



Global Biodiversity  
Information Facility



Direktoratet for  
internasjonalisering  
og kvalitetsutvikling  
i høyere utdanning

# BiODATA

Biodiversity Data for  
Internationalization in higher  
education

ARMINE ABRAHAMYAN, DR. BIOL. SCI.  
BIODATA COORDINATOR, ARMENIA

Norway

# BioDATA

2018 - 2021



Belarus

Armenia

Tajikistan

Ukraine

# GOALS

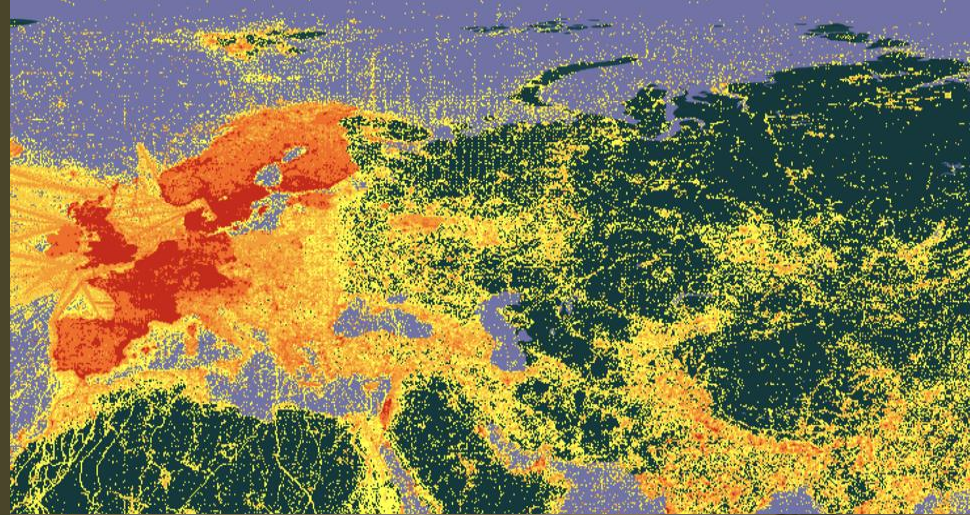
Offer professional training in data skills to biodiversity researchers

Promote open data and open science to foster international collaboration

Involve partner countries in international biodiversity networks like GBIF

64 students (16 x 4) and 16 staff (*mentors*) trained on biodiversity informatics skills

Organize a total of 7-8 events during the project period 2018 to 2021





# INVESTING IN THE FUTURE

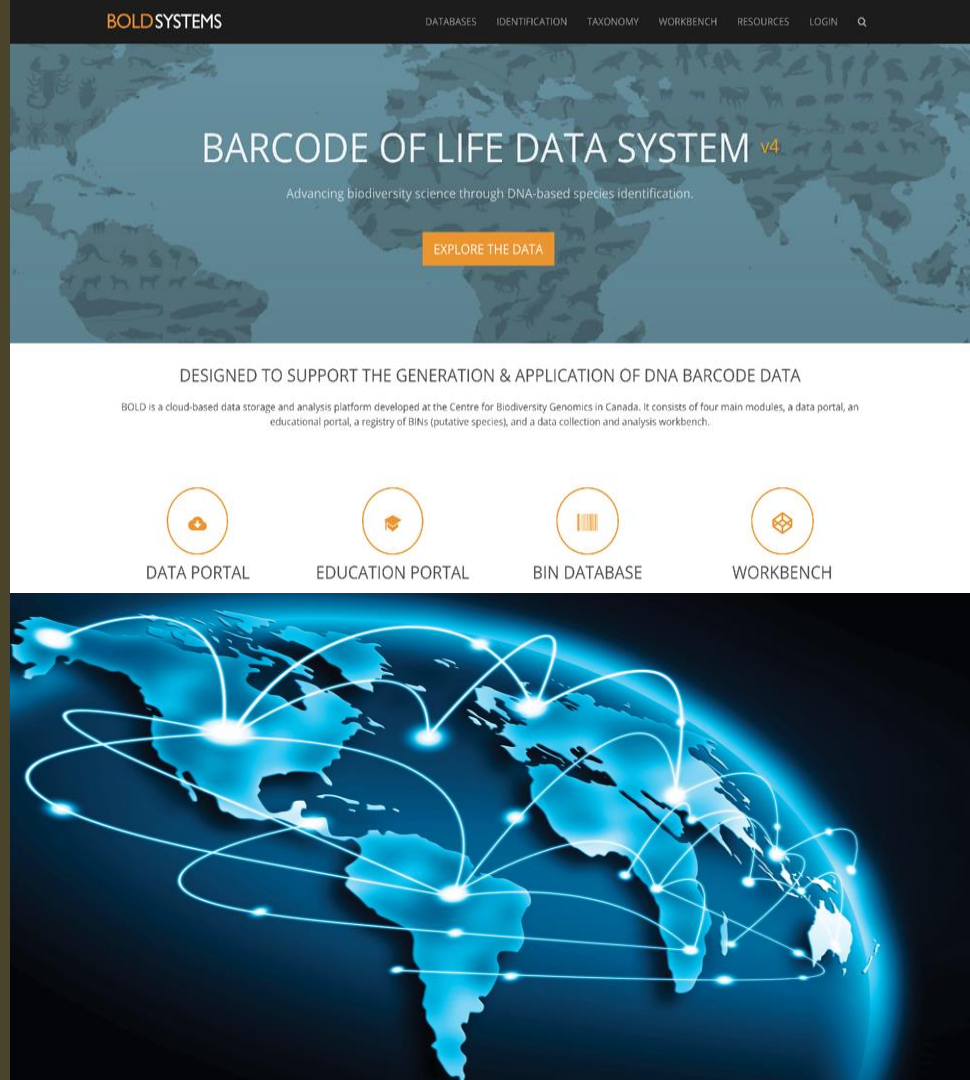
Specialized training to raise the quality of research  
in post-soviet societies

