

The 6th Annual Meeting of the Society for Bioacoustics, 20-22 November 2019, Tsukuba

The 6th Annual Meeting of the Society for Bioacoustics will be held at Tsukuba Center for Institutes from Wednesday through Friday, 20-22 November 2019.

1 The Organizing Committee Members

Chair	Takuma TAKANASHI	Forestry and Forest Products Research Institute (FFPRI) (Japan)
Secretariat	Ryo NAKANO	National Agriculture and Food Research Organization (NARO) (Japan)
Member	Tomonari AKAMATSU	National Research Institute of Fisheries Science (Japan)
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Member	Kazuko TSUCHIHARA	Tohoku Gakuin University (Japan)
Member	Nami UECHI	NARO (Japan)
Member	Hiromi MUKAI	FFPRI (Japan)

2 Sponsor, Cosponsor and Supports

The meeting is sponsored by the Organizing Committee of the 6th Annual Meeting of the Society for Bioacoustics. The meeting is co-sponsored by The Research Committee of Bioacoustics, the Acoustical Society of Japan.

We thank academic supports for Symposium on ‘Insect Bioacoustics and Biotremology’ to societies listed below:

- | | | |
|---|---|------------------------------|
| ◆Auditory Research Meeting of the Acoustical Society of Japan | ◆The Japanese Society of Applied Entomology and Zoology | ◆Zoological Society of Japan |
| ◆The Institute of Noise Control Engineering of Japan | ◆Union of Japanese Societies for Insect Sciences | ◆Biomimetics Network Japan |

We express our gratitude for the financial supports given by groups listed below:

- | | | |
|--|----------------|-------------------|
| ◆SECOM Science and Technology Foundation | ◆Polytec Japan | ◆TOYO Corporation |
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3 Meeting Announcement

Dates and time: Wednesday 20 November through Friday 22 November 2019.

Venue: Tsukuba Center for Institutes, Ministry of Education, Culture, Sports, Science and Technology (2-20-5 Takezono, Tsukuba, Ibaraki 305-0032, Japan)

<http://www.mext.go.jp/a_menu/kokusai/kouryucenter/english/index.htm>

Language: All presentations and discussions are in English.

Presentations: Contributed papers will be presented either as posters or oral presentations.

Banquet: The banquet will be held in the Thursday evening, 21 November 2019 in Tsukuba.

Awards: Presentation awards are granted to excellent presentations. The award ceremony will be held on Friday 22 November 2019.

3.1 Joining the Society

You have to be a member of the Society for Bioacoustics, to present a paper at the Annual Meeting as the first author or a corresponding author. If you have not yet joined the Society, please contact the Secretariat through the Web page <http://bacoust.org/?page_id=23&lang=en> of the Society and apply. The annual membership fee is as follows.

Member for an employed person	7,000 yen
Member for a postgraduate student	3,000 yen
Member for an undergraduate student	1,000 yen

*A postgraduate student and an undergraduate student are allowed to present posters without the memberships, but the Society will not select non-member students for the awards.

3.2 Registration at the Meeting Site

Registration starts at 12:00 on Wednesday 20 November 2019 at the 2nd floor of Tsukuba Center for Institutes (See **5 Map**). Participants who have pre-registered may pick up their badges and registration materials including Conference Proceedings at the registration desk.

The registration fee for those who have not pre-registered is 11,000 yen for members and 18,000 yen for non-members, and 6,000 yen for student members and non-members

3.3 Presentations

Please bring your own computer and an appropriate connecting adaptor/cable if necessary, when you are allotted to oral presentations. Only **a video projector with VGA connections**, a screen, and loudspeakers will be prepared by the organizer. Poster boards and fastening materials will be provided. The space for each **poster is 118 cm wide and 174 cm tall**.

3.4 Awards

Presentation awards are granted to excellent presentations. The award winners will be selected from both oral and poster presenters. You have to be a student member or a regular member who obtained a PhD degree within the last three years in order to apply for Awards. You have to indicate that you would like to apply for the Awards when you submit your abstract. The award ceremony will be held at 11:20 on Friday, 22 November 2019.

