

# **Publishing Data Paper is an Effective Strategy for Mobilizing and Sharing Biodiversity Data – Using the Data Paper on Bottom Trawl Survey around Taiwan as an Example**

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Open access to and sharing of biodiversity raw data and metadata is fundamental to the work on biodiversity research, education, conservation and sustainability. In accordance with Convention on Biological Diversity (CBD) provisions, GBIF and other international organizations have embarked on long-term efforts to promote the integration of biodiversity databases and develop sharing mechanisms and platforms. Through these mechanisms and tools, GBIF has mobilized more than 360 million raw data since its establishment in 2001.

In 2011, GBIF launched a new Integrated Publishing Toolkit (IPT2). In addition to publishing raw data and metadata, IPT help researchers to draft data papers. A data paper, while a scholarly journal publication, is different from a conventional research article in that its primary purpose is to describe datasets and its contents are facts about data. Data papers can be published in one of the Pensoft journals such as BioRisk, NeoBiota, ZooKeys, PhytoKeys, Nature Conservation and Biodiversity Data Journal, with ZooKeys' impact factor reaching 1.133 in 2012. After a researcher completes the metadata of a dataset in IPT, a manuscript will be generated automatically. With some modification, the data paper is ready for submission. In the case that revisions are requested by reviewers, the author can easily return to IPT to make changes on the platform, republish the dataset, and resubmit the data paper.

One of the most important coastal fisheries in Taiwan is bottom trawl fishery. Its annual production, however, started to decline in the 1980s due to overfishing. As a result, the government banned bottom fishery within 3 nautical miles along the shoreline in 1989. To evaluate the effectiveness of this policy, a four year survey was conducted from 2000-2003 in the waters around Taiwan. All the fish specimens collected from trawling were brought back to the lab for identification and measurement. The raw data, 3,529 records of them, include scientific name, individual number count, total body weight, and temporal and spatial information of 631 demersal fish on the soft marine habitat in Taiwan. The data can be browsed and downloaded from the websites of GBIF, FishBase, TaiBIF and Taiwan Fish Database. By way of IPT, the dataset was formally published in ZooKeys on May 30, 2012.

In order to assist GBIF to promote IPT in Asia, the authors and Taiwan Forestry Research Institute had organized a domestic workshop in 2011. A "2012 Asia-Pacific Workshop on Sharing Biodiversity Information and Integrated Publishing Toolkit (IPT2)," which benefits the scientists from Asian countries, will be held at Taiwan Endemic Species Research

Institute on June 25-27, 2012. We will take this opportunity to share and discuss our ideas and experience with the participants on publishing data papers through IPT.

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