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## Kort præsentation

Stephanie Horion is associate professor at the Dept. of Geosciences and Natural Resource Management (KU, Denmark), and recipient of the Villum Young Investigator 2021 (DRYTIP - Drought induced tipping point in ecosystem functioning, <https://ign.ku.dk/english/drytip/>). She is also PI on the newly founded Global Wetland Center (Novo Nordisk Challenge Programme 2023).

Her research focuses on Earth Observation of terrestrial ecosystems, global environmental change, tipping points and climate extremes.

Between 2009 and 2012, she worked at Joint Research Center of the European Commission (JRC, Ispra), where she contributed to the development of the European and Global Drought Observatories.

See less

## Ansættelse

**Lektor**

Geografi 2

Københavns Universitet

København K, Danmark

1 jan. 2016 → nu

**Postdoc**

Geologi

Københavns Universitet

København K, Danmark

15 apr. 2012 → 2 jan. 2013

**Contract Agent FGIV**

European Commission, Joint Research Centre

Italien

2 mar. 2009 → 29 feb. 2012

## Publikationer

### **Delineating Standing Deadwood in High-Resolution RGB Drone Imagery**

Möhring, J., Mosig, C., Cheng, Y., Mahecha, M. D., Priego, O. P., Beloiu, M., Volpi, M., Horion, S., Latifi, H., Shafeian, E., Fassnacht, F., Montero, D., Zielewska-Büttner, K., Laliberté, E., Cloutier, M., Schmehl, M-T., Frick, A., Müller-Landau, H., Cushman, K.C., Hupy, J. & 11 flere, Ma, Q., Su, Y., Khatri-Chhetri, P., Kruse, S., Frey, J., Schiefer, F., Junttila, S., Potts, A., Uhl, A., Rossi, C. & Kattenborn, T., 15 mar. 2024.

### **High-resolution mapping of tree mortality in European forests**

Cheng, Yan, Oehmcke, Stefan, Mosig, C., Beloiu, M., Kattenborn, T., Abel, Christin, Gominski, Dimitri Pierre Johannes, Nord-Larsen, Thomas, Fensholt, Rasmus & Horion, Stéphanie, 11 mar. 2024.

### **Mapping Tree Mortality at Global Scale Using Sentinel-2**

Mosig, C., Mahecha, M. D., Montero, D., Cheng, Y., Perez-Priego, O., Beloiu, M., Volpi, M., Horion, S., Latifi, H., Shafeian, E., Fassnacht, F., Ganz, S., Zielewska-Büttner, K., Laliberté, E., Cloutier, M., Schmehl, M-T., Frick, A., Müller-Landau, H., Cushman, K.C., Hupy, J. & 11 flere, Ma, Q., Su, Y., Khatri-Chhetri, P., Kruse, S., Frey, J., Schiefer, F., Junttila, S., Potts, A.

, Uhl, A., Rossi, C. & Kattenborn, T., 11 mar. 2024.

#### **Changes in vegetation-water response in the Sahel-Sudan during recent decades**

Lu, Tingting, Zhang, Wenmin, Abel, Christin, Horion, Stéphanie, Brandt, Martin Stefan, Huang, Ke & Fensholt, Rasmus, 2024, I: *Journal of Hydrology: Regional Studies*. 52, 10 s., 101672.

#### **Increasing global ecosystem respiration between 1982 and 2015 from Earth observation-based modelling**

Tagesson, Håkan Torbern, Kelly, J., Schurgers, Guy, Tian, F., Ardö, J., Horion, Stéphanie, Ahlström, A., Olin, S. & Fensholt, Rasmus, 2024, I: *Global Ecology and Biogeography*. 33, 1, s. 116–130

#### **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, I: *Nature Communications*. 15, 1, s. 1-13 641.

#### **Simulated Tree-Grass Competition in Drylands Is Modulated by CO<sub>2</sub> Fertilization**

Verbruggen, Wim, Schurgers, Guy, Meunier, F., Verbeeck, H. & Horion, Stéphanie, 2024, I: *Earth's Future*. 12, 1, 19 s., e2023EF004096.