3.5 Banquet

Banquet will be held at **'Inca Rose'** (Address: 19-6 Higashi 3ria, Tsukuba. See **5 Map**). It takes about 5 min on foot from the meeting place, Tsukuba Center for Institutes. Pre-registration is required for reserving a seat for the banquet.

3.6 Symposium on 'Insect Bioacoustics and Biotremology'

Symposium on 'Insect Bioacoustics and Biotremology' will be held at **13:00-16:20 on 20 November 2019**. The symposium is opened for people who have not pre-registered, as well as participants who have pre-registered.

3.7 Special Exhibition

'Panoramic sound and underwater panoramic sound' will be presented by Kaoru Ashihara (National Institute of Advanced Industrial Science and Technology).

Panoramic sound is the technology that offers tools and methods for capturing, transmitting and reproducing a full spherical spatial sound. Spatial sound can be captured with a palm-sized recording system and transmitted online with low network cost. At the client side, it can be reproduced either through the headphones or multi-loudspeaker system.

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In this exhibition, features of the technology will be briefly outlined, and some sound clips will be demonstrated. Sound clips recorded in the water will be presented, too. Do not miss it!

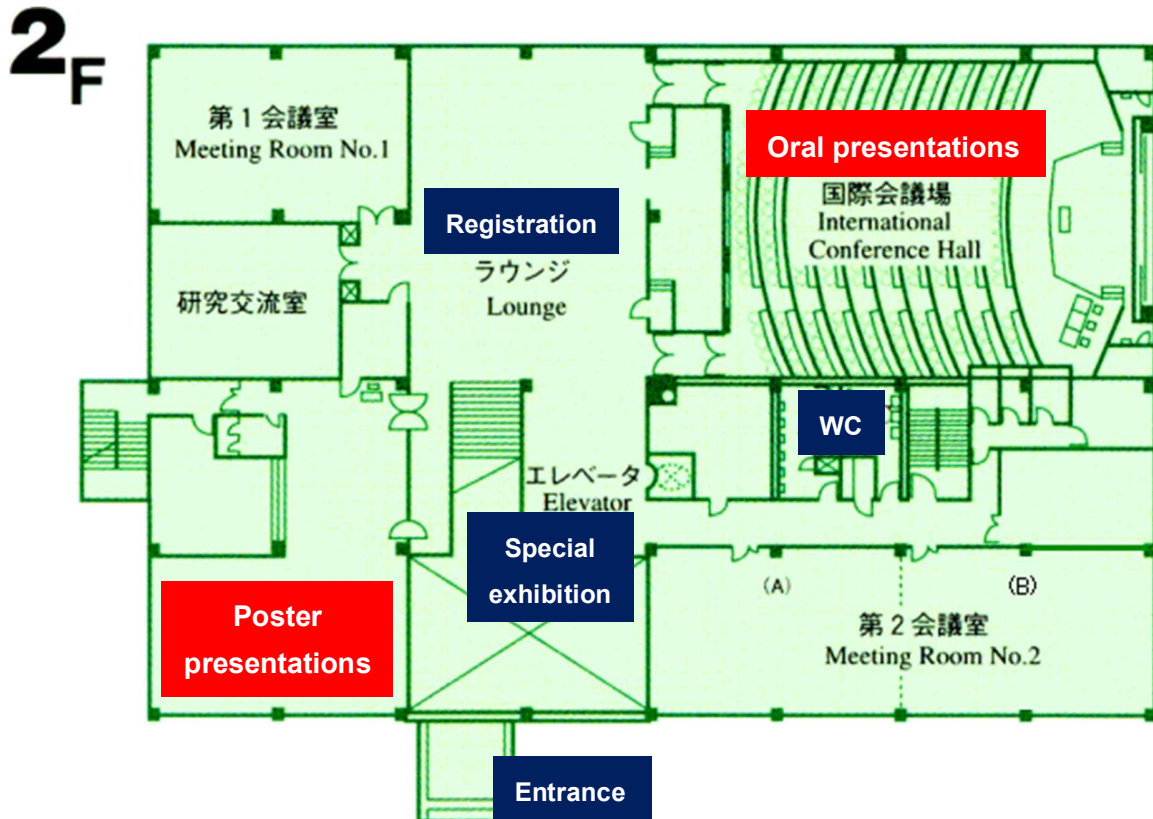
4 Venue and Transportation

The meeting site of Tsukuba Center for Institutes is located at the center of Tsukuba, which is close to Tsukuba station. It takes about 15 minutes from Tsukuba station to the meeting site on foot via pedestrian deck (see **5 Map**). It takes about 45 minutes from Akihabara station in Tokyo by Tsukuba express to Tsukuba station. From Narita airport, it takes about 55 min by bus.

