

Data Citation Procedure on Science Database of Polar Research

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Outline of my talk



- Metadata holding history
 - Present status on polar data management (Metadata Portal in NIPR/PEDSC-DS, collaboration with GCMD)
- Highlights of recent developments
 - Data Inter-operability between other organizations (Polar Data Catalogue, DIAS,)
 - Data publication & citation (DOI attribution to NIPR metadata portal)





[About NIPR](#)

[NIPR Research](#)

[Data Base](#)

[Contact](#)

Home > Data Base

Data Base

Gateway to Polar Data @ NIPR/DS-ROIS

[Space and Upper Atmospheric Sciences](#)

[Meteorology and Glaciology](#)

[Geoscience](#)

[Bioscience](#)

[Governmental Institutions](#)



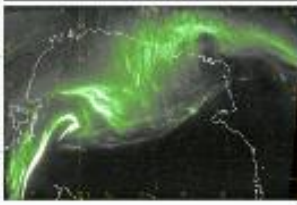
[Project](#)

[Monitoring](#)

[IPY](#)

[Arctic](#)

[Umitakamaru](#)



Data Base

- ▶ [Polar Data Center](#)
- ▶ [Ice Core Research Center](#)
- ▶ [Science Data Base](#)
- ▶ [Data Center for Aurora in NIPR](#)
- ▶ [EISCAT database in NIPR](#)
- ▶ [Dome Fuji Ice Core](#)
- ▶ [Collection of rocks and minerals](#)
- ▶ [Antarctic Meteorite Research Center](#)
- ▶ [Biological Specimen Archive](#)

NIPR Metadata Portal

Top Page;

<http://scidbase.nipr.ac.jp/>

NIPR_MetaDB; N=380

Both **English** &
Japanese pages

100,000 access from
2011. December

The screenshot shows the NIPR Metadata Portal website. At the top, there is a browser address bar with the URL http://scidbase.nipr.ac.jp/?ml_lang=en. The page header features the NIPR logo and the text "National Institute of Polar Research Science Database". Below the header, there are language selection buttons for "日本語" and "English".

The main content area is divided into several sections:

- Menu:** A vertical list of navigation links including Home, About Polar Meta Database, Science Category (Space and Upper Atmospheric Sciences, Meteorology and Glaciology, Geoscience, Bioscience, Governmental Institutions), Data Policy, User's Manual, Polar Information Commons, IPY Data Management, Related Links, Photo Gallery, and Contact.
- Login:** Links for Login, Register now!, and Lost Password?.
- Search:** A search input field with a "Search" button.
- Options:** A link to the Options page.
- Counter:** A section showing the total number of accesses, with a counter displaying "5666".
- meta data list:** A grid of categories: Space and Upper Atmospheric Sciences, Meteorology and Glaciology, Geoscience, Bioscience, and Governmental Institutions. Below this is a "New Meta Data" section listing recent entries with thumbnails, dates, and titles such as "Ocean color remote sensing data" and "Polar plant biodiversity database".
- Hot News !:** A list of recent news items, including "User Manual was renewed. (2nd version)", "Dr. Mustapha Mokrane, Science and Information Technology of ICSU visited NIPR", and "2012 JpGU; Union Session (U-01) 'Toward a New Framework of Global Data Activity'".
- Related Databases:** A vertical list of external databases including Polar Data Center, Aurora, EISCAT Japan, THE PENGUINNESS BOOK, ANIMAL SPECIMENS DATABASE, Antarctic Meteorite Database, Polar Sets, NIPR, and POLAR YEAR.
- PIC Norms:** A section for Polar Information Commons (PIC) norms, including a Creative Commons Attribution 3.0 Unported License logo and text stating that the work is licensed under this license.

At the bottom of the page, there is a copyright notice: "Copyright © National Institute of Polar Research".

