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## PUBLICATIONS (PEER-REVIEWED ACADEMIC ARTICLES)

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**Thorsten Arnold, Joseph H.A. Guillaume, Tuomas Lahtinen, R. Willem Vervoort (2020).** From ad-hoc modelling to strategic infrastructure: a manifesto for model management. *Environmental Modelling & Software*. 2020 Jan 1;123:104563.

**Thorsten Arnold, M. Marchildon (2018).** The management of numerical models in public sector organizations: A case study of Ontario. 9th International Congress on Environmental Modelling and Software. Fort Collins, Colorado, USA, MazdakArabi, Olaf David, Jack Carlson, Daniel P. Ames (Eds.) <https://scholarsarchive.byu.edu/iemssconference/2018/>

**Arnold, T. (2016).** Modelling for reproducibility, transparency, and continuous learning: Revisiting Jakeman's 10 steps. International Environmental Modelling and Software Society (iEMSs), 8th International Congress on Environmental Modelling and Software, Toulouse, France, Sabine Sauvage, José-Miguel Sánchez-Pérez, Andrea Rizzoli (Eds.)

**Arnold, T. (2015).** A Screening Method for Making the Source Water Event-Based Approach Operational. *Water Quality Research Journal of Canada*. <https://doi.org/10.2166/wqrj.2015.017>

**Arnold, T., Christian Troost, Thomas Berger (2015).** Quantifying the economic importance of irrigation water reuse in a Chilean watershed using an integrated agent-based model. *Water Resources Research Volume 51, Issue 1*, pages 648–668, January 2015. DOI: 10.1002/2014WR015382

**Arnold, T. (2013).** Procedural knowledge for integrated modelling: Towards the Modelling Playground. Thematic issue on the future of integrated modelling science and technology. *Environm. Modelling & Software* 39:135-148, Jan 2013, doi:10.1016/j.envsoft.2012.04.015

**Hammel, Kristine and T Arnold (2012a).** Understanding the Loss of Traditional Agricultural Systems: A Case Study of Orchard Meadows in Germany. *Journal of Agriculture, Food Systems, and Community Development* Vol 2 (4), 2012. <http://dx.doi.org/10.5304/jafscd.2012.024.011>, pp. 119–136

**Arnold, T (2012).** *Model Lifecycle Management for watershed practitioners: A case study in Ontario*. International Environmental Modelling and Software Society (iEMSs) 2012, 6<sup>th</sup> Biennial Meeting, Leipzig, Germany. <http://www.iemss.org/society/index.php/iemss-2012-proceedings>

**Lu, Q. and T. Arnold (2012).** *Model visualization and analysis with the Spatial Data Analyzer as tool for model integration*. International Environmental Modelling and Software Society (iEMSs) 2012, 6<sup>th</sup> Biennial Meeting, Leipzig, Germany. <https://scholarsarchive.byu.edu/iemssconference/2012/Stream-B/27/>

**Hammel, K. and T. Arnold (2012b).** *Formalizing conceptual modeling: An application to Orchard Meadows in Baden-Württemberg*. International Environmental Modelling and Software Society (iEMSs) 2012, 6<sup>th</sup> Biennial Meeting, Leipzig, Germany. R. Seppelt, A.A. Voinov, S. Lange, D. Bankamp (Eds.) <http://www.iemss.org/society/index.php/iemss-2012-proceedings>

**Arnold, Thorsten, H. Uribe, C. Troost, Berger T (2010).** *Irrigation Management In Chile: Integrated Modeling Of Access To Water*. International Environmental Modelling and Software Society (iEMSs) 2010 International Congress on Environmental Modelling and Software. Fifth Biennial Meeting, Ottawa, Canada. David A. Swayne, Wanhong Yang, A. A. Voinov, A. Rizzoli, T. Filatova (Eds. [LINK](#))

**Arnold, Thorsten (2010).** *Farm Decisions Under Dynamic Meteorology And The Curse Of Complexity*. International Environmental Modelling and Software Society (iEMSs) 2010 International Congress on Environmental Modelling and Software. Fifth Biennial Meeting, Ottawa, Canada. David A. Swayne, Wanhong Yang, A. A. Voinov, A. Rizzoli, T. Filatova (Eds.)

**Uribe, Hamil, T. Arnold, J. Arumí, T. Berger, D. Rivera (2009).** *Modificación del modelo WaSiM-ETH para mejorar su aplicación en áreas regadas*. Hidrología Subterránea, Vol. XXIV(2). “Modification of the hydrological runoff model WaSiM-ETH for its application in irrigated areas”.