#### **The success of ecological engineering projects on vegetation restoration in China strongly depends on climatic conditions**

Dou, Y., Tong, Xiaoye, Horion, Stéphanie, Feng, L., Fensholt, Rasmus, Shao, Q. & Tian, F., 2024, I: *Science of the Total Environment*. 915, 11 s., 170041.

#### **Contrasting ecosystem vegetation response in global drylands under drying and wetting conditions**

Abel, Christin, Abdi, A. M., Tagesson, Håkan Torbern, Horion, Stéphanie & Fensholt, Rasmus, 2023, I: *Global Change Biology*. 29, 14, s. 3954-3969

#### **Deep learning for mapping water bodies in the Sahel**

de FLEURY, M., Kergoat, L., Brandt, Martin Stefan, Fensholt, Rasmus, Kariryaa, Ankit, Kovács, Gyula Mate, Horion, Stéphanie & Grippa, M., 2023. 1 s.

#### **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 s.

#### **Quantifying Tree Mortality Drivers - a Case Study in a Boreal Forest**

Jääskeläinen, J., Junttila, S., O'Sullivan, H., Cheng, Yan, Horion, Stéphanie & Vastaranta, M., 2023, SSRN: Social Science Research Network, 50 s.

#### **Satellite-based continental-scale inventory of European wetland types at 10m spatial resolution**

Kovács, Gyula Mate, Oehmcke, Stefan, Horion, Stéphanie, Gominski, Dimitri Pierre Johannes, Tong, Xiaoye & Fensholt, Rasmus, 2023. 1 s.

#### **Seasonal-Trend Time Series Decomposition on Graphics Processing Units**

Serykh, Dmitry, Oehmcke, Stefan, Oancea, Cosmin Eugen, Masiliunas, D., Verbesselt, J., Cheng, Yan, Horion, Stéphanie, Gieseke, F. & Hinnerskov, Nikolaj Hey, 2023, *Proceedings - 2023 IEEE International Conference on Big Data, BigData 2023*. He, J., Palpanas, T., Hu, X., Cuzzocrea, A., Dou, D., Slezak, D., Wang, W., Gruca, A., Lin, J. C-W. & Agrawal, R. (red.). IEEE, s. 5914-5923 10 s.

#### **Simulated tree-grass competition in drylands is modulated by CO<sub>2</sub> fertilization**

Verbruggen, Wim, Schurgers, Guy, Meunier, F., Verbeeck, H. & Horion, Stéphanie, 2023. 1 s.

**Characterizing ecosystem change in wetlands using dense earth observation time series**

Kovács, Gyula Mate, Horion, Stéphanie & Fensholt, Rasmus, 2022, I: Remote Sensing of Environment. 281, 18 s., 113267.

**EMERGENCY FLOOD MAPPING IN AUSTRALIA WITH SENTINEL-1 AND SENTINEL-2 SATELLITE IMAGERY = CARTOGRAPHIE D'URGENCE DES INONDATIONS EN AUSTRALIE À PARTIR D'IMAGES SATELLITAIRES SENTINEL-1 ET SENTINEL-2**

Meyer, Rasmus Probst, Søgaard, M. G., Schødt, M. P., Horion, Stéphanie & Prishchepov, Alexander V., 2022, I: BSGlg. 78, 1, s. 123-138 16 s.

**Global quantification of the bidirectional dependency between soil moisture and vegetation productivity**

Zhang, Wenmin, Wei, F., Horion, Stéphanie, Fensholt, Rasmus, Forkel, M. & Brandt, Martin Stefan, 2022, I: Agricultural and Forest Meteorology. 313, 9 s., 108735.

**Tracking sustainable restoration in agro-pastoral ecotone of northwest China**

Yang, L., Horion, Stéphanie, He, C. & Fensholt, Rasmus, 1 dec. 2021, I: Remote Sensing. 13, 24, 20 s., 5031.

