Solutions for providing web-accessible, semi-standardised ecosystem research site information

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Outline

• Site information is an integral part of site-based environmental research infrastructures

• However, there is no common standard available for the description of research sites (site name, location, observed properties, scale, infrastructure, …)

• There are a number of different site catalogues with their own respective data models
  • DEIMS-SDR (deims.org)
  • NEMSR (http://www.neii.gov.au/nemsr)
  • SIOS OFC (https://sios-svalbard.org/sios-ri-catalogue)
  • …

How can you at least somewhat standardise data provision and access?

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Solution: Provision of site information through a standardised API

• Using a REST-API following OpenAPI Specification 3.0
  • Implemented in DEIMS-SDR: https://deims.org/api

• Site records can be called using site IDs
  • https://deims.org/8eda49e9-1f4e-4f3e-b58e-e0bb25dc32a6 (“DEIMS.ID” pointing to human-readable landing page)
  • https://deims.org/api/sites/8eda49e9-1f4e-4f3e-b58e-e0bb25dc32a6 (api call returning machine-readable site information)

• Exposes sites and associated records as JSON records
  • JSON schemas used to describe structure of JSON records
  • JSON records features all available information of sites
    • Name, Location, Contact, Research Focus, Infrastructure, Datasets, ...

• Simple to parse and interpret while containing all available information

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