

17th

SESSION IOCARIBE



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Intergovernmental
Oceanographic
Commission

Sub-Commission for the Caribbean
and Adjacent Regions

Subcomisión para el Caribe y
Regiones Adyacentes

Bogotá,
Colombia
May 08 - 11, 2023



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IOC OCEAN INFO HUB AND LAC OCEAN INFO HUB

LUCY SCOTT

Bogotá, Colombia
May 08 - 11, 2023



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6.2.3 IOC OCEAN INFO HUB AND LAC OCEAN INFO HUB

LUCY SCOTT



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6.2.3 IOC Ocean Info Hub and LAC Ocean Info Hub

- The Ocean InfoHub (OIH) Project is a global initiative that aims to improve equitable access to ocean information, (meta)data and knowledge products for management and sustainable development.
- The project is responding to the global challenges of understanding and managing marine ecosystems in a rapidly changing world
- By harnessing digital revolutions, and facilitating the sharing of new information technologies between countries and institutions



A project of the IOC of UNESCO, implemented by the UNESCO/IOC Project Office for IODE and funded by the Government of Flanders, Kingdom of Belgium

6.2.3 IOC Ocean Info Hub and LAC Ocean Info Hub

- A proliferation of online sources of data and information
 - IODE has documented over 3000 sources of online D&I
- A diversity of online data systems
 - Where to find data? Which is the authoritative source?
- Member states may have very valuable and useful local resources, but they may not be visible to the world
- Global data and information resources have useful content, but local users might not know about them
- Challenges of trust in some regions
- Challenges of access to technology
- The need for a clearinghouse mechanism (CHM-TMT)

6.2.3 IOC Ocean Info Hub and LAC Ocean Info Hub

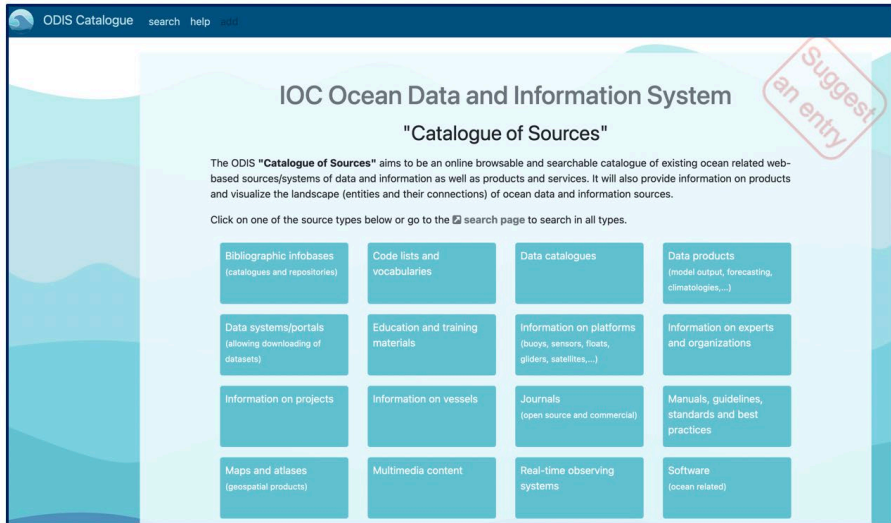
- **Improve discovery and interoperability** of existing information systems;
- **Improve access** to global oceans information, data, and knowledge products for management and sustainable development;
- **Link and anchor a network of regional and thematic nodes** that will share the metadata that they choose to expose;
- **Provide capacity building** to support contributors and end-users of the global OIH;
- **Connect independent digital initiatives** to form a diverse, but interoperable and inclusive, Ocean Data and Information System.



6.2.3 IOC Ocean Info Hub and LAC Ocean Info Hub

The **ODIS Catalogue of Sources (ODISCat)** is an annotated catalogue of online resources serving ocean-related data and information products, currently containing over 3000 records


ODIS-cat



ODIS Catalogue search help add

IOC Ocean Data and Information System "Catalogue of Sources"

The ODIS "Catalogue of Sources" aims to be an online browsable and searchable catalogue of existing ocean related web-based sources/systems of data and information as well as products and services. It will also provide information on products and visualize the landscape (entities and their connections) of ocean data and information sources.

