Pontus Olofsson

Position: *Research Assistant Professor/Lecturer*
Affiliation: *Department of Earth & Environment, Boston University*
Address, work: *685 Commonwealth Avenue, Boston, MA 02215, USA*
Phone: *617-353-9374 (cell: 617-510-9463)*
E-mail: *olofsson@bu.edu*
Citizenship: *Citizen of Sweden; Permanent Resident of the United States*

Education

2007 PhD in Physical Geography | Department of Physical Geography and Ecosystem Science, Lund University, Sweden

2002-2007 Graduate studies in Physical Geography and Mathematical Statistics at Lund University, Sweden

2000 MSc in Physical Geography | Department of Physical Geography and Ecosystem Science, Lund University, Sweden

1996-2000 Undergraduate studies in Physical Geography, Mathematical Statistics, Mathematics and Film Studies at Lund University, Sweden

Professional Appointments

2015-2016, Consultant | High Carbon Stock Study of the Sustainable Palm Oil Manifesto (Sime Darby Plantation Sdn Bhd, Kuala Lumpur, Malaysia)

2012- Present, Lecturer | Department of Earth & Environment, Boston University

2011- Present, Research Assistant Professor | Department of Earth & Environment, Boston University

2007-2011, Postdoctoral Research Associate | Department of Earth & Environment, Boston University

2007, Postdoctoral Research Associate | Department of Physical Geography and Ecosystem Science, Lund University

2002-2007, PhD student | Department of Physical Geography and Ecosystem Science, Lund University

2001-2002, Consultant/Software Developer | T-Kartor Sweden AB (non-academic)

Peer-Reviewed Publications (see also Google Scholar Profile)

Zhu, Z., Fu, Y., Woodcock, C. E., Vogelmann, J. E., **Olofsson, P.**, Holden, C. E., Wang, M., Dai, S., and Yu, Y. (2015). Including Land Cover Change in Vegetation Trend Analysis Based on All Available Landsat 5, 7, and 8 Images: A Greening Guangzhou in the 21st Century. *Remote Sensing of Environment* (in review)

Olofsson, P., Foody, G. M., Herold, M., Stehman, S. V., Woodcock, C. E. and Wulder, M. A. (2014). Good Practices for Assessing Accuracy and Estimating Area of Land Change. *Remote Sensing of Environment,* 148:42-57. [***Cited 63 times since May 2014 or 4 citations per month according to Google Scholar***]

Jeon, S. B., **Olofsson, P.** and Woodcock, C.E. (2014). Land use change in New England – reversing the forest transition. *Journal of Land Use Science*, 9:105-130

Erb, K.-E., Kastner, T., Luyssaert, S., Houghton, R. A., Kuemmerle, T., **Olofsson, P.** and Haberl, H. (2013). Bias in the attribution of forest carbon sinks. *Nature Climate Change*, 3:854-856

Xin, Q., **Olofsson, P.**, Woodcock, C. E. and Zhu, Z. (2013) Fusion of MODIS and Landsat data for near real-time monitoring of forest disturbance. *Remote Sensing of Environment*, 135:234-247

Olofsson, P., Foody, G. M., Stehman, S. V. and Woodcock, C. E. (2013). Making better use of accuracy data in land change studies: estimating accuracy and area and quantifying uncertainty using stratified estimation. *Remote Sensing of Environment*, 129:122-131 [***Cited 103 times since February 2013 or 3 citations per month according to Google Scholar***]

Zhu, Z., Woodcock, C. E. and **Olofsson, P.** (2012). Continuous monitoring of forest disturbance using all available Landsat imagery. *Remote Sensing of Environment* 122:75–91

Stehman, S. V., **Olofsson, P.**, Woodcock, C. E., Herold, M. and Friedl, M. A. (2012). A global land cover validation dataset, II: Augmenting a stratified sampling design to estimate accuracy by region and land-cover class. *International Journal of Remote Sensing*, 33:6975-6993