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## SELECTED PUBLICATIONS (STUDIES, ARTICLES, REPORTS)

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**Arnold, Thorsten (2019)** How to plan for a climate resilient farm. Cover story, Growing For Markets August 2019 (Vol 28, Nr. 7).

**Victoria Lesy, Matt Orton, Abdul-Rahim Abdulai, Nicole Unterlander, Abigail Van Reisen, Thorsten Arnold (2019).** Climate change and Ontario Agriculture. Research report from Arrell Institute, Guelph, with Ecological Farmers Association of Ontario (EFAO). <https://efao.ca/climate-change-and-ontario-agriculture-introducing-a-series-of-farmer-case-studies/>

**Holysh, Steve and Rick Gerber, Mason Marchildon, Thorsten Arnold (2018).** A Guide for Model Management. Oak Ridges Moraine Coalition, Ontario. August 2017. DOI: 10.13140/RG.2.2.30074.59846. Available online at <https://oakridgeswater.ca/A%20Guide%20for%20Actively%20Managing%20Numerical%20Models/Forms/AllItems.aspx>

**Arnold, Thorsten (2018)** Lessons from establishing an online marketing cooperative, Growing For Markets, April 2018 (Vol 27, Nr. 4).

**Thorsten Arnold, Brenda Hsueh, Kristine Hammel (2015)** A Food Distribution Alliance for Grey and Bruce County – A business plan. Report, Grey Bruce Centre for Agroecology, 2015 ([link](#))

**Arnold, Thorsten and Jenny Meyer (2015).** Collaborative Regional Alliances for Farmer Training: Lessons Learned from C.R.A.F.T. in North America. Grey Bruce Centre for Agroecology, Ontario, February 2015 (<http://gbcae.com/GBCAEdownloads/Best%20Practices%20of%20CRAFT%20Farmer%20Alliances%20in%20North%20America.pdf>).

**Arnold, Thorsten and Jeri Parrent (2014).** Native pollinator observation and monitoring - A pilot project. Technical report, Grey Bruce Centre for Agroecology ([http://gbcae.com/GBCAEdownloads/5\\_PollinatorMonitoring\\_FullReport.pdf](http://gbcae.com/GBCAEdownloads/5_PollinatorMonitoring_FullReport.pdf))

**Arnold, Thorsten, Kristine Hammel, Brenda Hsueh, Laurie Thomson (2013).** Fresh City: Impacts of local food. Social, environmental, economic dimensions. Report in partnership with Fresh City, Everdale Farms, funded by Metcalf Foundation. November 2013 ([http://gbcae.com/GBCAEdownloads/FreshCityImpacts\\_Main.pdf](http://gbcae.com/GBCAEdownloads/FreshCityImpacts_Main.pdf)).

**Arnold, Thorsten, Brenda Hsueh (2013).** Fresh City: Assessment of Greenhouse Gas emissions of the food box distribution. Report in partnership with Fresh City, Everdale Farms, funded by Metcalf Foundation. November 2013 ([http://gbcae.com/GBCAEdownloads/FreshCityImpacts\\_GHG.pdf](http://gbcae.com/GBCAEdownloads/FreshCityImpacts_GHG.pdf)).

**Drinking Water Source Protection (2011).** *Assessment Report of Drinking Water Sources*. Saugeen, Grey Sauble, Northern Bruce Peninsula Source Protection Region. Lead Author for chapters (4) Water Quality Threats and Issues, (5) Climate Change, and (6) Great Lakes Considerations. Aug. 2011.  
[www.waterprotection.ca](http://www.waterprotection.ca)

**Arnold, T. (2011).** *Delineation and Threats Assessment in wellhead protection areas E for wells under the direct influence of surface water (GUDI)*. Technical Report, Drinking Water Source Protection, Saugeen, Grey Sauble, Northern Bruce Peninsula Source Protection Region, 2011

**Arnold, Thorsten (2010).** Linking farm economics and hydrology: Model integration for watershed-level irrigation management, applied to Chile. Dissertation, September 2010, University of Hohenheim, Germany.  
[http://opus.uni-hohenheim.de/volltexte/2010/499/pdf/Arnold2010\\_Diss\\_print\\_2010Sept07.pdf](http://opus.uni-hohenheim.de/volltexte/2010/499/pdf/Arnold2010_Diss_print_2010Sept07.pdf)

