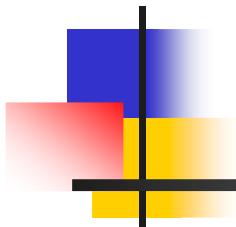


«Мысли глобально, действуй локально»  
(П. Геддес, шотландский биолог и урбанист)

# Для чего публиковать данные через глобальные системы о биоразнообразии?



А.П. Серёгин, д.б.н.,  
в.н.с. Гербария МГУ

**Всероссийский третий научно-методический  
семинар «Естественнонаучные коллекции  
Югры: сбор, фиксация, хранение, введение в  
научный оборот» (Ханты-Мансийск, 25-26**

----- 2010 -----

# База данных малых космических тел JPL

**JPL Small-Body Database Browser**

Search: [ help ]

**1P/Halley**  
Classification: Halley-type Comet\* [NEO] SPK-ID: 1000036  
[ Ephemeris | Orbit Diagram | Orbital Elements | Mission Design | Physical Parameters | Discovery Circumstances | Close-Approach Data ]

[ show orbit diagram ]

alternate orbits: [epoch=1994-Feb-17.0] J863/77 (default) ▾

Orbital Elements at Epoch 2449400.5 (1994-Feb-17.0) TDB  
Reference: JPL J863/77 (heliocentric ecliptic J2000)

Element	Value	Uncertainty (1-sigma)	Units
e	0.967142908462304	5.035e-09	
a	17.8341442925537	3.8913e-08	au
q	0.585978111516909	8.8924e-08	au
i	162.262690579161	6.7791e-06	deg
node	58.42008097656843	9.0539e-06	deg
peri	111.3324851045177	1.1714e-05	deg
M	38.3842644764388	1.4226e-07	deg
t <sub>p</sub>	2446467.395317050925 (1986-Feb-05.89531705)	4.7896e-06	TDB
period	27509.1290731861 75.32	9.0034e-05 2.465e-07	d yr
n	.01308656479244564	4.2831e-11	deg/d
Q	35.08231047359043	7.6546e-08	au

Orbit Determination Parameters

# obs. used (total)	7428
data-arc span	57852 days (158.39 yr)
first obs. used	1835-08-21
last obs. used	1994-01-11
planetary ephem.	DE405
SB-pert. ephem.	SB405-CPV-2
norm. resid. RMS	1.0147
source	ORB
producer	M.S.W. Keesey
solution date	2001-Aug-02 13:51:39

Additional Information

Earth MOID	= .0637815 au
T <sub>jup</sub>	= -0.605

[ show covariance matrix ]

[ Ephemeris | Orbit Diagram | Orbital Elements | Mission Design | Physical Parameters | Discovery Circumstances | Close-Approach Data ]

**Physical Parameter Table**

Parameter	Symbol	Value	Units	Sigma	Reference	Notes
comet total magnitude	M1	5.5		n/a	ICQ 2005 Handbook	
comet total magnitude slope	K1	8.0		n/a	ICQ 2005 Handbook	
comet nuclear magnitude	M2	13.6		n/a	ICQ 2005 Handbook	
comet nuclear magnitude slope	K2	5.0		n/a	ICQ 2005 Handbook	

# База данных нуклеотидов NCBI



NCBI Resources ▾ How To ▾ Sign in to NCBI

Nucleotide Nucleotide ▾ Allium  Create alert Advanced Help

i The Nucleotide database will include EST and GSS sequences in early 2019. [Read more](#).

**Species** Summary ▾ 20 per page ▾ Sort by Default order ▾ Send to: ▾ **Filters:** [Manage Filters](#)

Animals (130)  
Plants (776,913)  
Fungi (12,280)  
Protists (126)  
Bacteria (9,553)  
Viruses (1,399)  
Customize ...

**Molecule types** genomic DNA/RNA (44,281)  
mRNA (259,884)  
rRNA (7)  
Customize ...

**Source databases** INSDC (GenBank) (796,724)  
RefSeq (3,762)  
Customize ...

**Sequence Type** Nucleotide (744,957)  
EST (44,510)  
GSS (11,023)

**Genetic**

**Items: 1 to 20 of 800490** << First < Prev Page  of 40025 Next > Last >>

[Allium obliquum chloroplast, complete genome](#)  
1. 152,387 bp circular DNA  
Accession: NC\_037199.1 GI: 1369122248  
[BioProject](#) [Protein](#) [Taxonomy](#)  
[GenBank](#) [FASTA](#) [Graphics](#)

[Sequence 58 from Patent EP2164959](#)  
2. 1,196 bp linear DNA  
Accession: H1520601.1 GI: 311484586  
[Taxonomy](#)  
[GenBank](#) [FASTA](#) [Graphics](#)

[Sequence 170 from Patent EP2199398](#)  
3. 699 bp linear DNA  
Accession: HC924135.1 GI: 300624690  
[Taxonomy](#)  
[GenBank](#) [FASTA](#) [Graphics](#)

**Results by taxon**

**Top Organisms** [\[Tree\]](#)  
Allium cepa (609294)  
Allium sativum (102682)  
Allium fistulosum (55703)  
Fusarium oxysporum (8496)  
Pseudomonas coronafaciens (4159)  
All other taxa (20156)  
[More...](#)

**Find related data** Database:

**Search details**  
"Allium" [Organism] OR Allium [All Fields]

# Таксономическая база данных Catalogue of Life

**Catalogue of Life: 26th February 2019**  
indexing the world's known species

English French Spanish Chinese Russian Portuguese Dutch German Polish Lithuanian Thai Vietnamese



Найти все названия - Результаты для "Pinus"

Найдено записей: 1,336

Записей на странице: 20

Сохранить результаты поиска | Новый поиск

1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | ... | 67 | Вперед >>

Название	Ранг	Статус названия	Таксон	Источник
<a href="#">Pinus</a>	Род		Plantae	
<a href="#">Pinus abasica</a> Carrière	Вид	сионим для <i>Pinus halepensis</i> Mill.	Plantae	
<a href="#">Pinus abies</a> Du Roi	Вид	сионим для <i>Abies alba</i> Mill.	Plantae	
<a href="#">Pinus abies</a> L.	Вид	сионим для <i>Picea abies</i> var. <i>abies</i>	Plantae	
<a href="#">Pinus abies</a> Pall.	Вид	сионим для <i>Picea obovata</i> Ledeb.	Plantae	
<a href="#">Pinus abies</a> f. <i>obovata</i> (Ledeb.) Voss	Внутривидовой таксон	сионим для <i>Picea obovata</i> Ledeb.	Plantae	

# OpenStreetMap

OpenStreetMap

Правка История Экспорт Ещё Войти Зарегистрироваться

Поиск Где это? Найти

Ханты-Мансийск

улица Коминтерна

улица Чехова

улица Патриса Лумумбы

улица Гагарина

Природный парк Самаровский чугас

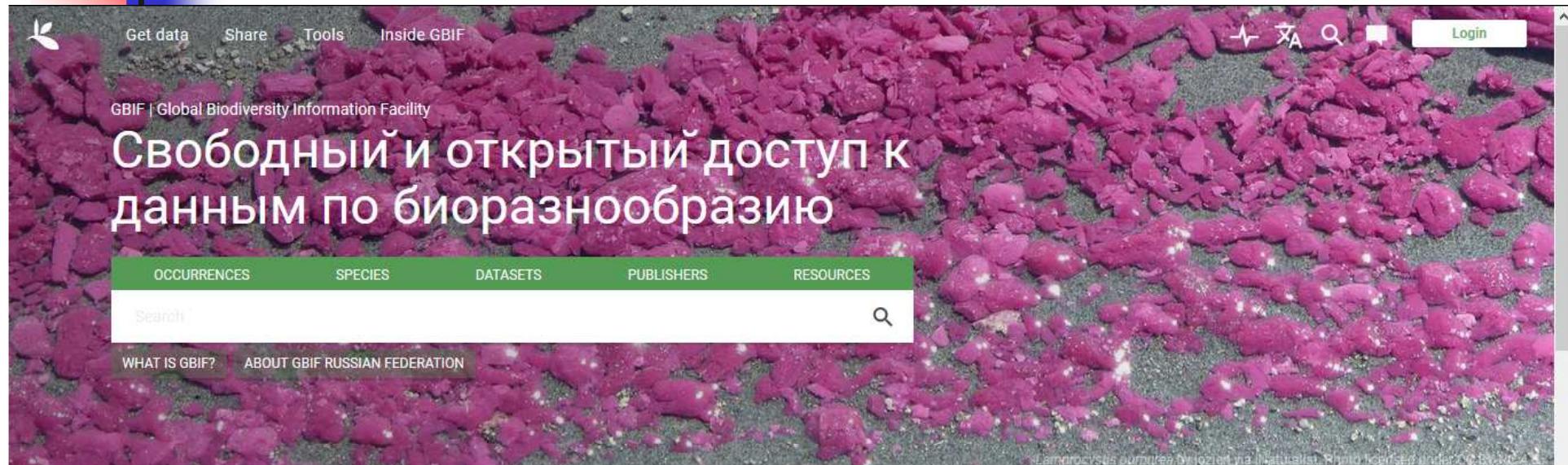
Омск — Тобольск — Ханты-Мансийск — Салехард

мост Красный Дракон

300 m  
1000 ft

© Участники OpenStreetMap ♥ Сделать пожертвование

# Global Biodiversity Information Facility



Occurrence records

1 098 298 663



GBIF provides new home for the Global Registry of Scientific Collections

21 March 2019

Datasets

43 174



Global survey shows genetic structure predicted by range size and latitude

18 March 2019

Publishing institutions

1 374



Blog post: Country centroids—What are they and what to do about them?

21 March 2019

Peer-reviewed papers using data

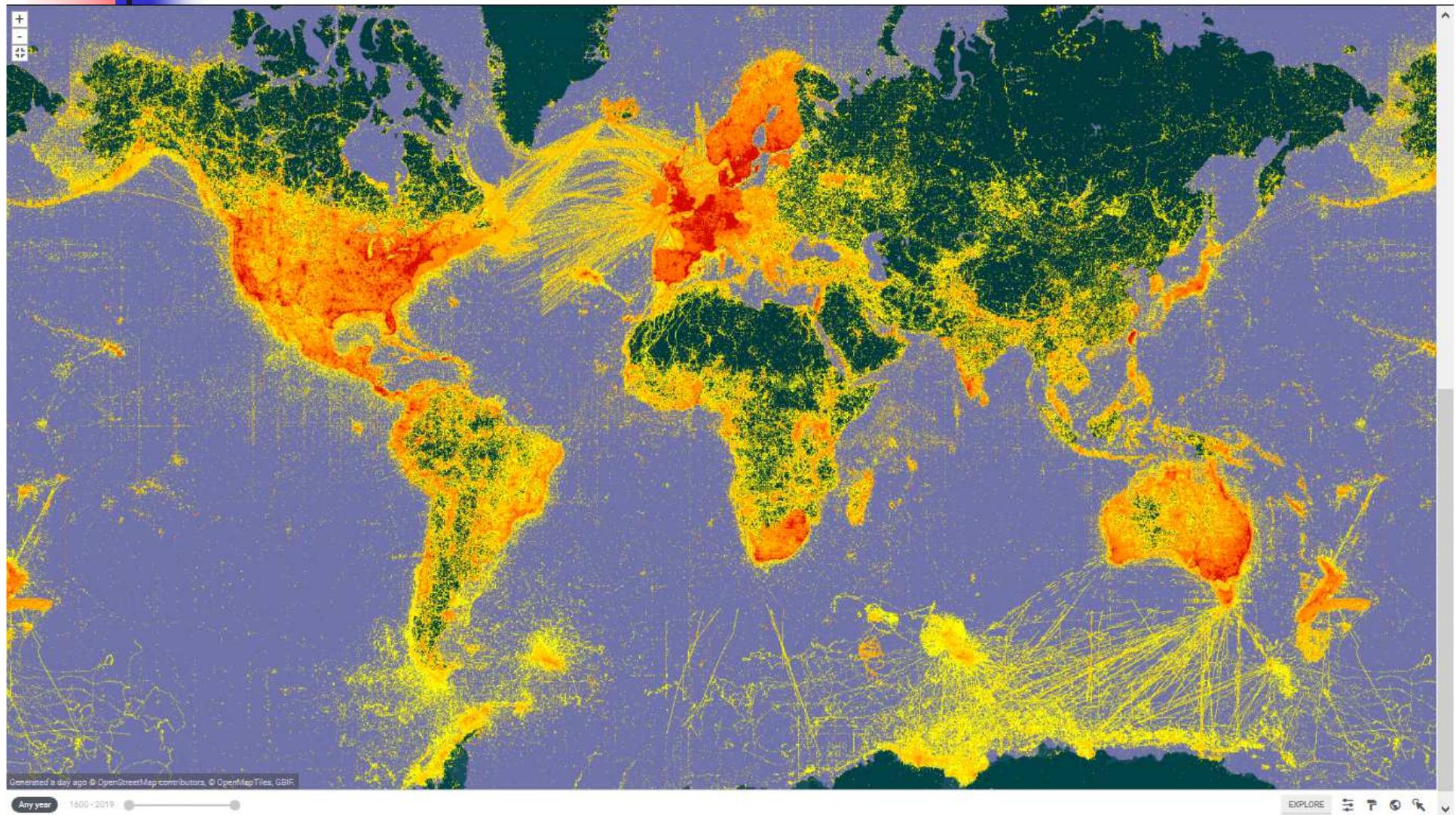
3 574

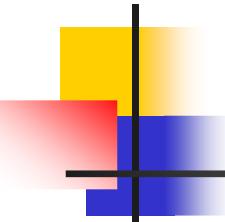


Call for nominations to the 2019 GBIF Young Researchers Award

GBIF Secretariat deadline: 15 May 2019

# Охват GBIF





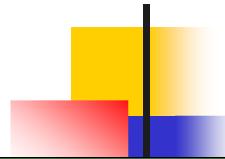
# Страны-лидеры: поставщики данных (1) и территориальность (2)

- United States of America 356,724,941
- United Kingdom 96,820,887
- Sweden 82,423,277
- Australia 74,945,798
- France 65,078,427
- Netherlands 57,526,279
- Germany 46,500,701
- Canada 42,975,200
- Norway 31,990,055
- Denmark 30,220,550
- Finland 28,153,086
- Spain 27,333,302
- Belgium 23,382,907
- South Africa 23,044,392
- Mexico 10,303,662
- Brazil 9,378,786
- Colombia 7,917,239
- Japan 7,005,087
- Costa Rica 6,980,102

(1)

- United States of America 330,597,452
- Sweden 80,417,676
- Australia 77,789,956
- United Kingdom 65,934,749
- France 58,269,646
- Canada 50,665,185
- Netherlands 48,890,328
- Germany 38,113,261
- Norway 31,894,655
- Denmark 29,632,718
- Finland 28,097,547
- Spain 27,539,377
- South Africa 22,464,954
- Belgium 20,003,643
- Mexico 14,263,020
- Brazil 11,755,016
- Costa Rica 8,494,299
- Japan 6,659,115
- Portugal 6,273,835

(2)



# Какие данные есть в GBIF?

Get data Share Tools Inside GBIF Logout

SEARCH OCCURRENCES | 1,098,298,729 RESULTS

TABLE	GALLERY	MAP	TAXONOMY	METRICS	DOWNLOAD
⋮	Scientific name	Country or area	Coordinates	Month & year	Basis of record
<i>Accipiter nisus</i> Linnaeus, 1758		Germany	51.6N, 8.0E	2019 January	Human observation
<i>Acalypha wilkesiana</i> Müll.Arg.		Spain	28.7N, 17.9W	2019 January	Human observation
<i>Acer campestre</i> L.		Germany	48.9N, 10.3E	2019 January	Human observation
<i>Anser anser</i> (Linnaeus, 1758)		Germany	51.8N, 9.9E	2019 January	Human observation
<i>Aloe vera</i> (L.) Burm.f.		Spain	28.8N, 17.8W	2019 January	Human observation
<i>Anser anser</i> (Linnaeus, 1758)		Germany	50.0N, 10.2E	2019 January	Human observation
<i>Anser albifrons</i> (Scopoli, 1769)		Germany	50.4N, 8.9E	2019 January	Human observation
<i>Anser albifrons</i> (Scopoli, 1769)		Germany	51.3N, 9.2E	2019 January	Human observation
<i>Aythya fuligula</i> (Linnaeus, 1758)		Germany	51.2N, 6.9E	2019 January	Human observation
<i>Aythya fuligula</i> (Linnaeus, 1758)		Germany	50.7N, 11.4E	2019 January	Human observation
<i>Aythya fuligula</i> (Linnaeus, 1758)		Germany	50.7N, 11.4E	2019 January	Human observation
<i>Buteo buteo</i> Linnaeus, 1758		Germany	53.7N, 10.1E	2019 January	Human observation
<i>Buteo buteo</i> Linnaeus, 1758		Germany	48.9N, 9.3E	2019 January	Human observation
<i>Buteo buteo</i> Linnaeus, 1758		Germany	50.4N, 8.0E	2019 January	Human observation

https://www.gbif.org/occurrence/1988293797

# МГУ в GBIF



PUBLISHER | SINCE SEPTEMBER 2, 2014

## Lomonosov Moscow State University

ABOUT HOME PAGE

1,227,960 OCCURRENCES

8 DATASETS

81 CITATIONS

**Description:** The project of the Lomonosov Moscow State University "National Depository Bank of Live Systems" is focused on the creation of multi-functional network storage of biological material. The main goal of the Depository Bank is to preserve the biodiversity knowledge and to create new ways of biological material use. The portal of the Depository Bank <https://depo.msu.ru/> currently holds data on 700K specimens of plants, algae, fungi, and animals from numerous classical biological collections of the Moscow State University.

Part of "National Depository Bank of Live Systems", MSU Herbarium is the second largest herbarium of Russia with 10,000+ additional accessions annually. Loans and exchange are temporarily suspended. Historic collections of G. F. Hoffmann, J. F. Ehrhart, C. B. Trinius, I. Forster, and Herbarium Alchemillarum of V. N. Tikhomirov are stored separately. Specialty: worldwide vascular plants (including 4 500 types), but strong in the former U.S.S.R., especially European part (336 230 specimens), Caucasus (94 550 specimens), Crimea (30 690 specimens), Siberia and Russian Far East (152 920 specimens), and Central Asia and Kazakhstan (91 440 specimens); Mongolia (27 410 specimens); western and central Europe (40 050 specimens); other Asian countries (20 510 specimens); Eurasian bryophytes, but strong in Russia (56 300 specimens). No fungi, lichens, and algae. Date founded: 1765. Staff members are conducting research in many regions of Russia, Vietnam, Mongolia, Caucasian states, and other countries. Collections are not databased, beside a table with numbers of specimens per species per region. Type scanning is in progress.

**Endorsed by:** GBIF Finland

**Installations:** National Depository Bank of Live Systems Publishing Toolkit • MSU <http://depo.msu.ru/>

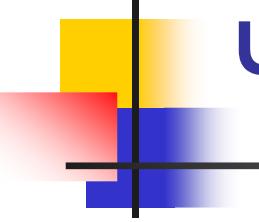
**Administrative contact:** Dr. Piotr A. Kamensky

**Technical contact:** Mr. Konstantin V. Skulachev

**Country or area:** Russian Federation

**Hosting:** 8 datasets ( 1 publisher • 1 country )

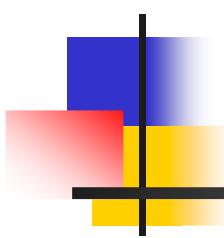




# Что это даёт?

---

- миру?
- стране?
- университету?
- гербарию?
- мне?
- обществу?

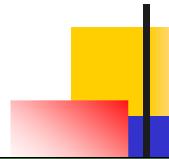


Для чего?

---

1. Для научного использования

# Первый массив данных (18.09.2014)

Get data Share Tools Inside GBIF      Login

OCCURRENCE DATASET | REGISTERED SEPTEMBER 18, 2014

## A grid-based database on vascular plant distribution in the Meshchera National Park, Vladimir Oblast, Russia

Published by [Lomonosov Moscow State University](#)  
✉ Alexey P. Seregin

**DATASET** PROJECT METRICS ACTIVITY  DOWNLOAD  HOME PAGE 22,625 OCCURRENCES 43 CITATIONS

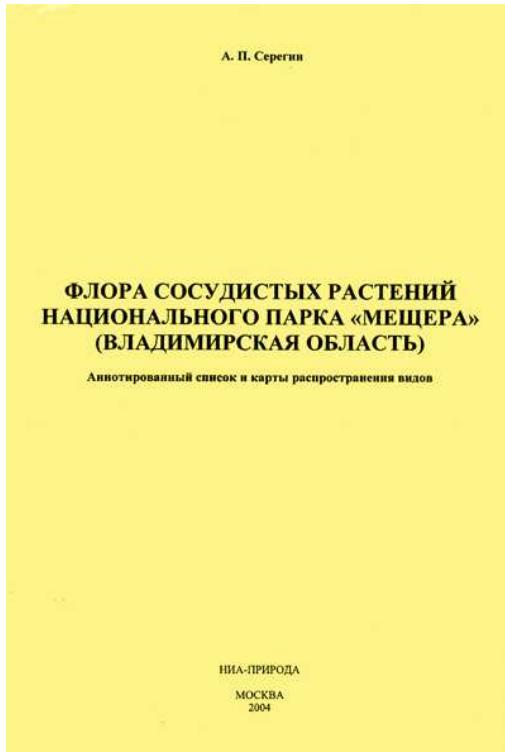
A dataset contains 22,600+ records of vascular plants from the Meshchera National Park (Vladimir Oblast, Russia) and its buffer zone made by Alexey P. Seregin. The dataset is based on grid scheme with 80 squares ranging from 24.1 to 24.5 km<sup>2</sup> (2.5 minutes lat. x 5 minutes long., WGS84). This grid scheme is coherent with a grid used for mapping of Vladimir Oblast using larger squares ranging from 94.7 to 98.2 km<sup>2</sup> (5 minutes lat. x 10 minutes long.). In 1999–2004 (mainly in 2002), I studied... [More](#)

 22,625 Occurrences  100% With taxon match  100% With coordinates  99.7% With year

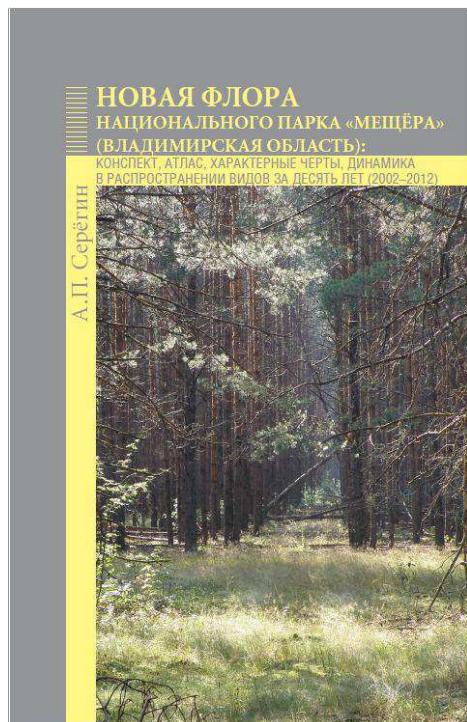
Metadata last modified: August 18, 2016  
Hosted by: [Lomonosov Moscow State University](#)  
License: [CC0 1.0](#)  
How to cite DOI 10.15468/ahunho

22,625 GEOFERENCED RECORDS 

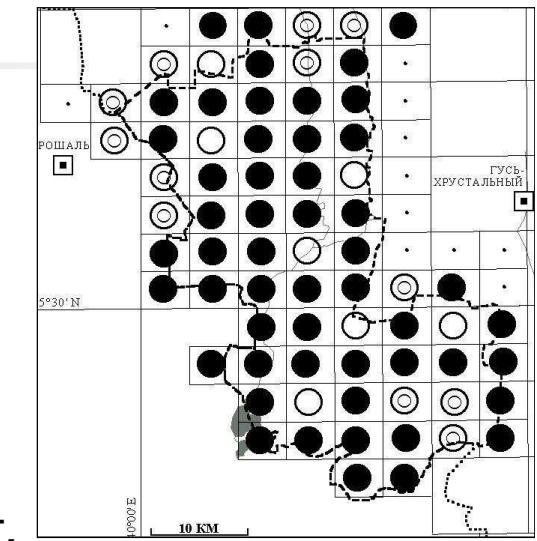
# Сеточное картирование флоры НП «Мещёра»



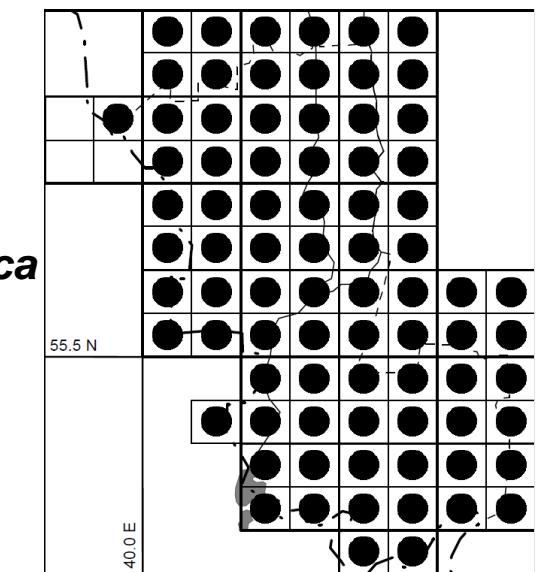
Серегин, 2004

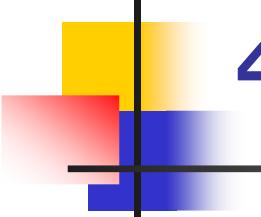


Серегин, 2013



*Fragaria vesca*





# 43 цитирования за 4,5 года

- **The global biogeography of polyploid plants**

Rice, A. Šmarda, P. Novosolov, M. Drori, M. Glick, L. Sabath, N. ... - (2019) **Nature Ecology & Evolution**

- **Biotic resistance or introduction bias? Immigrant plant performance decreases with residence times over millennia**

Sheppard, C. Schurr, F. (2018) **Global Ecology and Biogeography**

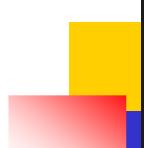
- **Predicting plant conservation priorities on a global scale**

Pelletier, T. Carstens, B. Tank, D. Sullivan, J. Espíndola, A. (2018) **Proceedings of the National Academy of Sciences**

- **The future of hyperdiverse tropical ecosystems**

Barlow, J. França, F. Gardner, T. Hicks, C. Lennox, G. Berenguer, E. ... - (2018) **Nature**

# Самый большой массив данных (2.11.2017)



[!\[\]\(81312b19ca3202a7c3e2f42667ac19f0\_img.jpg\)](#) [Get data](#) [Share](#) [Tools](#) [Inside GBIF](#) [!\[\]\(05c4ef4dd96ab5ecdd33811d2390df14\_img.jpg\)](#) [!\[\]\(43065b6f61cdc14f6c7df3360137a4e6\_img.jpg\)](#) [!\[\]\(a1400469b748ed408ccb4c9d46975da7\_img.jpg\)](#) [!\[\]\(89cac312b110b7fb7c9b11d04e3b4406\_img.jpg\)](#) [Login](#)

OCCURRENCE DATASET | REGISTERED NOVEMBER 2, 2017

## Moscow University Herbarium (MW)

Published by [Lomonosov Moscow State University](#)

 Alexey Seregin

[DATASET](#) [PROJECT](#) [METRICS](#) [ACTIVITY](#) [!\[\]\(24df1b17256d597c33583b1e026e4e59\_img.jpg\) DOWNLOAD](#) [!\[\]\(c1de50ad1af64b3f79a59de72b12bdce\_img.jpg\) HOME PAGE](#)

974,295 OCCURRENCES [53 CITATIONS](#)

Moscow University Herbarium (MW) is the second largest herbarium in Russia after the Komarov Institute. It is almost completely imaged at 300 dpi and available at <https://plant.depo.msu.ru/>. The herbarium is focused on the flora of temperate Eurasia with an emphasis on the flora of Russia. As of 1 August 2018, physical collections of MW Herbarium include 1,030,669 specimens (incl. 4.8K type specimens) representing 37,200 species and subspecies of vascular plants and 2,223 species and subspecies ... [More](#)



Project ID: 14-50-00029

Metadata last modified: March 23, 2019

Data last changed: March 23, 2019

Hosted by: [Lomonosov Moscow State University](#)

