The First International Symposium on Botanical Gardens and Landscapes
2-4 December 2019
Asia Hotel, Bangkok, Thailand

Sunday 1 December 2019
Orchid Room, 1st Floor, Asia Hotel

12:00-17:00 hr. Pre-registration

Monday 2 December 2019
King Petch Hall, 3rd Floor, Asia Hotel

8.00-9.00 hr. Registration and Posting Posters
9:00-10:00 hr. Opening Ceremony

• Welcome Address
  by Associate Professor Dr. Kanchit Thammasiri, BGL 2019 Convener
• Welcome Address
  by Associate Professor Dr. Puangpaka Umpunjun, Head of Department of Plant Science, Faculty of Science, Mahidol University
• Opening Address
  by Associate Professor Dr. Palangpon Kongsaeree, Dean, Faculty of Science, Mahidol University
• Welcome and Presentation
  by Professor Dr. Francesco Orseni
  Chair, Division Landscape and Urban Horticulture (ISHS)
• Welcome and Presentation
  by Dr. Yuri Plugatar
  Director of the Nikita Botanical Gardens
• Presentation of ISHS certificate and medal to Symposium Convener
• Presentation of Souvenirs to Symposium Sponsors
• Group Photographs

10:00-10:30 hr. Keynote Presentation:
Botanic garden and plant diversity conservation in China
Shengji Pei, Kanchit Thammasiri, Zhiwei Yang

10:30-10:45 hr. Coffee Break
Invited Oral Presentations
Chair: Dr. Vladimir Upelniek
Secretary: Assoc. Prof. Dr. Paweena Traiperm

10:45-11:05 hr.  I_1  COP for botanic gardens
Hugh W. Pritchard, Xiangyun Yang, Kanchit Thammasiri, Yan Zhu, Anders Lindstrom, Anna Nebot, Dani Ballesteros

11:10-11:30 hr.  I_2  Biocultural Diversity Conservation in Botanical Gardens
Chunlin Long, Zhuo Cheng, Guanhua Li, Yanxiao Fan, Xia Jiang, Liu He, Kanchit Thammasiri

11:35-11:55 hr.  I_3  From microgarden technologies to vertical farms: Innovative growing solutions for multifunctional urban agriculture
Francesco Orsini, Giuseppina Pennisi, Giorgio Gianquinto

12:00-13:00 hr.  Lunch Break

13:00-13:20 hr.  I_4  Biotechnology ways of plant biodiversity conservation in botanical gardens of Russia
Irina Mitrofanova, Olga Molkanova

Session I: Researches in Botanical Gardens (BG)
Chair: Prof. Shenji Pei
Secretary: Asst. Prof. Dr. Wisuwat Songnuan

13:25-13:40 hr.  BG_1  Water and nutrient management in botanical gardens and horticulture
Uwe Schindler, Frank Eulenstein

13:45-14:00 hr.  BG_2  Development of the collections of floral-ornamental crops in the Nikitsky Botanical Gardens
Svetlana Plugatar, Yuri Plugatar, Zinaida Klimenko, Vera Zykova, Ludmila Alexandrova, Irina Ulanovskaya, Natalya Zubkova, Natalya Smykova

14:05-14:20 hr.  BG_3  The Nikitsky Botanical Gardens: record of achievements and prospects
Yuri Plugatar

14:25-14:40 hr.  BG_4  Development of a master plan and fund-raising plan for the M.S. Swaminathan botanical garden in Wayanad, India
Sarada Krishnan, Anil Kumar, Madhura Swaminathan

14:45-15:00 hr.  BG_5  Research on the construction of Chinese botanical garden exhibition system based on regional characteristics
Peiyao Hao, Zonghui Hu, Xinyi Shu, Dandan Zhang
People pollinating partnerships: Harnessing collaborations between botanic gardens and agricultural research organizations on crop diversity
Sarada Krishnan, Stephanie L. Greene, Colin K. Khoury, Jeff Kuehny, Allison J. Miller, Tara Moreau, Ari Novy

Coffee Break

Session II: Researches in Landscapes (LS)
Chair: Prof. Dr. Francesco Orsini
Secretary: Assoc. Prof. Dr. Paweena Traiperm

A taxonomic key for identifying seeds of undesirable plants in landscapes
Phil Allen

Residential garden as green infrastructure: A research-by-design case study in Chiang Mai
Pongsakorn Suppakittpaisarn, Chulalux Wanitchayapaisit, Nadchawan Chareonlertrthanakit, Vipavee Surinseng, Ekachai Yaipimol

University-trained volunteers use demonstration gardens as tools for effective and transformative community education
Karrie Reid, Melissa Gable