Click on one of the source types below or go to the  search page to search in all types.

Bibliographic infobases (catalogues and repositories)	Code lists and vocabularies	Data catalogues	Data products (model output, forecasting, climatologies,...)
Data systems/portals (allowing downloading of datasets)	Education and training materials	Information on platforms (buoys, sensors, floats, gliders, satellites,...)	Information on experts and organizations
Information on projects	Information on vessels	Journals (open source and commercial)	Manuals, guidelines, standards and best practices
Maps and atlases (geospatial products)	Multimedia content	Real-time observing systems	Software (ocean related)

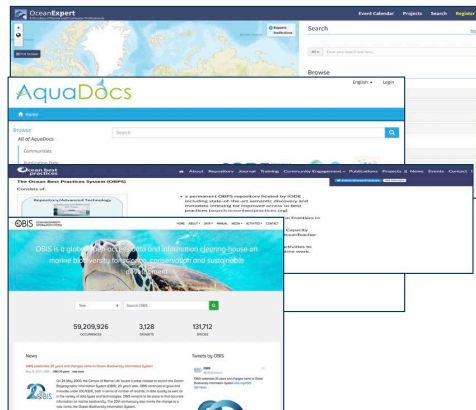
Suggest an entry

6.2.3 IOC Ocean Info Hub and LAC Ocean Info Hub

Ocean InfoHub Project

Partners (global)

- [OceanExpert](#) : *People, institutions and events*
- [AquaDocs](#) : *Documents and Publications*
- The GOOS/IODE Ocean Best Practices System (OBPS)
- The Ocean Biodiversity Information System (OBIS)
- EUROCEAN
- [MarineTraining.eu](#)
- EMODNET



ODIS-cat

The Ocean Data and Information System

6.2.3 IOC Ocean Info Hub and LAC Ocean Info Hub

Ocean InfoHub Project

Partners (global)

Three regions

- Africa,
- Latin America and the Caribbean,
- Pacific Small Island Developing States



Latin America
and the Caribbean



Africa



Pacific Small Island
Developing States



ODIS-cat

The Ocean Data and Information System

6.2.3 IOC Ocean Info Hub and LAC Ocean Info Hub

Region: Latin America and the Caribbean

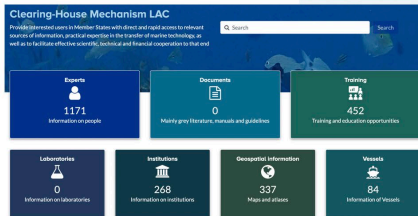


Latin America
and the Caribbean

LAC OIH Regional node (led by INVEMAR) developed: <http://portete.invemar.org.co/chm#/>

Partners:

- CLME+ Training and Capacity Development Portal.
- The Sargassum Information Hub. An Atlantic wide Hub
- Caribbean Marine Atlas
- Other (NODCs, ADUs, vessels, programmes, etc.)

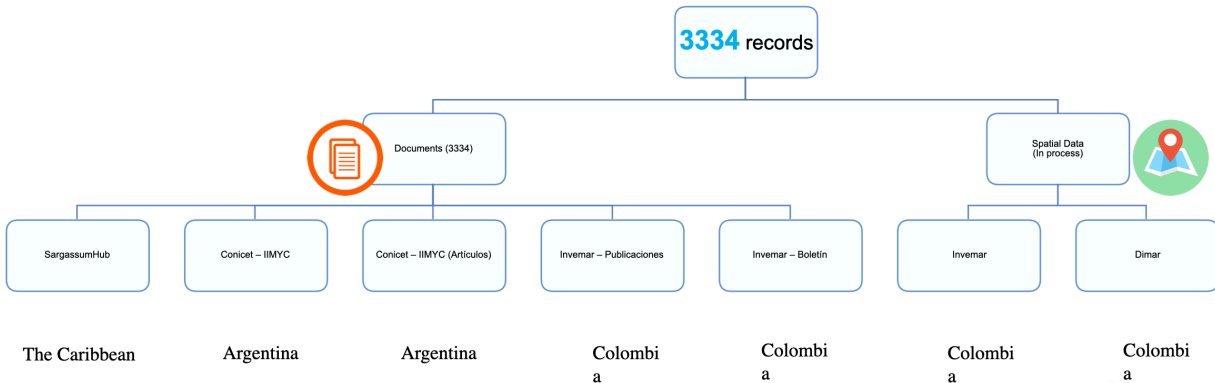


6.2.3 IOC Ocean Info Hub and LAC Ocean Info Hub

Datasets:

