

Asko Noormets
Curriculum vitae

Dept. Ecology and Conservation Biology
Texas A&M University
College Station, TX

EDUCATION

INSTITUTION AND LOCATION	DEGREE	YEAR	FIELD OF STUDY
Michigan Technological University	PhD	2001	Forest Science
Michigan Technological University	MS	1997	Forest Science
Tartu University, Estonia	BS	1995	Biology

TEACHING

ECCB 309 (2018-current) – Forest Ecology
ECCB 319 (2017- current) – Principles of Forestry
ECCB 491 (2018- current) – Undergraduate Research
ECCB 685 (2022-current) – Directed Studies
ECCB 285W/485W (2022-current) – Professional writing
ECCB 691 (2018- current) – Graduate Research
ESSM 300 (2019-2021) – Field Studies in Forest Ecosystems

RESEARCH SUPPORT (Total received: \$9,824,587)

AT TEXAS A&M UNIVERSITY (\$4,262,109)

Active:

“Above- and belowground habitat value: conservation tradeoffs for reconciling soil biodiversity and ecosystem functioning” 10.2025-09.2026 (Noormets), The Cynthia and George Mitchell Foundation, \$10,000.

“Leveraging Machine Learning for Monitoring Logging Impacts on Forest Cover, Biodiversity, Diseases, Carbon Flux, and Microbiomes in the Ebo Forest, Cameroon”, 1.2026-12.2028. (Njabo, Gonder, Voelker, Abwe, Noormets, Jiao, Light, Missoiup) United Nations Central African Forest Initiative (CAFI), \$2M (\$256,097 to Noormets).

“Tracing the carbon flow from plants to soil” 08.2023-07.2026 (Noormets, DeForest), USDA-NIFA, \$749,846.

“North Carolina AmeriFlux Core Site Cluster” 10.2020-9.2026 (Noormets), DOE-LBNL, \$1,421,003.

AT NORTH CAROLINA STATE UNIVERSITY (\$3,829,694)

AT UNIVERSITY OF TOLEDO (\$1,743,784)

RECENT PUBLICATIONS (* – advisee)

Statistics 01/14/2025: *h-index*=55 (number of papers that each have been cited as many times), $m=h/scientific\ age=55/23=2.39$, 13423 citations, 1568 in 2024.

1. *Ono M, Mitra B, *Baniya B, *Kim D, **Noormets A** (2025) The use of newly assimilated photosynthates by soil autotrophic and heterotrophic respiration on a diurnal scale. *Biogeosciences* 22: 5833–5848. <https://doi.org/10.5194/bg-22-5833-2025>
2. *Aguilos M, Bulluck J, Shi, M, Han M, Carter X, Brannum K, Middlebrough B, Watts J, Webb J, Whitley M, Liu N, *Baniya B, Mitra B, Prajapati P, Minick K, Sun G, McNulty SG, **Noormets A**, King JS (2025) Tree mortality provides early warning sign of ecosystem functional transition in coastal freshwater forested wetlands. *Environmental Research Letters* 20: 104019 <https://doi.org/10.1088/1748-9326/ae0057>

