



# 10th Anniversary International Cyberforest Symposium

Online Interaction for Remote Forests and People  
- Fostering the "Sense of Globe" and Meeting the Acoustic Commons

## Abstract book

26 March 2021, onsite/online Japan: 17:00-20:00 (JST)  
England: 8:00-11:00 (UTC)  
France & Sweden: 9:00-12:00 (CET)  
Finland: 10:00-13:00 (EET)



# Timeline Of Cyberforest

## Installation and Operation of Field Systems and Overseas Collaborations

### No.1~9 Live monitoring site

Forest View Robot Camera in Chichibu Forest



#tetto



#yatake

Added A Stereo Microphone



#tetto



#yatake

Named as Cyberforest



Cyberforest

Website & DVD Products "Every day in the forest" Made with videos of Cyberforest



"Sense of Forest 2003" one year archives DVD



Installed Satellite Network



#tetto



#tetto



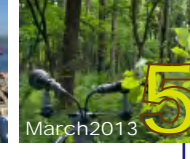
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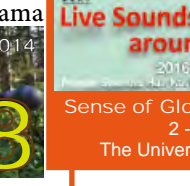
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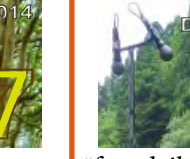
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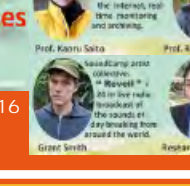
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#yamanakako



#yamanakako



#tabushima



#tabushima



#KyotoUniverside



#KyotoUniverside

1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022

Period of development of a Forest View Robotic Camera and video data Accumulation through its continuous operation

Period of accumulation of video data and trial production of website and DVD contents

Start Live streaming / Increasing the number of sites

Start of Audio Bird Census with live streaming every april-June by Birdresearch Japan

Start of international collaborations

Automated operation once a day with timers assisted by a solar panel

Relocation of a generator to reduce noises for sound recoding

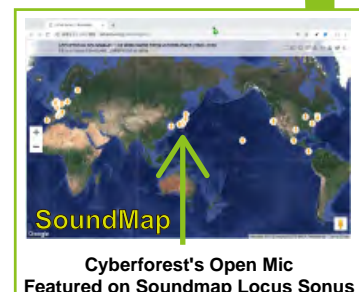
Stable operation started. Automatic shooting rate exceeds 95%



16 March 2021  
kaoru saito



University of Aberdeen  
Digital Conservation Conference 2014  
21.May - 23.May.2014, University of Aberdeen, UK  
Prof. René van der Wal was the organizer of this conference  
First full-scale international presentations on Cyberforests: 1.Environmental profiling experience for nature conservation with Cyberforest, including real-time monitoring and archiving on the internet.(Oral) / 2.Cyberforest real time monitoring and archiving system for nature conservation. (Poster) / 3. Cyberforest for environmental education: monitoring and archiving the forest environment in real-time for nature education materials. (Demo)



Cyberforest's Open Mic  
Featured on Soundmap Locus Sonus

" Listening To The End Of The World:  
Live Streaming  
The University Of Tokyo Cyberforest  
And Other Remote Objects "

29 October 2016,  
Goldsmiths University Of London, UK

" Formes d'écoute à distance  
et suivi big data de la biodiversité  
Cyberforest - SoundCamp -  
LocusStream Project "

1 Novembre 2016  
IMéRA- Marseille  
Maison des Astronomes, salle de conférences  
Ecole Supérieure d'Art d'Aix-en-Provence  
FR



Acoustic Commons  
from 2020 to 2022 supported in part by the Creative Europe  
Programme of the European Union.



#otonomo

René visited as  
Project Professor of  
The University of Tokyo

From 1 May to 12 June, 2018  
Field surveys were conducted  
for all the Cyberforest  
monitoring sites.



Sound Cocoon

Peter visited to Univ. of Tokyo

From 15 to 16 Aug. 2018 Visiting UTokyo  
Kashiwa Campus, and field surveys  
were conducted at #tetto, #yatake &  
#Yamanakao  
Cyberforest monitoring sites.