License: CC BY 4.0

 [How to cite](#)  [DOI](#) [10.15468/cphcc](#)

 974,295  
Occurrences

 99.9%  
With taxon match

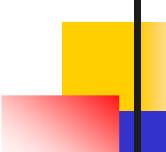
 37%  
With coordinates

 80%  
With year

360,127 GEOREFERENCED RECORDS



# Около 46 загрузок в день (среднее за 1,5 года)



Get data Share Tools Inside GBIF

OCCURRENCE DATASET | REGISTERED NOVEMBER 2, 2017

## Moscow University Herbarium (MW)

Published by [Lomonosov Moscow State University](#)

✉ Alexey Seregin

DATASET PROJECT METRICS ACTIVITY DOWNLOAD HOME PAGE 974,295 OCCURRENCES 53 CITATIONS

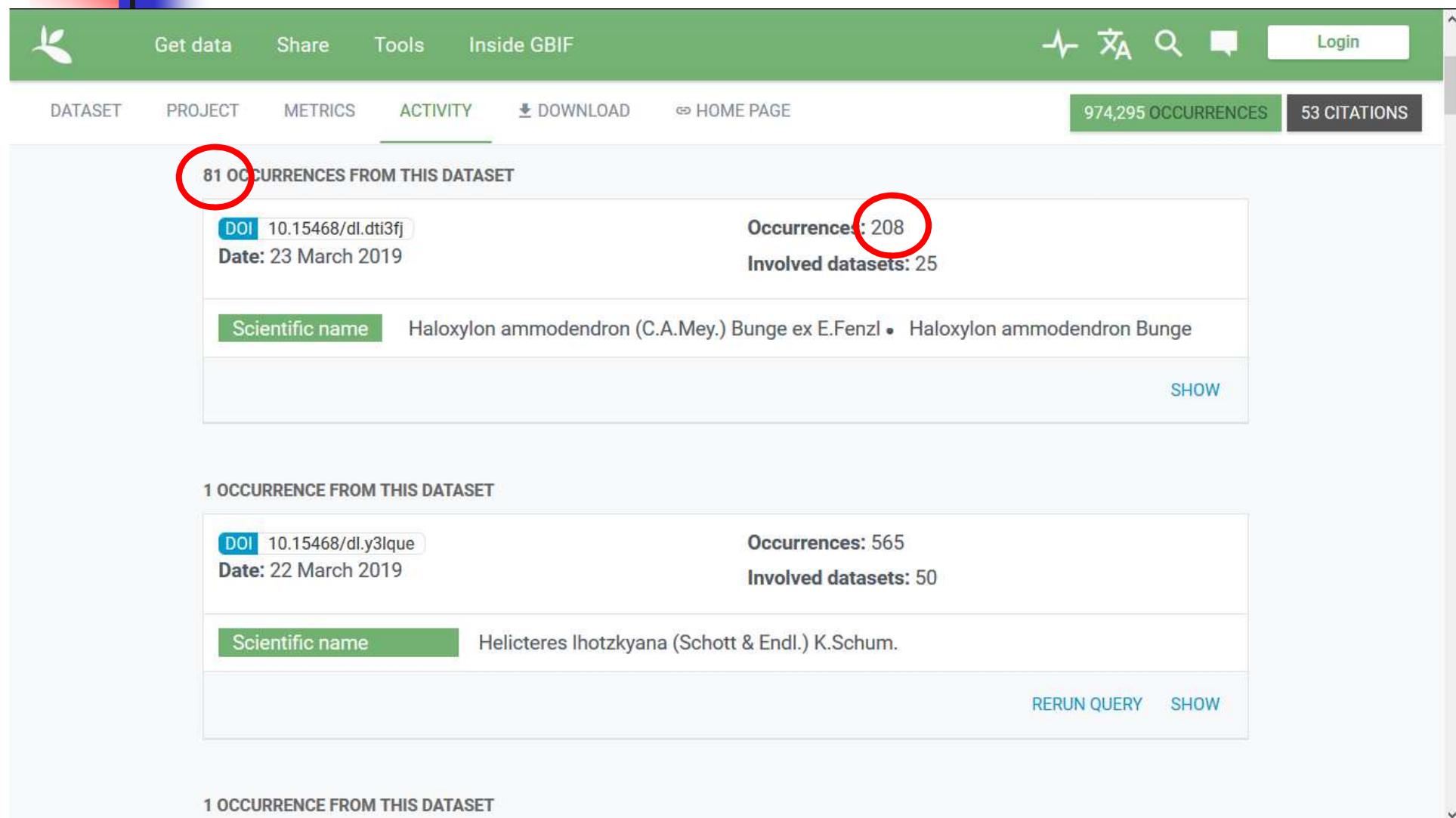
26,719 download events

595 OCCURRENCES FROM THIS DATASET

DOI <a href="https://doi.org/10.15468/dl.ml3ddc">10.15468/dl.ml3ddc</a>	Occurrences: 3,581,114
Date: 23 March 2019	Involved datasets: 1,059
<b>And</b>	
Country or area	Spain
Basis of record	Preserved specimen

RERUN QUERY SHOW

# Что выгружают? Пример: чёрный саксаул



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Dataset Project Metrics Activity Download Home Page

974,295 OCCURRENCES 53 CITATIONS

81 OCCURRENCES FROM THIS DATASET

DOI: 10.15468/dl.dti3fj Date: 23 March 2019

Occurrences: 208 Involved datasets: 25

Scientific name: *Haloxylon ammodendron* (C.A.Mey.) Bunge ex E.Fenzl • *Haloxylon ammodendron* Bunge

SHOW

1 OCCURRENCE FROM THIS DATASET

DOI: 10.15468/dl.y3lque Date: 22 March 2019

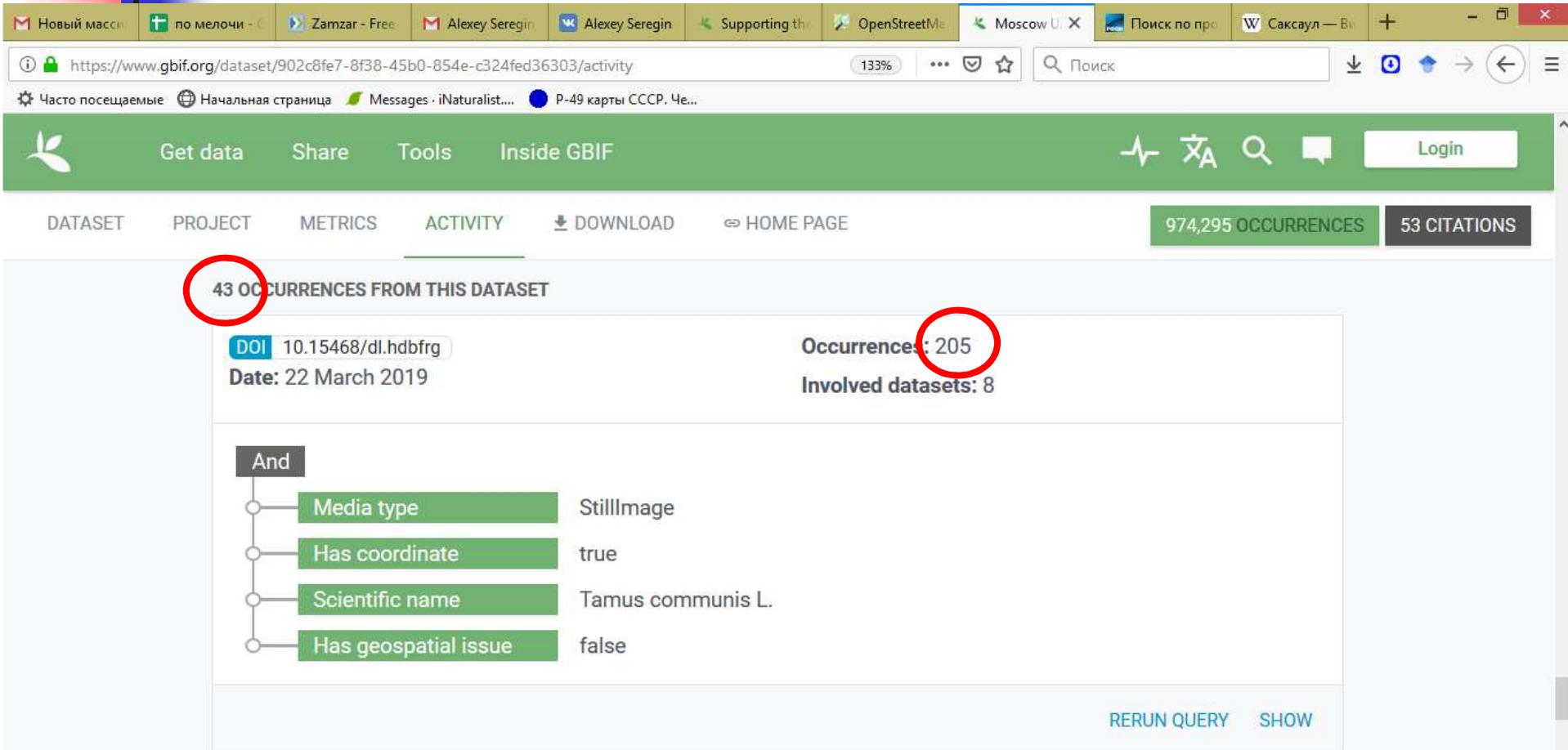
Occurrences: 565 Involved datasets: 50

Scientific name: *Helicteres lhotzkyana* (Schott & Endl.) K.Schum.

RERUN QUERY SHOW

1 OCCURRENCE FROM THIS DATASET

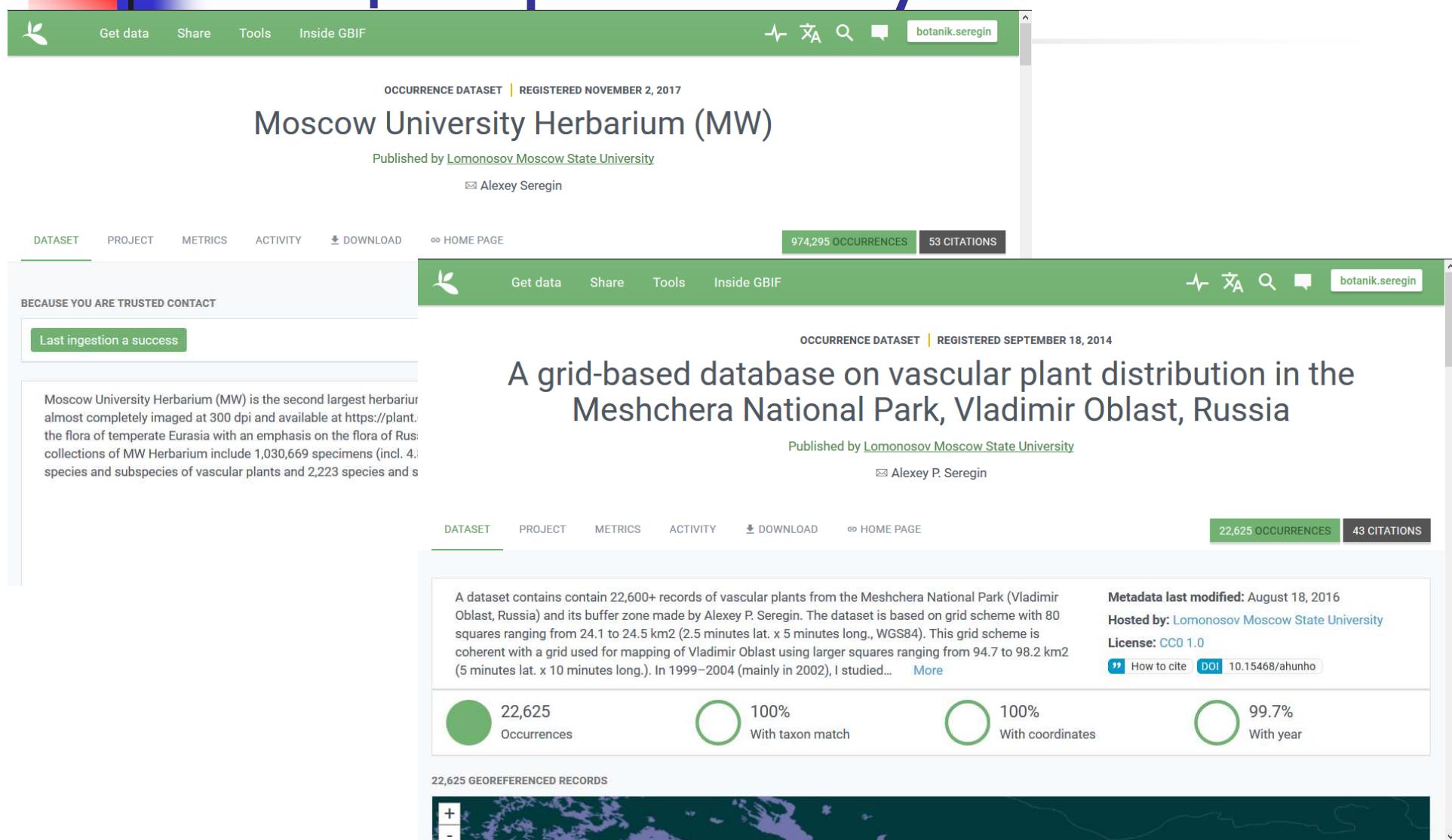
# Что выгружают? Пример: диоскорея обыкновенная



The screenshot shows a web browser window with the following details:

- Address Bar:** https://www.gbif.org/dataset/902c8fe7-8f38-45b0-854e-c324fed36303/activity
- Header:** GBIF logo, Get data, Share, Tools, Inside GBIF, Login
- Top Bar:** DATASET, PROJECT, METRICS, ACTIVITY (highlighted), DOWNLOAD, HOME PAGE, 974,295 OCCURRENCES, 53 CITATIONS
- Section 1 (Circled):** 43 OCCURRENCES FROM THIS DATASET. Contains: DOI: 10.15468/dl.hdbfrg, Date: 22 March 2019, Occurrences: 205 (circled), Involved datasets: 8.
- Section 2 (Circled):** And (highlighted). Contains: Media type: StillImage, Has coordinate: true, Scientific name: Tamus communis L., Has geospatial issue: false.
- Buttons at bottom:** RERUN QUERY, SHOW
- Bottom Bar:** 974,273 OCCURRENCES FROM THIS DATASET, system tray icons, and a status bar showing RUС and 10:07.

# 8 массивов данных и 81 цитирование у МГУ



OCCURRENCE DATASET | REGISTERED NOVEMBER 2, 2017

## Moscow University Herbarium (MW)

Published by [Lomonosov Moscow State University](#)

✉ Alexey Seregin

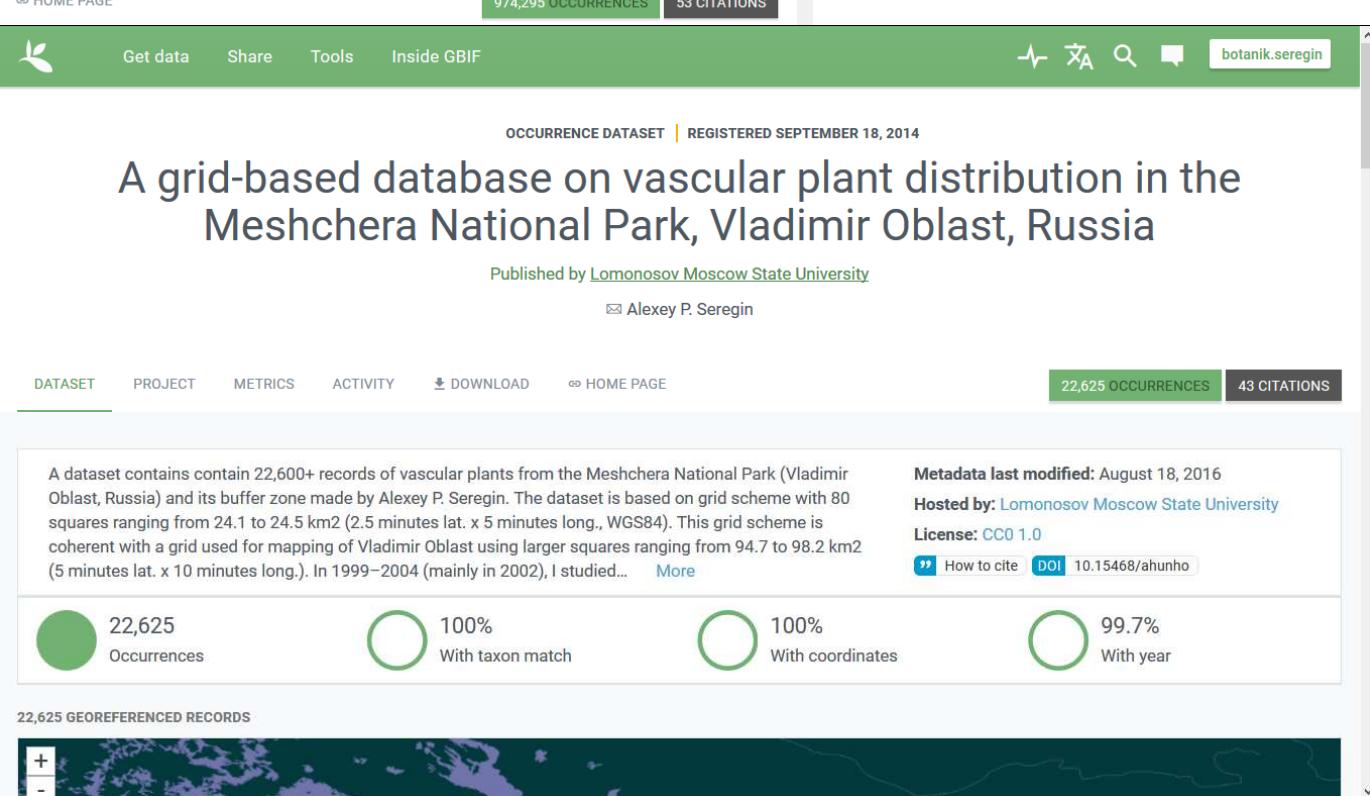
[DATASET](#) [PROJECT](#) [METRICS](#) [ACTIVITY](#) [DOWNLOAD](#) [HOME PAGE](#)

974,295 OCCURRENCES | 53 CITATIONS

BECAUSE YOU ARE TRUSTED CONTACT

Last ingestion a success

Moscow University Herbarium (MW) is the second largest herbarium almost completely imaged at 300 dpi and available at <https://plantnet.org>. The flora of temperate Eurasia with an emphasis on the flora of Russia. The collections of MW Herbarium include 1,030,669 specimens (incl. 4,330 species and subspecies of vascular plants and 2,223 species and s



OCCURRENCE DATASET | REGISTERED SEPTEMBER 18, 2014

## A grid-based database on vascular plant distribution in the Meshchera National Park, Vladimir Oblast, Russia

Published by [Lomonosov Moscow State University](#)

✉ Alexey P. Seregin

[DATASET](#) [PROJECT](#) [METRICS](#) [ACTIVITY](#) [DOWNLOAD](#) [HOME PAGE](#)

22,625 OCCURRENCES | 43 CITATIONS

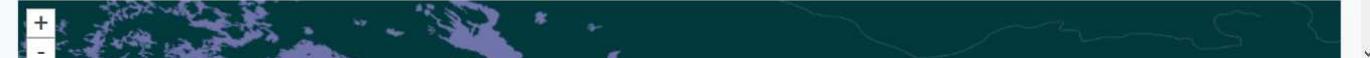
A dataset contains 22,600+ records of vascular plants from the Meshchera National Park (Vladimir Oblast, Russia) and its buffer zone made by Alexey P. Seregin. The dataset is based on grid scheme with 80 squares ranging from 24.1 to 24.5 km<sup>2</sup> (2.5 minutes lat. x 5 minutes long., WGS84). This grid scheme is coherent with a grid used for mapping of Vladimir Oblast using larger squares ranging from 94.7 to 98.2 km<sup>2</sup> (5 minutes lat. x 10 minutes long.). In 1999–2004 (mainly in 2002), I studied... [More](#)

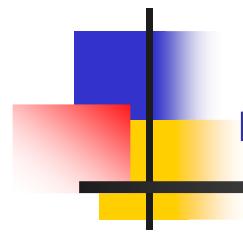
Metadata last modified: August 18, 2016  
Hosted by: [Lomonosov Moscow State University](#)  
License: CC0 1.0  
How to cite DOI 10.15468/ahunho

22,625 OCCURRENCES

22,625 GEOREFERENCED RECORDS

22,625 Occurrences 100% With taxon match 100% With coordinates 99.7% With year

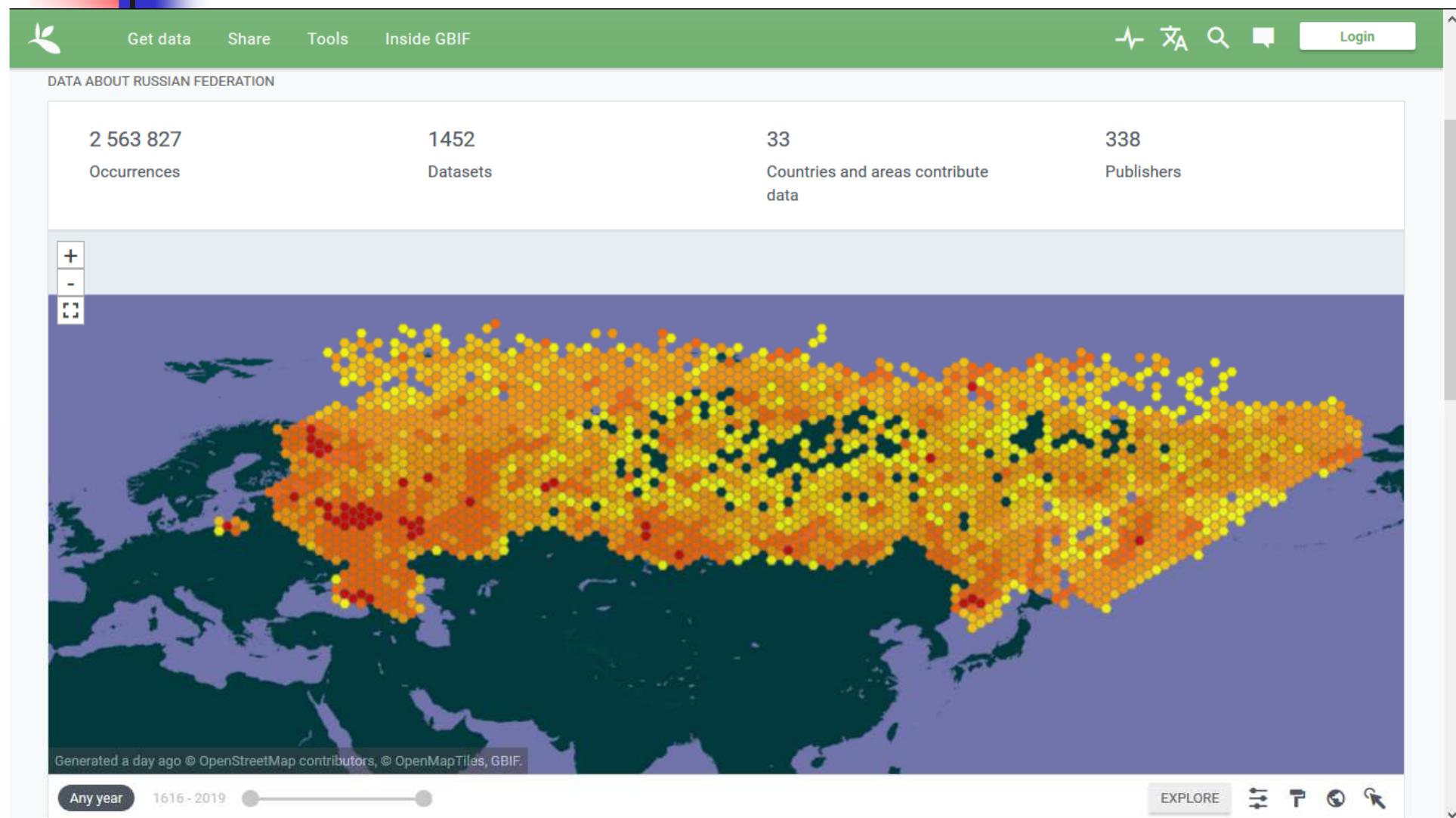




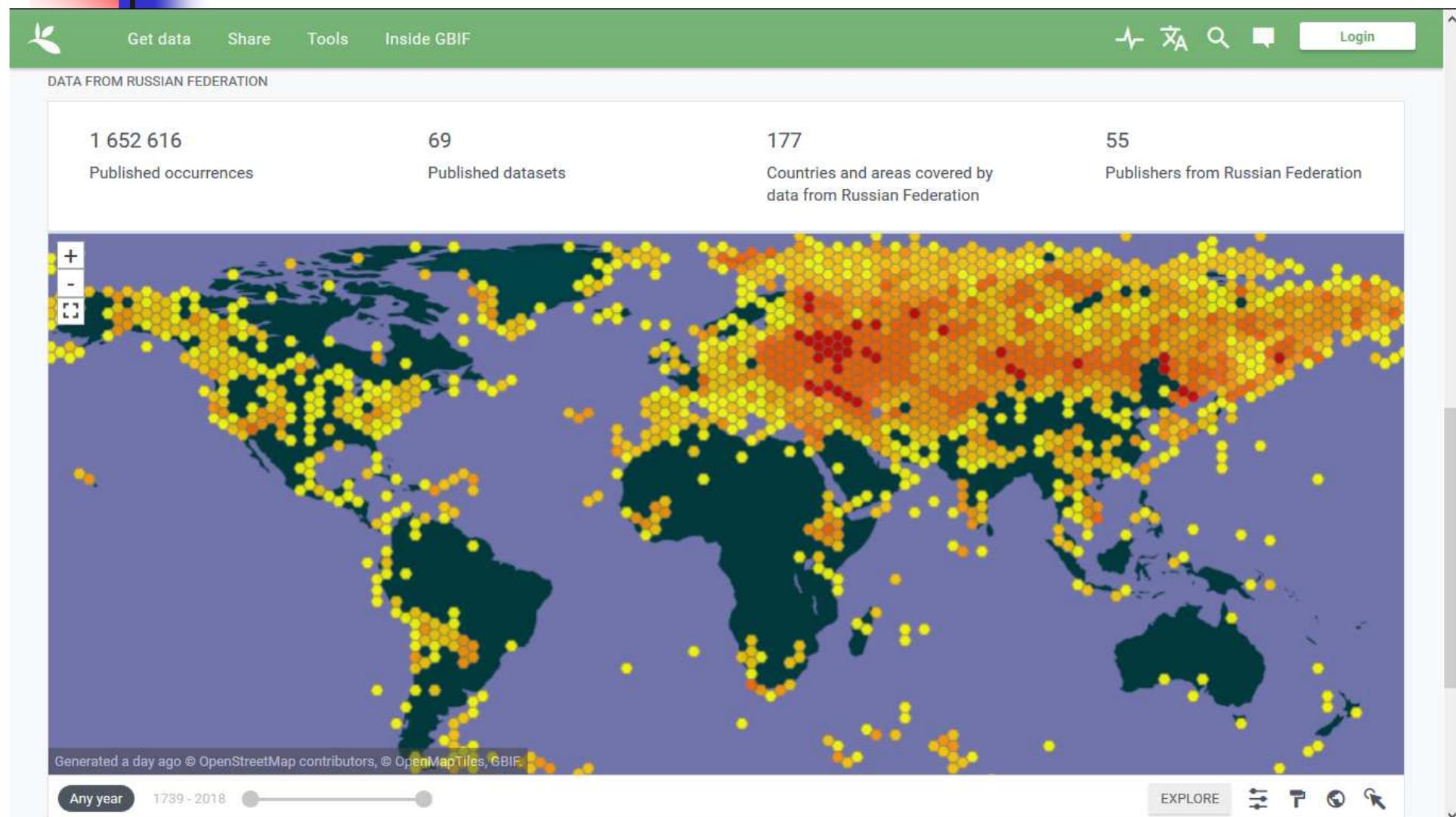
Для чего?