**Contrasting responses of woody and herbaceous vegetation to altered rainfall characteristics in the Sahel**

Verbruggen, Wim, Schurgers, Guy, Horion, Stéphanie, Ardö, J., Bernardino, P. N., Cappelaere, B., Demarty, J., Fensholt, Rasmus, Kergoat, L., Sibret, T., Tagesson, Håkan Torbern & Verbeeck, H., 7 jan. 2021, I: Biogeosciences. 18, 1, s. 77-93 17 s.

**A physiology-based Earth observation model indicates stagnation in the global gross primary production during recent decades**

Tagesson, Håkan Torbern, Tian, F., Schurgers, Guy, Horion, Stéphanie, Scholes, R., Ahlström, A., Ardö, J., Moreno, A., Madani, N., Olin, S. & Fensholt, Rasmus, 2021, I: Global Change Biology. 27, 4, s. 836-854 19 s.

**Abrupt Change in Dryland Ecosystem Functioning: Recent Advances and Lessons Learnt from the U-TURN Project**

Horion, Stéphanie, Verbruggen, Wim, Bernardino, P., Souverijns, N., de Keersmaecker, W., Fensholt, Rasmus, Schurgers, Guy, van de Kerchove, R., Verbeeck, H., Verbesselt, J. & Somers, B., 2021, *IGARSS 2021 - 2021 IEEE International Geoscience and Remote Sensing Symposium, Proceedings*. Institute of Electrical and Electronics Engineers Inc., s. 1394-1397 4 s. (International Geoscience and Remote Sensing Symposium (IGARSS), Bind 2021-July).

**MAPPING SAHELIAN ECOSYSTEM VULNERABILITY TO VEGETATION COLLAPSE: VEGETATION MODEL OPTIMIZATION**

Verbruggen, Wim, Verbeeck, H., Horion, Stéphanie, Souverijns, N. & Schurgers, Guy, 2021, s. 1591-1593. 3 s.

**Sensitivity of Gross Primary Production in Tropical Savannas to Drought Timescales**

Abdi, A., Horion, Stéphanie & Fensholt, Rasmus, 2021. 1 s.

**Temporal changes and dynamics of dryland ecosystem variables and their relation to aridity**

Abel, Christin, Horion, Stéphanie, Kovács, Gyula Mate, Wang, M., Wigneron, J., Fensholt, Rasmus & Berdugo, M., 2021. 1 s.

**The human–environment nexus and vegetation–rainfall sensitivity in tropical drylands**

Abel, Christin, Horion, Stéphanie, Tagesson, Håkan Torbern, De Keersmaecker, W., Seddon, A. W. R., Abdi, A. M. & Fensholt, Rasmus, 2021, I: Nature Sustainability. 4, s. 25–32 8 s.

**An updated assessment of Ireland's wave energy resource using satellite data assimilation and a revised wave period ratio**

O'connell, R., De Montera, L., Peters, J. L. & Horion, Stéphanie, 1 nov. 2020, I: Renewable Energy. 160, s. 1431-1444 14 s.

### **Thirty Years of Land Cover and Fraction Cover Changes over the Sudano-Sahel Using Landsat Time Series**

Souverijns, N., Buchhorn, M., Horion, Stéphanie, Fensholt, Rasmus, Verbeeck, H., Verbesselt, J., Herold, M., Tsendbazar, N., Bernardino, P. N., Somers, B. & Van De Kerchove, R., 1 nov. 2020, I: *Remote Sensing*. 12, 22, 21 s., 3817.

### **Supplementary material to "Contrasting responses of woody and herbaceous vegetation to altered rainfall characteristics in the Sahel"**

Verbruggen, Wim, Schurgers, Guy, Horion, Stéphanie, Ardö, J., Bernardino, P. N., Cappelaere, B., Demarty, J., Fensholt, Rasmus, Kergoat, L., Sibret, T., Tagesson, Håkan Torbern & Verbeeck, H., 2 jul. 2020

### **Global-scale characterization of turning points in arid and semi-arid ecosystems functioning**

Bernardino, P., De Keersmaecker, W., Fensholt, Rasmus, Verbesselt, J., Somers, B. & Horion, Stéphanie, 1 maj 2020. 2 s.

