PANTANA TOR-NGERN

Professor

Department of Environment Science, Faculty of Science, Chulalongkorn University

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Education

Duke University. Ph.D. in Environmental Science (2015)

Duke University. M.S. in Electrical and Computer Engineering (2010)

Duke University. B.S.E. in Electrical Engineering and B.S. Physics (secondary) (2009)

Professional Positions

Current	Professor (2022 – present), Department of Environmental Science, Chulalongkorn University	Bangkok, Thailand
2019 - 2022	Associate Professor, Department of Environmental Science, Chulalongkorn University	Bangkok, Thailand
2017 - 2019	Assistant Professor, Department of Environmental Science, Chulalongkorn University	Bangkok, Thailand
2015 – 2017	Lecturer, Department of Environmental Science, Chulalongkorn University	Bangkok, Thailand
2016 – 2017	Visiting Researcher, Department of Forest Ecology and Management, Swedish University of Agricultural Sciences	Umeå, Sweden
2012 – 2015	Visiting Research Assistant, Department of Forest Ecology and Management, Swedish University of Agricultural Sciences	Umeå, Sweden
2011 – 2015	Research Assistant, Nicholas School of the Environment, Duke University	Durham, USA
2008 – 2010	Research Assistant, Department of Electrical and Computer Engineering, Duke University	Durham, USA

Areas of Research

Hydrological and carbon cycling in forest ecosystems; Ecophysiological responses of trees and forests to environmental changes; Sap flow measurement; Canopy photosynthesis and ecosystem modelling; Impacts of climate change and climate variability on hydrological and carbon cycles in forest ecosystems.

Honors and Awards

2024	Thai Academy of Science and Technology (Senior Thailand Academy of Science, and by invitation only)
2023	Thai Young Scientist Academy (Junior Thailand Academy of Science, and by invitation only)
2022	L'Oréal – UNESCO For Women in Science International Rising Talents award (15 awardees worldwide)
2021	L'Oréal Thailand For Women in Science Fellowship in Biological Science
2021	Best Mid-career Researcher Award in Biological Science, Faculty of Science, Chulalongkorn University
2018	Best New Faculty Researcher Award in Biological Science, Faculty of Science, Chulalongkorn University
2004 – 2015	Royal Thai Scholarship, Royal Thai Government
2009 – 2010	John T Chambers Fellowship, Fitzpatrick Institute for Photonics, Duke University

Grant Support

2023 – 2026	Mid-career Research Grant, National Research and Innovation Information System of Thailand
2023 - 2025	Fundamental Fund, Chulalongkorn University
2023 - 2025	Research Unit, Water Science and Technology for Sustainable Environment Research Group, Chulalongkorn University
2018 – 2021	National Natural Science Foundation of China (NSFC) and Thailand Research Fund (TRF) Joint Research on Climate Change & Climate Variability in Monsoon Asia
2018 – 2021	Southeast Asia – Europe Joint Funding Scheme for Research and Innovation
2020 – 2022	Special Task Force for Activating Research (STAR), Water Science and Technology for Sustainable Environment Research Group, Chulalongkorn University
2019 – 2021	Special Task Force for Activating Research (STAR), Environment, Health and Social Data Analytics Research Group, Chulalongkorn University
2018 – 2019	Grant for Research, Ratchadapiseksomphot Endowment Fund, Chulalongkorn University
2017 – 2019	Thailand Research Fund (New Faculty Scholarship)
2017 – 2018	Grant for Research, Ratchadapiseksomphot Endowment Fund, Chulalongkorn University
2016 – 2018	Development of New Faculty Staff, Ratchadapiseksomphot Endowment Fund, Chulalongkorn University (Fast Track)
2015 – 2016	Development of New Faculty Staff, Ratchadapiseksomphot Endowment Fund, Chulalongkorn University

Research Articles (*Corresponding author)

