National Polar Data Center

(NPDC)

National Centre for Polar and Ocean Research

(NCPOR)

User Manual v 1.4

Contact Us:
SIC- Polar Data Services Section (PDSS)
e-mail: npdc@ncpor.res.in / vssamy@ncpor.res.in
Tel: 0091 832 2525515

Table of Content

Table of Figures

1. Introduction

The NPDC https://npdc.ncpor.res.in/npdc/homepage.action , established in 2014, plays a crucial role in the management and collaborative dissemination of data generated through India's Polar Program. The scientific dataset and information represent important resources of irreplaceable nature in the field of scientific research. Effective data management is not a peripheral activity, but a fundamental element of contemporary scientific practice, integral to the validity and reproducibility of research findings. The expeditions generated vast amounts of data essential to solving complex scientific issues and advancing knowledge of polar and ocean science in the context of the NCPOR. These data cover a wide range of fields, including glaciology, meteorology, oceanography and atmospheric science. We collaborate with national and international institutions, networks, and scientists to provide data management and analysis services, as well as actively participate in scientific research.

Figure 1 provides a detailed representation of the process through which polar datasets are collected from research stations, including Maitri, Bharati, Himadri, Himansh, and Southern Ocean expeditions. The datasets, encompassing both near real-time and non-real-time data, are transmitted to the Data/FTP server and are systematically archived at NPDC to facilitate efficient data dissemination and future accessibility for research purposes.

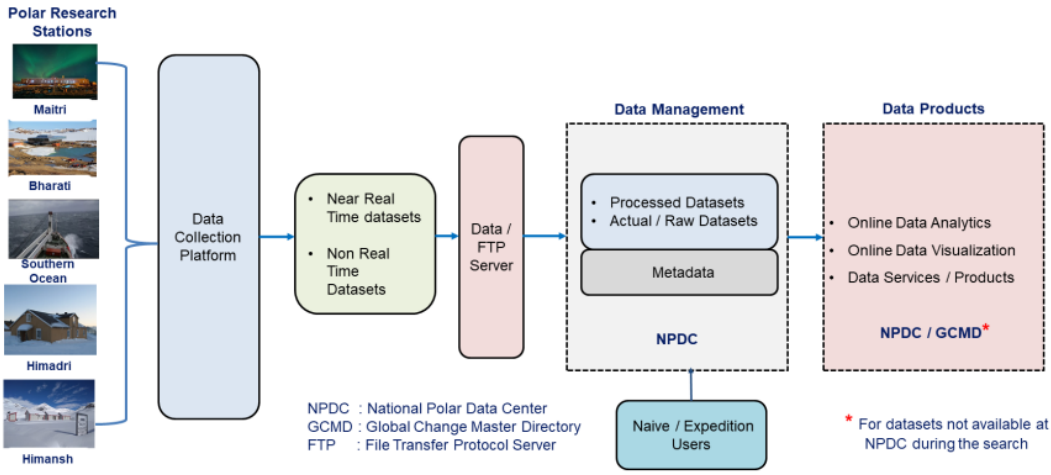


Figure 1:Overall function view of the NPDC
(click on the link / text to view the image)

1.1. How to submit datasets including metadata at NPDC

The datasets are primarily submitted by the expedition members who have participated in the Indian polar expeditions. Each submission is closely linked with the online project proposal form, which must be filled out prior to the expedition. This ensures that all data collected during the expedition is associated with the specific research objectives outlined in the proposal.

Once the expedition is successfully completed, the principal investigator (PI) is responsible for submitting the collected datasets along with the associated metadata to the National Polar Data Centre (NPDC). This submission process helps maintain a structured and organized archive of scientific data for future use and analysis. Figure 2 provides a brief overview of the dataset submission process at NPDC, outlining the steps from the initial proposal submission by expedition members to the final submission of datasets and metadata by the principal investigator (PI) after the expedition's completion.

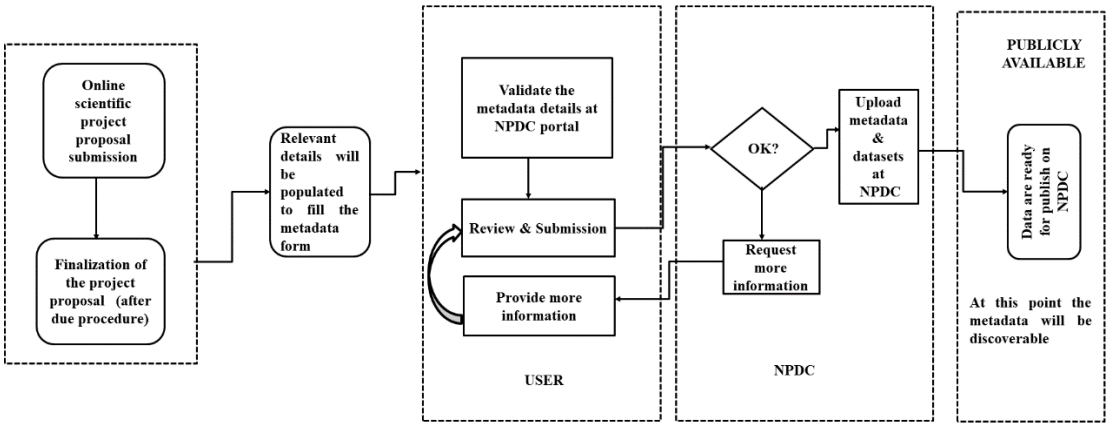


Figure 2: Flow diagram for datasets submission at NPDC
(click on the link / text to view the image)

1.2. Home Page of the NPDC

https://npdc.ncpor.res.in/npdc/homepage.action

Figure 3 below illustrates the homepage of the NPDC portal, providing an overview of its layout

