

# Open Repositories for Scholarly Communication and Participatory Research

*Open Science Initiatives in Asia*

Panel at the 18th Research Data Alliance Plenary Meeting

2021-11-10

Tyng-Ruey Chuang  
trc@iis.sinica.edu.tw

Institute of Information Science, Research Center for Information Technology Innovation,  
and Research Center for Humanities and Social Sciences (GIS Center)  
Academia Sinica, Taipei, Taiwan

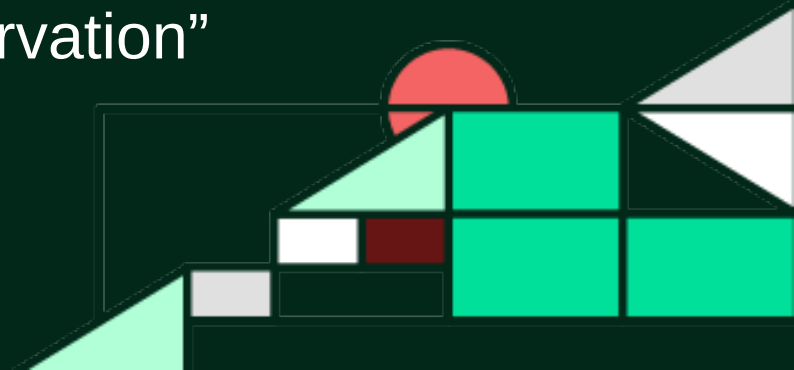


<https://m.odw.tw/u/trc/m/rda-p18-panel/>



# *depositar* – An Open Repository for All

- Built on top of CKAN with customized extensions
  - Code contributed upstream to CKAN development
- Free software, free registration, free content
  - FAIR: “Findable, Accessible, Interoperable, Reusable”
- More a depository than a publisher
  - publisher: engage in “acquisition, copy editing, production, (e-)printing, marketing and distribution”
  - depository: “a place where something is deposited, as for storage, safekeeping or preservation”



Saturday, October 27 • 9:00am - 10:30am

[Back To Schedule](#)

ECAI - New Technologies and Infrastructure **FILLING**

<https://sched.co/HI> [Tweet](#) [Share](#)

Limited Capacity filling up


Moderator: Lewis Lancaster, University of California, Berkeley

9:00-9:30  
**Alex Amies, Google**  
"Artificial Intelligence and the Study of Buddhism"

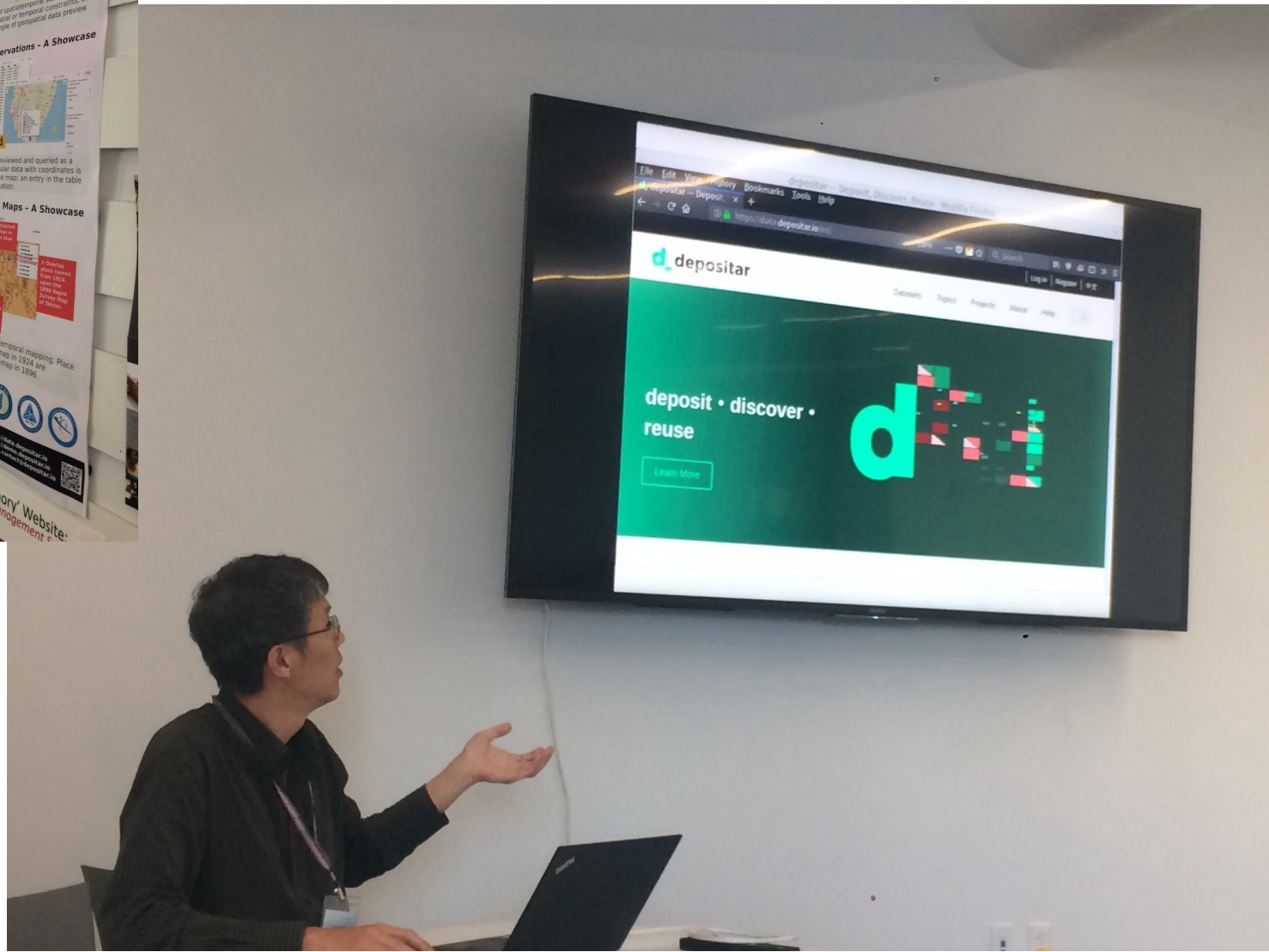
9:30-10:00  
**Patrick Schmitz, University of California, Berkeley**  
"Scaling Research Computing and Data Infrastructure for Humanities and Domains"

10:00-10:30  
**Prof. Tyng-Ruey Chuang, Cheng-Jen Lee, and Chia-Hsun Wang, Academia Sinica, Taiwan**  
"Retooling An Open Data Repository for A Research Data Repository"

Moderators

 **Lewis Lancaster**  
Prof. Emeritus, UC Berkeley  
Honorary Chair VSMM 2016

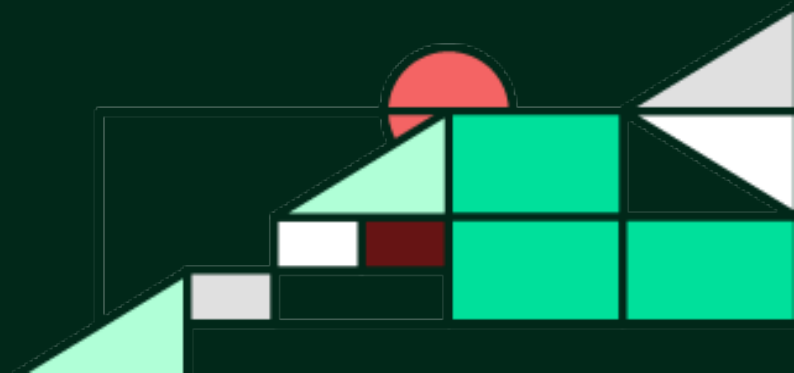
The *depositar* was formally launched at 2018 Pacific Neighborhood Consortium Annual Conference and Joint Meetings – San Francisco, CA, USA



## Infrastructure from below

- Research data management is infrastructure work
  - basic but not sexy; mismatch in needs and resources
  - culture of collaboration; priority in coordination
  - need to be a community of practices
- Infrastructure with small pieces from below
  - common licenses, vocabularies, formats, protocols, etc.
  - reusable tools (e.g. CKAN) and references (Wikidata)
  - resource pooling: people, CPU, storage, bandwidth, etc.
  - engaging in communication: code, data, experience, etc.