2025

Ampornpitak, R., Unawong, W., Lim, H., Tor-ngern, P.* Species-specific water-use characteristics of trees in old-growth and secondary tropical forests of Thailand. **Biotropica (August 2025)** 57, e70101. **ISI/SCOPUS**

Chen, Y-J.*, Maenpuen, P., Katabuchi, M.*, Tor-ngern, P., Palmroth, S., Zhang, S-B., Xiao, Y-X., Liu, M., Oren, R.* Hydraulic conductivity-induced systematic parameter variation in a widely used thermal dissipation sap-flow technique. **New Phytologist** https://doi.org/10.1111/nph.70488 **(August 2025). ISI/SCOPUS**

Zuidema P.* et al. Pantropical tree rings show small effects of drought on stem growth. **Science (July 2025)** https://doi.org/10.1126/science.adq6607 **ISI/SCOPUS**

Han, L., Tinprabat, P., Maenpuen, P.*, Chanthorn, W.*, Marod, D., **Tor-ngern, P.**, Thinkampheang, S., Nathalang, A., Brockelman, WY., Zhang, S., Chen, Y. Lianas exhibit lower leaf drought resistance than trees in both tropical dry and wet forests in Thailand. **Flora (April 2025)** 327, 152730. https://doi.org/10.1016/j.flora.2025.152730 **ISI/SCOPUS**

Groenendijk, P.* et al. The importance of tropical tree-ring chronologies for global change research. **Quaternary Science Reviews (February 2025)** 355, 109233. https://doi.org/10.1016/j.quascirev.2025.109233 **ISI/SCOPUS**

Teo, HC.*, Lamba, A., Ng, SJW., Nguyen, AT., Dwiputra, A., Lim, AJY., Nguyen, MN., **Tor-ngern, P.**, Zeng, Y., Dewi, S., Koh, LP. Reduction of deforestation by agroforestry in high carbon stock forests of Southeast Asia. **Nature Sustainability (January 2025)** 8, 358-362. https://doi.org/10.1038/s41893-025-01532-w **ISI/SCOPUS**

Fransson, P.*, Lim, H., Zhao, P., **Tor-ngern, P.**, Peichl, M., Laudon, H., Henriksson, N., Näsholm, T., Franklin, O. An eco-physiological model of forest photosynthesis and transpiration under combined nitrogen and water limitation. **Tree Physiology (January 2025)** tpae168. https://doi.org/10.1093/treephys/tpae168 **ISI/SCOPUS**

2024

Kulsirilak, N., Ampornpitak, R., Kasikam, N., **Tor-ngern, P.*** Investigating leaf gas exchanges of common trees in two urban parks with different periods of establishment in Bangkok, Thailand. **Tropical Ecology (January 2024)** 65, 330-336. https://doi.org/10.1007/s42965-024-00343-y **SCOPUS**

2023

Ampornpitak, R., Nathalang, A., **Tor-ngern, P.*** Water-use characteristics of *Syzygium antisepticum* and *Adinandra integerrima* in a secondary forest of Khao Yai National Park in Thailand with implications for environmental management. **PeerJ (November 2023)** 11:e16525. http://doi.org/10.7717/peerj.16525 **ISI/SCOPUS**

Ampornpitak, R., Khobpee, P., Unawong, W., Leksungnoen, N., **Tor-ngern, P.*** An urban tree (*Tabebuia argentea*) exhibits higher sensitivity to environmental conditions than an urban palm (*Ptychosperma macarthurii*) growing in the same roof garden: an implication for sustainable urban water use. **Applied Environmental Research (March 2023)** 45, 1: 003. **SCOPUS**

2022

Yarnvudhi, A., Leksungnoen, N.*, Andriyas, T., **Tor-ngern, P.**, Premashthira, A., Wachrinrat, C., Marod, D., Hermhuk, S., Pattahakiat, S., Nakashizuka, T., Kjelgren, R. Assessing the cooling and air pollution tolerance among urban tree species in a tropical climate. **Plants (November 2022)** 11: 3074. https://doi.org/10.3390/plants11223074 **ISI/SCOPUS**