2017 2018 2019 2020



Join REVEIL by Grant, Soundcamp every May for 4 years

# Program

## Opening Remarks

17:00-17:05 (JST)/ 8:00-8:05 (UTC)/ 9:00-9:05 (CET)/ 10:00-10:05 (EET)

**How Can We Fill a Gap Between Global Perceptions and Local Perceptions?**

Dr. Ayako Toko

## Keynote Talk

17:05-17:25 (JST)/ 8:05-8:25 (UTC)/ 9:05-9:25 (CET)/ 10:05-10:25 (EET)

**Why Cyberforest? A View from Outwith...**

Prof. René van der Wal

## Cyberforest and Open Microphone: The State of the Art

17:25-18:10 (JST)/ 8:25-9:10 (UTC)/ 9:25-10:10 (CET)/ 10:25-11:10 (EET)

**A Virtual Short Tour to the Cyberforest Site Yamanakako**

Dr. Akio Fujiwara

**Temporal Expansion on "Deep Wonder" Evoked by Forest Image and Sound Archives**

Dr. Kazuhiko W. Nakamura

**Therapeutic Effect of Repeatedly Listening to Natural Sounds:  
A Longitudinal Study**

Mr. Yasushi Suko

**A Microphone on My Boat**

Dr. Peter Sinclair





## **Cyberforest in the Broader Context**

18:10-19:10 (JST)/ 9:10-10:10 (UTC)/ 10:10-11:10 (CET)/ 11:10-12:10 (EET)

### **The Cyberforest's World Around You is Not What It Seems**

Prof. Taichi Furuhashi

### **The Acoustic Commons and the Role of Cyberforest**

Grant Smith

### **10-year of Audio-census of Forest Birds Using Cyberforest Live-streaming System**

Dr. Reiko Kurosawa

### **The Future of Forests in an Island Nation: New British Forests in a Time of Ecological Change**

Dr. Andrew Whitehouse

## **Panel Discussion**

19:10-19:50 (JST)/ 10:10-10:50 (UTC)/ 11:10-11:50 (CET)/ 12:10-12:50 (EET)

### **Online Interactions for Remote Forest and People**

Prof. René van der Wal, Dr. Akio Fujiwara, Dr. Kazuhiko W. Nakamura, Mr. Yasushi Suko, Dr. Peter Sinclair, Prof. Taichi Furuhashi, Grant Smith, Dr. Reiko Kurosawa, Dr. Andrew Whitehouse

Moderated by Dr. Naomi Shimpō

## **Concluding Remarks**

19:50-20:00 (JST)/ 10:50-11:00 (UTC)/ 11:50-12:00 (CET)/ 12:50-13:00 (EET)

### **Cyberforest & the Sense of Globe: Perspectives in the Coming Decade**

Prof. Kaoru Saito



# Abstracts

## Opening Remarks

**Dr. Ayako Toko**

### **How Can We Fill a Gap Between Global Perceptions and Local Perceptions?**

The importance of filling a gap between global issues and local issues has been often argued to solve various environmental problems for years. As far as we do not feel or are not aware of environmental matters happening somewhere else, it is difficult to solve the global environmental issues such as climate change and biodiversity loss since almost all human activities in local areas are intricately related to these two global issues. Thus, how we can feel a remote environment in the same way as we feel a local environment around us is chiefly important. Ingold (2000) shows two views of the environment: one is as a lifeworld (local) and the other is a globe (global), and explains that the global environment is not a lifeworld but a world apart from life. Then, how we can connect the former to the latter? Cyberforest has been seeking for innovative approaches for connecting people to remote nature, by combining information technology with basics of forest science, environmental education, biology, and phycology. Kaoru Saito, one of the founders of Cyberforest, believes that live sounds from a natural area elsewhere can help people to feel and care for that place, resulting in collective actions in global scale. He calls this feeling “Sense of Globe”. In this symposium, we promote discussions on new ideas, applied cases, and future potentials of the utilization of digital tools and contents, including arts, for fostering the Sense of Globe.

Ingold, T. (2000): The Perception of the Environment-Essays on Livelihood, Dwelling and Skill. Routledge, Oxson, UK.



