

Collaboration on monitoring Asian soundscape and the challenges

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Asian Soundscape

<http://soundscape.twgrid.org>



11/17-20 Asian Soundscape Workshop,
Lianhua Research Center, TFRI, Taiwan



 Pumilio.2

Welcome to Asian Soundscape

The Open Archive for Joint Monitoring of Asian Soundscape

This archive has 12,322 soundfiles from 6 sites in 6 collections.

Map:



There are 6 sites with soundfiles. Some markers may be hidden behind others. Zoom in to see all the sites.

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[Asian Soundscape - Contact](#)

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Forest soundscape in Sanyi Township, Miaoli County, Taiwan

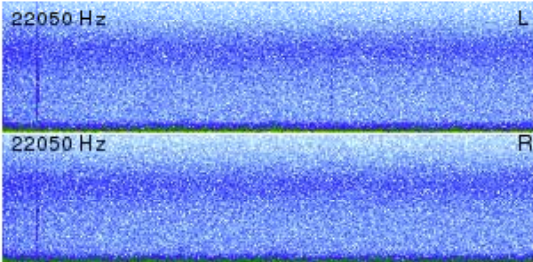
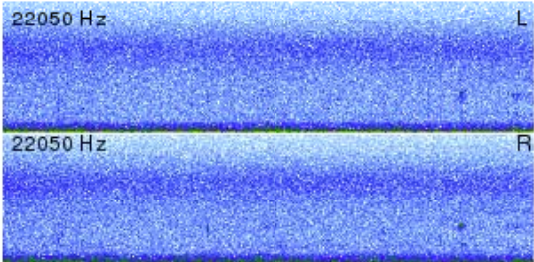
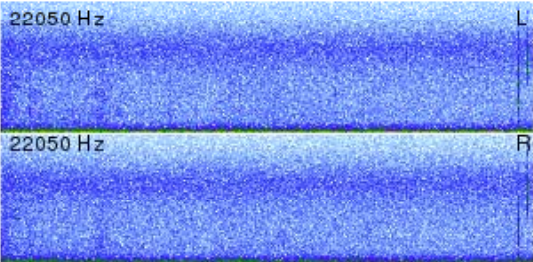
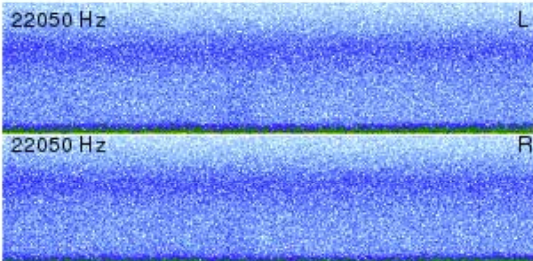
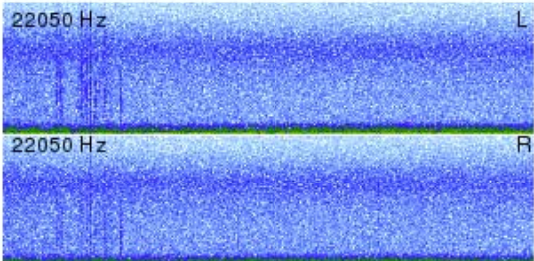
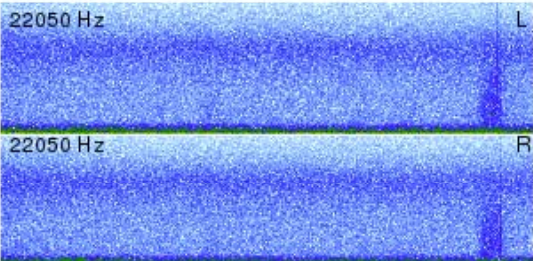
 **Pumilio.2** [\[Home\]](#) [\[Search\]](#)

Site: TW_TFRI_MLSY01
Coordinates: 24.42071, 120.78422 | [Map](#)
1190 sounds

Results: 1 to 18 of 1190

Name ▼ ▲ Date ▼ ▲ Display:  