5 Map of the Meeting and Banquet places



Building of the Tsukuba Center for Institutes:



Note that eating and drinking in the Internal Conference Hall for oral presentations is prohibited.

For details on location, visit the website of Tsukuba Center for Institutes
<http://www.mext.go.jp/a_menu/kokusai/kouryuceneter/english/005.htm>.

6 Wireless Internet Connections

There is no service at Tsukuba Center for Institutes.

7 Weather

The average temperature in Tsukuba in November varies between 7 to 16 degrees Celsius. It is likely to rain seldom in November.

8 Program

Wednesday, 20 November 2019

- 12:00 Starting Registrations
- 13:00–16:20 Symposium on ‘Insect Bioacoustics and Biotremology’**
- 13:00–13:05 Opening Remarks, Takuma Takanashi
- 13:05–13:55 Symposium talk (S1)
Valerio Mazzoni
Applied Biotremology: the vibrational mating disruption and other innovative techniques
- 13:55–14:20 Symposium talk (S2)
Takahisa Miyatake
Death-feigning behavior and arousal from it by vibration stimulus in a beetle
- 14:20–14:45 Symposium talk (S3)
Takuma Takanashi
Vibration sense and its application to pest control in longicorn beetles
- 14:45–14:55 Break
- 14:55–15:20 Symposium talk (S4)
Ryo Nakano
Applied Bioacoustics: the ultrasonic flight disruption and other ecological aspects in moths
- 15:20–16:10 Symposium talk (S5)
James F. C. Windmill
Moth ears to bat echolocation: inspiring sensors to sonar systems
- 16:10–16:20 General Discussion
- 16:20–16:55 Mixer and Poster Session

Thursday, 21 November 2019

- 9:00 Starting Registrations
- 9:15–9:25 Opening Remarks, T. Takanashi & K. Ashihara
Opening Remarks and Introduction to Special Exhibition
- 9:25–10:40 Oral session 1**, Chair: T. Akamatsu
Soundscapes in Sea and Forest
- 9:25–9:55 Invited talk (OI1): G. Latha
Monitoring Soundscape in the Indian and polar waters
- 9:55–10:15 O2: Tzu-Hao Lin
Learning discriminative bioacoustic features by deep-listening wildlife sounds
- 10:15–10:40 Invited talk (OI3): Kaoru Saito
Cyberforest: <http://www.cyberforest.jp>
- 10:40–10:55 Break
- 10:55–11:55 Oral session 2**, Chair: R. Nakano
Vocalization in Birds
- 10:55–11:15 O4: Chihiro Mori
Coordination of song and dance in a songbird courtship behavior
- 11:15–11:35 OA5: Yoshimasa Seki
Emergence of sound sequences in vocalizations of cockatiels
- 11:35–11:55 O6: Kenta Tomyta
Differences between motor control for whistle and that for vocalization; a neuro-psychological test in a sound imitation task
- 11:55–13:10 Lunch
- 13:10–14:25 Poster session 1**

14:25–15:35 **Oral session 3**, Chair: V. Mazzoni

Insect Biotremology I

14:25–14:55 Invited talk (OI7): Nataša Stritih–Peljhan

Advances in insect biotremology: from sensory physiology to ecotremology

14:55–15:15 OA8: Valeria Fattoruso

Vibrational communication of the greenhouse whitefly *Trialeurodes vaporariorum* (Westwood) (Homoptera: Aleyrodidae)

15:15–15:35 O9: Kenkichi Kanmiya

Disruption of specific mate recognition system: vibrational signaling through substrate in hemipteran and dipteran pests by Acetylated glyceride and Flonicamid

15:35–15:50 Break

15:50–16:55 **Oral session 4**, Chair: N. Stritih–Peljhan

Insect Biotremology II

15:50–16:15 Invited talk (OI10): Hiromi Mukai

Sensing vibrations in eggs: a common synchronous hatching system in subsocial stinkbugs

