

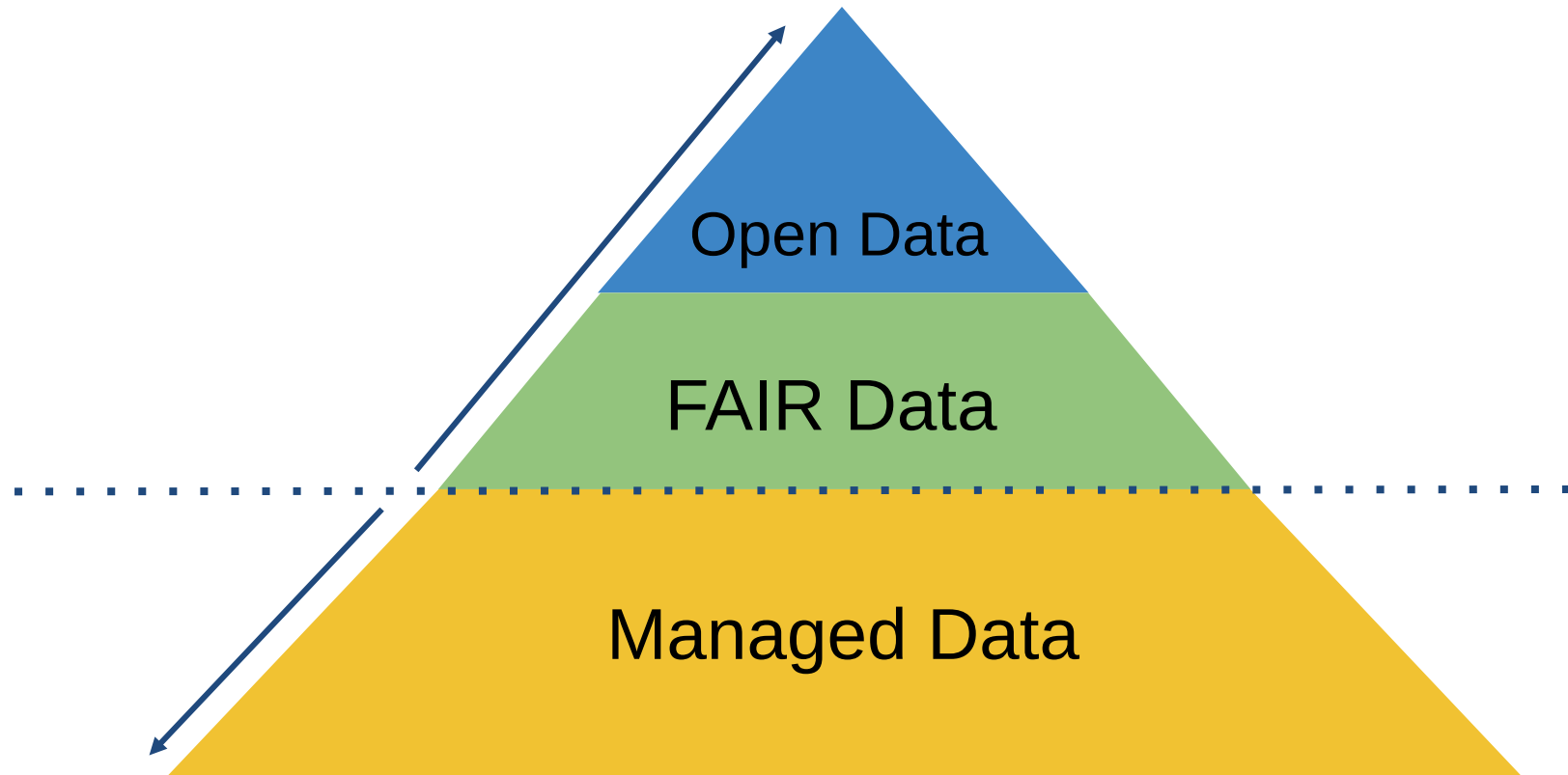
# 研究資料管理、資料管理方案 以及研究資料儲存庫

Research Data Management, Data Management Plans,  
and Research Data Repositories