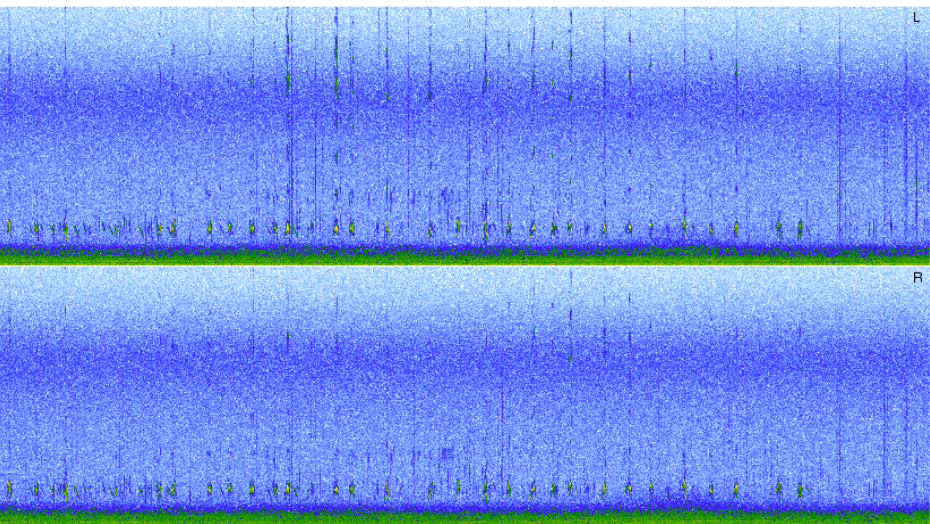
Filter by date: ▼

 <p>TW_TFRI_MLSY01_20150124_170000.wav 24-Jan-2015 17:00:00</p>	 <p>TW_TFRI_MLSY01_20150124_173000.wav 24-Jan-2015 17:30:00</p>	 <p>TW_TFRI_MLSY01_20150124_180000.wav 24-Jan-2015 18:00:00</p>
 <p>TW_TFRI_MLSY01_20150124_183000.wav 24-Jan-2015 18:30:00</p>	 <p>TW_TFRI_MLSY01_20150124_190000.wav 24-Jan-2015 19:00:00</p>	 <p>TW_TFRI_MLSY01_20150124_193000.wav 24-Jan-2015 19:30:00</p>

MLSY01_20150126_073000.wav
5-Jan-2015 07:30:00

Collection: TW_TFRI_MLSY

Site: TW_TFRI_MLSY01
Coordinates: 24.42071, 120.78422



5 show waveform 05:00

Pumilio Viewer

Map:

name: TW_TFRI_MLSY01_20150126_073000.wav
format: wav | mp3
date: 2015-01-05 07:30:00
duration: 05:00 (hh:mm:ss)
format: wav
rate: 44100 Hz
channels: 2
size: 5 MB
encoder settings:
frequency: 22050 Hz
sample rate: 2048
bit rate: 6751
comment: Wildlife Accoustic SM2+, SMX-II Stereo (NULL)

Open file in Pumilio Viewer

- File data
- Site Data
 - Site: TW_TFRI_MLSY01
 - Latitude: 24.42071
 - Longitude: 120.78422
 - Notes: Secondary forest at 490 m asl.
- File Tags
- File Quality Data

Map:

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Listening to and browsing metadata of a soundscape recording

Coloring the components of soundscape by

[Home] [Search]