# Keynote Talk

Prof. René van der Wal

## Why Cyberforest? A View from Outwith...

Rarely is technology centre stage when it comes to reconnecting people to nature. Yet, in Cyberforest, one of Japan's longest running online environmental engagement programmes, technologists are running the show. Operated from the University of Tokyo and starting in 1998 – only five years after the launch of the graphical browser Mosaic, which allowed the www to take off – bird song and other natural sounds have been recorded in forests across the country, which were live broadcasted with all bird species skilfully annotated, and subsequently archived. Partaking in their operations revealed a remarkably holistic programme, driven by the hope that ICT can help people to develop what they label 'the sense of globe' - the ability to experience the Earth as ones' home country. Key actors often struggled with the deterministic and disciplinary silo aspects of science, yet embraced the opportunities that come with technological progress and the freedom of operation and cloud that a powerful scientific institution brings. 'To experience' is what drives Cyberforest, with the archiving of sound of Japan's innermost nature viewed as its service to society, allowing people to go back to what forests of the past feel like. The leader's commitment to the programme and its people, and his ability to improvise and capitalise on opportunities, allowed for continuity and expansion. The focus on technology appeared to give Cyberforest sites agency, which widened the social networks that carried the initiative. The strong technical capability of the team mitigated against what otherwise would have been a corrosive rate of technological change, thus revealing the potential power that technological interest can bring to programmes aimed at connecting people to nature.



# Dr. Akio Fujiwara

## A Virtual Short Tour to the Cyberforest Site Yamanakako

In the early days of the Internet, a real-time image of a coffee server in a laboratory at the University of Cambridge was posted on the Web. People all over the world couldn't know what was so interesting about it, but they were fascinated to see how the coffee was made, which they couldn't drink or smell <sup>1)</sup>. Not long after that, many things in all over the world were connected to the Internet, and surfing the browser felt like surfing the world. It was interesting.

"All over the world? What are the forests like around the world?"

What did I use to find resources on the Internet back then? I've been relying on Google for a while now, and I've forgotten. I may have followed a link that someone else had collected. As it turned out, I couldn't find many interesting resources about the forest on the Internet.

"Oh, someone has to connect the forest to the Internet for it to exist on the Web."

I'm not sure what's so interesting about it, but I decided to connect the forest to the Internet myself. At first, I had to drive back and forth across the forest roads and sometimes walk through the mountains to get to a terminal connected to the Internet to upload the videos I had recorded in the forest. Even a pigeon can carry an Internet datagram <sup>2)</sup>. I think it was the beginning of a great Internet-connected forest.

And, although I don't know what's so interesting about it, I'm still connecting my forest to the Internet in this way.

1) [https://en.wikipedia.org/wiki/Trojan\\_Room\\_coffee\\_pot](https://en.wikipedia.org/wiki/Trojan_Room_coffee_pot) 2) <https://tools.ietf.org/html/rfc1149>

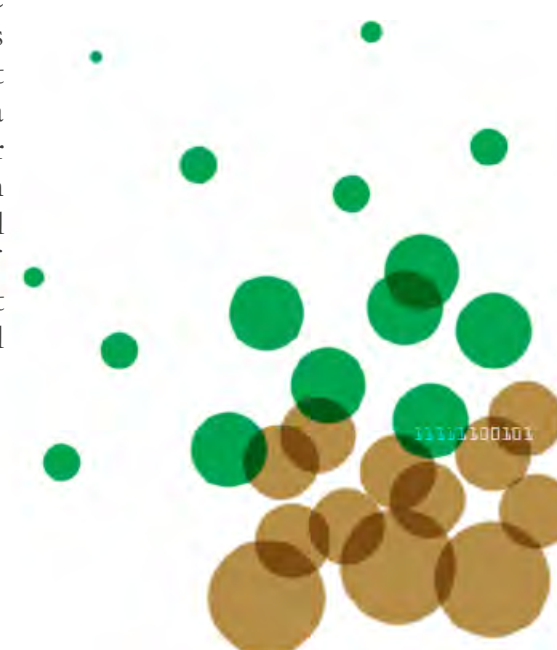
# Dr. Kazuhiko W. Nakamura

## Temporal Expansion of "Deep Wonder" Evoked by Forest Image and Sound Archives

In recent years, awareness of the importance of the connection between forests and human society has been increasing. In this regard, it has become difficult to present the desirable state of this increasingly complex relationship based only on scientific evidence. Within this context, the significance of facing natural phenomena, which includes scientific uncertainty, is sometimes discussed in terms of the concept of wonder, especially in the field of pedagogy from the perspective of fostering the next generation. Schinkel <sup>1)</sup> has discussed the educational importance of wonder not only as a motivational effect but also as a way of making us aware of the limits of our understanding and has distinguished the latter as "deep wonder." From a similar perspective, L'Ecuyer <sup>2)</sup> has considered the scope of wonder to be beyond mere curiosity and mentioned the visible expression called "beauty" as one of the properties of the environment that evokes wonder. When addressing issues at large temporal scales, such as climate change and biodiversity, which are important aspects for building a sustainable society, the perspective of "deep wonder" is important because it is difficult to avoid scientific uncertainty in this regard. However, it is extremely difficult to directly experience "deep wonder" as a visual expression. In this presentation, I will discuss the possibility of a virtual expansion of "deep wonder" using forest image and sound archives since 1995 by the Cyberforest project.