Empower partners to establish long-lasting  
collaborations with western institutes

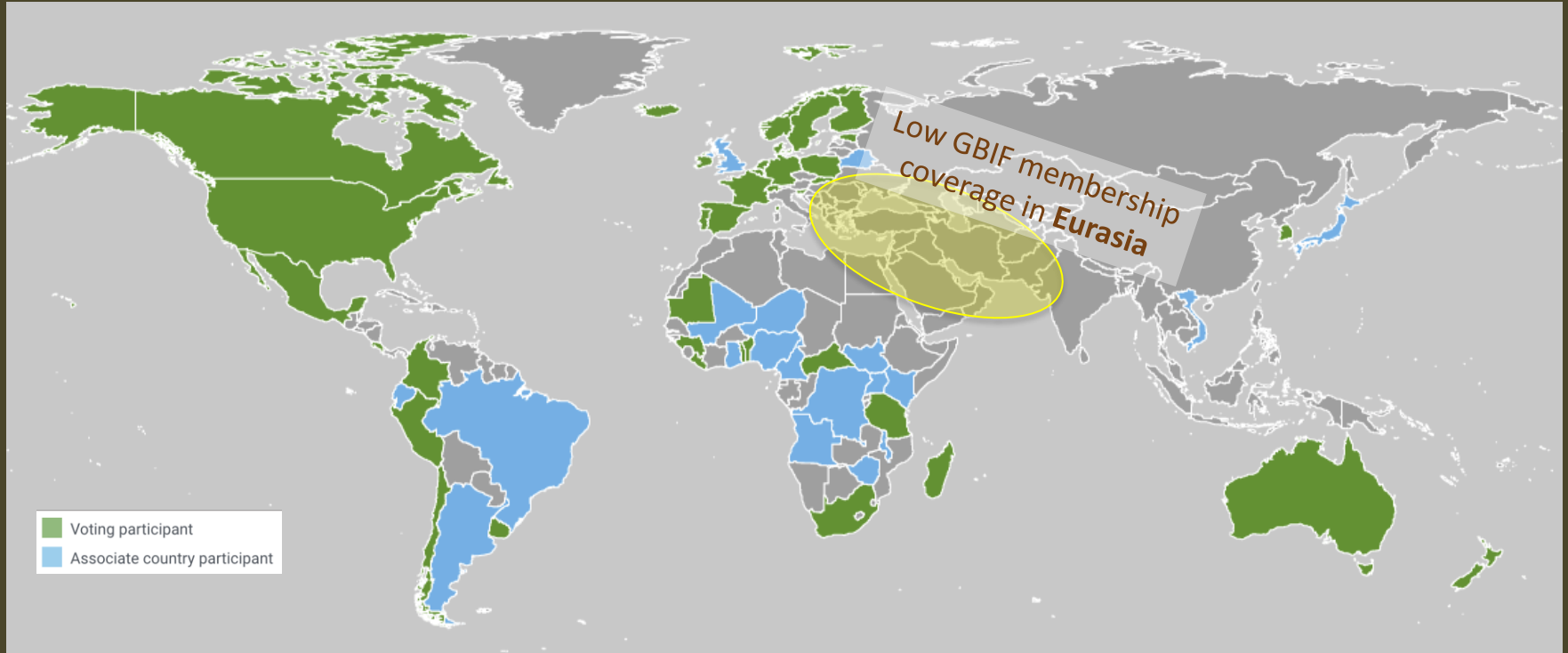
Mobilization of biodiversity data from non-digital  
archives to online databases