TW_TFRI_MLSY01_20150126_073000.wav

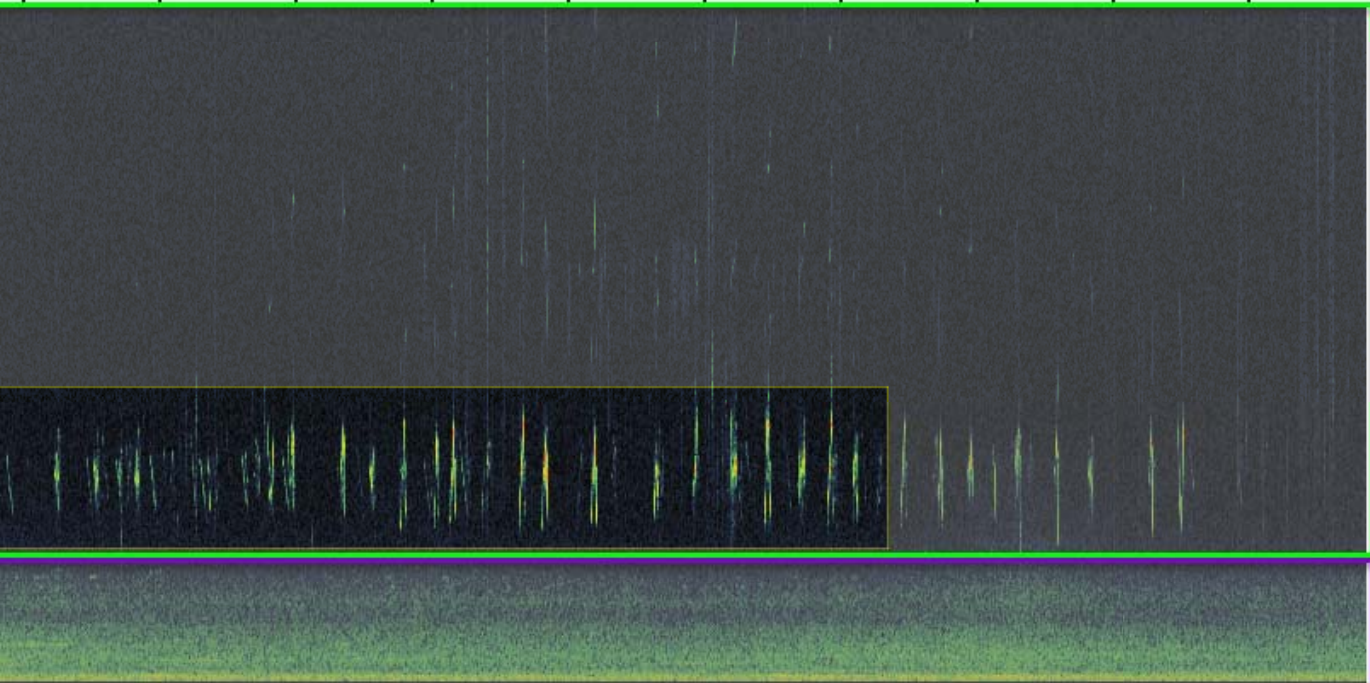
Log in

Load current sound file Download spectrogram Convert file File details Visualization settings Close file

Upload to database Show marked regions

Channel: LEFT

0:28 0:55 1:23 1:51 2:18 2:46 3:14 3:41 4:09 4:37



10000 Hz

5006 Hz

10 Hz

0:06.8

11.38 - 203.1 sec | 1958 - 4356 Hz

Filter Zoom in

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The image shows a spectrogram interface for a soundscape file. The main spectrogram displays frequency from 10 Hz to 10000 Hz over time from 0:28 to 4:37. A yellow rectangular region is highlighted, spanning from approximately 1:51 to 3:14 on the time axis and 10 Hz to 5006 Hz on the frequency axis. Below the spectrogram, a time slider shows 0:06.8. A red box highlights a zoomed-in view of the highlighted region, with time parameters 11.38 - 203.1 sec and frequency parameters 1958 - 4356 Hz. The interface includes various navigation and analysis tools like 'Download spectrogram', 'Convert file', and 'Zoom in'.

Biophone: bird song

Anthrophone: traffic...

Selecting range of frequency band and identifying soundscape components

Home Search

TW_TFRI_MLSY01_20150126_073000.wav Log in

Download current sound file Download spectrogram Convert file File details Visualization settings Close file

Save selection to database Show marked regions Channel: LEFT

0:11 0:29 0:47 1:04 1:22 1:40 1:57 2:15 2:33 2:50 3:08

4356 Hz
3158 Hz
1958 Hz

0:23.0 11.38 - 203.1 sec | 1958 - 4356 Hz Filter Zoom in

Pause

Asian Soundscape - Contact
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Expanding network

- 12 sites: Malaysia (1), Taiwan (9), Thailand (1), Vietnam (1)
- 192,315 sound files
- 10 TB
- Doubling volume of soundscape archive in 2018

