



Persistent Identifiers for Field Expeditions: A Next Step for the US Oceanographic Research Fleet

Robert Arko (1), Suzanne Carbotte (1), Cynthia Chandler (2), Shawn Smith (3), and Karen Stocks (4)

(1) Lamont-Doherty Earth Observatory, Palisades, New York, United States, (2) Woods Hole Oceanographic Institution, Woods Hole, Massachusetts, United States, (3) Florida State University, Tallahassee, Florida, United States, (4) Scripps Institution of Oceanography, La Jolla, California, United States

Oceanographic research cruises are complex affairs, typically requiring an extensive effort to secure the funding, plan the experiment, and mobilize the field party. Yet cruises are not typically published online as first-class digital objects with persistent, citable identifiers linked to the scientific literature.

The Rolling Deck to Repository (R2R; info@rvdata.us) program maintains a master catalog of oceanographic cruises for the United States research fleet, currently documenting over 6,000 expeditions on 37 active and retired vessels. In 2015, R2R started routinely publishing a Digital Object Identifier (DOI) for each completed cruise. Cruise DOIs, in turn, are linked to related persistent identifiers where available including the Open Researcher and Contributor ID (ORCID) for members of the science party, the International Geo Sample Number (IGSN) for physical specimens collected during the cruise, the Open Funder Registry (FundRef) codes that supported the experiment, and additional DOIs for datasets, journal articles, and other products resulting from the cruise.

Publishing a persistent identifier for each field expedition will facilitate interoperability between the many different repositories that hold research products from cruises; will provide credit to the investigators who secured the funding and carried out the experiment; and will facilitate the gathering of fleet-wide altmetrics that demonstrate the broad impact of oceanographic research.