2022-01-14

莊庭瑞 @ 中央研究院  
trc@iis.sinica.edu.tw





Source: Sarah Jones, <https://www.slideshare.net/sjDCC/open-fair-data-and-rdm>

# FAIR 資料原則

## Fair Data Principles

F

Findable  
可被找到

資料以豐富的后設資料描述；  
資料在可搜尋的資源中註冊或索引

A

Accessible  
可被取用

能使用標準化通訊協定，並以識別碼擷取資料；  
該通訊協定是開放的，而且可自由並普遍實施

I

Interoperable  
可相互操作

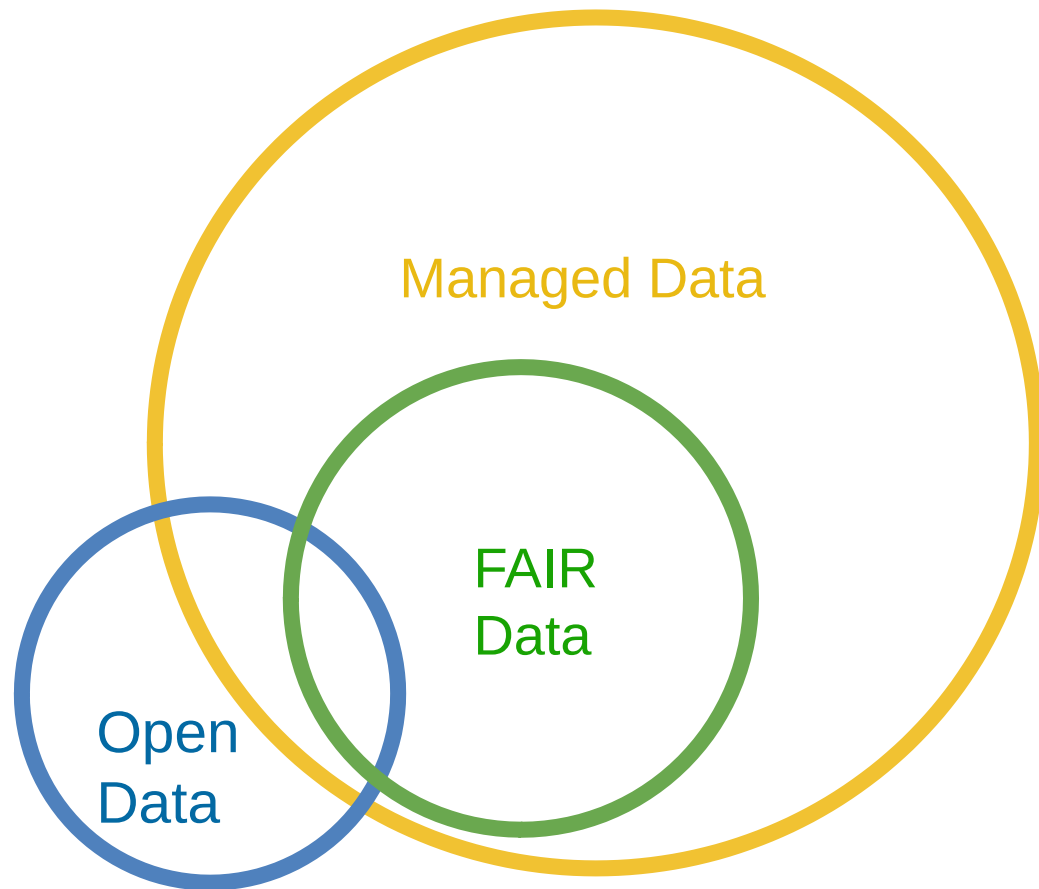
資料係使用正式、可取用、可共享和廣泛接受的  
語言以達成知識再現

R

Reusable  
可再次使用

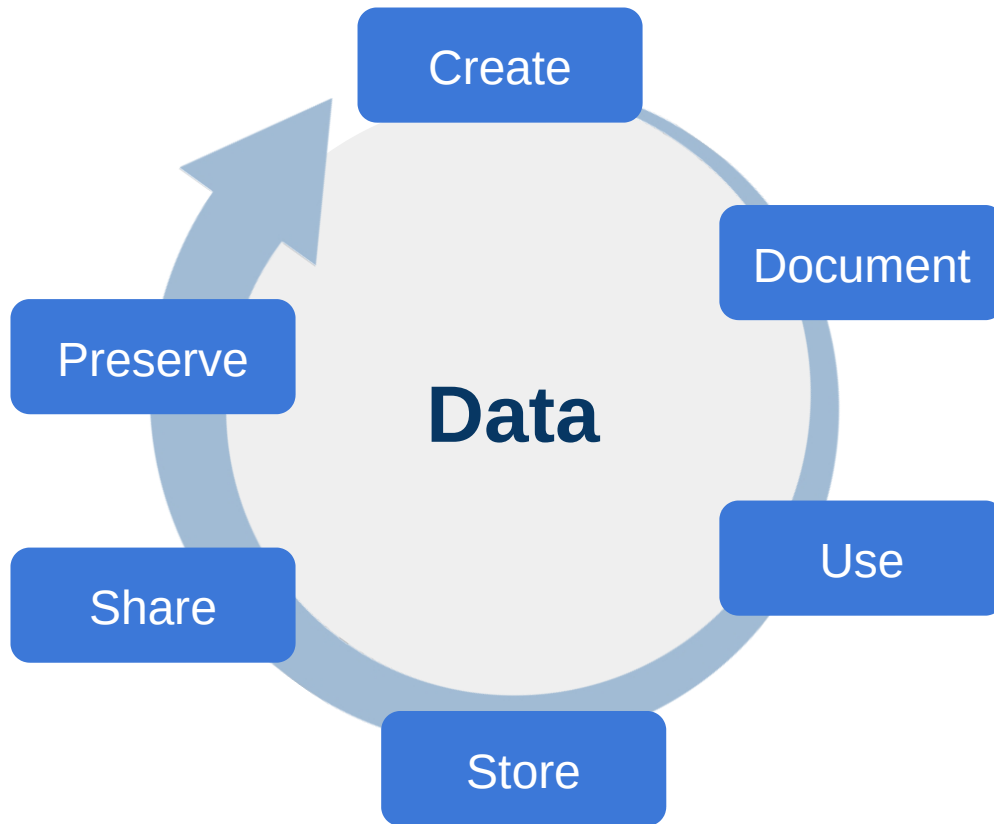
以精確且相關的多種屬性，豐富地描述資料；  
以清晰、易懂的資料授權條款釋出資料

