

Memorandum of Understanding

Between

**The FishBase Consortium (for FishBase and SeaLifeBase)
represented by Quantitative Aquatics, Inc. (Q-quatics)**

And

**The Steering Committee of the World Register of Marine Species (WoRMS),
represented by the Flanders Marine Institute (*Vlaams Instituut voor de Zee – VLIZ*)**

Introduction

This Memorandum of Understanding provides the basis for cooperative work between and by FishBase and SeaLifeBase managed by Quantitative Aquatics, Inc. and the World Register of Marine Species managed by the Flanders Marine Institute (*Vlaams Instituut voor de Zee*).

The parties

FishBase & SeaLifeBase – Q-quatics

The Quantitative Aquatics, Inc. (hereafter Q-quatics) is a non-stock and not-for-profit non-governmental organization (NGO) established in the Philippines on 9 February 2017. Q-quatics develops, manages, disseminates and participates to information systems gathering key data on living aquatic resources, and related research tools and methods, in collaboration with international partners: biodiversity information systems: FishBase, SeaLifeBase, and Catalogue of Life, and associated analytical tools; a global aquatic biogeography modeling tool, AquaMaps; databases and research tools developed by the Sea Around Us for marine fisheries resources of the World; etc. All information systems are easily accessible and free-of-charge to the public.

Q-quatics, with its partners, also aims at identifying projects that would help initiate or maintain research on global fisheries and biodiversity conservation, and which provides information that can help generate policy options for their sustainable use and possible responses to climate change.

The development and maintenance of FishBase and SeaLifeBase is operated in the Philippines by their respective Data Encoding Teams, and by the Information Technology Group of Q-quatics. The management of FishBase and SeaLifeBase is steered by the FishBase Consortium, currently constituted by 10 members (universities, museums, fishery-related institutions).

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WoRMS – VLIZ

The Flanders Marine Institute (hereafter VLIZ) is a not-for-profit, largely government funded organization based in Oostende (Flanders, Belgium). VLIZ acts as the coordination and information platform for marine and coastal-related scientific research in Flanders and serves as an international contact point. The Data Centre Division provides assistance, technologies and tools to scientists and policy makers to support marine data management. Within international networks, VLIZ participates in the development of data infrastructures and promotes the flow of marine data from Belgium. The Data Centre is a world leader in managing biodiversity data, and is part of the World Data System of the International Council for Science (ICSU). In particular, VLIZ has built-up expertise in taxonomic data management through the hosting of the World Register of Marine Species and related taxonomically-oriented databases.

The World Register of Marine Species (hereafter WoRMS) – including its sub-registers – is managed by the WoRMS Steering Committee (WoRMS SC), who represents the editors in all matters relating to the databases, including liaison with other (international) programs, projects and initiatives concerning the databases, in close collaboration with the WoRMS Data Management Team (WoRMS DMT). They are responsible for the scientific correctness of the database, and for identifying data and editor gaps. WoRMS itself is part of the Aphia platform, an infrastructure designed to capture taxonomic and related data which includes an online editing environment. Aphia is hosted at and managed by the Flanders Marine Institute (VLIZ) and is an integral part of the LifeWatch Taxonomic Backbone (LW-TaxBB), which is a central component of the European LifeWatch project.

Objectives

- To establish a framework of cooperation between FishBase, SeaLifeBase and WoRMS, that uses the comparative advantage of each information system to:
 - o promote the use of biodiversity information systems for scientific research;
 - o minimize duplication of efforts by identifying the overlaps between the initiatives.
- To develop automated- and human-driven mechanisms whereby FishBase, SeaLifeBase and WoRMS can easily exchange data.

Framework between the three Biodiversity Information Systems, FishBase, SeaLifeBase, and WoRMS

The three information systems are managed in three different databases. FishBase and SeaLifeBase have similar structures.

Currently: FishBase covers all fishes of the World; SeaLifeBase covers all marine organisms of the World with an emphasis for the exploited species and their ecosystems

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(WoRMS being the main source for its taxonomic backbone); WoRMS covers all marine organisms of the World (FishBase being the main source of fish information).

The present MoU aims at fixing, making explicit and developing these current relationships:

- WoRMS recognizes FishBase as a key provider of taxonomic, biological, ecological, and other life traits data on fish information.
- FishBase will provide standard, detailed and referenced information on fishes to WoRMS.
- SeaLifeBase recognizes WoRMS as a key provider of taxonomic data of marine species other than fish.
- WoRMS will provide standard, detailed and referenced taxonomic information on non-fish aquatic organisms to SeaLifeBase.
- SeaLifeBase and WoRMS will exchange a number of life traits data, i.e., biological, ecological, and distributional. This data flow will be determined case by case based on taxonomic group.

Conditions of data exchange

The cooperative framework is governed by the following conditions:

Credits

- The Q-quatics Team and the WoRMS Data Management Team will elaborate a proposal to make credits to each other's information system more visible on their respective website, beyond the citations as a reference that are already provided.
- This solution will be adjusted and fine-tuned by the FishBase Consortium and the WoRMS Steering Committee to respect the constraints related to the various partnerships in each case.