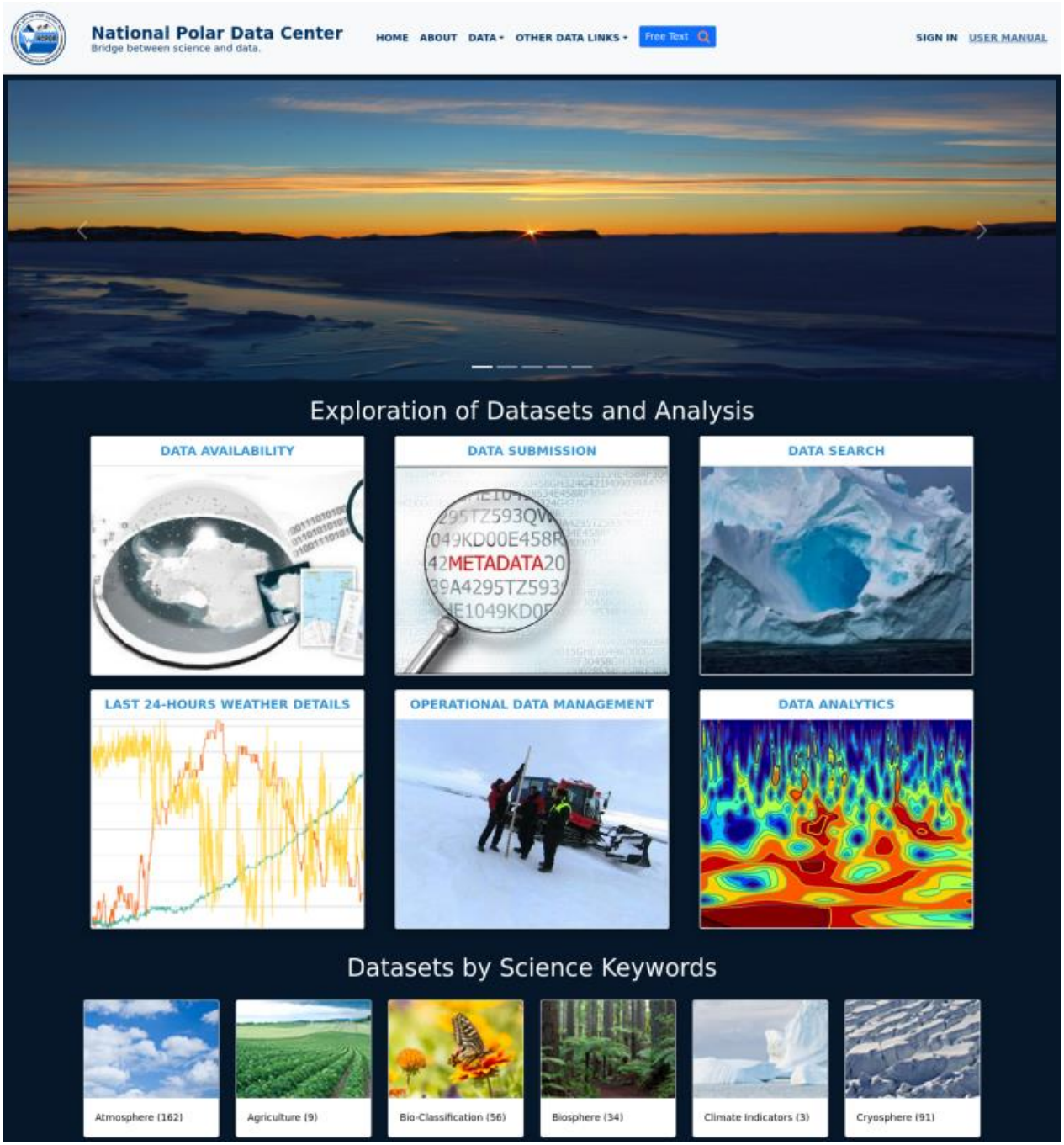


Figure 3: Homepage of NPDC

(click on the link / text to view the image)

1.3. How to sign up as a new user

To register as a user on the NPDC portal, please click on the "Sign-In" menu located at the top right corner of the homepage. Figure 4 shows the sign-in page for a new user with NPDC for submitting collected datasets.