NIPR Metadata Portal

To look the
metadata;

<http://scidbase.nipr.ac.jp/>

Menu
Home
About Polar Meta Database
Science Category
Space and Upper Atmospheric Sciences
Meteorology and Glaciology
Geoscience
Bioscience
Governmental Institutions
Data Policy
User's Manual
Polar Information
Commons
IPY Data Management
Related Links
Photo Gallery
Contact

NIPR_MetaDB; N=380



**National Institute of Polar Research
Science Database**

日本語 English

Menu
Home
About Polar Meta Database

Science Category
Space and Upper Atmospheric Sciences
Meteorology and Glaciology
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Photo Gallery
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Login
Login
Register now!
Lost Password?

Search

The polar regions have a significant global impact on both climate and environmental changes. This page introduces the information of several kinds of observed data for Meteorology and Glaciology.

Meteorology in the Antarctic : Total16

	CO2 concentration	Continuous measurement data of the atmospheric CO2 concentration in Syo...
	CH4 concentration	Continuous measurement data of the atmospheric CH4 concentration in Syo...
	Atmospheric minor constituents	With an automatic measurement system, the concentration of Ozone in th...
	CO concentration	Continuous measurement data of the atmospheric CO concentration in Syo...
	Carbon and oxygen isotope ratios of the atmospheric CO2	Pure CO2 samples extracted from the atmosphere in Syowa Station were a...
	continuous observation of aerosol size distribution	Continuous observation of aerosol concentration (d > 0.01um and d>0.3,...
	Air sampling for archive	Air samples were collected into glass flasks for subsequent analyses f...
	Atmospheric minor constituents	Airs are sampled into evacuated cylinders. Analysis of the halocarbon c...

**National Institute of Polar Research
Science Database**

日本語 English

Menu
Home
About Polar Meta Database

Science Category
Space and Upper Atmospheric Sciences
Meteorology and Glaciology
Geoscience
Bioscience
Governmental Institutions

Data Policy
User's Manual
Polar Information
Commons
IPY Data Management
Related Links
Photo Gallery
Contact

Login
Login
Register now!
Lost Password?

Search

Options
Counter

Total : 5668

NIPR

Science Field
Meteorology and Glaciology => Meteorology in the Antarctic

Overview

Title	CO2 concentration
Sub-Title	
Data Summary	Continuous measurement data of the atmospheric CO2 concentration in Syowa Station. Since Antarctica is far from vegetated and/or industrialized regions, the CO2 data obtained at Syowa Station reflect variations of the background CO2 level of the atmosphere and contain information about air transport to the Antarctic region.
About Observation	
Data Location	Syowa Station
Observation Period / Temporal Coverage	1984 - present
Data Period	1984 - present
Observation Photo	
Data Details	
Data Name	CO2 concentration data observed at Syowa Station
Data Format	Digital record
Data Recording / Acquisition Sampling	continuous
Observation Instruments	Continuous measurement system of the CO2 concentration with non-dispersive infrared analyzer (Horiba VDA-510R)
Sample Data	

NIPR metadata portal (Japanese Page)

New sub-branches
(Project, Monitoring,
IPY, Arctic, UM)

<http://scidbase.nipr.ac.jp/>

The screenshot shows the NIPR metadata portal website. The main content area is titled 'メタデータ一覧' (Metadata List) and is highlighted with a red box. It contains a grid of thumbnail images representing different data categories: 宇宙圏 (Space), 気水圏 (Atmosphere/Ocean), 地圏 (Land), 生物圏 (Biology), 定常官庁 (Regular Government), プロジェクト (Project), モニタリング (Monitoring), IPY, 北極 (Arctic), and 海苔丸 (Seaweed). Below the grid is a list of metadata entries, each with a date, time, and title. The right sidebar contains various data sources and projects, including EISCAT Japan, NOAA衛星データ (NOAA Satellite Data), 南極GIS (Antarctic GIS), and others. The bottom of the page features a '最新ニュース' (Latest News) section with several news items.



Data Infrastructure of SCAR (Scientific Committee on Antarctic Research / ICSU)

Antarctic Master Directory (AMD) / GCMD / NASA



registering metadata



A user can search a metadata catalogue. Data might be linked ??

