

Program overview

All the times will be in Japan Standard Time (JST).

Before 4 July	Monday 4 July	Tuesday 5 July	Wednesday 6 July	Thursday 7 July	
<p>All presenters should register their LINC Biz account, access to the URL of the symposium and upload their presentation file on their own channel.</p> <p>All channels with presentations file will be released on 4 July and available on demand throughout the tenure of the symposium.</p> <p>Comments on videos and posters will be posted on the chat.</p>			<p>9:00 - 10:30 Ecology 2</p>		
				<p>10:30 - 11:00 Coffee break</p>	
				<p>11:00 - 12:30 Poster session 2</p>	
			<p>12:00 - 14:00 Poster session 1</p>	<p>12:30 - 14:00 Lunch</p>	
			<p>14:00 - 15:30 Taxonomy 1</p>	<p>14:00 - 15:30 Genomics / Phylogeny</p>	
		<p>15:00 - 15:10 Opening</p>			
		<p>15:30 - 16:30 The Honorary Thienemann Lecture</p>	<p>15:30 - 16:00 Coffee break</p>	<p>15:30 - 16:00 Coffee break</p>	<p>15:30 - 16:30 Taxonomy workshop 1</p>
		<p>16:30 - 16:40 Short break</p>	<p>16:00 - 18:00 Taxonomy 2</p>	<p>16:00 - 17:30 Physiology</p>	<p>16:30 - 16:40 Short break</p>
		<p>16:40 - 18:30 Ecology 1</p>			<p>16:40 - 17:40 Taxonomy workshop 2</p>
					<p>18:00 - 19:30 Final forum</p>

After 4 July, oral presentations will be also given on time through links to Zoom meetings.

Oral session

All the times will be in Japan Standard Time (JST).

Monday, 4 July

15:00 - 15:10 **Welcome and opening**

15:30 - 16:30 **The Honorary Thienemann Lecture**

Response of chironomids to climate change: evidence on cold, heat and chemical tolerance of cold-adapted species

Valeria Lencioni

Chair: Richard Cornette

16:30 - 16:40 **Coffee break**

16:40 - 18:30 **Ecology 1**

Chair: Kenzi Takamura

16:40 - 17:00 **Chironomid community response to climate driven changes in a tufa barrier in Plitvice Lakes National Park (Croatia)**

V. Dorić

17:00 - 17:20 **Chironomids and the City - Chironomidae diversity and distribution in urban water bodies**

Dubravka Čerba

17:20 - 17:40 **Brief review: impact of dams on non-biting midges (Diptera: Chironomidae) diversity and ecology in the rivers of the Šventoji and Žeimena sub-basins (Lithuania)**

Laurynas Stasiukynas

17:40 - 18:00 **Recent advances in the knowledge on the Chironomidae community from Pico da Neblina, Amazonas, Brazil**

Erika Mayumi Shimabukuro

18:00 - 18:20 **New Chironomidae records for the North Atlantic islands based on pupal exuviae**

Agnes-Katharina Kreiling

Tuesday, 5 July

12:00 - 14:00 **Poster session 1**

14:00 - 15:30 **Taxonomy 1**

Chair: Koichiro Kawai

14:00 - 14:20 ***Stictochironomus* species can fold their gonostylus inwardly. Why?**

Masaru Yamamoto

14:20 - 14:40 **A Taxonomic Review of the Japanese *Dicrotendipes***

Ozaki Daisuke

14:40 - 15:00 ***Orthocladius (Orthocladius) montisdei* sp. n. and *O. (O.) queyrassianus* sp. n., two new crenophilous species with reduced antennae from continental France (Chironomidae, Orthocladiinae)**

Joel Moubayed

15:00 - 15:20 ***Limnophyes knispelae* sp. n. and *L. sartorii* sp. n., two new species from the Swiss Alps (Chironomidae, Orthocladiinae)**

Joel Moubayed

15:30 - 16:00 Coffee break

16:00 - 18:00 **Taxonomy 2**

Chair: Peter Langton

16:00 - 16:20 **Fossils of non-biting midges illuminating reversible loss of blood-feeding**

Viktor Baranov

16:20 - 16:40 **The use of artificial intelligence to determine the taxonomic classification of chironomid larvae**

Djuradj Milošević

16:40 - 17:00 **DNA barcodes cast light on genetic diversity in the circumpolar species *Tanytarsus gracilentus* (Holmgren, 1883)**

Torbjørn Ekrem

17:00 - 17:20 **European Chironomidae barcode data – joint efforts needed to improve the reference library for non-biting midges**

Elisabeth Stur

17:20 - 17:40 **DNA barcoding reveals an unknown Chironomidae diversity from the freshwater biodiversity hot-spot**

Piotr Gadawski

Wednesday, 6 July

9:00 - 10:30 **Ecology 2**

Chair: Will Bouchard Jr.