3. *Ono M, **Noormets A**, Mitchell S (2025) The effect of the frequency of prescribed burning on annual soil carbon balance in a loblolly-shortleaf pine forest in East Texas. *Frontiers in Forests and Global Change*: <https://doi.org/10.3389/ffgc.2025.1602557>
4. Reed DE, Chu H, Peter BG, Chen J, Abraha M, Amiro B, Anderson RG, Arain MA, Arruda P, Barron-Gafford GA, Bernacchi C, Beverly DP, Biraud SC, Black TA, Blanken PD, Bohrer G, Bowler R, Bowling DR, Bret-Harte MS, Bretfeld M, Brunsell NA, Bullock SH, Celis G, Chen X, Classen AT, Cook DR, Cueva A, Dalmagro HJ, Davis K, Desai A, Duff AJ, Dunn AL, Durden D, Edgar CW, Euskirchen E, Bracho R, Ewers B, Flanagan LB, Florian C, Foord V, Forbrich I, Forsythe BR, Frank J, Garatuza-Payan J, Goslee S, Gough C, Green M, Griffis T, Helbig M, Hill AC, Hinkle R, Horne J, Humphreys E, Ikawa H, Iwahana G, Jassal R, Johnson B, Johnson M, Kannenberg SA, Kelsey E, King J, Knowles JF, Knox S, Kobayashi H, Kolb T, Kolka R, Krauss KW, Kutzbach L, Lamb B, Law B, Lee S-C, Lee X, Liu H, Loescher HW, Malone SL, Matamala R, Mauritz M, Metzger S, Meyer G, *Mitra B, Munger JW, Nesic Z, **Noormets A**, O'Halloran TL, O'Keeffe PT, Oberbauer SF, Oechel W, Oikawa P, Olivas PC, Ouimette A, Pastorello G, Perez-Quezada JF, Phillips C, Posse G, Qu B, Quinton WL, Reba ML, Richardson AD, Risso VP, Rocha AV, Rodriguez JC, Ruzol R, Saleska S, Scott RL, Schreiner-McGraw AP, Schuur EAG, Silveira M, Sonnentag O, Spittlehouse DL, Staebler R, Starr G, Staudhammer C, Still C, Sturtevant C, Sullivan RC, Suyker A, Trejo D, Ueyama M, Vargas R, Viner B, Vivoni ER, Wang D, Ward EJ, Wiesner S, Windham-Myers L, Yannick D, Yezpe EA, Zenone T, Zhao J, Zona D (2024) Network of Networks: Time-Series Clustering of AmeriFlux Sites. *Agricultural and Forest Meteorology* 372: 110686 <https://doi.org/10.1016/j.agrformet.2025.110686>
5. Oliveira FCC, Bacon A, Fox TR, Jokela EJ, Kane MB, Martin TA, **Noormets A**, Ross CW, Vogel J, Markewitz D (2025) Do soil enzymes respond to silvicultural management in pine plantations of the southeastern United States? *Forest Ecology and Management* 585: 122651. <https://doi.org/10.1016/j.foreco.2025.122651>
6. **Noormets A** (2025) Why not all productivity leads to carbon sequestration: The role of plant carbon surplus, allocation and the Gadgil effect. *Bioscience* 75: 212-216. <https://doi.org/10.1093/biosci/biaf018>
7. Liu P, Zha T, Black TA, Jassal RS, Jia X, **Noormets A**, Ouimette A, Tian Y, Li X (2025) Seasonal warming responses of the ecosystem CO₂ sink of northern forests are sensitive to stand age. *Communications Earth & Environment* 6: 43. <https://doi.org/10.1038/s43247-025-02008-7>
8. *Aguilos M, Sun G, Liu N, Zhang Y, Starr G, Oishi AC, O'Halloran TL, Forsythe J, Wang J, Zhu M, Amatya D, *Baniya B, McNulty S, **Noormets A**, King J (2024) Energy availability and leaf area dominate control of ecosystem evapotranspiration in the southeastern U.S. *Agricultural and Forest Meteorology* 349: 109960. <https://doi.org/10.1016/j.agrformet.2024.109960>
9. Delpierre N, Garnier S, Treuil-Dussouet H, Hufkens K, Berveiller D, Lin J, Morfin A, Wilkinson M, Beier C, Hale PM, **Noormets A**, King J, Koebsch F, Klosterhalfen A, Rebmann C, Pohl F, Schwartz MD, Ibrom A, Pilegaard K, Domec J-C, Cuntz M, Joetzer E, Munger JW, Richardson AD, Hart KM, Curioni G, Denham SO, Dahlin K, Rothstein D, Desai AR, Soudani K (2024) Phenology across scales: an intercontinental analysis of budburst in temperate deciduous tree communities. *Global Ecology and Biogeography* 0: e13910. <https://doi.org/10.1111/geb.13910>
10. *Yang L, **Noormets A** (2024) Asynchrony of the seasonal dynamics of gross primary productivity and ecosystem respiration. *Environmental Research Letters* 19: 084049. <https://doi.org/10.1088/1748-9326/ad5d08>
11. **Noormets A**, Miao G, *Kim D, *Ono M, McNulty SG (2024) Mitigation potential of forests: The integrated plant-microbe system. In McNulty SG, ed. *Future forests*, Elsevier. pp. 75-94. <https://doi.org/10.1016/B978-0-323-90430-8.00013-7>
12. *Mitra B, Minick K, Gavazzi MJ, *Prajapati P, *Aguilos M, Miao G, Domec JC, McNulty SG, Sun G, King JS, **Noormets A**. 2024. Toward spectrally truthful models for gap-filling soil respiration and

