CroMent

Programme: CESP
Project ID: CESP2023-006
Project page: https://www.gbif.org/project/CESP2023-006/croment
Project lead organization: Ministry of Environmental Protection and Green Transition, Institute for Environment and Nature
GBIF Participant Represented: Croatia
Project implementation period: 31/10/2023 - 15/7/2024
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Declaration: The information provided in this report has been provided by and is the responsibility of the project lead.

Narrative Final report

Executive Summary

Within the CroMent project, intensive collaboration between The Belgian Biodiversity Platform (BBPF) and Croatian GBIF node (CroBIF) with noticeable increase in knowledge and capacity of CroBIF for data mobilization. Successful data mobilization workshops were held for the scientific community. During the workshop representatives of the scientific institutions recognized the importance and advantages of open biodiversity data and expressed their willingness to promote mobilization of biodiversity data in their institutions. Informal network of representatives of scientific institutions and expert civili society organisations was established including dedicated communication channel. Three datasets were prepared for publishing to GBIF, out of which one was published within the scope of this midterm report. Contacts with governmental office in charge of open data policy in Croatia has been made, following which activities for mobilization of biodiversity data and strengthening of CroBIF were included in the draft of the national Action Plan for Implementation of the Open Data Policy 2024-2025. Parallelly, an implementation of Croatian Living Atlas instance is in progress, complementing the CroMent and in general Croatian biodiversity data mobilization activities. A new web portal of the Croatian Nature Protection Information system is being developed (https://crola.haop.hr/gbif-hrvatska/) with special section dedicated to open data and data mobilisation acitivities.

Report on Activities

Activity progress summary

Within the CroMent project, intensive collaboration between The Belgian Biodiversity Platform (BBPF) and Croatian GBIF node (CroBIF) was established. Weekly on-line meetings were held, on which activities for establishing effective GBIF node were discussed and on which BBPF share knowledge and experience in data standardization and mobilization. Less frequent communication is still ongoing. Detailed program for data mobilization workshops, held from 19. to 23.2.2024., was elaborated and dedicated workshop website was created, containing all presentations and relevant materials (https://www.biodiversity.be/croment). Test version of the national IPT was installed, available to the workshop participants for practical part of the workshop, which is also used for preparing the datasets for publishing to GBIF. Three dataset were prepared and published to GBIF via Belgian IPT. Two datasets come from the Institute for Environment and Nature and one from the Faculty of Agriculture. The National data mobilization strategy was drafted. Activities for mobilization of biodiversity data and strengthening of CroBIF were included in the draft of the national Action Plan for Implementation of the Open Data Policy 2024-2025. GBIF Europe and Central Asia (ECA) meeting was held in May in Zagreb, followed by the workshop Mobilising biodiversity data to the Global Biodiversity Information Facility, attended by potential publishers from Croatia and Bosnia and Herzegovina.

Completed activities

Activity name: 1.1 Learning the data mobilization and publication process

Description: Hands on and technical workshop were held from February 20th to 22nd. There were 25 participants from 16 different institutions. Best practice examples on data cleaning and data management were given, including detailed information on the use of DarwinCore Standard and the use of IPT.
Start Date - End Date: 20/2/2024 - 22/2/2024

Verification Sources: Web site is available on the following link: https://www.biodiversity.be/croment. List of participants is attached to the report

Activity name: 1.3 GBIF community workshop

Description: GBIF community workshop was held form February 19th and 23rd. There were 25 participants from 16 different institutions. During the workshop information on GBIF network and policy, Living Atlases and open data principle was given. Data mobilization strategy exercise was carried out the second day.
Start Date - End Date: 19/2/2024 - 23/2/2024
Verification Sources: Web site is available on the following link: https://www.biodiversity.be/croment. List of participants is attached to the report

Activity name: 1.4 GBIF technical workshop

Description: Hands on and technical workshop were held from February 20th to 22nd. There were 25 participants from 16 different institutions. Best practice examples on data cleaning and data management were given, including detailed information on the use of DarwinCore Standard and the use of IPT.
Start Date - End Date: 20/2/2024 - 22/2/2024
Verification Sources: Web site is available on the following link: https://www.biodiversity.be/croment. List of participants is attached to the report