Yarnvudhi, A., Leksungnoen, N.*, Siri, S.*, Ponpithuk, Y., Sukmasuang, R., Duengkae, P., Pongcharoen, C., Sutummawong, N., Marod, D., Wachrinrat, C., Premashthira, A., **Tor-ngern, P.**, Poungcharean, S., Hermhuk, S., Kachina, P. Monetary evaluation of supporting ecosystem services as a habitat provider for

birds in Thailand urban park. **Biodiversitas (September 2022)** 23, 9: 4747-4758. https://doi.org/10.13057/biodiv/d230942 **SCOPUS**

Yaemphum, S., Unawong, W., **Tor-ngern, P.*** Sapwood area of 14 common tree species in a successional tropical forest in Thailand. **Forestry: An International Journal of Forest Research (October 2022)** 95, 4: 562-571. https://doi.org/10.1093/forestry/cpab054 **ISI/SCOPUS**

Unawong, W., Yaemphum, S., Nathalang, A., Chen, Y., Domec, J-C., **Tor-ngern, P.*** Variations in leaf water status and drought tolerance of dominant tree species among three successional forests in Southeast Asia. **Scientific Reports (April 2022)** 12: 6882. https://doi.org/10.1038/s41598-022-10988-1 **ISI/SCOPUS**

2021

Yarnvudhi, A., Leksungnoen, N.*, **Tor-ngern, P.**, Premashthira, A., Thinkampheang, S., Hermhuk, S. Evaluation of regulating and provisioning services provided by a park designed to be resilient to climate change in Bangkok, Thailand. **Sustainability (December 2021)** 13: 13624. **ISI/SCOPUS**

Yarnvudhi, A., Leksungnoen, N.*, **Tor-ngern, P**., Premashthira, A. Evaluating cultural services: A case study about willingness to pay for urban green space in Bangkok, Thailand. **Journal of Tropical Forest Research (December 2021)** 5, 2: 20-34. **SCOPUS**

Surayothee, W., Buajan, S., Fu, P., Pumijumnong, N., Fan, Z., Panthi, S., Finnegan, P.M., Zhang, Y., Chen, Y. **Tor-ngern, P.**, Chanthorn, W., Nathalang, A., Brockelman, W.Y. Growth-climate relationships and long-term growth trends of the tropical forest tree *Choerospondias axillaris* (Anacardiaceae) in East-Central Thailand. **Forests (December 2021)** 12, 12: 1655. **ISI/SCOPUS**

Rodtassana, C., Unawong, W., Yaemphum, S., Chanthorn, W., Chawchai, S., Nathalang, A., Brockelman, W., **Tor-ngern, P**.* Different responses of soil respiration to environmental factors across forest stages in a Southeast Asian forest. **Ecology and Evolution (October 2021)** 11, 21: 15430-15443. https://doi.10.1002/ece3.8248 **ISI/SCOPUS**

Gutierrez Lopez, J.*, **Tor-ngern, P.,** Oren, R., Kozii, N., Laudon, H., Hasselquist, N.J. How tree species, tree size, and topographical location influenced tree transpiration in northern boreal forests during the historic 2018 drought. **Global Change Biology (July 2021)** 27, 13: 3066-3078. https://doi.10.1111/gcb.15601 **ISI/SCOPUS**

Poyatos R.*, Granda V., Flo V., Adams M.A., Adorján B., Aguadé D., Aidar M.PM. et al. Global transpiration data from sap flow measurements: the SAPFLUXNET database. **Earth System Science Data (June 2021)** 13: 2607-2649. https://doi.org/10.5194/essd-13-2607-2021 **ISI/SCOPUS**

Tor-ngern, P.*, Chart-asa, C., Chanthorn, W., Rodtassana, C., Yampum, S., Unawong, W., Nathalang, A., Brockelman, W., Srinoppawan, K., Chen, Y., Hasselquist, N.J. Variation of leaf-level gas exchange rates and leaf functional traits of dominant trees across three successional stages in a Southeast Asian tropical forest. **Forest Ecology and Management (March 2021)** 489: 119101. **ISI/SCOPUS**