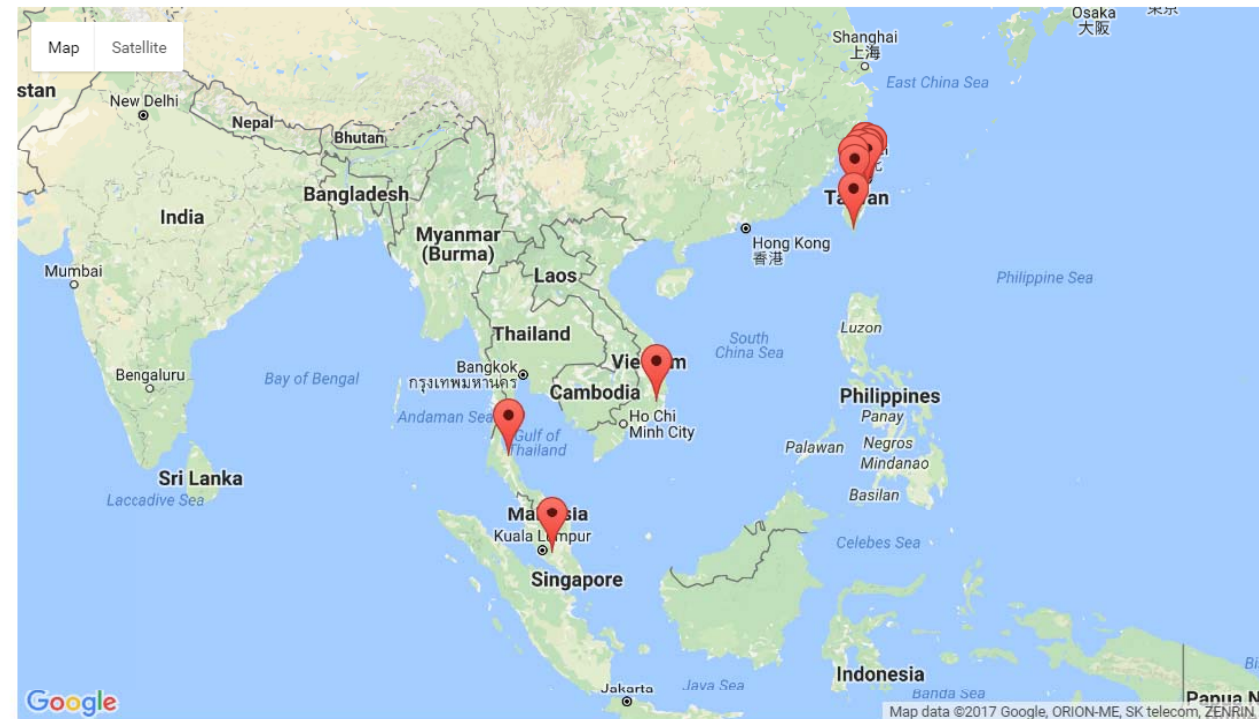
Welcome to Asian Soundscape

The Open Archive for Joint Monitoring of Asian Soundscape

This archive has 192,315 soundfiles from 14 sites in 12 collections.

Map:

Filter by date: [All dates](#) [Select](#)



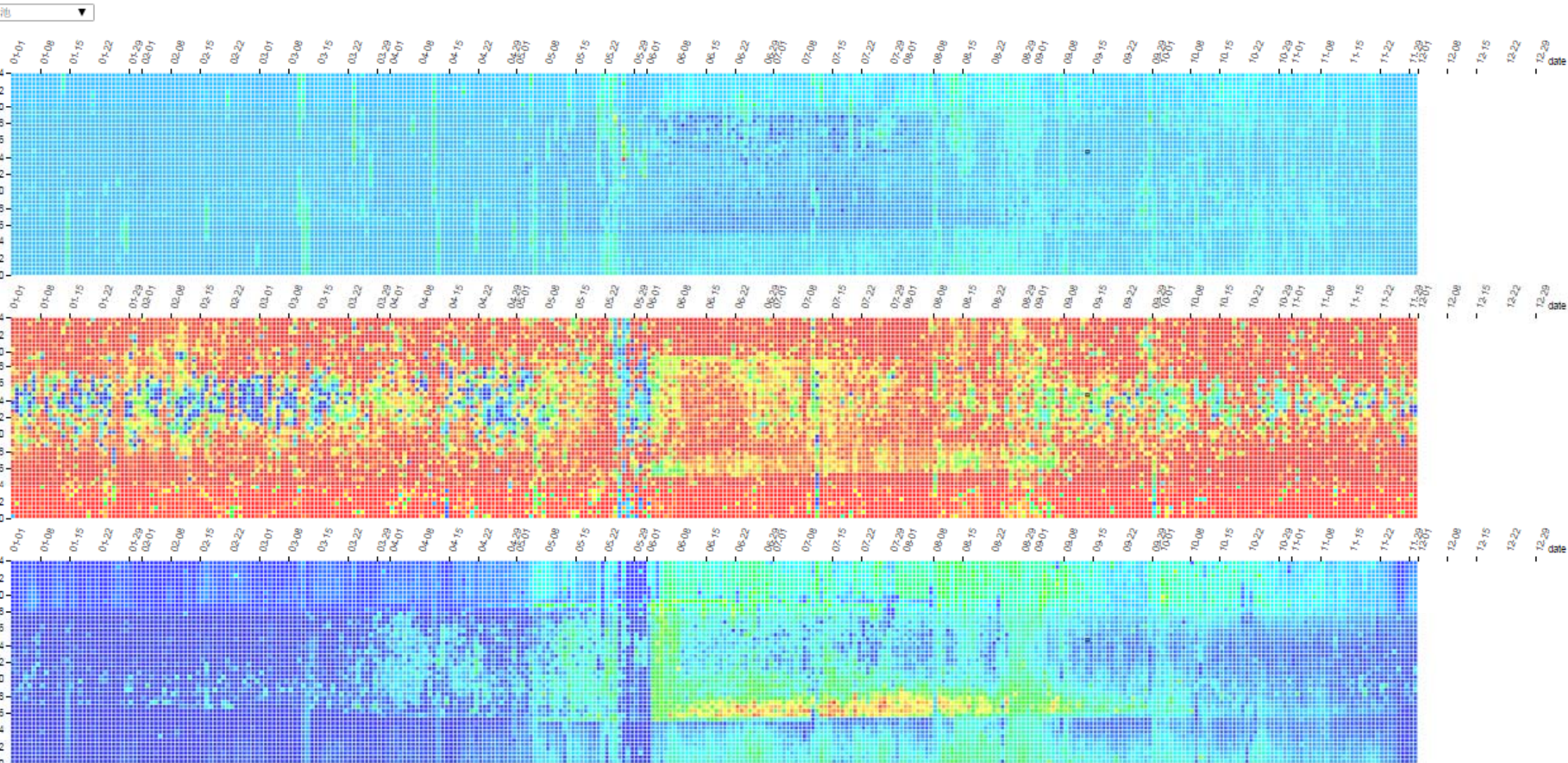
There are 14 sites with soundfiles. Some markers may be hidden behind others. Zoom in to see all the sites.

