



Managing vocabularies in Australian Ocean Data Network (AODN)

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What is the AODN?



All data discoverable, accessible, usable and reusable
<https://portal.aodn.org.au/>



AODN Portal

"The gateway to Australian marine and climate science data"

Get Ocean Data Now

NCRIS
National Research
Infrastructure for Australia
An Australian Government Initiative



IMOS OceanCurrent

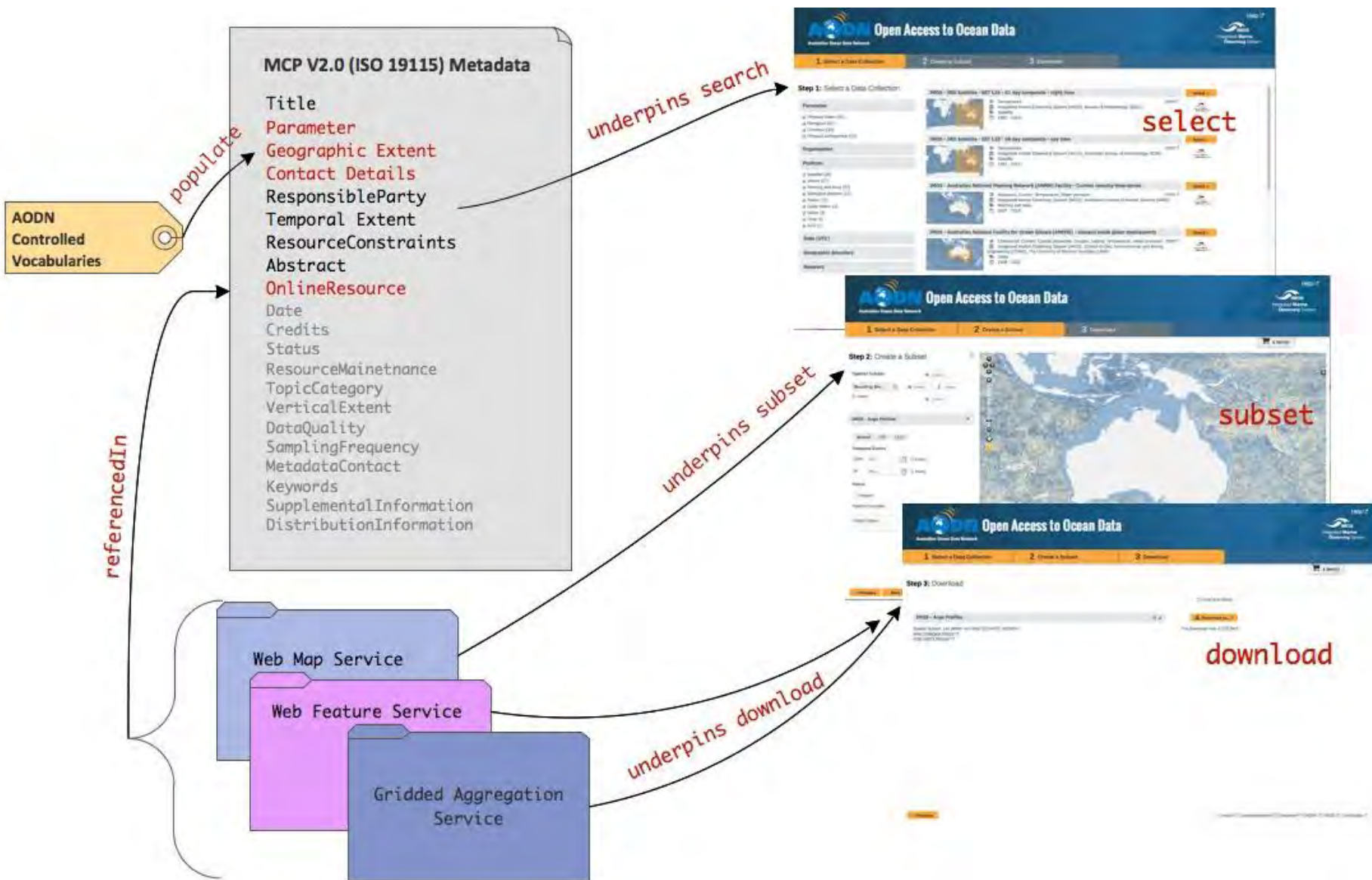
The latest ocean information around
Australia

The AODN Portal provides access to all available Australian marine and climate science data and provides the primary access to IMOS data including access to the IMOS metadata.