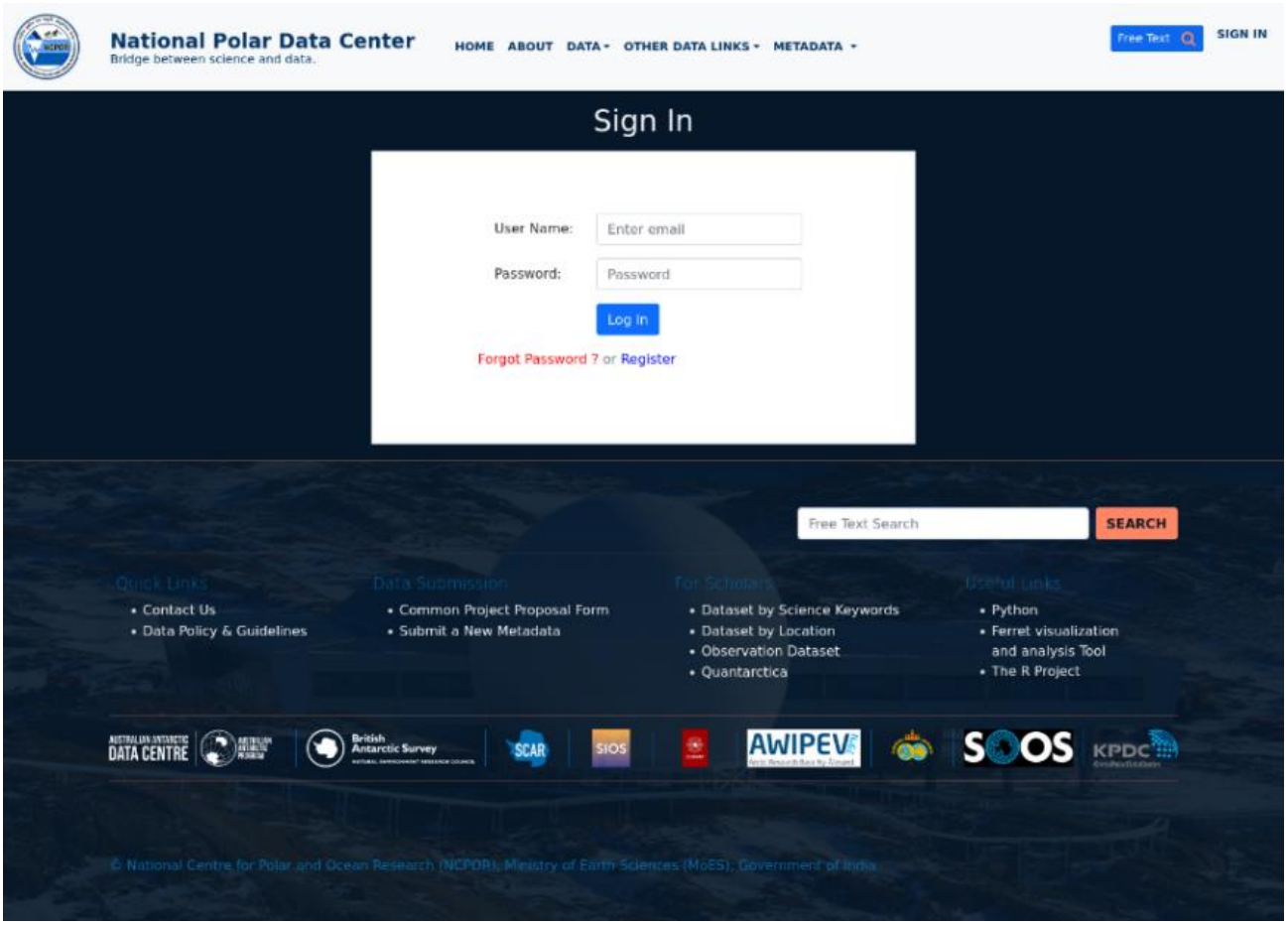


Figure 4: Sign-in page
(click on the link / text to view the image)

1.4. Type of users

There are two user types. The first one is registered user and second one is general user.

1.4.1. General User

These users are general user those who are looking for datasets pertaining to Polar regions for their academic / research purpose. The users might not be required to registered user in the NPDC portal.

1.4.2. Registered User

These are the users who are associated with NCPOR for participating Indian Scientific Expedition to Antarctic, Arctic, Southern Ocean and Himalayas and those who collect the datasets from the polar regions. They upload metadata along with actual / processed datasets at NPDC. For registration, please go to user registration section.

1.5. User Registration

Click on the Register link on the sign-in page to create an account. After successful registration, you will receive an email, and another will be sent once your account is activated. Please check your email, including your spam or junk folder, in case the messages were delivered there. Figure 5 illustrates the user's registration page at NPDC.

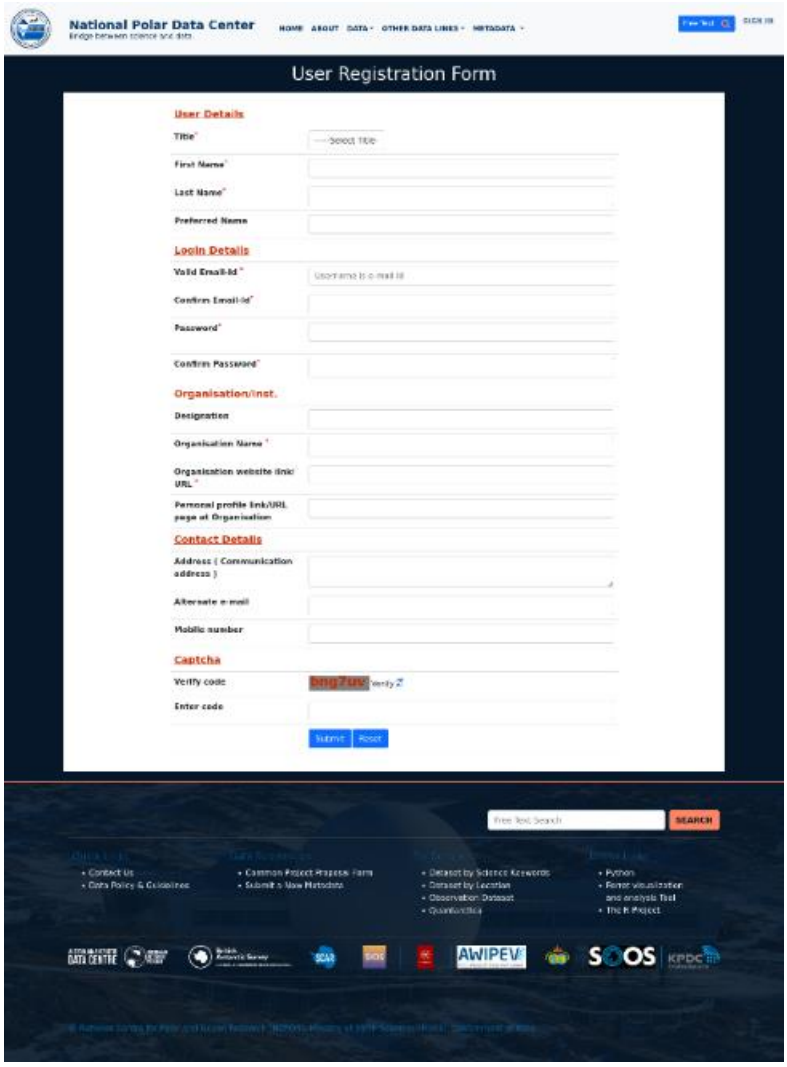


Figure 5: User's Registration Form
(click on the link / text to view the image)

2. Search/Browse Datasets.

2.1. Free Text Search

Any user may do free text search / browse dataset by clicking on the “FREE TEXT” (top right corner) search. Figure 6 presents the free text search for the given datasets.

