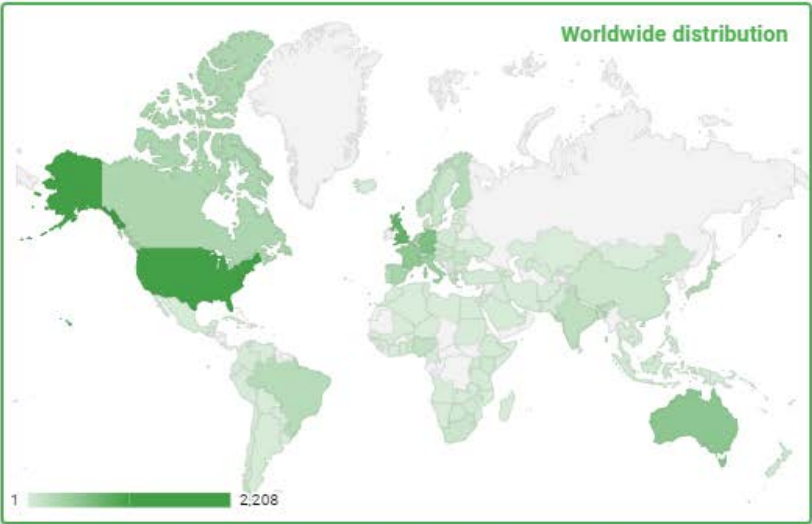
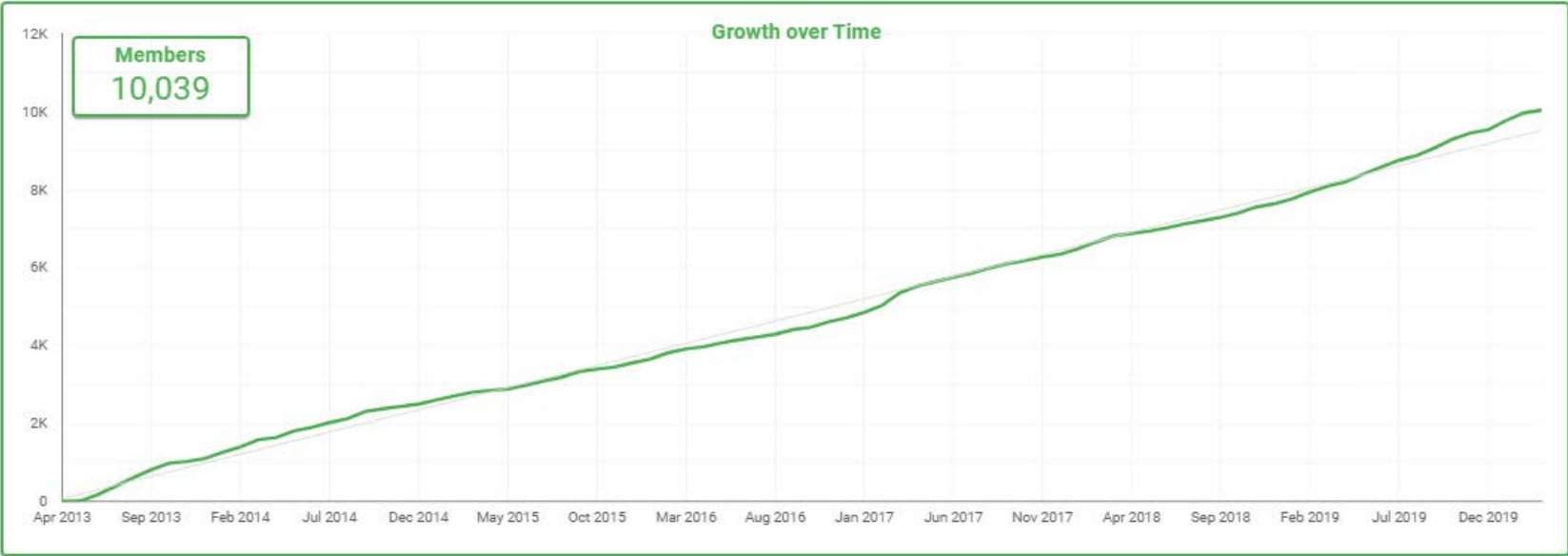
- Reproducibility
- Data preservation
- Best practices for domain repositories
- Legal interoperability
- Data citation
- Data type registries
- Metadata
- And many more