Andriyas, T., Leksungnoen, N., **Tor-ngern, P.*** Comparison of water-use characteristics of tropical tree saplings

with implications for forest restoration. **Scientific Reports (January 2021)** 11, 1745 https://doi.org/10.1038/s41598-021-81334-0 **ISI/SCOPUS**

Tarvainen, L.*, Wallin, G., Linder, S., Näsholm, T., Oren, R., Ottoson-Löfvenius, M., Räntfors, M., **Tor-ngern, P.**, Marshall, J.D. Limited vertical CO_2 transport in stems of mature boreal *Pinus sylvestris* trees. **Tree Physiology (January 2021)** 41, 1: 63-75. https://doi.org/10.1093/treephys/tpaa113 **ISI/SCOPUS**

2020

Vernay, A.*, Tian, X., Chi, J., Linder, S., Mäkelä, A., Oren, R., Peichl, M., Stangl, Z.R., **Tor-ngern, P.**, Marshall, J.D. Estimating canopy gross primary production by combining phloem stable isotopes with canopy and mesophyll conductances. **Plant, Cell and Environment (June 2020)** 43, 9: 2124-2142. https://doi.org/10.1111/pce.13835 **ISI/SCOPUS**

Kozii, N., Haahti, K., **Tor-ngern, P.**, Chi, J., Hasselquist E.M., Laudon, H., Launiainen, S., Oren, R., Peichl, M., Wallerman, J., Hasselquist, N.J.* Partitioning growing season water balance within a forested boreal catchment using sap flux, eddy covariance, and a process-based model. **Hydrology and Earth System Sciences (June 2020)** 24: 2999-3014. **ISI/SCOPUS**

Tor-ngern, P.*, N. Leksungnoen. Investigating carbon dioxide absorption by urban trees in a new park of Bangkok, Thailand. **BMC Ecology (April 2020)** 20, 1:20. https://doi.org/10.1186/s12898-020-00289-4 **ISI/SCOPUS**

2019

Phromjuang, N., Leksungnoen, N.*, **Tor-ngern, P.** Diurnal stomatal conductance of tree species responding to urban environments at the Chulalongkorn University Centenary Park. **Thai Journal of Science and Technology (May 2019)** 8, 4: 386-397. (in Thai) **Thai Citation Index Tier 2**

2018

Tor-ngern, P.*, L. Puangchit. Effects of varying soil and atmospheric water deficit on water use characteristics of tropical street tree species. **Urban Forestry & Urban Greening (December 2018)** 36: 76-83. **ISI/SCOPUS**

Ward, E.J.*, Oren, R., Kim, H-S., Kim, D., **Tor-ngern, P.**, Ewers, B.E., McCarthy, H.R., Oishi, A.C., Pataki, D.E., Palmroth, S., Phillips, N.G., Schäfer, K.V.R. Evapotranspiration and water yield of a pine-broadleaf forest are not altered by long-term atmospheric [CO_2] enrichment under native or enhanced soil fertility. **Global Change Biology (October 2018)** 24, 10: 4841-4856. https://doi.10.1111/gcb.14363 **ISI/SCOPUS**

Tor-ngern, P.*, Oren, R., Palmroth, S., Novick, K., Oishi, A.C., Linder, S., Ottoson-Löfvenius, M., Näsholm, T. Water balance of pine forests: synthesis of new and published results. **Agricultural and Forest Meteorology (September 2018)** 259: 107-117. **ISI/SCOPUS**

Tarvainen, L.*, Wallin, G., Lim, H., Linder, S., Oren, R., Ottoson-Löfvenius, M., Räntfors, M., **Tor-ngern, P.,** Marshall, J. Photosynthetic refixation varies along the stem and reduces CO_2 efflux in mature boreal *Pinus sylvestris* trees. **Tree Physiology (April 2018)** 25: 1- 12. https://doi.10.1093/treephys/tpx130 **ISI/SCOPUS**