Storage and storage format

- Each party agrees that the other party stores its data on its own repository and data structure.

Content

- Neither WoRMS nor its users or partners may alter or replace content provided by FishBase. Instead, requests for taxonomic and other corrections or additions that arrive at the Data Management Team (DMT) of WoRMS (info@marinespecies.org), will be forwarded to FishBase for consideration.
- Neither SeaLifeBase nor its users or partners may alter or replace content provided by WoRMS. Instead, requests for taxonomic and other corrections or additions that arrive at the SeaLifeBase Team (sealifebase@Q-quatics.org), will be forwarded to WoRMS for consideration.
- For life traits data provided by SeaLifeBase (SLB) to WoRMS, the WoRMS editors cannot change this SLB content in WoRMS. If editors do not agree with the provided information from SLB, a feedback mechanism from WoRMS to SLB will make sure

that SLB is informed on this. The decision on how to deal with this feedback will remain with SLB.

- Each party will download the other party's information on a regular basis, aiming to be in synchronization as closely as possible.
- Each party may elect at its sole discretion to determine whether to present some, all, or none of the data objects provided by the other party and reserves the right to remove any illegal, offensive or objectionable content.

Dissemination

- Each party ensures that proper credit and attribution metadata are indicated and displayed (e.g., on webpages, in downloaded datasets, ...), including links to the respective database records in order to direct traffic towards the original portal with its additional tools, services and interaction with users.
- Each party holds the right to display the other party's content on its different related portals and to allow the content to be used in web services, modelling exercises, the creation of data products, and offering it to users through each party's download service.

Limited Warranty

The Electronic Intellectual Property (EIP; any data provided in an electronic format) is licensed to the receiving party on an "as is" basis, and the providing party makes no guarantees, representations or warranties with respect to the data, either express or implied, arising by law or otherwise, including but not limited to, effectiveness, completeness, accuracy, or fitness for purpose.

Exclusion and indemnity

- Neither party may incur any obligation or liability on behalf of the other.
- Each party shall indemnify and save harmless the other party, its servants, agents, and contractors from and against any claim, demand, or action, alleging loss, costs, expenses, damages, or injuries (including injuries resulting in death) arising out of the party's use of the EIP or in any way relating to this agreement.
- This MoU shall impose no financial obligation on either party.

Amendments and modifications

Either party may recommend amendments to this MoU by notifying the other party in writing. The amendment shall enter in force after the subsequent agreement of the other party in writing.

Conflict resolution

If this agreement would be terminated, neither party can demand to withdraw the exchanged data and information from the other party's databases. In such a situation, all parties can continue the maintenance of the received data as they see best fit, respecting and acknowledging the original source of the data.

Not a legal partnership

The parties do not intend to create a legal partnership, principal, agent, or joint venture relationship and nothing in this MoU shall be construed as creating such a relationship between the parties.

Non-exclusive agreement

This MoU is non-exclusive, and in no way restricts either Q-quatics (and its partners) or WoRMS (and its host institute) from participating in similar activities or arrangements with other public or private initiatives, organizations or individuals.

Duration and termination

This agreement is valid indefinitely until it is terminated by either party by a written notice sent to the other party 3 months in advance.

Notices

All written consents required hereinabove shall be sent to the following addresses:

- To Q-quatics:
Quantitative Aquatics, 272 Waling-waling Street, Lakeshore Subdivision, Sto. Domingo, Bay, Laguna 4033, Philippines
- To VLIZ:
Flanders Marine Institute (VLIZ)
Att. WoRMS Data Management Team, InnovOcean site, Wandelaarkaai 7, 8400 Oostende, Belgium

Authorized representatives

- ***FishBase Consortium representative:*** for the purposes of liaison, providing guidance and direction in daily operation matters, the FishBase Consortium shall be represented by its Chair.
- ***Q-quatics representative:*** for the purposes of liaison, providing guidance and direction in daily operation matters, Q-quatics, Inc. shall be represented by its Executive Director.
- ***WoRMS representative:*** for the purposes of liaison and providing guidance and direction in daily operation matters, WoRMS shall be represented by the Chair or the Vice-Chair of its Steering Committee.
- ***VLIZ representative:*** for the purposes of liaison and providing guidance and direction in daily operation matters, The Flanders Marine Institute (VLIZ) – permanent host institute of the Aphia database and its related registers, including WoRMS – shall be represented by its General Director.

Signatures

For the FishBase Consortium.

Name: **Rainer Froese**

Title: **Chair**

Date:

6 Feb 2018

Signature:

For the Quantitative Aquatics, Inc.

Name: **Maria Lourdes D. Palomares**

Title: **Executive Director**

Date: 22 December 2017

Signature:

For the World Register of Marine Species

Name: **Tammy Horton**

Title: **Chair of the Steering Committee of the World Register of Marine Species**

Date:

14/03/18

Signature:

For the Flanders Marine Institute (VLIZ)

Name: **Jan Mees**

Title: **General Director**

Date:

3-3-2018

Signature: