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Forest and Landscape Ecology  
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## Short presentation

My research concentrates on ecosystem responses to air pollution and climate change - in particular impacts on ecosystem functioning and feedback to the atmosphere. I have in particular used ecosystem manipulation to understand these impacts - latest through the VILLUM foundation Centre of Excellence CLIMAITE, where KU, DTU and AU collaborated to investigate impacts of single and multifactor climate change on shrubland ecosystems. Currently my particular research focus is on extreme events and impacts on ecosystem functioning

## Employment

### Professor

Forest and Landscape Ecology  
Frederiksberg C  
1 May 2015 → nu

### Research Director

NIVA - Norsk Institut for Vannforskning  
Oslo, Norway  
1 Aug 2013 → 1 May 2015

### Head of Research Center

Technical University of Denmark  
Kongens Lyngby, Denmark  
1 Jan 2012 → 1 Aug 2013

### Head of Research Programme

Technical University of Denmark  
Kongens Lyngby, Denmark  
1 May 2006 → 31 Dec 2011

### Senior Researcher

Forskningscenter Risø  
Roskilde, Denmark  
1 Jun 1996 → 30 Apr 2006

### Senior Researcher

Forskningscentret for Skov & Landskab  
Denmark  
1 May 1992 → 31 May 1996

### PostDoc

Technical University of Denmark  
Kongens Lyngby, Denmark  
1 Aug 1989 → 30 Apr 1992

## PhD

Technical University of Denmark  
Kongens Lyngby, Denmark  
1 Apr 1985 → 31 Jul 1989

## Publications

### **Extreme drought impacts have been underestimated in grasslands and shrublands globally**

Smith, M. D., Wilkins, K. D., Holdrege, M. C., Wilfahrt, P., Collins, S. L., Knapp, A. K., Sala, O. E., Dukes, J. S., Phillips, R. P., Yahdjian, L., Gherardi, L. A., Ohlert, T., Beier, C., Fraser, L. H., Jentsch, A., Loik, M. E., Maestre, F. T., Power, S. A., Yu, Q., Felton, A. J. & 153 others, Munson, S. M., Luo, Y., Abdoli, H., Abedi, M., Alados, C. L., Alberti, J., Alon, M., An, H., Anacker, B., Anderson, M., Auge, H., Bachle, S., Bahalkeh, K., Bahn, M., Batbaatar, A., Bauerle, T., Beard, K. H., Behn, K., Beil, I., Biancari, L., Blindow, I., Bondaruk, V. F., Borer, E. T., Bork, E. W., Bruschetti, C. M., Byrne, K. M., Cahill, J. F., Calvo, D. A., Carbognani, M., Cardoni, A., Carlyle, C. N., Castillo-Garcia, M., Chang, S. X., Chieppa, J., Cianciaruso, M. V., Cohen, O., Cordeiro, A. L., Cusack, D. F., Dahlke, S., Daleo, P., D'Antonio, C. M., Dietterich, L. H., Doherty, T. S., Dubbert, M., Ebeling, A., Eisenhauer, N., Fischer, F. M., Forte, T. G. W., Gebauer, T., Gozalo, B., Greenville, A. C., Guidoni-Martins, K. G., Hannusch, H. J., Haugum, S. V., Hautier, Y., Hefting, M., Henry, H. A. L., Hoss, D., Iribarne, O., Isbell, F., Johnson, Y., Jordan, S., Kelly, E. F., Kimmel, K., Kreyling, J., Kröel-Dulay, G., Ingrisch, J., Kröpfel, A., Kübert, A., Kulmatiski, A., Lamb, E. G., Larsen, Klaus Steenberg, Larson, J., Leder, C. V., Linstädter, A., Liu, J., Liu, S., Lodge, A. G., Longo, G., Loydi, A., Luan, J., Lawson, J., Lubbe, F. C., Macfarlane, C., Mackie-Haas, K., Malyshev, A. V., Maturano-Ruiz, A., Merchant, T., Metcalfe, D. B., Mori, A. S., Mudongo, E., Newman, G. S., Nielsen, U. N., Nimmo, D., Niu, Y., Nobre, P., O'Connor, R. C., Ogaya, R., Oñativia, G. R., Orbán, I., Osborne, B., Otfinowski, R., Pärtel, M., Penuelas, J., Peri, P. L., Peter, G., Petraglia, A., Picon-Cochard, C., Pillar, V. D., Piñeiro-Guerra, J. M., Ploughe, L. W., Plowes, R. M., Portales-Reyes, C., Prober, S. M., Pueyo, Y., Reed, S. C., Ritchie, E. G., Rodríguez, D. A., Rogers, W. E., Roscher, C., Sánchez, A. M., Santos, B. A., Scarfó, M. C., Seabloom, E. W., Shi, B., Souza, L., Stampfli, A., Standish, R. J., Sternberg, M., Sun, W., Sünnemann, M., Tedder, M., Thorvaldsen, P., Tian, D., Tielbörger, K., Valdecantos, A., van den Brink, L., Vandvik, V., Vankoughnett, M. R., Velle, L. G., Wang, C., Wang, Y., Wardle, G. M., Werner, C., Wei, C., Wiehl, G., Williams, J. L., Wolf, A. A., Zeiter, M., Zhang, F., Zhu, J., Zong, N. & Zuo, X., 2024, In: Proceedings of the National Academy of Sciences of the United States of America. 121, 4, 10 p., e2309881120.