2. Для национального престижа

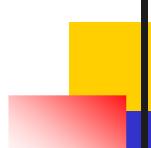
# Россия в свете данных GBIF



# Россия как поставщик данных в GBIF



# «Большой скачок» в ноябре 2017 г.





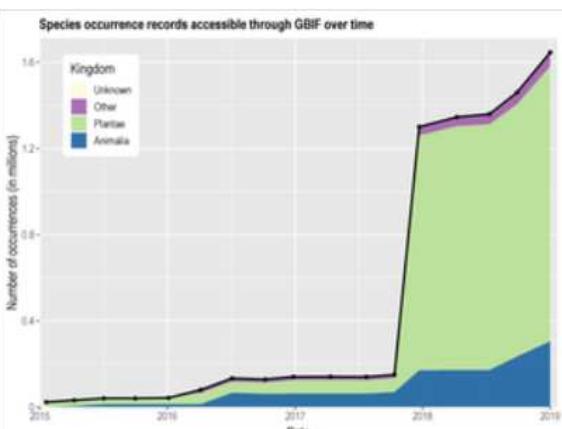
PUBLISHING TRENDS

### Number of occurrence records

These charts illustrate the change in availability of the species occurrence records over time.

#### Records by kingdom

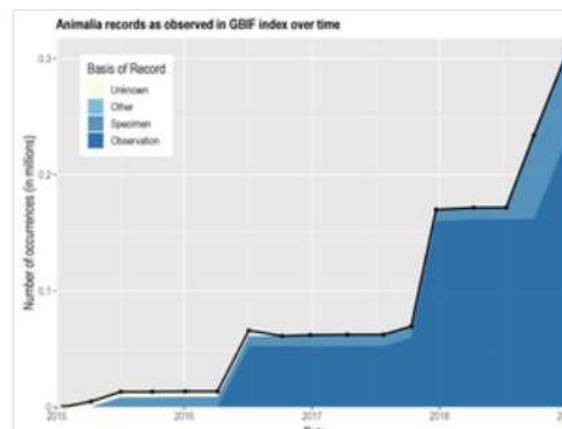
The number of available records categorized by kingdom. "Unknown" includes records with taxonomic information that cannot be linked to available taxonomic checklists.



Year	Unknown	Other	Plantae	Animalia	Total
2015	0.05	0.02	0.01	0.01	0.08
2016	0.06	0.03	0.02	0.01	0.10
2017	0.07	0.04	0.03	0.01	0.15
2018	0.08	0.05	0.12	0.03	0.26
2019	0.09	0.06	0.15	0.04	0.34

#### Records for Animalia

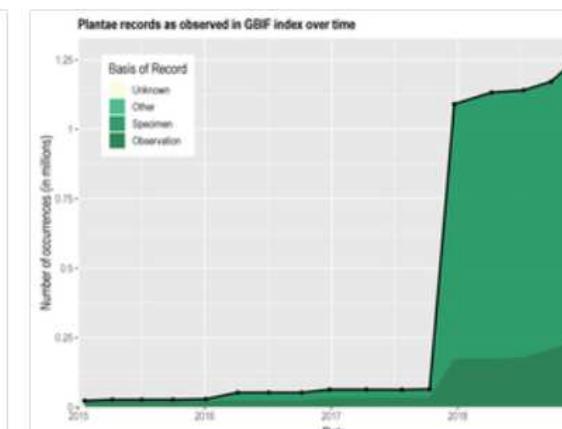
The number of animal records categorized by the basis of record. "Unknown" includes records without defined basis of record or with an unrecognised value for basis of record.



Year	Unknown	Other	Specimen	Observation	Total
2015	0.01	0.00	0.00	0.00	0.01
2016	0.02	0.00	0.00	0.00	0.02
2017	0.03	0.00	0.01	0.00	0.04
2018	0.04	0.00	0.02	0.01	0.07
2019	0.05	0.00	0.03	0.02	0.10

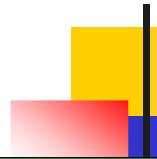
#### Records for Plantae

The number of plant records categorized by the basis of record. "Unknown" includes records without defined basis of record or with an unrecognised value for basis of record.



Year	Unknown	Other	Specimen	Observation	Total
2015	0.01	0.00	0.00	0.00	0.01
2016	0.02	0.00	0.00	0.00	0.02
2017	0.03	0.00	0.01	0.00	0.04
2018	0.04	0.00	0.02	0.01	0.07
2019	0.05	0.00	0.03	0.02	0.10

# Массив данных Гербария МГУ



Get data Share Tools Inside GBIF

OCCURRENCE DATASET | REGISTERED NOVEMBER 2, 2017

## Moscow University Herbarium (MW)

Published by [Lomonosov Moscow State University](#)

✉ Alexey Seregin

DATASET PROJECT METRICS ACTIVITY DOWNLOAD HOME PAGE

974,295 OCCURRENCES 53 CITATIONS

Moscow University Herbarium (MW) is the second largest herbarium in Russia after the Komarov Institute. It is almost completely imaged at 300 dpi and available at <https://plant.depo.msu.ru/>. The herbarium is focused on the flora of temperate Eurasia with an emphasis on the flora of Russia. As of 1 August 2018, physical collections of MW Herbarium include 1,030,669 specimens (incl. 4.8K type specimens) representing 37,200 species and subspecies of vascular plants and 2,223 species and subspecies ... [More](#)

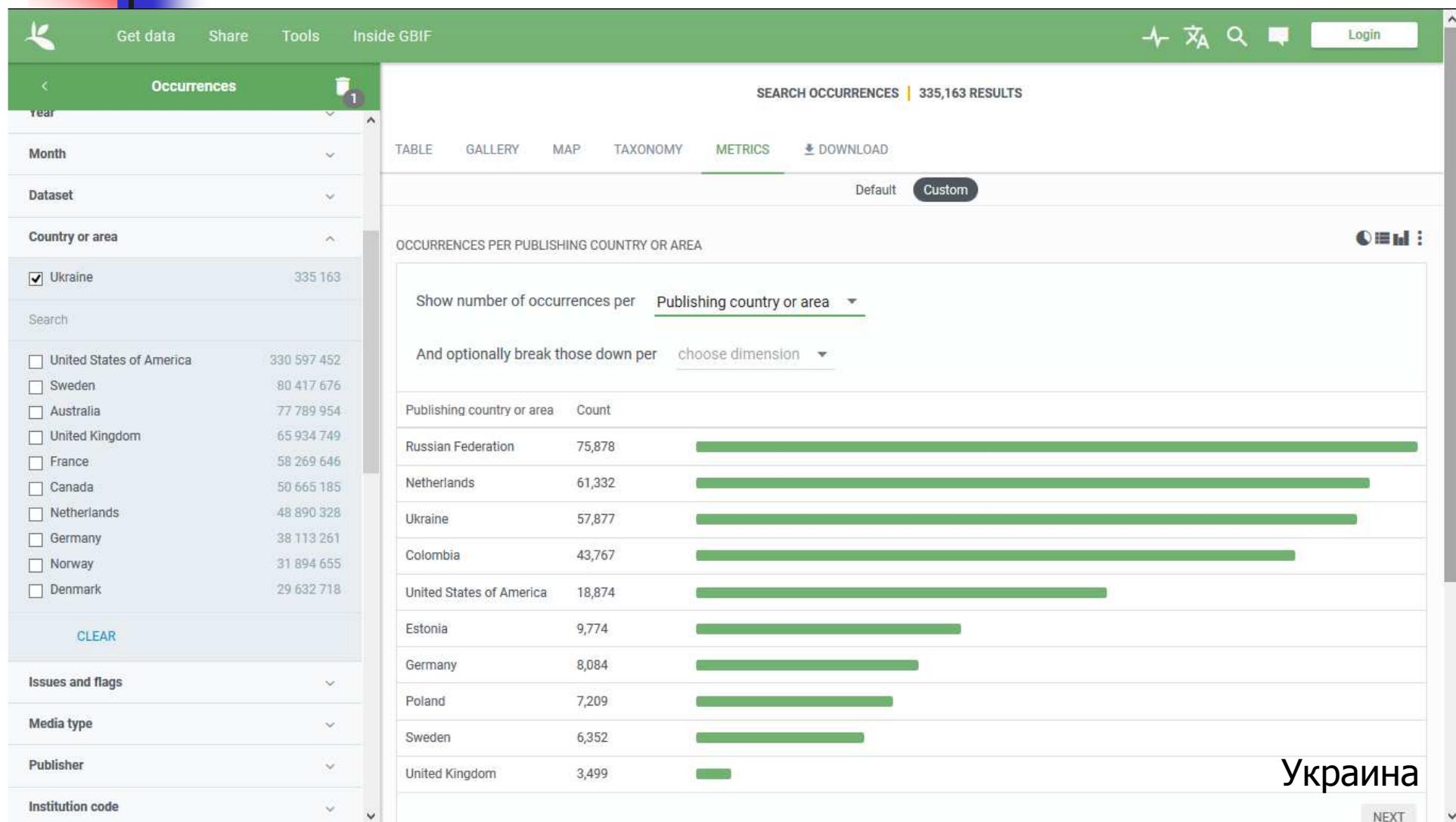
  
Project ID: 14-50-00029  
Metadata last modified: March 23, 2019  
Data last changed: March 23, 2019  
Hosted by: Lomonosov Moscow State University  
License: CC BY 4.0  
[How to cite](#) [DOI](#) 10.15468/cphcc

 974,295 Occurrences	 99.9% With taxon match	 37% With coordinates	 80% With year
---	--	--	---

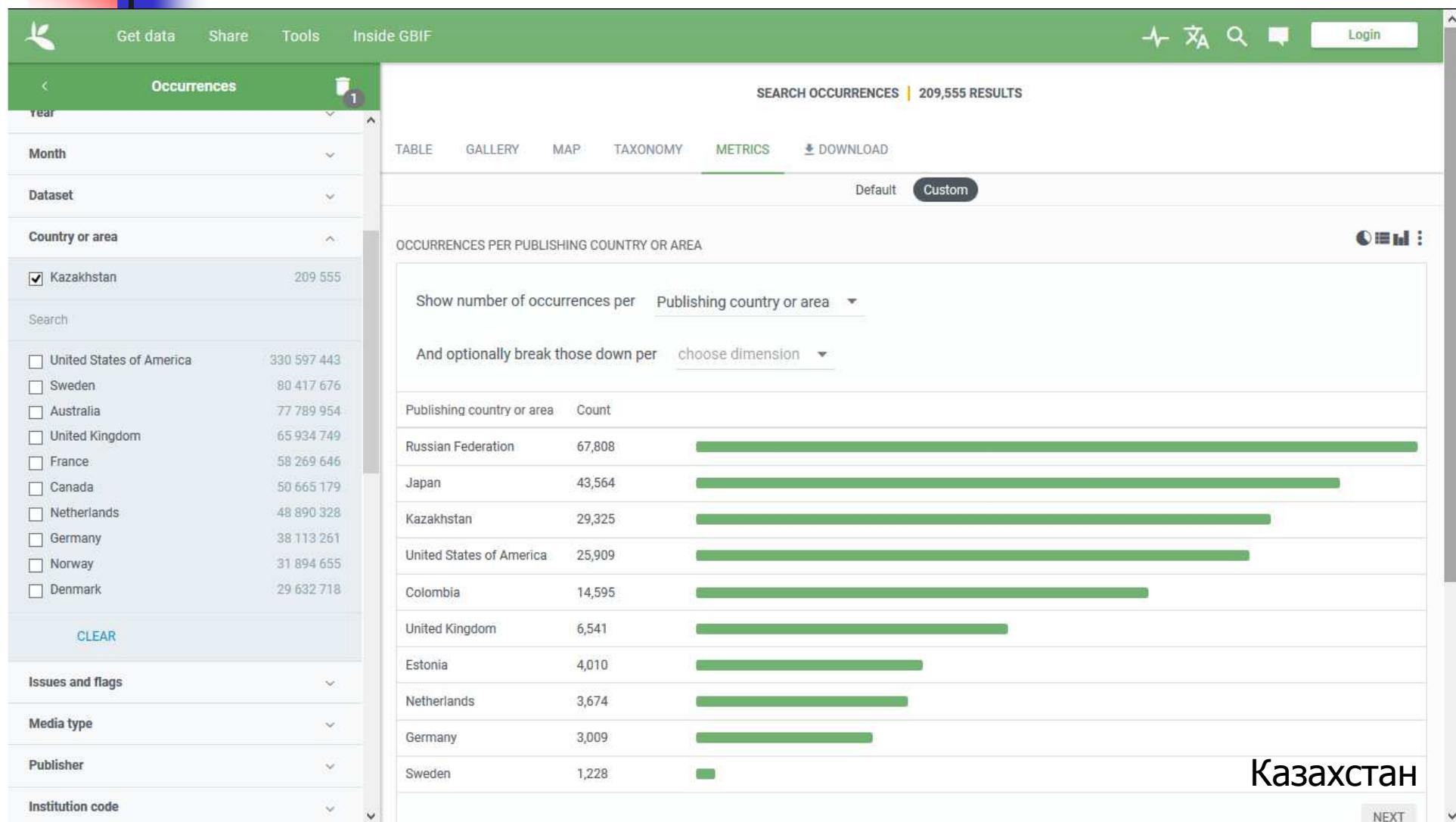
360,127 GEOREFERENCED RECORDS



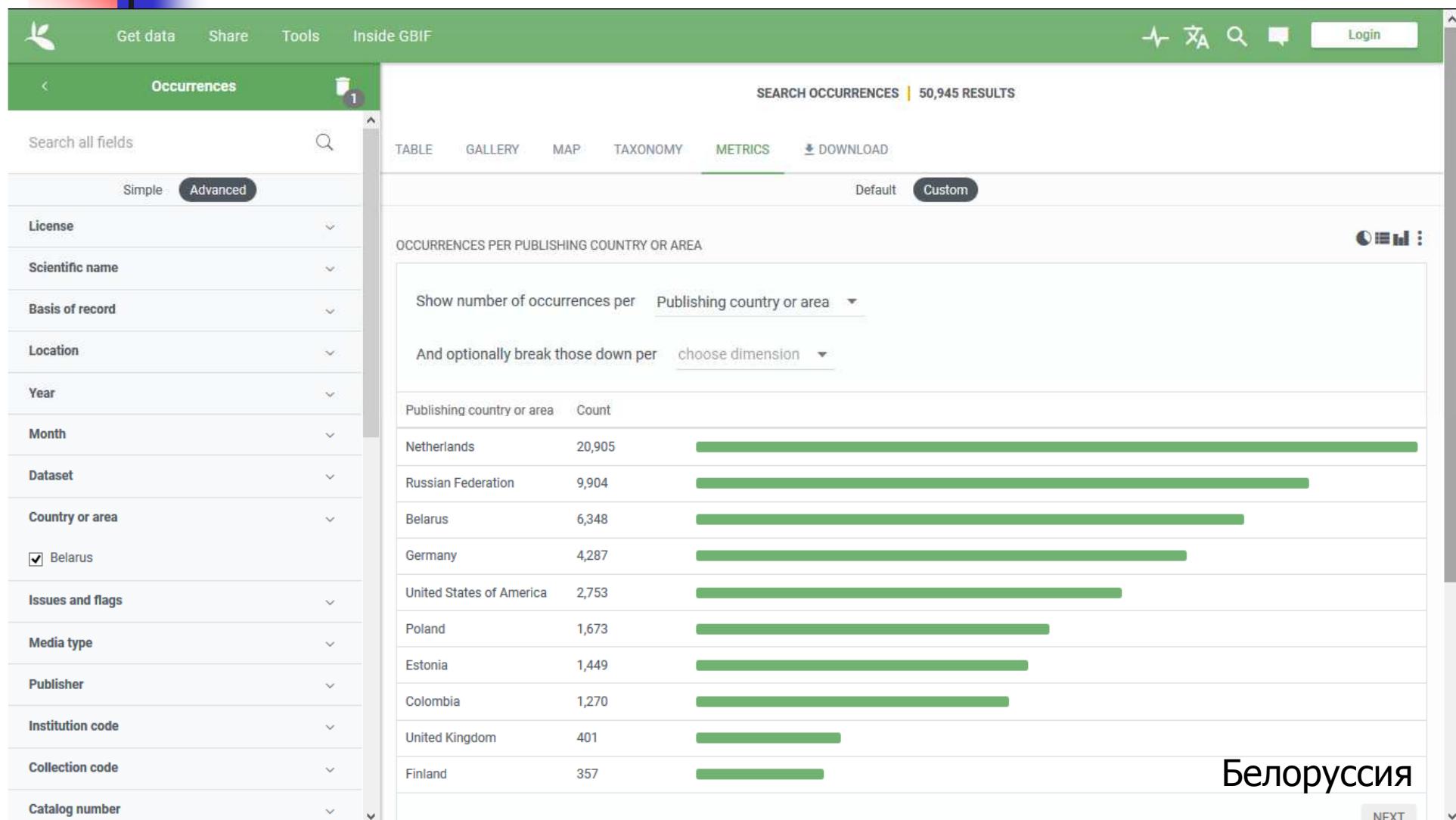
# Россия как игрок мирового рынка данных: примеры



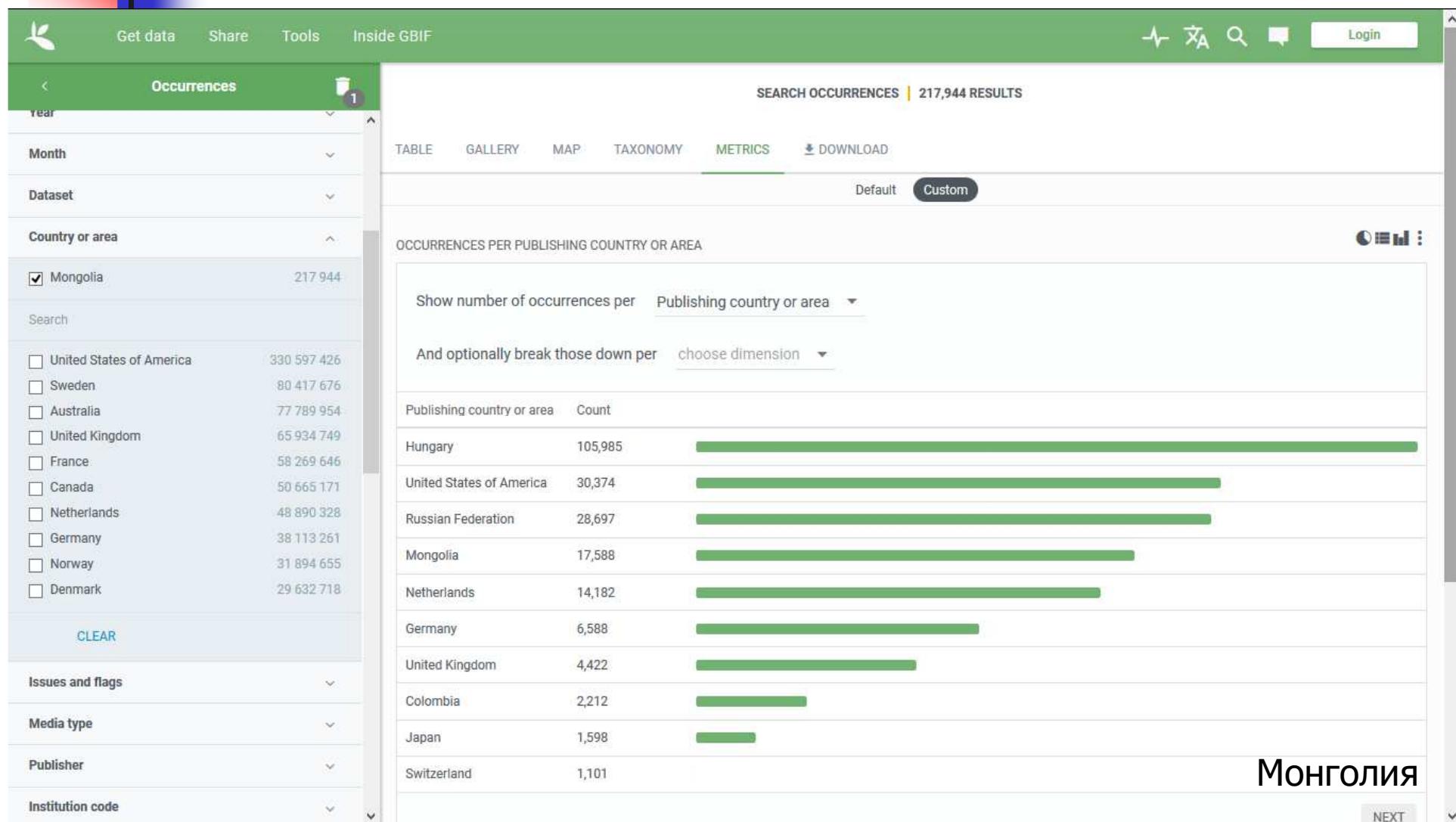
# Россия как игрок мирового рынка данных: примеры



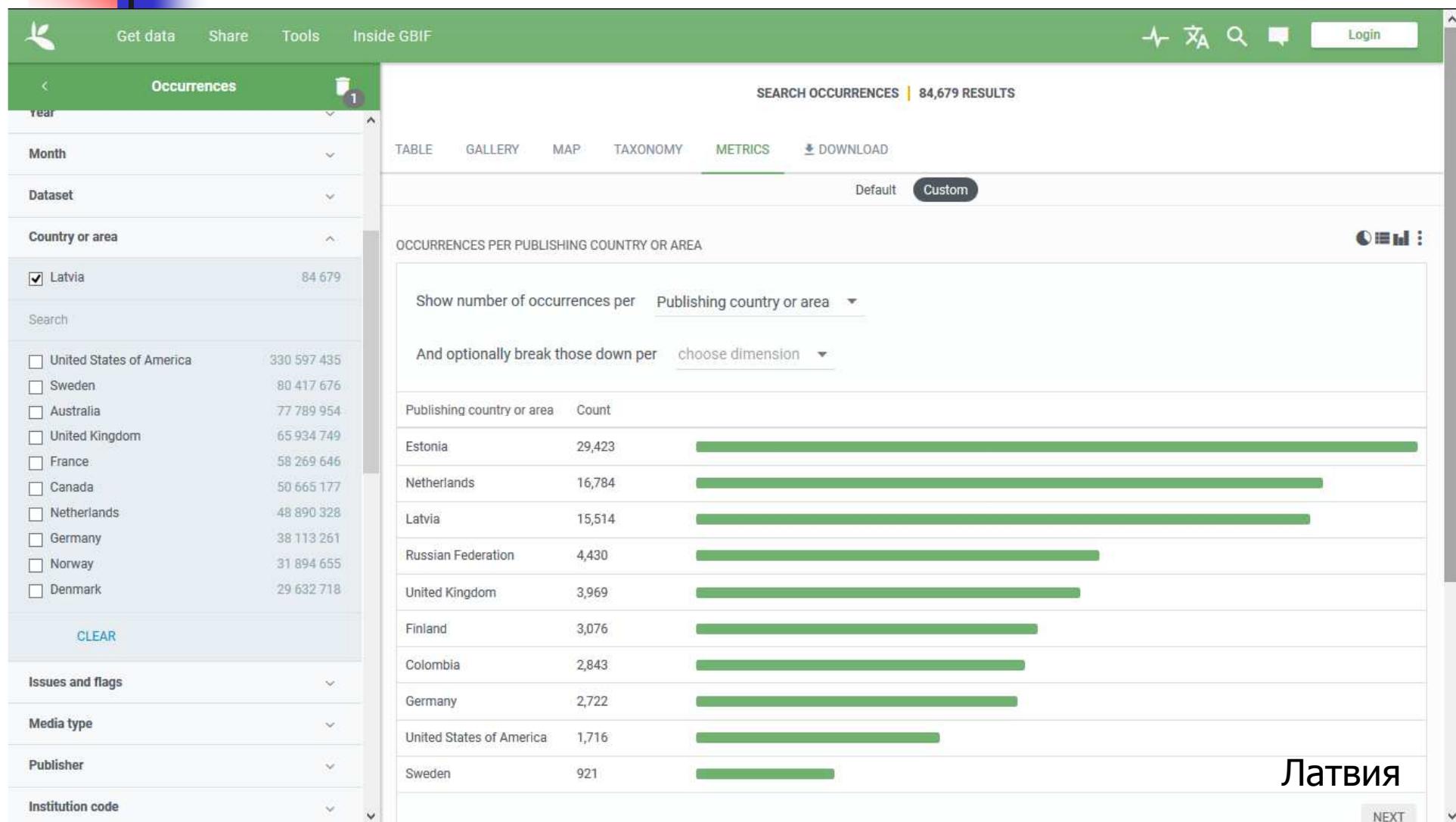
# Россия как игрок мирового рынка данных: примеры

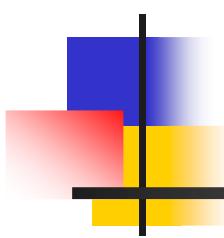


# Россия как игрок мирового рынка данных: примеры



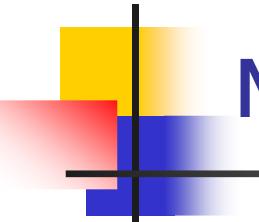
# Россия как игрок мирового рынка данных: примеры





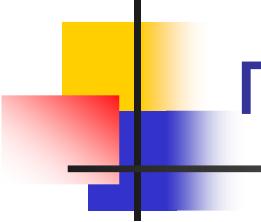
Для чего?

3. Для академической  
репутации



# Гербарий МГУ: 12-е место в мире по числу образцов в БД

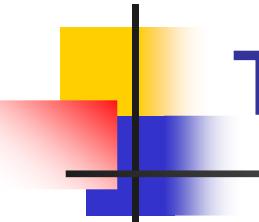
■ The vascular plants collection (P) at the Herbarium of the Moscow State University (MW)	5,415,703
■ MEL AVH data	5,071,904
■ Naturalis Biodiversity Center (NL) - Botany	4,813,851
■ Tropicos Specimen Data	4,439,508
■ The New York Botanical Garden Herbarium (NY)	3,153,534
■ NMNH Extant Specimen Records	2,404,483
■ Consortium of California Herbaria	2,320,628
■ Meise Botanic Garden Herbarium (BR)	1,256,602
■ PRECIS	1,117,942
■ Phanerogamic Botanical Collections (S)	1,018,284
■ Harvard University Herbaria: All Records	1,002,985
<b>■ Moscow University Herbarium (MW)</b>	<b>974,292</b>
■ EURISCO, The European Genetic Resources Search Cat...	956,422
■ Royal Botanic Gardens, Kew - Herbarium Specimens	921,988
■ Lund Botanical Museum (LD)	894,327
■ Royal Botanic Garden Edinburgh Herbarium (E)	866,672
■ Vascular Plant Herbarium, Oslo (O)	865,134
■ CSIC-Real Jardín Botánico-Colección de Plantas Vas...	760,400
■ RB - Rio de Janeiro Botanical Garden Herbarium Col...	720,447

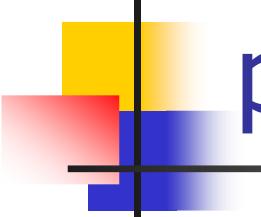


# Гербарий МГУ: 13-е место в мире по образцам с геопривязками

■ MEL AVH data	4,666,460
■ Tropicos Specimen Data	2,932,888
■ Consortium of California Herbaria	1,777,012
■ The New York Botanical Garden Herbarium (NY)	976,525
■ Naturalis Biodiversity Center (NL) - Botany	957,126
■ PRECIS	895,845
■ Lund Botanical Museum (LD)	854,201
■ Vascular Plant Herbarium, Oslo (O)	595,852
■ Field Museum of Natural History (Botany) Seed Pla...	546,357
■ BRI AVH data	499,760
■ NMNH Extant Specimen Records	437,428
■ Finnish Floristic Database (Finnish Museum of Natu...	394,797
■ <b>Moscow University Herbarium (MW)</b>	<b>360,918</b>
■ Plantae of Costa Rica (INBio)	351,417
■ OEH Atlas of NSW Wildlife	328,784
■ Natural History Museum (London) Collection Specime...	328,034
■ Vascular plant specimens of National Museum of Nat...	308,424
■ The vascular plants collection (P) at the Herbariu...	288,151
■ CSIC-Real Jardín Botánico-Colección de Plantas Vas...	276,179

# МГУ – лидер по данным для территории России

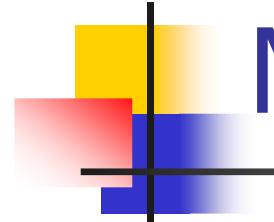
- 
- **Moscow University Herbarium (MW)** **617,690**
  - Geographically tagged INSDC sequences 194,603
  - **A grid-based database on vascular plant distrib...** **123,054**
  - EBCC Atlas of European Breeding Birds 80,923
  - EOD - eBird Observation Dataset 70,948
  - A global database for the distributions of crop wi... 69,255
  - iNaturalist Research-grade Observations 64,620
  - Arctic Ocean Diversity 62,945
  - Birds of Northern Eurasia 62,749
  - Paleobiology Database 60,192
  - EURISCO, The European Genetic Resources Search Cat... 53,495
  - Estonian University of Life Sciences 51,719
  - CRIS data set 44,862
  - **Birds and Mammals Collections of the Zoological...** **40,189**
  - Phytoplankton from the White Sea, Barents Sea, Nor... 37,325
  - Amphibians of the Former USSR 32,561
  - **A grid-based database on vascular plant distribu...** **31,669**
  - Natural History Museum, University of Tartu 31,519
  - MICROBIS database 29,841



# МГУ – лидер по данным среди российских организаций

■ <b>Moscow University Herbarium (MW)</b>	<b>974,295</b>
■ <b>A grid-based database on vascular plant distributi...</b>	<b>123,054</b>
■ EOD - eBird Observation Dataset	70,948
■ Birds of Northern Eurasia	65,917
■ <b>Birds and Mammals Collections of the Zoological Mu...</b>	<b>54,120</b>
■ CRIS data set	54,054
■ Amphibians of the Former USSR	52,474
■ Raptors of the World	36,928
■ <b>A grid-based database on vascular plant distributi...</b>	<b>31,669</b>
■ Phenological observations of biota on the territor...	24,358
■ <b>A grid-based database on vascular plant distributi...</b>	<b>22,625</b>
■ Flora of the Volga River basin	20,389
■ The Myxomycetes Collection at the V. L. Komarov Bo...	12,828
■ <b>Vascular plants of the Amur River Basin, Russia: s...</b>	<b>12,371</b>
■ Fungal records database of Khanty-Mansi Autonomous...	11,779
■ Occurrences of the invasive plant species Heracleu...	10,894
■ Ophiuroidea collections of the Zoological Institut...	8,693
■ <b>ZMMU MSU, White Sea Branch</b>	<b>8,111</b>
■ Occurrence Data of Vascular Plants from Abandoned ...	8,077

# Право ещё одного голоса на МБК-2017 (КНР)



Цифровой гербарий МГУ - Moscow Digital Herbarium

22 янв 2017

МГУ получил право еще одного голоса на Номенклатурной секции Международного ботанического конгресса 2017 года

Раз в шесть лет проходит Международный ботанический конгресс, который предваряется заседанием Номенклатурной секции. На ней ведущие систематики растений мира договариваются об изменениях в "Международный кодекс" ботанической номенклатуры.