- ▶ [Main Menu](#)
- ▶ [Search](#)
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- ▶ [Tag cloud](#)

Limitations on the current soundscape archive

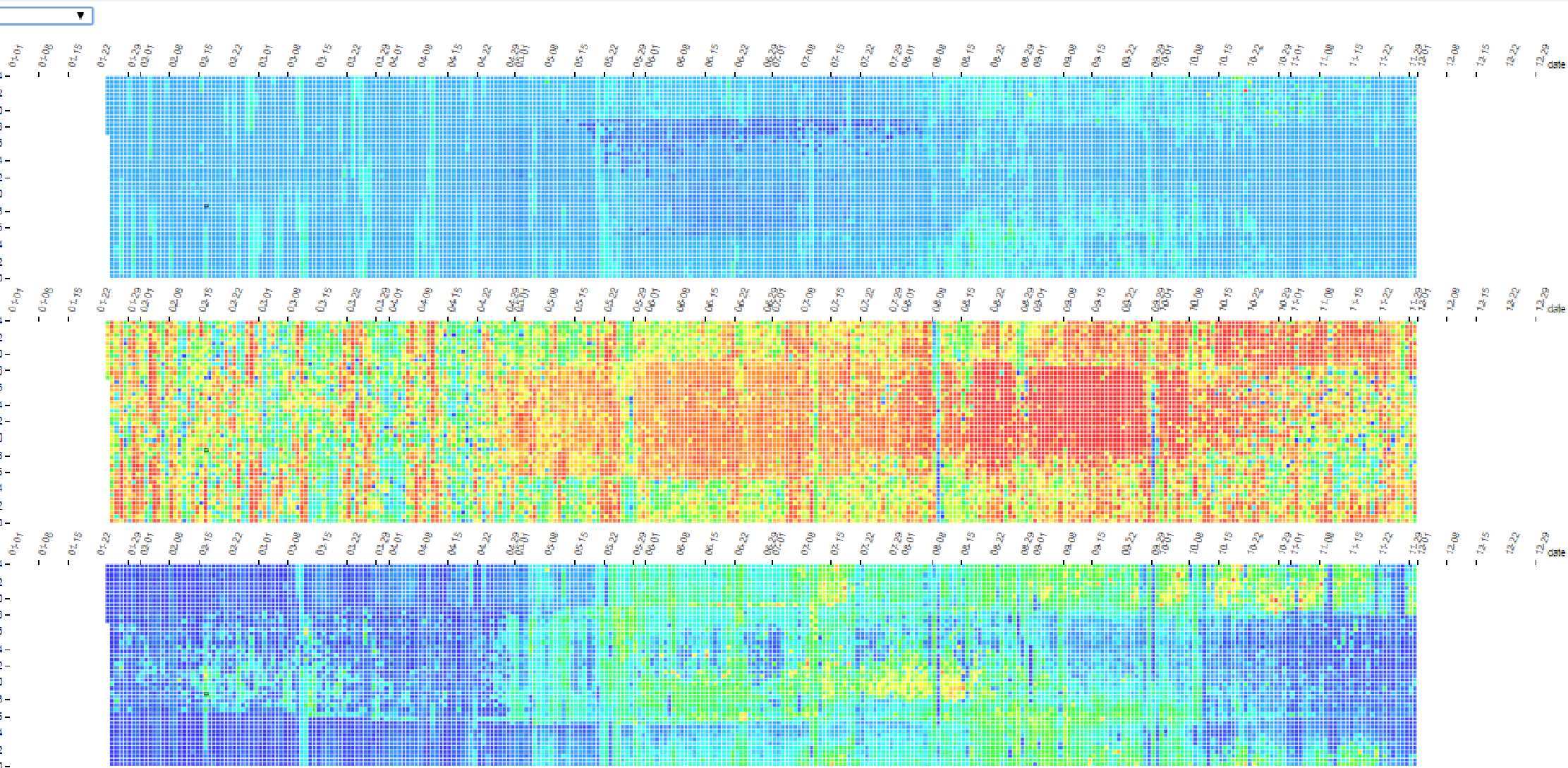
- A too simple cataloging and archiving platform
- Unable to document detailed metadata for each monitoring site
- Hard to explore, share, and reuse the huge volume of soundscape recordings
- Lack of mechanisms to interact with user community