DATA SHARING



RDA Worldwide Growth



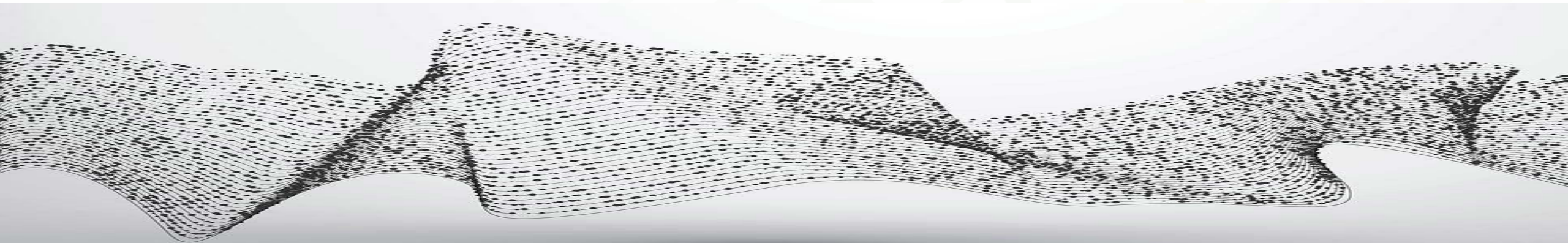


What can RDA recommendations do for biodiversity data interoperability?

RDA recommendations underpin the development of a **cross-domain 'data fabric'**

This data fabric is an architecture and set of data services that provide consistent capabilities across scientific domains and technical solutions.

When applied to biodiversity data, it will allow researchers and innovators to openly share biodiversity data **across technologies, disciplines, and countries** to address the grand challenges of society.





Biodiversity Data Integration IG (BDI IG)

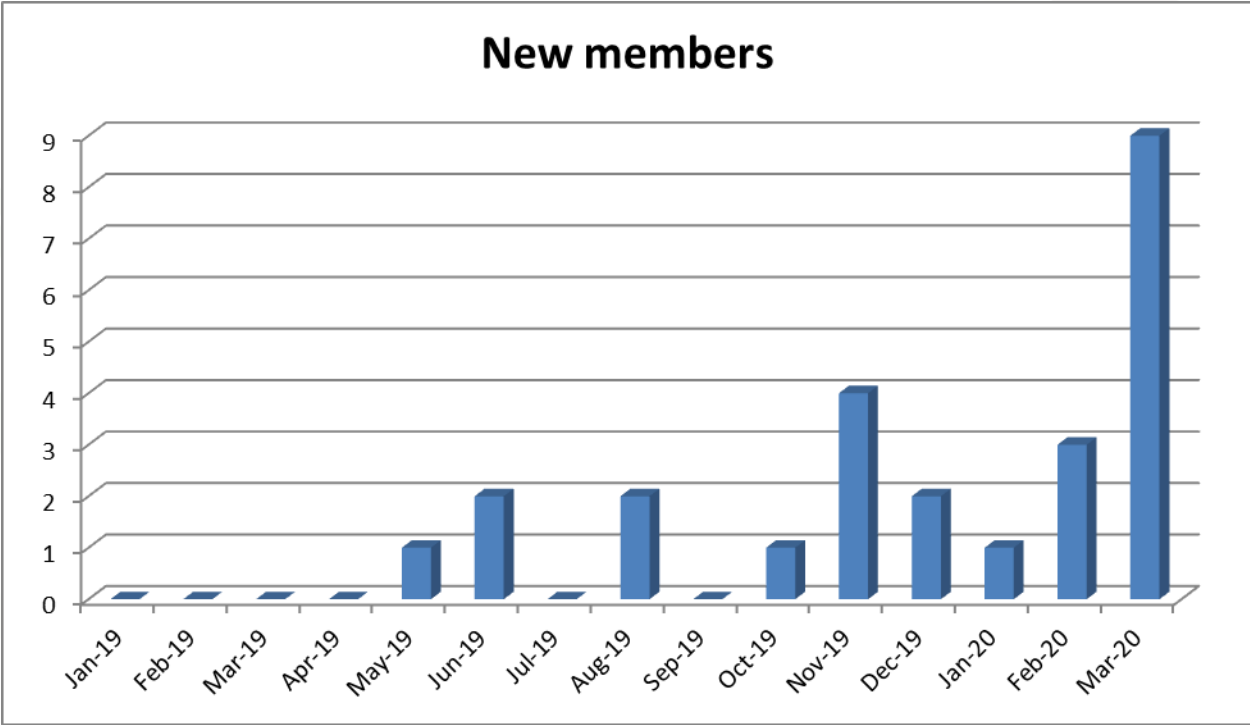
<https://www.rd-alliance.org/groups/biodiversity-data-integration-ig.html>