### **How global dryland vegetation dynamics relate to changing climatic conditions and anthropogenic dynamics**

Abel, Christin, Horion, Stéphanie, Tagesson, Håkan Torbern, De Keersmaecker, W., Seddon, A. W. R., Abdi, A. M. & Fensholt, Rasmus, 1 maj 2020, I: 22nd EGU General Assembly, held online 4-8 May, 2020. 22, 7723.

### **Forest management in southern China generates short term extensive carbon sequestration**

Tong, Xiaowei, Brandt, Martin Stefan, Yue, Y., Ciais, P., Jepsen, Martin Rudbeck, Penuelas, J., Wigneron, J. P., Xiao, X., Song, X. P., Horion, Stéphanie, Rasmussen, Kjeld, Saatchi, S., Fan, L., Wang, K., Zhang, B., Chen, Z., Wang, Y., Li, X. & Fensholt, Rasmus, 2020, I: *Nature Communications*. 11, 1, 10 s., 129.

### **Global-scale characterization of turning points in arid and semi-arid ecosystem functioning**

Bernardino, P. N., De Keersmaecker, W., Fensholt, Rasmus, Verbesselt, J., Somers, B. & Horion, Stéphanie, 2020, I: *Global Ecology and Biogeography*. 29, 7, s. 1230-1245 16 s.

### **Recent divergence in the contributions of tropical and boreal forests to the terrestrial carbon sink**

Tagesson, Håkan Torbern, Schurgers, Guy, Horion, Stéphanie, Ciais, P., Tian, F., Brandt, Martin Stefan, Ahlström, A., Wigneron, J., Ardö, J., Olin, S., Fan, L., Wu, Z. & Fensholt, Rasmus, 2020, I: *Nature Ecology & Evolution*. 4, s. 202-209 8 s.

### **Uncovering Dryland Woody Dynamics Using Optical, Microwave, and Field Data—Prolonged Above-Average Rainfall Paradoxically Contributes to Woody Plant Die-Off in the Western Sahel**

Bernardino, P. N., Brandt, Martin Stefan, De Keersmaecker, W., Horion, Stéphanie, Fensholt, Rasmus, Storms, I., Wigneron, J., Verbesselt, J. & Somers, B., 2020, I: *Remote Sensing*. 12, 14, 21 s., 2332.

### **Understanding Turning Points in Dryland Ecosystem Functioning (U-TURN)**

Horion, Stéphanie, Bernardino, P., De Keersmaecker, W., Fensholt, Rasmus, Lhermitte, S., Schurgers, Guy, Souverijns, N., Van De Kerchove, R., Verbeeck, H., Verbesselt, J., Verbruggen, Wim & Somers, B., 2020.

### **Ecological engineering projects increased vegetation cover, production, and biomass in semiarid and subhumid Northern China**

Niu, Q., Xiao, X., Zhang, Y., Qin, Y., Dang, X., Wang, J., Zou, Z., Doughty, R. B., Brandt, Martin Stefan, Tong, Xiaowei, Horion, Stéphanie, Fensholt, Rasmus, Chen, C., Myneni, R. B., Xu, W., Di, G. & Zhou, X., 2019, I: *Land Degradation & Development*. 30, 13, s. 1620-1631 12 s.

### **Mapping European ecosystem change types in response to land-use change, extreme climate events, and land degradation**

Horion, Stéphanie, Ivits, E., De Keersmaecker, W., Tagesson, Håkan Torbern, Vogt, J. & Fensholt, Rasmus, 2019, I: *Land Degradation and Development*. 30, 8, s. 951-963 13 s.