# A Tour of *depositar* ( 研究資料寄存所 )





The screenshot shows the depositar website interface for a dataset titled "Coral Reef Soundscapes off Sesoko Island, Okinawa, Japan". The page is divided into several sections:

- Dataset Overview:** Includes a description of the dataset as an archive of audio data from shallow-water and upper-mesophotic coral reefs, recording locations, and recording details.
- Recording Locations:** Describes three long-term recording sites (Site A, Site B, Site C) established since May 2017.
- Acoustic Recorders:** Details the use of AUSOMS-mini stereo recorders (AquaSound, Kobe, Japan) from May 2017 to July 2018.
- Configuration of Audio Recording:** Lists recording parameters such as sampling rate (44.1kHz), channels (2), and file format (MP3 128 kbps).
- Field Deployment:** Explains that recorders were fixed to a cement block at the seafloor and deployed for up to 29 days.
- Data Processing:** Describes the conversion of 8-hour MP3 files into WAV files and the generation of long-term spectrograms (LTS).
- Associated Publication:** Cites a 2020 paper by Tzu-Hao Lin et al. in *Biological Conservation*.
- Data and Resources:** Provides links to explore audio data, long-term spectrograms for each site, and codes for data access and analysis.
- Tags:** Lists tags such as "Acoustic diversity", "Acoustic habitat", "Coral reef", and "Mesophotic corals".
- Wikidata Keywords:** Shows "soundscape" and "coral reef".
- Basic Information:** A table with fields like Data Type (Source code, Audiovisual data, Scientific and statistical data formats), Language (English (eng)), and Spatio-temporal information (Temporal Resolution: Daily, Start Time: 2017-05, End Time: 2018-07).
- Management Information:** Lists the author (Tzu-Hao Lin, Tomonari Akamatsu, Frederic Sinnerger, Saki Hari) and contact person (Tzu-Hao Lin).
- Other Access:** Provides links for JSON-API, RDF serializations, and a CKAN API.

# A Sample Dataset at *depostar*

<https://data.depositar.io/en/dataset/coral-reef-sesoko>

## Highlights:

- Long description of dataset and project
- (deposited) data and (external) resources; descriptions
- Tags and Wikidata keywords
- Basic information
- Spatio-temporal information
- Management information
- Licenses
- Citation snippets
- Data endpoints
  - JSON-API
  - RDF serializations

## Coral Reef Soundscapes off Sesoko Island, Okinawa, Japan

Followers




0

### Project



### Ocean Biodiversity Listening Project

Project Website The ocean is full of sounds that are generated from geophysical events, marine animals, and human activities. By using a hydrophone (a microphone for underwater... [read more](#)

Dataset  Topics  Activity Stream  History

## Coral Reef Soundscapes off Sesoko Island, Okinawa, Japan



This dataset is an archive of audio data of shallow-water and upper-mesophotic coral reefs off Sesoko Island, Okinawa, Japan. Python codes to visualize the audio data were also provided in a notebook based on Google Colab.

### Recording Locations

Three long-term recording sites were established since May 2017. Site A (N26.635° E127.865° ) is located on the southeast coast of Sesoko Island and in front of the Sesoko Station of the University of the Ryukyus. The water depth is 1.5 m. Site B (N26.665° E127.869° ) is located at the bottom of a reef slope on the north of Sesoko Island and the west of Toguchi Port. The water depth is 20 m. Site C (N26.670° E127.866° ) is located on a nearly flat plateau to the north of Sesoko Island and the west of Toguchi Port. The water depth is 40 m.

### Acoustic Recorders

[AUSOMS-mini stereo recorders](#) (AquaSound, Kobe, Japan) were used to collect underwater sounds. From May 2017 to July 2018, six AUSOMS-mini recorders were used: 14-0106, 14-0107, 15-0106, 15-0107, 15-0109, 15-0110.

### Configuration of Audio Recording

(1) Duty Cycle: continuous. (2) Sampling Rate: 44.1kHz. (3) Channels: 2. (4) File Format: MP3 (128 kbps). (5) Audio Gain: High. (6) High Pass Filter: Off.

### Field Deployment

At each recording site, one AUSOMS-mini stereo recorder was fixed to a cement







**Social**

---

Twitter

---

Facebook

---

**License**

---

[CC-BY 4.0](#) [OPEN DATA](#)

---

**Cite as** Beta

---

---

Tzu-Hao Lin, Tomonari Akamatsu, Frederic Sinniger, Saki Harii.

(2021). *Coral Reef Soundscapes off Sesoko Island, Okinawa, Japan*

(Version 2021-01-09T09:11:31.023608) [Data set].

Retrieved from <https://data.depositar.io/en/dataset/coral-reef-sesoko>

Deployment and recovery of recorders were conducted by divers.

**Data Processing**

Audio recordings generated by AUSOMS-mini recorders were saved in MP3 format. Each MP3 is about 8-hour long and do not have a time stamp on the file name. To facilitate data management, we segmented the 8-hour long MP3 into WAV files of 5-min duration.

We used the [LTSA\\_gui](#) to generate long-term spectrograms (LTS) and save the LTS in mat files. Each mat file contains median-based LTS and mean-based LTS. Median-based LTS was obtained by measuring median power spectral densities within each 5-min segment. Mean-based LTS was obtained by measuring mean power spectral densities within each 5-min segment.

**Associated Publication**

Tzu-Hao Lin, Tomonari Akamatsu, Frederic Sinniger, Saki Harii (2020) Exploring coral reef biodiversity via underwater soundscapes. [Biological Conservation, 253: 108901.](#)

**Data and Resources**

	<a href="#">Audio data</a>	<input type="button" value="Explore"/>
A link to a shared Drive folder of underwater recordings (WAV) and long-term...		
	<a href="#">Long-term spectrogram of Site A</a>	<input type="button" value="Explore"/>
A mat file contains the median- and mean-based long-term spectrograms.		
	<a href="#">Long-term spectrogram of Site B</a>	<input type="button" value="Explore"/>
A mat file contains the median- and mean-based long-term spectrograms.		
	<a href="#">Long-term spectrogram of Site C</a>	<input type="button" value="Explore"/>
A mat file contains the median- and mean-based long-term spectrograms.		