methane fluxes. *Agricultural and Forest Meteorology* 353: 110038.
<https://doi.org/10.1016/j.agrformet.2024.110038>

13. Fischer M, Katul G, **Noormets A**, Poznikova G, Domec J-C, Orsag M, Zalud Z, Trnka M (2023) Uniting flux-variance and surface renewal methods in the roughness sublayer and the atmospheric surface layer. *Agricultural and Forest Meteorology* 342: 109692.
<https://doi.org/10.1016/j.agrformet.2023.109692>
14. Wang R, Bowling DR, Gamon JA, Smith KR, Yu R, Hmimina G, Ueyama M, **Noormets A**, Kolb TE, Richardson AD, Bourque CPA, Bracho R, Blanken PD, Black TA, Arain MA (2023) Snow-corrected vegetation indices for improved gross primary productivity assessment in North American evergreen forests. *Agricultural and Forest Meteorology* 340: 109600. <https://doi.org/>
15. McNicol G, Fluett-Chouinard E, Ouyang Z, Knox SH, Zhang Z, Aalto T, Bansal S, Chang K-Y, Chen M, Delwiche K, Feron S, Goeckede M, Liu J, Malhotra A, Melton J, Riley W, Vargas R, Yuan K, Ying Q, Zhu Q, Alekseychik P, Aurela M, Billesbach D, Campbell D, Chen J, Chu H, Desai A, Euskirchen E, Goodrich J, Griffith T, Helbig M, Hirano T, Iwata H, Jurasinski G, King JS, Koebisch F, Kolka R, Krauss K, Lohila A, Mammarella I, Nilsson M, **Noormets A**, Oechel W, Peichl M, Sachs T, Sakabe A, Schulze C, Sonntag O, Sullivan R, Tuittila E-S, Ueyama M, Vesala T, Ward E, Wille C, Wong G, Zona D, Windham-Myers L, Poulter B, Jackson R (2023) Upscaling Wetland Methane Emissions From the FLUXNET-CH₄ Eddy Covariance Network (UpCH₄ v1.0): Model Development, Network Assessment, and Budget Comparison. *AGU Advances*: <https://doi.org/10.1029/2023AV000956>. Highlighted in EOS Eos 104, <https://doi.org/10.1029/2023EO230344> * 3/19/2025: among top 10 most-cited articles published in 2023.
16. Oliveira FCC, Bacon A, Fox TR, Jokela EJ, Kane MB, Martin TA, **Noormets A**, Wade Ross C, Vogel J, Markewitz D (2022) A regional assessment of permanganate oxidizable carbon for potential use as a soil health indicator in managed pine plantations. *Forest Ecology and Management* 521: 120423. <https://doi.org/10.1016/j.foreco.2022.120423>
17. *Aguilos M, Warr I, Irving M, Gregg O, Grady S, Peele T, **Noormets A**, Sun G, Liu N, McNulty S, Pettay F, Bhattacharya S, Penney S, Kerrigan M, Yang L, *Mitra B, *Prajapati P, *Minick K, King J. 2022. The unabated atmospheric carbon losses in a drowning wetland forest of North Carolina: A point of no return? *Forests* 13: 1264. <https://doi.org/10.3390/f13081264>
18. Morkoc S, *Aguilos M, **Noormets A**, Minick KJ, Ile OJ, Dickey DA, Hardesty D, Kerrigan M, Heitman J, King J. 2022. Environmental and plant-derived controls on the seasonality and partitioning of soil respiration in an American sycamore (*Platanus occidentalis*) bioenergy plantation in the Piedmont of North Carolina, USA. *Forests* 13: 1286. <https://doi.org/10.3390/f13081286>
19. *Miao G, **Noormets A**, Gavazzi M, Domec JC, *Mitra B, Sun G, McNulty SG, King JS. 2022. Beyond carbon flux partitioning: Carbon allocation and non-structural carbon dynamics inferred from continuous fluxes. *Ecological Applications*: e2655. <https://doi.org/10.1002/eap.2655>
20. *Lin W, **Noormets A**, King JS, Marshall J, Akers M, Cucinella J, Fox T, Lavinier M, Martin T, McNulty S, Meek C, Samuelson L, Sun G, Vogel J, Will R, Domec J-C. 2022. Spatial variability in tree-ring carbon isotope discrimination in response to local drought across the entire loblolly pine natural range. *Tree physiology* 42: 44-58. <https://doi.org/10.1093/treephys/tpab097>
21. *Aguilos M, Brown C, Minick K, Fischer M, Ile OJ, Hardesty D, Kerrigan M, **Noormets A**, King J. (2021) Millennial-Scale Carbon Storage in Natural Pine Forests of the North Carolina Lower Coastal Plain: Effects of Artificial Drainage in a Time of Rapid Sea Level Rise. *Land* 10 (12). <https://doi.org/10.3390/land10121294>
22. Yazbeck T, Bohrer G, Ye PGL, Arriga N, Bernhofer C, Blanken PD, Desai AR, Durden D, Knohl A, Kowalska N, Metzger S, Mölder M, **Noormets A**, Novick K, Scott RL, Šigut L, Soudani K, Ueyama M, Varlagin A (2021) Site characteristics mediate the relationship between forest productivity and

