DANIEL D. SNOW, Research Professor, 10% Teaching, 45% Research, 45% Service

Areas of Interest: Environmental Analytical Chemistry, Emerging Contaminants, Isotope Analysis, Bioremediation

Contact: 202 Water Sciences Laboratory, School of Natural Resources and Nebraska Water Center, a part of the Robert B. Daugherty Water for Food Institute, University of Nebraska-Lincoln Lincoln, NE 68583-0844, p. 402/472-7539, <a href="mailto:dsystem: dsystem: dsys

EDUCATION

- B.S. Geology, Missouri State University (1982)
- M.S. Geochemistry, Louisiana State University (1988) Thesis: *Pore Water Chemistry in Sediments of an Abandoned Mississippi River Delta Complex.* Louisiana State University. 145 p.
- Ph.D. Geochemistry, University of Nebraska-Lincoln (1996). Dissertation: *Geochemistry, Hydrology, and Environmental Applications of Uranium-Series Nuclides in the Platte River Drainage Basin*. University of Nebraska-Lincoln. 159 p.

PROFESSIONAL EXPERIENCE

2018-present	Laboratory Director/Research Professor, University of Nebraska
2007-2018	Laboratory Director/Research Associate Professor, School of Natural
	Resources/Nebraska Water Center, University of Nebraska-Lincoln.
2009-2012	Adjunct Professor. Department of Biology. Nebraska Wesleyan University.
2003-2007	Laboratory Director/Research Assistant Professor, School of Natural Resources/Water
	Center, University of Nebraska-Lincoln.
1998-2003	Environmental Chemist/Research Assistant Professor, Water Sciences Laboratory,
	University of Nebraska-Lincoln.
1990-1998	Laboratory Manager, Water, Center/Water Sciences Laboratory, University of Nebraska-
	Lincoln.
1986-1989	Graduate Research Assistant, Conservation and Survey Division, University of Nebraska-
	Lincoln.

HONORS AND AWARDS

- Association of Environmental Engineers and Scientists Grand Prize for University Research (2015)
- Water Center Impact Award for USGS104b project, co-PI with Karrie Weber (2011)
- NU College of Engineering Multidisciplinary Research Award- EPA STAR Grant Project (2010)
- District Award of Merit, Cornhusker Council, Boy Scouts of America (2009)
- Certificate of Merit, National Meeting Presentation, American Chemical Society (2002)
- Graduate Faculty Member, Institute of Agriculture and Natural Resources (IANR) (2000)
- IANR Team Effort Award, MSEA Water Quality Project (1997)
- Research Fellowship, Association of Ground Water Scientists and Engineers (1995)
- Research Fellowship, Nebraska Research Initiative Water Resources Program (1988-89)
- Chevron Field Fellowship (1985)
- Gulf Coast Association of Geological Societies Scholarship (1985)

PROFESSIONAL SERVICE

Associate Editor: Bulletin of Environmental Contamination and Toxicology, Springer, January 2018-present

Associate Editor: Water, MDPI, Basel, Switzerland. July 2018-present.

Guest Editor: Current Opinion in Environmental Science & Health. 2022-2024.

Guest Editor: Frontiers in Environmental Science. 2022-2024. Guest Editor: Trends in Analytical Chemistry. November 2024-

Invited Conference Session Chair

- Methods for Assessing Environmental Fate and Effects of Difficult-to-Test Substances, SETAC North America 45th Annual Meeting, October 20-24, 2024. Fort Worth Texas,
- Symposium: Use of Rapid Assays for Water Monitoring, 30th Annual Midwest Section AOAC International Meeting and Exposition. Lincoln, NE. June 6 9, 2011.
- Special Symposium: Hormones in the Environment at the SETAC North America 2010 Annual Meeting, Portland, OR, November 11-17, 2011.
- Mapping the Lifecycle of Antibiotics in Southeast Asia 2016. September 14-15, 2016; Singapore. Sponsored by the US State Department.

Journal Reviewer

Analytical Chemistry, Analytical and Bioanalytical Chemistry, Talanta, Environmental Science and Technology, Journal of Chromatography A, Journal of Environmental Monitoring, Chemosphere, Journal of Environmental Quality, Groundwater Monitoring and Remediation, Great Plains Research.

Professional Memberships

- American Chemical Society (ACS), Division of Environmental Chemistry since 2001
- National Ground Water Association (NGWA) -since 1987
- Society of Environmental Toxicologists and Chemists (SETAC) since 2007
 - o Chemistry Advisory Group (CAG) 1/2010- (chair elect, 2013; chair, 2014)
- Water Environment Federation (WEF) since 2011

HATCH MULTI-STATE RESEARCH PROJECT W4045: Agrochemical Impacts On Human And Environmental Health: Mechanisms And Mitigation. June 2018-present. Group Secretary 2022-24.

ACADEMIC SERVICE

- SNR Graduate Committee Chair School of Natural Resources 2017-2023
- Faculty Advisory Committee Chair School of Natural Resources 2015-19
- Environmental Sciences Faculty Co-Leader School of Natural Resources 2015-
- Water Area Faculty Leader School of Natural Resources 2009-2014.
- Promotion and Tenure Committee School of Natural Resources 2010-2014, 2015-2017
- Safety and Facilities Committee Chair School of Natural Resources 2004-2009
- Nomination Committee IANR 2007-2009 (Chair in 2009)
- Academic Senate Libraries Committee Chair UNL 2006-2008

TEACHING (LAST 5 YEARS)

• Environmental Laboratory Instrumentation and Methods NRES 439/839 (1 cr), - Curriculum development Fall 2019-Summer 2020, First offered Fall 2021, Spring 2022. Spring 2023, Spring 2024. The overall goal is to provide potential laboratory users/technicians with practical background and knowledge for environmental testing. Environmental methods and good laboratory practices ensure that results are consistent, reliable, and reproducible at increasingly low concentrations. All students are exposed to spectroscopy, discrete automated colorimetry, chromatography and mass spectrometry used for environmental testing. Undergraduate students will have the option to gain proficiency on bench chemistry techniques such as gravimetric analyses, potentiometric titration, spectrophotometry and laboratory meters. Graduate students

- will be required to provide a summary report describing the theory and background of the chosen method and instrumentation together with statistical analysis of their results
- Water Quality Strategy AGRO 475/875 (3 cr) Spring 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024 (2013 Syllabus revision/development) ACE Capstone Course. The overall goal of the course is to provide experience in group decision making for evaluating, communicating and recommending appropriate planning strategies for managing nonpoint source contamination of water resources. Students use individual expertise together with varied information sources to formulate practical and realistic approaches to protecting water quality and ensure sustainable beneficial use. Students will learn to serve on community water or natural resource planning committees and will preparing a single comprehensive water quality strategy proposal addressing the issue(s), technical and socioeconomic alternatives to dealing with the issue, and potential for stakeholder acceptance.