Status: Recognised & Endorsed (2014)

Chairs:

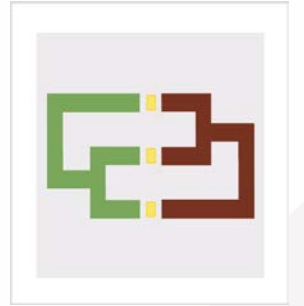
Hamish Holewa (Australia), Sridhar Gutam (Asia)
Wouter Addink (Europe), Dimitris Koureas (Europe)

Members: 163





BDI IG Charter summary (old)



This interest group would like to increase the effectiveness of biodiversity e-Infrastructures by promoting the adoption of common tools and services establishing data interoperability within the biodiversity domain. In this context taxon names provide the key element for connecting biodiversity data.

Members of this Interest Group are supposed to collaborate with relevant other RDA Working and Interest Groups on data citation, meta-data, persistent identifiers, big data analysis, data publishing, and so on.

Announced short term subgroups and potential Working Groups include:

Global Names Architecture

Defragmentation of species data-management

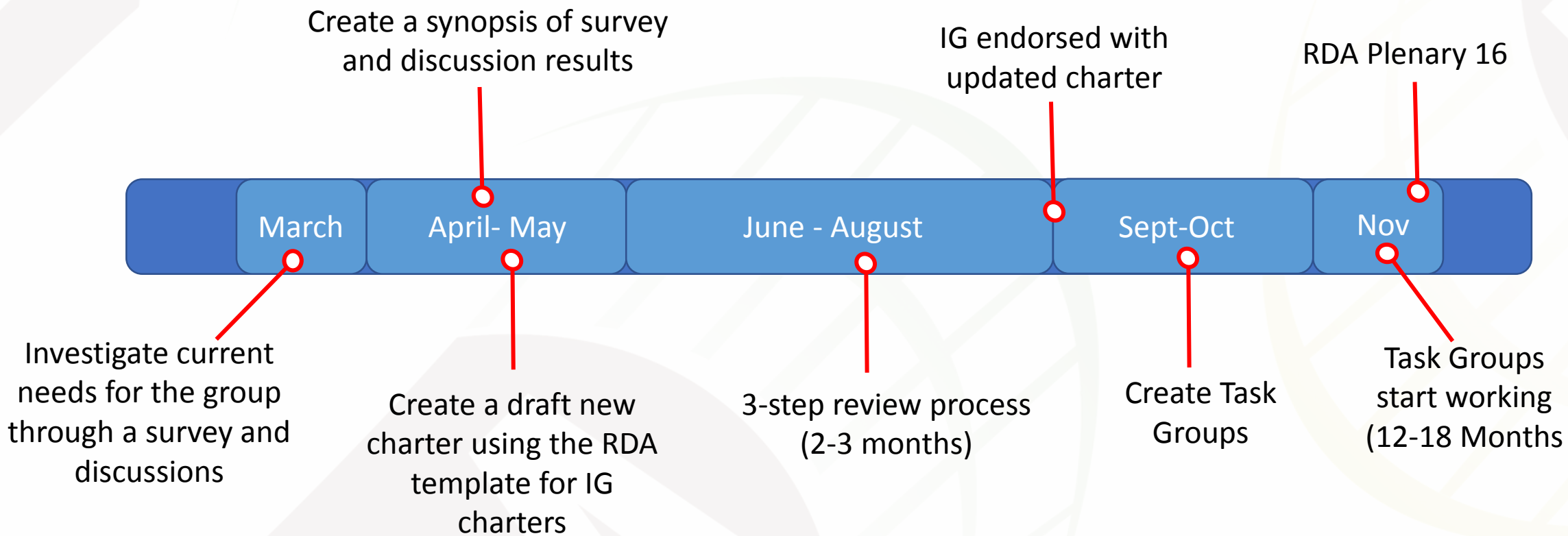
Vernacular names infrastructure

The general objective is to make this Interest Group a sustainable component of major biodiversity informatics initiatives, like LifeWatch, EU BON, GBIF, Encyclopedia of Life and Atlas of Living Australia.



Proposed roadmap

Charters describe a proposed Interest Group's purpose, motivation, objectives, outcomes and timelines





Summary of survey results to investigate current needs for a BDI IG

Survey results: <https://doi.org/10.5281/zenodo.3724025>

Responses: 94, about 2/3 was familiar with RDA and 1/3 was familiar with the BDI IG.

1/3 indicated that they want to actively participate in the group

User groups represented: 32% of the respondents was from Research,
19% from Technical Support,
11% from Policy and
10% from Collection Management

63% either agreed or strongly agreed that the BDI Interest Group description and objectives need to be updated; 3% disagreed, the rest had no opinion or did not answer the question.

Areas the BDI IG should focus on (each 40+ votes):

- **Disseminate, Link and Find**
- **Data Management**
- **Data Description**

Most important way to achieve the group objectives:

Implementing FAIR data principles in the biodiversity domain



Key recommendations for BDI IG (from discussions March 10 & March 27)