### **Reading tea leaves worldwide: Decoupled drivers of initial litter decomposition mass-loss rate and stabilization**

Sarneel, J. M., Hefting, M. M., Sandén, T., van den Hoogen, J., Routh, D., Adhikari, B. S., Alatalo, J. M., Aleksanyan, A., Althuizen, I. H. J., Alsafran, M. H. S. A., Atkins, J. W., Augusto, L., Aurela, M., Azarov, A. V., Barrio, I. C., Beier, C., Bejarano, M. D., Benham, S. E., Berg, B., Bezler, N. V. & 88 others, Björnsdóttir, K., Bolinder, M. A., Carbognani, M., Cazzolla Gatti, R., Chelli, S., Chistotin, M. V., Christiansen, C. T., Courtois, P., Crowther, T. W., Dechoum, M. S., Djukic, I., Duddigan, S., Egerton-Warburton, L. M., Fanin, N., Fantappiè, M., Fares, S., Fernandes, G. W., Filippova, N. V., Fliessbach, A., Fuentes, D., Godoy, R., Grünwald, T., Guzmán, G., Hawes, J. E., He, Y., Hero, J. M., Hess, L. L., Hogendoorn, K., Høye, T. T., Jans, W. W. P., Jónsdóttir, I. S., Keller, S., Kepfer Rojas, Sebastian, Kuz'menko, N. N., Larsen, Klaus Steenberg, Laudon, H., Lembrechts, J. J., Li, J., Limouin, J. M., Lukin, S. M., Marques, R., Marin, C., McDaniel, M. D., Meek, Q., Merzlaya, G. E., Michelsen, Anders, Montagnani, L., Mueller, P., Murugan, R., Myers-Smith, I. H., Nolte, S., Ochoa-Hueso, R., Okafor, B. N., Okorkov, V. V., Onipchenko, V. G., Orozco, M. C., Parkhurst, T., Peres, C. A., Petit Bon, M., Petraglia, A., Pingel, M., Rebmann, C., Scheffers, B. R., Schmidt, Inger Kappel, Scholes, M. C., Sheffer, E., Shevtsova, L. K., Smith, S. W., Sofo, A., Stevenson, P. R., Strouhalová, B., Sundsdal, A., Sühs, R. B., Tamene, G., Thomas, H. J. D., Tolunay, D., Tomaselli, M., Tresch, S., Tucker, D. L., Ulyshen, M. D., Valdecantos, A., Vandvik, V., Vanguelova, E. I., Verheyen, K., Wang, X., Yahdjian, L., Yumashev, X. S. & Keuskamp, J. A., 2024, In: Ecology Letters. 27, 5, 14 p., e14415.