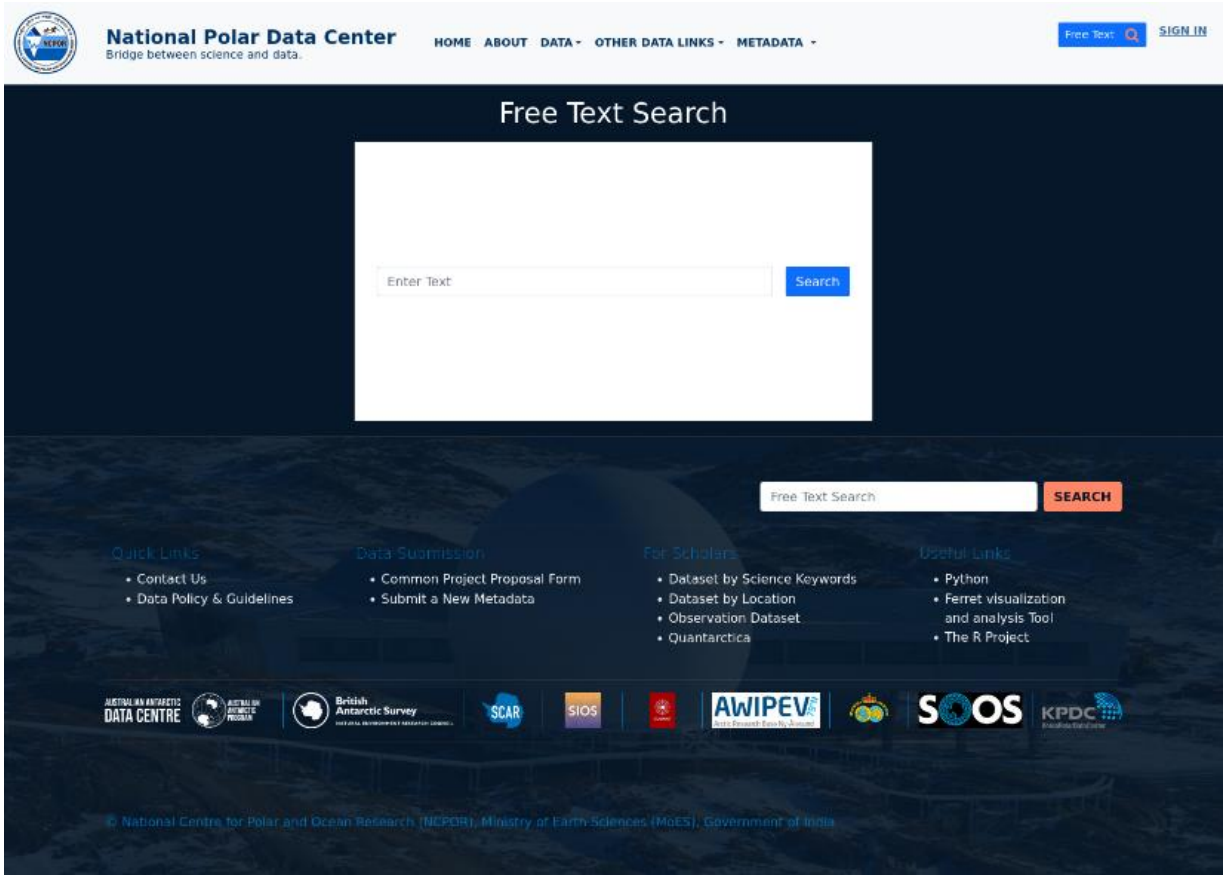


Figure 6: Free Text Search
(click on the link / text to view the image)

2.2. Browse by Scientific Keywords

By clicking on the Data (Top Menu) → Search For Datasets → Browse By Keyword. Figure 7 shows the free text search for the given datasets