### **Towards improved remote sensing based monitoring of dryland ecosystem functioning using sequential linear regression slopes (SeRGS)**

Abel, Christin, Horion, Stéphanie, Tagesson, Håkan Torbern, Brandt, Martin Stefan & Fensholt, Rasmus, 2019, I: *Remote Sensing of Environment*. 224, s. 317-332 16 s.

**Disaggregation of SMOS soil moisture over West Africa using the Temperature and Vegetation Dryness Index based on SEVIRI land surface parameters**

Tagesson, Håkan Torbern, Horion, Stéphanie, Nieto, H., Fornies, V. Z., Gonzalez, G. M., Bulgin, C. E., Ghent, D. & Fensholt, Rasmus, 2018, I: *Remote Sensing of Environment*. 206, s. 424-441 18 s.

**Drylands under pressure: vegetation modeling of dryland ecosystems in the Sahel**

Verbruggen, Wim, Schurgers, Guy, Combe, M., Brugnara, M. D. P. E., Tagesson, Håkan Torbern, Fensholt, Rasmus, Horion, Stéphanie, Ardö, J., Cappelaere, B., Demarty, J., Kergoat, L., Sibret, T. & Verbeeck, H., 2018, I: *Geophysical Research Abstracts*. 20, 13042.

**Increased vegetation growth and carbon stock in China karst via ecological engineering**

Tong, X., Brandt, Martin Stefan, Yue, Y., Horion, Stéphanie, Wang, K., Keersmaecker, W. D., Tian, F., Schurgers, Guy, Xiao, X., Luo, Y., Chen, C., Myneni, R., Shi, Z., Chen, H. & Fensholt, Rasmus, 2018, I: *Nature Sustainability*. 1, 1, s. 44-50 7 s.

**Massively-parallel break detection for satellite data**

von Mehren, M., Gieseke, Fabian Cristian, Verbesselt, J., Rosca, S., Horion, Stéphanie & Zeileis, A., 2018, *SSDBM '18 Proceedings of the 30th International Conference on Scientific and Statistical Database Management*. Association for Computing Machinery, Bind Part F137913. 10 s. 5

**A new method for large-scale assessment of change in ecosystem functioning in relation to land degradation**

Horion, Stéphanie, Ivits, E., Verzandvoort, S. & Fensholt, Rasmus, 2017, *EGU2017, proceedings from the conference held 23-28 April, 2017 in Vienna*. s. 13317 1 s. (Proceedings of the 19th EGU General Assembly (EGU2017)).

**Modelling spatial and temporal dynamics of gross primary production in the Sahel from earth-observation-based photosynthetic capacity and quantum efficiency**

Tagesson, Håkan Torbern, Ardoe, J., Cappelaere, B., Kergoat, L., Abdi, A., Horion, Stéphanie & Fensholt, Rasmus, 2017, I: *Biogeosciences*. 14, 5, s. 1333-1348 16 s.

**Assessing European ecosystem stability to drought in the vegetation growing season**

Ivits, E., Horion, Stéphanie, Erhard, M. & Fensholt, Rasmus, sep. 2016, I: *Global Ecology and Biogeography*. 25, 9, s. 1131-1143

**Environmental change in the Sahel: reconciling contrasting evidence and interpretations**

Rasmussen, Kjeld, D'haen, S. A. L., Fensholt, Rasmus, Fog, Bjarne, Horion, Stéphanie, Nielsen, J. O., Rasmussen, Laura Vang & Reenberg, A., 2016, I: *Regional Environmental Change*. 16, 3, s. 673-680

**Revealing turning points in ecosystem functioning over the Northern Eurasian agricultural frontier**

Horion, Stéphanie, Prishchepov, Alexander V., Verbesselt, J., de Beurs, K., Tagesson, Håkan Torbern & Fensholt, Rasmus, 2016, I: *Global Change Biology*. 22, 8, s. 2801-2817

**Spatiotemporal variability in carbon exchange fluxes across the Sahel**

Tagesson, Håkan Torbern, Fensholt, Rasmus, Cappelaere, B., Mougouin, E., Horion, Stéphanie, Kergoat, L., Nieto Solana, H., Mbow, C., Ehammer, A., Demarty, J. & Ardö, J., 2016, I: *Agricultural and Forest Meteorology*. 226-227, s. 108-118 11 s.