**Antarctic Data Management System (ADMS)
= AMD + NADCs**

National Antarctic Data Centers (NADC)

GCMD; SCAR related portals

A Global Change Master Directory Portal

Customized NADC/SCAR Portals

AMD_JP+Arctic_JP; N=300



A Global Change Master Directory portal for the
Antarctica New Zealand Data Center
View from Cape Hallett. Photo by Margaret Bay, Antarctica, NZAATP



A Global Change Master Directory portal for the
Malaysian Antarctic Data Center



NIPR Arctic Data
A Global Change Master Directory Portal for
The National Institute of Polar Research, Japan



AGCS A Global Change Master Directory Portal for the
Antarctica and the Global Climate System

- About Portals
- GCMD Portal Listings
- Add to AGCS Portal
- AGCS Website
- Search AMD

Find AGCS Projects:


ASPECT	MET-READER
CASO	OCEAN-READER
ICE-READER	US-ITASE
ITASE	

GCMD Search the entire GCMD database
Clicking the link above will transfer you out of the portal you are viewing.




Providing DIFs to GCMD by using WAF (web accessible folder) inside NIPR metadata portal

Flow Chart of Data Publication on Polar Science



HOME ABOUT SC-ADM ADMS DATA CENTRES


Standing Committee on Antarctic Data Management / SCAR




International Polar Year Data and Information Service

IPY Data and Information Service / IPY-DIS

PIC JP; N=20



Polar Information Commons / CODATA



World Data System - CODATA / ICSU

Science Metadata Base (English & Japanese)

<http://scidbase.nipr.ac.jp/>



National Institute of Polar Research Science Database

Welcome admin

日本語 English

meta data list

Space and Upper Atmospheric Sciences	Microbiology and Microcosm	Geoscience	Bioactive	Governmental Institution


New Meta Data

Date	Time	Title
2011/3/7	12:06	EISCAT radar
2011/3/4	18:36	Teleseismic digital waveform records
2011/3/4	14:11	Teleseismic digital waveform records
2011/3/4	7:51	All-sky Imager Observation at South Pole Station
2011/3/4	7:46	Monitoring of marine pollution
2011/3/4	7:45	Antarctic region topographical map
2011/3/4	7:43	Fluorescence survey of exposed rock area
2011/3/4	7:41	Ultraviolet limits solar radiation observation classified by wave length
2011/3/4	7:40	Whale sighting efficiency of the crew on board ocean research vessels in BIOMASS/FIREX
2011/3/4	7:35	Quaternary fossil information near the Syowa Station

HOT NEWS !!

- Cherry Blossoms Bloomed (2011-03-04 11:52:40)
- The plain tree bloomed (2011-03-04 11:52:12)
- (2011-03-04 11:52:47)

NIPR_MetaDB; N=380



Antarctic Master Directory / GCMD

Antarctic Master Directory / GCMD

Japanese Antarctic Portal (AMD_JP)

AMD_JP+Arctic_JP; N=300

Japanese Arctic Portal (Arctic_JP)

IPY Portal in GCMD

IPY JP; N=250

International Data Management Organization / Committee

Science Database in Polar Data Center / NIPR

NASA / GCMD / Antarctic Master Directory

Exchange of Data & Information

Exchange of Data & Information



Start the data shearing between NIPR and DIAS from 10 March, 2014 (English data only)

DIAS データ俯瞰・検索システム (β)

A Search and Discovery System for DIAS Datasets

ホーム 使い方 このサイトについて

外部連携システム: JAMSTECデータカタログ

JaLTERデータ目録

NiPR 国立極地研究所 学術データベース

What? 全て:
タイトル:

Where?

When? 開始日 1950 1 1
 検索条件に含める
2014 12 31

日本語 | English

<http://www.editoria.u-tokyo.ac.jp/projects/dias/?locale=ja>



DIAS Data and Applications

DIAS provides various applications for earth observation data analysis
...ment of weather forecasting research
...sures. Learn more

Interoperability with DIAS

ル	ナビゲーション	未
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6]	[1]	[
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Interoperability with Polar Data Catalogue, Canada



