

## **Bart (A.J.) Wickel**

*SEI Senior Scientist*

### **Peer reviewed journal articles and book chapters (selected)**

Colditz, R.R., Troche Souza, C., Vazquez, B., Wickel, A.J., Ressler, R.A. (2018). Analysis of optimal thresholds for identification of open water using MODIS-derived spectral indices for two coastal wetland systems in Mexico. *International Journal of Applied Earth Observations and Geoinformation* (70), p13-24. doi: [10.1016/j.jag.2018.03.008](https://doi.org/10.1016/j.jag.2018.03.008).

Angarita, H., Wickel, A.J., Sieber, J., Delgado, J. and Purkey, D. (2017). Large scale impacts of hydropower development and climate change on the Mompos wetlands, Colombia. *Hydrology and Earth System Sciences* 544. doi: [10.5194/hess-2017-544](https://doi.org/10.5194/hess-2017-544)

Matthews, J.H., Wickel, A.J. and Freeman, S. (2011). Converging streams in climate-relevant conservation: water, infrastructure, and institutions. *PLOS Biology* 9(9): e1001159. doi: [10.1371/journal.pbio.1001159](https://doi.org/10.1371/journal.pbio.1001159).

Asbjornsen, H. and Wickel, A.J. (2009). Changing Fire Regimes in Tropical Montane Cloud Forests: A Global Synthesis. In: *Fire Ecology of Tropical Ecosystems*, M. Cochrane, editor.

Matthews, J.H., Aldous, A. and Wickel, A.J. (2009). Managing Water in a Shifting Climate. *Journal of the AWWA* August 2009: 28-29/99. doi: [10.1002/j.1551-8833.2009.tb09929.x](https://doi.org/10.1002/j.1551-8833.2009.tb09929.x)

Matthews J.H., Wickel, A.J. (2009) Embracing uncertainty in freshwater climate change adaptation: a natural history approach. *Climate and Development* 1: 269-279. doi:[10.3763/cdev.2009.0018](https://doi.org/10.3763/cdev.2009.0018).

Wickel, A.J., van de Giesen, N.C. and Sá (2008). Stormflow dynamics of two headwater catchments in Eastern Amazonia, Brazil. *Hydrological Processes* 22 (17): 3285-3293. doi: [10.1002/hyp.6917](https://doi.org/10.1002/hyp.6917)

De Badts, E., Lopez, G., Wickel, A.J., Cruz, I., Jimenez, R. (2006). Índice de propagación de Incendios. *Biodiversitas* 65.

Khamzina, A., Lamers, J.P.A., Wickel, A.J., Djumaniyazova, Y., Martius, C., (2005). Evaluation of young and adult tree plantations for biodrainage management in the lower Amu Darya river region, Uzbekistan, ICID 21st European Regional Conference. 15-19 May 2005, Frankfurt a. Oder, Germany and Slubice, Poland. 11 pp.

Hurt GC, Xiao X, Keller M, Palace M, Asner G, Braswell R, Brondizio E, Cardoso M, Carvalho C, Fearon M, Guild L, Hagen S, Moore B, Nobre C, Sá T, Schloss A, Vourlitis G, Wickel AJ (2003) IKONOS Imagery for the Large Scale Biosphere-Atmosphere Experiment in Amazonia (LBA). *Remote Sensing of Environment* (88), p 111-127 doi: [10.1016/j.rse.2003.04.004](https://doi.org/10.1016/j.rse.2003.04.004)

Wickel, A.J., Jackson, T.J. and Wood, E.F. (2000). [Multi-temporal monitoring of soil moisture with RADARSAT SAR during the 1997 Southern Great Plains Hydrology Experiment](https://doi.org/10.1016/j.rse.2000.04.004). *International Journal of Remote Sensing* 22 (8): 1571-1583.

Schellekens, J., Scatena, F.N., Bruijnzeel, L.A. and Wickel, A.J. (1999). An application of the Gash and Rutter models of rainfall interception in a tropical maritime forest, eastern Puerto Rico. *Journal of Hydrology* (225) 3-4: 168-184.

### External reports and theses

WWF (2017) [Natural & Nature-based Flood Management: A Green Guide](#). Office of U.S. Foreign Disaster Assistance (OFDA), USAID. 216 pp.

UNDP (2017). Assessment of hydro-ecological and socio-economic systems of the Vjosa River. Technical Report under the EU Flood Protection Infrastructure Project – FPIP. UNDP Albania. 114 pp.

Wickel, A.J., Salinas Rodríguez, S.A., Martínez Pacheco, A.H., Colditz, R., Ressler, R. (2016). Environmental water reserves: securing water for migratory water bird habitat. Reporte técnico Del Convenio OR78 FWS, Division of Bird Habitat & Conservation. Stockholm Environment Institute, World Wildlife Fund, Fundación Gonzalo Río Arronte, Comisión Nacional para el Conocimiento y Uso de la Biodiversidad, and U.S. Fish & Wildlife Service, USA 64 pp.

Simonov, E. and Wickel, A.J., (2015). [The Kherlen River, the Lifeline of the Eastern Steppe](#). 149 pp.

Sindorf, N. and Wickel, A.J. (2011). [Connectivity and fragmentation: Hydrospatial analysis of dam development in the Mekong river basin](#). Technical Report, WWF, Washington DC. 26pp.

Le Quesne T., Matthews J.H., Von der Heyden C., Wickel A.J., Wilby R., Hartmann J., Pegram G., Kistin E., Blate G., Kimura de Freitas G., Levine E., Guthrie C., McSweeney C., Sindorf N. (2010) [Flowing forward: freshwater ecosystem adaptation to climate change in water resources management and biodiversity conservation](#). Water Working Note 28. Washington, DC: World Bank. 62 pp.

Wickel, A.J., (2004). [Water and nutrient dynamics of a humid tropical agricultural watershed in Eastern Amazonia](#). PhD Thesis, Ecology and Development Series No. 21. Center for Development Research (ZEF), University of Bonn, Germany, 132 pp.

Wickel, A.J., (1998). RADARSAT Observations during SGP97; Potential for soil moisture mapping. MSc Thesis, Vrije Universiteit, Amsterdam, 55 pp.

Wickel, A.J., (1997). Rainfall interception modeling in lowland and montane rain forest in the Luquillo Mountains, Puerto Rico. Working Paper no. 2. Modeling of Tropical Island Hydrology Project. MSc Thesis, Vrije Universiteit, Amsterdam, 60 pp.