16:15–16:35 O11: Sabina Avosani

Vibrational signals and correlation between female sexual maturity and signalling activity in *Philaenus spumarius* (Hemiptera: Aphrophoridae)

16:35–16:55 O12: Harriet Hall

Pioneering accelerometer measurements of vibrational pulses originating from *Varroa destructor* individuals

16:55–17:00 Taking Group Pictures

17:30–19:30 Banquet

Friday, 22 November 2019

- 9:10–10:20** **Oral session 5**, Chair: K. Ashihara & T. Takanashi
Human Perception and Arthropod Sound Production
- 9:10–9:35 Invited talk (OI13): Yoshikazu Seki
Obstacle perception of person with blindness
- 9:35–9:55 O14: Yasushi Horii
Differential sound detection in human auditory system for suppression of common-mode body noise
- 9:55–10:20 Invited talk (OI15): Ryutaro Goto
Loud snaps by a tiny marine worm and its sound production mechanism
- 10:20–10:35 Break
- 10:35–10:50 General Assembly
- 10:50–11:20** **Poster session 2**
- 11:20–11:35 Award Ceremony
- 11:35–12:40** **Oral session 6**, Chair: J. F. C. Windmill & T. Takanashi
Insect Bioacoustics and Evolution of Hearing
- 11:35–11:55 O16: Wataru Ohira
Spectral analysis of mosquito wingbeat frequency for identification of mosquito
- 11:55–12:15 O17: Azusa Kamikouchi
Neural mechanism underlying acoustic communication in fruit flies
- 12:15–12:40 Invited talk (OI18): Masaki Takechi
Evolutionary developmental biology (Evo-Devo) of the middle ear in amniotes
- 12:40–12:45 Closing Remarks, T. Takanashi
- 13:00–14:00 Executive Meeting

Posters

PA1: Sinyoung Lee

Simulation of stapedial mobility in ossicular fixation using finite-element model of human middle ear

PA2: Yujiro Motoki

Noise-resistant method for measuring distortion product otoacoustic emissions (DPOAEs)

PA3: Keigo Kobayashi

Development of Japanese bat species identification system by echolocation calls using deep learning and evaluation of increasing images by GAN

PA4: Masahiro Shirasaka

Development and application of a sound discrimination device for field recordings on choruses of male Japanese tree frogs

PA5: Yuiko Suzuki

Analysis of acoustic individual difference of long-distance call of large-billed crow

PA6: Takahiro Ishimaru

Interaction mechanism of male cicadas (*Meimuna opalifera*) examined by audio recording and signal processing

PA7: Shoyo Nakamura

Does the trapdoor spider *Latouchia typica* use vibration as the cue of predatory behavior?

PA8: Kengo Shibata

Development of technology for control of the greenhouse whitefly using substrate vibration

PA9: Ryuhei Yanagisawa

Toward development of a new technology for the control of the tobacco whitefly, *Bemisia tabaci*, using vibration

P10: Nami Uechi

Evaluation of controlling fruit pests using substrate-borne vibration

P11: Chihiro Urairi

A new insect pest control device using non-contact force generated by ultrasonic transducers

P12: Dagmar Voigt

Do substrate-borne vibrations influence Japanese pine sawyer beetle's foothold on flat and convex substrates?

P13: Ikuo Matsuo

Acoustic features for species identification of cicadas in the south of Amami Island

P14: Kazuko Tsuchihara

Mechanosensory organs and behavioral responses to sounds in larvae of a swallowtail butterfly

P15: Satoshi Hozumi

Relationships between the human's "Kansei" and the sound of crickets

P16: Tetsuya Doi

Measuring elephants' low frequency voices

P17: Yuka Mishima

Acoustical structure and function of pulsed-call sequences in Pacific white-sided dolphins (*Lagenorhynchus obliquidens*)

P18: Ryoichi Iwase

Preliminary study on regional baleen whale call detection and sound source localization with a large cabled observatory along the Japan Trench

P19: Takuji Koike

Simulation of stapedial mobility in ossicular fixation using finite-element model of human middle ear