Polar Data Catalogue <http://www.polardata.ca/>

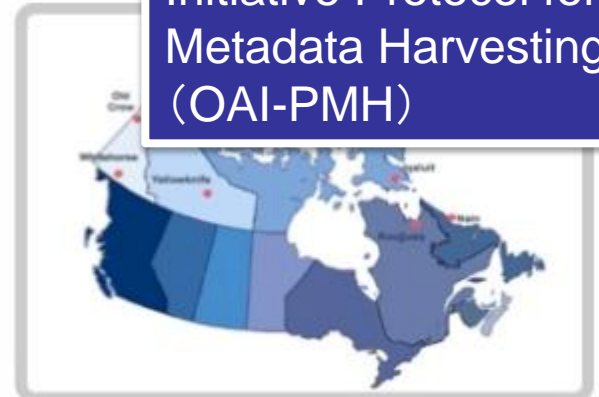
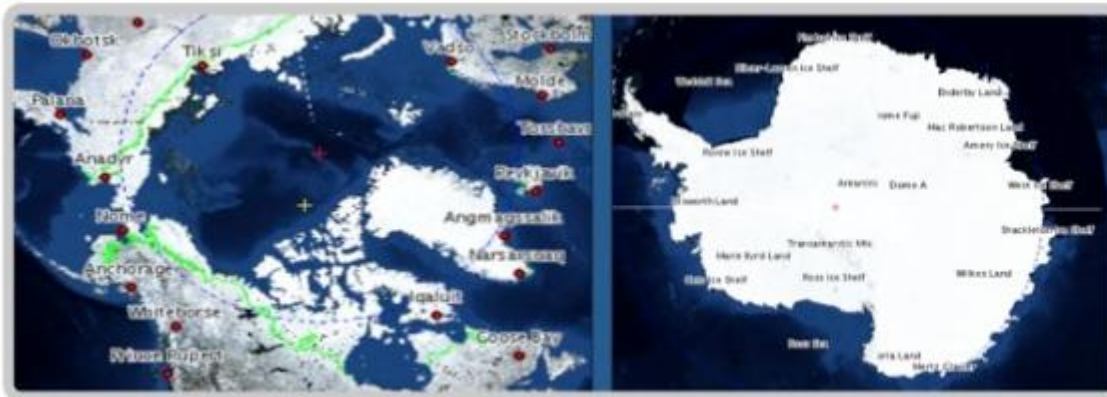
Welcome to the Polar Data Catalogue

The Polar Data Catalogue is a database of metadata and data that describes, indexes, and provides access to diverse data sets generated by Arctic and Antarctic researchers. The metadata records follow **ISO 19115** and **Federal Geographic Data Committee (FGDC)** standard formats to provide exchange with other data centres. The records cover a wide range of disciplines from natural sciences and policy, to health and social sciences. The PDC Geospatial Search tool is available to the public and researchers alike and allows searching data using a mapping interface and other parameters.

Please click on the **PDC Search map** below to start searching for datasets or **sign in to the PDC Input application** to contribute metadata or data to the Polar Data Catalogue.

The **PDC Lite Search** is also available for users with limited Internet speed.

Open Archives
Initiative Protocol for
Metadata Harvesting
(OAI-PMH)



DOI attribution to the Metadata / NIPR

国立極地研究所
学術データベース

<http://scidbase.nipr.ac.jp/>
Provide DOI from DataCite via
Japan Link Center (JaLK)

