

Joseph Stachelek

CONTACT INFORMATION

Department of Fisheries and Wildlife
Michigan State University
480 Wilson Road
East Lansing, MI 48824 USA

Telephone: +1-517-884-1769
E-mail: stachel2@msu.edu
WWW: <https://jsta.rbind.io>
orcid: 0000-0002-5924-2464

EDUCATION

PhD, Fisheries and Wildlife, **Michigan State University** 2016 to 2020 (expected)

MS, Marine Science, **University of Texas at Austin** 2009 to 2012

BS, Marine Science, **University of Maine** 2004 to 2008

PROFESSIONAL EXPERIENCE

Research Scientist, **South Florida Water Management District** 2012 to 2016
Water quality modelling, data curation, and GIS tool development.

Research Technician, **University of Texas Marine Botany Lab** 2008 to 2009
Laboratory nutrient assays, wetland surveys, and database management.

REFEREED PUBLICATIONS

- [1] Hanson, P., Stillman, A.B., Jia, X., Karpatne, A., Dugan, H.A., Carey, C.C., **Stachelek, J.**, Ward, N.K., Zhang, Y., Read, J.S., Kumar, V., 2020. Predicting lake surface water phosphorus dynamics using process-guided machine learning. *Ecological Modelling*, 10.1016/j.ecolmodel.2020.109136.
- [2] **Stachelek, J.**, Weng, W., Carey, C.C., Kemanian, A.R., Cobourn, K.M., Wagner, T., Weathers, K.C., Soranno, P.A., 2020. Granular measures of agricultural land-use influence lake nitrogen and phosphorus differently at macroscales. *Ecological Applications*, 10.1002/eap.2187.
- [3] Servais, S., Kominoski, J.S., Coronado-Molina, C., Bauman, L., Davis, S.E., Gaiser, E.E., Kelly, S., Madden, C., Mazzei, V., Rudnik, D., Santamaria, F., Sklar, F.H., **Stachelek, J.**, Troxler, T.G., Wilson, B.J., 2020. Effects of saltwater pulses on soil microbial enzymes and organic matter breakdown in freshwater and brackish coastal wetlands. *Estuaries and Coasts*, 10.1007/s12237-020-00708-1.
- [4] Soranno, P.A., Cheruvilil, K.S., Liu, B., Wang, Q., Tan, P.N., Zhou, J., King, K.B.S., McCullough, I.M., **Stachelek, J.**, Bartley, M., Filstrup, C.T., Hanks, E.M., Lapierre, J.F., Lottig, N.R., Schliep, E.M., Wagner, T., Webster, K.E., 2020. Ecological prediction at macroscales using big data: Does sampling design matter? *Ecological Applications*, 10.1002/eap.2123.
- [5] Wagner, T., Lottig, N., Bartley, M.L., Hanks, E.M., Schliep, E.M., Wikle, N.B., King, K.B.S., McCullough, I., **Stachelek, J.**, Cheruvilil, K.S., Filstrup, C.T., Lapierre, J.F., Liu, B., Soranno, P.A., Tan, P.N., Wang, Q., Webster, K., Zhou, J. 2019. Increasing accuracy of lake nutrient predictions in thousands of lakes by leveraging water clarity data. *Limnology and Oceanography: Letters*, 10.1002/lol2.10134.

- [6] McCullough, I., King K., **Stachelek, J.**, Diaz, J., Soranno, P.A., Cheruvilil K.S. 2019. Applying the patch-matrix model to lakes: a connectivity-based conservation framework. *Landscape Ecology*, [10.1007/s10980-019-00915-7](https://doi.org/10.1007/s10980-019-00915-7).
- [7] Qian, S.S., Stow, C.A., Nojavan, F., **Stachelek, J.**, Cha, Y., Alameddine, I., Soranno, P.A. 2019. The Implications of Simpson's Paradox for Cross-Scale Inference Among Lakes. *Water Research*, [10.1016/j.watres.2019.114855](https://doi.org/10.1016/j.watres.2019.114855).
- [8] McCullough, I., Cheruvilil, K.S, Lapierre, J.F., Lottig, N., Moritz, M., **Stachelek, J.**, Soranno, P.A. 2019. Do lakes feel the burn? Ecological consequences of increasing exposure of lakes to fire in the continental United States. *Global Change Biology*, 25(9), 2841-2854. [10.1111/gcb.14732](https://doi.org/10.1111/gcb.14732).
- [9] Collins, S.M., Yuan, S., Tan, P.N., Oliver, S.K., Lapierre, J.F., Cheruvilil, K.S., Fergus, C.E., Skaff, N.K., **Stachelek, J.**, Wagner, T., Soranno, P.A. 2019. Winter Precipitation and Summer Temperature Predict Lake Water Quality at Macroscales. *Water Resources Research*, 55(4), 2708-2721. [10.1029/2018WR023088](https://doi.org/10.1029/2018WR023088).
- [10] **Stachelek, J.**, Soranno, P.A. 2019. Does freshwater connectivity influence phosphorus retention in lakes? *Limnology and Oceanography*, 64(4), 1586-1599. [10.1002/lno.11137](https://doi.org/10.1002/lno.11137).
- [11] Ward, N.K., Fitchett, L., Hart, J.A., Shu, L., **Stachelek, J.**, Weng, W., Zhang, Y., Dugan, H., Hetherington, A., Boyle, K., Carey, C.C., Cobourn, K.M., Hanson, P.C., Kemanian, A.R., Sorice, M.G., Weathers, K.C. 2018. Integrating fast and slow processes is essential for simulating human-freshwater interactions. *Ambio*, 48(10), 1169-1182 [10.1007/s13280-018-1136-6](https://doi.org/10.1007/s13280-018-1136-6).
- [12] Wilson, B.J., Servais, S., Mazzei, V., Kominoski, J.S., Hu, M., Davis, S.E., Gaiser, E., Sklar, F., Bauman, L., Kelly, S., Madden, C., Richards, J., Rudnick, D., **Stachelek J.**, Troxler, T. 2018. Salinity pulses interact with seasonal drydown to increase ecosystem carbon loss in marshes of the Florida Everglades. *Ecological Applications*, 28(8), 2092-2108. [10.1002/eap.1798](https://doi.org/10.1002/eap.1798).
- [13] Mazzei, V., Gaiser, E., Kominoski, J., Wilson, B.J., Servais, S., Bauman, L., Davis, S.E., Kelly, S., Sklar, F.H., Rudnick, D.T., **Stachelek J.**, Troxler, T. 2018. Functional and compositional responses of periphyton mats to simulated saltwater intrusion in the southern Everglades. *Estuaries and Coasts*, 41(7), 2105-2119. [10.1007/s12237-018-0415-6](https://doi.org/10.1007/s12237-018-0415-6).
- [14] **Stachelek J.**, Kelly, S.P, Sklar, F., Coronado, C.M., Troxler, T., Bauman, L. 2018. In-situ simulation of sea-level rise impacts on coastal wetlands using a flow-through mesocosm approach. *Methods in Ecology and Evolution*, 9(8), 1908-1915. [10.1111/2041-210X.13028](https://doi.org/10.1111/2041-210X.13028).
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- [16] **Stachelek J.**, Ford, C., Kincaid, D., King, K., Miller, H, and Nagelkirk, R. 2018. The National Eutrophication Survey: lake characteristics and historical nutrient concentrations. *Earth Syst. Sci. Data*, 10, 81-86. [10.5194/essd-10-81-2018](https://doi.org/10.5194/essd-10-81-2018).