BGCI's PlantSearch database: *the world's botanical collections at your fingertips*

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Abstract

Launched in 2004, Botanic Garden Conservation International (BGCI)'s PlantSearch database is the only global database of plants, seeds, and tissues curated in living collections. PlantSearch provides thousands of public gardens with valuable conservation information about their collections while connecting them with scientists around the world.

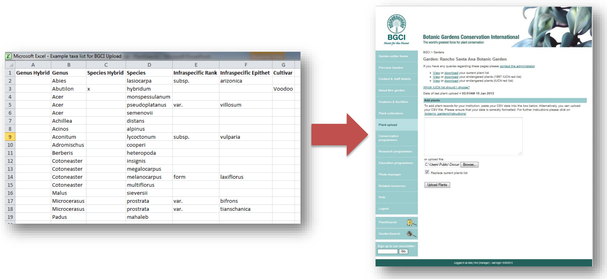
Since 2009, BGCI has worked with the United States Botanic Garden and other partners to increase PlantSearch data quantity, quality, and accessibility. In 2013 we are making exciting upgrades to PlantSearch, based on feedback from global surveys of PlantSearch data contributor and user communities. PlantSearch will soon incorporate synonymy, more rigorous matching of accepted Cultivar names, dynamic links to conservation data, and improved querying capabilities.

Connecting Collections

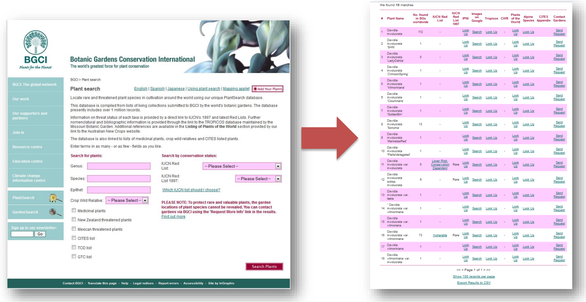
BGCI's PlantSearch database is the only global database of living botanical collections, which functions for three major purposes:

- ***Identify the uniqueness and conservation value of collections***
- ***Support global and regional ex situ assessments***
- ***Connect scientists to collections***

Any living collection can add a taxa list to PlantSearch via a GardenSearch profile:
- It is quick, easy, and free.
- Find out the conservation value of your collections, and receive a names audit.
- Connect your collections, expertise, and facilities to a global community.
- Expand the collective knowledge of plant diversity in cultivation.



PlantSearch currently holds over 1 million plant records from more than 1,000 living botanical collections worldwide.



Through its blind email request system, PlantSearch connects thousands of researchers, educators, conservationists, and garden staff each year to plant material and information.

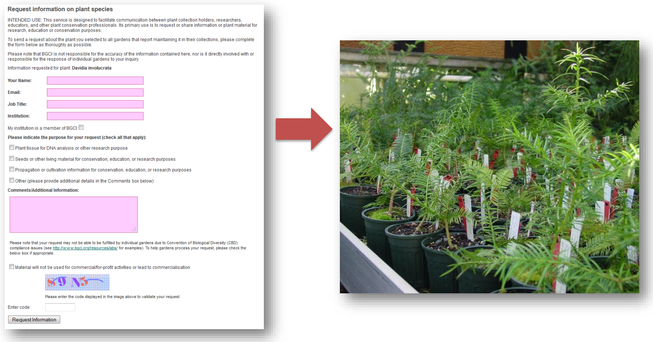


Table 1. Number of PlantSearch Requests sent each year since 2008.

Year	Number of PlantSearch Requests
MAY 2013	720
2012	1439
2011	2079
2010	1089
2009	1035
2008	1111

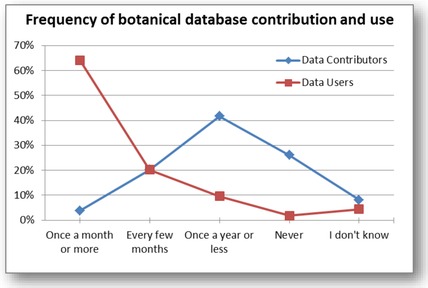
Data Contributor and Data User Surveys

In early 2013, we conducted a survey of PlantSearch data contributors and users. Nearly 375 individuals took the surveys, aimed at:

- measuring data value and usability;
- gauging support of future database upgrades; and
- gathering suggestions for additional priority improvements.

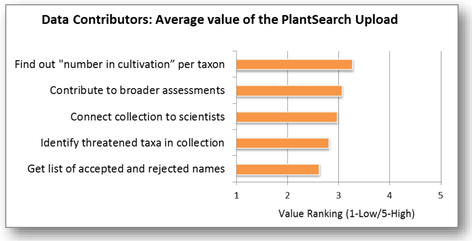
Table 2. Number of survey respondents by region

