

Integrated collection and publication of sample metadata in JAMSTEC: a system maximizing the sample values and assisting in sample management.

Tohru Iseto¹, Marika Ichiyanagi², Masatomo Hisazumi², Yoshihiko Tamura¹, Yoshihiro Takatsu¹, Kazuyo Fukuda¹

¹Japan Agency for Marine-Earth Science and Technology (JAMSTEC), Yokosuka, Kanagawa, Japan.

²MARINE WORKS JAPAN LTD., Yokosuka, Kanagawa, Japan akeshi

Corresponding Email; dmo@jamstec.go.jp



Japan Agency for Marine-Earth Science and Technology (JAMSTEC) has collected a lot of samples (e.g. organisms, rocks, sediment cores) from the deep sea and other extreme environments. We thought it important to make them available to as many people as possible for a variety of purposes.

JAMSTEC established the “**Basic Policies on the Handling of Data and Samples**” in 2007, and its data management office (DMO) has operated a centralized management and **publication of metadata for almost all samples collected** during research cruises.

Publishing the metadata opens the door for third parties to apply for sample usage.

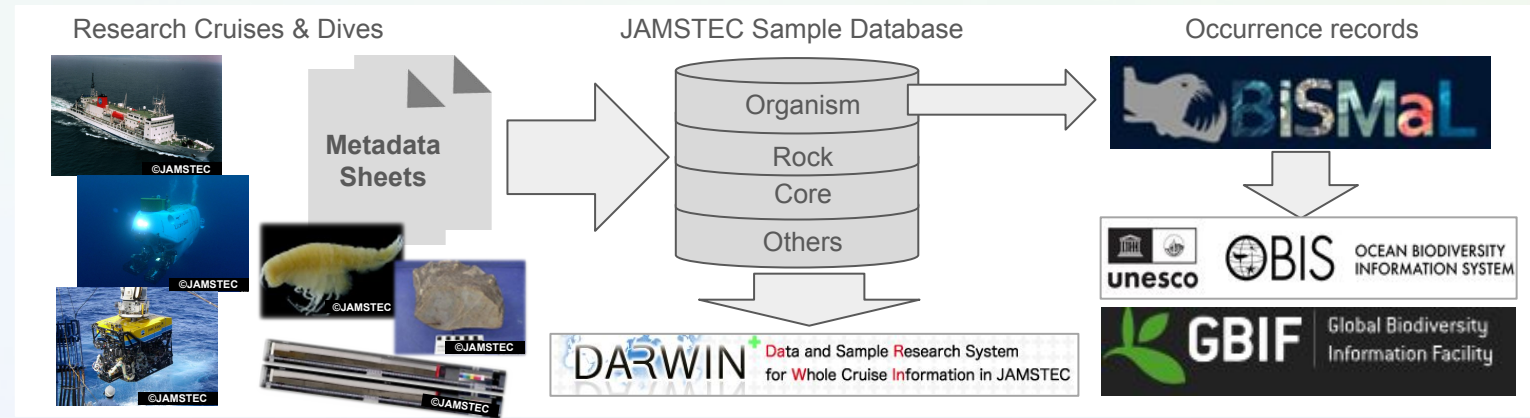
Metadata management also assist JAMSTEC researchers in..

- 1) sample management for their own researches.
- 2) creating collaborative research opportunities.
- 3) supporting sample inheritance.
- 4) managing research compliance.

We are moving to the next stage, where each **JAMSTEC researcher can register, update, and make public settings of the sample metadata themselves** on the database without relying heavily on DMO.

We hope that the JAMSTEC initiative will become a revitalizing model for sample-based research.

Soon after the research cruises, metadata of almost all collected samples are submitted to DMO using JAMSTEC’s **standardized metadata sheets** and registered into JAMSTEC Sample Database. The metadata of most samples are published through DARWIN which act as the consultation counter of JAMSTEC’s data and samples. Biological sample metadata is also provided to BISMAL, which then provides it to OBIS and GBIF.



The sample deposited in museums or resource centers represent only a small portion of the total samples collected by researchers.

 JAMSTEC workflow, **almost all collected samples are accessible from the public.**