5 ready (documents)

2 in process (spatial)



6.2.3 IOC Ocean Info Hub and LAC Ocean Info Hub

Ocean InfoHub Project



Latin America and the Caribbean



Africa



Pacific Small Island Developing States

Partners (global)

Three regions



Co-design process



The Ocean InfoHub Project

Introduction

Structured Data on the Web
Personas
Publisher
JSON-LD Foundation

Profiles

Thematic Patterns
Core 1: Experts and Institutions
Core 2a: Documents
Core 2b: Databases
Core 3: Spatial Maps
Core 4: Projects
Core 5: Training
Core 6: Vessels
Support 1: Spatial Geometry
Support 2: Services

Guidance for the implementation of the ODIS-architecture

ODI is providing guidance on the various stages of such an architecture including authoring, publishing, indexing and interfaces.

The basics of this approach can be described as:

- Providers publish HTML pages for a resource. This may be a publication, course description, research instrument or other. The core themes for ODI are described in the Authoring section below.
- A HTML page then has a small JSON based snippet added to the HTML. This is described in the including JSON-LD in your resource page in the Publishing resource below.
- If you wish a resource to be included in the ODI index, then you need to include it in a sitemap file. This is a small XML document that lists links to the resources you wish to be part of the index. This approach is shown in the sitemaps and section of the Publishing resource.
- Once the above is done the publishing phase is over. At this point, ODI or other groups can now access and index your resources. ODI is using some existing software to index and generate the graph and expose a simple reference interface to them. This software is open and available and others are free to implement the approach with other software. Links to other software are at the repository.
- The ODI index/graph and a simple interface is current at a development site and in a later phase of ODI a production interface will be developed.