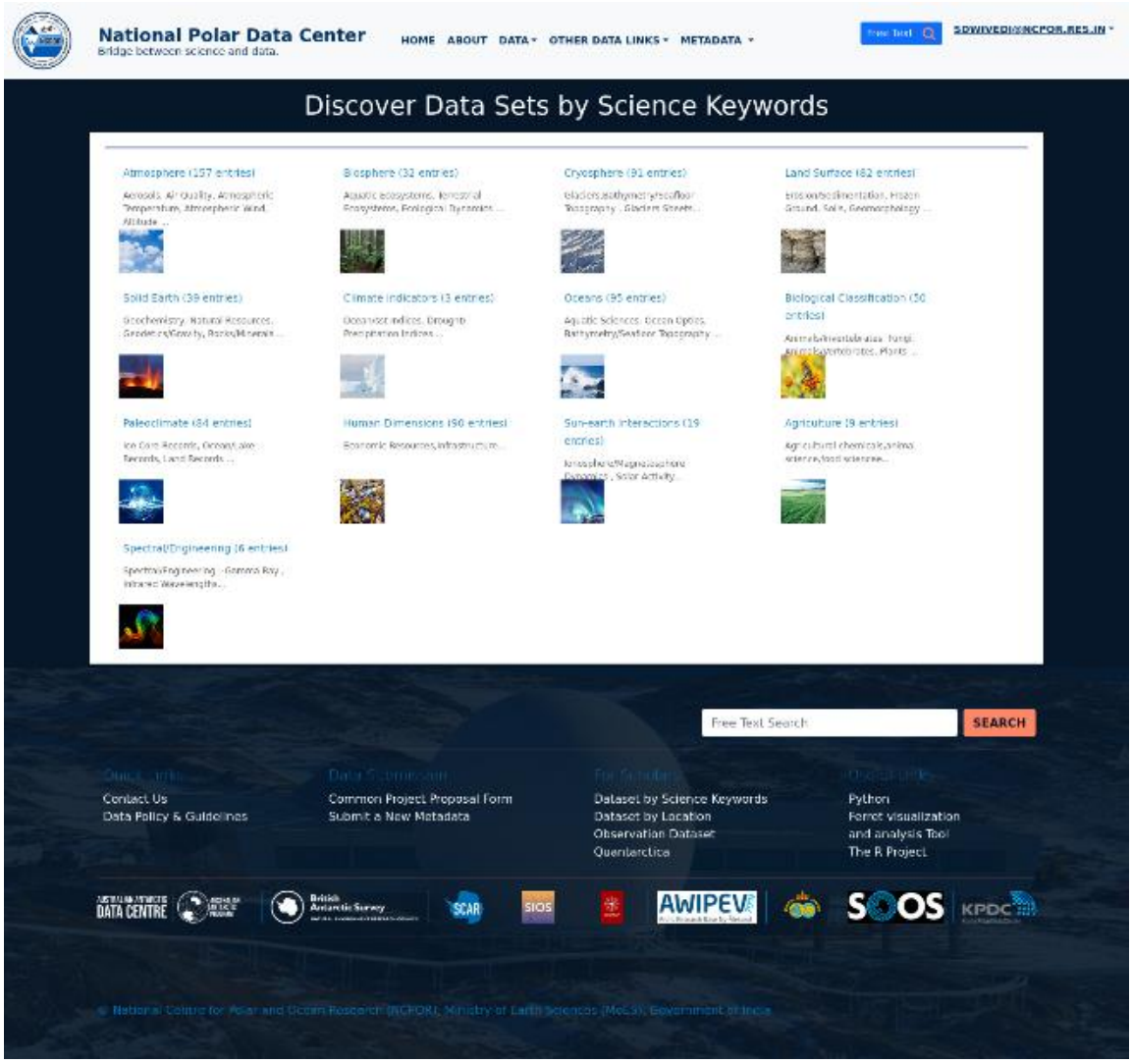
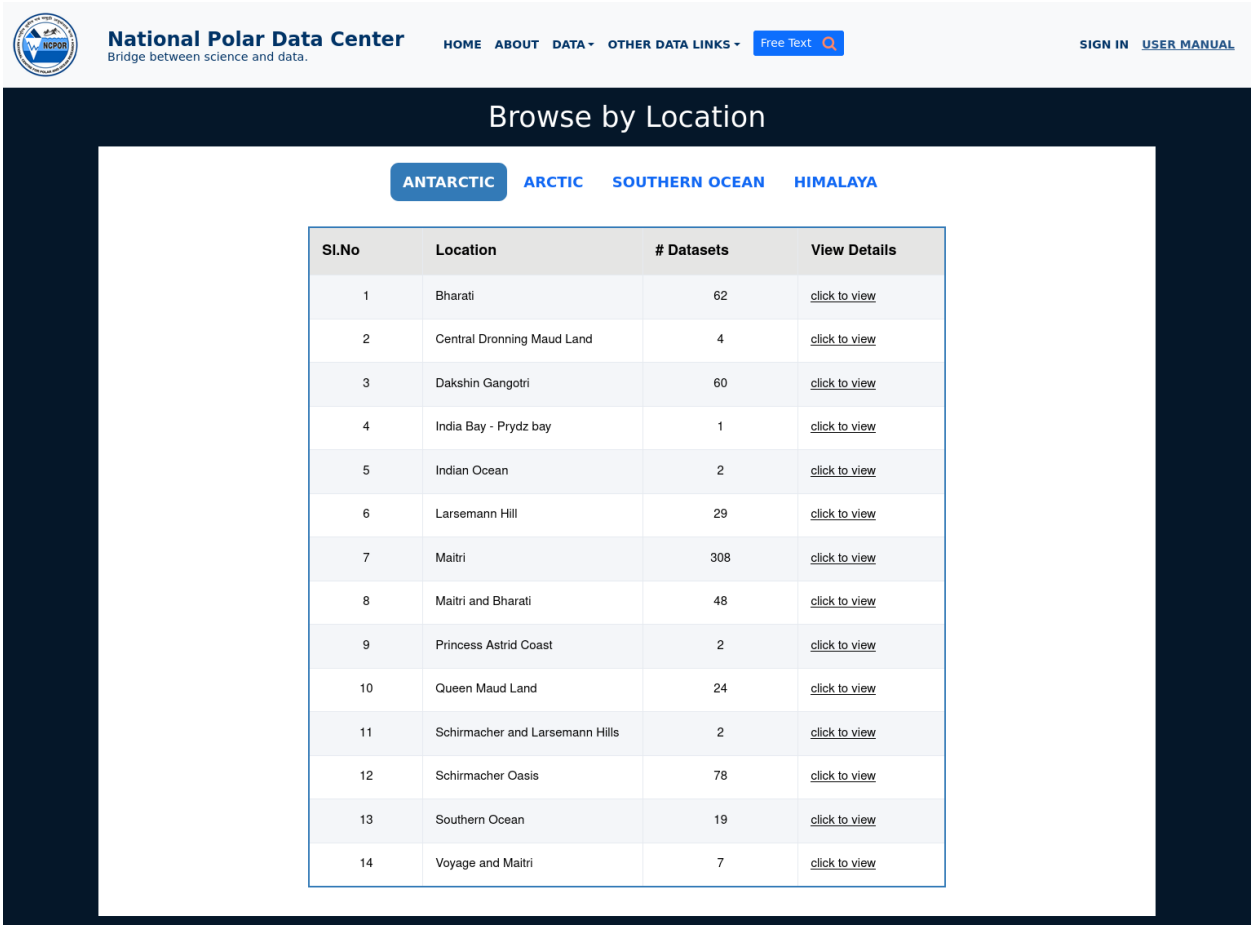


Figure 7: Browse By Scientific Keywords
(click on the link / text to view the image)

2.3. Browse by Location

By clicking on the Data (Top Menu) → Search For Datasets → Browse By Location. Figure 8 shows the browse by location for the given datasets.



Sl.No	Location	# Datasets	View Details
1	Bharati	62	click to view
2	Central Dronning Maud Land	4	click to view
3	Dakshin Gangotri	60	click to view
4	India Bay - Prydz bay	1	click to view
5	Indian Ocean	2	click to view
6	Larsemann Hill	29	click to view
7	Maitri	308	click to view
8	Maitri and Bharati	48	click to view
9	Princess Astrid Coast	2	click to view
10	Queen Maud Land	24	click to view
11	Schirmacher and Larsemann Hills	2	click to view
12	Schirmacher Oasis	78	click to view
13	Southern Ocean	19	click to view
14	Voyage and Maitri	7	click to view

Figure 8: Browse By Location
(click on the link / text to view the image)

2.4. Observation Datasets Search

To search for datasets, click on "Data" in the top menu, then select "Search For Datasets" and "Data Availability." Figure 9 shows how to use the data search feature on the portal https://data.ncpor.res.in/. Through this, users can search for datasets by polar region for easier access and retrieval.