<https://www.force11.org/group/fairgroup/fairprinciples>



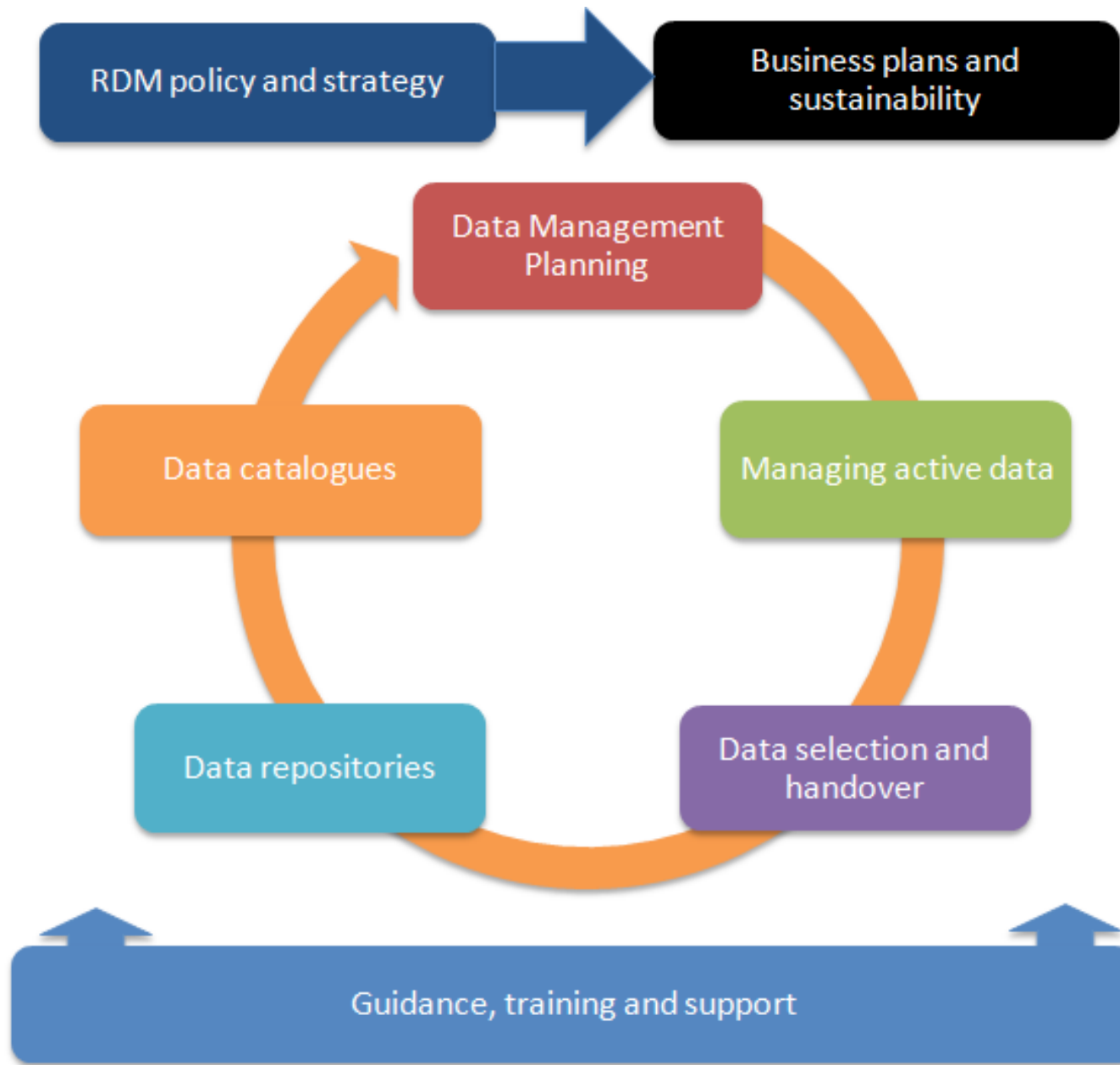
Source: Sarah Jones, <https://www.slideshare.net/sjDCC/open-fair-data-and-rdm>

# 研究資料管理 (Research Data Management)



**好的研究計畫 ↔ 好的資料管理**

積極管理資料及規劃資料的生命週期，有助於研究工作及學術發展。



Source: [www.dcc.ac.uk/resources/how-guides/how-develop-rdm-services](http://www.dcc.ac.uk/resources/how-guides/how-develop-rdm-services)

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

## 資料管理方案的核心需求

CORE REQUIREMENTS FOR  
DATA MANAGEMENT PLANS

## 可信賴的儲存庫的選用準則

CRITERIA FOR THE SELECTION OF  
TRUSTWORTHY REPOSITORIES

譯註：

資料管理方案 ↔ Data Management Plans (DMPs)  
研究資料儲存庫 ↔ Research Data Repositories

提案 ↔ Proposal

專案 ↔ Project ↔ 計畫 (項目)

