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ReefTEMPS, Network of coastal oceanic sensors, Open access data portal

Sylvie Fiat ¹, David Varillon ², Bernard Pelletier ³, Jérôme Aucan ¹, Régis Hocdé ⁴

ReefTEMPS ¹ is a coastal waters observation network in the South, West and Southwest Pacific region for long-term monitoring of climate change and its effects on the status of coral reefs and their resources. It provides open access to in situ measurements from 14 different countries, over periods of up to 60 years. The information system, established in 2011, has been designed around the principles of FAIR and provides free access to data through multiple formats and standards. Since 2017, ReefTEMPS has been part of the ILICO² Research Infrastructure and in 2019 was recognised as a French National Observation Service (SNO).

Open data architecture

Provide services adapted to the different research communities
Be interoperable with other databases
Be referenced in national and international catalogs

1 http://reeftemps.science
2 www.ir-ilico.fr

Measurement cycles
- data are collected in cycles, which correspond to the immersion of a sensor for 6 months to 2 years, and generated in NetCDF

Processing cycle
- Each measuring cycle is assigned a processing cycle, from the raw data, where no processing has yet been applied, to the various levels of qualification carried out either by automatic checks or by scientific calibration.

Series
- Datasets or series are generated by concatenating measurement cycles with the same parameters over time - the data are distributed in series.

Products
- “Data science”
- Effect of reef protection from tsunamis
- Wave height during tropical cyclones
- Global warming evidence

NetCDF 4 Climate and Forecast (CF) Convention, format OceanSites

Catalog Service for the Web (CSW)
Web Feature Service (WFS)
Sensor Observation Service (SOS)
Web Map Service (WMS)
Download
Open DAP

Table of contents
- Products
- Measurement cycles
- Series
- Open data architecture
- Referecement

Referencing
- How to cite

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