Establish regional data hubs in

Eastern Europe, Caucasus, Central Asia



# OUTREACH TO MOBILIZE NEW COUNTRIES IN GBIF



BioDATA is organized in coordination with GBIF Secretariat staff to ensure good alignment with strategic outreach priorities

# FUNDING



Norwegian Agency for  
International Cooperation  
and Quality Enhancement  
in Higher Education

Funded by the Eurasia program of the Norwegian  
Agency for International Cooperation and Quality  
Enhancement in Higher Education (Diku)

Budget 3M NOK | € 300 000 Euro

2018 to 2021 (3 years)



# PARTNERS

University of Oslo (ForBio & GBIF Norway)

Armenian National Agrarian University

National Academy of Sciences of Belarus

Academy of Science & Znan va Zamin, Tajikistan

V.N. Karazin Kharkiv National University, Ukraine

GBIF Secretariat, Copenhagen



UiO : **Natural History Museum**  
University of Oslo





# ROLES

ForBio based in Oslo provides the central coordination team and financial center of operation

Local project partners in Tajikistan, Belarus and Armenia – responsible for organization of project events in Minsk, Dushanbe and Yerevan

GBIF (Secretariat and Norwegian GBIF-node) is responsible for coordinating the Biodiversity Informatics curriculum and providing training materials

Support from the “GBIF.ru team” in Russia with training and translation services





# TARGET GROUP

*Primary target:* Graduate (MSc) and postgraduate (PhD) students from BioDATA partner countries

*Secondary target:* postdocs, museum curators, collection managers and researchers in Armenia, Belarus, Norway, Tajikistan, and Ukraine

Objective is to offer professional training on biodiversity informatics for future museum curators, researchers, and potential GBIF node staff



# CURRICULUM

BioDATA is re-using the training curriculum developed for the EU-funded GBIF Biodiversity Information for Development (BID) program

And the e-learning platform hosted by GBIF Spain

Successful students are awarded a digital certification badge from GBIF – which will qualify to contribute as mentor in the wide GBIF network



# CURRICULUM

**2-week** online introduction – background

**5-day** on-site workshop with hands-on training

**2-week** online follow up exercises for certification

— — — .

*Day 1:* Biodiversity informatics fundamentals, Darwin Core and data mobilization planning skills

*Day 2:* Digitization, data quality, data management

*Day 3:* Open data and field trip with iNaturalist

*Day 4:* Biodiversity data publication (IPT)

*Day 5:* Hands-on practice using prepared use case exercises



# ACTIVITIES

Kick-off meeting

(Oslo, Norway)

Train-the-mentors course

(Minsk, Belarus)