Olofsson, P., Stehman, S. V., Woodcock, C. E., Sulla-Menashe, D., Sibley, A. M., Newell, J. D., Friedl, M. A. and Herold, M. (2012). A global land cover validation dataset, I: Fundamental design principles. *International Journal of Remote Sensing*, 33:5768-5788

Feng, Z., Strahler, A. H., Schaaf, C. L., Yao, T., Yang, X., Wang, Z,. Schull, M. A., Román, M. O,. Woodcock, C. E., **Olofsson, P.**, Ni-Meister, W,. Jupp, D. L. B., Lovell, J. L., Culvenor, D. S. and Newnham, G. J. (2012). Measuring gap fraction, element clumping index and LAI in

Sierra Forest stands using a full-waveform ground-based lidar. *Remote Sensing of Environment*, 125:73-79

Olofsson, P., Kuemmerle, T., Griffiths, P., Knorn, J., Baccini, A., Gancz, V., Bludjea, V., Houghton, R. A., Abrudan, I. V. and Woodcock, C. E. (2011). Carbon implications of the forest restitution in post-socialist Romania. *Environmental Research Letters* 6:045202.

Kuemmerle, T., **Olofsson, P.**, Chaskovskyy, O., Baumann, M., Ostapowicz, K., Woodcock, C. E., Houghton, R. A., Hostert, P., Keeton, W. S. and Radeloff, V. C. (2011). Post-Soviet farmland abandonment and carbon sequestration potential in Western Ukraine. *Global Change Biology* 17:1335-1349.

Olofsson, P., Torchinava, P., Woodcock, C. E., Baccini, A., Houghton, R. A., Ozdogan, M., Zhao, F. and Yang, X. (2010). Implications of Land Use Change on the National Terrestrial Carbon Budget of Georgia. *Carbon Balance and Management* 5:4.

Olofsson, P., Lagergren, F., Lindroth, A., Lindström, J., Klemedtsson, L., Kutsch, W. and Eklundh, L. (2008). Towards operational remote sensing of forest carbon balance across Northern Europe. *Biogeosciences*, 5:817-832.

Olofsson, P. and Eklundh, L. (2007). Estimation of absorbed PAR across Scandinavia from satellite measurements. Part II: Modeling and evaluating the fractional absorption. *Remote Sensing of Environment*, 110:240-251.

Olofsson, P., Van Laake, P. E. and Eklundh, L. (2007). Estimation of absorbed PAR across Scandinavia from satellite measurements. Part I: Incident PAR. *Remote Sensing of Environment*, 110:252-261.

Olofsson, P., Eklundh, L., Lagergren, F., Jönsson, P. and Lindroth, A. (2007). Estimating net primary production for Scandinavian forests using data from Terra/MODIS. *Advances in Space Research*, 39:125-130.

Other Publications

Peneva-Reed, E., Veronica Gálmez, V., & **Olofsson, P.** (2014), *Comparative Evaluation of Two Methodologies for Forest Monitoring in Peru*. SilvaCarbon, Washington D.C., USA.

Penman, P., Baltuck, M., Green, C., **Olofsson, P.,** Raison, J., and Woodcock, C. E. (2013). *Integrating remote-sensing and ground-based observations for estimation of emissions and removals of greenhouse gases in forests: Methods and Guidance from the Global Forest Observations Initiative*. Group on Earth Observations, Geneva, Switzerland.

Olofsson, P., Woodcock, C. E., Baccini, A., *et al.* (2009). The effects of land use change on terrestrial carbon dynamics in the Black Sea Region. In P.Y. Groisman and S. Ivanov

(Eds) *Regional Aspects of Climate-Terrestrial-Hydrologic Interactions in Non-boreal Eastern Europe* pp. 175-183.

Olofsson, P. (2007). Remote Sensing of Carbon Balance across Scandinavian Forests. Doctoral dissertation, Lund University.

Olofsson, P. and Stenström, R. (2000). Estimation of Leaf Area Index in Southern Sweden with Optical Modelling and a Landsat 7 ETM+ Scene. Master Thesis, Lund University.

