New task of Oceanographic Data Center for Data Publication and Citation

Toru Suzuki, Marine Information Research Center (Japan), suzuki@mirc.jha.jp

The National Oceanographic Data Centers (NODCs) and Associate Data Units (ADUs) have the role and responsibility for collection, management and dissemination of oceanographic data observed in IOC Member States and exchange them among the NODCs and ADUs. Recently major academic associations and scientific journals require to register the data using in author's works to public data repositories for open access with permanent identifier, such as Digital Object Identifier (DOI), according to FAIR (Findable, Accessible, Interoperable and Reusable) data principles. It means that NODCs and ADUs should undertake a new and important task as public data repository. The simplest way is that NODC assign one DOI to its massive database or product, but oceanographic data are usually obtained by measurements and observations operated by organizations, institutes and projects for ocean sciences using vessels/platforms with many variables for long time and global coverage, then DOI should be assigned to each measurements or observation. Actually, Japan Oceanographic Data Center are submitted oceanographic data from one hundred and more Japanese institutes with several hundreds of vessels and platforms, then a large number of DOIs will be required to assign all submitted data individually. In fact, it is not realistic to refer too many DOIs by data users in their scientific works. One of solutions to facilitate citation, identification and proof of existence for oceanographic data, NODCs and ADUs should have a function for DOI assignment not only for data management statistically but also according to result for data query conditions, such as time/period, position/area, variable, measurement/sensor, vessel/platform, organization/project or other parameters which are requested by data users. For oceanographic data citation, namely, it should be considered to be allowed DOI of DOIs, multiple DOIs (see Figure 1), or other better solutions effectively.

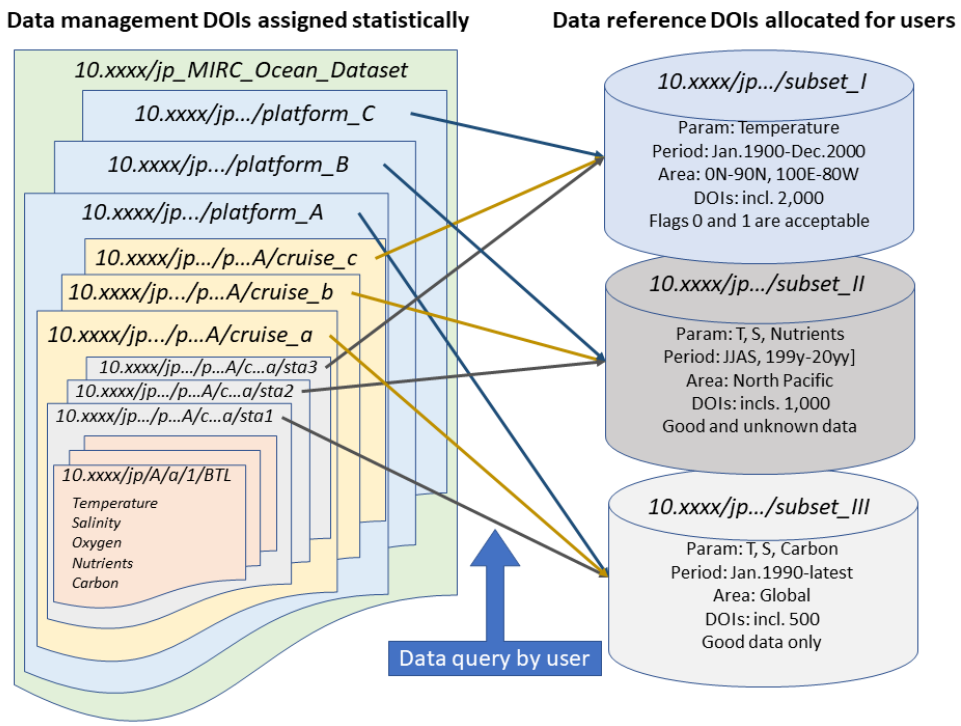

Figure 1: Schematic view of DOI assignment for oceanographic data by data centers