Map tiles & Data by OpenStreetMap under CC BY-SA

### Other Access

The information on this page (the dataset metadata) is also available in these formats:

</>JSON-API

### RDF serializations

based on DCAT 2: **Beta**

</>JSON-LD </>Turtle </>XML

via the [CKAN API](#)



### Tags

Acoustic diversity Acoustic habitat Coral reef Mesophotic corals  
 Noise Ocean sound Remote sensing Underwater soundscape

### Wikidata Keywords

soundscape coral reef

### Basic Information

<b>Data Type</b>	<ul style="list-style-type: none"> <li>Source code</li> <li>Audiovisual data</li> <li>Scientific and statistical data formats</li> </ul>
<b>Language</b>	English (eng)

### Spatio-temporal Information

<b>Temporal Resolution</b>	Daily
<b>Start Time</b>	2017-05
<b>End Time</b>	2018-07
<b>Spatial Coverage</b>	<a href="#">show more</a>
<b>X.min</b>	127.8553390572779
<b>X.max</b>	127.88097380893306
<b>Y.min</b>	26.630362980584657
<b>Y.max</b>	26.68047930832328

### Management Information

<b>Author</b>	Tzu-Hao Lin, Tomonari Akamatsu, Frederic Sinniger, Saki Harii
<b>Contact Person</b>	Tzu-Hao Lin





Map tiles & Data by OpenStreetMap  
under CC BY-SA



### 其他存取方式

此頁面上的資訊 (資料集之後設資料) 也提供以下格式：

</>JSON-API

RDF 序列化輸出 (修改自 DCAT 2) : Beta

</>JSON-LD   </>Turtle   </>XML

經由 [CKAN API](#)



### 標籤

- Acoustic diversity
- Acoustic habitat
- Coral reef
- Mesophotic corals
- Noise
- Ocean sound
- Remote sensing
- Underwater soundscape

### Wikidata 關鍵字

- 聲景
- 珊瑚礁

### 基本資訊

資料類型	<ul style="list-style-type: none"> <li>原始碼</li> <li>影音資料</li> <li>科學與統計資料</li> </ul>
語言	英文 (eng)

### 時空資訊

時間解析度	日
起始時間	2017-05
結束時間	2018-07
空間範圍	<a href="#">顯示更多</a>
空間範圍.X.min	127.8553390572779
空間範圍.X.max	127.88097380893306
空間範圍.Y.min	26.630362980584657
空間範圍.Y.max	26.68047930832328

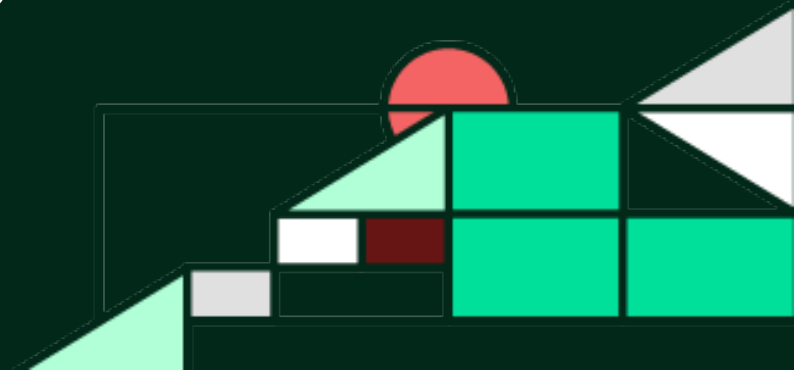
### 管理資訊

產製者	Tzu-Hao Lin, Tomonari Akamatsu, Frederic Sinniger, Saki Harii
聯絡人	Tzu-Hao Lin

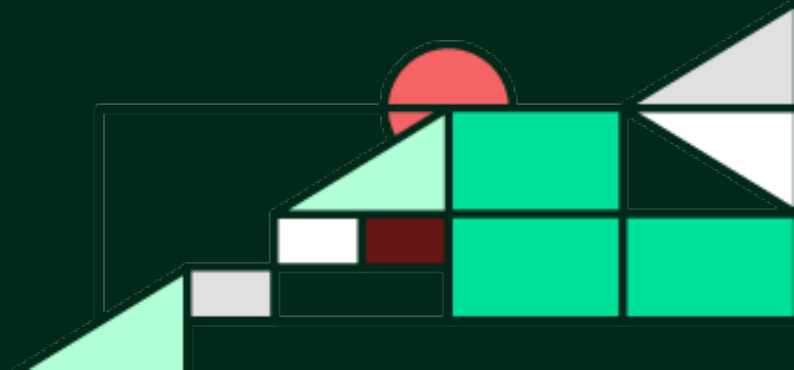


# Updates on *depositar* (since 2018)

- Google Dataset Search
  - We didn't do anything special; “it just happened”
- User Communities
  - Researchers, citizen groups, and gov. agencies
- Terms of Use & Privacy Policy
- Outreach about Research Data Management
  - Three-year grant from MOST Taiwan (2019 – 2022)
  - RDM Workshops (2018 and 2021) and Website
- @\_depositar – we are on twitter!



# Data Repositories for Scholarly Communication and Participatory Research







Contents lists available at ScienceDirect

Biological Conservation

journal homepage: [www.elsevier.com/locate/biocon](http://www.elsevier.com/locate/biocon)

## Exploring coral reef biodiversity via underwater soundscapes

Tzu-Hao Lin<sup>a,\*</sup>, Tomonari Akamatsu<sup>b,\*\*</sup>, Frederic Sinniger<sup>c</sup>, Saki Harii<sup>c</sup><sup>a</sup> Biodiversity Research Center, Academia Sinica, Taiwan<sup>b</sup> The Ocean Policy Research Institute, The Sasakawa Peace Foundation, Japan<sup>c</sup> Tropical Biosphere Research Center, University of Ryukyus, Japan

## ARTICLE INFO

## Keywords:

Ocean sound  
Mesophotic corals  
Remote sensing  
Noise  
Acoustic habitat  
Acoustic diversity

## ABSTRACT

Information on biodiversity is essential to evaluate the ecological status of coral reefs. Sounds produced by reef-associated organisms have been used as a biodiversity indicator. However, the interference from abiotic sounds and the lack of a comprehensive audio library have impeded effective evaluation. This study investigated the application of underwater soundscapes as a remote-sensing method to detect biological and anthropogenic activities. Using techniques including the visualization of long-duration recordings, source separation, and clustering, soundscapes were separated into sounds of anthropogenic and biological sources. Our results revealed the dynamics of biological sounds among coral reefs off Sesoko Island, Oki nawa, Japan. Biological sounds were much more prominent in shallow-water reefs than in upper-mesophotic reefs, but their spectral features and compositions differed. The shallow-water reefs were dominated by broadband sounds of crustaceans and low-frequency transient fish calls, whereas the upper-mesophotic reefs were characterized by a diverse array of fish choruses and transient sounds. We also discovered that shipping noise heavily interfered with the soundscapes from the upper-mesophotic reefs and represented an invisible threat to life in the low-light habitat. The applied techniques of soundscape information retrieval revealed the distinct ecological status of coral reefs and the behavior change of sound-producing organisms in high temporal resolution. Implementation of soundscape monitoring can generate ecological information on habitat quality, reef biodiversity, human activities, and their interactions. Global collaboration on underwater soundscapes will establish a data-informed platform and help stakeholders assess the resilience of coral reefs to environmental and anthropogenic stressors.

## 1. Introduction

Marine ecosystems provide irreplaceable services and currently face significant pressures due to climate change, human disturbance, and excessive use of marine resources. The United Nations has recognized these threats and placed the conservation of marine ecosystems as one of its sustainable development goals (UN General Assembly, 2015). Coral reefs support various social and economic activities, such as fisheries, coastal protection, and tourism, of many maritime tropical and subtropical nations (Moberg and Folke, 1999; Barbier, 2017; Spalding et al., 2017; Woodhead et al., 2019). These benefits rely on the abundant biodiversity in coral reefs. However, coral reefs have undergone recurrent high-frequency bleaching episodes over the past 20 years due to increased sea surface temperatures (Hughes et al., 2017, 2018). Therefore, detailed information on the spatiotemporal changing patterns of marine biodiversity and interactions with human activities is crucial for

the conservation management of coral reefs.