**Very high CO<sub>2</sub> exchange fluxes at the peak of the rainy season in a West African grazed semi-arid savanna ecosystem**

Tagesson, Håkan Torbern, Ardoe, J., Guiro, I., Cropley, F., Mbow, C., Horion, Stéphanie, Ehammer, A., Mougouin, E., Delon, C., Galy-Lacaux, C. & Fensholt, Rasmus, 2016, I: *Geografisk Tidsskrift/Danish Journal of Geography*. 116, 2, s. 93-109

**Global-scale mapping of changes in ecosystem functioning from earth observation-based trends in total and recurrent vegetation**

Fensholt, Rasmus, Horion, Stéphanie, Tagesson, Håkan Torbern, Ehammer, A., Ivits, E. & Rasmussen, Kjeld, sep. 2015, I: *Global Ecology and Biogeography*. 24, 9, s. 1003-1017

**Dynamics in carbon exchange fluxes for a grazed semi-arid savanna ecosystem in West Africa**

Tagesson, Håkan Torbern, Fensholt, Rasmus, Cropley, F., Guiro, I., Horion, Stéphanie, Ehammer, A. & Ardö, J., 1 jul. 2015, I: *Agriculture, Ecosystems and Environment*. 205, s. 15-24 10 s.

**An assessment of actual evapotranspiration and soil water deficit in agricultural regions in Europe**

Kurnik, B., Kajfež-Bogataj, L. & Horion, Stéphanie, 2015, I: *International Journal of Climatology*. 35, 9, s. 2451–2471 21 s.

**Assessing drivers of vegetation changes in drylands from time series of earth observation data**

Fensholt, Rasmus, Horion, Stéphanie, Tagesson, Håkan Torbern, Ehammer, A., Grogan, K., Tian, F., Huber, S., Verbesselt, J., Prince, S. D., Tucker, C. J. & Rasmussen, Kjeld, 2015, *Remote Sensing and Digital Image Processing*. Kuenzer, C., Dech, S. & Wagner, W. (red.). Cham: Springer, s. 183-202 20 s. (Remote Sensing and Digital Image Processing, Bind 22).

**Assessment of vegetation trends in drylands from time series of earth observation data**

Fensholt, Rasmus, Horion, Stéphanie, Tagesson, Håkan Torbern, Ehammer, A., Grogan, K., Tian, F., Huber, S., Verbesselt, J., Prince, S. D., Tucker, C. J. & Rasmussen, Kjeld, 2015, *Remote Sensing and Digital Image Processing*. Kuenzer, C., Dech, S. & Wagner, W. (red.). Springer, s. 159-182 24 s. (Remote Sensing and Digital Image Processing, Bind 22).

**Deriving seasonal dynamics in ecosystem properties of semi-arid savanna grasslands from in situ-based hyperspectral reflectance**

Tagesson, Håkan Torbern, Fensholt, Rasmus, Huber, S., Horion, Stéphanie, Guiro, I., Ehammer, A. & Ardö, J., 2015, I: *Biogeosciences*. 12, 15, s. 4621-4635

**Ecosystem properties of semiarid savanna grassland in West Africa and its relationship with environmental variability**

Tagesson, Håkan Torbern, Fensholt, Rasmus, Guiro, I., Rasmussen, M. O., Huber, S., Mbow, C., Garcia, M., Horion, Stéphanie, Sandholt, I., Holm-Rasmussen, B., Göttsche, F. M., Ridler, M., Olén, N., Olsen, J. L., Ehammer, A., Madsen, M., Olesen, F. S. & Ardö, J., 2015, I: *Global Change Biology*. 21, 1, s. 250–264

**Evaluating temporal consistency of long-term global NDVI datasets for trend analysis**

Tian, F., Fensholt, Rasmus, Verbesselt, J., Grogan, K., Horion, Stéphanie & Wang, Y., 2015, I: *Remote Sensing of Environment*. 163, s. 326-340

**Global Ecosystem Response Types Derived from the Standardized Precipitation Evapotranspiration Index and FPAR3g Series**

Ivits, E., Horion, Stéphanie, Fensholt, Rasmus & Cherlet, M., 1 maj 2014, I: *Remote Sensing*. 6, 5, s. 4266-4288 23 s.