4 regional training courses

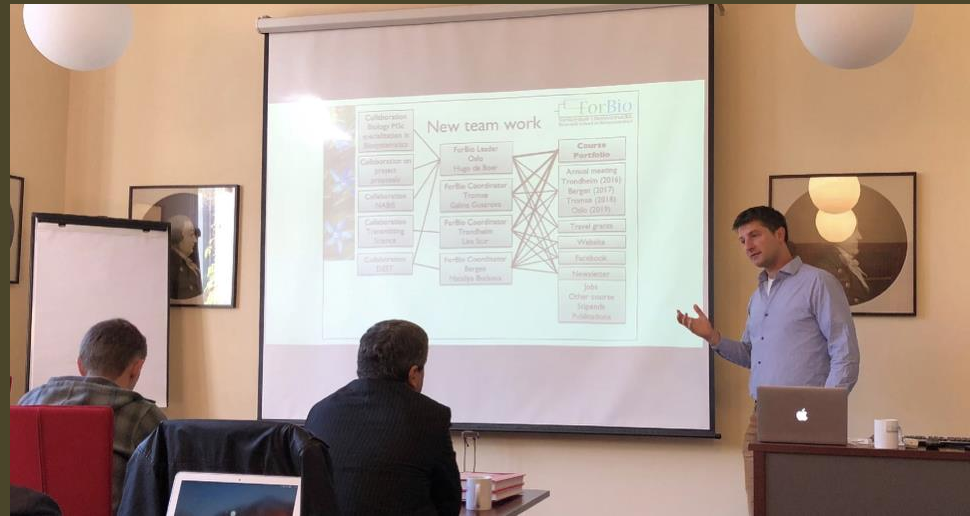
(Tajikistan, Belarus, Armenia, Ukraine)

Final symposium

(Oslo, Norway)



Kick-off meeting | February 2018 | Oslo, Norway







Train-the-mentors | February 2019 | Minsk, Belarus







Including students from  
Uzbekistan and Kyrgyzstan



Regional training | June 2019 | Shambari, Tajikistan







Including students from  
Latvia and Moldavia

**Participants from Belarus:**

National Academy of Science of Belarus

Baranovichi State University

Belarusian State University

Gomel State University

Grodno State University

Vitebsk State University

National Park "Braslavskie Oзера"

National Park "Pripyatsky"



Regional training | November 2019 | Białowieża, Belarus





Regional training | April 2020 | Yerevan, Armenia

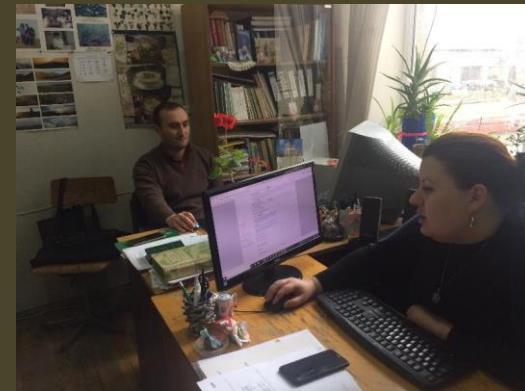
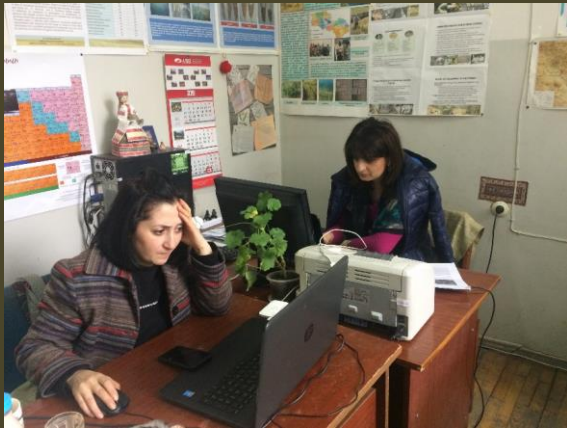


Regional training | October 2020 | Ukraine





# BIODATA- GROUP WORK, 29 APRIL – 20 MAY 2019



# ENHANCEMENT OF CURRICULUM



## Master Degree

- agronomy, S&G
- agro ecology
- environmental biotechnology

## Course

- plant genetic resources
- agroecosystem management

## Bachelor Degree

- agronomy, S&G
- agro ecology

## Course

- agrobiodiversity

**2019 Fall Semester** curriculum is enhanced

**2020 Spring Semester two** manuals is anticipated on biodiversity data digitization

# BIODATA -NETWORKING



- Environmental Ministry, all relevant stakeholders: Yerevan State University (YSU), National Academic of Sciences of Armenia (NASA), Botanical Institute (BI), American University of Armenia (AUA), etc, NGOs FPWC, Green line, Butterfly Biodiversity of Armenia etc.), GIZ, CNF. (January 2019 ongoing)
- Armenia Integration into GBIF, September 5 2019 meeting in EM
- October 11 EM official agreement to ANAU
- 7 November the statement of EM sent to Ministry of Finance
- 11 Nov letter sent to NAS of Armenia