Activity name: 1.2 Designing a data mobilisation strategy

Description: Croatian node with the guidance of Belgian node, drafted a data mobilisation strategy through series of joint meetings. Part of the GBIF community wokrshop was dedicated to the development of a national data mobilization strategy for Croatia. Also, a contact with governmental office in charge of open data policy has been made, following which activities for mobilization of biodiversity data and strengthening of CroBIF were included in the draft of the national Action Plan for Implementation of the Open Data Policy 2024-2025. The adoption of the Action Plan is in procedure, following which a Data mobilisation strategy for Croatia will be published
Start Date - End Date: 1/2/2024 - 8/7/2024
Verification Sources: Draft Data mobilisation strategy is attached to the project report. Draft of the Action Plan for Implementation of the Open Data Policy 2024-2025 has not been offically published so it cannot be attached to the report.

Activity name: 1.5 Report on CroMent

Description: Midterm and final financial and narrative reports on the whole project,workshops and outcomes were prepared and submitted.
Start Date - End Date: 15/3/2024 - 8/7/2024
Verification Sources: Midterm and final financial and narrative reports are available on the CESP Grant Portal. All workshop materials, which serve as supporting material for publishers are available on the dedicated website https://dimevil.github.io/croment/. Three published datasets are avaliable on GIBF portal under the CESP CroMent project ID.

Activity name: 1.6 Follow-up sessions

Description: Online and in person sessions werer organized between Belgian mentor node andCroatian node to discuss work and documents elaborated through other activities. During workshop preparation weekly meetings were held on which activities for establishing effective GBIF node were discussed and on which BBPF share knowledge and experience in data standardization and mobilization. The continuous communication through on-line meetings and email exchange is being held still on the subject of data cleaning and preparing the datasets for publishing through IPT and as well on implementing both Flemish and Croatian Living Atals Instance.
Start Date - End Date: 14/1/2024 - 8/7/2024
Verification Sources: Numerous emails exchanged between Belgian and Croatian GBIF node.

Report on Deliverables

Deliverables progress summary
Within the CroMent project, intensive collaboration between The Belgian Biodiversity Platform (BBPF) and Croatian GBIF node (CroBIF) was established. Weekly on-line meetings were held, on which activities for establishing effective GBIF node were discussed and on which BBPF share knowledge and experience in data standardization and mobilization. Less frequent communication is still ongoing, especially on the subject of data cleaning and preparation of the datasets for publishing to GBIF as well on implementing both Flemish and Croatian Living Atals Instance. Detailed program for data mobilization workshop was elaborated and dedicated workshop website was created, containing all presentations and relevant materials (https://www.biodiversity.be/croment). Workshops were held from 19. to 23.2.2024. Within a progress of establishing Living Atlas of Croatia, test version of the national IPT was installed, which was available to the workshop participants for practical part of the workshop

and which is also used for preparing the datasets for publishing to GBIF. As a result of the project, three datasets were prepared and published to GBIF via Belgian IPT. Two datasets come from the Institute for Environment and Nature and one from the Faculty of Agriculture. Pre- and post workshop survey were given to participants in order to identify their opinion and knowledge on open data. The survey results and results of the workshop discussion will be used for drafting National data mobilization strategy. Also, a communication was established with the governmental office in charge of open data policy and Croatian Open Data Portal. As a result, activities for mobilization of biodiversity data and strengthening of CroBIF were included in the draft of the national Action Plan for Implementation of the Open Data Policy 2024-2025. As a part of promoting open data principle in the region, CroGBIF accepted to host the GBIF Europe and Central Asia (ECA) meeting in May in Zagreb. Meeting was followed by the workshop Mobilising biodiversity data to the Global Biodiversity Information Facility, attended by potential publishers from Croatia and Bosnia and Herzegovina. Althogether 19 participants from 13 different institutions attended the workshop, with which collaboration was agreed on and future plans for biodiversity data publishing were set.