Tor-ngern, P.*, Unawong, W., Tancharoenlarp, T., Aunroje, P., Panha, S. Comparison of water-use characteristics of landscape tree (*Tabebuia argentea*) and palm (*Ptychosperma macarthurii*) species in a tropical roof garden with implications for urban water management. **Urban Ecosystems (February 2018)** 21: 479-487. https://doi.org/10.1007/s11252-018-0735-0 **ISI/SCOPUS**

Tor-ngern, P.*, Jan-uthai, V., Leksungnoen, N. Quick recovery of leaf photosynthesis and fruit quality from soil water deficit of *Citrus aurantiifolia* growing in a city. **EnvironmentAsia (January 2018)** 11, 1: 87 – 99. **SCOPUS**

2017

Sae-Sue, T.*, **Tor-ngern, P.**, Budsaratragoon, P. Investigating the impacts of rainfall and temperature anomalies on Thailand's GDP growth. **International Journal of Energy, Environment, and Economics (December 2017)** 25, 4: 299-315. **SCOPUS**

Tor-ngern, P. Impacts of artificial soil drought on aboveground biomass of some Bangkok street tree species: Comparisons between irrigated and non-irrigated potted trees. **Naresuan University Journal: Science and Technology (February 2017)** 25, 1: 67 - 74. **Thai Citation Index Tier 1**

Tor-ngern, P.*, Oren, Oishi, A.C., Uebelherr, J.M., Palmroth, S., Tarvainen, L., Ottoson-Löfvenius, M., Linder, S., Domec, J-C., Näsholm, T. Ecophysiological variation of transpiration of pine forests: synthesis of new and published results. **Ecological Applications (January 2017)** 27, 1: 118-133. **ISI/SCOPUS**

2016

Tor-ngern, P.*, Panha, S. Responses of water use to atmospheric demand in three common street tree species in Bangkok, Thailand. **Environment and Natural Resources Journal (September 2016)** 14, 2: 24 - 29. **SCOPUS**

Tor-ngern, P.*, Panha, S. Species-specific responses of water use by urban trees to artificial soil drought: Results from a small-scaled study. **Applied Environmental Research (March 2016)** 38, 1: 53 - 60. **SCOPUS**

2015

Henriksson, N.*, Tarvainen, L., Lim, H., **Tor-ngern, P.,** Palmroth, S., Oren, R., Marshall, J., Näsholm, T. Stem compression reversibly reduces phloem transport in *Pinus sylvestris* trees. **Tree Physiology (October 2015)** 35: 1075 - 1085. https://doi.10.1093/treephys/tpv078 **ISI/SCOPUS**

Lim, H.*, Oren, R., Palmroth, S., **Tor-ngern, P**., Mörling, T., Näsholm, T., Lundmark, T., Helmisaari, H-S, Leppälammi-Kujansuu, J., Linder, S. Inter-annual variability of precipitation constrains the production response of boreal *Pinus sylvestris* to nitrogen fertilization. **Forest Ecology and Management (July 2015)** 348: 31 - 45. **ISI/SCOPUS**

Tor-ngern, P., Oren, R.*, Ward, E.J., Palmroth, S., McCarthy, H.R., Domec, J-C. Increases in atmospheric CO_2 have little influence on transpiration of a temperate forest canopy. **New Phytologist (January 2015)** 205, 2: 518 – 525. **ISI/SCOPUS**

2010

Senlik, O.*, Tang, L., **Tor-ngern, P**., Yoshie, T. Optical microcavities clad by low-absorption electrode media. **IEEE Photonics Journal (November 2010)** 2, 5: 794 - 801. **ISI/SCOPUS**