Poster Presentations (Odd Numbers)
Poster Presentations (Even Numbers)
Welcome Dinner and Cultural Show
Tuesday 3 December 2019
King Petch Hall, 3rd Floor, Asia Hotel

MC: Asst. Prof. Dr. Alyssa Stewart

Session II: Researches in Landscapes (LS) (continued)
Chair: Prof. Dr. Phil Allen
Secretary: Asst. Prof. Dr. Sasivimon C. Swangpol

8:30-8:45 hr. LS_4  Design of fire-affected school grounds of special primary and secondary schools
Angeliki Paraskevopoulou, Kyriakos Aggelakopoulos, Eleftheria Stathopoulou

8:50-9:05 hr. LS_5  Bridging interdisciplinary knowledge for sustainable urban landscapes: results from the international student competition UrbanFarm2019
Francesco Orsini, Giuseppina Pennisi, Andrea D'Alessandro, Denisa Kratochvilova, Gloria Steffan, Mattia Paoletti, Gianmarco Sabbatini, Michele D'Ostuni, Antonella Trombadore, Giorgio Gianquinto

9:10-9:25 hr. LS_6  Floral visitors of Kluai Bua Si Som (Musa rubra: Musaceae): an ornamental plant in Thailand
Wipawee Nilapaka, Thaya Jenjittikul, Alyssa Stewart, Kongmaitree Tedsungnoen, Sasivimon C. Swangpol

9:30-9:45 hr. LS_7  Identifying obstacles for autonomous mowers in the North American landscape
Alyssa Brown

9:45-10.00 hr. Coffee break

Session III: Researches in Plant Conservation (PC)
Chair: Prof. Dr. Maria Papafotiou
Secretary: Asst. Prof. Dr. Wisuwat Songnuan

10:00-10:15 hr. PC_1  Conservation strategies for a critically endangered species, Madhuca insignis (Radlk.) H.J. Lam - A unique case model
P.E. Rajasekharan

10:20-10:35 hr. PC_2  Aquagene: A unique conservatory for aquatic plants of south India at KSCSTE ' MBGIPS, Kerala, India
N.S. Pradeep, K.P. Anoop, P.V. Madhusoodanan, Kumar S. Pradeep

10:40-10:55 hr. PC_3  Cryopreservation of Fragaria x ananassa using different techniques
Session IV: Researches in Plant Tissue Culture (PTC)
Chair: Asst. Prof. Dr. Kullanart Obsuwan
Secretary: Asst. Prof. Dr. Panida Kongsawadworakul

11:00-11:15 hr. PTC_1
Shoot multiplication of HQC34 hybrid pineapple [Ananas comosus (L.) Merr.] via bioreactor with different concentrations of 6-benzylaminopurine and MS medium
Lenti Valentina, Yulian Yulian, Orchat Sittichan, Sunerat Sripaoraya

11:20-11:35 hr. PTC_2
Establishment of a protocol for micropropagation of Clausena guillauminii Tanaka
Supanath Kanjanawattanawong, Natthathida Singbumrung

11:40-11:55 hr. PTC_3
Some features of in vitro morphogenesis in endangered Seseli lehmannii Degen
Olga Mitrofanova, Irina Mitrofanova, Marina Rudenko, Nina Lesnikova-Sedoshenko, Tatyana Kuzmina

12:00-12:15 hr. PTC_4
An efficient in vitro plantlet regeneration of an ornamental aquatic plant Anubias heterophylla through shoot tip culture
Ariya Walam, Sutha Klaocheed, Kanchit Thammasiri, Suphat Rittirat

12:15-13:15 hr. Lunch Break

Session V: Researches in Production, Physiological, Phytochemical, and Molecular Studies (M)
Chair: Dr. Rujira Deewatthanawong
Secretary: Asst. Prof. Dr. Unchera Viboonjun

13.15-13:30 hr. M_15
Phytochemical content and antioxidant activity of leaf extracts from nine bamboo species and determination of flavone C-glycosides by TLC and HPLC
Pennapa Karawak, Supanyika Sengsai, Chockpisit Thepsithar, Sarunyaporn Maksup

13:35-13:50 hr. M_16
Anticancer efficacy of Luisia zeylanica Lindl., an epiphytic orchid from Eastern Ghats of Andhra Pradesh, India--an in vitro approach
Shaik Mahammad Khasim, Katta Jhonsi

13:50-15:00 hr. Coffee Break
15:00-16:30 hr. Business Meeting and Closing Ceremony
Tuesday 3 December 2019
Patumwan Hall, 2nd Floor, Asia Hotel

MC: Dr. Saroj Ruchisansakun

Session V: Researches in Production, Physiological, Phytochemical, and Molecular Studies (M)
Chair: Prof. Dr. Chunlin Long
Secretary: Dr. Saroj Ruchisansakun