### **Scattered tree death contributes to substantial forest loss in California**

Cheng, Yan, Oehmcke, Stefan, Brandt, Martin Stefan, Rosenthal, L., Das, A., Vrieling, A., Saatchi, S., Wagner, F., Mugabowindekwe, Maurice, Verbruggen, Wim, Beier, Claus & Horion, Stéphanie, 2024, In: Nature Communications. 15, 1, p. 1-13 641.

### **Exploring the impacts of unprecedented climate extremes on forest ecosystems: hypotheses to guide modeling and experimental studies**

Holm, J. A., Medvigy, D. M., Smith, B., Dukes, J. S., Beier, Claus, Mishurov, M., Xu, X., Lichstein, J. W., Allen, C. D., Larsen, Klaus Steenberg, Luo, Y., Ficken, C., Pockman, W. T., Anderegg, W. R. L. & Rammig, A., 2023, In: Biogeosciences. 20, 11, p. 2117-2142 26 p.

### **MAPPING TREE MORTALITY IN CALIFORNIA FROM VERY HIGH RESOLUTION IMAGERY USING DEEP LEARNING**

Cheng, Yan, Oehmcke, Stefan, Brandt, Martin Stefan, Das, A., Rosenthal, L., Saatchi, S., Wagner, F., Vrieling, A., Verbruggen, Wim, Beier, Claus & Horion, Stéphanie, 2023.

### **Mapping and characterising tree mortality in California at individual tree level using deep learning**

Cheng, Yan, Oehmcke, Stefan, Brandt, Martin Stefan, Das, A., Rosenthal, L., Saatchi, S., Wagner, F., Verbruggen, Wim, Vrieling, A., Beier, Claus & Horion, Stéphanie, 2023. 1 p.

### **Moderate nitrogen retention in temperate heath ecosystem after elevated CO<sub>2</sub>, drought and warming through 7 years**

Andresen, L. C., Ambus, Per Lennart, Beier, Claus & Michelsen, Anders, 2023, In: European Journal of Soil Science. 74, 4, 13 p., e13397.

### **Trait-mediated responses to aridity and experimental drought by springtail communities across Europe**

Ferrín, M., Márquez, L., Petersen, H., Salmon, S., Ponge, J. F., Arnedo, M., Emmett, B., Beier, Claus, Schmidt, Inger Kappel, Tietema, A., de Angelis, P., Liberati, D., Kovács-Láng, E., Kröel-Dulay, G., Estiarte, M., Bartrons, M., Peñuelas, J. & Peguero, G., 2023, In: Functional Ecology. 37, 1, p. 44-56

### **Vi må ikke stirre os blinde på isolerede teknologiske løsninger i den grønne omstilling**

Thorsen, Bo Jellesmark & Beier, Claus, 13 Jan 2022, Altinget.dk.

### **Exploring the impacts of unprecedented climate extremes on forest ecosystems: hypotheses to guide modeling and experimental studies**

Holm, J. A., Medvigy, D. M., Smith, B., Dukes, J. S., Beier, Claus, Mishurov, M., Xu, X., Lichstein, J. W., Allen, C. D., Larsen, Klaus Steenberg, Luo, Y., Ficken, C., Pockman, W. T., Anderegg, W. R. L. & Rammig, A., 2022, 45 p. (Biogeosciences Discussions; No. 65, Vol. 2022).

### **Field experiments underestimate aboveground biomass response to drought**

Kröel-Dulay, G., Mojzes, A., Sztár, K., Bahn, M., Batáry, P., Beier, C., Bilton, M., De Boeck, H. J., Dukes, J. S., Estiarte, M., Holub, P., Jentsch, A., Schmidt, I. K., Kreyling, J., Reinsch, S., Larsen, K. S., Sternberg, M., Tielbörger, K., Tietema, A., Vicca, S. & 1 others, Peñuelas, J., 2022, In: Nature Ecology and Evolution. 9 p.