Outreach/Engagement Activities

- 1. **Snow, D.D.** Understanding and Preserving Water Quality. Building Drought Preparedness and Resilience: A Multi-Regional Project International Visitor Leadership Program U.S. Department of State, Nebraska Innovation Campus, 30 July 2024. Lincoln, NE.
- 2. **Snow, D.D.** Sustainable Reuse of Wastewater for Irrigation. Seminar in Chemistry Department, Al Farabi Kazakh National University, June 5, 2024. Almaty, Kazakhstan.
- 3. **Snow, D. D.** Water Quality Strategy. Kazakh National Agrarian Research University Summer School, June 4, 2024, Almaty, Kazakhstan.
- 4. **Snow, D. D.** Sustainable Reuse of Wastewater for Irrigation. Chemistry Department Seminar, M.Kh. Dulaty University, May 28, 2024, Taraz, Kazakhstan.
- **5. Snow, D.D.** The Power of the Isotope New Analytical Technology for Earth and Environmental Sciences. Department of Earth and Atmospheric Sciences Seminar, University of Nebraska-Lincoln, 8 April 2024.
- 6. **Snow, D. D.** Domestic Wells, Water Quality, and Per- and Polyfluorinated Alkyl Substances (PFAS), Conservation Nebraska Webinar, March 25, 2024, Lincoln, NE.
- 7. **Snow, D.D**. Data-driven Water and Nutrient Management Science of Nutrient and Water Cycling. IANR Summit, University of Nebraska, Lincoln, NE 3 March 2024.
- 8. **Snow, D.D.** and A. Malakar. Vadose Zone Nitrate Accumulation Upper Big Blue Natural Resources District Relation to Fertilizer Management and Groundwater Nitrate Concentrations Progress Report. Upper Big Blue Natural Resources District Water Resources Committee Meeting, 8 February 2024, York, NE.
- 9. **Snow, D. D.** 2021-23 Bazile Groundwater Management Area (BGMA) Vadose Zone Project. Bazile Groundwater Management Area 2024 WINTER MEETING Orchard, NE January 30, 2024

Selected Grants and Contracts (last 10 years)

Pending -01/02/2025

1. MRI: Track 1 acquisition of a pyrolysis- gas chromatograph-tandem mass spectrometer to advance the science of biopolymers and micro- and nanoplastic pollution. D. Snow (lead), Nirupam Aich, Yusong Li, David Hage, Arindam Malakar. US National Science Foundation Major Research Instrumentation (NSF-MRI) program, \$528,107, submitted on 11/15/24, project period 07/2025-06/2027.

- 2. IRES US-Kazakhstan Collaborative Solutions to Water Pollution. D. Snow (lead), E. Haacker, I. Filina, S. Bartelt-Hunt. NSF International Research Experience for Students program. \$449,699 submitted 10/28/2024, Project period 10/01/2025-09/30/2028.
- 3. Physics-based crop, soil, and groundwater modeling of nitrate transport to understand and manage groundwater contamination in agricultural regions. A. Katimbo, S. Beegum, D. Snow, C. Ray, S. Panday, A. Malakar, A Mitra. US Geological Survey 104g Program \$310,000. Submitted on 05/30/2024, Project period 01/01/2025 01/01/2028.

Funded – Current Research Projects

- Roof Collected Rainwater Study for Drinking Water. Bing Chen (lead), Daniel Snow, Paul Ayayee, Dana Richter. Nebraska Military Department, \$350,000, Project period 08/01/2024 -07/31/2026.
- 2. Ultrafast Affinity Extraction: Fundamental Studies and use in Environmental Applications. D. Hage (lead) and D. Snow. National Science Foundation (NSF), Submitted 11/01/2023, \$584,827, Project period 07/2024-06/2027.
- 3. Growing Groundwater Science Doane University, C. Huber, D.D. Snow and R. Ehrman. USGS 104b program. \$11,358 federal funds. Submitted on 04/30/2024, Project period 10/01/2024-09/30/2025.
- 4. Release, Adsorption, and Biotransformation of Biosolid-Borne PFAAs at the Water-Sediment Interface in Agricultural Watersheds. X. Li (lead), N. Aich, D. Snow. \$278,377. G23AS00484 USGS PFAS Competition. Submitted on 05/07/2024. Project period 01/1/2024-12/31/2026.
- 5. Know Your Well High School Curriculum Development, R. Herpel, G. Panther, J. Keshwani, D. Snow, \$99,795, Environmental Protection Agency, 07/01/2023 06/30/2025.
- 6. Wood carbon subsoil amendments for sustainable corn production on sandy irrigated soils. D. Snow (lead) A. Malakar, A. Daigh. \$192,427. Nebraska Corn Board. Submitted on 1/13/2023. Project period 7/1/2023-6/30/2025.
- 7. Nitrogen Research for Agriculture Transformation and Enhancement. Joe Luck (lead) and 19 co-investigators, USDA ARS. \$885,600. Project Period 06/01/2021 05/31/2022.
- Using a Coupled Surface Water/Groundwater Model Informed by Groundwater Age, Geophysics, and Vadose Zone Coring to Identify Type and Placement of Management Practices to Reduce Legacy Groundwater Nitrate Concentrations. A. Mittelstet, T. Gilmore, D. Snow and E. Haacker. USGS 104g Program, \$249,977. Submitted on 03 May 2022, Project period 10/01/2022-09/30/2025.
- 9. AltEn Health and Environmental Study. S. Bartelt-Hunt (lead) and D. Snow. UNMC-Univ of Ne-Medical Center. \$163,392. Submitted on 01/25/2023. Project period 07/01/2022-12/31/2024.
- Vadose Zone Nitrate Accumulation Lower Loup Natural Resources District Area 30, Relation to Manure Application, Fertilizer Management and Groundwater Nitrate Concentrations. D. Snow (lead) A. Mittelstet and T. Gilmore. Lower Loup NRD. \$67,506. Submitted on 12/08/2021, Project period 08/01/2022 - 07/31/2024.
- 11. Vadose Zone Coring Project: Cuming, Colfax, and Dodge Counties of the Lower Elkhorn Natural Resources District. D. Snow. \$89,068, Project ID 55102. Subcontract to Lower Elkhorn Natural Resources District for Nebraska Environmental Trust. Submitted on 25 August 2021. Project period 09/01/2022 08/31/2025.