**Drought footprint on European ecosystems between 1999 and 2010 assessed by remotely sensed vegetation phenology and productivity**

Ivits, E., Horion, Stéphanie, Fensholt, Rasmus & Cherlet, M., 2014, I: *Global Change Biology*. 20, 2, s. 581–593

**Using earth observation-based dry season NDVI trends for assessment of changes in tree cover in the Sahel**

Horion, Stéphanie, Fensholt, Rasmus, Tagesson, Håkan Torbern & Ehammer, A., 2014, I: *International Journal of Remote Sensing*. 35, 7, s. 2493-2515

**A multitemporal and non-parametric approach for assessing the impacts of drought on vegetation greenness: a case study for Latin America**

Carrao, H., Sepulcre, G., Horion, Stéphanie & Barbosa, P., 2013, I: *E A R Se L eProceedings*. 12, 1, s. 8-24 17 s.

**Assessing land degradation/recovery in the African Sahel from long-term earth observation based primary productivity and precipitation relationships**

Fensholt, Rasmus, Rasmussen, Kjeld, Kaspersen, P. S., Huber, S., Horion, Stéphanie & Swinnen, E., 2013, I: *Remote Sensing*. 5, 2, s. 664-686 23 s.

**Global biogeographical pattern of ecosystem functional types derived from earth observation data**

Ivits, E., Cherlet, M., Horion, Stéphanie & Fensholt, Rasmus, 2013, I: Remote Sensing. 5, 7, s. 3305-3330 26 s.

**Studying interactions between climate variability and vegetation dynamic using a phenology based approach**

Horion, Stéphanie, Cornet, Y., Erpicum, M. & Tychon, B., 2013, I: International Journal of Applied Earth Observation and Geoinformation. 20, s. 20-32 13 s.

**Development of a combined drought indicator to detect agricultural drought in Europe**

Sepulcre, G., Horion, Stéphanie, Singleton, A., Carrao, H. & Vogt, J., 2012, I: Natural Hazards and Earth System Sciences. 12, 11, s. 3519-3531 13 s.

**JRC experience on the development of drought information systems: Europe, Africa and Latin America**

Horion, Stéphanie, Carrão, H., Singleton, A., Barbosa, P. & Vogt, J., 2012, European Commission - Joint Research Centre - Institute for Environment and Sustainability . 65 s. (JRC Scientific and technical reports, Bind EUR 25235 EN).

**Satellite remote sensing for soil mapping in Africa: an overview**

Dewitte, O., Jones, A., El-belhiti, H., Horion, Stéphanie & Montanarella, L., 2012, I: Progress in Physical Geography. 36, 4, s. 514-538

**Understanding the explosion of cholera outbreaks in the Great Lake Region of Africa**

Bompangue Nkoko, D., Giraudoux, P., Plisnier, P., Mutombo, A., Piarroux, M., Sudre, B., Horion, Stéphanie, Muyembe Tamfum, J., Kebela Ilunga, B. & Piarroux, R., nov. 2011, I: Emerging Infectious Diseases (Print Edition). 17, 11

**Dynamics of cholera outbreaks in great Lakes region of Africa, 1978-2008**

Nkoko, D. B., Giraudoux, P., Plisnier, P. D., Tinda, A. M., Piarroux, M., Sudre, B., Horion, Stéphanie, Tamfum, J. J. M., Ilunga, B. K. & Piarroux, R., 2011, I: Emerging Infectious Diseases (Print Edition). 17, 11, s. 2026-2034 9 s.