Active Grants

PI: *Cooperative Agreement*. US Geological Survey, $140,000

PI: *Course Innovation Grant.* Boston University, $2,000

PI: *Support for SilvaCarbon.* US Department of the Interior, US Geological Survey Interpersonal Agreement, $280,772

PI: *A prototype MRV system for a subregion in Colombia compliant with IPCC Approach 3 for securing activity data***.** USDA Forest Service International Programs, $176,679

Co-I (PI: J. Kellndorfer)**:** *Time Series Fusion of Optical and Radar Imagery for Improved Monitoring of Activity Data, and Uncertainty Analysis of Emission Factors for Estimation of Forest Carbon Flux.* NASA Carbon Monitoring System, $894,735

Co-I (PI: C. E. Woodcock)**:** *Better Use of the Landsat Temporal Domain: Monitoring Land Cover Type, Condition, and Change.* USGS Landsat Science Team, $1,017,798

Co-I (PI: C. E. Woodcock)**:** *Near real-time monitoring of land cover disturbance by fusion of MODIS and Landsat data*. NASA Science of Terra and Aqua, $561,960

Collaborator (PI: V. C. Radeloff)**:** *Synthesis of studies on institutional change and LCLUC effects on carbon, biodiversity, and agriculture after the collapse of the Soviet Union.* NASA Land Cover and Land Use Change Program, $1,100,000

Teaching Experience

Lecturer, full university courses

Boston University, GE 302 *Remote Sensing of the Environment* (fall semester 2015, ongoing)

Boston University, GE 302 *Remote Sensing of the Environment* (fall semester 2014; **4.63/5** "Overall rating of instructor")

Boston University, GE 302 *Remote Sensing of the Environment* (fall semester 2013;

4.14/5 "Overall rating of instructor")

Boston University, GE 302 *Remote Sensing of the Environment* (fall semester 2012; **4.35/5** "Overall rating of instructor")

Lecturer, short courses

START/GOFC-GOLD, Capacity Building Workshop: *Monitoring Land Use Change with Remote Sensing* (2 weeks, July/August 2015)

START/GOFC-GOLD, Capacity Building Workshop: *Monitoring Land Use Change with Remote Sensing* (2 weeks, September 2014)

Peru, FCMC Regional Capacity Building Workshop: *Understanding Accuracy and Area Estimation* (1 week, August, 2014)

Boston University/SilvaCarbon, Capacity Building Workshop: *Monitoring Land Use Change with Remote Sensing in Support of Carbon Reporting* (2 weeks, August 2013)

Boston University/SilvaCarbon, Capacity Building Workshop: *Monitoring Land Use Change with Remote Sensing in Support of Carbon Reporting* (2 weeks, August 2012)

START/GOFC-GOLD, Capacity Building Workshop: *Monitoring Land Use Change with Remote Sensing* (2 weeks, May 2012)

Guest Lecturer

Boston University, GE 640/440 *Digital Image Processing* (2008-present)
Boston University, GE 110 *Our Changing Planet: The Perspective from Space* (fall 2011)
Boston University, GE 302 *Remote Sensing of the Environment* (fall 2008)
Lund University, NGE 609 *Remote Sensing and the Global Biogeosphere System* (2002-06)
Lund University, FPO 026 *Intelligence Analysis* (2005)

Teaching Assistant, 2002-2007

Lund University, NGE 605 *Remote sensing for Landscape Studies*
Lund University, NGE 603 *Physical Geography, Fundamental Theory and Methods*
Lund University, NGE 601 *Physical Geography, Introduction to the Global Environment*
Lund University, GEG 451 *Geographical Information Systems*
Lund University, VFT 031 *Geographical Information Systems*
Lund University, VFT 051 *Remote Sensing*
Lund University, TEK 270 *Geomatics*