- 12. Growing Groundwater Science Papio-Missouri River Natural Resources District. D. Snow (UNL lead), Nebraska Environmental Trust. \$575,112. Project ID 55137. Submitted on 8/31/2021. Project period 07/01/2022-06/30/2025.
- 13. Measurement of chlorophyll a for NDEE surface water monitoring program. D. Snow, Nebraska Department of Environment and Energy. \$11,418. Submitted on 03 August 2021. Project period 06/01/2021-09/30/2024.
- 14. Identifying Reactive Nitrogen Dynamics in the Deep Vadose Zone to Protect Groundwater Quality. A. Malakar (lead), D. Snow, C. Ray, E. Haacker, USDA AFRI Water Quality and Quantity A1411. \$749,861. Submitted on June 10, 2021. Project Period 4/1/2022-3/30/2026.
- 15. Sampling and laboratory support for Nebraska Groundwater Monitoring Network. D. Snow. Nebraska Department of Environment and Energy. \$155,476. Submitted on June 20, 2021. Project Period 7/1/2021-6/30/2024.
- Ultrafast Affinity Extraction Fundamental Studies and Use in Environmental Applications. D. Hage (lead) and D. Snow. National Science Foundation NSF CHE - Chemical Measurement & Imaging, Award Number CHE-2108881. \$493,759. Submitted on 16 November 2020, Project period 01 June 2021 – 30 May 2024.
- 17. Vadose Zone Nitrate Accumulation Upper Big Blue Natural Resources District, Relation to Fertilizer Management and Groundwater Nitrate Concentrations. D. Snow (lead), A. Malakar and C. Ray. Upper Big Blue Natural Resources District. \$297,104. Submitted 02/02/2021, Project Period 07/01/2021 06/30/2025.
- 18. Demonstrating an Integrated Nutrient Management Approach for Improving Drinking Groundwater Quality in Nebraska. J. Iqbal (lead), L. Johnson, A. Malakar, J. Milander, C. Proctor, A. Schmidt, and D. Snow. USDA-NIFA-AFRI-007692 A1701. \$298,631, Submitted on 06/17/2021, Project Period 02/01/2022 01/31/2025.
- 19. Nitrogen Research for Agriculture Transformation and Enhancement. Joe Luck (lead) and 19 co-investigators. Dept of Agriculture-ARS. \$885,600. Project period 06/01/2021 05/31/2026.
- 20. Influence of Agrochemical Mixtures on Treatment Wetland Ecosystems Services. S. Bartelt-Hunt (lead), T. Messer, R.L. Smith, D.D. Snow, J. Ali, D. Repert. USDA AFRI Foundational Program, \$499,999. Submitted on 08/01/2018. Project period 05/01/2019-2/28/2024.
- 21. Identification & treatment of CEC in effluents of urban wastewater facilities in Kazakhstan. A. Malakar and D. Snow. M.Kh. Dulaty University. \$18,100. Submitted on 6/9/2022, Project Period 06/01/2022-12/31/2024.
- 22. Growing Groundwater Science Doane University, Crete, Nebraska. C. Huber, D. Snow, R. Ehrman, \$11,358. USGS Section 104(b) Water Institutes Program. Submitted on 5/1/2023, Project period 10/01/2023-09/30/2024.
- 23. NSF-Nebraska-EPSCoR for a project entitled Planning Grant: Nitrogen in Water, Agriculture, Technology, and Environmental Research (N-WATER) in a Changing Climate. C. Ray, K. Weber, D. Snow, A. Malakar, E. Haacker. \$19,984. 05/01/2023 through 04/30/2024.

Completed Projects – last 10 years

- 1. Water Quality and Analytical Chemistry in South Kazakhstan Seminar, D. Snow, \$4,057. M.KH. Dulati Taraz Regional University, Submitted on 08/18/2023, Project period 10/01/2023 12/31/2023.
- 2. Remediation of mercury species Pavlodar chlor-alkali plant. D. Snow, Al Farabi Kazakh National University, \$4,500. Submitted on 07/29/2023, Period: 08/01/2023 11/25/2023.

- **3.** Improved photocatalytic air treatment for removal of volatile organic compounds. B. Uralbekov (Lead), B. Satybaldiyev, and D. Snow, Kazakh Ministry of Education and Science, (\$25,590 subcontract to Al-Farabi Kazakh National University), \$126,450, Submitted on 12 August 2020, Project Period 01/01/2021-12/31/2023.
- **4.** Measurement of pesticide residues in surface water and sediment samples. D. Snow (lead), Nebraska Department of Environment and Energy. \$31,469, submitted on April 24, 2022, project period 05/01/2022-12/31/2023.
- 5. Educating Youth about Well Water Science, a proposal to the Papio-Missouri River Natural Resources District. D. Snow. \$23,820. Project ID 55096. Papio-Missouri Natural Resources District. Project period 09/01/2021 08/31/2023.
- 6. Sources and occurrence of veterinary pharmaceuticals in the Sandusky River Watershed. L. Johnson (lead) D. Snow and S. Biswas. Ohio Sea Grant Program, \$60,000. subcontract to Heidelberg University. Submitted on 03/14/2019, Project period 07/01/2020 06/30/2022
- 7. Bazile Groundwater Management Area (BGMA) Vadose Zone Nitrate Monitoring NDEQ Project 56-1785. D. Snow and C. Ray, Environmental Protection Agency, \$123,123. resubmitted on 10/23/2020, Project Period 10/01/2020 08/31/2023.
- **8.** Characterization of Groundwater Nitrates Area 30 Lower Loup Natural Resources District. D. Snow (lead). Lower Loup Natural Resources District. \$7,128. Submitted on 12/15/2019, Project period 03/01/2020 12/30/2020.
- 9. Know Your Well Northwest. M. Leite, T. Gibbs, D. Snow. Ne Water Center-USGS. \$7,000. Submitted 04/26/2022. Project Period 10/01/2022 09/30/2023
- **10.** Characterization of Groundwater Nitrate using Stable Isotope Analysis. D. Snow. Lower Elkhorn Natural Resources District. \$17,184. Submitted on June 20, 2021, Project Period 7/1/2021-12/31/2022.
- 11. Compound Specific Stable Isotope Analysis (CSSI) for Soil Source Fingerprinting. T. Franz and D. Snow. Ne Water Center-USGS. \$25,000. Submitted on 04/26/2022, Project Period 10/01/2022 09/30/2023.
- **12.** SusCHEM: Collaborative Research: Persistence of Antibiotic Resistance Genes in the Soil-Plant Ecosystem. X. Li, D. Snow, H. Walia, NSF CBET Environmental Engineering. Proposal 1805990. \$330,000, Submitted on 10/20/2017. Project Period 07/01/2018 07/31/2023.
- **13.** Characterization of Vadose Zone Transport and Groundwater Nitrate Attenuation. D. Snow (lead) and C. Ray. Lower Platte South NRD. \$44,663. Project Period 11/01/2019 09/30/2021.
- **14.** Isotope Characterization of Groundwater Nitrates Area 29 Lower Loup Natural Resources District. D. Snow, \$6,992, Lower Loup Natural Resources District. Submitted on April 8, 2022, project period 06/01/2022-05/31/2023.
- **15.** Citizen Science: A Valuable Approach for Monitoring Groundwater Quality in the Bazile Groundwater Management Area. M. D'Alessio, C. Ray, D. Snow, Nebraska Environmental Trust, \$172,977. Submitted on 08/30/2019, Project Period 04/01/2019 03/31/2021.
- **16.** Legacy and modern pesticides in Syr Darya, Kazakhstan: sources, transport and risk assessment. B. Satybaldiyev, B. Uralbekov and D. Snow, Kazakh Ministry of Education and Science, (\$30,116 subcontract to Al-Farabi Kazakh National University), \$145,450, Submitted on 10 July 2020, Project Period 01/01/2021-12/31/2023