IMOS is a national collaborative research infrastructure, supported by Australian Government. It is led by University of Tasmania 



Use of common vocabularies to fill metadata

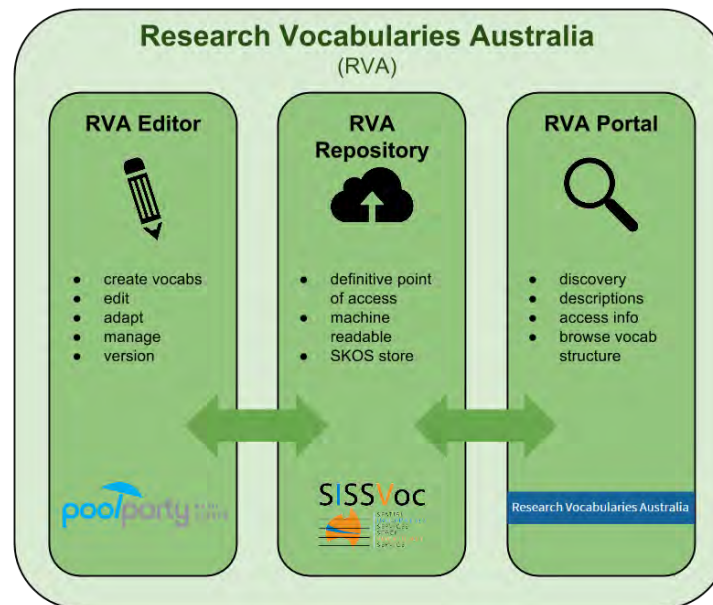
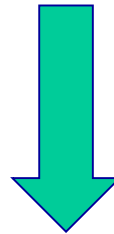


Vocabulary handling

	Original solution	Desired solution
Creation	Spreadsheets, XML editor	SKOS based editors, persistent URLs
Storing	ISO 19135 flavoured PostgreSQL database	Triple store
Managing	Spreadsheets, database, custom scripts, manual auditing/tracking	Automated audit trail / version / deprecation
Publishing	Geonetwork static registers, custom script to generate SKOS	Via services, SPARQL, file download, output generation in many formats
Using	Custom scripts, Geonetwork fork (custom widgets to fill metadata fields)	Services, search interface, core Geonetwork (thesaurus picker)
Collaboration	No dynamic community participation	Web-based workflow management for dynamic community participation



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Research Vocabularies Australia (RVA)

RVA Editor



- create vocabs
- edit
- adapt
- manage
- version



RVA Repository



- definitive point of access
- machine readable
- SKOS store



RVA Portal



- discovery
- descriptions
- access info
- browse vocab structure

Research Vocabularies Australia

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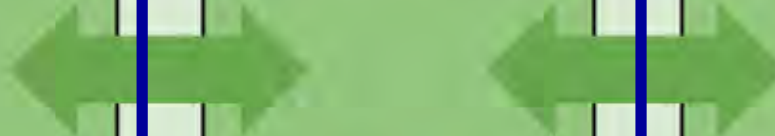


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Research Vocabularies Australia



Vocabs.ands.org.au



Application: Online metadata entry tool

IMAS Data Submission Tool

My Records Help natalia Sign out

natalia / Kim's Test Record No 1 Submitted

Last edited a month ago

Archive Save

Data identification

What When Where

1. Data Identification

Title *

Kim's Test Record No 1

Clear and concise description of the content of the record

Date of record creation *

09-08-2016

Topic category *

oceans

Status of data *

complete

Maintenance and update frequency

None planned

Browse parameter names

Select a term from the vocabulary

Name *

Physical-Atmosphere 44

Air pressure 2

Pressure (measured variable) exerted by the atmosphere and correction to sea level

Pressure (measured variable) exerted by the atmosphere

Visibility 2

Air-Sea Fluxes 9

UV radiation 1

Wind 9

There are 219 terms in this vocabulary

Or define your own

Name *

Done

Periodically refreshed from SPARQL endpoint

IMDIS 2013 summary slide

Background Analysis	Implementation	Perspectives
Done	In progress	Next
Examination of how 'parameter concepts have been recorded in AODN	Design database to store information	Tool to support the addition, moderation and governance of vocabulary source
Define Basic semantic elements of an observation/measurement	Populate relevant vocabulary in database	Provide online access to agreed vocabulary list
Investigate existing controlled vocabularies	Update Marine Community Profile (MCP)	Feedbacks to existing vocabularies (e.g BODC)
Determine suitability of existing vocabularies	Provide tool for mark-up purposes in Geonetwork	Development of community schema for Web Feature Service
	Develop code to enable faceted search via the AODN portal	

IMDIS 2016

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What's next?

- Many tools now in place to enable a leap forward in the use and sharing of vocabularies
- Work with community to govern and maintain vocabularies
- Expand scope of vocabularies used
- Help community to map their own in-house terminologies to any common AODN vocabularies
- Automate vocabulary version management within main AODN Geonetwork instance supporting Portal
- Enhance QC procedures (using vocabulary-based content validation) within data importation pipelines
- Encourage inline mark-up of data files using controlled content



The Operators of the IMOS infrastructure are:



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THANK YOU...

vocabs.ands.org.au



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Richard Walker

Rowan Brownlee

Adrian Burton