National Institute of Polar Research
Science Database

Digital Object Identifier

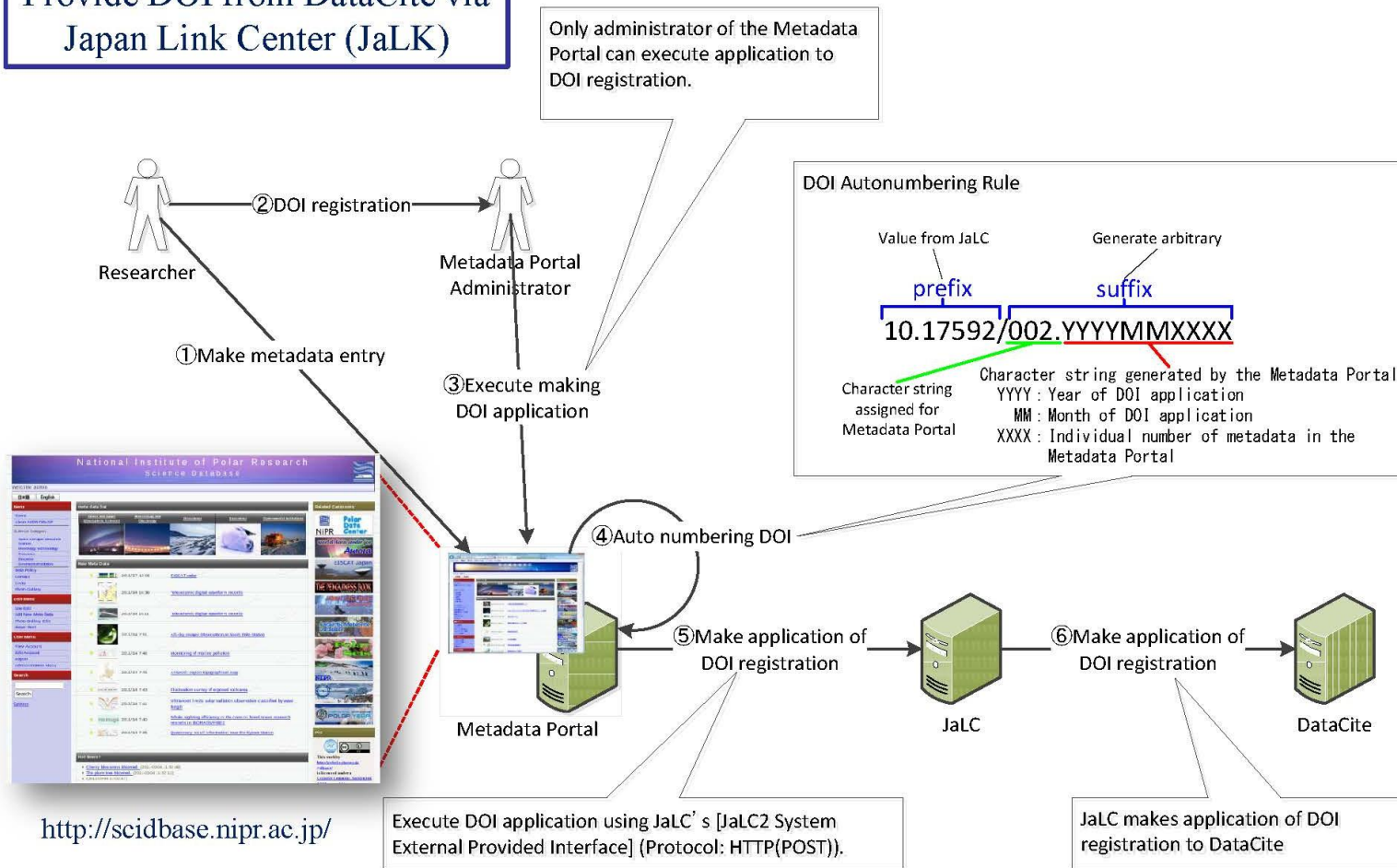
Japanese version

NIPR_MetaDB; N=380

English version

Data citation (DOI attribution to PEDSC metadata portal)

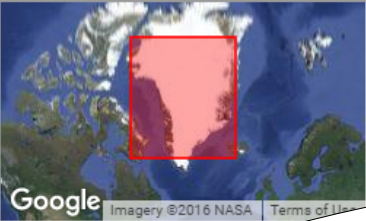
Provide DOI from DataCite via Japan Link Center (JaLC)



A flow chart to obtain the DOI prefix from DataCite to the PEDSC metadata portal server (<http://scidbase.nipr.ac.jp/>) via the JaLC gateway interface.