- The Interest Group should stay but refocus the objectives and better link with current developments in **biodiversity infrastructures** globally.
- More involvement is needed from these infrastructures.
- Group activities **should complement already existing initiatives**.
- Need to be specific on how people can tangibly contribute to the group. Put forward specific documents or ideas so that people can immediately interact
- The group could be used to **crossbreed biodiversity standards/tools with other domains** in order to achieve cross-domain interoperability
- The group should discuss impact/effect/influence of some of the wider RDA discussion/work strands, such as data fabric, digital object architecture, etc. and their **implications for biodiversity/geodiversity domain**.
- Having more virtual meetings might create more engagement and keep people close to the group between Plenaries.



Key working areas suggested for BDI IG

- Natural Science Collections related: OpenDS, MIDS/MICS, PIDs for natural sciences objects, FAIR Digital Objects, Collection Access policies harmonisation
- Literature related: data liberation and FAIRize data, semantic enhanced publishing
- Semantic initiatives: to describe taxon traits, phenomics, and interactions
- Biodiversity authorities: increase usage and sharing between research data and biodiversity authorities
- Data references: best practices how data should be referred to e.g., with PIDs to influence the publishers, the funders, etc.
- Biodiversity data in EBVs: Positioning of biodiversity data in “data cubes” is unclear, standards and pipelines need to be identified in collaboration with the monitoring and climate research domains



Other relevant RDA Interest Groups

- RDA / TDWG Metadata Standards for attribution of physical and digital collections stewardship
- ELIXIR Bridging Force IG
- Physical Samples and Collections in the Research Data Ecosystem IG
- I-ADOPT WG aims at building a Interoperability Framework for describing observable properties
- FAIRSharing Registry: connecting data policies, standards & databases WG
- Geospatial IG
- Microbial biotechnology & policy compliance (ABS, CBD, The Nagoya and Cartagena Protocols)
- Various data management related WGs, e.g. Data Versioning WG