- 17. Deep Vadose Zone Nitrate Lower Elkhorn Natural Resources District, D. Snow (lead). Lower Elkhorn Natural Resources District, \$34,291. Submitted on 10/21/2020, Project period 11/01/2020 12/30/2022.
- **18.** Photodegradation of Insecticides in Rivers Adjacent to Agricultural Intensive Regions: A Novel Water Quality Monitoring Approach. \$499,547. T. Messer (lead), D. Snow and M. Doyle (Duke). USDA NIFA Program. Period: 01/01/2018 12/31/2022.
- 19. Investigating Mobile Genetic Elements and Resistance Gene Reservoirs towards Understanding the Emergence and Ecology of Antimicrobial Resistance in Beef Cattle Production Systems. S. Fernando (lead), S. Bartelt-Hunt, D. Loy, T. Messer, G. Morota, H. Manzona, A. Schmidt, D. Snow, R. Stowell. USDA NIFA Program, \$830,751. Submitted on 06/21/2017, Project Period 02/15/2018 02/14/2022.
- 20. City of Waverly Demonstration Project for Improving Nitrogen Use Efficiency and Reducing Nitrate Leaching. J. Igbal (lead), D. Snow and T. Williams, Nebraska Department of Environment and Energy (NDEE) funding through EPA Section 319 Program. \$15,000. Project Number 56-1688, Submitted on 03/15/2020, project period July 15 2020– June 30 2021.
- **21.** Examining surface and groundwater contamination from use of byproducts derived from ethanol processing of pesticide-treated crop seeds and the potential impacts on biological indicator organisms. J. Wu-Smart and D. Snow. \$20,000. USGS 104b Program. Submitted on 27 October 2020. Project period 01 March 2021 28 February 2022.
- **22.** Evaluation of Nitrogen-based Redox Processes in the Vadose zone. M. Kaiser, D. Snow, D. Miller, M. D'Alessio, A. Malakar. \$9,982. USGS 104b Program. Submitted on 27 October 2020. Project period 01 March 2020 31 Dec 2021.
- 23. Know Your Well Northwest. D. Snow (UNL), M. Leite (CSC) and T. Tibbits (CSC). \$5,950. USGS 104b Program. Submitted on 27 October 2020. Project period 01 March 2021 28 February 2022.
- **24.** Science with a Purpose: Improving Environmental Science in Kazakhstani Universities. D. Snow (lead) and A. Malakar. American Councils for International Education/US Mission to Kazakhstan. \$35,799. Submitted on 11/18/2021. Project Period 12/1/2021-09/30/2022.
- **25.** Meeting UN SDGs water sustainability and climate action through efficient irrigation system use. K. Bruns(lead), D. Rudnik, and D. Snow. \$24,000. Amer Councils for Intl Educ UniCEN program. 01/01/2022-09/30/2022.
- **26.** Building Environmental and Economic Resilience in the Syr Darya Basin in Kazakhstan. (\$20,000) D. Snow and S. Bartelt-Hunt. NU-Wide Central Asia/South Asia Research Initiative. 03/1/2019-12/31/2021.
- 27. Lower Platte North NRD Vadose Zone study. D. Snow. Lower Platte North NRD, \$16,490. Submitted on 08/02/2019, Project period 08/01/2019 12/31/2020.
- 28. Setting nitrogen surplus benchmarks to control nitrate pollution of groundwater in the northeast Nebraska. M. Mekonnen (lead), D. Snow and D. Miller, Nebraska Water Center USGS 104b Program, \$18,954. Submitted on 10/31/2019, Project Period 03/01/2020 12/31/2021.
- **29.** PFAS Exposure from WWTPs to Surface Waters and Agricultural Fields, T. Messer (lead), S. Bartelt-Hunt, D. Snow, Nebraska Water Center USGS 104b Program, \$19,928, Submitted on 10/31/2019, Project Period 03/01/2020 12/31/2021.
- **30.** Measurement of glyphosate and AMPA in samples of surface runoff. D. Snow and S. Biswas. \$101,085. Ohio State University. Subcontract to Heidelberg University. 2/01/2018 01/31/2020.