Completed deliverables

Title: GBIF community workshop

Type: Training Workshop
Description: GBIF community workshop was held form February 19th and 23rd. There were 25 participants from 16 different institutions. During the workshop information on GBIF network and policy, Living Atlases and open data principle was given. Data mobilization strategy exercise was carried out the second day.
Sources of verification: Dedicated workshop website was established with all presentations and relevant material for the participants. Web site is available on the following link: https://www.biodiversity.be/croment. Participants list is attached to the project report.

Title: Hands on workshop

Type: Training Workshop
Description: Hands on and technical workshop were held from February 20th to 22nd. There were 25 participants from 16 different institutions. Best practice examples on data cleaning and data management were given, including detailed information on the use of DarwinCore Standard and the use of IPT.
Sources of verification: Dedicated workshop website was established with all presentations and relevant material for the participants. Web site is available on the following link: https://www.biodiversity.be/croment. Participants list is attached to the project report.

Title: Technical GBIF workshop

Type: Training Workshop
Description: Hands on and technical workshop were held from February 20th to 22nd. There were 25 participants from 16 different institutions. Best practice examples on data cleaning and data management were given, including detailed information on the use of DarwinCore Standard and the use of IPT.
Sources of verification: Dedicated workshop website was established with all presentations and relevant material for the participants. Web site is available on the following link: https://www.biodiversity.be/croment. Participants list is attached to the project report.

Title: Data mobilized

Type: Dataset
Description: A dataset was prepared and published to GBIF via Belgian IPT. Dataset contains more than 3000 records of saproxylic beetles collected through citizen science campaign - Jeste li ih vidjeli?, organized yearly since 2015 by the Institute for Environment and Nature (CroBIF).
DOI: https://doi.org/10.15468/ukuctu

Title: Data mobilized

Type: Dataset
Description: A dataset was prepared and published to GBIF via Belgian IPT. Dataset contains more than 400 records plant species. The mapping was conducted on the 12th of April 2018 by implementing the survey plots method. Dataset is published by the Faculty of Agriculture
DOI: https://doi.org/10.15468/w6p22g

Title: Data mobilized

Type: Dataset
Description: One dataset was prepared and published to GBIF via Belgian IPT. Dataset contains more than 57000 records of bird species (primarily forest and wetland species), gathered over the period 2022-2023. Dataset is published by the Institute for Environment and Nature
DOI: https://doi.org/10.15468/ek8q2b

Title: National Data Mobilisation Strategy

Type: Documentation
Description: National Data Mobilization Strategy is drafted. Activities for mobilization of biodiversity data and strengthening of CroBIF were included in the draft of the national Action Plan for Implementation of the Open Data Policy 2024-2025, which is waiting to be adopted.
Sources of verification: https://rdd.gov.hr/politika-otvorenih-podataka/281 Draft of the National Mobilisation Strategy is attached to the project report.

Events

Data mobilization workshop

Dates: 19/2/2024 - 23/2/2024
Organizing institution: Institute for Environment and Nature
Country: Croatia
Number of participants: 25
Comments: Three planned workshops (GBIF community workshop, Hands on workshop and Technical GBIF workshop) were carried out consecutively from 19th to 23rd of February as one data mobilization workshop.
Website or sources of verification: https://www.biodiversity.be/croment

Communications and visibility

Relevant stakeholders from the scientific community were identified and invited to participate in the data mobilization workshop organized within the scope of the project and as well on the data mobilisation workshop organized as follow up to the GBIF ECA Regional meeting. Each scientific institution participating in the workshops has nominated its focal point for further communication with CroBIF on mobilization of biodiversity data hosted by the institution. A dedicated mailing list of the focal points is established as well as communication channel for exchange information on biodiversity data mobilisation for all interested publisher. Collaboration with several future publisher is agreed on and future plans for biodiversity data publishing were set. A website containing all presentations and relevant materials from the mobilization workshop is established and is serving as a source of infomration on data mobilsation and publishing steps. A new web portal of the Croatian Nature Protection Information system is being developed (https://crola.haop.hr/gbif-hrvatska/) with special section dedicated to open data and data mobilisation acitivies and dissemination of all the GBIF related information. Also, an implementation of Croatian Living Atlas instance is in progress, complementing the CroMent and in general Croatian biodiversity data mobilization activities. All the dataset published by interested publishers in Croatia will be visible on the Croatian Living Atlas Instance.

Monitoring and evaluation

Monitoring, evaluation and lessons learned
Final Evaluation:
All activities planned for this project period had been carried out without the delay, except publishing the final dataset to GBIF for which 15 day prolongation was needed and approved. Instead of the planned at least two datasets with in total 10000 records, we have prepared and published three datasets with more than 60000 records, for which more time was needed than originally planned. All expected outputs were fulfilled. Stakeholder engagement was very satisfying and contacts were established with total 16 scientific institutions and 6 expert civil society organization. According to the pre- and post-workshop surveys, workshops were successful and really resulted in knowledge increase on FAIR and OPEN data principles and use of DarwinCore and IPT for publishing biodiversity data. Most of the participants expressed their willingness to promote mobilization of biodiversity data in their institutions and are willing to publish their data through national IPT to GBIF. Faculty of Agriculture was the first scientific institution to publish one dataset in scope of the project. Further communication is in place in order to establish a formal cooperation with scientific institutions. Formal

cooperation with the governmental office in charge of open data policy and Croatian Open Data Portal was established which resulted with activities for mobilization of biodiversity data and strengthening of CroBIF included in the draft of the national Action Plan for Implementation of the Open Data Policy. The only deviation from the project proposal is concerning the financial side. The total amount spent was significantly lower than originally planned, due to the following reasons:

Workshops venue - meeting room was acquired free of charge
Workshops / Consumables or General Purchase - workshop materials were acquired free of charge
Workshops - food & refreshments - not all participants have consumed lunches and refreshments
Workshops / Travel - less participants than planned used airplane and bus because they arrived with their personal vehicle. Also less participants needed accommodation. Also it was planned that lecturers will arrive three times for shorter meetings, but it was arranged that meetings are held in the same week as the workshop. According to the above stated, we do not need any more financing for this project.

Best Practices and Lessons Learned:
Cooperation with The Belgian Biodiversity Platform was extremely successful and helpful. Besides successful transfer of knowledge on the technical issues in data mobilization, the rich experience of the colleagues from Belgium in stakeholder approach was of a great value. Although the institutional organization, data management capacities and tradition in opening the research data is different in these two countries, suggestions from Belgium colleagues help a lot in approaching the potential publishers and setting the foundation for the activities of the Croatian GBIF node. Additionally, a data mobilisation workshop held after the GBIF ECA meeting also proved to be a great opportunity to widen the network with the representatives of expert civil society organizations, which already had a positive attitude towards the opening of biodiversity data. Although we got a large positive response by the representatives of different institutions, it was proved that it will be difficult to establish formal communication and coordination on the institutional level with most of the scientific institutions, because of the heterogeneity and different data policies within the institutions. More effort will be needed to establish this formal cooperation and to encourage the formation of unique data policy in the scientific institutions. However, an excellent cooperation on the individual level already is showing results with one external dataset published and with data mobilisation processes started for several datasets from the mentioned publishers. Implementation of the Croatian Living Atlas instance will definitely be of great value in promoting the data mobilization and improve the visibility of open data principle and GBIF activities in Croatia.

Sustainability plans

Croatian GBIF node is established in scope of the Institute for Environment and Nature. Several employees of the Institute are in charge of carrying out node activities. There is a need of raising capacity of the node, which is planned through an EU funded project. Collaboration with potential publisher is in place and several datasets are in preparation for publishing. Communication with representatives of the publishers is continuous and interested representatives are promoting the open data policy within their institutions. More effort is needed for the formalisation on the institutional level and for establishing unique data policy within the institutions. Through the mentioned EU project, numerous workshops and meetings with the potential publishers from the scientific institutions, expert civil society organizations and private sector are planned. Croatian Living Atlas instance will be implemented by October 2024., offering national IT infrastructure for managing biodiversity data and raising visibility and value of the open data policy. Continuous data exchange procedures between Living Atlas and GBIF will be established. Future impact of the project will be reflected in the increase in the number of registered publishers and the number of published datasets.