1) Schinkel, A. (2017): The Educational Importance of Deep Wonder. *Journal of Philosophy of Education*, 51: 538-553. doi: 10.1111/1467-9752.12233

2) L'Ecuyer, C. (2014): The Wonder Approach to learning. *Front. Hum. Neurosci.* 8:764. doi: 10.3389/fnhum.2014.00764



## Mr. Yasushi Suko

### Therapeutic Effect of Repeatedly Listening to Natural Sounds: A Longitudinal Study

Natural sounds (e.g., birdsong) are claimed to be therapeutic. However, most of the studies were based on one-time experiments where participants listened to several-minute-long natural sound clips. Therefore, research on the therapeutic effects of repeatedly listening to natural sounds lacks. This research will be the first to investigate such effects, and it consists of two sub-studies: (1) a 14-day-long pilot study and (2) a seven-day-long main study. Our research question in the pilot study is, “Is listening to natural sounds for 10 minutes every day more therapeutic than listening to our favorite music?” and the question in the main study is, “Is listening to natural sounds for 10 minutes every day more therapeutic than sitting in silence?” We employed music and silence as control conditions because people usually use them to alleviate their stress and improve their mood states. Thus, their therapeutic effects would be worth comparing with that of natural sounds. The outcomes of this research will further our understanding of the complex mechanisms of the therapeutic effects of listening to natural sounds. Eighty-five subjects (46 from Finland and 39 from Japan) participated in the pilot study, and 116 in the main experiment. The subjects performed the entire process of the experiment online at their homes. The experiment had a 10-minute intervention period when the subjects listened to natural sounds. The experiment also included the control condition where the subjects listened to their favorite music (in the pilot study) or sat in silence (in the main study) during the intervention period. We measured participants’ mood states by conducting questionnaires before and after the intervention every day. At this symposium, we report provisional results of the data analysis in this research.

## Dr. Peter Sinclair

### A Microphone on My Boat.

Locustream Project offers a worldwide network of "open mikes" that permanently stream local soundscapes to a dedicated server. The resulting live audio is used in a large variety of artistic projects. The microphones are installed and maintained by volunteer participants.

As research director of Locus Sonus, Peter Sinclair has been actively engaged in the various steps corresponding to the evolution of the Locustream project since it began in 2006. For this presentation, he will use the example of the most recent microphone to be developed and installed by the lab in order to discuss both technical and qualitative problems and solutions related to installing microphones in remote locations. In this case it is a binaural “head”, situated in a small sailing, boat floating in a small bay on the Mediterranean coast. Issues relate to privacy, distance from power and network access, price and perhaps most importantly, the subjective quality of the of the captured sound.





# Prof. Taichi Furuhashi

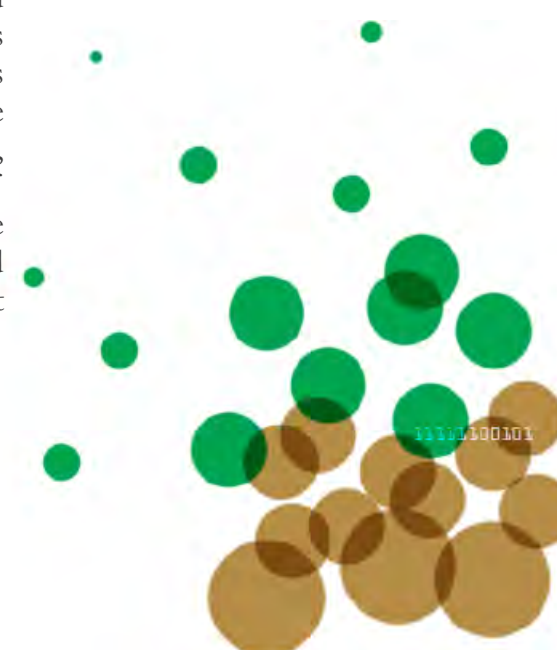
## The Cyberforest's World Around You is Not What It Seems