- **31.** Novel approaches for controlling nitrate leaching and protecting Nebraska ground water. Nebraska Environmental Trust. \$164,306. D. Snow (lead), C. Ray, A. Schmidt and D. Miller. Period 5/1/2018-12/31/2021. Submitted on 9/5/2018.
- **32.** Illinois Natural History Survey Neonicotinoids Analysis. D. Snow. \$10,395. University of Illinois-INHS. Submitted on 4/1/2021. Period 05/01/2021 12/31/2021.
- **33.** Nitrate Stable Isotope Analysis. D. Snow. State of Washington-Dept of Agriculture. \$7,000. Submitted on April 1, 2021. Period 04/01/2021 12/31/2021.
- **34.** Monitoring of nitrate leaching at and below crops rooting depth. J. Iqbal (lead) and D. Snow. Nebraska Water Center USGS 104b Program. \$20,000. Submitted on 10/18/2019. Project Period 03/01/2020 02/28/2021.
- **35.** Advancing Institutional Capacity for Sustainable Groundwater in with Central Asia with Emphasis on Karakalpakstan, a former Aral Sea Region in Uzbekistan. D. Snow (lead), S. Bartelt-Hunt, E. Haacker, C. Neale, and V. Zlotnik. American Councils for International Education UniCEN 2020. \$22,430. Submitted on 10/11/2019, Project Period 01/01/2020 06/30/2021.
- **36.** Acquisition of a State-of-the-Art Triple Quadrupole Mass Spectrometer for Nebraska Water and Environmental Research. \$164,716 (NRI), \$54,905 (ORED), \$54,905 (ARD) \$15,000 (COE). 05/01/2019 -06/29/2020.
- **37.** Technical Workshop Water Resource Management and Measurement Kazakhstan, C. Neale (Lead) and D. Snow. Central Asia Regional Economic Coop, \$14,301. Submitted on 01/10/2020, Project period 03/01/2020 05/31/2020.
- **38.** W3045: Fate and Uranium and other Co-Contaminants in Food Crops and Soil during Irrigation with High Uranium Water. 2016 ARD Hatch Multistate Enhanced Research Program. C. Ray and D. Snow. \$296,690, 10/1/2016-09/30/2020.
- **39.** Little Blue-Vadose Zone Assessment. D. Snow, EA Science and Engineering, \$1,680. 10/14/2019 03/31/2021.
- **40.** Vadose Zone and nitrate source characterization City of Waverly Source Water Assessment and Drinking Water Protection Plan. D. Snow and C. Ray. Subcontract to JEO Consulting. \$77,672. Submitted on 11/20/2017. 12/01/2017 04/28/2020.
- **41.** Biocidal Treatment Module for Reverse Osmosis Membrane. Nebraska Environmental Trust. \$80,882. S. Najati (lead), M. Bavarian, and D. Snow. Period 9/1/2018-8/31/2019. Submitted on 9/5/2017.
- **42.** Measurement of glyphosate and AMPA in samples of surface runoff from Wolf Creek watershed. D. Snow and S. Biswas. Ohio Seagrant Funding Program. Subcontract to Heidelberg University. \$8,750. 01/01/2020 06/30/2020.
- **43.** CPNRD Vadose Nitrate. D. Snow and C. Ray. \$78,012. Central Platte Natural Resources District. 03/01/2016-8/31/2020.
- **44.** Nebraska Vadose Zone Nitrate Assessment. D. Snow. and C. Ray. \$110,000. Nebraska Department of Environmental Quality. 05/01/2016-10/30/2020.
- **45.** NDEQ Chlorophyll-A Lab Analysis. D. Snow. \$6,750. Nebraska Department of Environmental Quality. 4/01/2018 12/31/2021.
- **46.** Integrating the vadose zone for improved management of Nebraska's ground water quality. C. Ray (lead) and D. Snow. (\$512,304) Nebraska Environmental Trust. (Submitted 9/8/2015) 03/01/2016-06/30/2020.

- **47.** Know Your Well: A program for agricultural education and FFA students. A. Samal (lead), M. Kreifels, C. Ray, D. Snow. (\$398,880) Nebraska Environmental Trust. (Submitted 9/8/2015) 03/01/2016-06/30/2020.
- **48.** Nebraska Sandhills as a case study for understanding and communicating the complexity of coupled grassland and aquatic systems. M. Harner, D. Dunigan, M. Farrell, A. Mittelstat, D. Snow and J. Van Etten. \$20,000. University of Nebraska System Science Initiative Planning Grant. 05/01/2018-04/30/2019.
- **49.** The chemistry and ecotoxicology of microplastics water quality research experience in Nebraska waterways. D. Snow, S. Bartelt-Hunt and J. Bricker. Ne Water Center-USGS, \$10,080, Submitted on 11/13/2017, Project Period 03/01/2018 12/31/2019
- **50.** Vadose Zone Nitrate Springfield WHPA. D. Snow and C. Ray. \$24,033. Papio-Missouri Natural Resources District. Project Period 01/01/2018-03/01/2019.
- **51.** Vadose Zone Nitrate Study for the City of Hastings, NE. D. Snow (lead) and C. Ray (\$299,982) City of Hastings, Nebraska, 10/01/2015 09/30/2019.
- **52.** Isotopes of Nitrate in Bazile Creek Headwaters. D. Snow and T. Gilmore, \$4,162. Upper Elkhorn NRD, Submitted on 08/30/2019, Project Period 09/07/2018 08/31/2019.
- **53.** Mitigate Antibiotic Resistance in Beef Cattle Manure through Composting. (\$112,582) Wang, B. A. Schmidt, S. Bartelt-Hunt, X. Li and D. Snow. ARD & US MARC Research Collaboration Program. 7/1/2017-6/30/2019.
- 54. D. Snow (lead) and S. Bartelt-Hunt. Emerging Contaminants in Syr Darya Region, Al-Farabi Kazakh National University. Submitted on September 30, 2014. (sub-contract for proposal submitted to Ministry of Education and Science, Kazakhstan. (\$145,614 requested sub-award; \$858,862 total project amount, B. Uralbekov lead investigator funded at 40% of original request UNL award =\$10,345 in 2015; = \$10,345 in 2016). 07/01/2015- 12/31/2019.
- **55.** Impacts of agricultural toxicants on amphibians in the Rainwater Basin in central Nebraska. C. Allen (lead), L. Giesler, T. LaGrange, C. Ray, and D. Snow (\$119,971) Nebraska Game and Parks Commission. 01/01/2015-4/30/2019.
- 56. WSC Category 1: Influence of Climate and Agricultural Clustering on Groundwater Contamination by Trace Organics. (\$599,663) S. Bartelt-Hunt (lead), J. Gates, X. Li, Y. Li, D. Rosenbaum, D. Snow, Z. Tang, E. Thompson. (Submitted 9/10/2013) National Science Foundation Water Sustainability and Climate (WSC), Funded through USDA AFRI Program 08/01/2014 07/30/2018
- 57. Occurrence of Veterinary Pharmaceuticals and Metabolites in a Groundwater Fed Waterway. D. Snow (lead) and S. Bartelt-Hunt. USDA Meat Animal Research Center. \$29,990. Period:10/1/2017-9/30/2018. Submitted on 5/31/2017.
- **58.** Dirty Little Secrets: Wastewater Epidemiology Use to Determine Community Drug Use. Lisa McFadden (Lead USD); D. Snow and S. Bartelt-Hunt (\$43,950) subcontract to University of South Dakota Great Plains IDeA-CTR Pilot Grant Program. Submitted on 01/13/2017. 06/01/2017 05/31/2018
- **59.** Vadose Zone Nitrate Lower Platte South NRD. D. Snow (lead) and C. Ray. Lower Platte South Natural Resources District. \$35,518. 03/01/2017 06/30/2018.
- 60. Evaluation of Manure Pit Additives on the Occurrence of Antimicrobial Residues and Antimicrobial Resistance During Swine Manure Storage. S. Bartelt-Hunt (lead), X. Li, D. Snow, A. Schmidt. National Pork Board, \$157,823, Submitted on 11/10/2016. Project Period 05/01/2017 - 04/30/2018.

