Fish global information infrastructure: Linking existing fish biodiversity information systems

Bailly, Nicolas[1,2]

[1.] *Quantitative Aquatics, FishBase*

Several major global biodiversity information systems have been created over the past 50 years partly or only about fishes: IUCN, FAO, Eschmeyer's Catalog of Fishes (ECoF), FishBase, Catalogue of Life (COL), FishNet, Global Biodiversity Information Facility (GBIF), Ocean Biodiversity Information System (OBIS), Fishwisepro, Sea Around us, ZooBank, World Register of Marine Species (WoRMS), Welt der Fische, iNaturalist, Fishipedia to name the main ones (Wikipedia might be added). And many more regional and national ones, or dedicated to a taxonomic group. All these systems have their own purposes and specificities that may have evolved along the years. But are there synchronization mechanisms to prevent user's confusion?

This poster will present the current situation of relationships between the major information systems. They may share data, unique identifiers, perform independent updates, but in general, all these systems have some relationships, that will be documented as a global network graph. This graph will help colleagues and newcomers to understand differences and apparent contradictions between systems. And also, to realize that all this work is not given, but requires much working time, resources, discussions and collaboration / cooperation.

This is a dream to have all these information systems connected and updated in real-time. The technology is now developed enough to implement a global infrastructure, even if there are still theoretical (assigning Global Unique IDentifiers to names and taxa) and implementation complexities (using several to many software components), but they are not limiting. Establishing full cooperation between actors in the domain remains the biggest challenge.