

Assessment and update of GBIF marine macroalgae databases (Rhodophyta, Ochrophyta and Chlorophyta) from Haiti and Dominican Republic (Hispaniola)

Programme:BID

Project ID: BID-CA2020-012-INS

Project lead organization:Programa EcoMar, Inc.

Project implementation period:1/7/2021 - 30/9/2022

Report approved: 23/2/2022

Narrative Midterm report

Executive Summary

The 2001 macroalgae inventory was critically reviewed and a new 2022 inventory was created, updating the taxonomy using WoRMS and adding 98 new taxa, found in 36 new references from the scientific literature and museum's collections searched. The list of macroalgae species is expanded from 325 to 423 taxa. The increments by phyla are: Rhodophyta: 181 to 230; Ochrophyta: 42 to 55; Chlorophyta 102 to 138. The new references include thirteen new US museums from the Macroalgae Herbarium Consortium Portal and also some European museums (e.g., Muséum National d'Histoire Naturelle Paris and Natural History Museum of London). Following five steps: i) relevant literature identification, ii) secure institutional agreements, iii) data capture, iv) data management and v) data publishing; the first dataset was published through GBIF.org with 301 new records for Dominican Republic.

Progress against milestones

Has your project published at least one dataset through GBIF.org?: Yes

Dataset published:

Dataset	DOI
Marine macroalgae species from Dominican Republic	https://doi.org/10.15468/8pys84

Has at least one member of your project team received certification following the BID capacity enhancement workshop?: No

Rationale: Participant: Liliana Betancourt Fernández

Assignment submission date: October 15, 2021

Report on Activities

Activity progress summary

The six scheduled activities described in the project proposal fulfilled.

Completed activities

Activity: Update the inventory of the marine macroalgae species in Hispabiota Marina databases

Description: 1. Review and update the inventory from 2001: “Algas marinas bentónicas (Rhodophyta, Phaeophyta y Chlorophyta) conocidas para Hispaniola” published in Moscosoa, the scientific journal of the National Botanic Garden of Dominican Republic.

Start Date - End Date: 1/7/2021 - 31/10/2021

Verification Sources: 2022 draft updated list of macroalgae species (includes the results of the 2001 inventory review) Report Attachment 1

Activity: Update the inventory of the marine macroalgae species in Hispabiota Marina databases

Description: 2. Search and review taxonomic, biological, ecological, biogeographic or genetic studies in the Atlantic and Caribbean region that include valid reports of marine macroalgae species for Haiti and the Dominican Republic, within the limits of their exclusive economic zones.

Start Date - End Date: 1/7/2021 - 31/10/2021

Verification Sources: Comparative table of references and summary of findings. Report Attachment 2

Activity: Update the inventory of the marine macroalgae species in Hispabiota Marina databases

Description: 3. Review the information on marine macroalgae species from Dominican Republic or Haiti hosted in the collections of national and international museums.

Start Date - End Date: 1/7/2021 - 31/10/2021

Verification Sources: 2022 draft updated list of macroalgae species (with the catalog numbers of museums indicated in each species) Report Attachment 1

Activity: Update the inventory of the marine macroalgae species in Hispabiota Marina databases

Description: 4. Taxonomically update the list of species following the criteria of the World Register of Marine Species: WoRMS

Start Date - End Date: 1/7/2021 - 31/10/2021

Verification Sources: 2022 draft updated list of macroalgae species updated following the criteria of the World Register of Marine Species: WoRMS. Report Attachment 1

Activity: Update the inventory of the marine macroalgae species in Hispabiota Marina databases

Description: 5. Prepare the Darwin Core matrix with the information obtained.

Start Date - End Date: 1/1/2021 - 31/10/2021

Verification Sources: Darwin Core matrix uploaded in the IPT

Activity: Review and collate the marine macroalgae databases of GBIF and Hispabiota Marina, detect and correct possible inaccuracies, add missing species and assign

coordinates to some non-georeferenced occurrences, based on best collection georeferencing practices

Description: 1. Search the occurrences content of the GBIF marine macroalgae database using the key words: Rhodophyta, Ochrophyta (Phaeophyceae) and Chlorophyta as scientific names; and Haiti and Dominican Republic, as countries

Start Date - End Date: 1/11/2021 - 31/1/2021

Verification Sources: Download report: GBIF.org (30 July 2021) GBIF Occurrence Download <https://doi.org/10.15468/dl.bmggjb> (3,323 occurrences downloaded) Report Attachment 3

Report on Deliverables

Deliverables progress summary

No deliverables in this midterm report.

Progress towards deliverables

Dataset deliverables

Other deliverables

Communications and visibility

GBIF project webpage was linked to the website of Programa EcoMar

<https://www.programaecomar.com/ProjectBID-CA2020-012-INS.htm>

A webpage was designed to facilitate the uploading of the results obtained in its main activities. The implementation of the project is being shared with the environmental authorities, the National Botanic Garden and national environmental NGOs. A conference was held with the Dominican Association of Biology Students from Universidad Autónoma de Santo Domingo.

<https://www.facebook.com/uasd.adebio/photos/pcb.827532961265511/827532897932184/>

Monitoring and evaluation

Monitoring and evaluation findings

The activities scheduled for the midterm report with the name: “Update the inventory of the marine macroalgae species in Hispabiota Marina databases” (review the 2001 inventory, add new species records from literature and museums, taxonomic update using WoRMS and prepare the first DwC matrix), were satisfactorily completed. Report attachments: 1. Draft updated list of macroalgae species from Hispaniola. 2. References about Hispaniola macroalgae species in the 2001 and 2022 inventories. The first Darwin Core matrix was upload to the IPT with 321 new records for GBIF.

From those activities scheduled beyond 2021 to February 2022 with the name: “Review and collate the marine macroalgae databases of GBIF and Hispabiota Marina”, one activity was completed for the midterm report: search the occurrences in the GBIF database using taxonomic and geographic key words. Report attachments: 3. Download occurrences report.

As first participants in a GBIF project we want to highlight the importance of the technical assistance and follow up of Leonardo Buitrago as part of the BID Regional Project Support Team.

Impact of COVID-19 pandemic on project implementation

Covid-19 did not affect the project activities. However, as the pandemic has changed the working schedule of the institutions, we have had a delay in the official responses expressing opinions about the upload of institutional data in the GBIF databases. At the moment we have more than 600 records already processed in the DwC that cannot be presented in this report because we are waiting for a response from the University of Puerto Rico. We has just received clearance from the University of Michigan.

GBIF leads the Biodiversity Information for Development (BID), a programme funded by the European Union. The programme provides supplementary support for activities addressing the needs of regional researchers and policymakers through mobilization and use of biodiversity data.