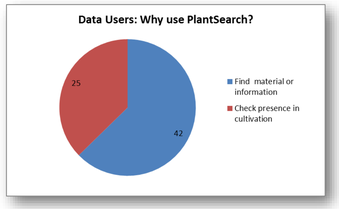
Region	Number of Data CONTRIBUTOR Respondents	Number of Data USER Respondents
Africa - central	1	0
Africa - eastern	1	0
Africa - northern	2	1
Africa - southern	3	0
Americas - central	1	0
Americas - north	63	36
Americas - south	4	1
Asia - eastern	4	2
Asia - south-eastern	6	2
Asia - southern	3	3
Asia - western	3	2
Australasia	8	1
Europe - eastern	18	2
Europe - northern	25	11
Europe - southern	15	8
Europe - western	22	10
Not reported	81	35
TOTAL	260	114



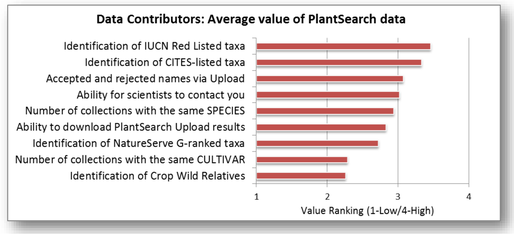
Survey results showed that data contribution occurs on average less regularly than data use.

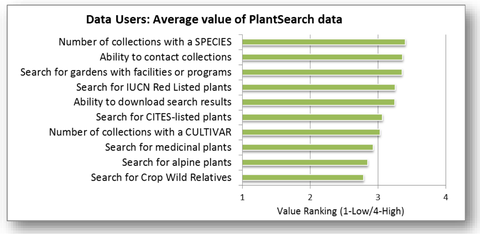
The top reasons for data contribution and use are to check presence in cultivation (number of locations) and to connect researchers to collections. Data contributors also value contributing to broader assessments.



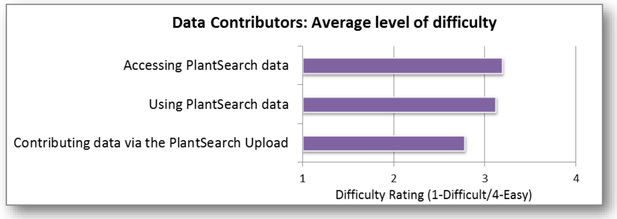


Data contributors value conservation data, feedback on names, and connecting collections to scientists the most. Data users value the number of locations per species, ability to contact collections, GardenSearch queries, and conservation data the most.





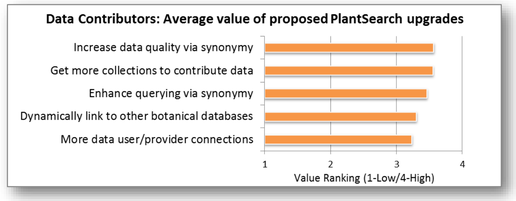
Survey respondents also said contributing, accessing, and using PlantSearch data is fairly easy to do.

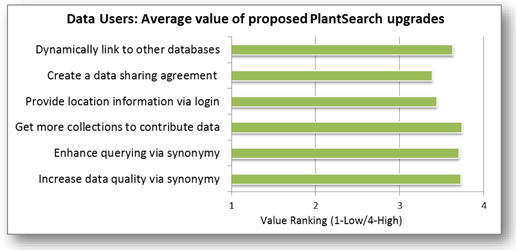


A Bright Future Ahead

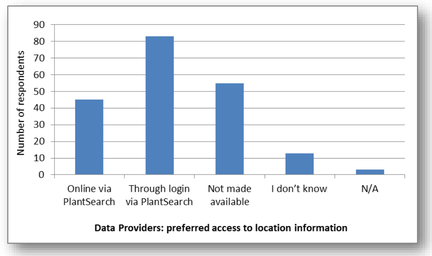
Highly valued by both data contributors and users, upcoming PlantSearch upgrades include:

- Incorporation of synonymy into the PlantSearch Upload and query
- Better verification of Cultivar names during the PlantSearch Upload
- Creation of dynamic links to conservation data held in PlantSearch
- Improved querying capabilities and data accessibility

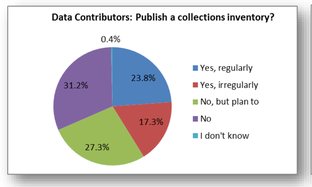


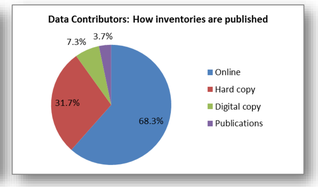


Of note, any changes in how BGCI releases data to broader audiences will be approached with collections' concerns as first priority and not without consent of data contributors. This includes providing access to location information via PlantSearch, so users can narrow down geographic focus for requests or assessments.



In this case, for example, BGCI plans to offer an "opt-in" function for allowing garden locations to be made available to users. We think this will be broadly accepted solution, as most collections already publish collection inventories online.





Acknowledgements

We are grateful to the hundreds of individuals and gardens that gave their valuable time to provide feedback via our User and Data Provider surveys.

Our new Database Strategic Advisory Group formed in the fall of 2012 also provided generous input prior to launching these surveys and database enhancement efforts.

Finally, the 2013 database surveys and enhancements could not have been possible without the support of the United States Botanic Garden and the USDA-APHIS.
Thank you!

www.bgci.org/plant_search.php

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United States Botanic Garden