# BIODATA WORKSHOPS

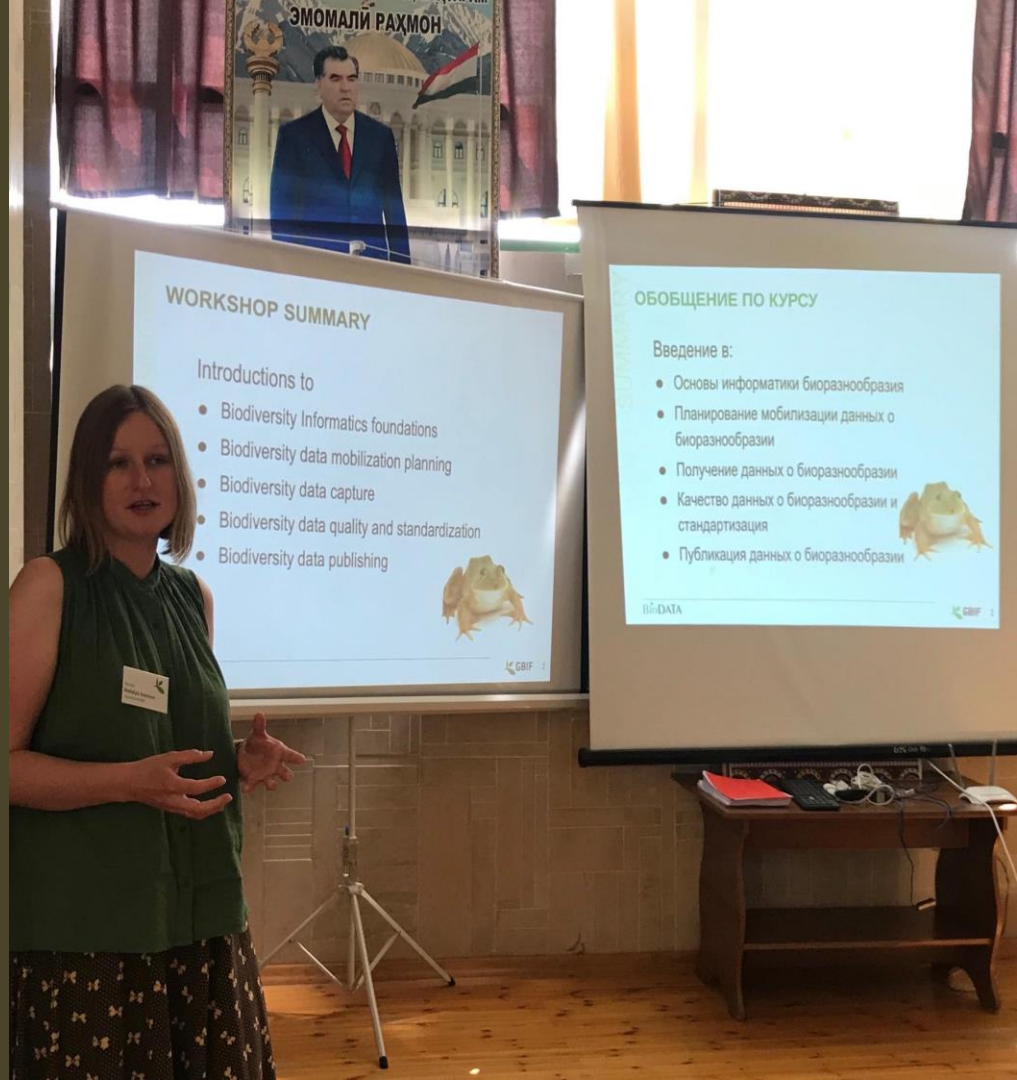




# CHALLENGES

Language barriers – all training materials were translated to Russian (by the GBIF.ru team)

Internet connectivity – the course IPT and all course training materials was provided from a small Raspberry Pi server installed in the class room



# SUCCESS

Belarus joined GBIF as associate country July 2019

Armenia and Tajikistan are preparing to join GBIF

Ukraine are preparing data publication in GBIF





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