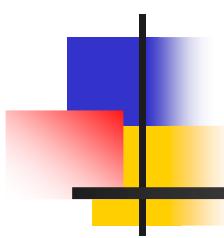
Интересно, что голоса закреплены не за странами, не за людьми и не за организациями, а за Гербариями. Право голоса имеют 542 гербария - как правило, по одному голосу. За большими и активными гербариями закреплено от 2 до 7 голосов.

В конце 2016 г. 11 из 542 гербариев получили еще по одному дополнительному мандату. Историческим решением Комитета (Special Committee on Institutional Votes) Гербарий Московского университета (MW) получил право третьего голоса в пакетном голосовании на Номенклатурной секции Конгресса, который пройдет в 2017 г. в Китае. Это стало результатом большой работы в области систематики растений и прогресса в развитии цифровых технологий за последние шесть лет. Если Гербарий реализует право трех голосов путем делегирования сотрудника, то последнему во время голосования будет дан 4-й (личный) мандат. Если голоса будут переданы другому участнику, то их будет реализовано три.



Написать комментарий...

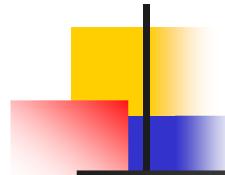




Для чего?

4. Для активизации  
сотрудничества

# Пример запроса материала для изучения ДНК



Ophioglossaceae specimens at MW Входящие x



DU PASQUIER Pierre-Emmanuel <pierre-emmanuel.dupasquier@unine.ch>

чт, 14 февр., 17:46



кому: я, GRANT



английский



русский

Перевести сообщение

Отключить для языка: английский x

Dear Mr. Seregnin,

In the frame of my posdoctoral project concerning the phylogeny of the Ophioglossaceae family under the supervision of Jason Grant, I am preparing a representative DNA sampling of the taxonomy and geography of each taxon. I selected the following specimens (in the attached excel file) in your herbarium using the GBIF data or your virtual herbarium, and I would like to know if it would be possible to obtain a leave fragment of each individual for DNA extracting? It is not sure that I have seen photos of all specimen depending of their availability. If the state of the tissue don't seem correct to you for DNA extracting, could you replace the concerned specimen by an other one with a similar locality?



I thank you in advance for your kind collaboration.

Best regards,

Pierre-Emmanuel Du Pasquier  
Université de Neuchâtel - Faculté des sciences  
Rue Emile-Argand 11  
2000 Neuchâtel (Switzerland)

# Ещё пример запроса материала

Digitalization of Moscow State University Herbarium (MW) - *Carex oligantha* Steud.



Входящие x

✉ **Sebastian Gebauer** <sebastian.gebauer@botanik.uni-halle.de>

пт, 25 авг. 2017 г., 12:26



КОМУ: я, segebau ▼

🇬🇧 английский ▼

🇷🇺 русский ▼

[Перевести сообщение](#)

[Отключить для языка: английский x](#)

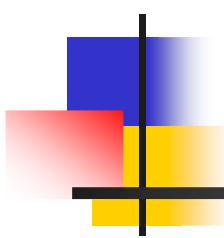
Dear Dr. Seregin,

few days ago I tried to write you via ResearchGate, so I try it again by mail! I still noticed the digitization project and its progress of the Moscow State University Herbarium (MW) and the database was already used for my own scientific work on taxonomy and phylogeny of *Carex* section Racemosae (formerly sect. Atratae) to get additional information on distribution of individual species, thus I would like to congratulate you for this important project of one of the most important Russian herbarium collections!

Although, several restriction such as impossible loan requests on Russian herbaria, I always found several colleagues or curators from Russia (LE) who helped with digital photos or provided small portions of generative material for morphological as well as molecular study. In your database, I also found a small amount of putative specimens of the Caucasian endemic species *Carex oligantha* Steud., which would be very important for my study on the sect. Racemosae. I've seen only two old duplicate specimens from Kabardino-Balkaria during a short visit at the National Herbarium in Tbilisi, Georgia (TBI) some years ago, which don't work for molecular analyses, because the DNA was already destroyed. During this visit, own field excursion in the Caucasus as well as literature studies, I found that this species is much rarer than expected, because frequently misidentified with similar high-elevation morphotypes of the Caucasian *Carex aterrima* subsp. *medwedewii* (Leskov) T.V. Egorova (see Gebauer et al. 2015). During my studies, it has been shown that the traditional taxonomy of the group (e.g., Egorova's subsectional treatment) is largely affected by homoplas as well as large morphological variation (polymorphy) among the individual species. In summary, my global sampling of sect. Racemosae, which is almost complete, lacking this important endemic species, which might be disjunctively closely related either to Southern Siberian-Mongolian species (e.g., *C. melanocephala*) by morphological assumptions or species from the same region with strong morphological divergence between them (e.g., *C. aterrima* subsp. *medwedewii*, *C. caucasica*). Otherwise, it might only represent a deviating regional morphotype of another species, or not, which needs to be clarified!

On your database the following accessions would be very interesting for me: MW0653489, MW0653490, MW0653491, MW0653496, and MW0653497. Would it be possible to provide leaf-samples (about 40 mg) and a small fraction of generative units (3–5 utricles and 2–3 female glumes) as well as a detailed photograph of the inflorescences of these herbarium specimens for morphological (proofing its correct determinations) and molecular studies, which could be send in a letter? This would help to clarify its phylogenetic position and questionable taxonomy, and I would be very grateful!

Yours sincerely, and all the very best!



Для чего?

5. Для привлечения  
финансирования

# Гранты фонда Руффорда



4784 PROJECTS IN 162 COUNTRIES

HOME PROJECTS ▾ ABOUT US ▾



## Alexey Seregin

### *Reassessment of the Areas with the Highest Concentration of Rare Plant Species in Vladimir Oblast, Russia*

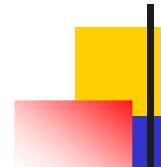
In 1999–2011, Dr. Seregin have performed grid mapping of vascular plant flora of Vladimir Oblast (Russia). This project used a grid with 339 squares (ca. 100 square km each). Nearly all grid squares were sampled once with an average recording rate 75%. “Flora of Vladimir Oblast: checklist and atlas” (Seregin et al. 2012) have summarized data on 1,371 native and alien species with ca. 118,000 occurrences on distribution maps. This is the first grid atlas published in Russia. In 2012–2013, 48 grid squares were sampled again, and distribution database contains now 123,054 records with 4,823 new records added after printing of “Flora”. We are going to focus further research on selective thorough search of expected rare species in suitable habitats.

We define a rare species as a native plant species known to occur from one to 20 grid squares. The aim of each day-trip is the recording of the highest possible number of species. It is assumed that in each square we will record at least 100 new species, including not less than 10 rare species. Thus, maps of individual rare species will be supplemented with ca. 300 previously unknown localities. Ca. 3,000 new records will contribute the database.

Town/Region	Vladimir
Country	Russian Federation
Continent	Asia
Categories	Plants
Date	20 Jan 2015



# Гранты фонда Руффорда



Alexey Seregin 16450-1 Входящие x



← Jane Raymond jane@rufford.org через qip.ru

16 окт. 2014 г., 15:44



кому: allium@hotbox.ru



английский



русский

Перевести сообщение

Отключить для языка: английский x

Dear Alexey

Whilst your application was being assessed the following points were raised

1. How were the grids chosen and how do you prioritise them if you don't manage to survey them all?
2. We would encourage you to find ways to publish the raw digital data so that it can contribute to the Global Biodiversity Information Facility. You might also consider how you might combine your results with other researchers interested in other types of organism to give a more community based conservation assessment.
3. If possible, critical and rare specimens should be collected for monitoring purposes and deposited in herbarium MW for further investigations and data implementation in GBIF.
4. We would also encourage the authors to translate their results and publish them in English.
5. We are concerned whether the fuel costs are sufficient as this is a critical component of the work. There is no information regarding matched funding for the vehicle itself.

I look forward to hearing from you shortly with your responses to the above

Best wishes

Jane

# Гранты GBIF



PROJECT | IN PROGRESS

## Supporting the regular georeferencing of European Russia holdings in the Moscow Digital Herbarium

1 Feb - 30 Sep 2019 € 7,000

ABOUT

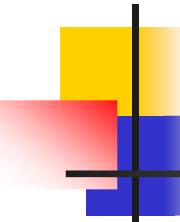
MOSCOW DIGITAL HERBARIUM



Scan of *Draba verna* (Крупка весенняя) from Russia deposited in the Moscow University Herbarium (MW0565477)

The Moscow Digital Herbarium is the largest biodiversity database in Russia and at present the largest Russian dataset published in GBIF, but only 31% of the records are georeferenced. The main objective of this project is to increase the amount of geodata associated with these records.

After compilation of the Moscow Ark management (2015 - 2018) that aimed to support the Moscow

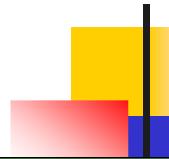


# Гранты РФФИ

КИАС РФФИ::данные проекта 19-54-53014



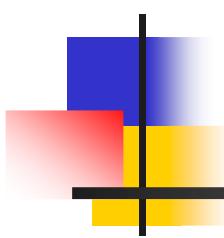
Степень реализации	не завершен
Номер проекта	19-54-53014
Ф. И. О. руководителя	Санданов Д.В.
Название проекта	Сравнительный анализ закономерностей разнообразия древесных и травянистых видов континентальной Азии
Аннотация заявки	<p>В свете прогнозируемых изменений климата и антропогенной трансформации растительного покрова планеты на первый план выходят вопросы динамики современных ареалов и аспекты сохранения разнообразия растений. Традиционно, изучение закономерностей распределения видового богатства растений проводилось в мировом масштабе или на территориях с богатой флорой, тогда как регионы Азии все еще остаются недостаточно изученными. Несмотря на хорошую изученность фиторазнообразия в мировом масштабе, в предыдущих исследованиях не рассматривались закономерности разнообразия древесных и травянистых видов в сравнительном плане. В рамках проекта будет проведено обобщение литературных и оригинальных данных по распространению высших семенных растений в континентальной Азии (Азиатская Россия, страны Средней Азии, Монголия, Китай) и выявлены характерные особенности пространственного распределения древесных и травянистых видов. Вся имеющаяся и наработанная информация будет собрана в единую базу данных. Будут определены ключевые факторы, определяющие границы и конфигурацию ареалов растений различных биоморф, также выявлен отклик каждой группы растений на современные климатические условия, динамику климата в прошлом и связаны с эволюционной историей изучаемых видов. Планируемые исследования будут согласованы с анализом филогенетического разнообразия, что позволит выявить основные центры происхождения для различных групп растений и особенности их распространения на пространственно-временной шкале. Результаты исследований в дальнейшем могут быть использованы в качестве основы для прогнозирования направлений климатогенной динамики экосистем континентальной Азии.</p>



# Гранты РФФИ

[!\[\]\(95d23a68ad41753744855d77d6121a6c\_img.jpg\)](#) [Get data](#) [Share](#) [Tools](#) [Inside GBIF](#) [!\[\]\(a53f4ad9a45601218945292b68659ed5\_img.jpg\)](#) [!\[\]\(6c8a1a48b8e00c681d4be42fcaf1028c\_img.jpg\)](#) [!\[\]\(72e2bb131980517e0b795cd4faa4dbad\_img.jpg\)](#) [!\[\]\(cc3124137b87a068dd067aa0e3757f98\_img.jpg\)](#) [Login](#)

DATASET	PROJECT	METRICS	ACTIVITY	DOWNLOAD	HOME PAGE	974,295 OCCURRENCES	53 CITATIONS
Description	The Moscow University Herbarium has gained budget for the digitisation of collections within the Program of the National Depository Bank of Live Systems (Moscow Digital Herbarium Initiative), and ca. 911,000 specimens (89%) were scanned since May 2015. All records are published at <a href="https://plant.depo.msu.ru/">https://plant.depo.msu.ru/</a> , including JPG images and metadata required for indexing.						
Purpose							
Temporal scope							
Geographic scope	The number of georeferenced specimens with fully captured labels is constantly growing. As of September 2018, labels of 120,635 specimens are fully captured and entered to the database and 277,994 specimens are georeferenced. Collector's name and collection date were added for 83% specimens in July 2018.						
Taxonomic scope							
Methodology							
Additional info	54,204 occurrences were georeferenced by September 2018 by the support of FinBIF project 'Supporting data mobilization activities in Russia west of Ural mountains' (Russia-02, see details at <a href="https://www.gbif.org/project/1r7RSp5iLqqKYssg88WIW2/gbifru-data-mobilization-activities#about">https://www.gbif.org/project/1r7RSp5iLqqKYssg88WIW2/gbifru-data-mobilization-activities#about</a> ).						
Bibliography							
Contacts							
Data description	4,939 occurrences were georeferenced in March 2019 by the support of RFBR project 'Sravnitel'nyj analiz zakonomernostej raznoobraziya drevesnyh i travyanistyh vidov kontinental'noj Azii' (# 19-54-53014).						
GBIF registration							
Citation	5,513 occurrences were georeferenced by March 2019 by the support of FinBIF project 'Supporting the regular georeferencing of European Russia holdings in the Moscow Digital Herbarium' (Russia2019_14, see details at <a href="https://www.gbif.org/project/2dfnq4VJQxHVSoPZWYkiCb/supporting-the-regular-georeferencing-of-european-russia-holdings-in-the-moscow-digital-herbarium">https://www.gbif.org/project/2dfnq4VJQxHVSoPZWYkiCb/supporting-the-regular-georeferencing-of-european-russia-holdings-in-the-moscow-digital-herbarium</a> ).						



Для чего?

6. Для чистки данных

# Функция “Issues and flags”

Get data Share Tools Inside GBIF

Dataset Project Metrics Activity DOWNLOAD HOME PAGE

974,295 OCCURRENCES 53 CITATIONS

OCCURRENCES PER ISSUES AND FLAGS

Issues and flags	Count
Coordinate rounded	140,772
Country mismatch	34,033
Taxon match higherrank	31,379
Taxon match fuzzy	9,663
Recorded date invalid	1,232
Country coordinate mismatch	245
Country derived from coordinates	108
Elevation min/max swapped	13
Presumed swapped coordinate	9
Recorded date unlikely	2

NEXT

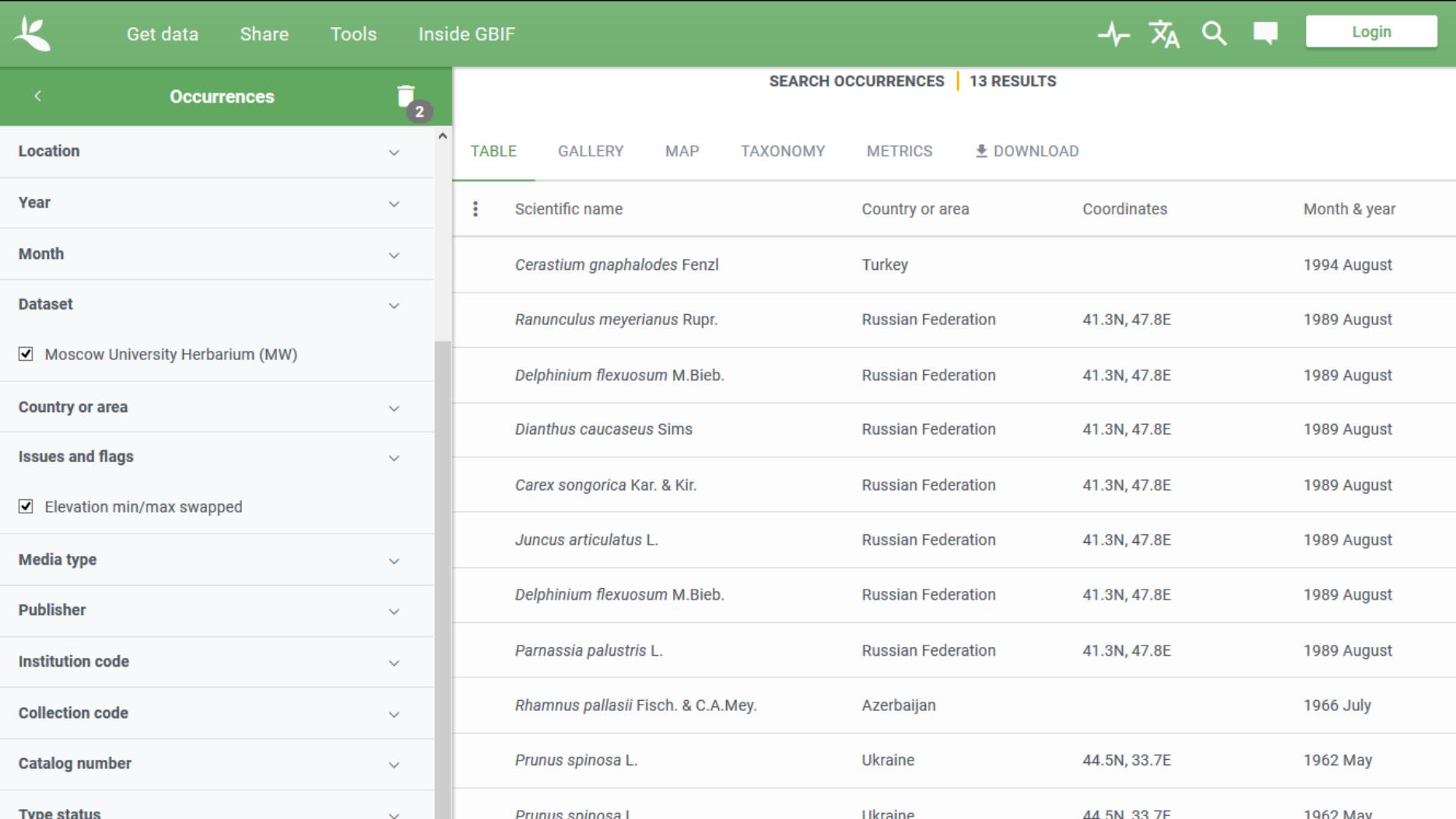
OCCURRENCES PER YEAR

Click and drag in the plot area to zoom in

Occurrences

199,357 other or unknown

# Функция “Issues and flags”: перепутаны высоты



The screenshot shows the GBIF Occurrences search results page. The top navigation bar includes links for 'Get data', 'Share', 'Tools', 'Inside GBIF', and a 'Login' button. The search results are titled 'SEARCH OCCURRENCES | 13 RESULTS'. The results are presented in a table with the following columns: Scientific name, Country or area, Coordinates, and Month & year. The table lists 13 occurrences, including species like *Cerastium gnaphalodes*, *Ranunculus meyerianus*, *Delphinium flexuosum*, *Dianthus caucaseus*, *Carex songorica*, *Juncus articulatus*, *Delphinium flexuosum*, *Parnassia palustris*, *Rhamnus pallasii*, *Prunus spinosa*, and *Prunus spinosa*. The results are filtered by 'Moscow University Herbarium (MW)' and 'Elevation min/max swapped'.

TABLE	GALLERY	MAP	TAXONOMY	METRICS	DOWNLOAD
⋮	Scientific name	Country or area	Coordinates	Month & year	
<i>Cerastium gnaphalodes</i> Fenzl		Turkey		1994 August	
<i>Ranunculus meyerianus</i> Rupr.		Russian Federation	41.3N, 47.8E	1989 August	
<i>Delphinium flexuosum</i> M.Bieb.		Russian Federation	41.3N, 47.8E	1989 August	
<i>Dianthus caucaseus</i> Sims		Russian Federation	41.3N, 47.8E	1989 August	
<i>Carex songorica</i> Kar. & Kir.		Russian Federation	41.3N, 47.8E	1989 August	
<i>Juncus articulatus</i> L.		Russian Federation	41.3N, 47.8E	1989 August	
<i>Delphinium flexuosum</i> M.Bieb.		Russian Federation	41.3N, 47.8E	1989 August	
<i>Parnassia palustris</i> L.		Russian Federation	41.3N, 47.8E	1989 August	
<i>Rhamnus pallasii</i> Fisch. & C.A.Mey.		Azerbaijan		1966 July	
<i>Prunus spinosa</i> L.		Ukraine	44.5N, 33.7E	1962 May	
<i>Prunus spinosa</i> L.		Ukraine	44.5N, 33.7E	1962 May	

# Жёлтая метка “Elevation min/max swapped”

Get data Share Tools Inside GBIF

OCCURRENCE | 4 AUGUST 1989 Synced 4 hours ago  
Modified 30 March 2018

## *Ranunculus meyerianus* Rupr.

Collected in Russian Federation

Plantae > Tracheophyta > Magnoliopsida > Ranunculales > Ranunculaceae > *Ranunculus*

**Species:** *Ranunculus meyerianus* Rupr.

**Location:** Russian Federation

**Elevation:** 2250m ±250m

**Basis of record:** Preserved specimen

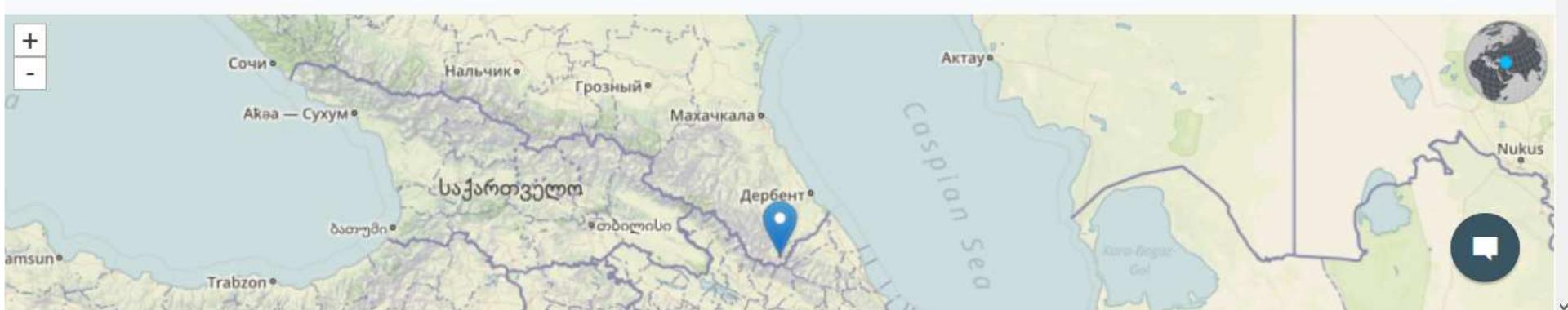
**Dataset:** Moscow University Herbarium (MW)

**Publisher:** Lomonosov Moscow State University

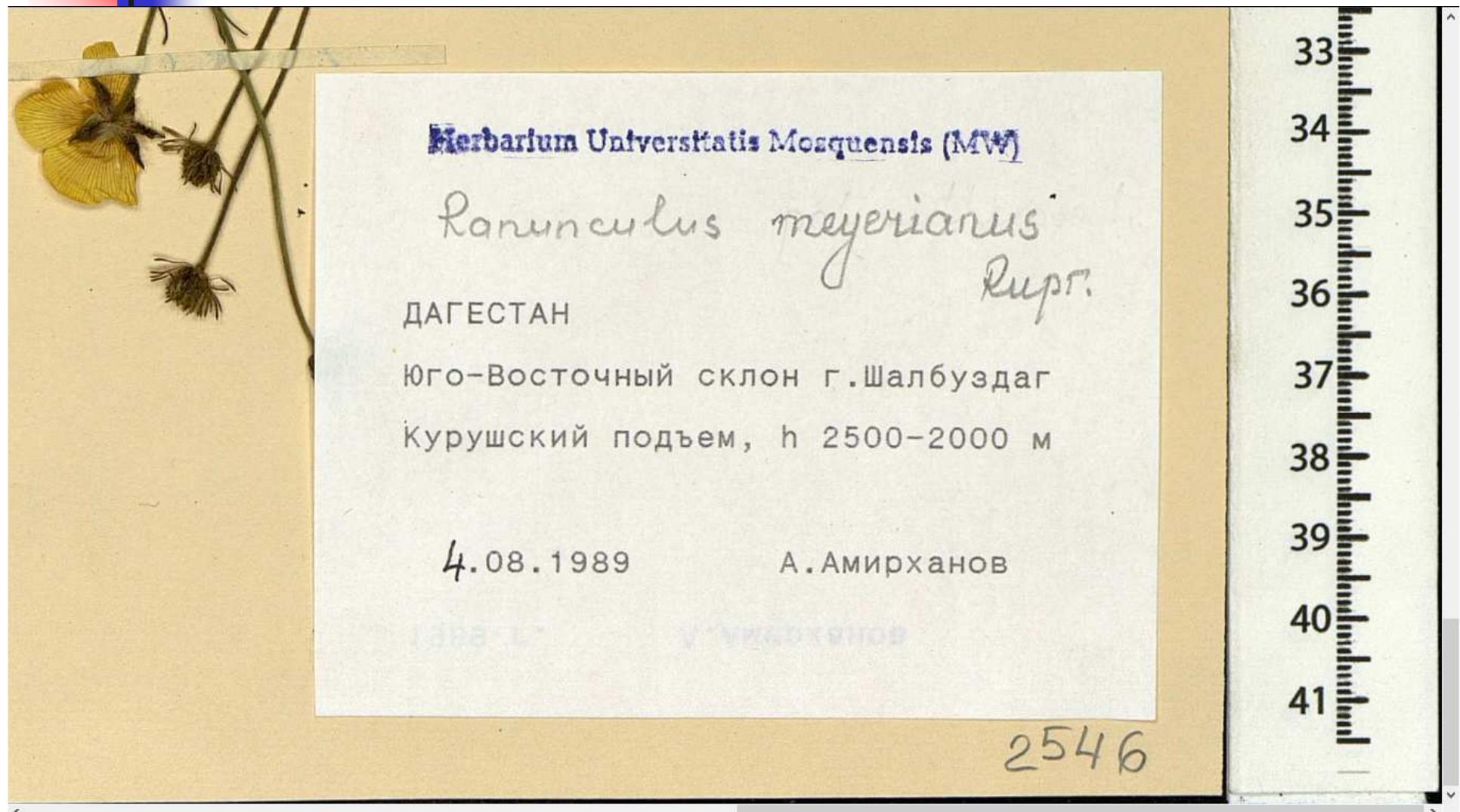
**Reference:** <https://plant.depo.msu.ru/open/public/item/MW06703...>