Visualization of soundscape indices of LHC



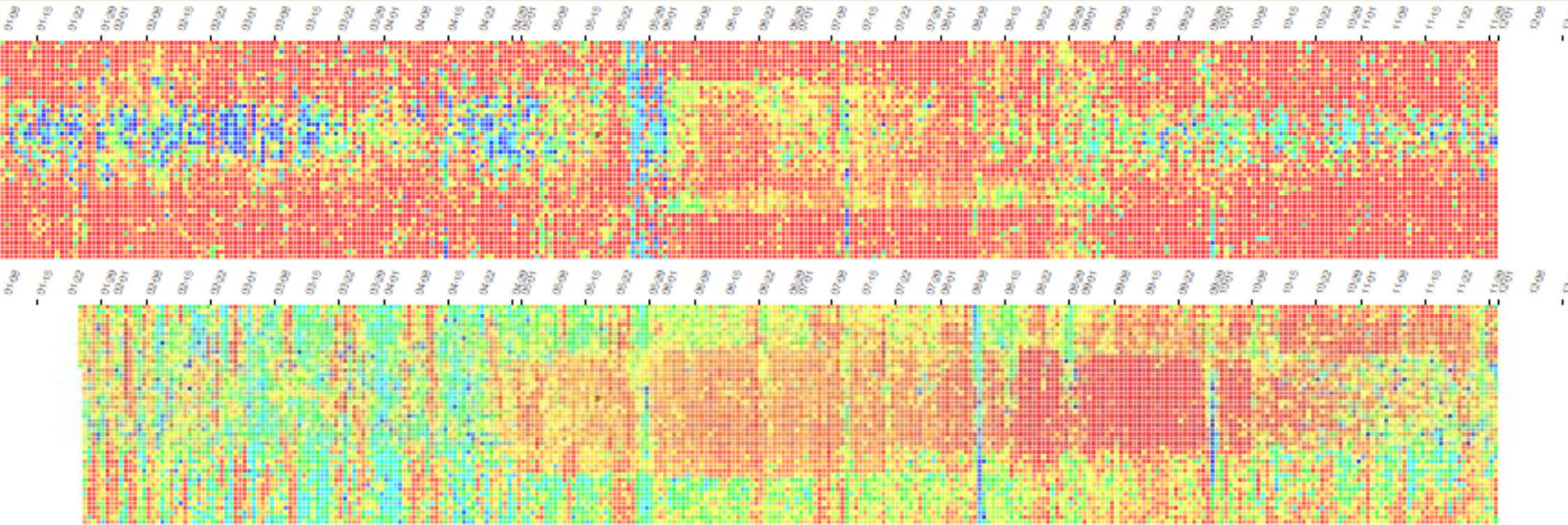
[://twebi.net/soundidxd3/demo.html](http://twebi.net/soundidxd3/demo.html)