ODIS-arch Documentation

ODIS-cat

The Ocean Data and Information System

6.2.3 IOC Ocean Info Hub and LAC Ocean Info Hub

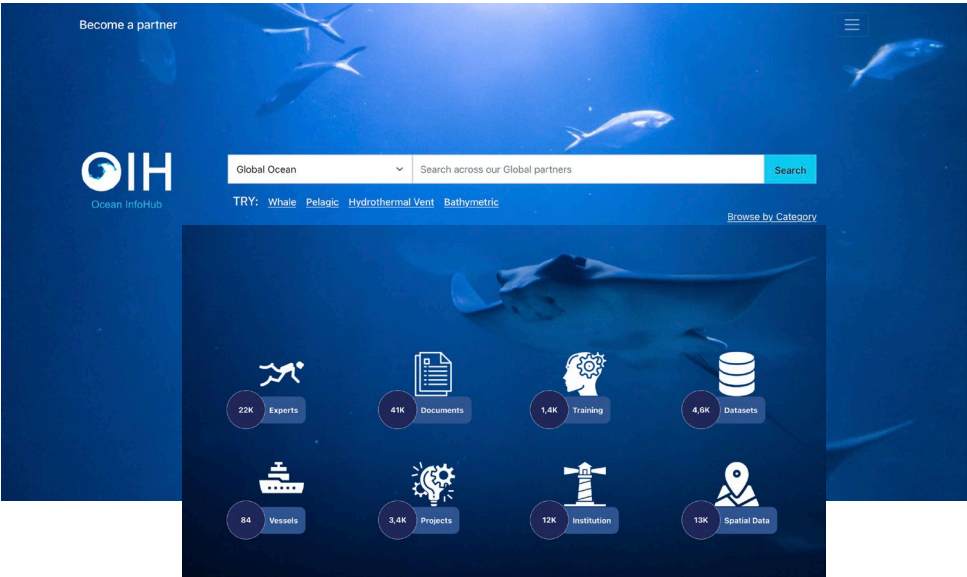
Ocean InfoHub Project

International Coastal Atlas Network	El Salvador Ministry of Environment	NOAA / Open-GTS / GOOS Observations Coordination Group	MARISMA Project	Strait of Georgia Data Centre
Marinettraining.eu	Caribbean Marine Atlas	Ocean Best Practices system (OBPS)	University of California San Diego, SCRIPPS	Protected planet
OceanExpert	CORDIO / MASPAWIO	Ocean Biodiversity Information System (OBIS)	Anthropocene Institute	BCC data portal (Benguela Current Convention)
EMODnet	Nairobi Convention (clearinghouse)	Aquadocs	WIO Symphony project	CCLME Eco-viewer
EUROCEAN	MarCoSouth	SARGASSUM Hub	Marine Institute Data Catalogue	OBON (Ocean Biomolecular Observing Network)
INVEMAR	SPC Pacific Data Hub	CLME+ training portal	Tsunami programme	IUCN (International Union for Conservation of Nature)
Argentina, NODC	SPREP Pacific Environment Portal	SeaDatenet	Indonesian NODC	Canadian Integrated Ocean Observing System
Colombia DIMAR NODC	Blue Planet / BIOPAMA (RCMRD)	POGO / OceanScape	POLDER	ODINAFRICA (Ocean Data and Information Network for Africa)
Colombia National Natural Parks	UNEP (UN Environment Programme)	VLIZ Flanders Marine Institute	OpenOceanCloud	METS RCN - Marine Ecological Time Series RCN

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The Ocean Data and Information System









6.2.3 IOC Ocean Info Hub and LAC Ocean Info Hub



Become a partner

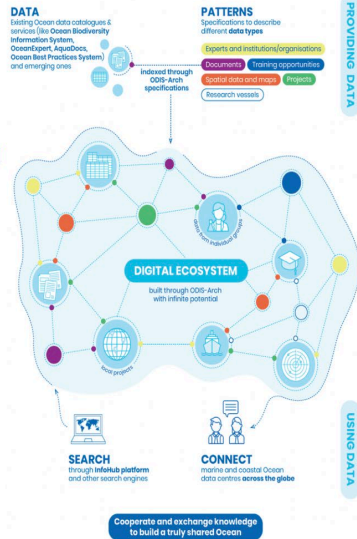
Global Ocean Search across our Global partners Search

TRY: [Whale](#) [Pelagic](#) [Hydrothermal Vent](#) [Bathymetric](#) [Browse by Category](#)

 22K Experts	 41K Documents	 1,4K Training	 4,6K Datasets
 84 Vessels	 3,4K Projects	 12K Institution	 13K Spatial Data

6.2.3 IOC Ocean Info Hub and LAC Ocean Info Hub

- **Sustainable, interoperable, inclusive, and openly accessible infrastructure**
- Composed of **nodes**, through which data providers and partners can share (meta) data
- Does not depend on a central Hub, the **web** is our **collective Hub**;
- **Nodes have complete ownership and control, and choose** which metadata they would like to share.
- Anyone can develop thematic or regional **portals**.
- OIH always links back to the **original, authoritative source**
- Architecture is a **lightweight**, minimal layer and workflows should not need to change.



6.2.3 IOC Ocean Info Hub and LAC Ocean Info Hub

Website <https://oceaninfohub.org/>

Documentation <https://book.oceaninfohub.org/index.html>

Walk-through of documentation (free OTGA sign-in required)
IOC/OTGA/OIH Training course: Implementing the Ocean Data and Information System (ODIS) architecture. <https://classroom.oceanteacher.org/course/view.php?id=722>

Video: https://drive.google.com/file/d/1YvEMcETZIt-E4aHTad4K1jopbF6ODi4u/view?usp=share_link

Brochure : https://drive.google.com/file/d/1TeWhcciX6UVcQMh9HAsfxG-jKd-3BOlj/view?usp=share_link

THANK YOU 

MUCHAS GRACIAS 

MERCI BEAUCOUP 