方案 ↔ Plan



# 資料管理方案 (DMP) 的核心需求

研究人員欲擬訂一個完備的資料管理方案時，需顧及以下議題：

1. 資料的描述與蒐集，或既有資料的再次使用
2. 文件與資料的品質
3. 研究過程中的資料儲存及備份
4. 法律和倫理要求、行為守則
5. 資料共享和長期保存
6. 資料管理的責任和資源



# 1. 資料的描述與蒐集， 或既有資料的再次使用

- a. 如何蒐集或產生新的資料？如何再次使用既有資料？
- b. 要蒐集或產生什麼（種類、格式和數量的）資料？

## 2. 文件與資料的品質

- a. 有哪些後設資料 (metadata) 和文件 (如資料蒐集方法和組織資料方式的描述) 會伴隨資料？
- b. 將採取哪些措施以維持資料品質？

### 3. 研究過程中的資料儲存及備份

- a. 研究過程中，如何儲存資料和後設資料，並建立備份？
- b. 研究執行期間，如何確保資料安全並保護敏感資料？

## 4. 法律和倫理要求、行為守則

- a. 若有處理個人資料，該如何遵循關於個人資料的法規，並確保資料安全？
- b. 如何處理智慧財產權與所有權等各類可能衍生的法律問題？有哪些適用的法規？
- c. 如何考慮可能的倫理問題，並遵守行為準則？

## 5. 資料共享和長期保存

- a. 資料該在何時、以何種方式共享？在資料共享上是否有特定限制？若延後開放的期限，其理由為何？
- b. 如何甄選需要長期保存的資料？在何處（如資料儲存庫或典藏庫）長期存放？
- c. 需要透過何種方法或軟體工具才能取用資料？
- d. 如何確保編配具唯一性及持續性的識別碼——如數位物件識別碼 (DOI) —— 給每一個資料集？

## 6. 資料管理的責任和資源

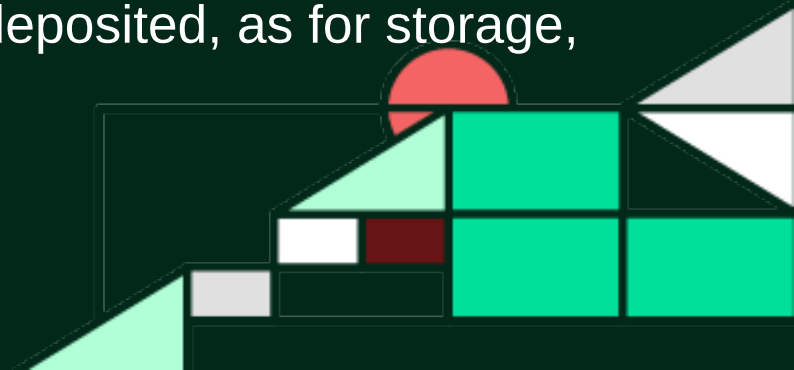
- a. 由何人（如角色、職位及機關）負責管理資料（如資料託管員）？
- b. 哪些資源（如經費及時間）將專用於管理資料及確保資料的 FAIR 特質（即可被找到、可被取用、可相互操作、可再次使用）？

# 可使用的研究資料儲存庫

- Zenodo
  - developed under the EU OpenAIRE program and operated by CERN
  - <https://zenodo.org/>
- DANS (Data Archiving and Networked Services)
  - an institute of the Dutch Academy KNAW and funding organisation NWO
  - <https://dataverse.nl/> (short-term data management)
  - <https://easy.dans.knaw.nl/> (long-term archiving)
- 研究資料寄存所 (depositor)
  - developed at Academia Sinica and funded in part by MOST
  - <https://data.depositor.io/>
- CoreTrustSeal Certified Repositories
  - <https://www.coretrustseal.org/why-certification/certified-repositories/>