- **61.** Water Resources of the Great Plains Region: Status and Future. Nebraska-EPSCoR. \$5,000. C. Ray and D. Snow. 07/01/2018 12/31/2018.
- **62.** WA ERG 2-2/Water Enforcement: Interpretation of Stable Isotopes, D. Snow, Eastern Research Group Inc., USEPA, Submitted on 8/1/2018, Project Period 08/30/2018 04/30/2019.
- **63.** Influence of the Method and the Timing of Land Application on the Persistence/Retention of Multiple Manure Constituents in Soil. X. Li (lead), S. Bartelt-Hunt, A. Schmidt, and D. Snow (\$60,325) National Pork Board Research Foundation. Submitted on 11/18/2104), 05/01/2015 04/30/2016.
- **64.** Nitrate Mediated Mobilization of Naturally Occurring Uranium in Groundwater. Karrie Weber (lead), D. Snow and K. Campbell. (\$230,839) USGS 104G National Grants Program, Requested Period: 09/01/2014-08/31/2017. Extension until September 2018.
- **65.** Monitoring Antibiotics in Irrigation Return Flows in the Magic Valley of Southern Idaho. D. Snow and Rob Dungan (\$46,100) USDA Agricultural Research Service. 05/01/2015-4/30/2017.
- **66.** Denitrification in the vadose zone. C. Ray (lead) and D. Snow ARD Water and Land Conservation Program (Williams Fund). \$59,995. 07/01/2015-09/30/2018.
- **67.** Univ. Missouri: Analysis of upland areas for neonicotinoid insecticides. D. Snow (\$126,000). University of Missouri Columbia subcontract.09/01/2015-08/30/2020.
- **68.** Observation and Model Development of Emerging Organic Pollutants of Concern along the Ganga River Basin: Implications for Risk Assessment (OFELOS). D. Snow and P. Chakraborty. ARD Strategic Opportunities Fund. \$2,180. 8/7/2017-12/31/2017.
- **69.** Utilization of cyanobacteria Anabena variabilis for biological hydrogen production. (\$10,000) Ashraf Hassan (lead) and D. Snow. Layman Fund. (submitted 10/13/2016)
- **70.** University of Missouri: Neonicotinoid analysis of wetlands. D. Snow. (\$101,250). University of Missouri Columbia subcontract. 09/01/2015-08/30/2020.
- **71.** Wetland Quality Monitoring Rainwater Basin. D. Snow for Nebraska Water Sciences Laboratory. (\$28,658). US Fish and Wildlife Service, Grand Island, NE. (Submitted 7/20/2015) 09/10/2015-09/01/2018.
- 72. Missouri Extraction and analysis of neonicotinoid pesticides from soil samples-Goyne, (\$3,600) D. Snow (lead). University of Missouri, (Submitted on 12/1/2015) 02/01/2016-02/01/2017
- **73.** Setback Distance Requirements for Removal of Swine Manure Slurry Constituents in Runoff. (\$132,712) X. Li (lead), S. Bartelt-Hunt, A. Schmidt, D. Snow, National Pork Board, (submitted on 11/17/2015), 05/01/2016 04/30/2017.
- **74.** Evaluation of changing irrigation management on ground water recharge and quality. (\$15,000). T. Gilmore (lead), D. Snow and S. Sibray. USGS 104b Program. (submitted on 11/24/2015). 5/1/2016-4/30/2017.
- **75.** Bazile Ground Water Management Area: Proposed nitrate isotope and ground water age-dating study. D. Snow and D. Miller. (\$22,480) Upper Elkhorn Natural Resources District (submitted 08/03/2015) 08/01/2015-07/31/2017.
- **76.** US-Kazakhstan workshop and pilot study- Pesticide occurrence and ecological effects in the Syr Darya River Basin. (\$49,751). D. Snow (lead), S. Bartelt-Hunt, A. Kolok and M. Jefferies. National Science Foundation Catalyzing New International Collaborations (CNIC) Program (Award #1427834). 8/1/2014-10/30/2016.
- 77. Contaminants Project: Sample Processing & Analysis 2012-2015. (\$22,600, increased on

- 11/14/2014 to \$31,900) US Department of the Interior FWS, 9/14/2011-09/30/2016.
- **78.** POCIS to Measure Agricultural Tile Drainage Contaminants within Madison Wetland Management District. (\$12,500 original amount increased to \$56,700) Dept of Interior-FWS. 05/01/2013 06/01/2017.
- **79.** Influence of the Method and Timing of the Land Application of Manure on the Fate and Transport of Manure Constituents in Runoff. (\$88,518). National Pork Board. X. Li (lead), S. Bartelt-Hunt, D. Snow, A. Schmidt. 5/1/2014 4/30/2015.
- **80.** Automating stable isotope analysis for Nebraska water resources research. D. Snow (lead) and C. Ray. ARD Strategic (Miscellaneous) Funding. Requested \$100,000 & funded at \$45,540 with NRI match and NWC loan. 05/15/2015.
- **81.** Antibiotics in Agroecosystems: State of the Science. McLain, J.E. (lead), D.D. Snow, and L.M. Durso (\$49,872) AFRI Food Safety Program Area 2, "Effective Mitigation Strategies for Antimicrobial Resistance" (A4171). Conference grant. Proposed Meeting Dates: Jan 12 15; Jan 26 29; or Feb 9 12, 2014., 10/1/2013 -12/1/2015 (University of Arizona).
- **82.** Fate of Manure-Borne Antimicrobials Monensin, Lincomycin, and Sulfamethazine and Potential Effects to Nitrogen Transformation in Soil. D. Snow (lead), M. D'Alessio, and D. Miller. USGS 104b program (\$20,000) 3/1/2015-2/28/2016.