### **Re-visiting soil carbon and nitrogen stocks in a temperate heathland seven years after the termination of free air CO<sub>2</sub> enrichment (FACE)**

Li, Qiaoyan, Ambus, Per Lennart, Michelsen, Anders, Schmidt, Inger Kappel, Beier, Claus, Dietzen, Christiana Amalie, Reinsch, S., Arndal, M. F. & Larsen, Klaus Steenberg, 2022, In: Geoderma. 428, 7 p., 116185.

### **Supplementary material to "Exploring the impacts of unprecedented climate extremes on forest ecosystems: hypotheses to guide modeling and experimental studies"**

Holm, J. A., Medvigy, D. M., Smith, B., Dukes, J. S., Beier, Claus, Mishurov, M., Xu, X., Lichstein, J. W., Allen, C. D., Larsen, Klaus Steenberg, Luo, Y., Ficken, C., Pockman, W. T., Anderegg, W. R. L. & Rammig, A., 2022, 9 p. (Biogeosciences Discussions; No. 65 - Supplement, Vol. 2022).

### **Effects of Climate and Atmospheric Nitrogen Deposition on Early to Mid-Term Stage Litter Decomposition Across Biomes**

Kwon, T., Shibata, H., Kepfer Rojas, Sebastian, Schmidt, Inger Kappel, Larsen, Klaus Steenberg, Beier, Claus, Berg, B., Verheyen, K., Lamarque, J., Hagedorn, F., Eisenhauer, N. & Djukic, I., 2021, In: Frontiers in Forests and Global Change. 4, 18 p., 678480.

### **The TeaComposition initiative: Unleashing the power of international collaboration to understand litter decomposition**

Djukic, I., Guerra, C., Maestre, F. T., Hagedorn, F., Oggioni, A., Bergami, C., Magagna, B., Kwon, T., Shibata, H., Eisenhauer, N., Patoine, G., Bierbaumer, M., Kepfer Rojas, Sebastian, Schmidt, Inger Kappel, Larsen, Klaus Steenberg, Beier, Claus, Berg, B., Verheyen, K., Trevathan-Tackett, S. M. & Macreadie, P. I., 2021, In: Soil Organisms. 93, 1, p. 73-78 6 p.

### **Notat om klimaeffekt af urørt skov: Sagsnotat**

Højgaard Petersen, A., Johannsen, VK, Rahbek, Carsten, Beier, Claus, Bruun, Hans Henrik, Heilmann-Clausen, Jacob, Vesterdal, Lars, Bentsen, Niclas Scott, Gundersen, Per & Nord-Larsen, Thomas, 27 May 2020, 4 p..

**The handbook for standardized field and laboratory measurements in terrestrial climate change experiments and observational studies (ClimEx)**

Schmidt, Inger Kappel & ClimMani Working Group, C. W. G., 1 Jan 2020, In: *Methods in Ecology and Evolution*. 11, 1, p. 22-37 16 p.

**Exploring the impacts of unprecedented climate extremes on forest ecosystems: hypotheses to guide modeling and experimental studies**

Holm, J. A., Medvigy, D. M., Smith, B., Dukes, J. S., Beier, Claus, Mishurov, M., Xu, X., Lichstein, J. W., Allen, C. D., Larsen, Klaus Steenberg, Luo, Y., Ficken, C., Pockman, W. T., Anderegg, W. R. L. & Rammig, A., 2020. 2 p.

**Understanding ecosystems of the future will require more than realistic climate change experiments - A response to Korell et al.**

De Boeck, H. J., Bloor, J. M. G., Aerts, R., Bahn, M., Beier, C., Emmett, B. A., Estiarte, M., Gruenzweig, J. M., Halbritter, A. H., Holub, P., Jentsch, A., Klem, K., Kreyling, J., Kroel-Dulay, G., Larsen, K. S., Milcu, A., Roy, J., Sigurdsson, B. D., Smith, M. D., Steenberg, M. & 4 others, Vandvik, V., Wohlgemuth, T., Nijs, I. & Knapp, A. K., 2020, In: *Global Change Biology*. 26, 2, p. e6-e7 2 p.

