

HoonTaek Lee

lht3718@gmail.com

(Updated: February 2020)

EDUCATION

- | | |
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| 2018 M. S. | Dept. of Forest Sciences, Seoul National University , Seoul, Rep. of Korea
Thesis: Impact of Leaf Area Index from Various Sources on Estimating
Gross Primary Production in Temperate Forest Using JULES Land
Surface Model
Advisor: Prof. Hyun Seok Kim |
| 2015 B. S. | Dept. of Forest Sciences, Seoul National University , Seoul, Rep. of Korea
Advisor: Prof. Hyun Seok Kim |

APPOINTMENTS

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| 2018 - Present | Researcher, National Institute of Forest Science , Seoul, Rep. of Korea |
| 2016 - 2018 | Research Assistant, Seoul National University , Seoul, Rep. of Korea |

RESEARCH INTERESTS

Tree physiology, Forest ecosystem modeling, Biosphere-atmosphere interactions and feedbacks

PUBLICATIONS

Published

6. Boknam Lee, Juhan Park, **HoonTaek Lee**, Tae Kyung Kim, Sunhee Cho, Jongguk Yoon, and Hyun Seok Kim. Over 15 years of changes in tree species composition and distribution patterns in Mts.Jiri and Baegun, Republic of Korea, *Forests*, 11 (2), 186. <https://doi.org/10.3390/f11020186>
5. Myoungsoo Won, Keunchang Jang, Sukhee Yoon, and **HoonTaek Lee**. 2019. Change Detection of Damaged Area and Burn Severity due to Heat Damage from Gangwon Large Fire Area in 2019. *Korean Journal of Remote Sensing*, 35 (6-2), 1083-1093. <https://doi.org/10.7780/kjrs.2019.35.6.2.5> (In Korean with English abstract)
4. **HoonTaek Lee**, Myoungsoo Won, Sukhee Yoon, and Keunchang Jang. 2019. Estimating fuel moisture content using equilibrium moisture content computed from weather data of the Automatic Mountain Meteorology Observation System (AMOS). *The Korean Association of Geographic Information Studies*, 22 (3), 21-36. <https://doi.org/10.11108/kagis.2019.22.3.021>
3. **HoonTaek Lee**, Juhan Park, Sungsik Cho, Minsu Lee, and Hyun Seok Kim. 2019. Impact of leaf area index from various sources on estimating gross primary production in temperate forests using the JULES land surface model. *Agricultural and Forest Meteorology*. 276-277, 107614. <https://doi.org/10.1016/j.agrformet.2019.107614>
2. Minjee Park, Sungsik Cho, Juhan Park, **HoonTaek Lee**, Wookyoung Song, Minsu Lee, Il-Kwon Park, and Hyun Seok Kim. 2019. Size-dependent variation in leaf functional traits and nitrogen allocation trade-offs in *Robinia pseudoacacia* and *Cornus controversa*. *Tree Physiology*, 39 (5), 755-766. <https://doi.org/10.1093/treephys/tpy150>
1. Hojin Lee, Seongsik Cho, Minseok Kang, Joon Kim, **Hoontaek Lee**, Minsu Lee, Jihyeon Jeon, Chaeyeon Yi, Britta Janicke, Changbeom Cho, Kyu Rang Kim, Baekjo Kim, and Hyunseok Kim.

2018. The Quantitative Analysis of Cooling Effect by Urban Forests in Summer. *Korean Journal of Agricultural and Forest Meteorology* 20 (1): 73-87.
<https://doi.org/10.5532/KJAFM.2018.20.1.73> (In Korean with English abstract)

Submitted / In revision / In preparation

Submitted (2 papers); In preparation (2 first author papers)

RESEARCH EXPERIENCE

Aug. 2018 - Present **Researcher, Dr. Myungsoo Won**

National Institute of Forest Science, Seoul, Rep. of Korea

- Development of models estimating dead fuel moisture content (DFMC) for forest fire danger rating

Aug. 2014 - Aug. 2018 **Research Assistant, Prof. Hyun Seok Kim**

Seoul National University, Seoul, Rep. of Korea

- Development of predictive service for forest water use
- Long-term vegetation dynamics and direction of Seoul National University Forest
- Evaluation of climate change adaptation mechanisms of native temperate tree species and its ecological effects using open-top chambers

TEACHING EXPERIENCE

Spring 2016, Teaching Assistant, **Seoul National University**, Seoul, Rep. of Korea

Spring 2017 Course title: **Tree Physiology** (lab session, grading)

CONFERENCE PRESENTATIONS (SELECTED)

HoonTaek Lee, Juhan Park, Sungsik Cho, Seung-Jae Lee, Hyun Seok Kim. 2017. Development of Forest Drought Index and Forest Water Use Prediction in Gyeonggi Province, Korea Using High-Resolution Weather Research Forecast Data and Localized JULES Land Surface Model. *AGU Fall Meeting* (New Orleans, LA, USA, Dec.)

HoonTaek Lee, Woogyung Song, Minsu Lee, Boknam Lee, Sungsik Cho, Juhan Park, Lee Man Mun, Seon Hee Cho, Sung-jae Lee and Hyun Seok Kim. 2017. Does Competition on Water Affect the Decline of the Conifer in Mt. Baegun, Korea? *ESA Annual Meeting* (Portland, OR, USA, Aug.)

AWARDS & SCHOLARSHIPS (SELECTED)

2017 - 2019 Best Oral Presentation Awards (three times in total, Korean Conferences)
Jan. 2017 Lecture & Research Scholarship, College of Agriculture and Life Sciences, Seoul National University

SKILLS

Languages: Korean, English **Programming:** R (Entry level: Python, C, Fortran)

Experimental facilities and sampling

- Plant canopy analysis (LAI-2200, Li-Cor) -Leaf gas exchange (Li-6400, Li-Cor)
- Leaf water potential (1505D pressure chamber, PMS Instrument Company)
- Soil CO₂ efflux (EGM-4, PP-Systems)