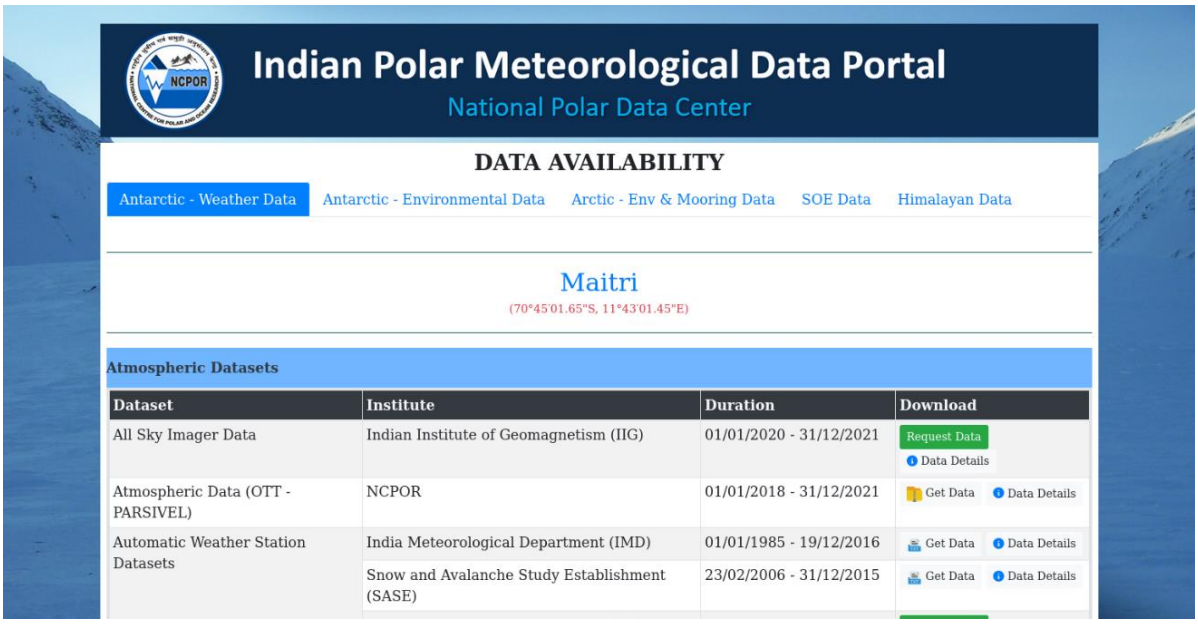


Figure 9: Dataset's search
(click on the link / text to view the image)

2.5. Scientific Voyage Details

To view scientific voyage details, click on "Data" in the top menu, then select "Search For Datasets" and "Scientific Voyage Details." Figure 10 shows the voyage details for the Southern Ocean Expedition (SOE) up to the 10th expedition.

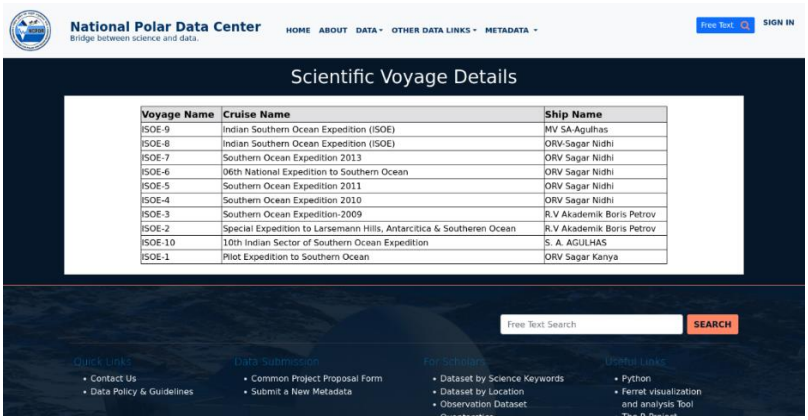


Figure 10: Scientific Voyage Details
(click on the link / text to view the image)

3. Data details

Expedition members / registered users can submit datasets to NPDC and have the privilege to update their previously submitted datasets. The submitted datasets can be viewed in PDF and also machine readable format i.e., in XML formats. To submit datasets online, please use the following link: https://npdc.ncpor.res.in/npdc/submit_new_dataset.action. Figure 11 shows the view of the datasets along with metadata.