satellite measured solar induced fluorescence. *Frontiers in Forests and Global Change*: <https://doi.org/10.3389/ffgc.2021.695269>

23. *Aguilos M, Sun G, **Noormets A**, Domec J-C, McNulty SG, Gavazzi M, Prajapati P, Minick KJ, Mitra B, King JS (2021) Ecosystem Productivity and Evapotranspiration Are Tightly Coupled in Loblolly Pine (*Pinus taeda* L.) Plantations along the Coastal Plain of the Southeastern U.S. *Forests* 12: 1123. <https://doi.org/10.3390/f12081123>
24. *Minick K, *Mitra B, Li, X, Fischer M, **Noormets A**, King JS (2021) Microtopography mediates response of soil CO₂ and CH₄ emissions and $\delta^{13}\text{C}$ isotopic signature to altered temperature and hydrology in a coastal freshwater forested wetland. *Geoderma* 402: 115367. <https://doi.org/10.1016/j.geoderma.2021.115367>
25. Irvin J, Zhou S, McNicol G, Lu F, Liu V, Fluet-Chouinard E, Ouyang Z, Knox SH, Lucas-Moffat A, Trotta C, Papale D, Vitale D, Mammarella I, Avati A, Kondrich A, Ng A, Rey-Sanchez AC, Valach AC, Richardson AD, Kalhori A, Lohila A, Malhotra A, **Noormets A**, Desai AR, Mitra B, Runkle BR, Helfter C, Sturtevant C, Baldocchi D, Campbell DI, Lai DY, Zona D, Euskirchen E, Ward EJ, Stuart-Haëntjens E, Bohrer G, Jurasinski G, Vourlitis GL, Wong GX, Chu H, Iwata H, Dalmagro HJ, Chen J, Delwiche KB, Hemes KS, Schäfer KV, Merbold L, Aurela M, Nilsson MB, Goeckede M, Helbig M, Heimann M, Peichl M, Ueyama M, Sonnentag O, Alekseychik P, Vargas R, Bansal S, Feron S, Hirano T, Jacotot A, Sakabe A, Varlagin A, Wille C, Szutu DJ, Billesbach DP, Schuur EA, Nemitz E, Tuittila E-S, Parmentier FJ, Koebisch F, Celis G, Dolman H, Verfaillie JG, Goodrich JP, Fuchs K, Kasak K, Ono K, Hörtnagl L, Alberto MCR, Gondwe MJ, Gottschalk P, Oikawa PY, Sullivan RC, Maier R, Shortt R, Gogo S, Friborg T, Morin TH, Sachs T, Oechel WC, Windham-Myers L, Poulter B, Jackson RB (2021) Gap-filling eddy covariance methane fluxes: Comparison of machine learning model predictions and uncertainties at FLUXNET-CH₄ wetlands. *Agr Forest Meteorol* 308-309: 108528. <https://doi.org/10.1016/j.agrformet.2021.108528>