Advising

Postdoctoral Research Associate

Stephan Estel

Graduate Student

Paulo Arevalo, PhD program; expected graduation 2018

Other

Co-founder of BEEODA, Boston Education in Earth Observation Data Analysis (http://beeoda.org)
Member of the *USGS/NASA Landsat Science Team*
Member of the *NASA Carbon Monitoring System Science Team*
Co-lead of the *CEOS* (Committee on Earth Observation Satellites) *Working Group on Calibration and Validation, Land Cover Focus Area*

Invited Journal Reviewer

Advances in Space Research
AMBIO, A journal of the Human Environment
Canadian Journal of Remote Sensing
Climate Change
Environmental Modelling & Software
GIScience & Remote Sensing
IEEE Transactions on Geoscience and Remote Sensing
International Forestry Review
International Journal of Geographical Information Science
International Journal of Remote Sensing
Landscape Ecology
Landscape Research
Remote Sensing
Remote Sensing of Environment
Science of the Total Environment
Spatial Statistics
Urban Studies

Invited Presentations

BEEODA: a suite of open-source software and educational materials for processing Earth Observation data. The United States Department of the Interior. Washington DC, 2015

Accuracy and Area Estimation. Forest Management Bureau of the Philippine Government. Manilla, Philippines, 2015

Two MODIS-based approaches for monitoring forest change in near real-time. 12th Regional Workshop on Forest Monitoring – GEO GFOI Americas Capacity Building. Sao Jose dos Campos, Brazil, 2015

Stratified estimation of area. 11th Regional Workshop on Forest Monitoring – GEO GFOI Americas Capacity Building. Bogota, Colombia, 2014

Uncertainty in Activity Data, Emission Factors and Carbon Emissions. Second Regional Workshop on Remote Sensing for Forest Monitoring – Technical SE Asia Initiative of GFOI. GEO GFOI, Kathmandu, Nepal, 2014

Time series-based monitoring of activity data. First Regional Workshop on Remote Sensing for Forest Monitoring – Technical Central Africa Initiative of GFOI. GEO GFOI, Douala, Cameroon, 2014

Time series-based monitoring of activity data. First Regional Workshop on Remote Sensing for Forest Monitoring – Technical SE Asia Initiative of GFOI. GEO GFOI, Chiang Mai, Thailand, 2014.

Good Practices for Estimating Accuracy and Area of Activity Data. Comisión Nacional Forestal. Mexico City, Mexico, 2013

Uncertainty Analysis. Medición de la deforestacion a través de sensores remotos. Ministry of Environment of Peru. Lima, Peru, 2013

Uncertainty in Map Products. Seventh Regional Workshop on Forest Monitoring – GEO GFOI Americas Capacity Building. Mérida, Mexico, 2013

Making better use of accuracy data in land change studies: estimating accuracy and area and quantifying uncertainty. ForestSAT, Corvallis, OR, 2012

Estimating effects of forest change on terrestrial carbon flux: case studies from the former Soviet Union. Sixth Regional Workshop on Forest Monitoring – GEO GFOI Americas Capacity Building. San José, Costa Rica, 2012

Estimating accuracy and area and quantifying uncertainty when mapping land change. Fifth Regional Workshop on Forest Monitoring – GEO GFOI Americas Capacity Building. Quito, Ecuador, 2012

Effects of uncertainty in change estimates on models of terrestrial carbon flux. A Workshop on

Uncertainty in Estimates of Forest Change, Silvacarbon. Washington, DC, 2011

Effects of Land Use Change on the Carbon Budget of the Black Sea Region. Seminar. Boston University, Boston, MA, 2010

Accuracy Assessment of Global Land Cover Products. Seminar. University of Wisconsin-Madison, Madison, WI, 2009

Remote Sensing of Carbon Balance across Scandinavian Forests. Seminar. Boston University, Boston, MA, 2007

Conference Presentations and Proceedings

More than twenty conference presentations and proceedings including at the NASA Scientific Workshops, the COSPAR Scientific Assemblies and the AAG Annual Meetings.