Conference Abstracts and Proceedings

Ampornpitak, R*. **Tor-ngern, P.** Water-use Characteristics of *Syzygium antisepticum* and *Adinandra integerrima* in a Secondary Tropical Forest in Khao Yai National Park for Environmental Management. The 12th International Conference on Environmental Engineering, Science and Management. 17-18 May 2023 in Pattaya, Thailand. pp 144-149. (Proceeding)

นิศาชล กุลสิริลักษณ์ และ **พันธนา ตอเงิน** ความสัมพันธ์ระหว่างประสิทธิภาพการใช้น้ำกับปัจจัยทางสิ่งแวดล้อมของพรรณไม้ในเมือง บริเวณจุฬาลงกรณ์มหาวิทยาลัย การประชุมวิชาการเทคโนโลยีสิ่งแวดล้อมประจำปี ครั้งที่ 34 สวสท. 65 วันที่ 23 ธันวาคม 2565 รูปแบบออนไลน์ หน้า 26-34. (Proceeding)

Yaemphum, S.*, Unawong, W., **Tor-ngern, P.** Allometric relationships between sapwood thickness and diameter at breast height of dominant tree species in Khao Yai National Park. The 9th National Academic Conference of KU.CSC 2021 (งานประชุมวิชาการระดับชาติ นนทรีอีสาน ครั้งที่ 9 (ออนไลน์)) 27 November 2021. pp 24-43. (Proceeding)

Unawong, W.*, Yampum, S., **Tor-ngern, P.** Seasonal variations in leaf water status of dominant tree species in Khao Yai National Park. SUT International Virtual Conference on Science and Technology 2021 in Nakhon Ratchasima, Thailand 6 August 2021. pp 457-463. (Proceeding)

Tor-ngern, P.* and Leksungnoen, N. Investigating carbon dioxide absorption rates by urban trees in a new park of Bangkok, Thailand. 8th International Conference on Social Science: Paris 2019 in Paris, France 27-28 December 2019. (Abstract)

Tor-ngern, P.* and Puangchit, L. Variable effects of water deficit on water-use characteristics and below-crown temperature changes of street trees: A study of potted trees on a balcony in Bangkok, Thailand. The International Urban Forestry Congress in Vancouver, Canada 30 September – 3 October 2018. (Abstract)

Yottiam, A., **Tor-ngern, P.,** Srithongouthai, S.* Spatial heterogeneity of heavy metals and risk assessments in the Mae Klong river estuarine ecosystem. 4th EnvironmentAsia International Conference on Practical Global Policy and Environmental Dynamics in Bangkok, Thailand 21-23 June 2017. (Abstract)

Tang, L.*, Drezdzon, S.M., **Tor-ngern, P.**, Yoshie, T. Single-mode waveguide optical isolation based on direction-dependent mode cut-off. 28th Progress in Electromagnetics Research Symposium in Cambridge, MA, USA 5-8 July 2010. (Abstract)

Books

พันธนา ตอเงิน และคณะ. 2566. การวัดการไหลของน้ำในไม้ต้นด้วยหัววัดการกระจายอุณหภูมิและการประยุกต์ใช้. สำนักพิมพ์จุฬาลงกรณ์มหาวิทยาลัย. กรุงเทพมหานคร 98 หน้า.

Articles

พันธนา ตอเงิน. 2560. ป่าไม้กับแบบจำลองสภาพภูมิอากาศ. วารสารธรรมชาติและสิ่งแวดล้อม 6 (ตุลาคม – ธันวาคม): 44 – 51.

พันธนา ตอเงิน. 2559. ป่าไม้ให้ชีวิต...เมื่อโลกถึงขั้นวิกฤต...เราควรต่อชีวิตให้ป่าไม้ (ตอน 2). วารสารวิทยาศาสตร์ 70 (พฤษภาคม – มิถุนายน): 88 - 89.

พันธนา ตอเงิน. 2559. ป่าไม้ให้ชีวิต...เมื่อโลกถึงขั้นวิกฤต...เราควรต่อชีวิตให้ป่าไม้ (ตอน 1). วารสารวิทยาศาสตร์ 70 (มีนาคม – เมษายน): 84 - 86.