Biodiversity monitoring in coral reefs remains challenging, partially due to the distinct reef environments and their unique fish assemblages (Pearman et al., 2018; Dumalagan et al., 2019). A comprehensive and long-term assessment of reef biodiversity, environmental characteristics, and human activities may not be feasible because of limited resources for observation and survey opportunities, especially for developing regions or remote reefs. An underwater sensing system capable of monitoring the changing patterns of marine biodiversity, with the ability to diagnose potential risks due to environmental and anthropogenic stressors, is required for establishing management strategies of coral reefs and for providing alerts to the early-warning signs of ecosystem changes (Schmeller et al., 2017; Obura et al., 2019).

A potential solution for such an underwater sensing platform is through monitoring ocean sounds. One autonomous recorder can store long-duration audio recordings, with improved time resolution of

\* Correspondence to: T.-H. Lin, Biodiversity Research Center, Academia Sinica, 128 Academia Road, Sec. 2, Nankang, Taipei 11529, Taiwan.

\*\* Correspondence to: T. Akamatsu, The Ocean Policy Research Institute, The Sasakawa Peace Foundation, 1-15-16 Toranomon, Minato, Tokyo 105-8524, Japan.  
E-mail addresses: [lintzuhause@gate.sinica.edu.tw](mailto:lintzuhause@gate.sinica.edu.tw) (T.-H. Lin), [akamatsu.tom@gmail.com](mailto:akamatsu.tom@gmail.com) (T. Akamatsu).

<https://doi.org/10.1016/j.biocon.2020.108901>

Received 18 June 2020; Received in revised form 23 November 2020; Accepted 27 November 2020

Available online 10 December 2020

0006-3207/© 2020 Elsevier Ltd. All rights reserved.

in mesophotic  
s. However, the  
n shallow-water  
ound-producing  
Although basic  
remains scant,  
ill improve our  
lerstudied deep-  
s multiple mes-  
gers to prioritiz-

surement of th  
n shallow-wate  
horus may be  
which has bee  
may be partl  
the coral reef  
n et al., 1999  
water recordin  
g winter. The  
be easily quanti  
t may influenc

systems and ca  
er soundscapes  
larvae, listen t  
d settlement t  
(Vermeij et al  
the recruitment  
hances the reef  
erefe with th  
d the acousti  
he resilience o  
Mooney, 2015

and mesophoti  
to shipping ac  
ency sounds i  
ries only brief  
photic reefs of  
of a bay and ar  
propagation o  
ctivities signifi  
esophotic reefs.  
er the available  
soniferous and  
d ocean temper  
riorate due to  
n. Therefore, it  
silience of coral  
nagement plans  
ed here and the  
ystem functions

fs

t from the long-  
ployment of an  
rk methods, and  
als. This study  
ous acoustic reef  
ef soundscapes.

With the recent development of underwater technology and audio information retrieval techniques, a soundscape monitoring network can generate numerous acoustic data that contain ecological information in multiple dimensions, including the quality of the acoustic habitat, community of sound-producing organisms, and potential effects due to human activities. The generated information will allow managers and stakeholders to conduct a more comprehensive assessment of ecosystem health at scale.

## Data availability

The audio dataset used in preparing this paper are available from the corresponding authors on reasonable request. A dataset of the LTS is available on depositar (<https://data.depositar.io/en/dataset/coral-reef-sesoko>).

fore, an underwater soundscape monitoring network would enable the integration of noise management into spatiotemporal planning and risk assessment of ecosystem-level consequences.

## Data availability

The audio dataset used in preparing this paper are available from the corresponding authors on reasonable request. A dataset of the LTS is available on depositar (<https://data.depositar.io/en/dataset/coral-reef-sesoko>).

## CRediT authorship contribution statement

**Tzu-Hao Lin:** Conceptualization, Methodology, Software, Validation, Data curation, Formal analysis, Resources, Writing – original draft.  
**Tomonari Akamatsu:** Conceptualization, Methodology, Resources, Data curation, Writing – reviewing and editing, Funding acquisition.  
**Frederic Sinniger:** Conceptualization, Visualization, Investigation, Data curation, Writing – reviewing and editing.  
**Saki Harii:** Conceptualization, Investigation, Writing – reviewing and editing, Funding



**Social**

---

Twitter

Facebook

**License**

---

CC-BY 4.0 [OPEN DATA](#)

**Cite as** Beta

---

American Psych...

Tzu-Hao Lin, Tomonari Akamatsu, Frederic Sinniger, Saki Harii. (2021). *Coral Reef Soundscapes off Sesoko Island, Okinawa, Japan* (Version 2021-01-09T09:11:31.023608) [Data set]. Retrieved from <https://data.depositar.io/en/dataset/coral-reef-sesoko>

[Cut to clipboard](#)

Deployment and recovery of recorders were conducted by divers.

**Data Processing**





Audio recordings generated by AUSOMS-mini recorders were saved in MP3 format. Each MP3 is about 8-hour long and do not have a time stamp on the file name. To facilitate data management, we segmented the 8-hour long MP3 into WAV files of 5-min duration.

We used the [LTSA\\_gui](#) to generate long-term spectrograms (LTS) and save the LTS in mat files. Each mat file contains median-based LTS and mean-based LTS. Median-based LTS was obtained by measuring median power spectral densities within each 5-min segment. Mean-based LTS was obtained by measuring mean power spectral densities within each 5-min segment.

**Associated Publication**

Tzu-Hao Lin, Tomonari Akamatsu, Frederic Sinniger, Saki Harii (2020) Exploring coral reef biodiversity via underwater soundscapes. [Biological Conservation, 253: 108901.](#)

**Data and Resources**

	<b><a href="#">Audio data</a></b> A link to a shared Drive folder of underwater recordings (WAV) and long-term...	<a href="#">Explore</a>
	<b><a href="#">Long-term spectrogram of Site A</a></b> A mat file contains the median- and mean-based long-term spectrograms.	<a href="#">Explore</a>
	<b><a href="#">Long-term spectrogram of Site B</a></b> A mat file contains the median- and mean-based long-term spectrograms.	<a href="#">Explore</a>
	<b><a href="#">Long-term spectrogram of Site C</a></b> A mat file contains the median- and mean-based long-term spectrograms.	<a href="#">Explore</a>



# Data Discovery via Google Dataset Search

<https://datasetsearch.research.google.com/search?query=Coral Reef Soundscapes>

The screenshot shows a Mozilla Firefox browser window displaying the Google Dataset Search results for the query "Coral Reef Soundscapes". The search results page includes a sidebar on the left with 29 datasets found, a main result for "Coral Reef Soundscapes off Sesoko Island, Okinawa, Japan", and a text box on the right with a call to action.