26. Chang K-Y, Riley WJ, Knox SH, Jackson RB, McNicol G, Poulter B, Aurela M, Baldocchi D, Bansal S, Bohrer G, Campbell DI, Cescatti A, Chu H, Delwiche KB, Desai A, Euskirchen E, Friborg T, Goeckede M, Helbig M, Hemes KS, Kang M, Keenan T, King JS, Krauss KW, Lohila A, Mammarella I, Mitra B, Miyata A, Nilsson MB, **Noormets A**, Oechel W, Papale D, Peichl M, Reba ML, Rinne J, Runkle BRK, Ryu Y, Sachs T, Schäfer KVR, Schmid HP, Shurpali N, Sonnentag O, Tang ACI, Torn MS, Trotta C, Tuittila E-S, Ueyama M, Vargas R, Vesala T, Windham-Myers L, Zhang Z, Zona D (2020) Substantial hysteresis in temperature sensitivity of global wetland methane emissions. *Nature Communications* 12: 2266. <https://doi.org/10.1038/s41467-021-22452-1>
27. *Aguilos M, Sun G, **Noormets A**, Domec JC, McNulty SG, Gavazzi M, *Minick K, *Mitra B, *Prajapati P, Yang Y, King JS (2021) Effects of land-use change and drought on decadal evapotranspiration and water balance of natural and managed forested wetlands along the southeastern US lower coastal plain. *Agricultural and Forest Meteorology* 303:108381.
28. **Noormets A**, Bracho R, *Ward E, Seiler J, Strahm B, *Lin W, McElligott K, Domec J-C, Gonzalez-Benecke C, Jokela EJ, Markewitz D, Meek C, *Miao G, McNulty SG, King JS, Samuelson L, Sun G, Teskey R, Vogel J, Will R, Yang J, Martin TA (2021) Heterotrophic respiration and the divergence of productivity and carbon sequestration. *Geophysical Research Letters* 48, e2020GL092366. <https://doi.org/10.1029/2020GL092366>
29. *Yang L, **Noormets A** (2021) Standardized flux seasonality metrics: A companion dataset for FLUXNET annual product. *Earth System Science Data* 13: 1461–1475. <https://doi.org/10.5194/essd-13-1461-2021>
30. Chu H, Luo X, Ouyang Z, Chan WS, Dengel S, Biraud SC, Torn MS, Metzger S, Kumar J, Arain MA, Arkebauer TJ, Baldocchi D, Bernacchi C, Billesbach D, Black TA, Blanken PD, Bohrer G, Bracho R, Brown S, Brunsell NA, Chen J, Chen X, Clark K, Desai AR, Duman T, Durden D, Fares S, Forbrich I, Gamon JA, Gough CM, Griffis T, Helbig M, Hollinger D, Humphreys E, Ikawa H, Iwata H, Ju Y,