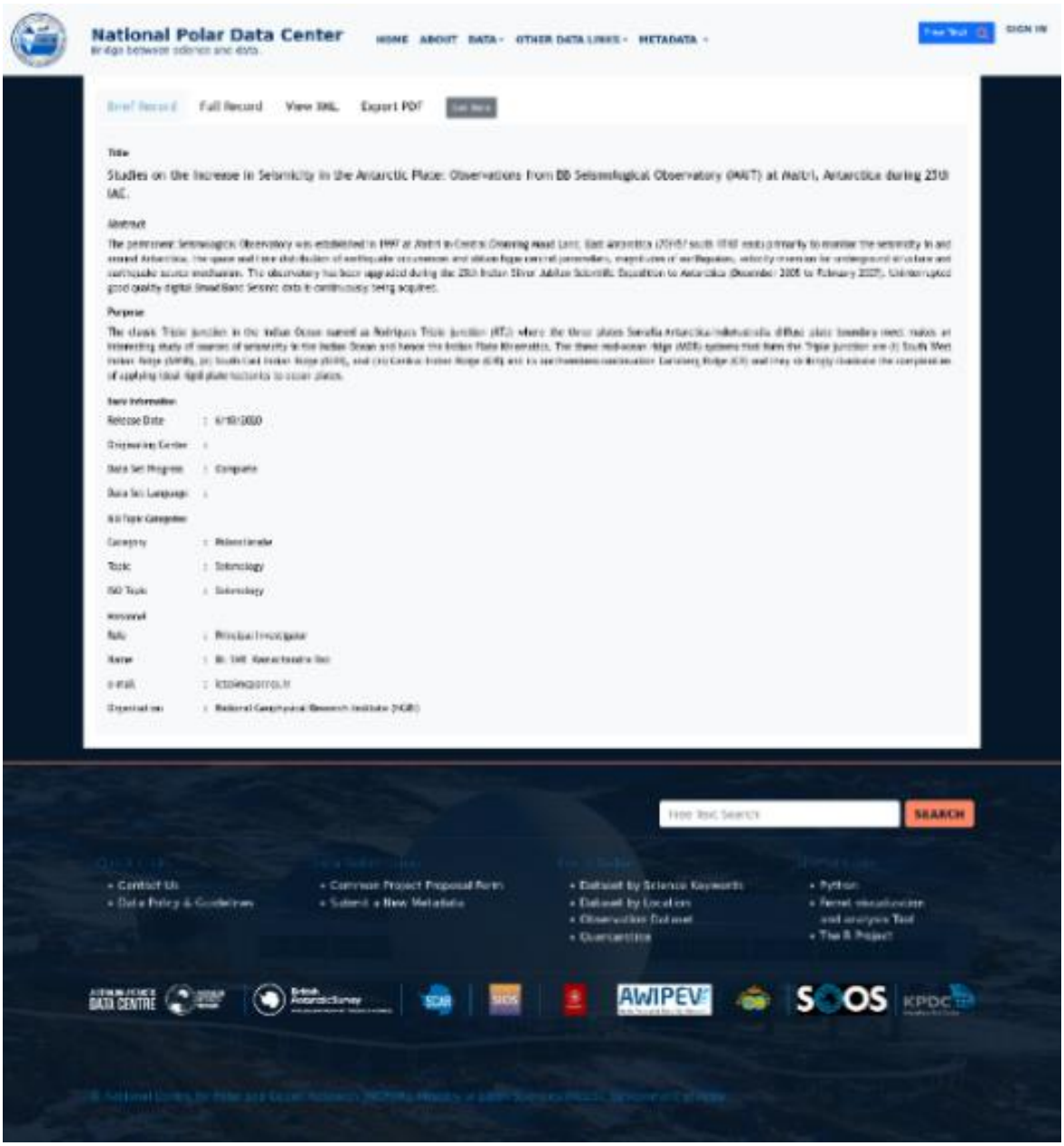


Figure 11: Sample Metadata
(click on the link / text to view the image)

4. How to submit datasets

To submit new datasets, click on "Data" in the top menu, then select "Submit Your Data" and choose "New Datasets." A metadata form will open where you can enter the required information and submit the data for the relevant expedition. Figure 12 shows how the form looks for submitting datasets and metadata

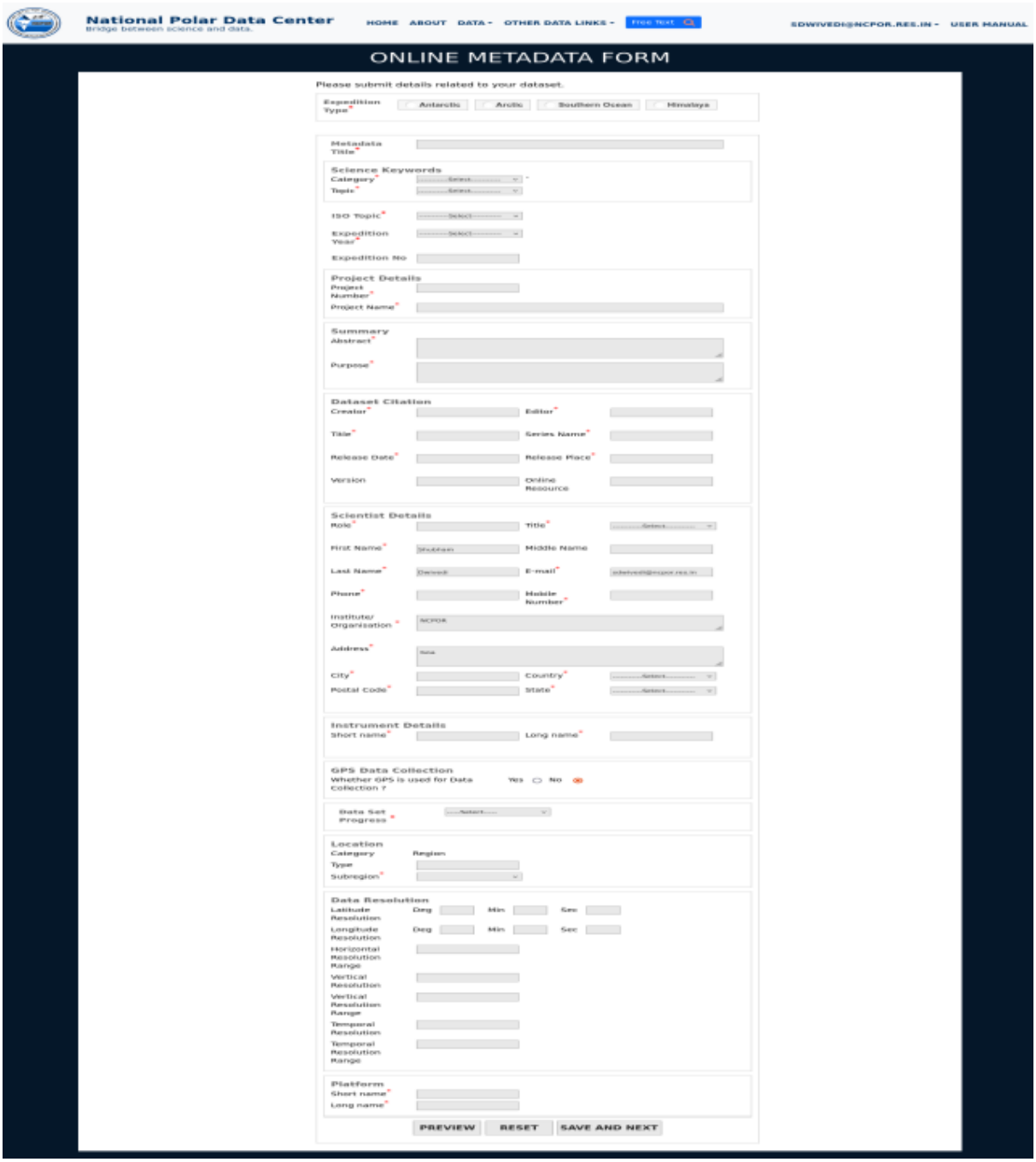


Figure 12: Sample Metadata Form
(click on the link / text to view the image)

4.1. Upload Dataset for the corresponding submitted metadata

You can upload the actual or processed datasets after filling in the necessary metadata entries in the NPDC portal for the corresponding datasets. If the actual / processed dataset is not yet ready, it can be uploaded later using the dashboard. Figure 13 demonstrates how to upload actual or processed datasets to the NPDC portal, along with the associated metadata.