The Cyberforest Project, which comprehensively tackles the digitization of forests, is a collection of complex data models that incorporates not only a long-term accumulation of video and sound data but also GIS and 3D modeling methods. Focusing on the digitization of forests as GIS data models, in particular, they are divided into geometry models, remote sensing images, and Ground-Level Imageries has particularly attempted to digitize forests using the 360° GigaPixel Panorama. In particular, GigaPixel panoramic data with an ultra-high resolution of 1 billion pixels or more, which exceeds the number of human optic nerves, is very effective as a method for cutting out a time section of arbitrary forest space, and these contents are placed on the digital space. We believe that it has become one of the thresholds for information quantity that reproduces forests. On the other hand, many contents such as videos and sound data archived by the CyberForest project are released under the Creative Commons license so that anyone can use them freely without permission, for example, gigapixel panorama and forest environment. It is possible to add value by combining infinitely complex contents such as combining sounds and GigaPixel panorama contents. On the other hand, the continuity and accessibility of the archive have not been sufficiently maintained, and it is expected that an open Cyberforest data repository on GitHub that is more stable and easy to use will be developed.

# Grant Smith

## Cyberforest In The Acoustic Commons

Soundcamp is an artist cooperative based in London, Crete and The Hague. Each year in May we coordinate Reveil: a 24 hr radio broadcast of environmental sounds, constructed from live audio feeds around the world at daybreak. Streams are hosted on the Locus Sonus open microphone network, together with independent projects. Researching the broadcast in 2015 led us to the microphones operated by Cyberforest since the early days of the public internet. This opened a dialogue over six years across locations and disciplines, most recently as part of Acoustic Commons (2020-22), a small cooperation project for Creative Europe, in which Cyberforest is a partner. While Cyberforest's primary focus is on remote monitoring for bio- and ecoacoustics, the project crosses over to arts practitioners and audiences. Jennifer Gabrys' account of the 'becoming environmental of computation'; Jane Bennett's 'vibrant materiality'; and writing that links sound work with environmental care, help locate the Cyberforest project in wider cultural concerns. In addition to being a unique climate science database, the live and recorded archives of the Cyberforest project can be considered as imaginative tools for thinking planetarity (Gayatri Spivak) - or what Kaoru Saito has called 'Sense of Globe'.



## Dr. Reiko Kurosawa

### 10-year of Audio-census of Forest Birds Using Cyberforest Live-streaming System

Many endangered species are under the impact of the rapid climate change that is affecting the global scale. Understanding the species-specific response to environmental hazards is an essential tool for conservation.

We have conducted remote audio-census of forest birds since 2011. We have first determined the daily activity patterns (early-risers, late-risers, and none) and the regional difference of seasonal peaks.

We obtained through the successive census such results as 1) the annual and 2) the yearly fluctuations of song peak, and 3) a factor possibly affecting the peak timing (ambient temperature in April). We will show the case of the Narcissus Flycatcher.

We found some activity trends through the study: increased species (Japanese White-eye, Black-faced Bunting) and decreased species (Siberian Blue Robin, Grey Thrush, Sakhalin Leaf-warbler). The white-eye population is increasing all-over Japan, and the Black-faced Bunting is assumed to move its distribution northwards. In the case of Siberian Blue Robin, the loss of forest understory is probably the main factor. But for the other two species, the causes of their declines are unknown.

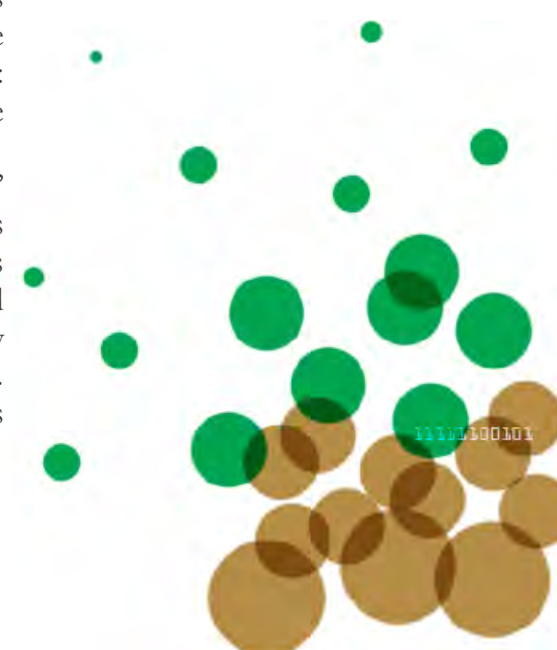
The remote census system is highly instrumental for conservation, especially under restrictions due to Corvid-19. The species with unexplained population trends need close and continuous monitoring. In 2020, we recorded 30 participants in the audio-census, but we need more effort to establish a monitoring system by recruiting skilled staff.