**Issues:** Elevation min/max swapped

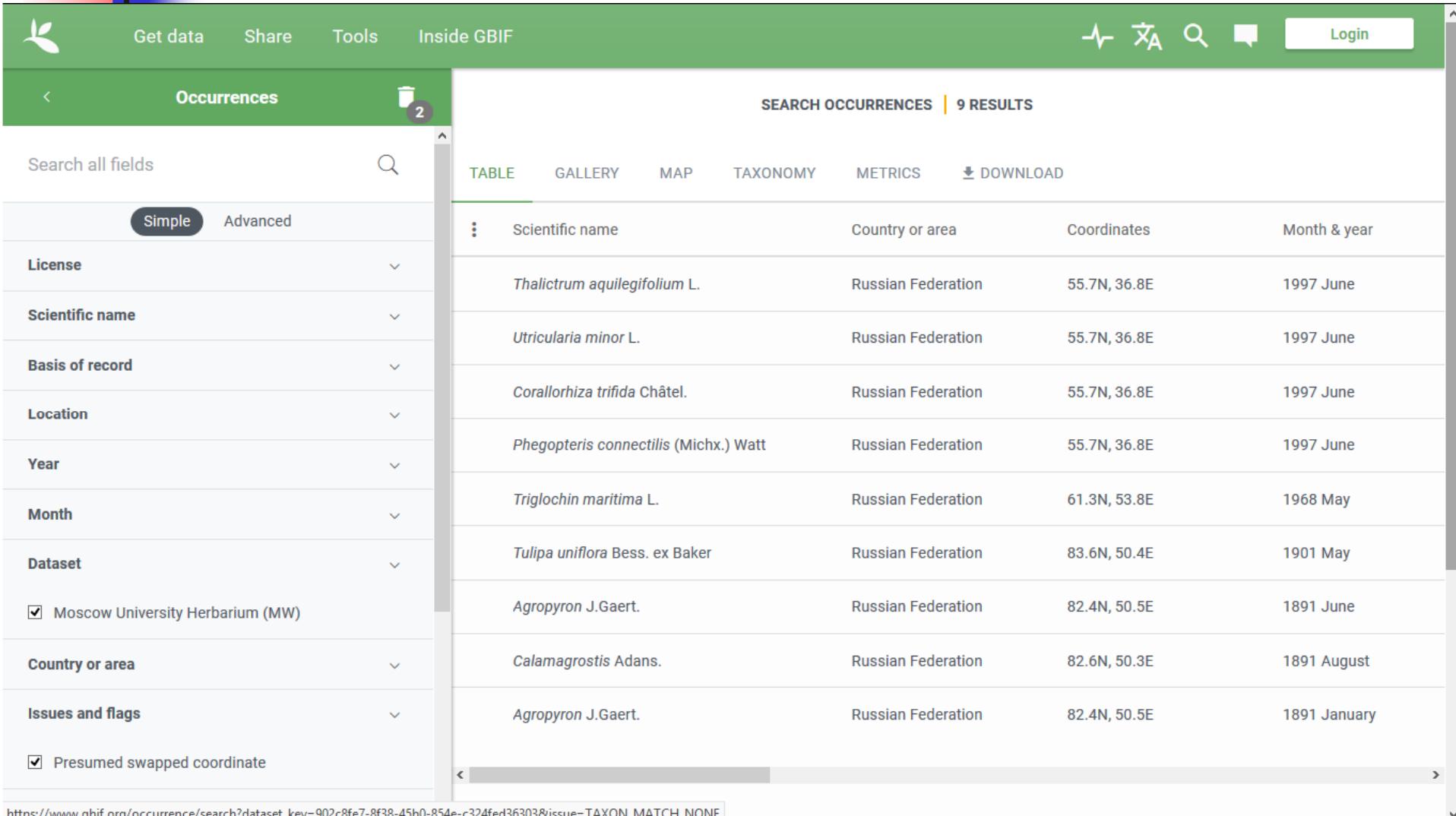
1



# Оригинальная этикетка как источник неточности



# Функция “Issues and flags”: перепутаны координаты



Get data Share Tools Inside GBIF

Occurrences 2

SEARCH OCCURRENCES | 9 RESULTS

TABLE GALLERY MAP TAXONOMY METRICS DOWNLOAD

Scientific name	Country or area	Coordinates	Month & year
<i>Thalictrum aquilegifolium</i> L.	Russian Federation	55.7N, 36.8E	1997 June
<i>Utricularia minor</i> L.	Russian Federation	55.7N, 36.8E	1997 June
<i>Corallorrhiza trifida</i> Châtel.	Russian Federation	55.7N, 36.8E	1997 June
<i>Phegopteris connectilis</i> (Michx.) Watt	Russian Federation	55.7N, 36.8E	1997 June
<i>Triglochin maritima</i> L.	Russian Federation	61.3N, 53.8E	1968 May
<i>Tulipa uniflora</i> Bess. ex Baker	Russian Federation	83.6N, 50.4E	1901 May
<i>Agropyron</i> J.Gaert.	Russian Federation	82.4N, 50.5E	1891 June
<i>Calamagrostis</i> Adans.	Russian Federation	82.6N, 50.3E	1891 August
<i>Agropyron</i> J.Gaert.	Russian Federation	82.4N, 50.5E	1891 January

Search all fields

Simple Advanced

License

Scientific name

Basis of record

Location

Year

Month

Dataset

Moscow University Herbarium (MW)

Country or area

Issues and flags

Presumed swapped coordinate

[https://www.gbif.org/occurrence/search?dataset\\_key=902c8fe7-8f38-45b0-854e-c324fed36303&issue=TAXON\\_MATCH\\_NONE](https://www.gbif.org/occurrence/search?dataset_key=902c8fe7-8f38-45b0-854e-c324fed36303&issue=TAXON_MATCH_NONE)

# Жёлтая метка “Presumed swapped coordinate”

Get data Share Tools Inside GBIF

OCCURRENCE | 24 JUNE 1997 Synced 4 hours ago  
Modified 20 March 2019

*Thalictrum aquilegifolium* L.

French meadow-rue In English Collected in Russian Federation

Plantae > Tracheophyta > Magnoliopsida > Ranunculales > Ranunculaceae > *Thalictrum*

Species: *Thalictrum aquilegifolium* L.

Location: Russian Federation

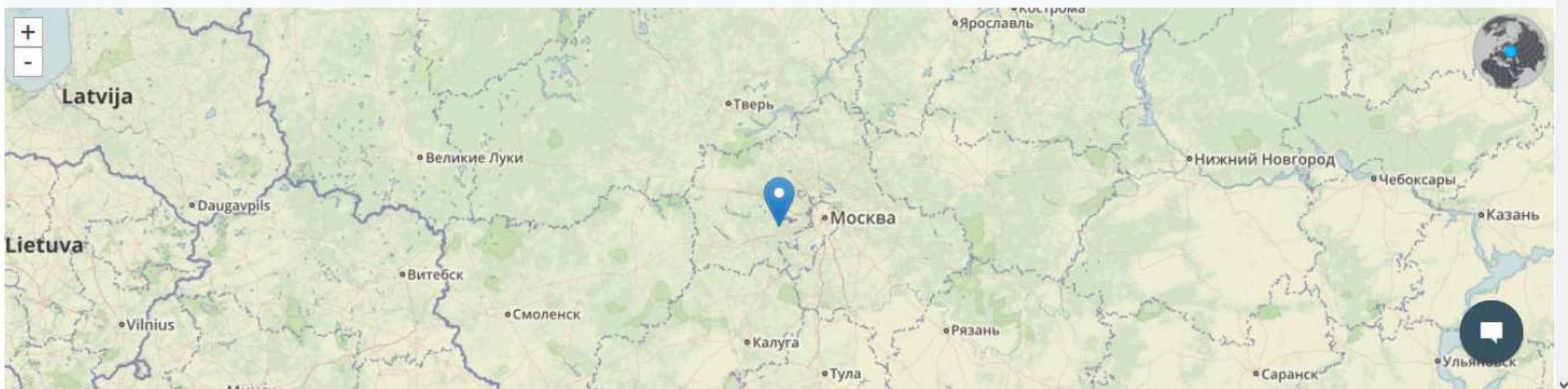
Basis of record: Preserved specimen

Dataset: Moscow University Herbarium (MW)

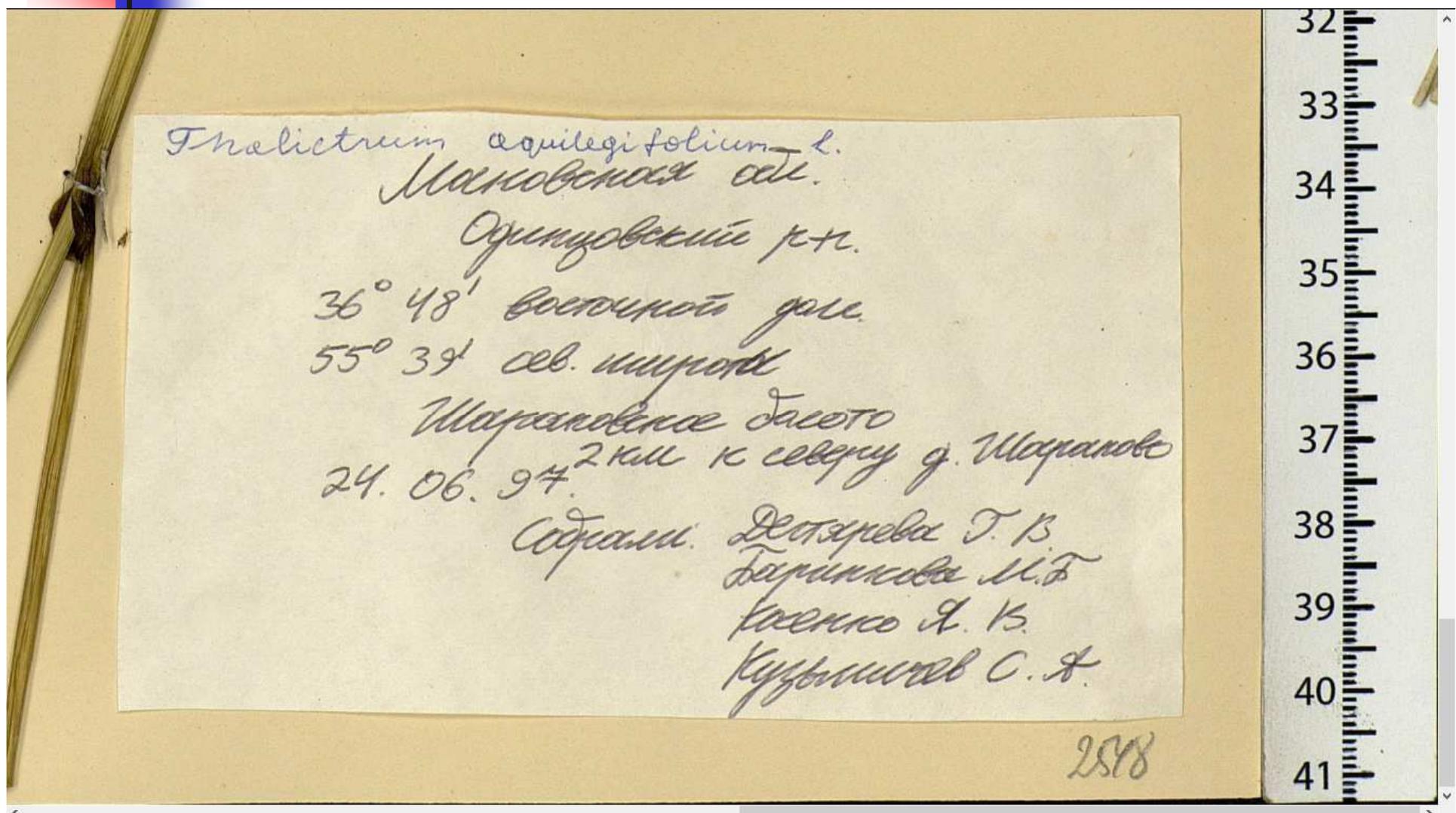
Publisher: Lomonosov Moscow State University

Reference: <https://plant.depo.msu.ru/open/public/item/MW03602...>

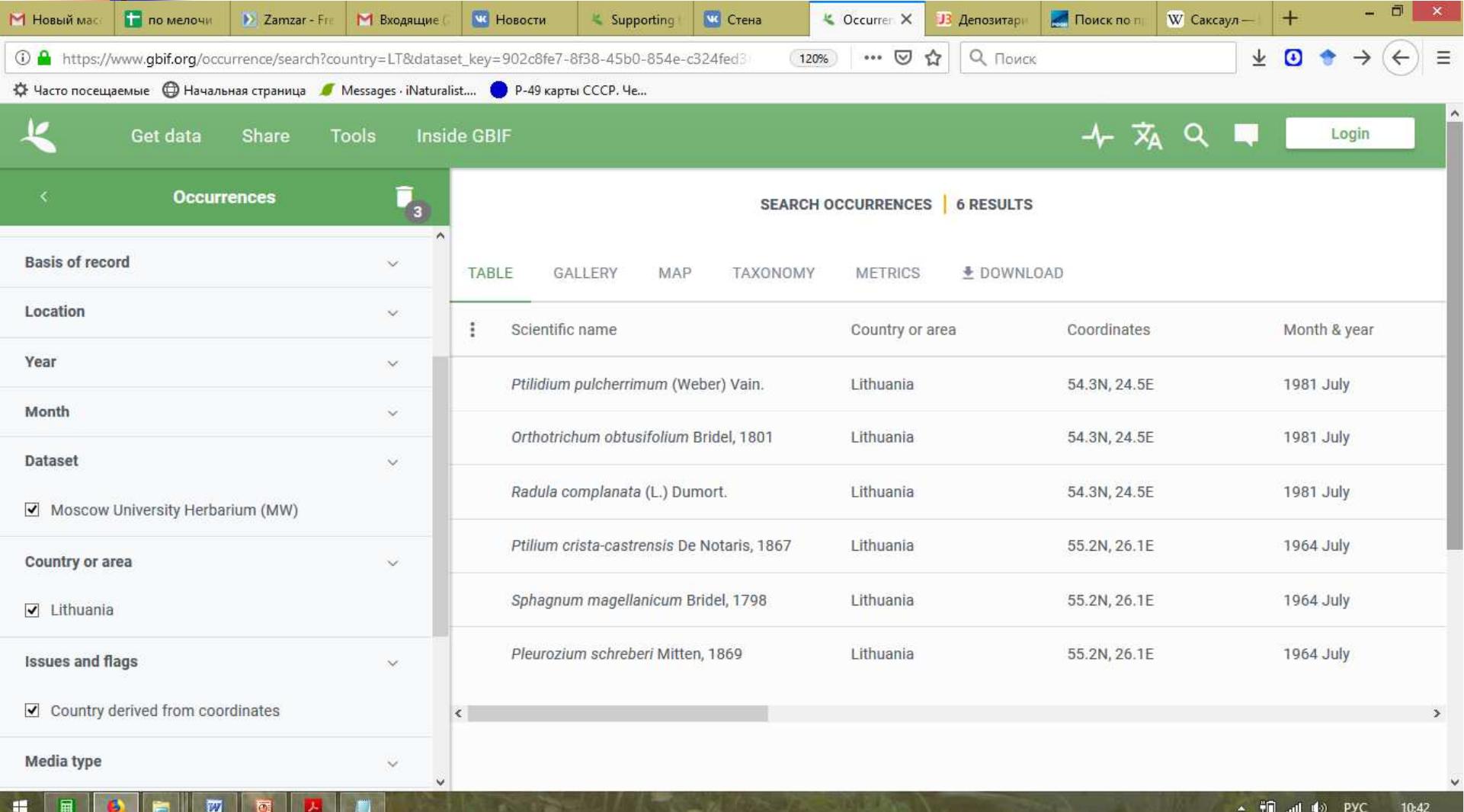
Issues: Presumed swapped coordinate



# Оригинальная этикетка как источник неточности



# Функция “Issues and flags”: координаты есть, но страна не указана



The screenshot shows the GBIF Occurrences search interface. The search results table displays 6 results for the scientific name *Ptilidium pulcherrimum* (Weber) Vain. All records are from Lithuania, with coordinates 54.3N, 24.5E, and dates in July 1981. The 'Country or area' column shows 'Lithuania' for all entries, and the 'Coordinates' column shows '54.3N, 24.5E'. The 'Issues and flags' column is present but contains no explicit country flags, only 'Country derived from coordinates' checkboxes.

Scientific name	Country or area	Coordinates	Month & year
<i>Ptilidium pulcherrimum</i> (Weber) Vain.	Lithuania	54.3N, 24.5E	1981 July
<i>Orthotrichum obtusifolium</i> Bridel, 1801	Lithuania	54.3N, 24.5E	1981 July
<i>Radula complanata</i> (L.) Dumort.	Lithuania	54.3N, 24.5E	1981 July
<i>Ptilium crista-castrensis</i> De Notaris, 1867	Lithuania	55.2N, 26.1E	1964 July
<i>Sphagnum magellanicum</i> Bridel, 1798	Lithuania	55.2N, 26.1E	1964 July
<i>Pleurozium schreberi</i> Mitten, 1869	Lithuania	55.2N, 26.1E	1964 July

# Жёлтая метка “Country derived from coordinates”

Get data Share Tools Inside GBIF

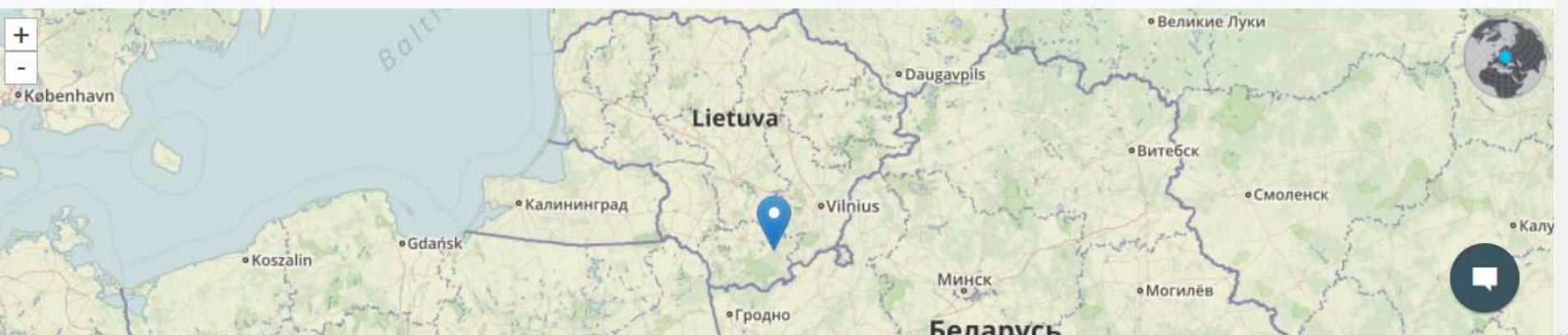
OCCURRENCE | 14 JULY 1981 Synced 4 hours ago  
Modified 18 March 2019

*Ptilidium pulcherrimum* (Weber) Vain.  
Collected in Lithuania

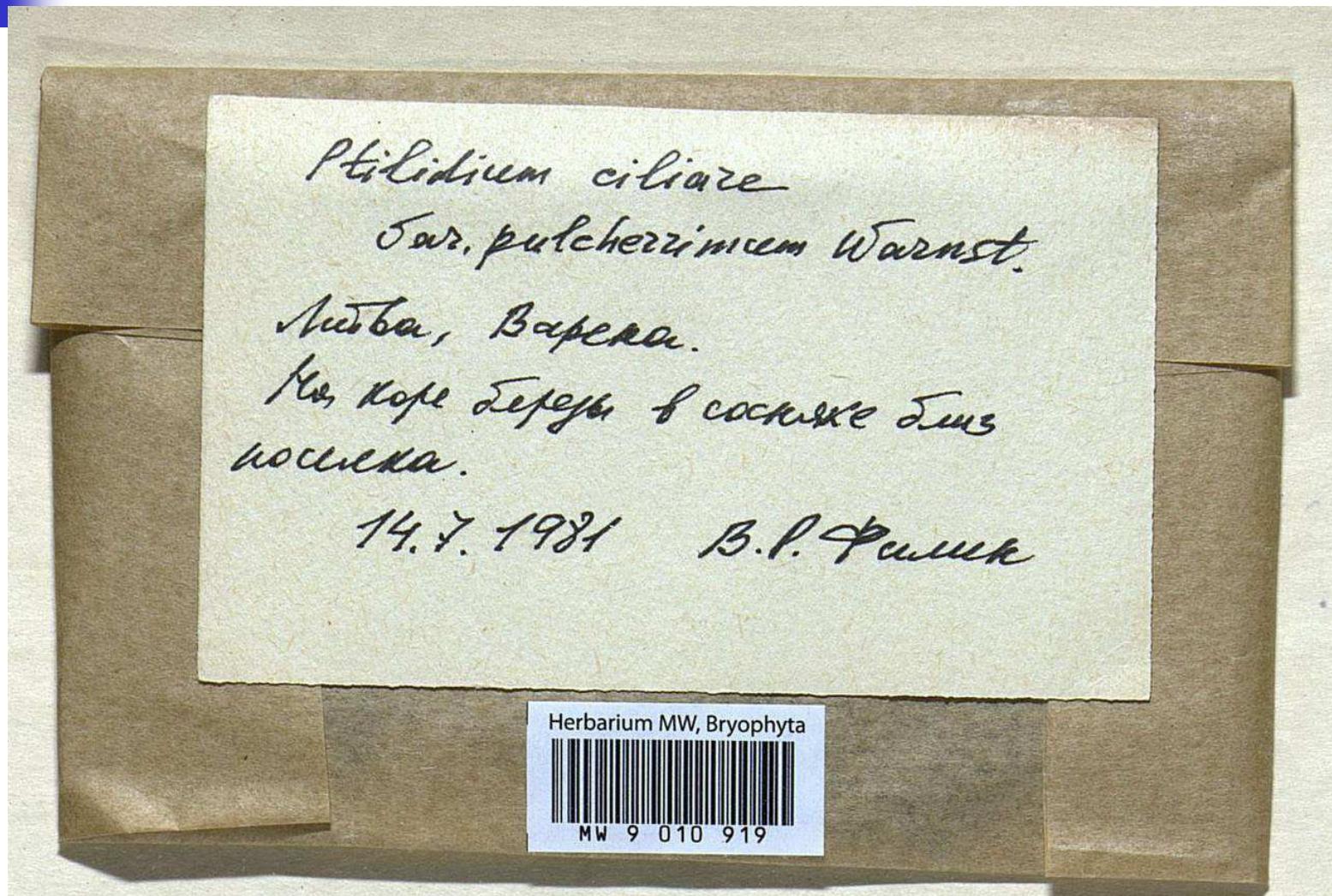
Plantae > Marchantiophyta > Jungermanniopsida > Ptilidiales > Ptilidiaceae > *Ptilidium*

Species: *Ptilidium pulcherrimum* (Weber) Vain.  
Location: Lithuania  
Basis of record: Preserved specimen

Dataset: Moscow University Herbarium (MW)  
Publisher: Lomonosov Moscow State University  
Reference: <https://plant.depo.msu.ru/open/public/item/MW90109...>  
Issues: Country derived from coordinates



# Оригинальная этикетка



# Причина: особенности системы автоматической геопривязки

М Новый мас... Т по мелочи Zamzar - Fri М Входящие С Supporting Стена Ј MW9010915 Ј Депозитарий Ј Депозит X W Саксаул... +

https://plant.depo.msu.ru/open/module/itempublic?d=P&openparams=[open-id%3D107412766] 110% ... Пойск

Часто посещаемые Начальная страница Messages · iNaturalist... Р-49 карты СССР. Че...

"НОВЫЙ КОВЧЕГ" Депозитарий живых систем [B] RU (Выйти)

Образец коллекции служба поддержки: +7 (495) 939-5945 support+depo@mitotech.ru

Ptilidium pulcherrimum [MW9010919]  
Открытая версия Цитировать для публикации Сообщить об ошибке

Общее Этикетка Место сбора Хранение Ссылки

Страна Не определено

Формат ввода координат Градусы / Минуты / Секунды

Широта 54° 16' 7.43844000"

Долгота 24° 32' 48.80508000"

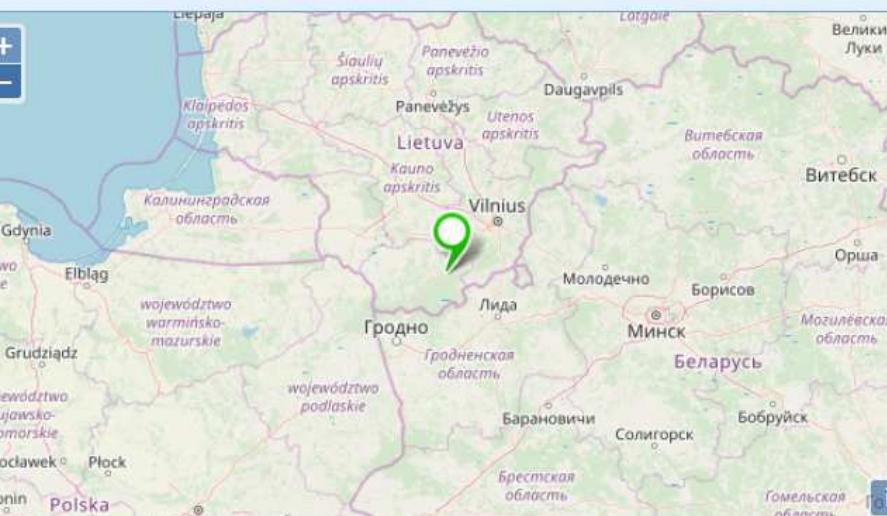
Точность (радиус, км)

Автоматическая привязка по совпадению даты и коллектора образца MW0205611

Оператор геопривязки ИСТРА: Интеллектуальная Система Топонимического I

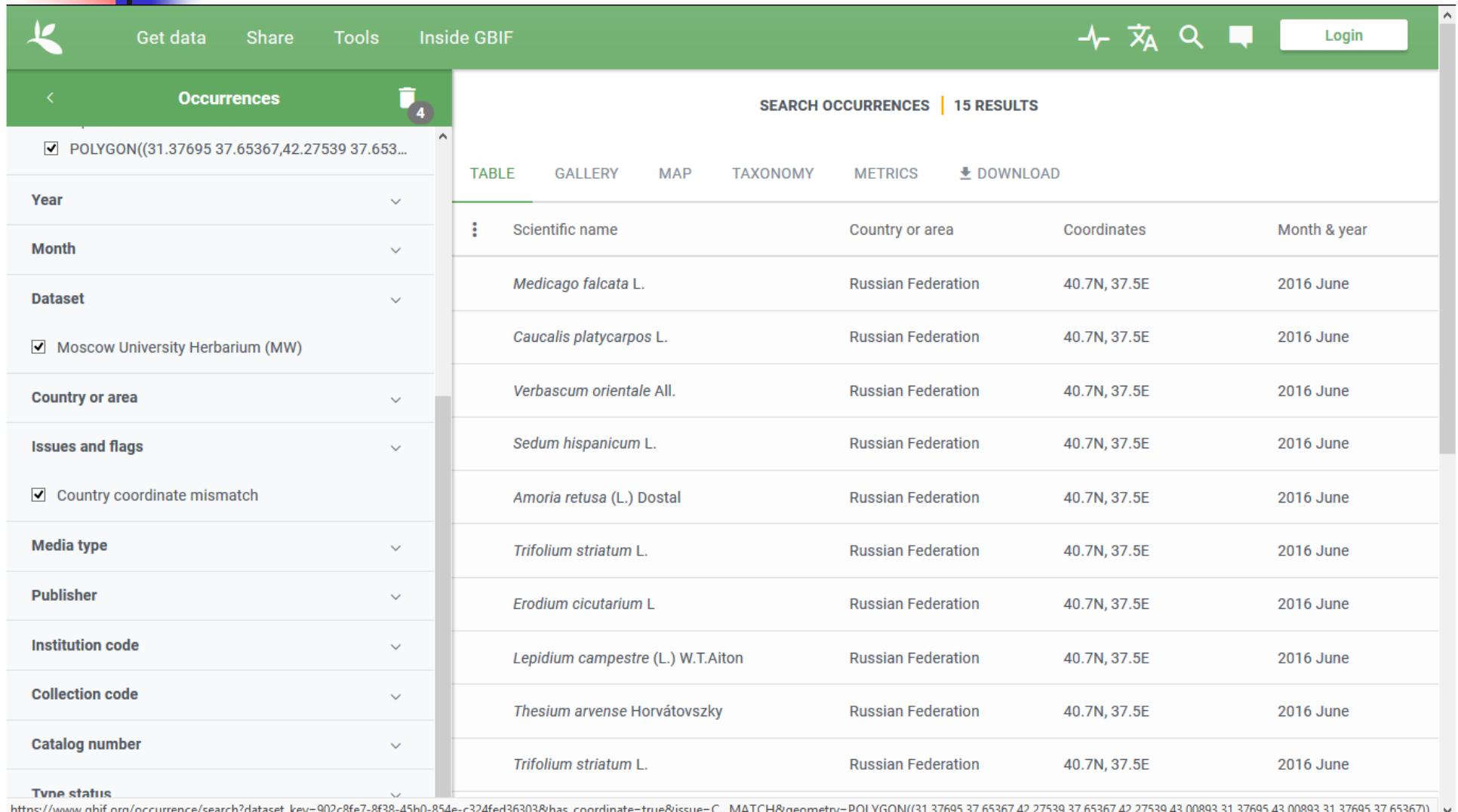
Дата ввода геопривязки

Обновить масштаб карты



Дата создания 28.12.2017 Ссылка на этот образец Открыть Количество посещений 3  
Этап сканирования 2017 (этап 3) Ссылка на скан образца Открыть Запись внес/проверил Серегин А. П.