พันธนา ตอเงิน. 2559. กลไกของปากใบและบทบาทในการศึกษาผลกระทบทางสิ่งแวดล้อมต่อระบบนิเวศ. วารสารสิ่งแวดล้อม 20 (มกราคม – มีนาคม): 45 - 53.

Presentations

Tor-ngern, P. Investigating Ecophysiological Variations of Trees in Successional Forests in Khao Yai National Park. The 7th ThaiFlux Meeting Series 2025. Chiang Mai, Thailand, 12-14 December 2024 (invited talk).

Tor-ngern, P.* and Leksungnoen, N. Investigating carbon dioxide absorption rates by urban trees in a new park of Bangkok, Thailand (Poster). 8th International Conference on Social Science: Paris 2019, Paris, France, 27 – 28 December 2019.

Tor-ngern, P. Linking sap flow to canopy fluxes. International Conference on Biodiversity 2019, Bangkok, Thailand. 22-24 May 2019 (invited talk).

Tor-ngern, P. Forest Fluxes and Climate Change. 1st Sino-Thailand joint workshop of "Historical Climate Change on the Maritime Silk Road", Bangkok, Thailand, 27 November 2018 (invited talk).

Tor-ngern, P. and Puangchit, L. Variable effects of water deficit on water-use characteristics and below-crown temperature changes of street trees: A study of potted trees on a balcony in Bangkok, Thailand (Poster). The International Urban Forestry Congress, Vancouver, Canada, 30 September – 3 October 2018.

Tor-ngern, P. Linking sap flow to canopy fluxes. The 5th ThaiFlux Meeting Series, University of Phayao, Thailand. May 4, 2018 (invited talk).

Tor-ngern, P. Carbon and Water Fluxes in Pine Forests: A Canopy-Scale Perspective. Xishuangbanna Tropical Botanical Garden, Chinese Academy of Sciences, Yunnan, China. July 19, 2017 (invited talk).

Tor-ngern, P. et al. Stomatal closure imposed by slow physical acclimation of forest canopies to atmospheric CO_2 (Poster). American Geophysical Union Falls Meeting, San Francisco, CA USA. December 2013.

Academic Workshop

The WIPO-UNESCO-KIPO Leadership Course on Intellectual Property, Science and Innovation for Women Scientists and Innovators in Seoul, Republic of Korea. 2-6 September 2024 (*Invited*).

Workshop on the emission of volatile organic compounds from forests and its environmental impacts. Chiang Mai, Thailand. 12 – 14 July 2024. Co-organized with National Astronomical Research Institute of Thailand and Chiang Mai University.

The 19th Annual Meeting of Science and Technology in Society (STS) Forum in Kyoto, Japan. 2-4 October 2022. (*Invited*).

The 5th China-Thailand Joint Conference on Climate Change in Chiang Mai, Thailand. 27 – 29 November 2017 (*Invited*).

Experimental and Modeling Approaches to Understanding the Future of Tropical Rain Forests in Asia. Forest Ecosystem Science Workshop at the Asian School of the Environment, Nanyang Technological University, Singapore. 14-20 November 2016 (*Invited*).

Regional Workshop on Incorporating Mangroves into National Greenhouse Gas (GHG) Inventory in Siem Reap, Cambodia. 21-23 March 2016 (*Invited*).

Peer Reviewer for Academic Journals

Agricultural and Forest Meteorology; Applied Environmental Research; Ecohydrology; Ecological Informatics; Ecosphere; Forest Ecology and Management; Hydrological Processes; Journal of Environmental Management; Journal of Horticultural Science and Research; Journal of Research Unit of Science, Technology and Environment for Learning; Science of The Total Environment; Sustainable Environment; Trees; Songklanakarin Journal of Social Sciences and Humanities; Thai Journal of Forestry; Walailak Journal of Science and Technology