Visualization of soundscape indices of MLSY

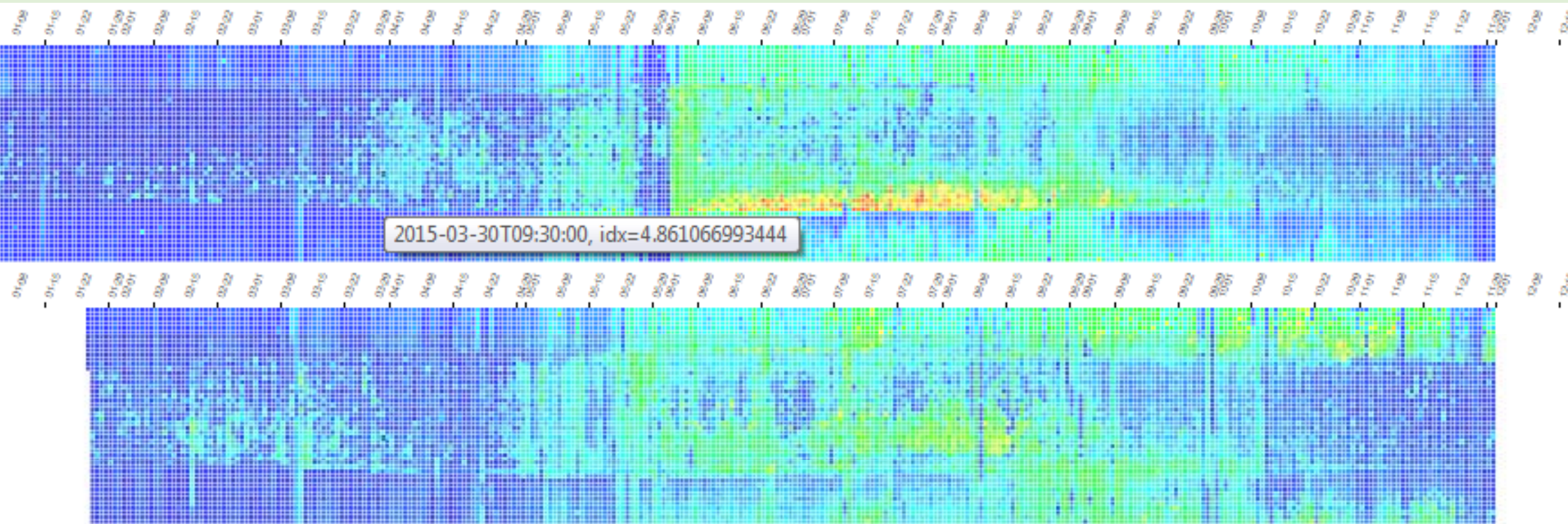


[://twebi.net/soundidxd3/demo.html](http://twebi.net/soundidxd3/demo.html)

ADI – LHC vs. MLSY



BAI – LHC vs. MLSY





Yu-Huang Wang

1 day

Soundscape of winter evening in natural forest

Science



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More

▶ 10



Yu-Huang Wang

2 1

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Sign in

Soundscape of winter evening in the forest of Lienhuachih Research Center, Yu-Chih, Nantou, Taiwan (2017-02-04T18:30:00).

Soundscape

forest

owls

forgs

insects

Related tracks

View all



sonicwonderland

Playing Sax at Inchindown, home of...

▶ 4,081 ♥ 77 ↻ 8 💬 2



sonicwonderland

Acoustic Sculpture, National Theatr...

▶ 3,402 ♥ 37 ↻ 4 💬 2



sonicwonderland

Sonic Wonderland - World's Longest...

▶ 184K ♥ 1,017 ↻ 107 💬 144

Go mobile



0:35

5:00



Playing track

Soundscape of winter evening in natural forest



Don't miss the next upload by Galaxy Express 555!

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Ep.04 - Khao Nan National Park

by Galaxy Express 555 Follow 61 46m 3 weeks ago



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About the show

TAGGED

#galaxy #express #555 #ambient

Episode four is made possible throughout the steadfast work of biodiversity research teams networked by the EU-Asia GRID (Global and Regional Integrated Data Centers). As part of their research, a team of scientists at the Khao Nan National Park in Southern Thailand captured the evening chorus of the moist evergreen arboreal biome. The setting synthesized for this episode is the product of a time-collapsed sampling of recordings made by this research team from 17:00 to 21:30 on December 9, 2014 CE.

Special thanks to K. Jaroensutasinee, M. Jaroensutasinee, P. Koad & A. Charoensuk at the Huai Lek HQ in Khao Nan National Park, Nakhon Si Thammarat, Thailand.

The recording was retrieved January 25, 2017, from the TW GRID website at http://soundscape.twgrid.org/db_brows...

During the rainy season (May - January) the park receives approximately 3,500–4,500 millimeters (140–180 in) of rainfall.