# 研究資料寄存所 *depositar*

- 對所有人開放的「資料儲存庫」 (data repository)
  - 建基於 CKAN 開放源碼套件，但新增多項功能
    - 新增程式碼已貢獻到 CKAN 開發上游 (upstream)
  - 可自由使用的軟體、可自由註冊的服務、可自由取用的內容
    - FAIR Data: “Findable, Accessible, Interoperable, Reusable”
    - FAIR 資料: 可被找到、可被取用、可相互操作、可再次使用
  - 是受託者 (depository) 而不是出版者 (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”





The screenshot shows a web page for a dataset on 'data.depositar.io'. The dataset is titled 'Coral Reef Soundscapes off Sesoko Island, Okinawa, Japan'. It includes a description of the dataset as an archive of audio data from shallow-water and upper-mesophotic coral reefs. The page is organized into several sections: 'Recording Locations', 'Acoustic Recorders', 'Configuration of Audio Recording', 'Field Deployment', 'Data Processing', 'Associated Publication', 'Data and Resources', 'Tags', 'Wikidata Keywords', and 'Basic Information'. The 'Basic Information' section provides details such as 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, Spatial Coverage: X.min: 127.8553390572779, X.max: 127.88097380893306, Y.min: 26.630362980584657, Y.max: 26.68047930632328). The 'Management Information' section lists the Author (Tzu-Hao Lin, Tomonari Akamatsu, Frederic Sinnerger, Saki Hari) and Contact Person (Tzu-Hao Lin, schorikopl@gmail.com). The page also features a map of the recording locations and various access options like JSON-API, RDF serializations, and a CKAN API link.

# 一份在研究資料寄存所上的資料集

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

## 要點 highlight

- 關於資料集與專案的長段落描述
- (寄存的) 資料 data  
(外部的) 資源 resources  
以及關於他們的長段落描述
- 標籤 (tags) 以及 Wikidata 關鍵字 (keywords)
- 基本資訊 Basic information
- 時空資訊 Spatio-temporal information
- 管理資訊 Management information
- 資料授權條款 Licenses
- 資料引用格式 Citation snippets
- 資料取用端點 Data endpoints
  - JSON-API
  - RDF 串列式

## 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**

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Twitter

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Facebook

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**License**

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

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**Cite as** Beta

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

#### Data Type

- Source code
- Audiovisual data
- Scientific and statistical data formats

#### Language

English (eng)

### Spatio-temporal Information

#### Temporal Resolution

Daily

#### Start Time

2017-05

#### End Time

2018-07

#### Spatial Coverage

[show more](#)

#### X.min

127.8553390572779

#### X.max

127.88097380893306

#### Y.min

26.630362980584657

#### Y.max

26.68047930832328

### Management Information

#### Author

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

#### Contact Person

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





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: [lintzhuo@gate.sinica.edu.tw](mailto:lintzhuo@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>

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Available online 10 December 2020

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in mesophotic  
s. However, the  
n shallow-water  
ound-producing  
Although basic  
remains scant,  
ill improve our  
erstudied 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 rec  
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  
ocean temper  
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on. Therefore, it  
silience of coral  
nagement plans  
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ystem functions

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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



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Facebook

**License**

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CC-BY 4.0 [OPEN DATA](#)

**Cite as** Beta

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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>



# 用 Google Dataset Search 找研究資料

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

The screenshot shows the Google Dataset Search interface in a Mozilla Firefox browser. The search query is "Coral Reef Soundscapes". The results page displays 29 datasets found. The top result is "Coral Reef Soundscapes off Sesoko Island, Okinawa, Japan" by the Ocean Biodiversity Listening Project. A yellow arrow points to the "Explore at depositor" button for this dataset. A text box on the right highlights that this dataset is an example of data deposited by Dr. Lin Zihao at the Biodiversity Research Center of the Academia Sinica.