9:00 - 9:20 **Temporal partitioning of emergence by Chironomidae in an insular tropical rainforest stream**

R. William Bouchard Jr.

9:20 - 9:40 **Diversity of Chironomidae (Diptera) from Saline and Freshwater Lakes in a Grass-Stabilized Sand Dune Region of North America**

Barbara Hayford

9:40 - 10:00 **The influence on the taxonomic sufficiency of the Chironomidae on the outcome of a biomonitoring study of urban prairie streams of differing flow regimes**

Megann Harlow

10:00 - 10:20 **Genetic differentiation within two *Nanocladius* species phoretic on Megaloptera and Plecoptera**

Natsuko I. Kondo

10:30 - 11:00 Coffee break

11:00 - 12:30 **Poster session 2**

12:30 - 14:00 Lunch

14:00 - 15:30 **Genomics / Phylogeny**

Chair: Richard Cornette

14:00 - 14:20 **High quality genome assembly of the anhydrobiotic midge provides insights on a single chromosome-based emergence of extreme desiccation tolerance**

Yuki Yoshida

14:20 - 14:40 **Genome skimming provides new insights in evolutionary history of Chironomidae**

Xiao-Long Lin

14:40 - 15:00 **Evolutionary relationships between chironomid hemoglobins**

Koichiro Kawai

15:00 - 15:20 **Evolutionary studies on *Chironomus* hemoglobin using phylogenetic approach**

Bimalendu B. Nath

15:30 - 16:00 Coffee break

16:00 - 17:30 **Physiology**
Chair: Valeria Lencioni

16:00 - 16:20 **Evaluation of rearing efficiency and characterization of developmental stages of the anhydrobiotic midge *Polypedilum vanderplanki* in laboratory conditions**
Richard Cornette

16:20 - 16:40 **Fate-determining metabolic pathways in a tropical chironomid midge under physiological water unavailability**
Leena Thorat

16:40 - 17:00 **Chironomid Eating Disorder - alteration in digestive system of *Chironomus riparius* (Diptera, Chironomidae) exposed to magnetic nanoparticles**
Stojanovic J.

17:00 - 17:20 **Gene Expression Analysis of Tire Rubber Microparticles and Leachate in Freshwater Organism *Chironomus riparius***
Caballero-Carretero P.

Thursday, 7 July

15:30 - 16:30 **Taxonomy workshop 1**
Chair: Elisabeth Stur

16:30 - 16:40 Short break

16:40 - 17:40 **Taxonomy workshop 2**
Chair: Richard Cornette

18:00 - 19:00 **Final forum**
Chair: Richard Cornette

In Memoriam

Presentation of CHIRONOMUS journal and publication of symposium proceedings

Torbjørn Ekrem

Vote and announcement of 22nd ISC

Closing Discussion and farewell

Poster session

- P01 Comparative genome and transcriptome analyses provide insights into molecular mechanisms of adaptation to acidic environments in chironomids**
Eita Nakanishi
- P02 Combinatorial omics approaches to study control of circalunar clock genes**
Danila Voronov
- P03 Development of Trans-membrane protein expression system using Pv11 cells from sleeping chironomid (*Polypedilum vanderplanki*)**
Hiroto FUSE
- P04 Histological characterization of *Chironomus riparius* (Diptera, Chironomidae) larvae**
Milovanovic A.
- P05 Visualization Using Zinc Ion Probe of Zinc Uptake from Different Route of Exposure and Tissue Distribution in Chironomidae Larvae**
Ashok Kumar SHRESTHA
- P06 High temperature tolerance of *Chironomus sulfurosus* and its molecular mechanisms**
Tetty Afi Pamela
- P07 Relationship between the distribution of mosquito larvae and chironomid larvae in water and their hemoglobin gene expression**
Jing-Yao Tsai
- P08 Larval oogenesis in the Antarctic midge, *Belgica antarctica***
Mizuki Yoshida
- P09 New chironomid species (Diptera, Chironomidae) from a mountain stream, a contribution to the Croatian checklist**
Ergović Viktorija
- P10 *Bryophaenocladus adigensis* sp. n., a new crenophilous species from the middle basin of Adige River, NW-Italy (Diptera, Chironomidae)**
Joel Moubayed
- P11 An Evaluation of Chironomid pupal exuviae as indicators of changing environmental quality in stormwater retention ponds along an urban gradient.**
Kaitlynn Davis

- P12 The optimum water temperature and degree days for the *Chironomus riparius* (Meigen, 1804) growth**
Sorour Hemmati
- P13 Annual and seasonal trends of density, biomass, and secondary production of chironomid midges (Diptera : Chironomidae) in the middle reaches of the Chikuma River during April 2015 to March 2019**
Kimio Hirabayashi
- P14 Chironomidae collected at the seashore in Kume Island**
Goro Kimura
- P15 Seasonal variation in chironomid communities in two Faroese streams**
Agnes-Katharina Kreiling
- P16 Population dynamics of Qeshlagh River Chironomidae, Kurdistan, Iran**
Pegah Mirbeigi
- P17 Gut living fungi of Chironomidae larvae recently collected in Japan, a preliminary study**
Hiroki Sato
- P18 Chironomid-Plant Relationships of Lake Austin and Lady Bird Lake**
James Shugart