**Improved drought monitoring in the Greater Horn of Africa by combining meteorological and remote sensing based indicators**

Horion, Stéphanie, Kurnik, B., Barbosa, P. & Vogt, J., 1 maj 2010, I: EGU General Assembly 2010, held 2-7 May, 2010 in Vienna, Austria, p.11567. 12, 11567.

**Inventory and monitoring options of peatlands at regional scale**

Gardi, C., Sommer, S., Seep, K. & Horion, Stéphanie, 1 maj 2010, I: EGU General Assembly 2010, held 2-7 May, 2010 in Vienna, Austria, p.14372. 12, s. 14372

**Modelling climate control on cropland and grassland development using phenologically tuned variables**

Horion, Stéphanie, Tychon, B. & Cornet, Y., 1 maj 2010, I: EGU General Assembly 2010, held 2-7 May, 2010 in Vienna, Austria, p.11680. 12, 11680.

**Optimized extraction of daily bio-optical time series derived from MODIS/Aqua imagery for Lake Tanganyika, Africa**

Horion, Stéphanie, Bergamino, N., Stenuite, S., Descy, J., Plisnier, P., Loisel, S. A. & Cornet, Y., 15 apr. 2010, I: Remote Sensing of Environment. 114, 4, s. 781-791 11 s.

**Spatio-temporal dynamics of phytoplankton and primary production in Lake Tanganyika using a MODIS based bio-optical time series**

Bergamino, N., Horion, Stéphanie, Stenuite, S., Cornet, Y., Loisel, S. A., Plisnier, P. & Descy, J. P., 2010, I: Remote Sensing of Environment. 114, 4, s. 772-780 9 s.

**Limnological variability and pelagic fish abundance (*Stolothrissa tanganyicae* and *Lates stappersii*) in Lake Tanganyika**

Plisnier, P. D., Mgana, H., Kimirei, H., Chande, A., Makasa, L., Chimanga, J., Zulu, F., Horion, Stéphanie, Bergamino, N., Naithani, J., Deleersnijder, E., Andre, L., Descy, J. P. & Cornet, Y., 2009, I: Hydrobiologia. 625

**Spatial aggregation of low resolution satellite data for the monitoring of vegetation response to climatic stresses: Analysis of the spatial heterogeneity of aggregated entities**  
Horion, Stéphanie, Eerens, H., Tychon, B. & Cornet, Y., 1 jul. 2007, I: European Space Agency, (Special Publication) ESA SP. SP-636

## **Aktiviteter**

### **Member of PhD committee, Lund University**

Horion, Stéphanie (Eksaminator)  
31 mar. 2023

### **Chair of PhD assessment committee, University of Copenhagen**

Horion, Stéphanie (Eksaminator)  
21 feb. 2023

### **MSc examination, University of Cape Town, Faculty of Science**

Horion, Stéphanie (Eksaminator)  
17 feb. 2023

### **ETH Zürich, Distance Exam, observer**

Horion, Stéphanie (Eksaminator)  
9 feb. 2023

### **Chair of PhD assessment committee, University of Copenhagen**

Horion, Stéphanie (Eksaminator)  
10 maj 2022

### **European Geophysical Union (Ekstern organisation)**

Horion, Stéphanie (Medlem)  
1 jan. 2021 → 31 dec. 2080

### **Organization of Remote sensing seminar, IGN, University of Copenhagen**

Horion, Stéphanie (Deltager)  
1 jan. 2020 → 31 dec. 2023

### **Land Degradation and Development (Tidsskrift)**

Horion, Stéphanie (Redaktør)  
2018 → ...

## **Priser**

### **EGU Young Scientist Outstanding Poster Paper (YSOPP)**

Horion, Stéphanie (Modtager), 2010

### **EMS Tromp Award 2017**

Horion, Stéphanie (Modtager), jul. 2017

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