## Dr. Andrew Whitehouse

### The future of forests in an island nation: New British forests in a time of ecological change

Forests are central to global climate and ecological change and are considered vital for carbon sequestration and as refuges for wildlife. They are also forecast to be affected by climate/ ecological changes themselves, shifting their arboreal composition as conditions change. For forests to be resilient, they also need to be adapted to conditions that are different from those in the present. This presentation will consider the future of forests in Britain, comparing the prognosis with another island nation: Japan. I will discuss new ideas about how forests can be made resilient in the face of climate/ ecological change and the particular challenges and issues that island forests face.

Britain is an island that was connected to continental Europe until c.6500 BCE. The tree species considered as 'native' are those that were able to spread across the land bridge from the continent after the end of the last Ice Age. Since then, trees were no longer able to 'arrive' in Britain of their own accord and Britain has also become less extensively forested. To address both CO<sub>2</sub> capture to mitigate climate change and respond to a changing climate, policies are now being developed to extend forest cover and change the type of forests to be adapted to new climates. I will examine the implications of these potential new forests, the role of humans in making choices about their arboreal composition and how people and other species will respond. Connections will also be made to the Japanese situation and the potential for monitoring ecosystem shifts that Cyberforest has pointed towards.



## Concluding Remarks

**Prof. Kaoru Saito**

### **Cyberforest & th Sense of Globe: Perspectives in the Coming Decade**

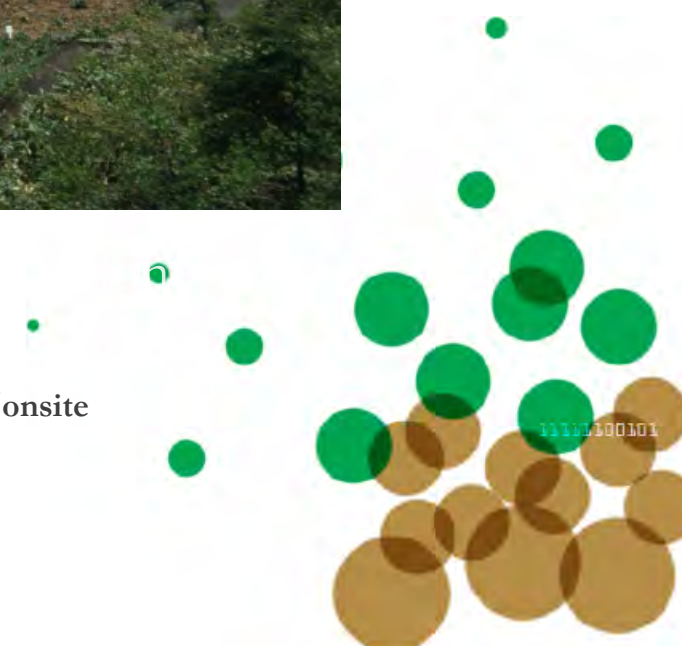
A sound is belonging in surroundings, and when we listen to a remote open mic's streaming sound bring a remote place to us and merge them with our surroundings. This is just "sounds come to us, but vision travels to its object (Jonathan Sterne, 2003)", and we can feel the remote place "there" come to near by in "here". Cyberforest/SoundMap live sound streaming bring us to feel "there" is hot and emotional environment as "here". This is "Sense of Globe" that lead us collective actions and care for our planet. In the coming decade, we will collaborate together to turn these open microphones scattered around the globe into trigger a flood of collective actions that human take care for our planet as "here". The specific practices for doing so are how about during an "Reveil" event to listening to dawn chorus, at the same time recording/archiving and its open to public. Because a Sound immerses us into "here" from "there".