**Dataset Search - Mozilla Firefox**

File Edit View History Bookmarks Tools Help

Dataset Search x +

https://datasetsearch.research.google.com/search?query=Coral Reef Soundscapes&docid=L2cvM 200%

Google Coral Reef Soundscapes Sign in

Last updated Download format Usage rights Topic Free Saved datasets

29 datasets found

**NC STATE UNIVERSITY** Data from: Hurricane impacts on a coral reef soundscape  
zenodo.org  
datadryad.org  
txt, zip  
Updated Dec 28, 2020

**D** Coral Reef Soundscapes off Sesoko Island, Okinawa, Japan  
data.depositar.io  
mat  
Updated Jan 9, 2021

**PLOS** Correlation between benthic algal cover and coral reef soundscapes

**Coral Reef Soundscapes off Sesoko Island, Okinawa, Japan**

Explore at depositar

mat(151517946), mat(178270495), mat(141770285)

Dataset updated Jan 9, 2021

Dataset provided by  
Ocean Biodiversity Listening Project

License  
Attribution 4.0 (CC BY 4.0)  
License information was derived automatically

Description  
This dataset is an archive of audio data of shallow-water and upper-mesophotic coral reefs off Sesoko Island, Okinawa, Japan. Python codes to visualize the audio data were also provided in a notebook based on Google Colab.

Recording Locations  
Three long-term recording sites were established since May 2017. Site A (N26.635° E127.865° ) is located on the southeast coast of Sesoko Island and in front of the Sesoko Station of the University of the Ryukyus. The water depth is 1.5 m. Site B (N26.665° E127.869° ) is located at the bottom of a reef slope on the north of Sesoko Island and the west of Toguchi Port. The water depth is 20 m. Site C (N26.670° E127.866° ) is located on a nearly flat plateau to the north of Sesoko Island and the west of Toguchi Port. The water depth is 40 m.

Acoustic Recorders

Use datasets from Dr. Tzu-Hao Lin (Biodiversity Research Center, Academia Sinica) as examples.

# More Google Dataset Search

<https://datasetsearch.research.google.com/search?query=劉厝溪>

The screenshot shows a Mozilla Firefox browser window with the title 'Dataset Search - Mozilla Firefox'. The address bar contains the URL <https://datasetsearch.research.google.com/search?query=劉厝溪&docid=L2cvMTFwNWR4Znp6OC>. The search bar contains the text '劉厝溪'. The page displays one search result for '台中市南屯區鎮平溪－劉厝溪航攝影像'. A blue button labeled '前往以下網頁探索: depositar' is highlighted with a yellow arrow. A text box contains the file formats 'external resources, kml(2334), zip(77363561)'. A text box on the right contains the text 'Use datasets from Dr. Yu-Huang Wang (Taiwan Ecology Academy) as examples.' The page also includes a sidebar with a search icon and a text box asking '找不到預期的結果嗎?' and a footer with a paragraph of text.

Dataset Search - Mozilla Firefox

File Edit View History Bookmarks Tools Help

Dataset Search x +

← → ↻ 🏠 🔒 <https://datasetsearch.research.google.com/search?query=劉厝溪&docid=L2cvMTFwNWR4Znp6OC> (170%) ... ☆

Google 劉厝溪 登入

已儲存的資料集

找到 1 個資料集

**D** 台中市南屯區鎮平溪－劉厝溪航攝影像  
data.depositar.io  
external resources +2  
更新日期: Apr 18, 2021

找不到預期的結果嗎?  
瞭解如何將資料集新增至我們的索引。

前往以下網頁探索: [depositar](#)

external resources, kml(2334), zip(77363561)

資料集更新日期 Apr 18, 2021

資料集提供者  
Asian Ecological Observation Network

授權  
[Attribution-NonCommercial-ShareAlike 4.0 \(CC BY-NC-SA 4.0\)](#)  
授權資訊是由系統自動產生

說明  
台中市南屯區鎮平里劃入台中高鐵站特定區，已完成區段徵收；在尚未進行都市重劃前，以無人載具航拍紀錄此筏子溪支流鎮平溪－劉厝溪段附近的農田和聚落地景。

Use datasets from Dr. Yu-Huang Wang (Taiwan Ecology Academy) as examples.



https://data.depositar.io/dataset/6ac93

## 資料與資源

-  **航拍規劃中心線**  
規劃航線中心線KML檔 [↗ 探索](#)
-  **OAM正射影像連結 (Link to OpenAerialMap)**  
發布於OAM的正射影像連結 (Link to accessing the ortho-mosaics published on the...) [↗ 探索](#)
-  **2021-04-13 正射影像Google圖磚 (Google Earth tiles)**  
Google圖磚壓縮檔。解壓縮後，點選開啟資料夾中的kml檔，即可使用Google Earth... [↗ 探索](#)
-  **2021-04-13 台中市南屯區鎮平溪—劉厝溪航攝影像**  
中央研究院網格計算中心WebODM計算成果下載連結；建議使用Firefox瀏覽器開啟連結，瀏覽影像2D、3D影像資料。 [↗ 探索](#)
-  **空中360影像**  
空中360影像Google Street View連結。 [↗ 探索](#)

## 標籤

南屯區 台中市 地景變遷 筏子溪 都市重劃

## Wikidata 關鍵字

正射影像 riverscape 筏子溪 光球 南屯區 無人航空載具 臺中市



The screenshot shows the dataset page for '台中市南屯區鎮平溪—劉厝溪航攝影像' on the data.depositar.io website. The page includes a title, a brief description, and a '資料與資源' (Data and Resources) section. The '資料與資源' section is highlighted with a red dashed border and contains several links to related data and resources, such as '航拍規劃中心線', 'OAM正射影像連結', '2021-04-13 正射影像Google圖磚', and '空中360影像'. The page also features a '標籤' (Tags) section with '南屯區', '台中市', '地景變遷', '筏子溪', and '都市重劃'. A 'Wikidata 關鍵字' (Wikidata Keywords) section is also present, listing '正射影像', 'riverscape', '筏子溪', '光球', '南屯區', '無人航空載具', and '臺中市'. The page is powered by data.depositar.io and includes a footer with contact information and a Creative Commons license.