Recent not-funded to be resubmitted – last 5 years

- 1. Quantifying PFAS and Microplastic Enrichment in Naturally Produced Surface Water Foams. S. Comfort (lead) D. Snow, N. Aich. US Geological Survey PFAS Program. \$309,796 federal funds/\$619,593 total. Submitted on 6/22/2024. Project period 01/01/2025-12/31/2027.
- 2. Understanding the fate and impacts of MNPs and PFAS in compost. D. Snow and M. Kaiser. Foundation for Food & Agriculture Research (FFAR) \$150,000 Subaward from Oregon State University. Submitted on 7/18/2024, Project period 01/01/2025-12/31/2026.
- 3. MRI Track 1 acquisition of a pyrolysis- gas chromatograph-tandem mass spectrometer to advance the science of biopolymers and micro- and nanoplastic pollution. D. Snow (lead), N. Aich, Shannon Bartelt-Hunt, Y. Li, A. Malakar. NSF Major Research Instrumentation (MRI) program. \$413,262. Submitted 11/15/2023, Project period 07/01/2024 06/30/2025.
- 4. IRES US-Kazakhstan Collaborative Solutions to Water Pollution. D. Snow (lead), E. Haacker, I. Filina, S. Bartelt-Hunt. NSF International Research Experience for Students program. \$448,276 Submitted 02/05/2024, Project period 10/01/2024-09/30/2027.
- 5. Predicting geogenic contamination of groundwater from nitrate transformation within the vadose zone beneath agriculturally intensive areas. A. Malakar (lead), M. Kaiser, D. Snow, C. Ray and J. Westrop. USDA-NIFA-AFRI-009755. \$649,996. Submitted on 09/07/2023, Project period 08/01/2024 07/31/2027.
- 6. Roof Collected Rainwater Study for Drinking Water. B. Chen (lead), D. Snow, D. Richter-Egger, Paul Ayayee. \$97,704. Nebraska Environmental Trust. Submitted on 9/1/2023, Project period 03/01/2024 02/28/2026.
- 7. Effect of Microplastics Presence on PFAS Release and Transport from Land-Applied Biosolids in Agricultural Soil and Runoff. N. Aich, S. Bartelt-Hunt, D. Snow, \$279,000, G23AS00484 USGS PFAS competition, submitted on 05/07/2023. Project period, 01/1/02024-12/31/2026.
- 8. Decision-makers of Today: Understanding How Youth-Driven Citizen and Community Science Creates Public Value. P. Bitterman (lead), and D. Snow. NSF Science of Science: Discovery,

- Communication and Impact (SOS:DCI) (PD 19-125Y), \$288,259. Submitted on 09/11/2023, Project period 08/01/2024 07/31/2027.
- 9. Nebraska Extension networking for Kyrgyzstan, including Nebraska Women in Agriculture. K. Bruns (lead), C. Powers, D. Snow, J. Groskopf. \$40,000. US Department of State. Submitted on 06/06/2023, Project period 09/01/2023 08/31/2024.
- 10. Connecting Groundwater Science and Conservation Agriculture. D. Snow and C. Powers. \$231,588. Conservation Collaboration Cooperative Agreements, USDA-NRCS-NE-MULTI-23-NOFO0001237. Submitted on May 8, 2023, Project Period 9/1/2023-8/31/2025.
- 11. Investigation of Frozen Soil-Induced Spring Flood Disturbance to Biogeochemical Cycles through Lab Experiments and Multi-Scale Modeling. J Eun (lead), T. Roy, D. Snow, Guo-Yue DE-FOA-0002849. Biological and Environmental Research, Earth and Environmental Systems Sciences Division \$1,000,000. Submitted on 2/23/2023 Project Period 10/1/2023-9/30/2026.
- 12. DSFAS: EasyAgro Smart Agriculture Artificial Intelligent Predictive Decision Support Tool for Creating Resilient and Sustainable Agroecosystem. A. Malakar (lead), S. Das Choudhury, C. Ray, T. Roy, D. Snow. USDA-NIFA-AFRI-009003. \$650,000 Submitted on 11/15/2022. Project Period 04/01/2023 03/31/2027.
- 13. AccelNet Implementation: Safe and Sustainable Water for Agroecosystems Network-to-Networks (SSWAN2N). C. Neale (lead), S. Bartelt-Hunt, P. Bitterman, E. Haacker, R. Ritzma, D. Snow, S. Ahmadzai, S. Fassnacht, T. Martin, T. Gates, D. Tarboton. NSF Accelnet Implementation Program. \$1,999,866. Submitted on 10/11/2022. Project period 10/01/2023 09/30/2027.
- IRES Track I: IRES Sites (IS) US-Kazakhstan Collaborative Solutions to Water Pollution. D. Snow (lead), S. Bartelt-Hunt, E. Haacker, I. Filina. NSF International Research Experience for Students (IRES Track I Program. \$299,985 Submitted on 9/20/2022, Project period 07/01/2023 -06/30/2026
- 15. Salinization in Agriculture: Enhancing Research Collaborations and Curriculums in Kazakhstan. A. Daigh, A. Malakar, Jill Motschenbacher, D. Rudnik, D. Snow. \$24,000. American Councils for International Education -U.S. Mission to Kazakhstan. Submitted on 12/21/2022, project period 01/01/2023 02/28/2024.
- 16. USDA STTR: Laboratory Testing for Root Zone Solutions, LLC USDA STTR Project Protective effect of Ferrihydrite at the Rhizosphere. D. Snow Subcontract \$69,001 to "Rootzone Solutions, LLC, USDA-NIFA-SBIR-009301. Submitted on 10/21/2022, project period 04/01/2023 03/31/2024.
- 17. Contaminants of emerging concern (CECs) in wastewater and groundwaters of Kazakhstan. (subcontract for "Development of treatment solutions based on permeable reactive barriers for managed recharge of groundwaters with effluents of wastewater treatment plants", Nurlybaeva Aisha and M. Kalmakanova lead, M.Kh. Dulaty University to Kazakh Ministry of Higher Education and Science. D. Snow (lead) UNL Subaward \$17,000. Submitted on 11/11/2022, Project Period 02/01/2023 12/31/2025.
- 18. Elucidation of Passive and Real-time Sampling Methodologies for Monitoring PFAS in Stormwater, Surface Water, and Sediment Fractionation. T. Messer (UKY-Lead), S. Bartelt-Hunt, and D. Snow. \$1,559,470, Preproposal ER24-C2-4053 SERDP Program. submitted on 1/10/2023, Project period March 1, 2023-February 28, 2027.
- 19. Salinization in Agriculture: Enhancing Research Collaborations and Curriculums in Kazakhstan. A. Daigh (lead), D. Snow, J. Motschenbacher, A. Malakar, D. Rudnick, B. Uralbekov, A. Nurbol, M. Kalmakhanova, B. Satbaldiev. \$24,000. American Councils for International Education U.S.-