The 10th Anniversary Cyberforest International Symposium 2021, 26 March 2021, online/onsite  
Edited by Naomi Shimpō, last updated on 26 March 2021







# 10th. Anniversary Cyberforest

online/onsite  
International  
Symposium 2021

onsite/online Japan 17:00-20:00 26 March 2021

online: England: 8:00-11:00 (UTC) France, Sweden: 9:00-12:00 (CET) Finland: 10:00-13:00 (EET)

Online Zoom Webinar: <https://u-tokyo-ac-jp.zoom.us/j/98158029985?pwd=TFUyeHgrbWpKSTMvZ1JmVE1pS2E0QT09>

Zoom Webinar ID: 981 5802 9985 Passcode: 992810

English site <https://saito-lab.com/CyberforestInternationalSymposium2021/>

Japanese site including additional CF Japanese Symposium on 27 March 2021

<https://cf4ee.jp/cfsympo10th> ← 日本語サイトは翌3月27(土) 日本語シンポジウムも併せて掲載



Easy to Join

## Online Interactions for Remote Forests and People: Fostering the “Sense of Globe” and meeting the Acoustic Commons

### Objectives of the Symposium

*Promoting discussions on the significance of Cyberforest and any new ideas of the utilization of digital tools and contents, including arts, for connecting nature and people;  
e.g. theoretical backgrounds, applied cases, future potential, ideas for application, or challenges...*

*The overall theme is “fostering the Sense of Globe”. The word “Sense of Globe” is often used in the Cyberforest project, and is rooted in the Sense of Wonder by Rachel Carson (a seminal book expressing how the sense of wonder is important to understand and respect nature). Cyberforest has been seeking to contribute to foster the Sense of Globe, a sense with which people feel and think about nature, including such as remotes forests.*

### Program

- Opening and Keynote 17:00-17:25JST 8:00-8:25UTC, 9:00-9:25CET, 10:00-10:25EET

#### Opening Remarks

Introduction of the Symposium Dr. Ayako Toko 17:00-17:05

#### Keynote Talk

Why Cyberforest? A View from Outwith... Prof. René van der Wal 17:05-17:25



Dr. Toko received her Ph.D. in Natural Environmental Studies from the University of Tokyo. Dr. Toko's research focuses on conservation and community involvement, which is related to environmental education and citizen science. She had worked at WWF (World Wide Fund for Nature) for ten years and involved in conservation projects with various stakeholders both domestically and abroad. She is now a Professor in the Faculty of International Tourism Management, Toyo University. A board member of the Center for Environmental Information Science.



Prof. René van der Wal is a Professor of Environmental Citizen Science at the Swedish University of Agricultural Sciences (SLU). Trained as an ecologist, but now working largely as interdisciplinary researcher, he is particularly interested in how technologies may connect people to the ecology of a place. Much of his work is done in partnership with social scientists and traces back to a passion for nature, notably birds, and the recording thereof.



## - Cyberforest and Open Microphone: The State of the Art

17:25-18:10 JST 8:25-9:10UTC, 9:25-10:10CET, 10:25-11:10EET

**A Virtual Short Tour to the Cyberforest Site Yamanakako**

**Dr. Akio Fujiwara 17:25-17:35**

**Temporal Expansion of "Deep Wonder" Evoked by Forest Image and Sound Archives**

**Dr. Kazuhiko W. Nakamura 17:35-17:45**

**Therapeutic Effect of Repeatedly Listening to Natural Sounds: A Longitudinal Study**

**Mr. Yasushi SUKO 17:45-17:55**

**A Microphone on My Boat**

**Dr. Peter Sinclair 17:55-18:10**

## - Cyberforest in the Broader Context

18:10- 19:10 JST 9:10-10:10UTC, 10:10-11:10CET, 11:10-12:10EET

**The Cyberforest's World Around You is Not What It Seems**

**Prof. Taichi Furuhashi 18:10-18:25**

**Cyberforest In The Acoustic Commons**

**Grant Smith 18:25-18:40**

**Findings of the 10-year Audio-Census of Japan's Forest Birds Using Cyberforest Live-Streaming**

**Dr. Reiko Kurosawa 18:40-18:55**

**The Future of Forests in an Island Nation: New British Forests in a Time of Ecological Change**

**Dr. Andrew Whitehouse 18:55-19:10**

## - Panel Discussion 19:10-19:50 JST 10:10-10:50UTC, 11:10-11:50CET, 12:10-12:50EET

**Online Interactions for Remote Forest and People Moderator: Dr. Naomi Shimpō**

**Prof. René van der Wal, Dr. Akio Fujiwara, Dr. Kazuhiko W. Nakamura, Mr. Yasushi Suko, Dr. Peter Sinclair, Prof. Taichi Furuhashi, Grant Smith, Dr. Reiko Kurosawa, Dr. Andrew Whitehouse**