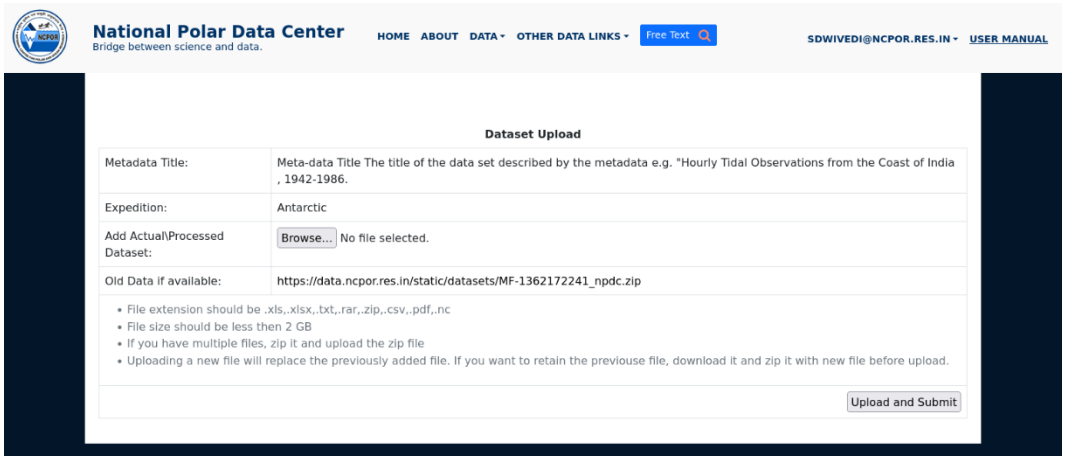


Figure 12: Upload Actual/Processed Data
(click on the link / text to view the image)

4.2. Datasets cum Metadata saved Successfully

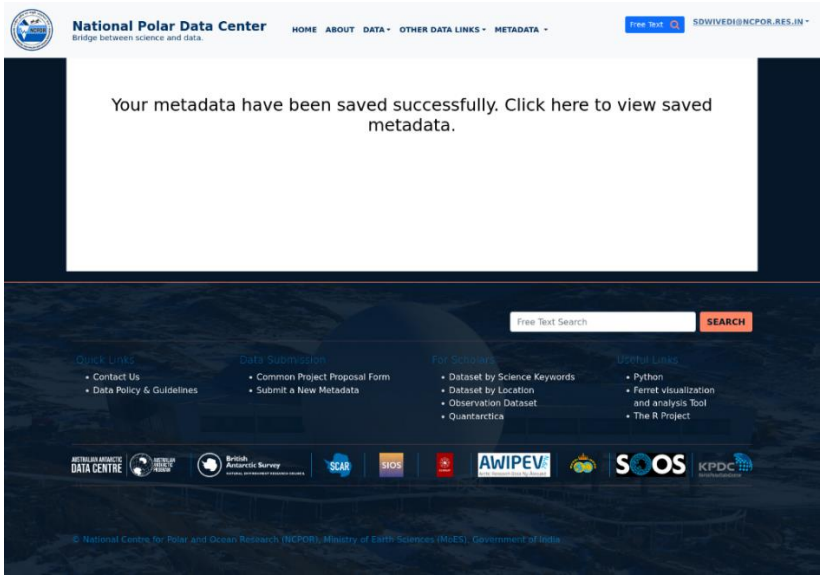


Figure 13: Datasets cum metadata save information
(click on the link / text to view the image)

Once the data and metadata are uploaded, they will be published on the NPDC portal for public access after following due procedures. Figure 14 illustrates the process following the submission

of datasets and metadata. Users have the privilege to update both the datasets and metadata if any additions or modifications are required.

4.3. Dataset Dashboard

A dashboard feature is available, allowing users to update or modify datasets and metadata at any time. Figure 15 illustrates the user's view of the dashboard for updating and modifying datasets, metadata, and other related information.

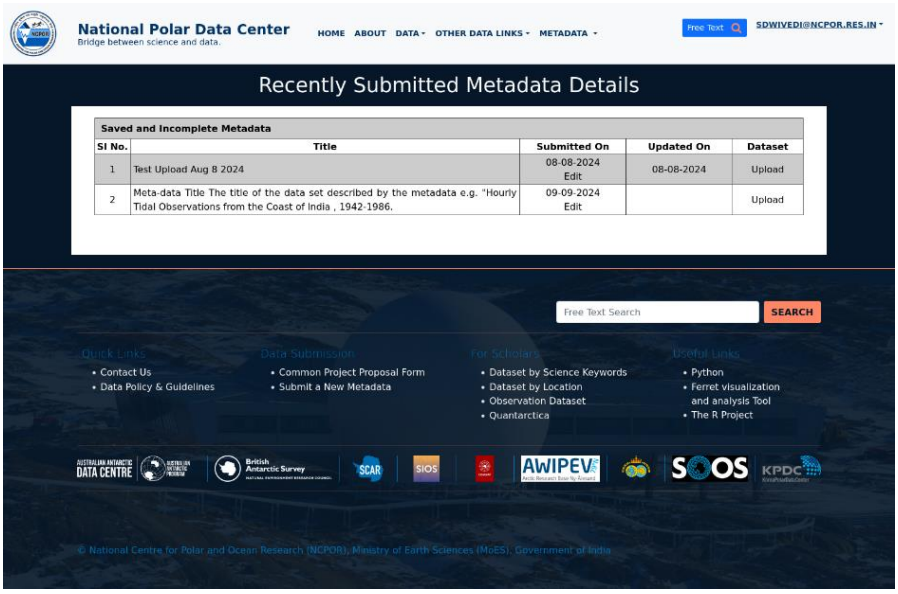


Figure 15: Dataset Dashboard
(click on the link / text to view the image)

Document Revision History

Version	Date	Description of Changes	Prepared by
1.0	9th Sept 2024	Initial Release / Draft	Shubham Dwivedi
1.1	25th Sept 2024	Reviewed initial release	V S Samy
1.2	30th Dec 2024	Modified the document	Shubham Dwivedi
1.3	3rd Jan 2025	Reviewed & corrected the document as suggested by Dr. J. Turner	V S Samy
1.4	23rd Jan 2025	Updated the Figure 2	V S Samy