**A meta-analysis of 1,119 manipulative experiments on terrestrial carbon-cycling responses to global change**

Song, J., Wan, S., Piao, S., Knapp, A. K., Classen, A. T., Vicca, S., Ciais, P., Hovenden, M. J., Leuzinger, S., Beier, C., Kardol, P., Xia, J., Liu, Q., Ru, J., Zhou, Z., Luo, Y., Guo, D., Langley, J. A., Zscheischler, J., Dukes, J. S. & 39 others, Tang, J., Chen, J., Hofmockel, K. S., Kueppers, L. M., Rustad, L., Liu, L., Smith, M. D., Templer, P. H., Thomas, R. Q., Norby, R. J., Phillips, R. P., Niu, S., Fatichi, S., Wang, Y., Shao, P., Han, H., Wang, D., Lei, L., Wang, J., Li, X., Zhang, Q., Li, X., Su, F., Liu, B., Yang, F., Ma, G., Li, G., Liu, Y., Liu, Y., Yang, Z., Zhang, K., Miao, Y., Hu, M., Yan, C., Zhang, A., Zhong, M., Hui, Y., Li, Y. & Zheng, M., 2019, In: *Nature Ecology & Evolution*. 3, 9, p. 1309-1320 12 p.

**Accumulation of soil carbon under elevated CO<sub>2</sub> unaffected by warming and drought**

Dietzen, Christiana Amalie, Larsen, Klaus Steenberg, Ambus, Per Lennart, Arndal, M. F., Beier, Claus, Reinsch, S. & Schmidt, Inger Kappel, 2019, In: *Geophysical Research Abstracts*. 21, 1 p., EGU2019-5220.

**Accumulation of soil carbon under elevated CO<sub>2</sub> unaffected by warming and drought**

Dietzen, Christiana Amalie, Larsen, Klaus Steenberg, Ambus, Per Lennart, Michelsen, Anders, Arndal, M. F., Beier, Claus, Reinsch, S. & Schmidt, Inger Kappel, 2019, In: *Global Change Biology*. 25, 9, p. 2970-2977 8 p.

**Fast attrition of springtail communities by experimental drought and richness–decomposition relationships across Europe**

Peguero, G., Sol, D., Arnedo, M., Petersen, H., Salmon, S., Ponge, J. F., Maspons, J., Emmett, B., Beier, Claus, Schmidt, Inger Kappel, Tietema, A., De Angelis, P., Kovács-Láng, E., Kröel-Dulay, G., Estiarte, M., Bartrons, M., Holmstrup, M., Janssens, I. A. & Peñuelas, J., 2019, In: *Global Change Biology*. 25, 8, p. 2727-2738 12 p.

**Globally consistent influences of seasonal precipitation limit grassland biomass response to elevated CO<sub>2</sub>**

Hovenden, M. J., Leuzinger, S., Newton, P. C. D., Fletcher, A., Fatichi, S., Luscher, A., Reich, P. B., Andresen, L. C., Beier, Claus, Blumenthal, D. M., Chiariello, N. R., Dukes, J. S., Kellner, J., Hofmockel, K., Niklaus, P. A., Song, J., Wan, S., Classen, A. T. & Langley, J. A., 2019, In: *Nature Plants*. 5, 2, p. 167-173 7 p.

**On the problems of using linear models in ecological manipulation experiments: lessons learned from a climate experiment**

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**Early stage litter decomposition across biomes**

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**Early stage litter decomposition across biomes**

TeaComposition, T., 2018, In: *Geophysical Research Abstracts*. 20, 1 p., EGU2018-5436.

### **Fine Root Growth and Vertical Distribution in Response to Elevated CO<sub>2</sub>, Warming and Drought in a Mixed Heathland–Grassland**

Arndal, M. F., Tolver, Anders, Larsen, Klaus Steenberg, Beier, Claus & Schmidt, Inger Kappel, 2018, In: *Ecosystems*. 21, p. 15-30 16 p.

