

Curricula Vitae

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Education

B.A. Biology, Valley City State University, Valley City, North Dakota, 1999

M.S. Biological Sciences, North Dakota State University, Fargo, North Dakota, 2001

Current Memberships in Professional Societies

Society of Wetland Scientists

American Geophysical Union

Awards and Honors

1999 Graduated Valley City State University, Summa Cum Laude

U.S. Geological Survey Star Award: 1999, 2003, 2005

Publications

Tangen, B.A., Finocchiaro, R.G., and Gleason, R.A., 2015, Effects of land use on greenhouse gas fluxes and soil properties of wetland catchments in the Prairie Pothole Region of North America: *Science of the Total Environment*, v. 533, p. 391–409. DOI: 10.1016/j.scitotenv.2015.06.148

Post van der Burg, M., and Tangen, B.A., 2015, Monitoring and modeling wetland chloride concentrations in relationship to oil and gas development: *Journal of Environmental Management*, v. 150, p. 120–127. DOI: 10.1016/j.jenvman.2014.10.028

Tangen B.A., Haines, S.S., Preston, T.M. and Thamke, J.N., 2014, Oil and gas production, aquatic resources, and brine contamination in the Williston Basin, United States, chap. A of Gleason, R.A., and Tangen, B.A., eds., *Brine contamination to aquatic resources from oil and gas development in the Williston Basin, United States: U.S. Geological Survey Scientific Investigations Report 2014–5017*, p. 5–20.

Gleason, R.A., and Tangen, B.A., eds., 2014, *Brine contamination to aquatic resources from oil and gas development in the Williston Basin, United States: U.S. Geological Survey Scientific Investigations Report 2014–5017*, 127 p., <http://dx.doi.org/10.3133/sir20145017>.

Finocchiaro, R.G., Tangen, B.A., and Gleason, R.A., 2014, Greenhouse gas fluxes of grazed and hayed wetland catchments in the U.S. Prairie Pothole Ecoregion: *Wetlands Ecology and Management*, v. 22, p. 305–324. DOI: 10.1007/s11273-013-9331-5

Tangen, B.A., Laubhan, M.K., and Gleason, R.A., 2014, Assessment of sediments in the riverine impoundments of national wildlife refuges in the Souris River Basin,

- North Dakota: U.S. Geological Survey Scientific Investigations Report 2014–5018, 37 p., <http://dx.doi.org/10.3133/sir20145018>.
- Tangen, B.A., Finocchiaro, R.G., Gleason, R.A., Rabenberg, M.J., Dahl, C.F., and Ell, M.J., 2013, Assessment of water-quality data from Long Lake National Wildlife Refuge, North Dakota—2008 through 2012: U.S. Geological Survey Scientific Investigations Report 2013–5183, 28 p., <http://dx.doi.org/10.3133/sir20135183>.
- Tangen, B.A., Gleason, R.A., and Stamm, J.F., 2013, A model for evaluating effects of climate, water availability, and water management on wetland impoundments—A case study on Bowdoin, Long Lake, and Sand Lake National Wildlife Refuges: U.S. Geological Survey Scientific Investigations Report 2013–5114, 37 p., <http://pubs.usgs.gov/sir/2013/5114/>.
- Gleason, R.A., Tangen, B.A., Laubhan, M.K., and Lor, S., 2012, A multi-refuge study to evaluate the effectiveness of growing-season and dormant-season burns to control cattail: U.S. Geological Survey Scientific Investigations Report 2012–5143, 15 p.
- Gleason, R.A., Thamke, J.N., Smith, B.D., Tangen, B.A., Chesley-Preston, T., and Preston, T.M., 2011, Examination of brine contamination risk to aquatic resources from petroleum development in the Williston Basin: U.S. Geological Survey Fact Sheet 2011-3047, 4 p.
- Gascoigne, W.R., Hoag, D., Koontz, L., Tangen, B.A., Shaffer, T.L., and Gleason, R.A., 2011, Valuing ecosystem and economic services across land-use scenarios in the Prairie Pothole Region of the Dakotas, USA: *Ecological Economics*, v. 70, p. 1715–1725. DOI: 10.1016/j.ecolecon.2011.04.010
- Gleason, R.A., Euliss, N.H., Jr., Tangen, B.A., Laubhan, M.K., and Browne, B.A., 2011, USDA conservation program and practice effects on wetland ecosystem services in the Prairie Pothole Region: *Ecological Applications*, v. 21 Supplement, p. 65–81. DOI: 10.1890/09-0216.1/full
- Gleason, R.A., Tangen, B.A., Browne, B.A., and Euliss, N.H., Jr., 2009, Greenhouse gas flux from cropland and restored wetlands in the Prairie Pothole Region: *Soil Biology & Biochemistry*, v. 41, p. 2501–2507. DOI: 10.1016/j.soilbio.2009.09.008
- Gleason, R.A., Tangen, B.A., Laubhan, M.K., Finocchiaro, R.G., and Stamm, J.F., 2009, Literature review and database of relations between salinity and aquatic biota—applications to Bowdoin National Wildlife Refuge, Montana: U.S. Geological Survey Scientific Investigations Report 2009–5098, 76 p.
- Tangen, B.A., and Gleason, R.A., 2008, Reduction of sedimentation and nutrient loading, *in* Gleason, R.A., Laubhan, M.K., and Euliss, N.H., Jr., eds., *Ecosystem services derived from wetland conservation practices in the United States Prairie Pothole Region with an emphasis on the U.S. Department of Agriculture Conservation Reserve and Wetlands Reserve Programs*: U.S. Geological Survey Professional Paper 1745, 58 p.
- Gleason, R.A., Tangen, B.A., and Laubhan, M.K., 2008, Carbon sequestration, *in* Gleason, R.A., Laubhan, M.K., and Euliss, N.H., Jr., eds., *Ecosystem services derived from wetland conservation practices in the United States Prairie Pothole Region with an emphasis on the U.S. Department of Agriculture Conservation Reserve and Wetlands Reserve Programs*: U.S. Geological Survey Professional Paper 1745, 58 p.