## - Concluding remarks 19:50-20:00 JST 10:50-11:00UTC, 11:50-12:00CET, 12:50-13:00EET

**Cyberforest & the Sense of Globe: Perspectives in the Coming Decade**

**Prof. Kaoru Saito 19:50-20:00**



Dr. Akio Fujiwara is an assistant professor at the Education and Research Center, the University of Tokyo Forests. He received his Ph.D. (Agriculture) from the University of Tokyo. His area of expertise is Forest Informatics and main research topics are Social informatics of virtual forest experience with multimedia / Multimedia recording in measuring forest and its applications. **He is the naming agent of Cyberforest and a field system / archiving server administrator since the beginning.**



Dr. Kazuhiko W. Nakamura is an assistant professor at the laboratory of forest landscape planning and design, the University of Tokyo. He received his Ph.D. (Environmental Studies) from the University of Tokyo. His central research interest is the methodology of forest environmental education using information and communication technologies (ICT). He is the administrator of the website "Cyberforest for Environmental Education (CF4EE)". **He will be the leader of Cyberforest from April 2021 onwards.**



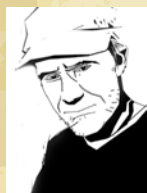
Mr. Yasushi Suko is a doctoral student in Psychology at Tampere University, Finland. His research interest is in how natural sounds (e.g., birdsong) can alleviate people's stress and relax them. Natural sounds are reportedly therapeutic, but most studies have been based on several-minute-long sound clips listened to only once in laboratory conditions. To enhance our understanding of the mechanism of therapeutic natural sound listening, he is investigating the long-term effects of natural sounds based on longitudinal research conducted in participants' daily-life environments.



Dr. Peter Sinclair (PhD, HDR) is a Sound Artist and professor of sound art practice at Aix-en Provence Art academy (ESA-Aix). He is internationally renowned for his sound installations as well as for his work on collaborative and participative environments. His artistic experimentations use networked games, mobile media, data sonification and live audio streaming. He is director of Locus Sonus, a research group supported by the French Ministry for Culture and ESA-Aix.



Prof. Taichi Furuhashi is a Professor of Aoyama Gakuin University. Master of Environmental Studies. Specializes in forest remote sensing. Focusing on the utilization of geospatial information, he provides technical consulting and educational lectures for Google geo services, open source GIS (FOSS4G), and open data (OpenStreetMap). Recent projects: DRONEBIRD, FlyingLabs/WeRobotics



Grant Smith is an artist and writer working on ecological and social projects in Loughborough Junction, South London. Grant co-founded the Soundcamp cooperative in 2013 and maintains a long-term documentation project at self-noise.net. Recent collaborations include Biosphere Open Microphones with Biosphere Soundscapes and Museum For The United Nations — UN Live; Acoustic Commons, for Creative Europe; Reveil (2014-), an annual long-form dawn chorus broadcast, and Meet Me On The Radio, produced weekly during lockdown with Hannah Kemp-Welch, The Albany, Deptford and older local residents. [soundtent.org](http://soundtent.org)



Dr. Reiko Kurosawa: Obtained her PhD. in Environmental Earth Sciences from Hokkaido University. An ornithologist and researcher at the Japan Bird Research Association. A translator of popular science books, such as "The Beak of the Finch" (1995) and "Japan: An Environmental History" (2018), among others.



Dr. Andrew Whitehouse is a lecturer in anthropology at the University of Aberdeen in Scotland. He received his PhD from the University of St Andrews. His research interests are in environmental anthropology and human-animal relations. Previously, his research has examined conservation issues in the west of Scotland and people's relations with birds through sound. He co-edited the volume Landscapes Beyond Land: Routes, aesthetics, narratives and has published articles in journals including Conservation and Society, Environmental Humanities and Sociological Review.



Dr. Naomi Shimpō, an assistant professor at the Faculty of Life and Environmental Sciences at the University of Tsukuba in Japan, majored in Landscape Planning and Ecology and gained her PhD at the University of Tokyo. She also studied at Vienna University of Technology in Austria as exchange student and did research at Lincoln University in New Zealand as visiting scholar. Her main research interests lie in functions of urban gardening related to diverse social and environmental challenges such as social cohesion, disaster recovery and climate change.



Dr. Kaoru Saito is a Professor of Natural Environmental Landscape at the University of Tokyo. Background had been Landscape Architecture especially related to the cognition of nature in gardens, parks and woodlands. **He is Leader of the Cyberforest until this end of March 2021.** He believes that listening to live sound from multiple locations at the same time would foster a sense of feeling as if all the places on the earth were around us, and that this would lead us collective actions and care for our planet. He named this feeling as the "Sense of Globe" in 2011.