### **Isotopic methods for non-destructive assessment of carbon dynamics in shrublands under long-term climate change manipulation**

Andresen, L. C., Domínguez, M. T., Reinsch, S., Smith, A. R., Schmidt, Inger Kappel, Ambus, Per Lennart, Beier, Claus, Boeckx, P., Bol, R., De Dato, G., Emmett, B. A., Estiarte, M., Garnett, M. H., Kröel-dulay, G., Mason, S. L., Nielsen, C. S., Peñuelas, J. & Tietema, A., 2018, In: *Methods in Ecology and Evolution*. 9, 4, p. 866-880 15 p.

### **Long-term and realistic global change manipulations had low impact on diversity of soil biota in temperate heathland**

Holmstrup, M., Damgaard, C., Schmidt, Inger Kappel, Arndal, M. F., Beier, Claus, Mikkelsen, T. N., Ambus, Per Lennart, Larsen, Klaus Steenberg, Pilegaard, K., Michelsen, Anders, Andresen, L. C., Haugwitz, M. S., Bergmark, L., Priemé, Anders, Zaitsev, A. S., Georgieva, S., Dam, M., Vestergård, M. & Christensen, Søren, 2017, In: *Scientific Reports*. 7, 11 p., 41388.

### **Pushing precipitation to the extremes in distributed experiments: recommendations for simulating wet and dry years**

Knapp, A. K., Avolio, M. L., Beier, Claus, Carroll, C. J. W., Collins, S. L., Dukes, J. S., Fraser, L. H., Griffin-Nolan, R. J., Hoover, D. L., Jentsch, A., Loik, M. E., Phillips, R. P., Post, A. K., Sala, O. E., Slette, I. J., Yahdjian, L. & Smith, M. D., 2017, In: *Global Change Biology*. 23, 5, p. 1774-1782

### **Shrubland primary production and soil respiration diverge along European climate gradient**

Reinsch, S., Koller, E., Sowerby, A., de Dato, G., Estiarte, M., Guidolotti, G., Kovács-Láng, E., Kröel-Dulay, G., Lellei-Kovács, E., Larsen, Klaus Steenberg, Liberati, D., Peñuelas, J., Ransijn, J., Robinson, D. A., Schmidt, Inger Kappel, Smith, A. R., Tietema, A., Dukes, J. S., Beier, Claus & Emmett, B. A., 2017, In: *Scientific Reports*. 7, 7 p., 43952.

### **Udvikling i Agerlandet 1954-2025: Kortlægning af Markstørrelse, markveje og småbiotoper**

Beier, Claus (ed.), Caspersen, Ole H. & Karlsson Nyed, Patrik, 2017, 1 ed. Frederiksberg. 67 p. (IGN Rapport; No. Januar 2017).

### **A replicated climate change field experiment reveals rapid evolutionary response in an ecologically important soil invertebrate**

Bataillon, T., Galtier, N., Bernard, A., Cryer, N., Faivre, N., Santoni, S., Severac, D., Mikkelsen, T. N., Larsen, Klaus Steenberg, Beier, Claus, Sorensen, J. G., Holmstrup, M. & Ehlers, B. K., Jul 2016, In: *Global Change Biology*. 22, 7, p. 2370-2379

### **Few multiyear precipitation-reduction experiments find ashift in the productivity-precipitation relationship**

Estiarte, M., Vicca, S., Penuelas, J., Bahn, M., Beier, C., Emmett, B. A., Fay, P. A., Hanson, P. J., Hasibeder, R., Kigel, J., Kroel-Dulay, G., Larsen, K. S., Lellei-Kovacs, E., Limousin, J-M., Ogaya, R., Ourcival, J-M., Reinsch, S., Sala, O. E., Schmidt, I. K., Sternberg, M. & 3 others, Tielboerger, K., Tietema, A. & Janssens, I. A., 2016, In: *Global Change Biology*. 22, 7, 2570-2581.