Knowles JF, Knox SH, Kobayashi H, Kolb T, Law B, Lee X, Litvak M, Liu H, Munger JW, **Noormets A**, Novick K, Oberbauer SF, Oechel W, Oikawa P, Papuga SA, Pendall E, *Prajapati P, Prueger J, Quinton WL, Richardson AD, Russell ES, Scott RL, Starr G, Staebler R, Stoy PC, Stuart-Haëntjens E, Sonnentag O, Sullivan RC, Suyker A, Ueyama M, Vargas R, Wood JD, Zona D (2020) Representativeness of Eddy-Covariance Flux Footprints Measurements for Areas Surrounding AmeriFlux Sites. *Agricultural and Forest Meteorology*: <https://doi.org/10.1016/j.agrformet.2021.108350>

31. Domec JC, King AW, Carmichael M, Treado Overby A, Wortemann R, Smith WK, Miao G, **Noormets A**, Johnson D (2021) Aquaporins, and not changes in root structure, provide new insights into physiological responses to drought, flooding, and salinity. *Functional Plant Biology* 72: 4489–4501. <https://academic.oup.com/jxb/advance-article/doi/10.1093/jxb/erab100/6156974>
32. Lyu M, **Noormets A**, Ukonmaanaho L, Li Y, Yang Y, Xie J. 2021. Stability of soil organic carbon during forest conversion is more sensitive in deep soil than in topsoil in subtropical forests. *Pedobiologia*: 150706. <https://doi.org/10.1016/j.pedobi.2020.150706>

PRESENTATIONS (133)

SERVICE AND PROFESSIONAL ACTIVITIES

EDITORIAL POSITIONS (6)

Agricultural and Forest Meteorology (Impact Factor=6.2), Editor (2022-current), Editorial Board Member (2012-2021)

AD-HOC REVIEWER FOR JOURNALS (~10/YR)

GRANT REVIEWS (2-10/YR)

ORGANIZED CONFERENCE SECTIONS (1/YR)

SERVICE AT TAMU (25)

1. 2020-current. ECCB Graduate Program Committee. Member. Chair 2020-2024.
2. 2019-current. ECCB P&T Committee. Member
3. 2024-2025. ECCB Ecosystem Science Faculty Search Committee. Member
4. 2024-2025. Forest Science faculty (for Overton TFS office) Search Committee. Member
5. 2019-2024. Faculty Advisor of Forestry Club (TAMU SAF chapter)
6. 2024. ECCB-TFS Integration Committee. Chair
7. 2024. Forest Resources faculty search committee, Overton. Member
8. 2024. Forest Resources APT faculty search committee, College Station. Member
9. 2019-2023. TAMU Natural Resources Conservation & Research Field of Study Advisory Committee
10. 2023. Director of the Center for Greenhouse Gas Management in Agriculture and Forestry Search Committee
11. 2023. ACES Faculty Search Committee
12. 2023. TM O'Connor Professorship election committee
13. 2023. Tom Slick Graduate Fellowship committee
14. 2023. Global Ecosystem Modeling (SWAT) faculty search committee (Blacklands Research Center)

ACADEMIC ADVISING

Postdoctoral associates (8)
Graduate students
Primary or co-adviser (17)
Faculty opponent (2)
Committee member (16)
Ad-hoc advising (8)
Visiting scholars (4)
Employees and interns (64)

MEDIA COVERAGE (12)**SELECTED AWARDS AND HONORS**

2025 – Texas A&M AgriLife Research Faculty Fellow
2020-2022 – chair and vice-chair of NIFA Multistate Project NC1178: Land use and management practice impacts on soil carbon and associated agroecosystems services
2018-2021 – US co-chair of US-China Carbon Consortium (USCCC), elected

PROFESSIONAL MEMBERSHIPS

2023-current - Soil Science Society of America (SSSA)
2017-current – American Association for the Advancement of Science (AAAS)
2006-current – American Geophysical Union (AGU)