



1. Welcome

As part of a broader global strategy to support applications of biodiversity data, the Global Biodiversity Information Facility (GBIF, www.gbif.org) has convened a Task Group to assess data fitness for use in research on alien and invasive species. GBIF is an international open data infrastructure, funded by governments.

GBIF allows anyone, anywhere to access data about all types of life on Earth, shared across national boundaries via the Internet. By encouraging and helping institutions to publish data according to common standards, GBIF enables new research, and informs better decisions to conserve and sustainably use the planet's biological resources.

In this survey, our use of the terms alien and invasive are broad, and include the multiple related terms used in the field of invasion biology, such as introduced and non-native.

Your inputs will improve the suitability and access to data for broad scale use in invasion biology and the fields related to it (such as ecological and social research contexts).

The survey is designed by the Task Group to capture the experience of data users and providers. We aim to document limitations in existing GBIF services, improve the utility of GBIF-mediated data, and suggest improvements in the functionality of GBIF for specific needs.

We know your time is extremely valuable. This survey should take about 20 minutes. Please submit your responses at your earliest convenience, but not later than on 31 August 2016. If you have any questions about this survey, please contact Dmitry Schigel, dschigel@gbif.org.

Thanks in advance for your help.

[GBIF Task Group on data fitness for use in research on alien and invasive species](#)

*** Questions with an asterisk require an answer for the survey to be completed.**

1. Contact information is optional, and is collected to make further communication and collaboration possible. We will not disclose your personal data or any other personal data provided by you to us to any third party. If you provide your name, we will acknowledge your general contribution in the report and at GBIF.org

Name

Organisation/Affiliation

Country

E-mail address

*** 2. Do you consider your organization commercial?**

Yes

No

*** 3. What realms do you work in?**

Terrestrial

Marine

Freshwater

N/A

Other (please specify)

*** 4. What is your disciplinary expertise?**

- Invasion biology
- Ecology
- Biogeography
- Paleoecology
- Systematics
- Evolutionary biology
- Biodiversity informatics
- Social science
- Economics
- Disease ecology
- Human and wildlife health
- Biodiversity science
- Climate change science
- Conservation biology

Other (please specify)

*** 5. Role**

- Research
- Resource management
- Conservation management
- Data curation
- Data analysis
- Biodiversity informatics
- Policy
- Education

Other (please specify)

*** 6. What species groups do you work with?**

- Mammals
- Birds
- Fish
- Amphibians, reptiles
- Plants
- Fungi
- Arthropods
- Other invertebrates
- Algae
- Microorganisms
- N/A
- Other (please specify)



2. GBIF Usage

*** 7. How long have you been using GBIF resources?**

- Never
- <1 year
- A few years
- Since the beginning (2001)

*** 8. How regularly do you use GBIF?**

- Rarely
- A couple of times a year
- Several times a year
- Regularly

9. How do you access GBIF-mediated data relevant to alien and invasive species?

Check all that applies

- Browsing gbif.org
- Downloads through gbif.org
- Programming interface using R, e.g. rgbif library [\[link\]](#)
- pygbif [\[link\]](#)

Through any other means (please specify, especially other API access options)

*** 10. For what purpose have you used GBIF-mediated data, and how useful were the data?**

	Extremely useful	Very useful	Somewhat useful	Slightly useful	Not at all useful	N/A
Taxonomy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Extracting lists of species	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Species distributions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Modelling	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Georeferencing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gap analysis	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Searching for sources of data	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Invasion horizon scanning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Risk assessment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Trends in abundance or distribution	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other, please elaborate and score as above

11. Which features of GBIF (GBIF.org) are useful for your work on biological invasions?

	Extremely useful	Very useful	Somewhat useful	Slightly useful	Not at all useful	N/A
Maps	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Web services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Taxonomy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Country pages	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dataset pages	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Species pages	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Record pages	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Verbatim, uninterpreted data	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Multimedia (images, sounds, video)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other (please specify)

*** 12. In which of the following areas would data improvements be most useful for research on biological invasions?**

	Extremely useful	Very useful	Somewhat useful	Slightly useful	Not at all useful
Habitat	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Species traits	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mechanism of introduction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Native ranges	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Absence data	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Abundance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Filling geographic gaps	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Filling taxonomic gaps	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Impact information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Management information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please specify any additional types of data and recommendations for improvement. Please specify where would like to see the changes, at GBIF, linked out from GBIF or at independent external resources?

*** 13. Which other sources of information on biological invasions do you use?**

- Global invasive species database (GISD)
- Global Register of Introduced Invasive Species (GRIIS)
- CABI Invasive Species Compendium
- Encyclopaedia of Life (EOL)
- Regional, national or local sources
- Taxon specific sources
- Realm or habitat specific sources

Please specify sources not listed above

14. What would incentivize more contributions of alien and invasive species data to GBIF?

*** 15. Are you aware of sources that would improve data coverage of alien and invasive species in GBIF?**

- Yes
- No



3. Other sources

16. If so, please name the sources and provide links and contact information.



4. Data attributes

17. What spatial resolution of data is most useful in the following categories?

	< 10 m	< 100 m	< 1 km	< 5 km	< 25 km	< 100 km	Over 100 km / 1°
Rapid response to potentially invasive species	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Niche modelling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Impact assessment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Horizon scanning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

* 18. Have you published any papers/reports that reference GBIF information or data?

- Yes
- No

19. If you answer yes to the above question, please provide the reference(s), using DOI, where available



5. Final comments

20. Please provide any additional recommendations on how GBIF can become more useful to alien and invasive species research and applications