- Gleason, R.A., and Tangen, B.A., 2008, Floodwater storage, *in* Gleason, R.A., Laubhan, M.K., and Euliss, N.H., Jr., eds., Ecosystem services derived from wetland conservation practices in the United States Prairie Pothole Region with an emphasis on the U.S. Department of Agriculture Conservation Reserve and Wetlands Reserve Programs: U.S. Geological Survey Professional Paper 1745, 58 p.
- Gleason, R.A., Tangen, B.A., Laubhan, M.K., Kermes, K.E., and Euliss, N.H., Jr., 2007, Estimating water storage capacity of existing and potentially restorable wetland depressions in a subbasin of the Red River of the North: U.S. Geological Survey Open-File Report 2007–1159, 36 p.
- Hanson, M.A., Zimmer, K.D., Butler, M.G., Tangen, B.A., Herwig, B., and Euliss, N.H., Jr., 2005, Biotic interactions as determinants of ecosystem structure in prairie wetlands: an example using fish: *Wetlands*, v. 25, p. 764–775.
- Tangen, B.A., Butler, M.G., and Ell, M.J., 2003, Weak correspondence between macroinvertebrate assemblages and land use in Prairie Pothole Region wetlands, USA: *Wetlands*, v. 23, p. 104–115.

Submitted Publications

- Bansal, S., Tangen, B., and Finocchiaro, R., Temperature and Hydrology Affect Methane Emissions from Prairie Pothole Wetlands: *submitted to Wetlands*, 2016.
- Tangen, B.A., Finocchiaro, R.G., Gleason, R.A., and Dahl, C.F., Greenhouse gas fluxes of a shallow lake in south-central North Dakota, USA: *submitted to Wetlands*, 2015.
- Tangen, B.A., Finocchiaro, R.G., and Dahl, C.F., Aquatic invertebrate and vegetation communities across the habitat gradient of Big Stone National Wildlife Refuge: *submitted to The Journal of Wildlife Management*, 2015.
- Daniel, D., Smith, L., McMurry, S., Tangen, B., Dahl, C., Euliss, N., Jr., LaGrange, T., Effects of land use on greenhouse gas flux in playa wetlands and associated watersheds in the High Plains, USA: *submitted to Global Change Biology*, 2015.
- Belden, J., Smith, L., Morrison, S., Daniel, D., Euliss, B., Euliss, N., Jr., Kensing, B., Tangen, B., Conservation program effects on pesticide loads in Prairie Pothole wetlands of North and South Dakota: *submitted to Science of the Total Environment*, 2015.

Select Presentations

- Tangen, B., Finocchiaro, R., and Dahl, C. Efficacy of drainage setbacks for limiting effects to wetlands in the Prairie Pothole Region. 76th Midwest Fish and Wildlife Conference, Grand Rapids MI, 24–27 January 2016.
- Tangen, B.A., Finocchiaro, R.G., and Gleason, R.A. Effects of land use on greenhouse gas fluxes and soil properties of wetland catchments in the Prairie Pothole Region of North America. American Geophysical Union Fall Meeting, San Francisco CA, 14–18 December 2015.
- Tangen, B.A. The Dynamic Nature of Wetlands—Considerations for Monitoring and Management. Intermountain West Wetland Working Group Workshop, Bear River Migratory Bird Refuge, Brigham City, UT, 10–12 December 2013.
- Tangen, B, Finocchiaro, R. Assessment of Agricultural Subsurface Tile Drainage on

- Wetland Hydrology in the Prairie Pothole Region. 73rd Midwest Fish and Wildlife Conference, Wichita KS, 9–12 December 2012.
- Tangen, B., Finocchiaro, R., and Dahl, C. A long-term water-quality monitoring program at Long Lake National Wildlife Refuge: temporal trends from the first four years. North Dakota Water Quality Monitoring Conference, Bismarck ND, 27–29 February 2012.
- Tangen, B. Contamination of Prairie Pothole Region wetlands and streams by petroleum-field brines: potential impacts to water chemistry and aquatic biota. North Dakota Water Quality Monitoring Conference, Bismarck ND, 27–29 February 2012.
- Tangen, B. Prairie pothole wetlands: characteristics, functions, and values. Society for Range Management Annual Meeting, Billings MT, 6–10 February 2011.
- Tangen, B., Gleason, R., Chesley-Preston, T., Preston, T., Smith, B., and Thamke, J. Brine contamination to aquatic resources from energy development in the Williston Basin. North Dakota Chapter of the Wildlife Society Annual Meeting, Mandan ND, 9–11 February 2011.
- Tangen, B.A. Greenhouse gas emissions from wetland catchments in the Prairie Pothole Region, South Dakota. 71st Midwest Fish and Wildlife Conference, Minneapolis MN, 12–15 December 2010.
- Tangen, B., Gleason, R., and Euliss, N., Jr. The prairie pothole regional assessment: results of a study to estimate ecosystem services derived from USDA conservation reserve and wetlands reserve program lands. ACES: A Conference on Ecosystem Services, Naples FL, 8–11 December 2008.
- Gleason, R.A., Fairchild, L., Euliss, N.H, Jr., Johnson, R., and Tangen, B.A. Floodwater storage capacity of restorable wetlands. Red River Basin Institute, 1st International Water Conference: Water, Science, and Decision-Making, Fargo ND, 2003.