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**M_1**
Asexual and sexual propagation of *Muntingia calabura* L.
Fitriana Nasution, Chinawat Yapwattanaphun

**M_2**
Vapour phase antifungal activity of essential oils and their raw materials against *Aspergillus* sp., *Curvularia lunata*, and *Fusarium sacchari*
Alex Ahebwa, Rachsawan Mongkol, Mana Kanjanamaneesathian

**M_3**
Efficacy of ethanolic extracts of galangal (*Alpinia galanga* L.) in mycelial growth of *Fusarium sacchari* and *Curvularia lunata* and their phytotoxicity on Pak choi (*Brassica rapa* var. *chinensis*)
Molika Ma, Mana Kanjanamaneesathian, Rachsawan Mongkol

**M_4**
Promoted tuber yields in Jerusalem artichoke by controlled spectral distribution lighting with LED
Thitima Seedapalee, Panupon Hongpakdee

**M_5**
Mechanical stimulation techniques promote compactness in potted sunchoke production
Kesorn Kaewbua

**M_6**
Site analysis and development of strategy to enhance the identity of Lycabettus Hill in Athens and support sustainable management
Maria Papafotiou, Angeliki Paraskevopoulou, Anastasia Akoumianaki-Ioannidou, Verina Myroforidou, Matina Galati, Christina Andreopoulou, Anna-Maria Vissilia, Konstantinos Choundas, Ioannis Kontos, Theodora Porfyraki, Feve Christara-Papageorgiou, Dimitrios Gogolos, Eleni-Anna Papakonstantinou
Session V: Researches in Production, Physiological, Phytochemical, and Molecular Studies (M) (continued)
Chair: Prof. Dr. Mohammad Khasim Shaik
Secretary: Asst. Prof. Dr. Aussanee Pichakum

10:40-10:55 hr. M_7 Effect of substrate type and cultivation position on growth and safety to consume of the edible medicinal species *Crithmum maritimum* L., in an extensive urban green roof in Athens (Greece)
Aikaterini N. Martini, Maria Papafotiou, Ioannis Massas, Nikoleta Chorianopoulou, Ivana Zivanovic

11:00-11:15 hr. M_8 Effect of hydroponic and organic fertilizer on growth, safety, and storage quality of watercress (*Nasturtium officinale* R. Br.)
Sutin Kunyamee, Supraween Suvunnaphom, Kanokporn Sananon, Maliwan Saouy

11:20-11:35 hr. M_9 Summer condition promoted growth, development, and carbohydrate content in sacred lotus (*Nelumbo nucifera* Gaertn.)
Sornnarin Suangto, Soraya Ruamrungsri, Panupon Hongpakdee

11:40-11:55 hr. M_10 Controlled porosity based sub-surface porous vessel (SSPV) structures for irrigating organic farms of Fruits and Vegetables
Anand Plappally, Lovelesh Dave, Hanwant Rathore, Nirmal Gehlot, Rajkumar Satankar, Sandeep Gupta, Pankaj Jakhar, Amrita Nighojkar, Meraj Ahmad

12:00-12:15 hr. M_11 Effect of paclobutrazol on growth of young potted flame tree (*Delonix regia* (Boj. ex Hook) Raf.)
Pichaporn Srikoat, Aussanee Pichakum, Patchareeya Boonkorkaew, Nath Pichakum

12:15-13:15 hr. Lunch Break

Session V: Researches in Production, Physiological, Phytochemical, and Molecular Studies (M) (continued)
Chair: Prof. Dr. Irina Mitrofanova
Secretary: Asst. Prof. Dr. Aussanee Pichakum

13.15-13:30 hr. M_12 Ethnobotanical study on medicinal dietary plants used by the Yi people in southeastern Yunnan, China
Yong Xiong, Jingxian Sun, Xiangzhong Huang, Chunlin Long
13:35-13:50 hr.  M_13  Value analysis of *Hedychium flavum*, a Buddhist plant
Guanhua Li, Chunlin Long

13:55-14:10 hr.  M_14  Acoustic diagnostics of phytopathogenic damage to the trunk wood of *Magnolia grandiflora* L.
Vladimir Gerasimchuk, Yuri Plugatar

**Wednesday 4 December 2019**

**Technical Tour (Starting from Asia Hotel)**

8:30-17:30 hr.  Visit Suan Luang Rama IX Garden, Bangkok and back to Asia Hotel

**Post Tour (Starting from Suan Luang Rama IX Garden)**

15.30 hr.  Transfer from Suan Luang Rama IX Garden to Suvarnabhumi Airport (BKK) for a 5-day visit to beautiful gardens in Chiang Rai and Chiang Mai in northern Thailand