

FishBase Developments and Challenges after 25 Years

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FishBase is a global Biodiversity Information System on finfish, conceptualized in late 1980s and started in 1990 at ICLARM (= WorldFish). It is currently managed by FIN, a Philippine NGO created in 2003, and scientifically steered by the FishBase Consortium (9 institutions).

FishBase documents nearly 33,000 freshwater and marine species with relevant information on distribution, ecology, biology and taxonomy. Data are recorded in about 65 tables in a relational database. Analytical tools are developed to support fishery management both from biodiversity exploitation and conservation perspectives; for mapping and monitoring species richness that are affected by climate changes and introductions; and for education and public information.

FishBase records species distribution and checklists at 4 different levels: FAO areas, Countries, Ecosystems, and half-degree cells (through point data and the AquaMaps model). For the first 3 levels, the status of occurrence is recorded at two levels of details: Present (endemic, native, established), Possible (stray, introduced, questionable), and Absent (extirpated, not established, misidentification, error). Species checklists require national collaboration not only to validate presence or absence, but also to document conservation status, abundance, importance and uses of the species in the country, sub-country and ecosystem levels.

The main challenge we face now is to transform the encoding system into an interface designed for modifications, additions over existing information, deletions and reallocation of species information from all publications used, especially the distribution for widespread species when split into two or several species.

The second challenge is to complete species information by FAO area, country, and ecosystem.

The third challenge is to develop indicators for users to let them know how complete FishBase is for each level.

The fourth challenge is to engage users to participate in validating information and addressing gaps especially in the national level.