# Функция “Issues and flags”: координаты есть, но не попадают в заявленную страну



The screenshot shows the GBIF Occurrences search interface. The left sidebar contains filters for Year, Month, Dataset, Country or area, Issues and flags, Media type, Publisher, Institution code, Collection code, Catalog number, and Type status. The 'Issues and flags' filter is expanded, showing a checked checkbox for 'Country coordinate mismatch'. The main search results table has columns for Scientific name, Country or area, Coordinates, and Month & year. There are 15 results listed, all from the Russian Federation at coordinates 40.7N, 37.5E, in June 2016. The results are: *Medicago falcata* L., *Caucalis platycarpos* L., *Verbascum orientale* All., *Sedum hispanicum* L., *Amoria retusa* (L.) Dostal, *Trifolium striatum* L., *Erodium cicutarium* L., *Lepidium campestre* (L.) W.T.Aiton, *Thesium arvense* Horvátovszky, and *Trifolium striatum* L.

Scientific name	Country or area	Coordinates	Month & year
<i>Medicago falcata</i> L.	Russian Federation	40.7N, 37.5E	2016 June
<i>Caucalis platycarpos</i> L.	Russian Federation	40.7N, 37.5E	2016 June
<i>Verbascum orientale</i> All.	Russian Federation	40.7N, 37.5E	2016 June
<i>Sedum hispanicum</i> L.	Russian Federation	40.7N, 37.5E	2016 June
<i>Amoria retusa</i> (L.) Dostal	Russian Federation	40.7N, 37.5E	2016 June
<i>Trifolium striatum</i> L.	Russian Federation	40.7N, 37.5E	2016 June
<i>Erodium cicutarium</i> L.	Russian Federation	40.7N, 37.5E	2016 June
<i>Lepidium campestre</i> (L.) W.T.Aiton	Russian Federation	40.7N, 37.5E	2016 June
<i>Thesium arvense</i> Horvátovszky	Russian Federation	40.7N, 37.5E	2016 June
<i>Trifolium striatum</i> L.	Russian Federation	40.7N, 37.5E	2016 June

# Жёлтая метка “Country coordinate mismatch”

Get data Share Tools Inside GBIF

OCCURRENCE | 1 JUNE 2016 Synced 4 hours ago  
Modified 28 August 2018

**Medicago falcata L.**

Lyutzerna Kleikaya In Russian Collected in Russian Federation

Plantae > Tracheophyta > Magnoliopsida > Fabales > Fabaceae > *Medicago*

**Species:** *Medicago falcata* L.

**Location:** Russian Federation

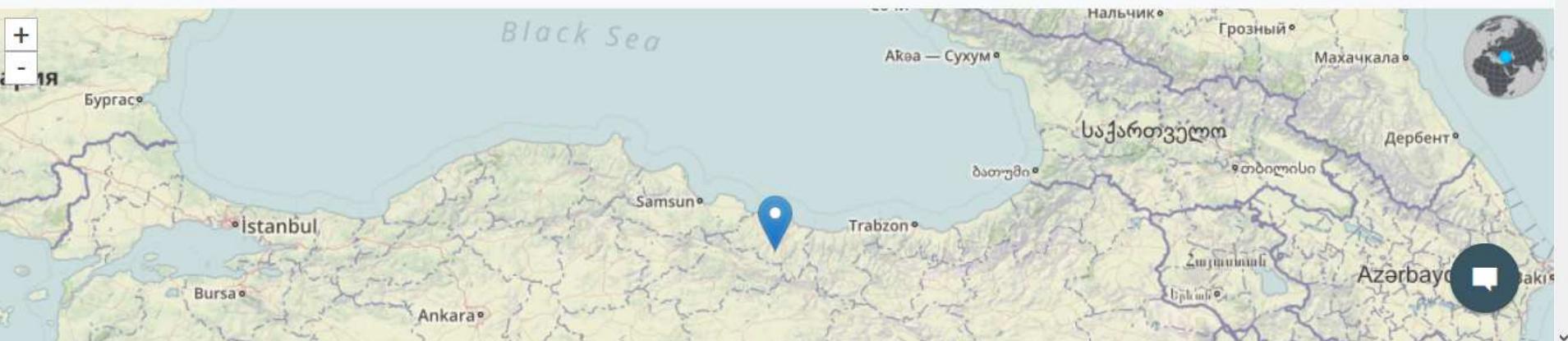
**Basis of record:** Preserved specimen

**Dataset:** Moscow University Herbarium (MW)

**Publisher:** Lomonosov Moscow State University

**Reference:** <https://plant.depo.msu.ru/open/public/item/MW10032...>

**Issues:** Country coordinate mismatch



# Оригинальная этикетка как источник ошибки

HERBARIUM UNIVERSITATIS MOSQUENSIS (MW)

Medicago falcata L.

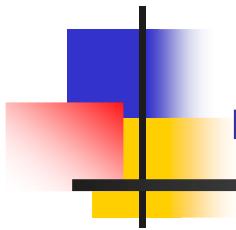
Краснодарский край, Новороссийский район,  
дорога от Абрау-Дюрсо на Малый Утриш

N: 40,41,606 ° E:37,30,140 °

Местообитание: Фисташково-можжевеловое  
редколесье

01.06.2016

Coll.: Эверетт МЧ  
Det.: \_\_\_\_\_



Для чего?

7. Чтобы иметь полноценную  
актуальную статистику

# Сводная таблица изменений в данных

GBIF MANAGEMENT TOOLS

GBIF

Dataset ingestion tools

**DATASET INGESTION HISTORY**

OVERINGESTED DATASETS

IPT SYNC STATE

INGESTION MONITOR

PIPELINES INGESTION MONITOR

**DATASET INGESTION HISTORY** **ABOUT**

Moscow University Herbarium (MW)

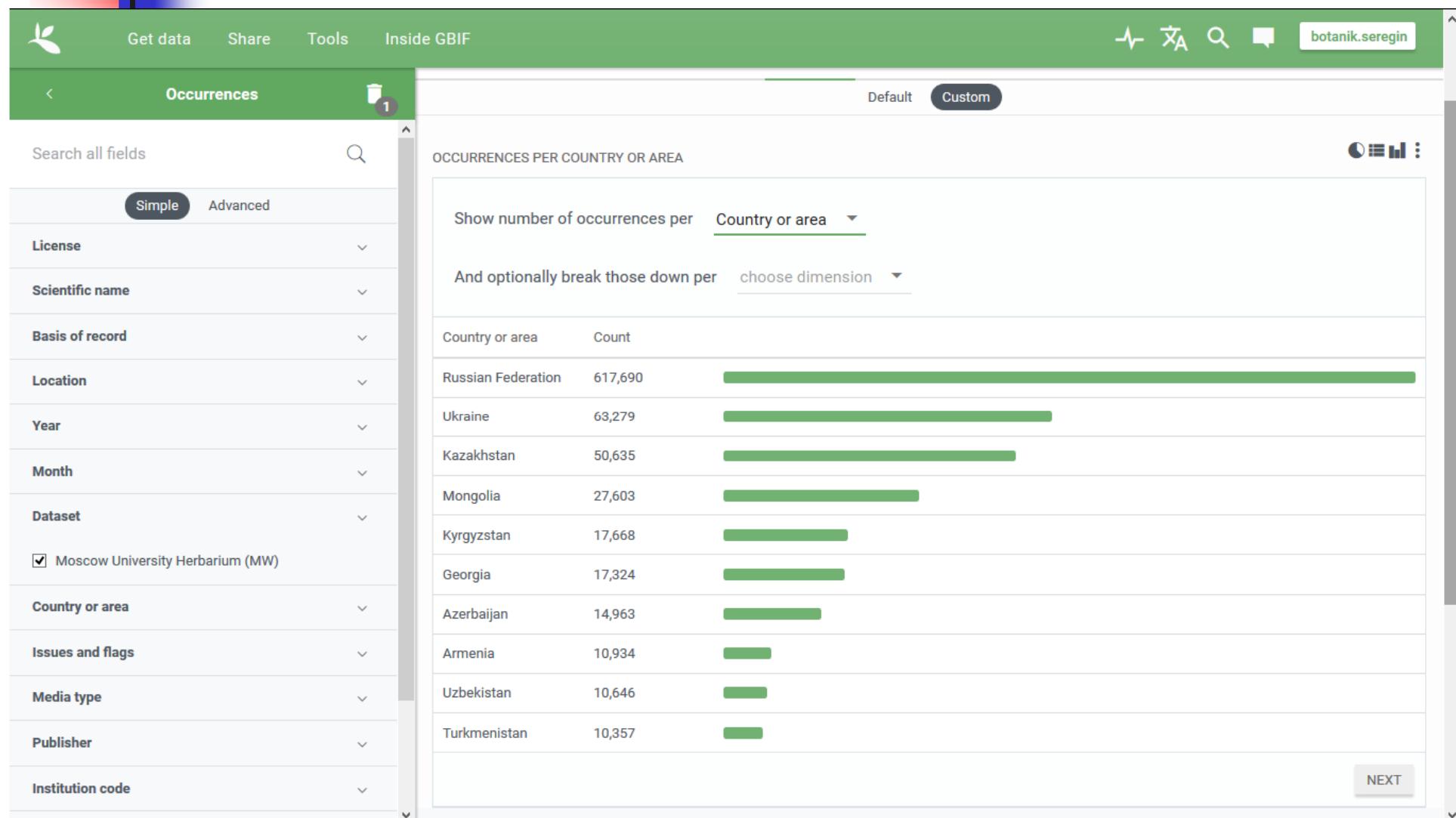
902c8fe7-8f38-45b0-854e-c324fed36303

974 295 occurrences in the GBIF index

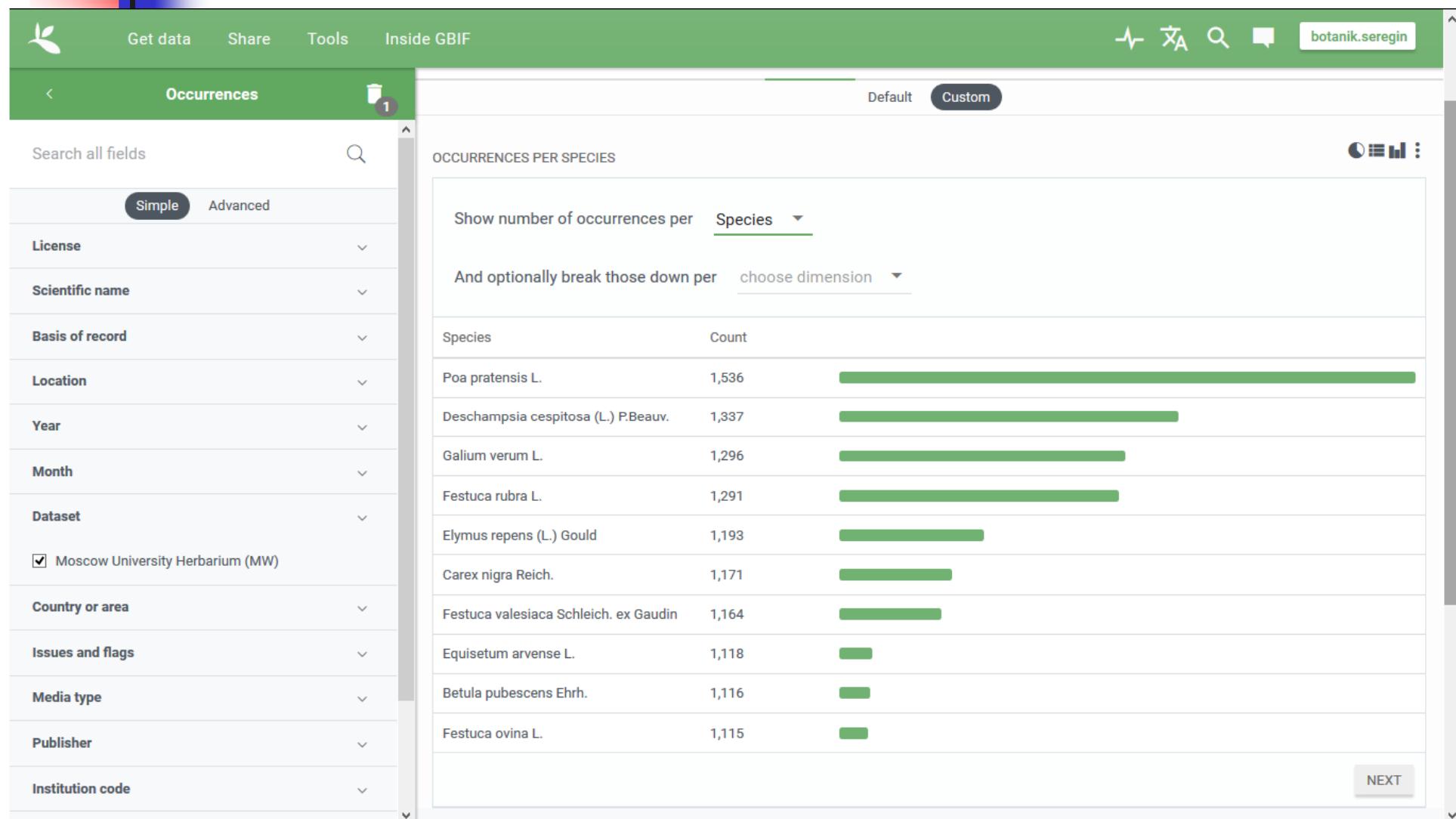
Show details **CLEAR** **GO TO DATASET**

Started	Finished download	Duration	New	Updated	Unchanged	⋮
2019-03-23 06:25	2019-03-23 06:25	a few seconds	22	22 776	951 487	⋮
2019-03-16 05:40	2019-03-16 05:40	a few seconds	26	23 055	951 192	⋮
2019-03-09 04:51	2019-03-09 04:51	a few seconds	4 109	11 002	959 149	⋮
2019-03-02 04:12	2019-03-02 04:12	a few seconds	0	283	971 449	⋮
2019-02-23 03:28	2019-02-23 03:28	a few seconds	0	0	971 732	⋮
2019-02-16 02:42	2019-02-16 02:42	a few seconds	0	246	971 486	⋮
2019-02-09 02:00	2019-02-09 02:00	a few seconds	0	0	971 732	⋮
2019-02-02 01:17	2019-02-02 01:17	a few seconds	0	971 732	0	⋮

# Гербарий МГУ: статистика по странам



# Гербарий МГУ: статистика по видам



# Гербарий МГУ: статистика по странам и месяцам



Get data Share Tools Inside GBIF

Occurrences 1

And optionally break those down per Month

Country or area	January	February	March	April	May	June	July	August	September	October	November	December
Russian Federation	180	121	592	5,721	35,481	126,880	187,963	128,031	25,739	3,882	563	92
Ukraine	19	56	151	2,936	11,933	13,994	11,310	5,618	3,380	974	101	5
Kazakhstan	6	10	43	809	6,695	12,181	12,682	8,002	3,356	235	13	2
Mongolia	0	0	4	18	56	3,757	12,978	8,402	1,188	0	1	0
Kyrgyzstan	3	1	16	137	1,069	3,213	6,391	4,747	633	192	1	2
Georgia	55	70	143	602	1,040	2,720	5,308	3,460	440	133	60	21
Azerbaijan	210	63	187	894	1,933	3,120	3,156	1,723	1,077	176	25	4
Armenia	0	2	7	30	478	2,178	3,880	2,386	427	68	7	4
Uzbekistan	0	11	84	879	2,854	2,080	2,023	1,503	520	108	10	1
Turkmenistan	10	139	812	2,118	2,725	1,845	654	627	219	107	22	2

Search all fields 1

Simple Advanced

License

Scientific name

Basis of record

Location

Year

Month

Dataset

Moscow University Herbarium (MW)

Country or area

Issues and flags

Media type

Publisher

Institution code

Collection code

Catalog number

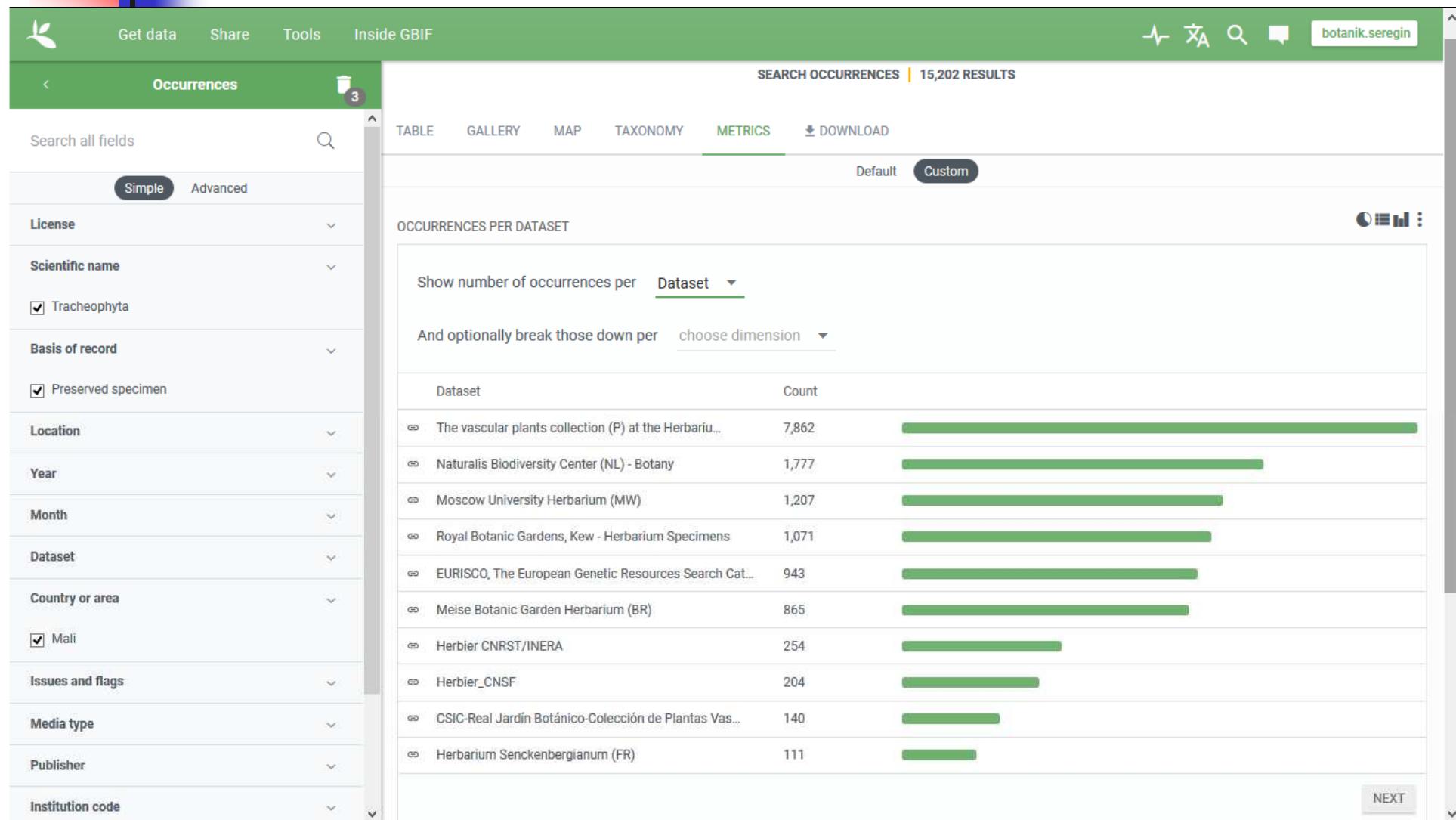
What is GBIF? | API | FAQ | Newsletter | Privacy | Terms and agreements | Citation | Acknowledgements

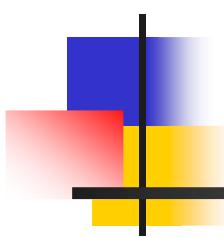
Contact | GBIF Secretariat Universitetsparken 15 | DK-2100 Copenhagen Ø | Denmark

GBIF Global Biodiversity Information Facility

f in v in

# Гербарий МГУ: статистика по гербарным образцам из Мали



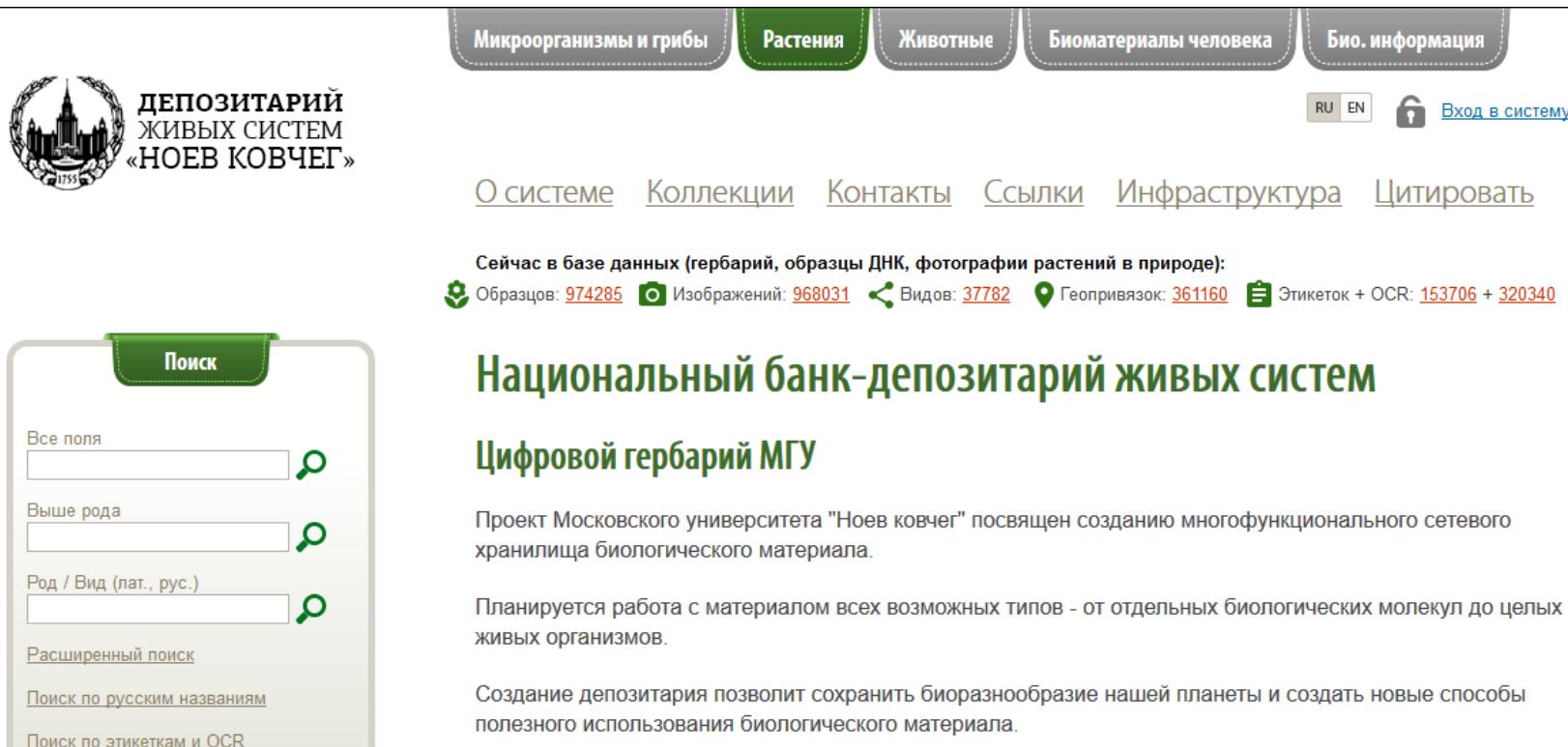


Для чего?

8. Чтобы не тратиться на свой портал

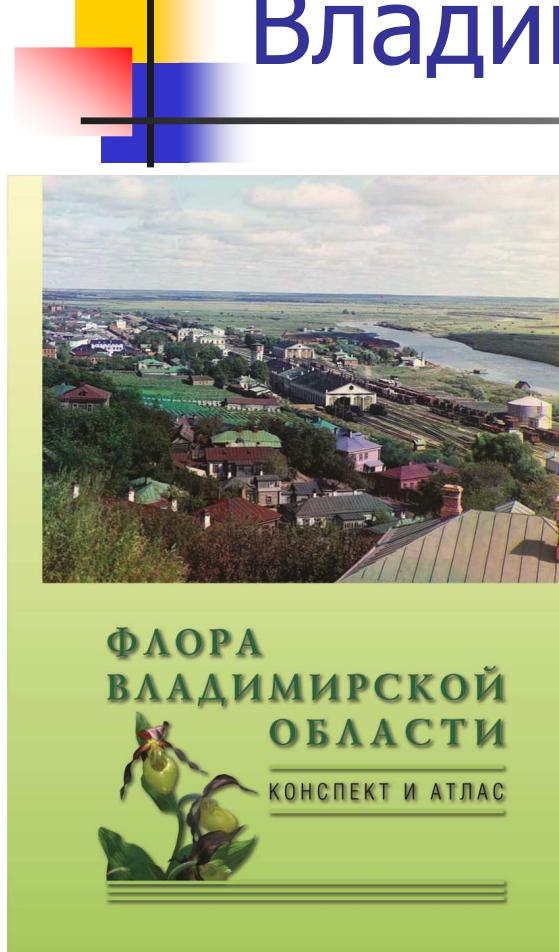
# Цифровой гербарий МГУ (<http://plant.depo.msu.ru/>)

- Поддержка портала и постоянная заливка новых данных стоят 350 000 рублей в год

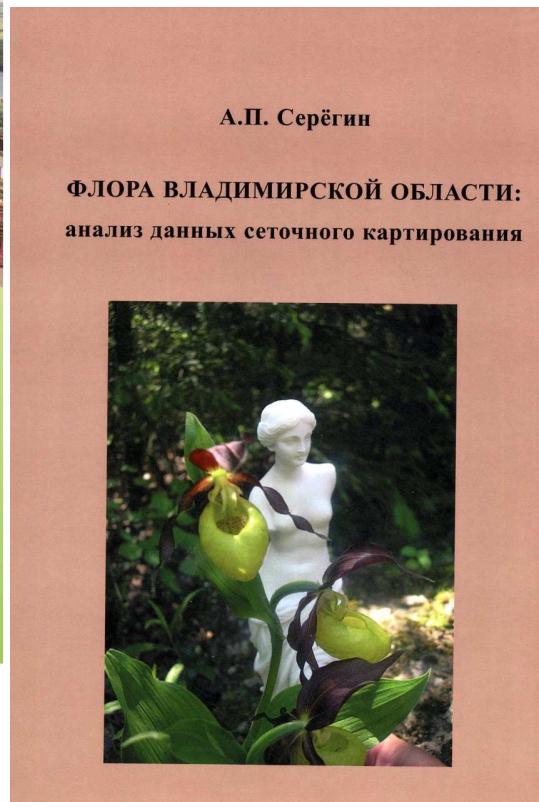


The screenshot shows the homepage of the Digital Herbarium. At the top, there is a decorative graphic on the left and a horizontal menu bar with five buttons: 'Микроорганизмы и грибы' (Microorganisms and Fungi), 'Растения' (Plants) which is highlighted in green, 'Животные' (Animals), 'Биоматериалы человека' (Human Biomaterials), and 'Био. информация' (Bio. Information). Below the menu, there is a logo for 'ДЕПОЗИТАРИЙ ЖИВЫХ СИСТЕМ «НОЕВ КОВЧЕГ»' (Depositary of Living Systems 'Noe's Ark') and language selection buttons for RU and EN. To the right is a 'Вход в систему' (Log in) button with a lock icon. Below these, a navigation bar includes links for 'О системе' (About the system), 'Коллекции' (Collections), 'Контакты' (Contacts), 'Ссылки' (Links), 'Инфраструктура' (Infrastructure), and 'Цитировать' (Cite). A statistics section shows current data: 'Образцов: 974285', 'Изображений: 968031', 'Видов: 37782', 'Геопривязок: 361160', and 'Этикеток + OCR: 153706 + 320340'. On the left, there is a search interface with a 'Поиск' (Search) button and fields for 'Все поля' (All fields), 'Выше рода' (Higher genus), 'Род / Вид (лат. рус.)' (Genus / Species (Latin / Russian)), 'Расширенный поиск' (Advanced search), 'Поиск по русским названиям' (Search by Russian names), and 'Поиск по этикеткам и OCR' (Search by labels and OCR). The main content area features a large green title 'Национальный банк-депозитарий живых систем' (National Bank-Depository of Living Systems) and a sub-section 'Цифровой гербарий МГУ' (Digital Herbarium of Moscow State University). Below this, a text block explains the project's purpose: 'Проект Московского университета "Ноев ковчег" посвящен созданию многофункционального сетевого хранилища биологического материала.' (The project of Moscow University "Noe's Ark" is dedicated to creating a multi-functional network-based repository of biological material.) Another text block states: 'Планируется работа с материалом всех возможных типов - от отдельных биологических молекул до целых живых организмов.' (Planning to work with material of all possible types - from individual biological molecules to entire living organisms.) At the bottom, a final text block reads: 'Создание депозитария позволит сохранить биоразнообразие нашей планеты и создать новые способы полезного использования биологического материала.' (Creating a depositary will allow us to preserve the biodiversity of our planet and create new ways of utilizing biological material.)

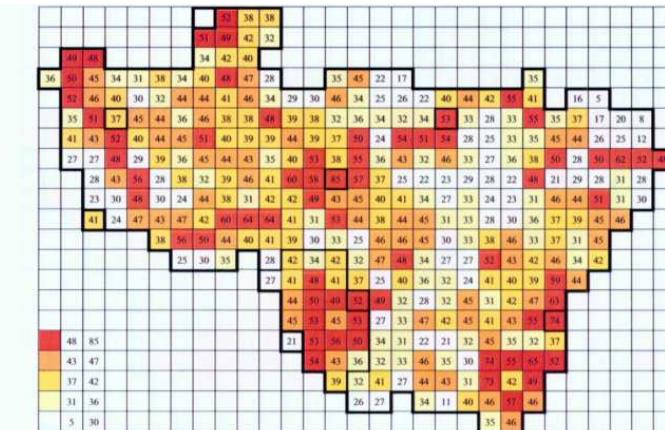
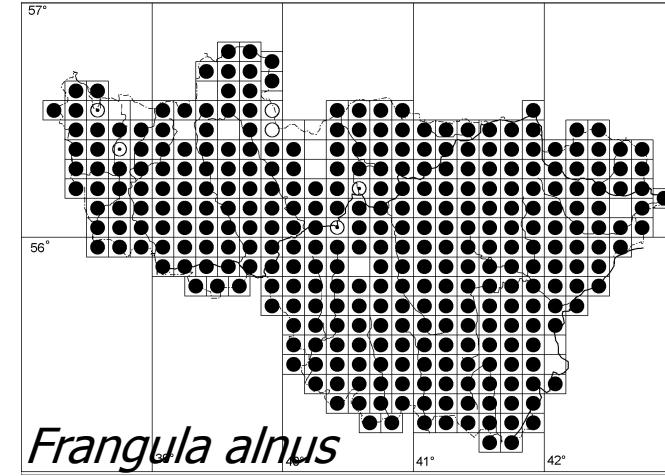
# Сеточное картирование флоры Владимирской области



Серегин, 2012



Серегин, 2014



# GBIF-страница массива данных по флоре Владимирской обл.

Get data Share Tools Inside GBIF OCCURRENCE DATASET | REGISTERED NOVEMBER 8, 2017

A grid-based database on vascular plant distribution in Vladimir Oblast, Russia

Published by Lomonosov Moscow State University

✉ Alexey P. Seregin

DATASET PROJECT METRICS ACTIVITY DOWNLOAD 123,054 OCCURRENCES 14 CITATIONS

A dataset contains 123,000+ unique occurrences of 1,400 vascular plant species from Vladimir Oblast (Russia) and some adjacent areas. They are largely based on field studies by Alexey P. Seregin performed in 1999–2013 (115,400+ records) as well as on data extracted from relevant literature, manuscripts and herbarium collections (7,600+ records). The most important collections from Vladimir Oblast are deposited in the Moscow University herbarium (MW), the Komarov Institute herbarium in St. Peters... [More](#)

Metadata last modified: November 8, 2017

Data last changed: November 7, 2017

Hosted by: Lomonosov Moscow State University

License: CC BY 4.0

How to cite DOI 10.15468/hoafrr

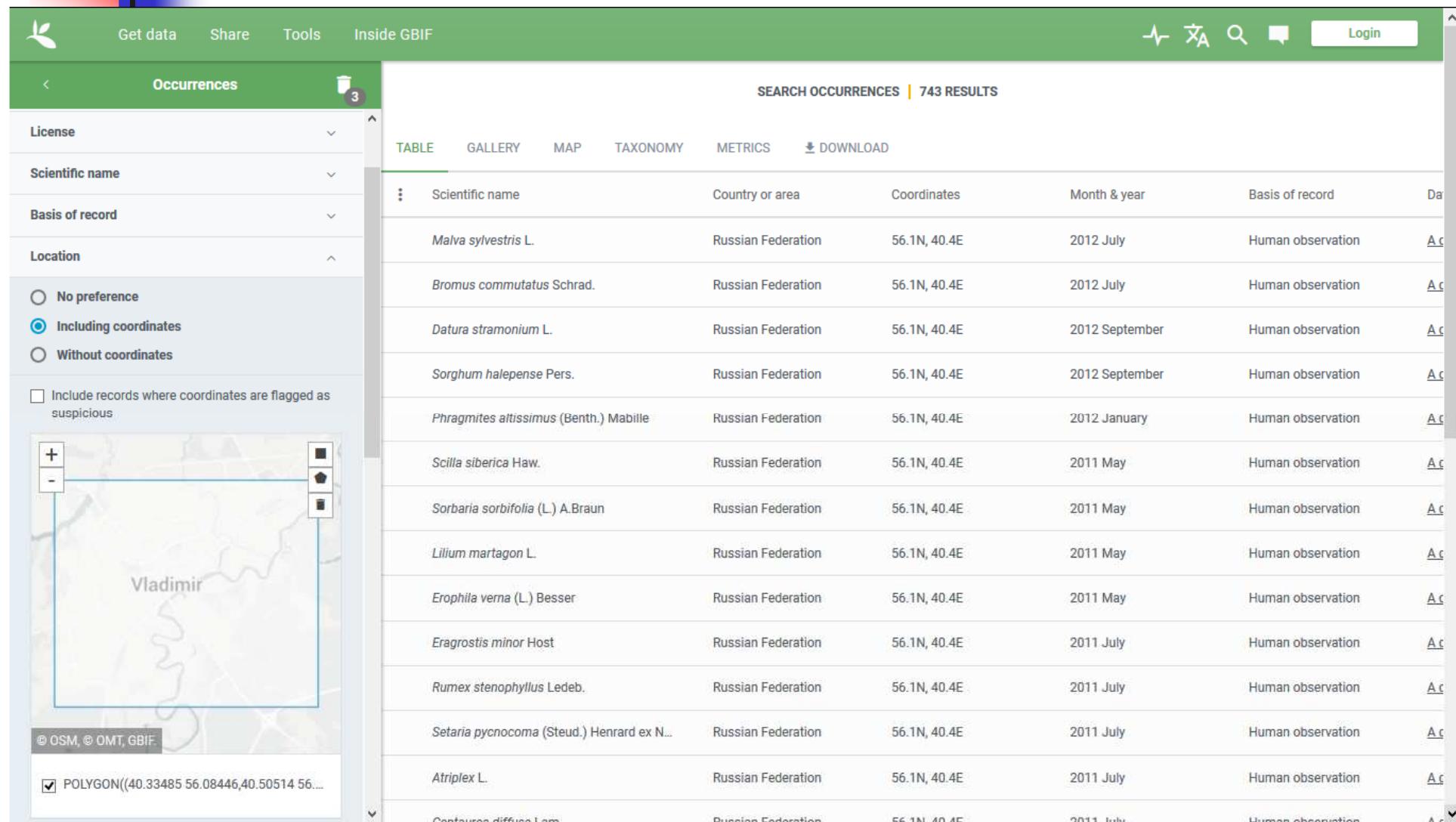
123,054 OCCURRENCES

123,054 Occurrences 100% With taxon match 100% With coordinates 84% With year

123,054 GEOFERENCED RECORDS



# Рамка на карте – список видов из квадрата “И12”



The screenshot shows the GBIF Occurrences search interface. At the top, there are navigation links: 'Get data', 'Share', 'Tools', and 'Inside GBIF'. On the right, there are icons for a magnifying glass, a map, and a user profile, with a 'Login' button. The main search bar contains the text 'SEARCH OCCURRENCES | 743 RESULTS'. Below the search bar, there are tabs: 'TABLE' (selected), 'GALLERY', 'MAP', 'TAXONOMY', 'METRICS', and 'DOWNLOAD'. The 'TABLE' view displays a list of 743 occurrence records. The columns are: Scientific name, Country or area, Coordinates, Month & year, Basis of record, and a link column. The 'Country or area' column consistently shows 'Russian Federation'. The 'Coordinates' column shows coordinates such as '56.1N, 40.4E'. The 'Month & year' column shows dates from 2011 May to 2012 September. The 'Basis of record' column shows 'Human observation' for all entries. The 'TABLE' view also includes a header row with column names. To the left of the table, there is a sidebar with filters: 'License', 'Scientific name', 'Basis of record', 'Location', and 'Coordinates'. Under 'Coordinates', there are three radio buttons: 'No preference' (unchecked), 'Including coordinates' (checked), and 'Without coordinates'. There is also a checkbox for 'Include records where coordinates are flagged as suspicious' (unchecked). Below the sidebar is a map showing the 'И12' square, with the city 'Vladimir' labeled. The map has zoom controls (+, -, fit) and a legend. At the bottom of the map, it says '© OSM, © OMT, GBIF.' and shows a checked checkbox for 'POLYGON((40.33485 56.08446,40.50514 56...'. The bottom right corner of the map has a small 'x' icon.

Scientific name	Country or area	Coordinates	Month & year	Basis of record	
<i>Malva sylvestris</i> L.	Russian Federation	56.1N, 40.4E	2012 July	Human observation	<a href="#">View</a>
<i>Bromus commutatus</i> Schrad.	Russian Federation	56.1N, 40.4E	2012 July	Human observation	<a href="#">View</a>
<i>Datura stramonium</i> L.	Russian Federation	56.1N, 40.4E	2012 September	Human observation	<a href="#">View</a>
<i>Sorghum halepense</i> Pers.	Russian Federation	56.1N, 40.4E	2012 September	Human observation	<a href="#">View</a>
<i>Phragmites altissimus</i> (Benth.) Mabille	Russian Federation	56.1N, 40.4E	2012 January	Human observation	<a href="#">View</a>
<i>Scilla siberica</i> Haw.	Russian Federation	56.1N, 40.4E	2011 May	Human observation	<a href="#">View</a>
<i>Sorbaria sorbifolia</i> (L.) A.Braun	Russian Federation	56.1N, 40.4E	2011 May	Human observation	<a href="#">View</a>
<i>Lilium martagon</i> L.	Russian Federation	56.1N, 40.4E	2011 May	Human observation	<a href="#">View</a>
<i>Erophila verna</i> (L.) Besser	Russian Federation	56.1N, 40.4E	2011 May	Human observation	<a href="#">View</a>
<i>Eragrostis minor</i> Host	Russian Federation	56.1N, 40.4E	2011 July	Human observation	<a href="#">View</a>
<i>Rumex stenophyllus</i> Ledeb.	Russian Federation	56.1N, 40.4E	2011 July	Human observation	<a href="#">View</a>
<i>Setaria pycnacoma</i> (Steud.) Henrard ex N...	Russian Federation	56.1N, 40.4E	2011 July	Human observation	<a href="#">View</a>
<i>Atriplex</i> L.	Russian Federation	56.1N, 40.4E	2011 July	Human observation	<a href="#">View</a>
<i>Centaurium diffusum</i> L.	Russian Federation	56.1N, 40.4E	2011 July	Human observation	<a href="#">View</a>

# К флоре юго-востока Владимирской области (Васюков, 2015)

74

Васюков В.М. К флоре юго-востока Владимирской области

УДК 581.95 (470.314)

## К ФЛОРЕ ЮГО-ВОСТОКА ВЛАДИМИРСКОЙ ОБЛАСТИ

В.М. Васюков

### Ключевые слова

флора  
сосудистые растения  
Булатниково  
Муромский район  
Владимирская область

**Аннотация.** В окрестностях села Булатниково Муромского района Владимирской области выявлено 562 вида сосудистых растений, в том числе 9 видов, занесенных в региональную Красную книгу: *Astragalus cicer*, *Carex caryophyllea*, *Cucubalus baccifer*, *Dianthus borbasii*, *Gentiana cruciata*, *Helichrysum arenarium*, *Hypericum hirsutum*, *Laserpitium prutenicum*, *Seseli annuum*. Впервые для флоры области приводятся 9 видов: *Heracleum mantegazzianum*, *Lepidium neglectum*, *Lotus zhugulensis*, *Portulaca grandiflora*, *Ranunculus attingens*, *R. obtusulus*, *Sambucus sibirica*, *Taraxacum proximum*, *Viola × villaquensis*.

Поступила в редакцию 01.04.2015

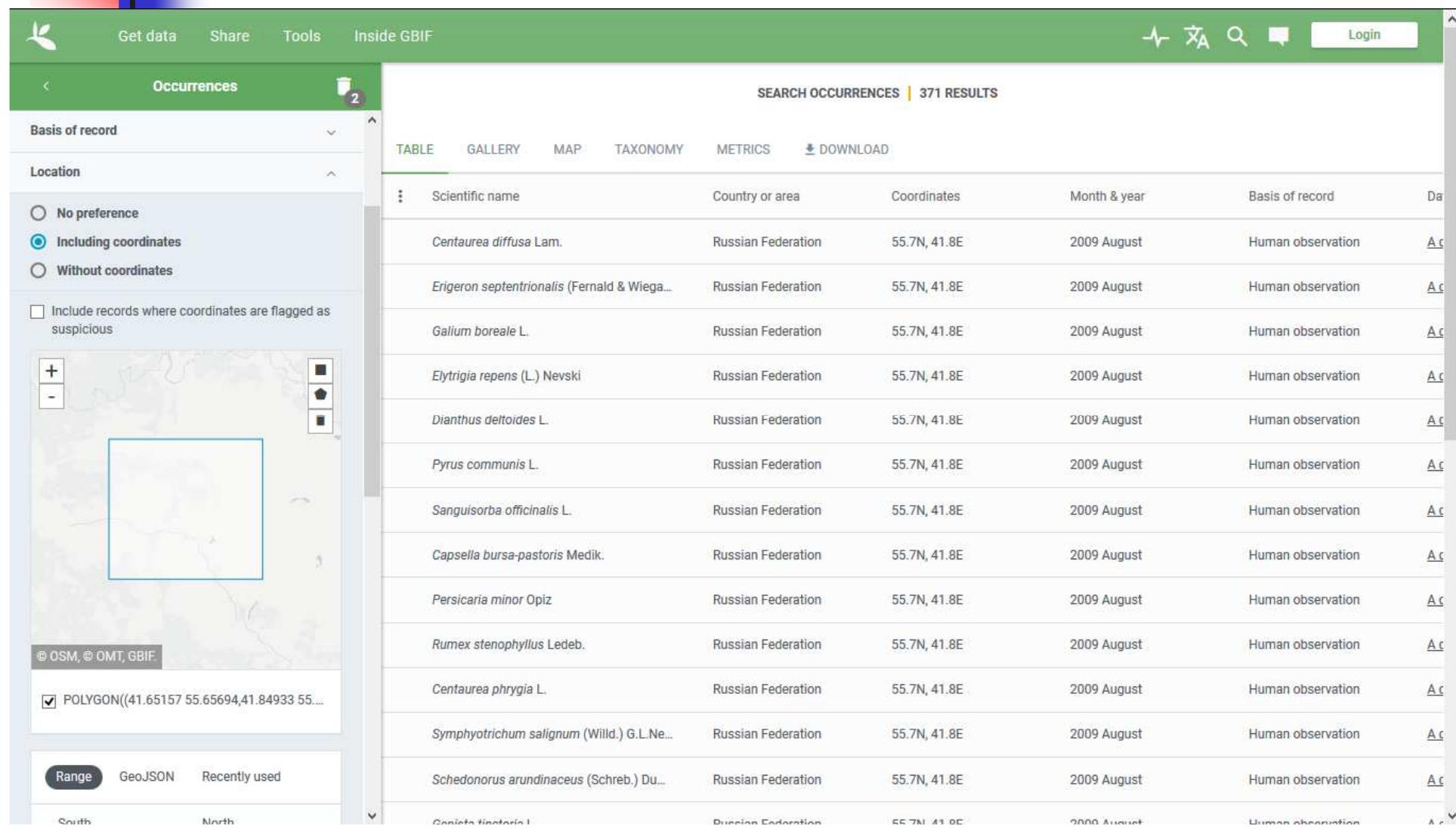
Владимирская область – хорошо исследованная во флористическом отношении территория Средней России. Главные вехи в изучении флоры области связаны с именами В.Я. Цингера, А.Ф. Флёрова, Н.А. Казанского, М.И. Назарова, В.Н. Тихомирова, В.С. Новикова, А.И. Губанова, М.П. Шилова, И.В. Вахромеева, Е.А. Борисовой, В.Г. Папченкова, А.П. Серёгина и др.

Современная монография А.П. Серёгина (2012) по флоре Владимирской области с

ся 862 вида растений, для квадрата О12 – 371 вид.

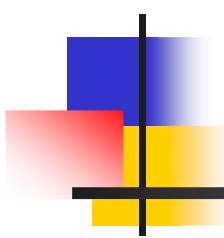
Во флоре окр. с. Булатниково (западная часть Муромского р-на) выявлено 562 вида сосудистых растений (aborигенные, занесенные и дичающие интродуценты); кроме того приведены 79 видов недичающих интродуцентов (обозначены «+») и 18 видов (обозначены «—»), известные в квадрате О12 (I.с.), но не обнаруженные за время исследований.

# Рамка на карте – список видов из квадрата “012”



The screenshot shows the GBIF Occurrences search interface. On the left, there is a map with a blue polygon drawn on it, representing the search area. Below the map, there is a list of coordinates: POLYGON((41.65157 55.65694, 41.84933 55...). At the bottom of the map area, there are buttons for 'Range', 'GeoJSON', and 'Recently used'. On the right, the search results are displayed in a table. The table has columns for Scientific name, Country or area, Coordinates, Month & year, Basis of record, and a link column. The results are as follows:

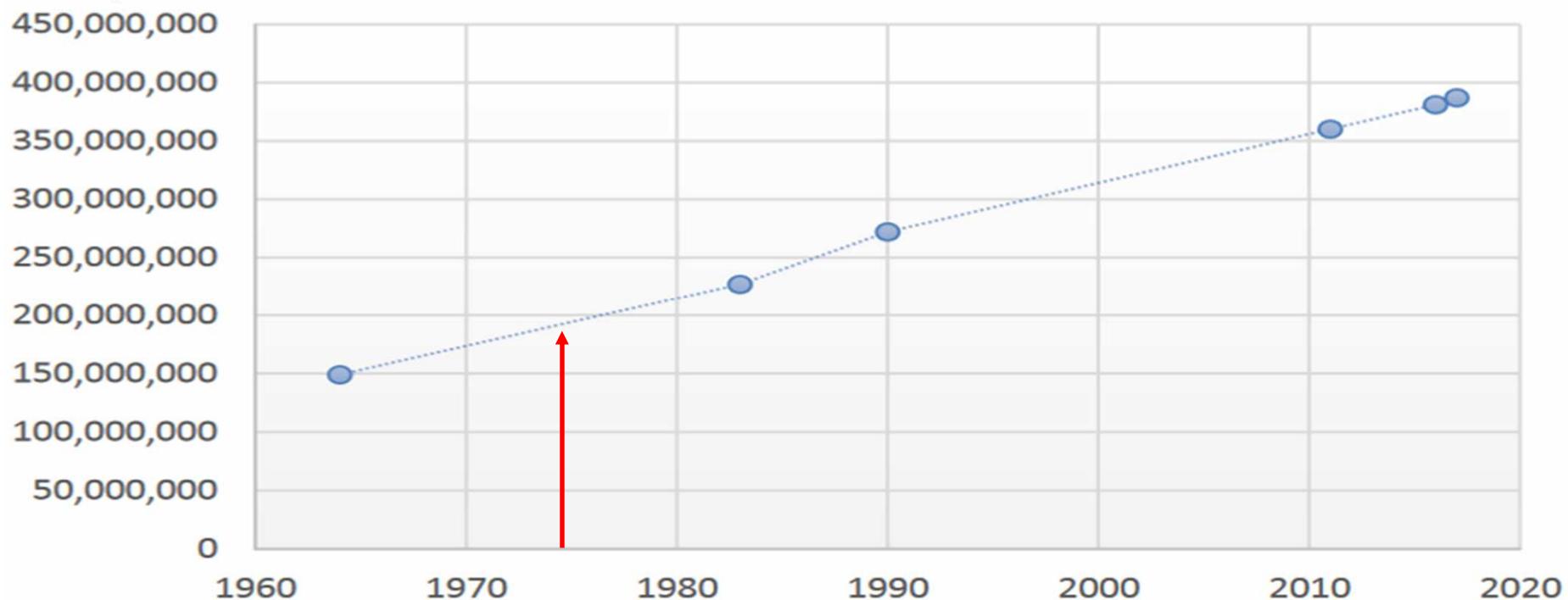
Scientific name	Country or area	Coordinates	Month & year	Basis of record	
<i>Centaurea diffusa</i> Lam.	Russian Federation	55.7N, 41.8E	2009 August	Human observation	<a href="#">View</a>
<i>Erigeron septentrionalis</i> (Fernald & Wiegert)	Russian Federation	55.7N, 41.8E	2009 August	Human observation	<a href="#">View</a>
<i>Galium boreale</i> L.	Russian Federation	55.7N, 41.8E	2009 August	Human observation	<a href="#">View</a>
<i>Elytrigia repens</i> (L.) Nevski	Russian Federation	55.7N, 41.8E	2009 August	Human observation	<a href="#">View</a>
<i>Dianthus deltoides</i> L.	Russian Federation	55.7N, 41.8E	2009 August	Human observation	<a href="#">View</a>
<i>Pyrus communis</i> L.	Russian Federation	55.7N, 41.8E	2009 August	Human observation	<a href="#">View</a>
<i>Sanguisorba officinalis</i> L.	Russian Federation	55.7N, 41.8E	2009 August	Human observation	<a href="#">View</a>
<i>Capsella bursa-pastoris</i> Medik.	Russian Federation	55.7N, 41.8E	2009 August	Human observation	<a href="#">View</a>
<i>Persicaria minor</i> Opiz	Russian Federation	55.7N, 41.8E	2009 August	Human observation	<a href="#">View</a>
<i>Rumex stenophyllus</i> Ledeb.	Russian Federation	55.7N, 41.8E	2009 August	Human observation	<a href="#">View</a>
<i>Centaurea phrygia</i> L.	Russian Federation	55.7N, 41.8E	2009 August	Human observation	<a href="#">View</a>
<i>Symphytum salignum</i> (Willd.) G.L.Ne...	Russian Federation	55.7N, 41.8E	2009 August	Human observation	<a href="#">View</a>
<i>Schedonorus arundinaceus</i> (Schreb.) Du...	Russian Federation	55.7N, 41.8E	2009 August	Human observation	<a href="#">View</a>
<i>Coniota tinctoria</i> L.	Russian Federation	55.7N, 41.8E	2009 August	Human observation	<a href="#">View</a>



Для чего?

9. Чтобы не отстать от  
прогресса

# Цифровизация

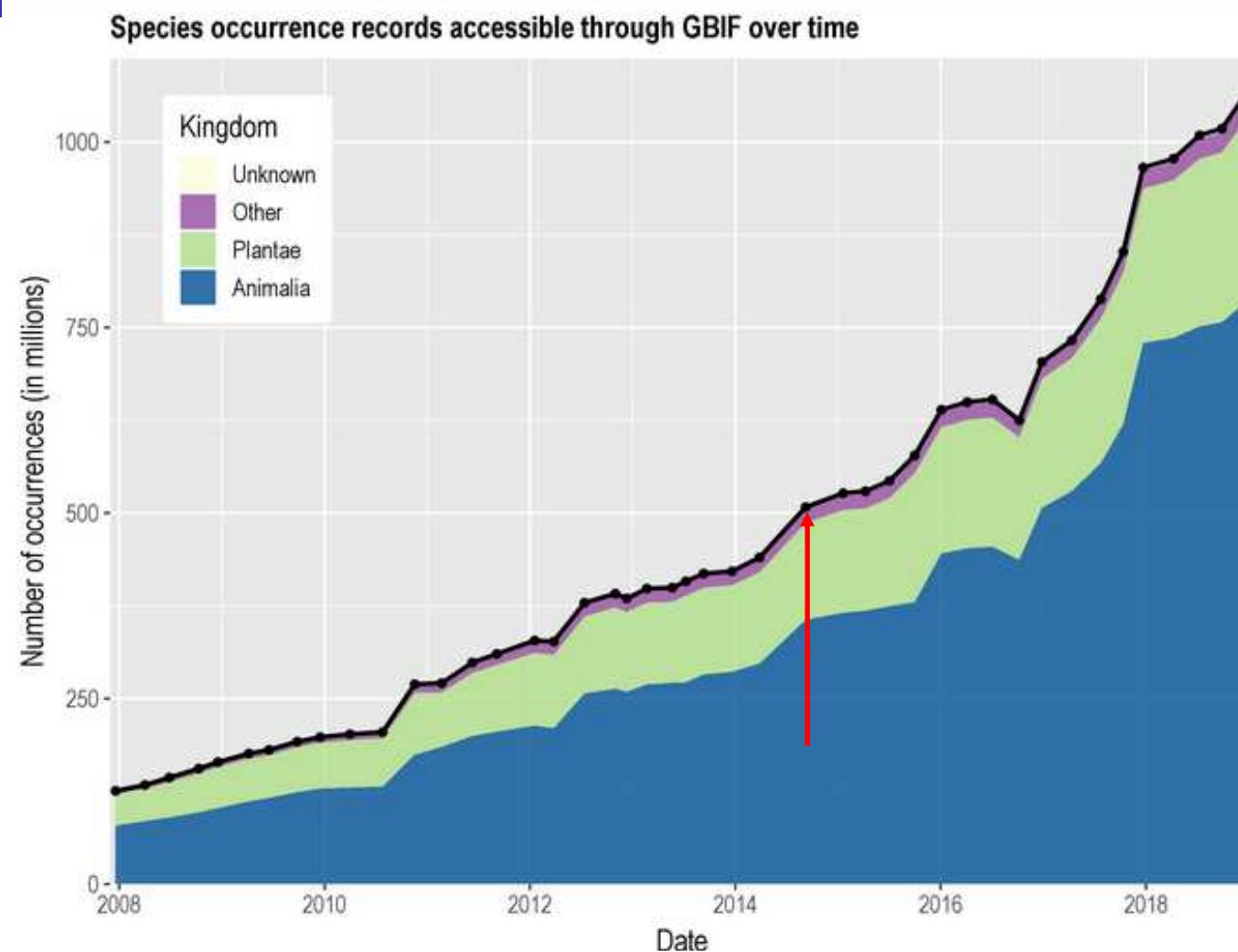


В мире – 387 500 000 гербарных образцов (физически) (Thiers, 2019)

В GBIF – 73 000 000 гербарных образцов (в виде электронных записей)

**Это 18,8%**

# Концентрация



# Глобализация



Поисковые системы в мире: лидеры

# Универсализация



Париж

Нью-Йорк

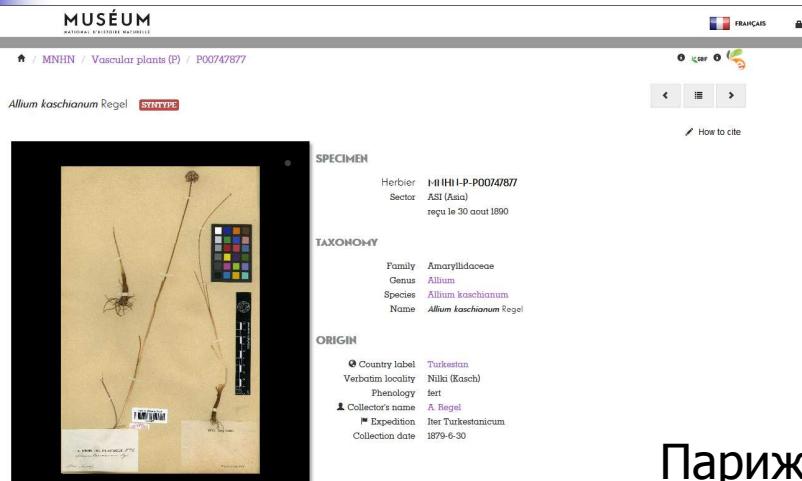


Кью

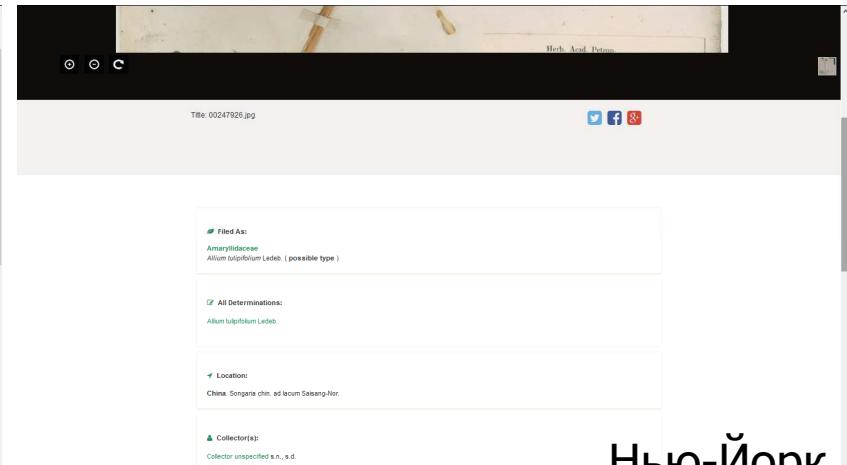


Москва

# Универсализация



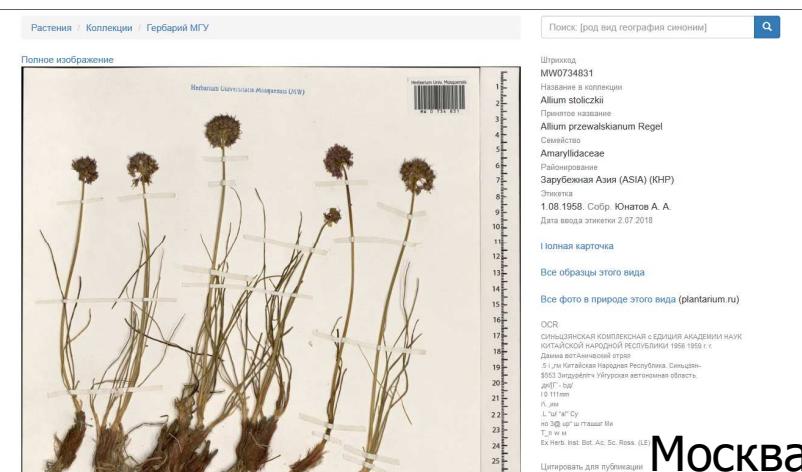
## Париж



## Нью-Йорк



Кью



с. Ross. (LE) **Москва**  
пикации

# Универсализация

Get data Share Tools Inside GBIF

Record		Occurrence	
Basis of record	PRESERVED_SPECIMEN	Catalogue number	P00747877
Collection code	P	Occurrence ID	<a href="http://coldb.mnhn.fr/mnhn/p/p00747877">http://coldb.mnhn.fr/mnhn/p/p00747877</a>
Institution code	MNHN	Occurrence remarks	reçu le 30 aout 1890
		Preparations	hb
		Recorded by	Regel, A.
Event		Identification	
Day	30	Type status	Syntype
Month	6		
Year	1879		
Event date	1879-06-30T00:00:00		
Taxon		Location	
Kingdom	Plantae	Country or area	unknown or invalid
Phylum	Tracheophyta	Country code	ZZ
Class	Liliopsida	Verbatim locality	Nill (Kasch)
Order	Asparagales		
Family	Amaryllidaceae		
Genus	Allium		
Specific epithet	kaschianum		
Scientific name	Allium kaschianum Regel		
Scientific name authorship			
Rank	SPECIES		
Taxonomic status	ACCEPTED		
Other			
Identifier	<a href="http://coldb.mnhn.fr/mnhn/p/p00747877">http://coldb.mnhn.fr/mnhn/p/p00747877</a>		
Record license	<a href="http://creativecommons.org/licenses/by/4.0/legalcode">http://creativecommons.org/licenses/by/4.0/legalcode</a>		
Modified	2015-09-05T09:21:00.000+0000		

P00747877

Get data Share Tools Inside GBIF

Record		Occurrence	
Basis of record	PRESERVED_SPECIMEN	Catalogue number	K000464620
Collection code	Herbarium	Occurrence ID	<a href="http://specimens.bium.edu.pl/K000464620">http://specimens.bium.edu.pl/K000464620</a>
Institution code	K	Occurrence remarks	Collector for A.K.Bulley of Ness, Neston, Cheshire
		Record number	914
		Recorded by	Forrest, G.
Event			
Event remarks	Note the strongly ribbed blades and the crenulate margins.		
Taxon			
Kingdom	Plantae		
Phylum	Tracheophyta		
Class	Liliopsida		
Order	Asparagales		
Family	Amaryllidaceae		
Genus	Allium		
Specific epithet	marie		
Higher classification	ALLIACEAE		
Scientific name	Allium marie H.L.		
Scientific name authorship			
Rank	SPECIES		
Taxon remarks	Author citation as on label: Lévl.		
Taxonomic status	ACCEPTED		
Location			
Country or area	China		
Country code	CN		
Institution code	E. Tibet and S.W. China.		
Identifier	<a href="http://specimens.bium.edu.pl/K000464620">http://specimens.bium.edu.pl/K000464620</a>		
Record license	<a href="http://creativecommons.org/licenses/by/4.0/legalcode">http://creativecommons.org/licenses/by/4.0/legalcode</a>		
Modified	2012-09-07T13:40:36.300+0000		

K000464620

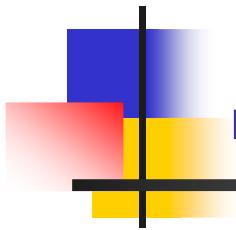
Get data Share Tools Inside GBIF

Record		Occurrence	
Basis of record	PRESERVED_SPECIMEN	Catalogue number	NY00247926
Collection code	NY	Occurrence ID	<a href="http://biocollections.org/col.org/col:15556">http://biocollections.org/col.org/col:15556</a>
Collection ID	<a href="http://biocollections.org/col.org/col:15556">http://biocollections.org/col.org/col:15556</a>	Occurrence remarks	Herb. Acad. Petrop. sheet s.n.
Dataset ID	<a href="http://biocollections.org/col.org/col:15556">http://biocollections.org/col.org/col:15556</a>	Preparations	
Dataset name	Vascular plants	Record number	
Institution code	NY	Recorded by	Collector unspecified
Event		Identification	
Day	30	Type status	Syntype
Month	6		
Year	1879		
Event date	1879-06-30T00:00:00		
Taxon		Location	
Kingdom	Plantae	Country or area	unknown or invalid
Phylum	Tracheophyta	Country code	ZZ
Class	Liliopsida	Verbatim locality	Nill (Kasch)
Order	Asparagales		
Family	Amaryllidaceae		
Genus	Allium		
Specific epithet	tulipifolium		
Normal nomenclatural code	ICN		
Scientific name	Allium tulipifolium Ledeb.		
Rank	SPECIES		
Taxonomic status	ACCEPTED		
Other			
Identifier	<a href="http://coldb.mnhn.fr/mnhn/p/p00747877">http://coldb.mnhn.fr/mnhn/p/p00747877</a>		
Language	en		
Record license	<a href="http://creativecommons.org/licenses/by/4.0/legalcode">http://creativecommons.org/licenses/by/4.0/legalcode</a>		
Modified	2016-10-21T15:56.00.000+0000		
References	<a href="http://sweet-e.org">http://sweet-e.org</a>		

MW0734831

Get data Share Tools Inside GBIF

Record		Occurrence	
Basis of record	PRESERVED_SPECIMEN	Catalogue number	MW0734831
Collection code	MW	Disposition	in collection
Collection ID	<a href="http://biocollections.org/col.org/col:15550">http://biocollections.org/col.org/col:15550</a>	Occurrence ID	<a href="http://biocollections.org/col.org/col:15550/01">http://biocollections.org/col.org/col:15550/01</a>
Dataset ID	<a href="http://biocollections.org/col.org/col:15550">http://biocollections.org/col.org/col:15550</a>	Dataset name	Moscow Digital Herbarium
Dataset name		Information withheld	no label data and georeference
Institution code		Preparations	herbarium specimen
Institution code		Recorded by	Yunakov A. A.
Owner institution code		Associated media	
Event			
Day	1		
Month	8		
Year	1958		
Event date	1958-08-01T00:00:00		
Sampling protocol	common practice of herbarium collecting		
Taxon			
Kingdom	Plantae		
Phylum	Tracheophyta		
Class	Liliopsida		
Order	Asparagales		
Family	Amaryllidaceae		
Genus	Allium		
Specific epithet	stoliczki		
Accepted name usage ID	79070519		
Higher classification	<a href="http://purl.oclc.org/ontology/botany/PlantaeTracheophytalLiliopsidaAsparagalesAmaryllidaceaeAlliumstoliczki">http://purl.oclc.org/ontology/botany/PlantaeTracheophytalLiliopsidaAsparagalesAmaryllidaceaeAlliumstoliczki</a>		
Accepted name usage	Allium przewalskianum		
Nomenclatural code	International Code of Nomenclature for algae, fungi, and plants		
Parent name usage	Allium		
Parent name usage ID	11477205		
Scientific name	Allium stoliczki Regel		
Rank	SPECIES		
Taxonomic status	SYNONYM		
Vernacular name	Лук		



## Для чего?

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10. Чтобы учить искусственный интеллект определять растения и животные по фотографиям

# iNaturalist

**iNaturalist**  [Explore](#) [Your Observations](#) [Community](#) [Identify](#) [More](#)    

## Observations

 Species  Location  

The World **17,054,465 OBSERVATIONS** **205,900 SPECIES** **67,414 IDENTIFIERS** **457,763 OBSERVERS**

 Map  Grid  List  Places of Interest



 **Allium ursinum**  
Menlove Avenue, Li... • Mar 23, 2019  1min

 **Zizina otis lampa**  
Western Water Cat... • Mar 23, 2019  1min

 **Unknown**  
Zandmotorpad, 2553... • Mar 23, 2019  1min

 **Order Lepidoptera**  
Serowe Botswana • Mar 12, 2019  1min

 **Fagus sylvatica**  1min

# The iNaturalist Species Classification and Detection Dataset

Grant Van Horn<sup>1</sup> Oisin Mac Aodha<sup>1</sup> Yang Song<sup>2</sup> Yin Cui<sup>3</sup> Chen Sun<sup>2</sup>  
Alex Shepard<sup>4</sup> Hartwig Adam<sup>2</sup> Pietro Perona<sup>1</sup> Serge Belongie<sup>3</sup>

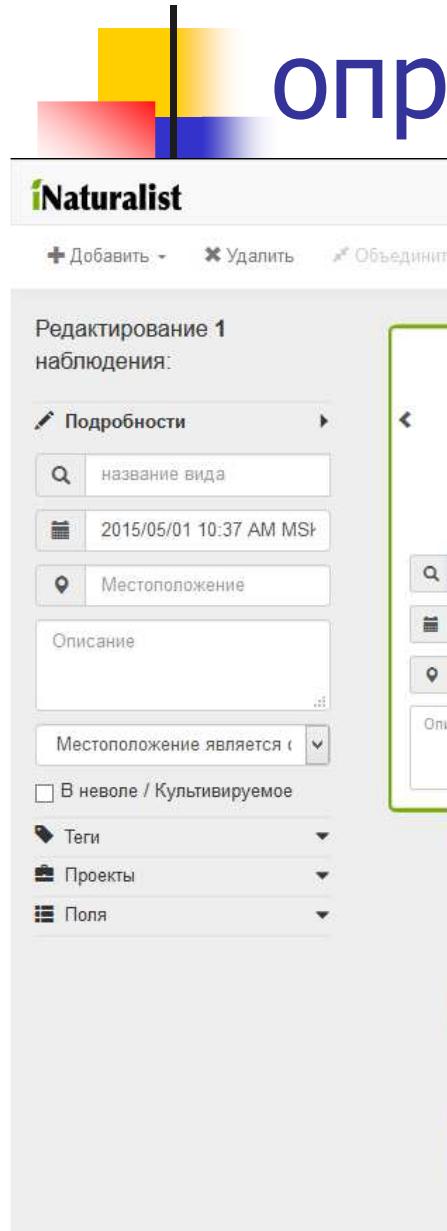
<sup>1</sup>Caltech    <sup>2</sup>Google    <sup>3</sup>Cornell Tech    <sup>4</sup>iNaturalist

## Abstract

Existing image classification datasets used in computer vision tend to have a uniform distribution of images across object categories. In contrast, the natural world is heavily imbalanced, as some entities are more abundant and easier



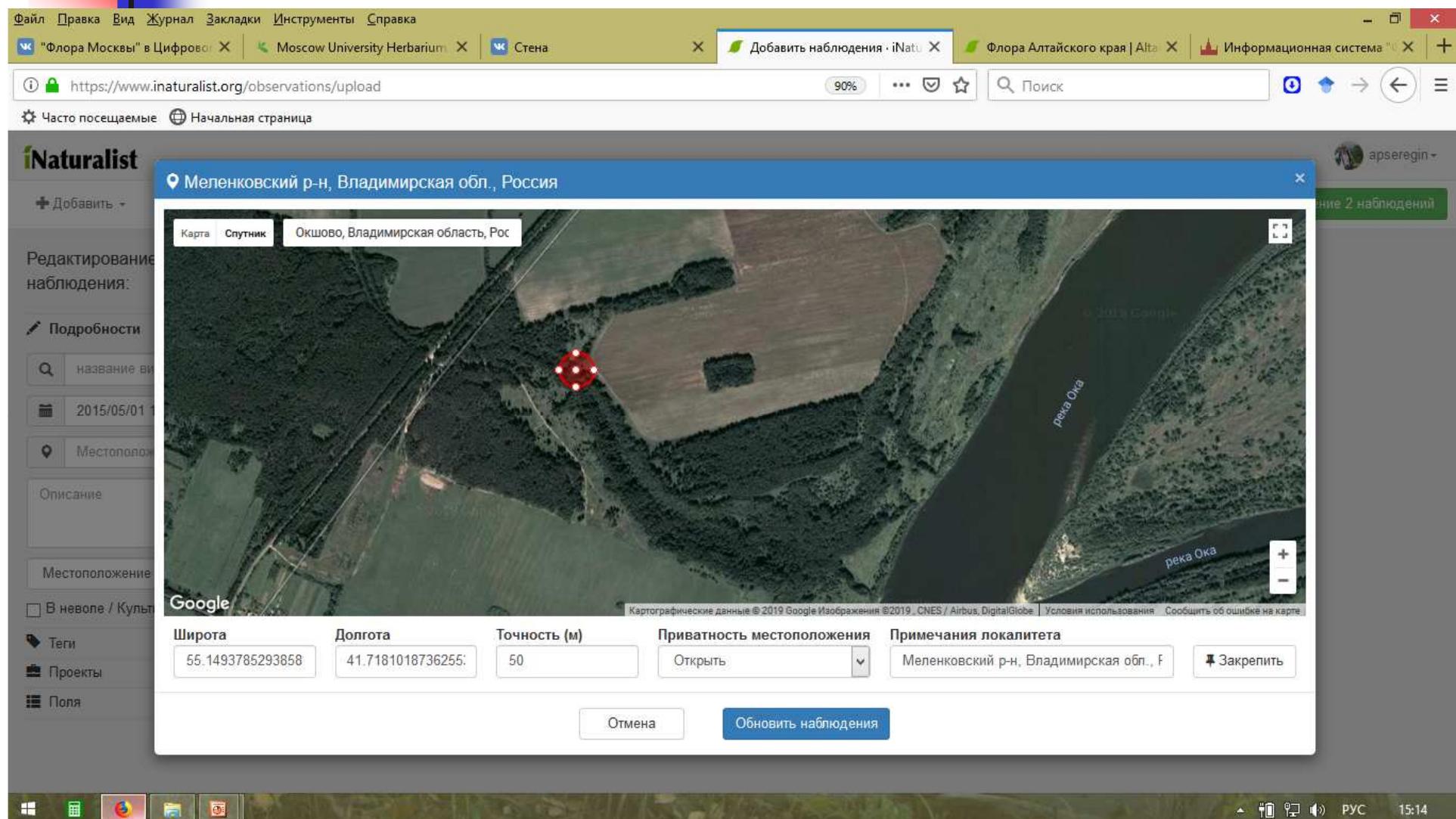
# Искусственный интеллект определяет растения по фото



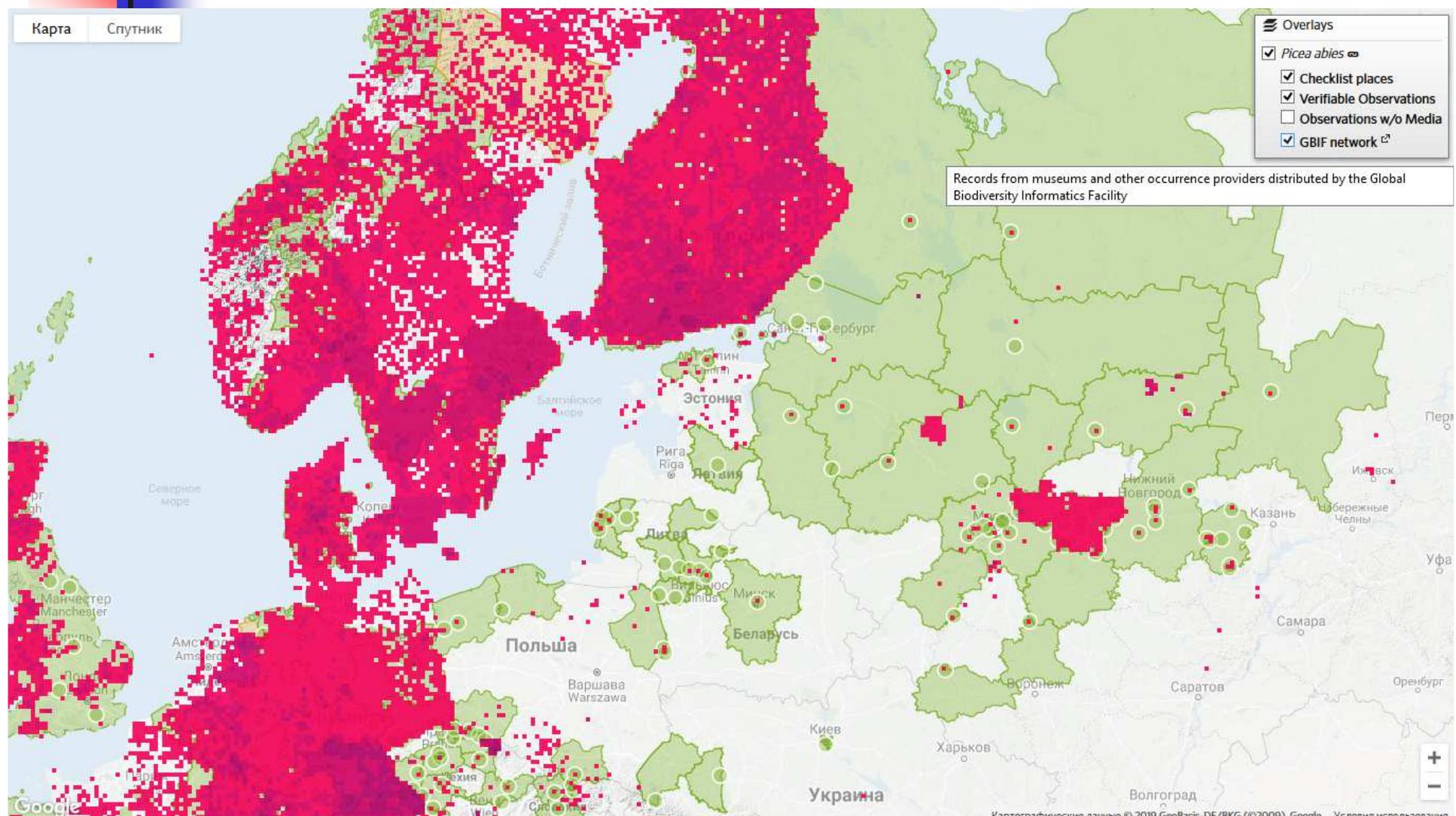
The image shows the iNaturalist mobile application interface. At the top, there are buttons for 'Добавить' (Add), 'Удалить' (Delete), 'Объединить' (Combine), and 'Выбрать все' (Select All). Below this, a section titled 'Редактирование 1 наблюдения:' (Editing 1 observation) contains fields for 'Название вида' (Name), 'Местоположение' (Location), 'Описание' (Description), and 'Местоположение является' (Location is). On the left, there are dropdown menus for 'Теги' (Tags), 'Проекты' (Projects), and 'Поля' (Fields). The main area shows two images of a plant: a green pine cone and a green leafy plant. A green box highlights the first image. Below the images, a message says 'Мы почти уверены, что это относится к family:' (We are almost sure that this belongs to the family:). It shows 'Pinaceae' with a small pine cone icon. A list of 'Лучшие предложения видов:' (Best species suggestions) follows, with three entries: 1. *Abies balsamea* (Visual match), 2. *Picea rubens* (Visual match), and 3. *Picea glauca* (Visual match).



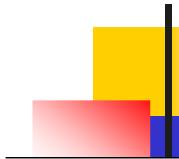
# Искусственный интеллект определяет растения по фото



# iNaturalist берёт геоданные из GBIF



# Искусственный интеллект определяет растения по фото и геоданным



iNaturalist

Добавить Удалить Объединить Выбрать все

Редактирование 1 наблюдения:

Подробности

название вида

2015/05/01 10:37 AM MSF

Меленковский р-н, Влади

Описание

Местоположение является (

В неволе / Культивируемое

Теги

Проекты

Поля

1/2 1/2

название вида

Мы почти уверены, что это относится к family:

Pinaceae Семейство

Просмотр

Вот наши лучшие предложения видов:

Abies balsamea Abies balsamea Визуально Похожие

Просмотр

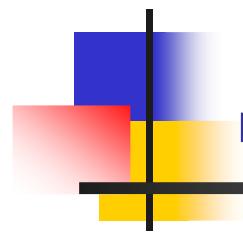
Picea abies Picea abies Визуально Похожие / Увиденные поблизости

Просмотр

Picea rubens Picea rubens Визуально Похожие

Просмотр

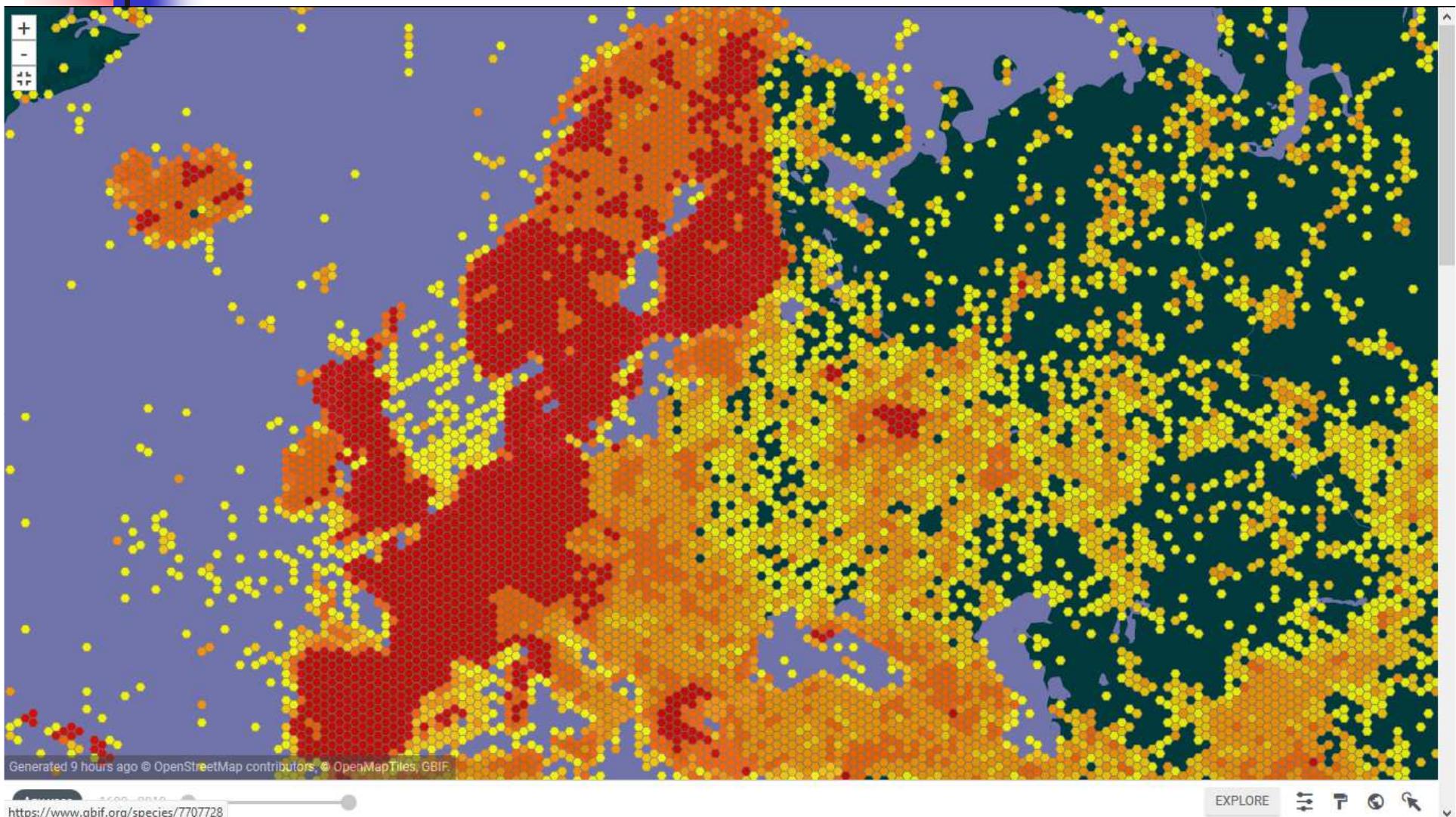


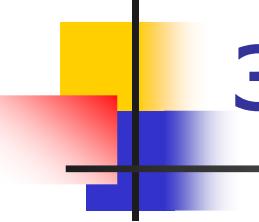


Для чего?

Вместо заключения

# Один в поле – воин: сосудистые растения на карте GBIF





# Давайте ещё раз задумаемся: что это даёт?

- миру?
- стране?
- университету?
- гербарию?
- мне?
- обществу?