**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 depositor](#)

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**

以林子皓博士（中央研究院生物多樣性研究中心）所寄存的資料集為範例



# 用 Google Dataset Search 找中文研究資料

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



The screenshot shows a Mozilla Firefox browser window displaying the Google Dataset Search results for the query '劉厝溪'. The search results page shows one dataset found: '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 pointing to the 'external resources' link. A text box on the right side of the image contains the text: '以王豫煌博士（台灣生態學會）所寄存的資料集為範例'. The dataset details include the update date (Apr 18, 2021), the provider (Asian Ecological Observation Network), and the license (Attribution-NonCommercial-ShareAlike 4.0 (CC BY-NC-SA 4.0)).

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

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。

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。](#)

以王豫煌博士（台灣生態學會）所寄存的資料集為範例

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

### 台中市南屯區鎮平溪—劉厝溪航攝影像

出版者  
0

#### 專案



Asian Ecological Observation Network

此專案沒有任何說明

#### 社交

Twitter  
Facebook

#### 授權

採用 CC 姓名標示-非商業性-相同方式分享 4.0

#### 引用為

American Psych...

王豫煌. (2021). 台中市南屯區鎮平溪—劉厝溪航攝影像 (Version 2021-04-18T15:30:42.008984) [Data set]. Retrieved from https://data.depositar.io/dataset/6ac93

複製到剪貼簿

#### Dataset extent



Map files & Data by OpenStreetMap, under CC BY-SA 4.0

#### 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 串列化輸出 (修改自 DCAT 2)

JSON-LD Turtle XML

經由 CKAN API

資料集 主題 動態牆 歷史紀錄

### 台中市南屯區鎮平溪—劉厝溪航攝影像

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筏子溪支流鎮平溪—劉厝溪段附近的農田和聚落地景。

#### 資料與資源

航拍規劃中心線  
規劃航線中心線KML檔

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...)

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...

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。

空中360影像  
空中360影像Google Street View連結。

#### 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

#### 基本資訊

資料類型	<ul style="list-style-type: none"><li>壓縮檔資料</li><li>結構化圖形</li><li>影像</li><li>網路通訊資料</li><li>科學與統計資料</li></ul>
語言	中文 (zho)

#### 時空資訊

起始時間	2021-04-13
結束時間	2021-04-13
空間範圍	顯示更多

#### 管理資訊

產製者	王豫煌
資料產製時間	2021-04-18

#### 資料處理歷程

**航攝製圖影像拍攝**  
採用DJI Phantom 4 RTK無人載具及D-RTK 2 Mobile Station 連接圖土測繪中心DGPS定位服務進行影像拍攝；航線規劃採用Linea飛行模式，沿中心線KML橫向左右兩側80公尺設定為航拍範圍；鏡頭俯角90度，航高保持離地海面6公尺，影像重疊率前後80%、左右70%。