### **Experiments to confront the environmental extremes of climate change**

Kayler, Z. E., De Boeck, H. J., Fatichi, S., Grünzweig, J. M., Merbold, L., Beier, Claus, McDowell, N. & Dukes, J. S., 2015, In: *Frontiers in Ecology and the Environment*. 13, 4, p. 219-225

### **Global Change Experiments: Challenges and Opportunities**

De Boeck, H. J., Vicca, S., Roy, J., Nijs, I., Milcu, A., Kreyling, J., Jentsch, A., Chabbi, A., Campioli, M., Callaghan, T., Beierkuhnlein, C. & Beier, Claus, 2015, In: *BioScience*. 65, 9, p. 922-931

### **Increased sensitivity to climate change in disturbed ecosystems**

Kroel-Dulay, G., Ransijn, J., Schmidt, Inger Kappel, Beier, Claus, De Angelis, P., De Dato, G., Dukes, J. S., Emmett, B., Estiarte, M., Garadnai, J., Kongstad, J., Kovács-Láng, E., Larsen, Klaus Steenberg, Liberati, D., Ogaya, R., Riis-Nielsen, Torben, Smith, A. R., Sowerby, A., Tietema, A. & Penuelas, J., 2015, In: *Nature Communications*. 6, 6682.

**Responses of enchytraeids to increased temperature, drought and atmospheric CO<sub>2</sub>: results of an eight-year field experiment in dry heathland**

Holmstrup, M., Schmelz, R. M., Carrera, N., Dyrnum, K., Larsen, Klaus Steenberg, Mikkelsen, T. N. & Beier, Claus, 2015, In: *European Journal of Soil Biology*. 70, p. 15-22 8 p.

**Beyond realism in climate change experiments: gradient approaches identify thresholds and tipping points**

Kreyling, J., Jentsch, A. & Beier, Claus, 2014, In: *Ecology Letters*. 17, 1, p. 125-e1

**Can current moisture responses predict soil CO<sub>2</sub> efflux under altered precipitation regimes? A synthesis of manipulation experiments**

Vicca, S., Bahn, M., Estiarte, M., van Loon, E. E., Vargas, R., Alberti, G., Ambus, P. L., Arain, A. M., Beier, C., Bentley, L. P., Borken, W., Buchmann, N., Collins, S. L., de Dato, G., Dukes, J. S., Escolar, C., Fay, P., Guidolotti, G., Hanson, P. J., Kahmen, A. & 28 others, Kröel-Dulay, G., Ladreiter-Knauss, T., Larsen, Klaus Steenberg, Lellei-Kovacs, E., Lebrija-Trejos, E., Maestre, F. T., Marhan, S., Marshall, M., Meir, P., Miao, Y., Muhr, J., Niklaus, P. A., Ogaya, R., Penuelas, J., Poll, C., Rustad, L. E., Savage, K., Schindlbacher, A., Schmidt, Inger Kappel, Smith, A. R., Sotta, E. D., Suseela, V., Tietema, A., van Gestel, N., van Straaten, O., Wan, S., Weber, U. & Janssens, I. A., 2014, In: *Biogeosciences*. 11, p. 2991-3013 23 p.

**Root growth and N dynamics in response to multi-year experimental warming, summer drought and elevated CO<sub>2</sub> in a mixed heathland-grass ecosystem**

Arndal, M. F., Schmidt, Inger Kappel, Nielsen, Jane Kongstad, Beier, Claus & Michelsen, Anders, 2014, In: *Functional Plant Biology*. 41, 1, p. 1-10 10 p.

**Soil microorganisms respond to five years of climate change manipulations and elevated atmospheric CO<sub>2</sub> in a temperate heath ecosystem**

Haugwitz, M. S., Bergmark, L., Priemé, Anders, Christensen, Søren, Beier, Claus & Michelsen, Anders, 2014, In: *Plant and Soil*. 374, 1-2, p. 211-222 12 p.

**Technical Note: Mesocosm approach to quantify dissolved inorganic carbon percolation fluxes**

Thaysen, E. M., Jessen, Søren, Ambus, Per Lennart, Beier, Claus, Postma, D. & Jakobsen, I., 2014, In: *Biogeosciences*. 11, 4, p. 1077-1084 8 p.

**Complexity in Climate Change Manipulation Experiments**

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## **Other**

More Other

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