**Hammel, K. and T. Arnold (2008).** *Report on the effects of water quality on the acquisition and maintenance of organic and GLOBALGAP certification in the Maule Basin of Chile*. Project Report “Integrating Governance and Modelling”, Universität Hohenheim, Germany.  
(<https://cgspace.cgiar.org/handle/10568/22000>)

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## SELECTED ACADEMIC PRESENTATIONS AND CONFERENCE PAPERS

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Arnold, Thorsten (2019) **How social aspects dominated technological approaches in Germany. April 7<sup>th</sup>, 2019.**

Organic Integrity and Innovations in Traceability and Data Management Organic Council of Ontario, Alliston, Ontario, Canada

Arnold, Thorsten (2019) **How social aspects dominated technological approaches in Germany. April 7<sup>th</sup>, 2019.**

Organic Integrity and Innovations in Traceability and Data Management Organic Council of Ontario, Alliston, Ontario, Canada

Arnold, Thorsten (2019) **Traceability options for regenerative agriculture. March 30, 2019.**

Regeneration Canada, Living Soils Symposium, Montreal, Canada

Arnold, Thorsten (2019) **Planning for *Climate Resilience on the Farm.***

January 2019, Half-day intensive workshop, Guelph, Ontario, Canada

Arnold, Thorsten (2019) **Getting started on collaborative marketing, Dec 2018.**

Ecological Farmers Association of Ontario, London, Ontario, Canada

Arnold, Thorsten (2019) **The management of numerical models in public sector organizations: A case study of Ontario. July 2018.**

9th International Congress on Environmental Modelling and Software. Fort Collins, Colorado, USA.

<https://scholarsarchive.byu.edu/iemssconference/2018/>

Arnold, Thorsten (2019) **Wholesaling pasture-raised meat: Barriers, opportunities, strategies. Oct 2017**

Bring Food Home, Ottawa, Canada

Mason Marchildon, Thorsten Arnold, Steve Holysh and Rick Gerber (2016). **Multi-model custodianship: needs, development and challenges.** International Environmental Modelling and Software Society (iEMSS), 8th Int Congress. Toulouse, France, S. Sauvage, José-Miguel Sánchez-Pérez, Andrea Rizzoli (Eds.)

Arnold Thorsten, Jeri Parrent, Alvaro Venturri, Kristine Hammel (2014). **Agroecology. Panel at A. D. Latornell Conservation Symposium,** Nov. 2014, Alliston, Ontario

Arnold T, Kristine Hammel (2014). **Balancing efficiency and values in a local food coop.** Workshop on the Local Organic Food Coops Network (LOFC) annual meeting, March 2014, Guelph, Ontario

Arnold T (2012). **Making the Source Water Events-Based Approach Operational: A Screening Method.** 47th Central Canadian Symposium on Water Quality Research, Feb. 2012, Burlington, Ontario

Arnold, T (2011, presentation). **Numerical Models for Adaptive Watershed Management: Visualization as Knowledge Management Tool.** A. D. Latornell Conservation Symposium, Nov. 2011, Alliston, Ontario

Arnold, T and B. Luinstra (2009). ***FEFLOW for science-based water protection: A watershed manager perspective.*** 2nd International *FEFLOW*<sup>®</sup> User Conference, September 2009, Potsdam, Germany.

Arnold, T (2008). **Lessons from Model Integration and Coupling for Basin-Scale Irrigation Management, Applied to Region VII, Chile.** Tropentag 2008: Competition for Resources in a Changing World. Hohenheim,

Arnold, T. and H.Uribe (2008). **An extended WaSiM-ETH module for basin-level irrigation: Surface hydrology of agricultural land use in Chile, Region V.** North-South Center Annual Conference 2008. Zürich, Switzerland.

Arnold, T. and H. Uribe (2008). **An Integrated Catchment Model Applied to Chile, RegionV: Bridging scales in irrigation efficiency.** University of Hohenheim, Germany ([link](#)).

Uribe, H, T. Arnold, T .Berger, J Arumi (2008). Hydrological **modeling of a complex irrigation district in the Central Valley of Chile.** ASABE 21st Century Watershed Technology: Improving Water Quality and Environment. Concepcion, Chile.

Arnold, T., Uribe, H., Berger, T (2007).**Meeting the challenge of predictive modelling for 'problem-centered' water management: Description of a multi-purpose model system for policy planning support.** CAIWA 2007 International Conference on Adaptive & Integrative Water Management, 12-14 December 2007, Basel.