# Orthophotos (links to Open Aerial Map)

OpenAerialMap Browser - Mozilla Firefox

File Edit View History Bookmarks Tools Help

OpenAerialMap

Search location or coordinates

2021-04-13 台中市南屯區  
鎮平溪－劉厝溪

UPLOADED BY  
Yu-Huang Wang

Display as TMS Thumbnail

Open in iD editor | JOSM

Copy image URL TMS | WMTS

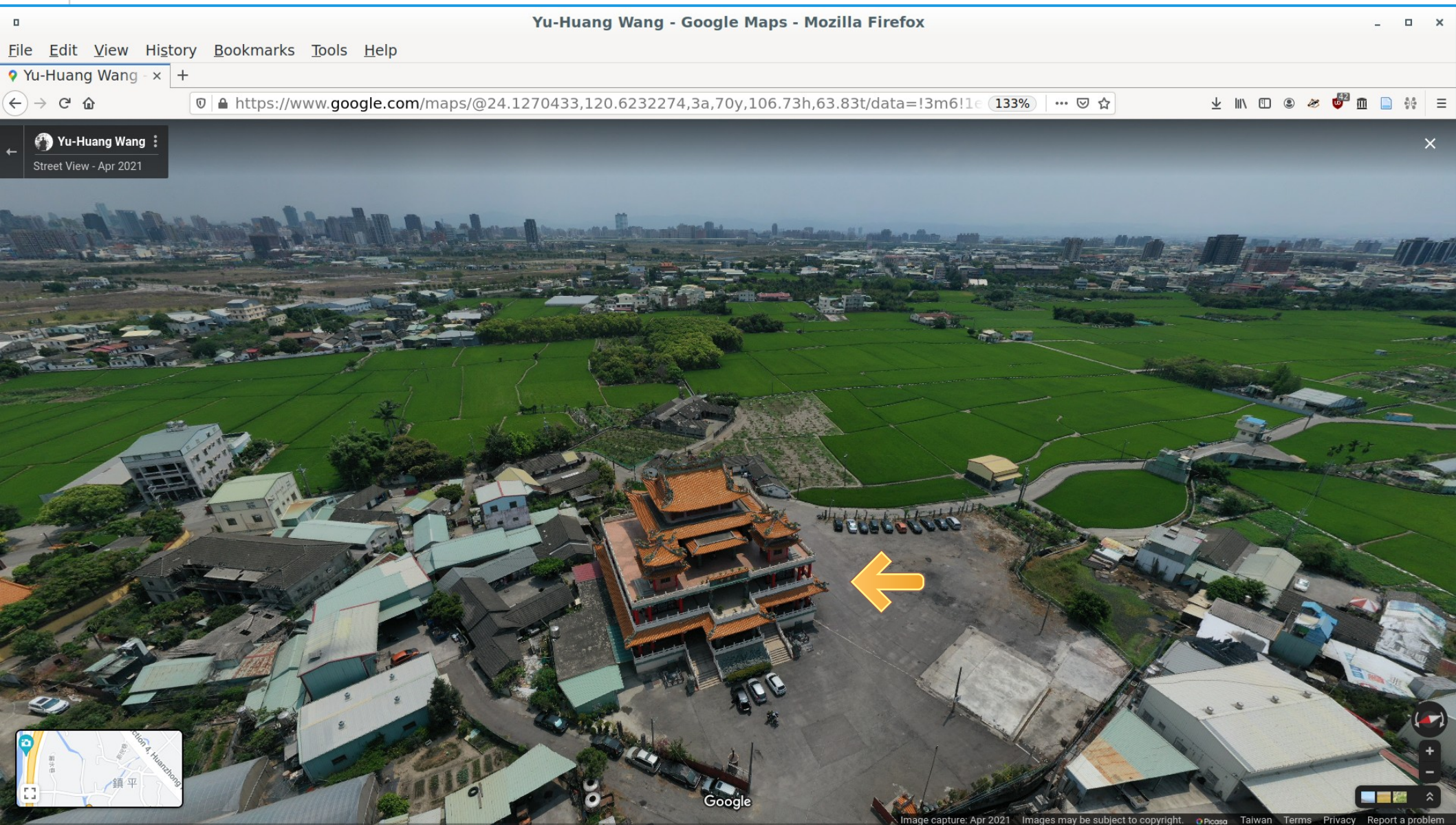
DATE 2021-04-13

RESOLUTION 4 cm

PROVIDER Yu-Huang Wang  
(<https://data.depositar.io/en/dataset>)



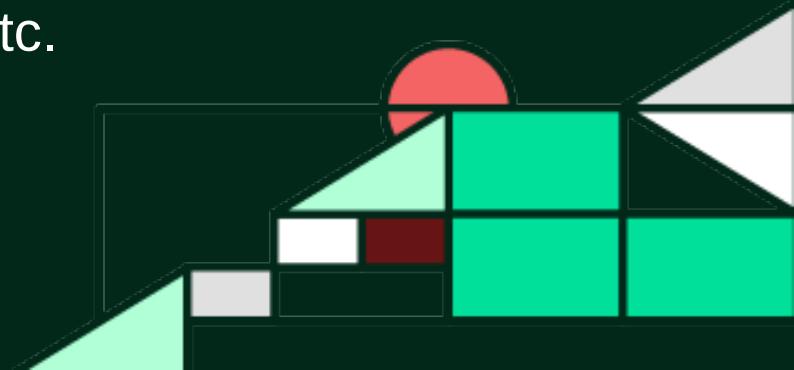
# 360° Panoramas (links to Google Street View)



<https://goo.gl/maps/zZZwQ3PkstQzrXYN7>

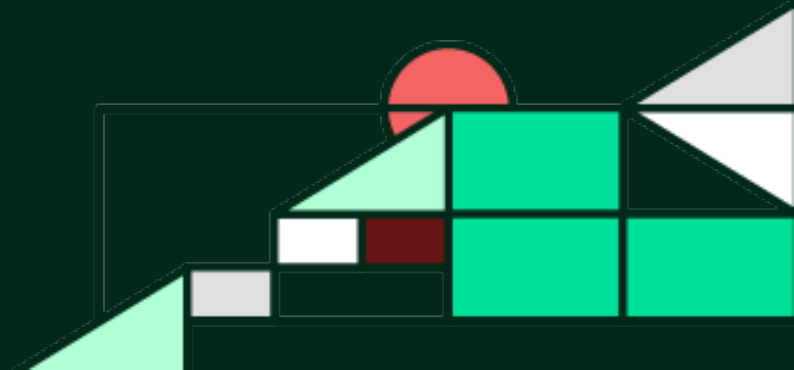
# Observations and Thoughts

- “Open Science” is more about advocacy than policy as now
  - top-down or bottom-up: which approach would you go for?
  - cultivating a culture of openness by working together
  - practicing what you preach; serving what you have
- Why build your own data repositories?
  - serving and knowing your communities
    - culture and language affinity; common community needs
  - learning the details; replicating the skills
- How to build your own data repositories?
  - reuse as much as possible: source code, common vocabularies, standards and services, etc.
- Are DIY data repositories sustainable?



# Work in Progress

- Archival Resource Keys (ARKs)
- New landing page for the *depositar*
- Handling large collections of media files
- Web archiving and more
- Tasks related to Research Data Management
  - Data Management Plans (DMPs) and practices
  - working with other collaborative project teams





# 2021 研究資料管理工作坊

Research Data Management Workshop 2021

首頁 議程 講者 活動須知 報名

2021/10/07 09:30 - 18:00

全線上會議

線上報名

## 關於

### 活動訊息：

本活動配合台灣疫情的變化，及國內大專院校的開學時間，將工作坊日期調整為至10/7舉辦，改全線上模式，因與原先規劃舉辦日期間隔已久，如欲參加需重新報名，造成不便敬請見諒。-- 20210901

「2021 研究資料管理工作坊」將於10月7日以全線上模式進行。舉辦工作坊的目的在於提供一個場合，促進研究者關注討論研究資料的管理議題，希望借此機會讓不同學科領域的研究者，就研究資料管理相關的原則、實踐、及觀點進行交流。

無論是個人獨立研究、小型研究計畫、大型研究團隊、或是跨領域機構的長期研究合作，在研究過程中必定蒐集生產樣態眾多、數量龐大的研究資料，這些資料的有效管理以及長期使用，已成為國際研究社群極度關注的議題。各國的科學研究機構，因此對於其所出資助的專題研究計畫，也逐漸要求在計畫提出的時候，需有資料管理方案(Data Management Plan, DMP)。而計畫執行期間的研究資料管理，以及過程中所產生資料的審慎保存與日後取用，也成為研究人員必須面對的議題。

根據英國數位策展中心(Digital Curation Centre)對於研究資料管理的說明，研究資料的管理或生命週期，共會經歷「資料管理規劃」、「管理活躍資料」、「資料存取與提交」、「資料寄存」、「資料目錄」等環節；在各環節外，尚需有「研究資料管理政策與策略」和「經營規劃與可永續性」，以及相關的「指引、訓練、與支持」等作為輔助。

此次工作坊規劃了多場議程。其中第一階段為「生物多樣性及生態環境研究資料管理」，第二階段為「多面向的研究資料管理」，第三階段為「氣候、海洋、空氣品質研究資料管理」。希望呈現並討論研究工作中遇到的資料管理規劃、最佳實踐、以及資料共享使用所面臨的種種議題。

第四階段為「研究資料管理經驗分享」，除了探討研究資料管理的國際趨勢、基礎概念、資料寄存服務外，亦邀請科技部永續學門多項整合型計畫的研究團隊，分享資料管理方案(DMP)的執行經驗，並進行討論。第五階段為「個人資料處理及研究資料管理」，將就敏感性資料的管理實務進行探討。

這項活動由中研院資訊科學研究所、暨地理資訊科學研究專題中心、科技部所籌辦。

Read more

# RDM Workshop 2021

<http://odw.tw/2021/>

ODW.TW: 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2020 CONTACT US: rdm.contact AT depositario

This work is licensed under a Creative Commons Attribution 4.0 International License.