Favorited by 2 >



Listeners

Ep.04 - Khao Nan National Park by Galaxy Express 555 FOLLOW 01:33 44:43 NEXT

<https://www.mixcloud.com/555sounds/ep04-khao-luang-national-park/>

The challenges

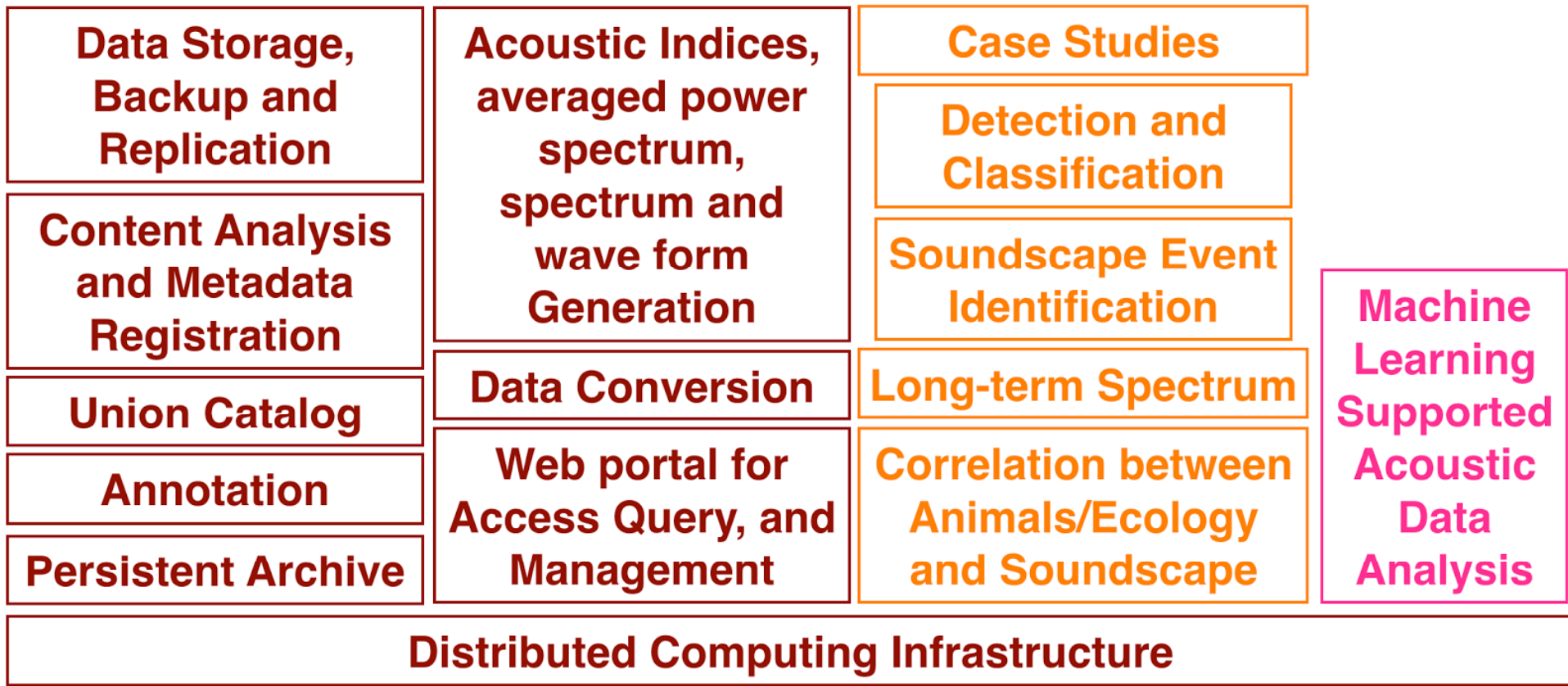
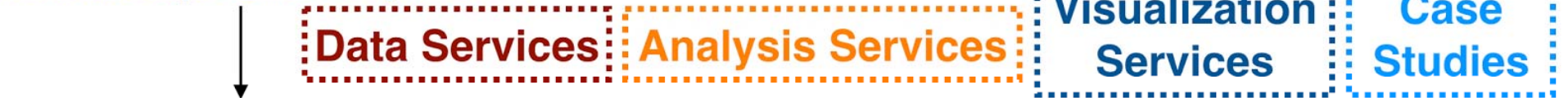
- using the distributed storage and computing infrastructure of the GRID centers to establish persistent and high performance open science platform for regional and global soundscape research and education;
- redesigning and developing an open source platform to include better functions on visualizing, querying, and reusing the soundscape big data;
- developing open source tool for publicly annotating the soundscape recordings to collect the training data for soundscape classification, event detection, and species identification by deep learning.

Open Science Platform for Soundscape Research Network



User
Communities

Soundscape Data Acquisition



Thanks for your attention