Data citation (DOI attribution to NIPR metadata portal)

[View GCMD Formatted XML](#)

Overview	
Title	Digital seismic waveform records by GLISN_Japan
Sub-Title	Broadband seismic observation on Greenland ice sheet
Data Summary	<p>The GreenLand Ice Sheet monitoring Network (GLISN) is a new, international, broadband seismic capability for Greenland being implemented through the collaboration between Denmark, Canada, France, Germany, Italy, Japan, Norway, Poland, Switzerland, and the USA. It is designed to monitor glacier earthquakes, which occurrences are reported to increase in this century. Currently there are about 30 seismic observatories, designated as GLISN contributing stations, in and around Greenland. Broadband seismograms obtained from these stations are archived and opened to research community through the Data Management Center of Incorporated Research Institutions for Seismology (IRIS). The ICE-S station has been maintained by US and Japanese team.</p>
About Observation	
Spatial Coverage	 <p>Google Imagery ©2016 NASA Terms of Use</p>
Data Location	ICE-S, DY2G
DOI	10.17592/002.2016030321
Creator	Masaki Kanao
Publisher	National Institute of Polar Research

Copyright © National Institute of Polar Research

Landing page =
English metadata URL

Flow chart of DOI assignment

◇申請から付与承認通知まで

【 National Institute of Polar Research Repository ; <http://scibase.nipr.ac.jp> 】

【Reviewer】

By member of data management committee
+ α

【DB Manager】

Database manager

【Data provider】

Form 1 (Certification)

事前にメタデータポータルサーバにデータ登録

差し戻し・再申請

(申請書内容に不備がある場合)

Form 2 (Check sheet)

Evaluation of data

ケース3.

チェック依頼

ケース2.

チェック担当者による評価確認

ケース1.

付与承認を委員会へ打診・資料回付

ケース4., 5.

データ修正

ケース2., 3.