Powered by Drupal

# 2021 研究資料管理工作坊

Research Data Management Workshop 2021

首頁 議程 講者 活動須知 報名

2021/10/07 09:30 - 18:00

全線上會議

線上報名

## 活動議程

時間	議程	主題	講者
09:30-09:50	報到		
09:50-10:00	歡迎致詞		李德財 院士
10:00-11:30	議題一：生物多樣性及生態環境研究資料管理	讓資料的價值被看見能否鼓勵資料的管理與開放？(以台灣生物多樣性網絡的經驗為例)	柯智仁 (行政院農業委員會特有生物研究保育中心)
	主持人：莊庭瑞(中央研究院資訊科學研究所)	資料管理是否有 SOP - TaiBIF 資料庫管理者的視角	劉璟儀 (中央研究院生物多樣性研究中心)
		建立資料管理與開放為基礎的政府資訊公開和公民參與 - 以公共工程生態檢核為例	王豫煌 (台灣石虎保育協會/台灣生態學會)
11:30-11:45	休息		
11:45-12:30	議題二：多面向的研究資料管理	從東南亞蝙蝠研究探討跨國生物多樣性資訊管理	黃俊嘉 (Southeast Asian Bat Conservation and Research Unit)
	主持人：莊庭瑞(中央研究院資訊科學研究所)	科技部永續學門資料管理方案(Data Management Plan) 試辦計畫	李明旭 (國立中央大學水文與海洋科學研究所)
		To Be Announced	賴國峰 (前 CCC 編輯部)
12:30-13:30	午餐   BoF		
13:30-15:00	議題三：氣候、海洋、空氣品質研究資料管理	以氣候變遷資料服務為導向的資料管理計畫	劉子明 (國家災害防救科技中心)
	主持人：李明旭(國立中央大學水文與海洋科學研究所)	不只是資料：架構客製化的海洋科學資訊服務	翁其羽 (國立臺灣大學海洋研究所)
		AirBox 資料管理的演進與秘辛	陳伶志 (中央研究院資訊科學研究所)
15:00-15:15	休息		
15:15-16:45	議題四：研究資料管理經驗分享	研究團隊經驗分享(科技部永續學門專題計畫)	黃鈺芳 (計畫名稱：個人保養產品之抗紫外線成份環境荷爾蒙暴露、健康風險與管理策略研究)
	主持人：鄭瑋(國立台灣大學圖書資訊學系)	連允渝、林秉毅 (計畫名稱：整合永續發展目標之生態系統服務與土地治理：以濁水溪流域為例)	周子琳 (計畫名稱：台灣氣候智慧調適與跨領域氣候風險評估之研究)
		研究資料管理概論	王家薰 (中央研究院資訊科學研究所)
		研究資料管理國際趨勢	何明諳 (中央研究院資訊科技創新研究中心)
		開放的研究資料寄存庫	李承奎 (中央研究院資訊科學研究所)
		綜合討論	
17:00	休息		
18:00	議題五：個人資料處理與研究資料管理	To Be Announced	邱文聰 (中央研究院法律學研究所)
	主持人：王柏堯(中央研究院資訊科學研究所)	To Be Announced	吳全峰 (中央研究院法律學研究所)
		綜合討論	

ODW.TW: 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2020 CONTACT US: rdm.contact AT depositario

This work is licensed under a Creative Commons Attribution 4.0 International License.

Powered by Drupal

# 2018 研究資料管理工作坊

Research Data Management Workshop

首頁 關於 議程 講者 地點 報名

2018/12/13 09:00 - 15:30

中央研究院 資訊科學研究所 106 會議室

線上報名

## 議程

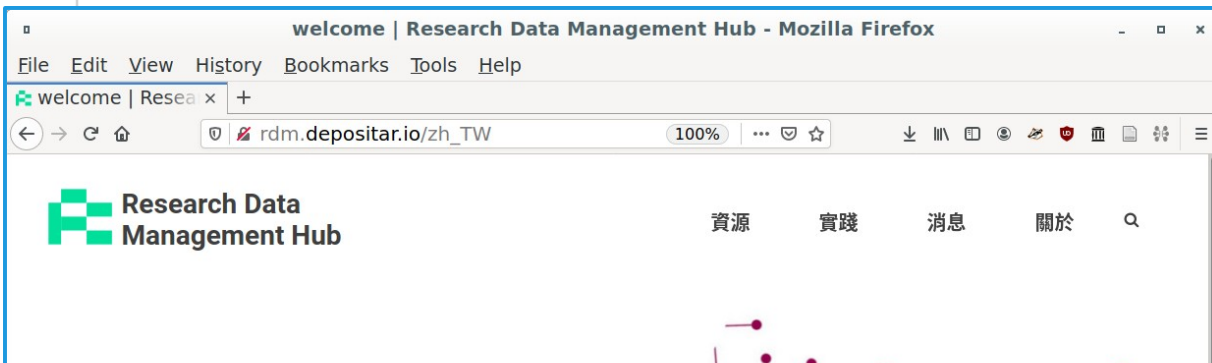
時間	議程	主題	講者
09:00-09:20	報到		
09:20-09:30	歡迎致詞		王大為 (中研院資訊科學研究所)
09:30-09:45	國際資訊科學學院中與研究資料相關之教學及研究現況		林喬秀、鄭理 (台灣大學圖書資訊學系)
09:45-10:45	議題一：研究計畫與研究資料管理	生態觀測資料的管理與共享：以無人載具和生態檢核計畫資料為例	王豫煌 (台灣生態學會)
	主持人：王大為(中研院資訊科學研究所)	野生生物時空分布調查資料的管理與開放	楊智仁 (農委會特有生物研究保育中心)
		以研究資料管理流程推動全球生物多樣性資訊學展望的一個觀點	楊智仁 (中研院生物多樣性研究中心)
		分散式雲端基礎架構與 e-Science	嚴漢偉 (中研院資訊科技創新研究中心)
10:45-11:00	茶點		
11:00-11:15	貝家論壇研究行動方案計畫		林財富 (成功大學環境工程學系)
11:15-12:30	議題二：研究資料與研究資料寄存	海洋學門資料庫發展線上應用服務的實戰經驗分享	邱銘達 (台灣大學海洋研究所)
	主持人：陳舜伶(中研院法律學研究所)	推動調查資料保存與開放的執行成效——以科技部人文司專題研究計畫為例	王文心 (中研院人社中心調查研究專題中心)
		基於文史 GIS 研究資料之網路基礎設施	廖法銘 (中研院人社中心地理資訊科學研究專題中心)
		小學堂文字學資料庫的資料管理與開放	莊德明 (中研院歷史語言研究所)
		人類基因資料的開放與管理	何之行 (中研院歐美研究所)
		開放的研究資料寄存服務	莊庭瑞 (中研院資訊科學研究所)
12:30-13:30	午餐		
13:30-15:30	CKAN 同好會 (技術交流)	討論範圍包括但不限於下列議題： 一、使用者介面與體驗 (UI/UX) 二、擴充套件 (各式資料預覽、個案展示、後設資料等) 三、內容管理系統 (CMS) 整合 四、部署環境設定與維護 五、互操作 (與其他平台交換資料) 六、如何推廣 CKAN (中文文件翻譯等)	李承奎 (中研院資訊科技創新研究中心) 王家薰 (中研院資訊科學研究所)

ODW.TW: 2013 | 2014 | 2015 | 2016 | 2017 CONTACT US: info AT odw.tw

This work is licensed under a Creative Commons Attribution 4.0 International License.