**影像處理**  
採用中央研究院網格計算中心WebODM 測試平台，設定High Resolution計算模式，輸出正射影像、DSM、3D點雲和模型，再經由中央研究院網格計算中心WebODM平台發布計算成果網頁連結。

#### 360影像拍攝與發佈

使用DJI Mavic 2 Pro無人載具和DJI GO4 App拍攝空中360全景影像，並將影像發佈至Google Street View。

聯絡人  
聯絡人的電子郵件 yuhuangwang@gmail.com

# 正射影像拼圖 (連結到 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

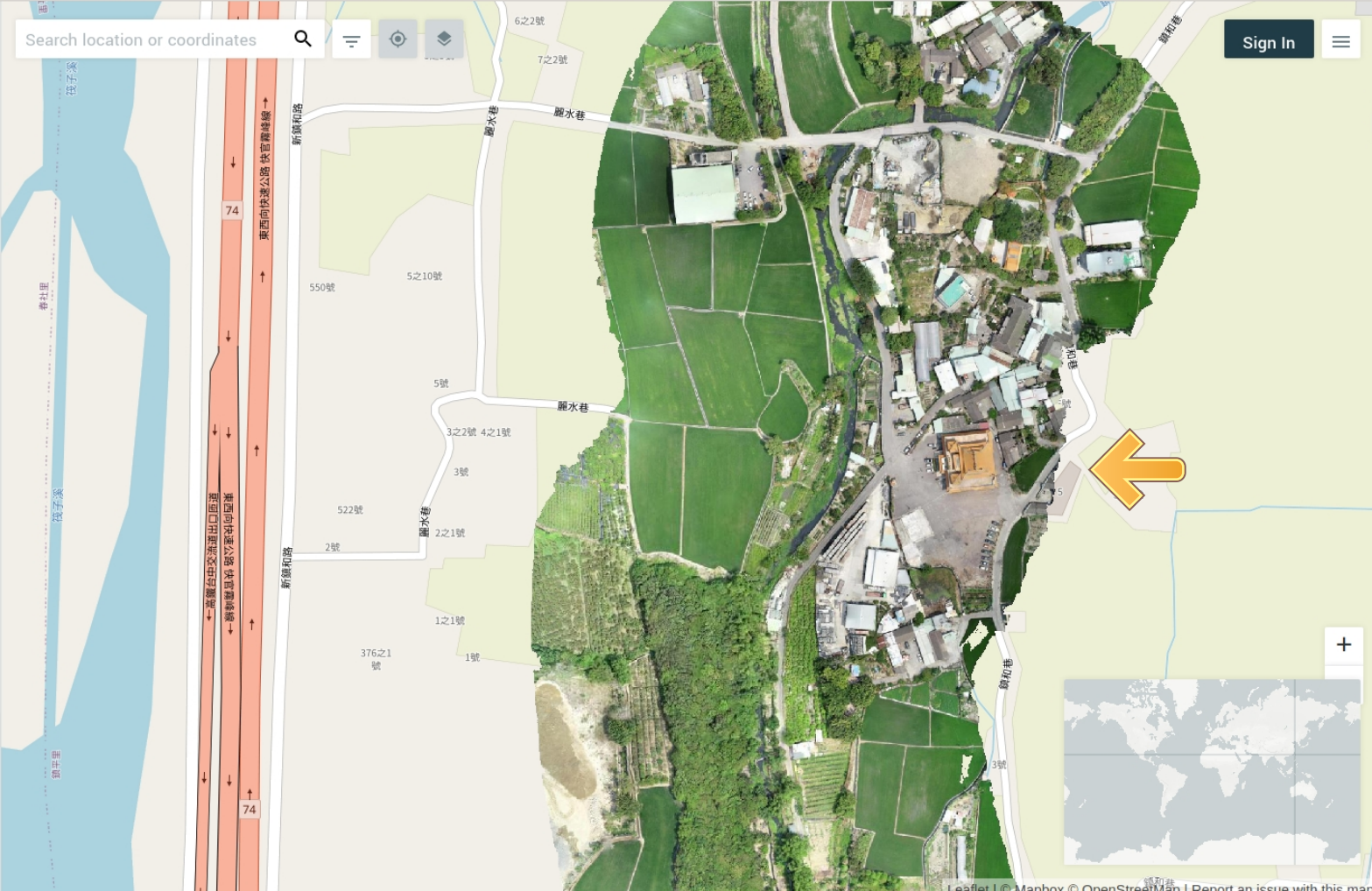
Open in iD editor | JOSM

Copy image URL TMS | WMTS

DATE 2021-04-13

RESOLUTION 4 cm

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



Sign In

Leaflet | © Mapbox © OpenStreetMap | Report an issue with this map

@\_depositar



謝謝! Thank You!

<https://data.depositar.io/> 研究資料寄存所  
<https://rdm.depositar.io/> 研究資料管理推進室

[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。