【 Data Management Committee】

DOI assignment

審査結果通知+様式2

ポータルサーバでのDOI付与作業

審査結果通知+様式2

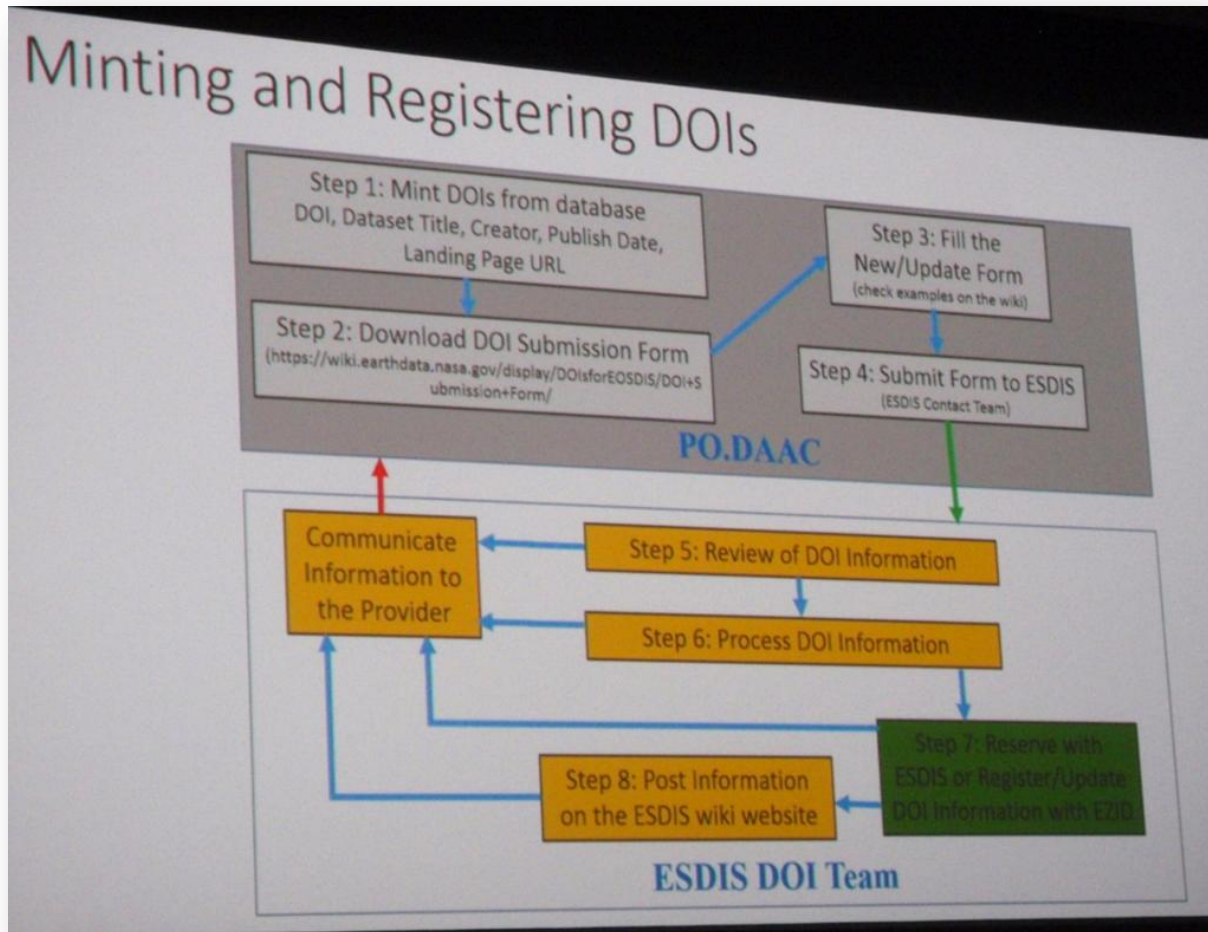
付与承認の連絡

【申請者】

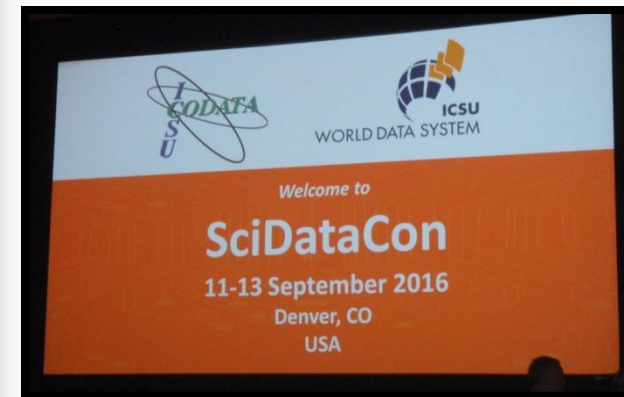
Evaluation rank

- Rank 1. このままDOI付与をしてよい。
- Rank 2. コメントまたはチェックシートに書き入れた問題点が解決されれば付与してよい。
- Rank 3. メタデータの該当項目について記載内容の修正を行った上で、再度確認作業が必要。
- Rank 4. 「データ公開方法」のランクアップを行った上で、再申請すべきである。
- Rank 5. 却下するべきである。

Australian National Data Service (ANDS)



SciDataCon 2016



SciDataCon-2016; Data Citation session, 12 September
Example of DOI attribution flow-chart to Australian Oceanographic data

*Polar Environment Data Science Center (PEDSC),
Joint Support-center for Data Science Research (DS),
Research Organization of Information and System (ROIS)*

Future perspectives

- Inter-disciplinary science
 - Promote (meta)data Interoperability with other organizations/communities
 - Data publication (DOI attribution to PEDSC portals)
 - Data Journal
(Polar Data Journal = Data Journal from ROIS)
- International / social partnership
 - To be the WDS membership
 - Organize international workshop/symposium
 - Promote outreach activity, etc.





Summary



- ✓The Polar Environmental Data Science Center (PEDSC) of the Joint Support-Center for Data Science Research (DS), the Research Organization of Information and Systems (ROIS) has a responsibility to manage the data for Japan as a National Antarctic Data Center (NADC) during the last few decades.
- ✓At the International Polar Year (IPY2007-2008), a significant number of multi-disciplinary metadata/data have been compiled mainly from IPY- endorsed projects. These collected metadata have a tight collaboration with the Global Change Master Directory (GCMD), the Polar Information Commons (PIC), as well as several centers belonging to the World Data System (WDS).
- ✓The compiled metadata by PEDSC, moreover, are recently equipped an automatically attributing system of the Digital Object Identifier (DOI) by requesting to the DataCite through the Japan Link Center.