Powered by Drupal





# RDM Hub

## 研究資料管理推進室

<https://rdm.depositar.io/>

### 國際合用的研究資料管理實用指南—增訂版

“Practical Guide to The International Alignment of Research Data Management – Extended Edition” 已翻譯為台灣華語版本。



#### 撰寫資料管理方案 (DMP)

資料管理方案 (Data Management Plan, DMP) 是一份描述研究資料將如何被蒐集、使用、管理、(短期或長期) 保存、分享等歷程的文件。DMP 時常是研究團隊在資料管理上的第一步。

[Read More](#)

#### 挑選可信賴的資料儲存庫

研究人員需能分辨可信賴的資料儲存庫，以便妥善儲存和共享資料。對於研究人員及其機構、資助機構而言，識別合適的資料儲存庫會是一項富有挑戰的任務。

[Read More](#)

#### 工具推薦

各學科可能有自

[Read More](#)

### 生態環境運動者的資料管理：專訪王豫煌博士

8月20日 2021 年  
By 何明達

相關資料集

台中市南屯區鎮平溪—劉厝溪航攝影像  
[https://data.depositar.io/zh\\_TW/dataset/6ac93](https://data.depositar.io/zh_TW/dataset/6ac93)

台中市南屯區鎮平里劃入台中高鐵路特定區，已完成區段徵收；在尚未進行都市重劃前，以無人載具航拍紀錄此筏子溪流鎮平溪—劉厝溪段附近的農田和聚落地景。

DATASET EXTENT

「這週還是台中市南屯區目前僅存的都市農田，但是已被重劃為高鐵路中車站門戶特定區，也都已經完成區段徵收了。」2021年4月13日，王豫煌頂著烈日，設置他的無人機設備。那裡是距台中高鐵路烏日站約十分鐘車程的地方，以天順宮為中心，時值春夏交際，環顧四周，所見多是農村聚落與綠色稻田；然而若再往外延伸，景色隨即劇烈轉變：一片片閒置、荒廢的空地，空地上則插了許多建商的大型廣告看板。

# 國際合用的研究資料管理實用指南 增訂版

Practical Guide to The International Alignment of Research Data Management - Extended Edition

包含 DMP 評量指標  
with DMP Evaluation Rubric

Science Europe



Science Europe  
Rue de la Science 14  
1040 Brussels  
Belgium

Tel +32 (0)2 226 03 00  
Fax +32 (0)2 226 03 01  
office@scienceeurope.org  
www.scienceeurope.org



研究資料寄存所 | **depositar**

115 台北市南港區  
研究院路二段 128 號  
中央研究院 資訊科學研究所

Institute of Information Science, Academia Sinica  
128 Academia Road, Section 2  
Nangang, Taipei 115  
Taiwan

✉ rdm.contact@depositar.io

🌐 data.depositar.io



[https://data.depositar.io/dataset/se\\_rdm\\_guides](https://data.depositar.io/dataset/se_rdm_guides)

# depositor 研究資料寄存所

<https://data.depositor.io/>

**d depositar** Datasets

Home / Projects

### What are Projects?

Projects are used to create, manage and publish collections of datasets. Users can have different roles within a Project, depending on their level of authorisation to create, edit and publish.

Search projects...

### 131 projects found

**高雄美濃雙溪橋上下游疏濬工程溪流環境變化監測 (Monitoring the environmental changes caused by the Dredging in the SHUANG XI River, Meinong, Kaohsiung, Taiwan)**

無人載具航拍監測紀錄高雄美濃雙溪橋上下游疏濬工程的環境變化與衝擊 (UAV mapping the

**d depositar** Datasets Topics Projects

Home / Datasets

Search datasets...

### 871 datasets found

Filter by location [Clear](#)



Map tiles & Data by [OpenStreetMap](#), under CC BY-SA

Filter by Time [Clear](#)

Wikidata Keywords

Taijiang Inner Sea (51)

### Deep-sea soundscapes of Japan

This dataset is an archive of acoustic data ass soundscapes of Japan. Recording Locations F Japan were recorded. This...

**mat**

### 新竹左岸生態情報地圖及環境教育圖與導覽計畫資料

本資料集保存計畫產出的生態情報圖層資料，與導覽計畫文件與相關點位、路線盤點、計畫期...

**KMZ gpkg KML PDF CSV**

### 水環境改善計畫第2-3批次新竹市頭置圖套疊

此資料集為新竹市環保局提供的水環境改善計畫工程平面配置圖，處理成可使用Google Earth P

**d depositar** 資料集 主題 專案 關於 支援

登入 | 註冊 | English

儲存 · 尋找 · 分享

[了解更多](#)

### 主題

想直接搜尋嗎?

- 一般性參考資料
- 文化與藝術
- 地理與地方
- 健康與健身
- 歷史與事件
- 人類活動
- 數學與邏輯
- 自然與物理科學
- 人群與個人
- 哲學與思想
- 宗教與信仰
- 社會與社會科學
- 技術與應用科學

### 資料集精選



#### 台灣歷史文化空間資訊

你知道古代台灣人的航海路線嗎？  
你知道東印度公司在稱臺時期，深入花東地區的探金路線嗎？

### 合作夥伴

- 中研院人社中心地理資訊科學研究專題中心
- Electronic Cultural Atlas Initiative (ECAI)
- 嘉南大圳研群
- 左鎮跨領域協作教學研群
- 亞洲聲景網絡計畫
- 台灣動物路死觀察網

**d depositar**

聯絡我們: [data.contact@depositor.io](mailto:data.contact@depositor.io)  
關於研究資料寄存所 (depositor)  
CKAN API | 網站統計 | 網站狀態 | 支援

使用條款 | 隱私政策

Powered by **ckan**  
程式碼可於 [GitHub](#) 取得。  
Visual Design & UI by **Dualai Studio**



@\_depositar



# Thank You!

<https://data.depositar.io/>

[data.contact@depositar.io](mailto:data.contact@depositar.io)

The *depositar* is a collaboration at the Institute of Information Science, the Research Center for Information Technology Innovation, and the Research Center for Humanities and Social Sciences (GIS Center) in Academia Sinica, Taiwan. The project has been supported, in part, by grants from Taiwan's Ministry of Science and Technology.

The *depositar* project team: T-R Chuang, M-S Ho, C-J Lee, Monica Y-C Mu & Ally C-H Wang.

「研究資料寄存所」是中央研究院資訊科學研究所、資訊科技創新研究中心、人文社會科學研究中心（地理資訊科學研究專題中心）的協作專案，部份經費來自台灣科技部的專題研究計畫。

研究資料寄存所計畫成員：莊庭瑞、何明誼、李承鑫、穆昱佳、王家薰。