- Kazakhstan University Partnerships Grants Program. Submitted on 12/21/2022. Project period 2/1/2023-10/31/2023.
- 20. Partnerships for Climate Smart Production: Statewide Pilot Studies in Nebraska. Bijesh Maharjan and 33 co-investigators. USDA-NRCS-COMM-22-NOFO0001139. \$29,194,159, Period: 09/01/2022 08/31/2027
- Investigation of Frozen Soil-Induced Spring Flood Disturbance to Biogeochemical Cycles through Lab Experiments and Multi-Scale Modeling. J. Eun (lead), T. Roy, and D. Snow, \$1,000,000, Department of Energy BER, Submitted on 17 Feb 2022, project period, 10/1/2022 – 9/30/2025
- Novel microbial amendments for increased soil organic carbon sequestration on cropland: Measurements and modeling. D. Snow, A. Liska, A. Malakar, C. Ray. \$170,000 Nebraska Center for Energy Sciences Research Energy Research Grants Cycle 17. 01 January 2023-31 December 2025.
- 23. Improving PFAS Transport and Recovery from Contaminated Water by Quantifying Air-Water Interactions. Steve Comfort (lead) Sorab Panday, Daniel Snow, Chittaranjan Ray. USGS PFAS Research Program, G22AS00256, \$245,197, Project period 12/01/2022 11/30/2025.
- 24. Environmental Education Local Grants Program for Region 7 Solicitation Notice for 2021. R. Herpel (lead), J. Keshwani, G. Panther, and D. Snow. EPA Office of Environmental Education EE-21-07, \$99,795, submitted on December 6, project period 07/01/2022 06/30/2025.
- 25. Laboratory support for Wastewater-based Epidemiology for Opioid Use. D. Snow (UNL Lead). Subcontract to University of Oklahoma, \$154,732. Project ID 55124. FORE Program Proposal. Submitted on 28 August 2021. Project period 01/01/2022 12/31/2023.
- 26. IRES -Track I: IRES Sites (IS) Water Quality and Availability in the Syr Darya Basin, Central Asia. D. Snow (lead), S. Bartelt-Hunt, E. Haacker, C. Neale. NSF IRES Track-1 Program. \$299,974 Submitted on 09/21/2021, Project Period 07/01/2022-6/30/2025.
- 27. EasyAgro: Smart Agriculture Decision Tool for Creating Resilient and Sustainable Agroecosystem under Climate Stress. A. Malakar (lead), C. Ray, and D. Snow. Subcontract to Univ of North Texas, NSF 21-617 Cyberinfrastructure for Sustained Scientific Innovation (CSSI). \$1,000,000. Submitted on 11/23/2021, project period 04/01/2022 03/31/2026.
- 28. Building Institutional Education Capacity for the Diagnostic Analysis of Existing Irrigation System Maintenance and Rehabilitation Needs. C. Neale (lead) and D. Snow. Amer Councils for Intl Educ-U.S. Mission to Kazakhstan. \$37,974. Submitted on 11/19/2021. Project period 01/01/2022 09/30/2022.
- DSFAS: Blockchain for Water and Nitrogen Management in the Ogallala Aquifer Region of Nebraska. A. Liska (lead), A. Malakar, C. Ray, D. Snow. \$400,000. Project ID 54970.
 Subcontract to Univ of North Texas USDA DSFAS A1541 program. Submitted on 22 July 2021.
 Project period 05/15/2022 - 05/14/2025.
- 30. Know Your Well: Youth-Led Water Science for Safe Rural Drinking Water, D. Snow (lead), G. Panther, A. Malakar, C. Ray. USGS 104G Program. \$247,637. Submitted on June 24, 2021. Project Period 10/1/2021-9/30/2025.
- 31. Assessment of chemical hazards on reconditioned water from protein processing plants for direct potable reuse. Yulie Meneses (lead), Bing Wang, Xu Li, Daniel Snow, Michael Jahne, Clinton Williams. USDA AFRI Water Quality and Quantity A1411 \$493,366. Submitted on June 10, 2021. Project Period 1/10/2022-12/30/2024.

- 32. Protective effect of 2-line Ferrihydrite in controlling mobility and uptake of contaminants and nutrients in the rhizosphere. D Snow(lead), A. Malakar, Y. Li, D. Rudnick, B. Maharjan, C. Ray. \$649,008, USDA AFRI Nanotechnology for Agricultural and Food Systems A1411. Submitted on May 26, 2021. Project period 04/01/2022-03/31/2026.
- 33. AccelNet Implementation: Safe and Sustainable Water for Agroecosystems Network-to-Networks. C. Neal (lead), S. Fassnacht, S.J. Ahmadzai, N. Grahm, E.M. Haacker, S.L. Bartelt-Hunt, P. Bitterman, T. Gates, D. K. Hartman, T.C. Martin, J. Qi, J.A. Sinclair, D. Snow, V. V. Tarabara. NSF 21-511 AccelNet Program \$1,999,894. Submitted on 04 January 2021, Project Period 01 October 2021 30 September 2025.
- 34. IRES Track I: IRES Sites (IS) Water Quality and Availability in the Syr Darya Basin, Central Asia. D. Snow (lead), E. Haacker, S. Bartelt-Hunt and C. Neale. NSF 20-598 International Research Experiences for Students (IRES) program. \$272,181. Submitted on 11 November 2020, Project Period 1 July 2021 30 June 2024.
- 35. Know Your Well III Educating Nebraska Youth about Well Water Science. P. Woodward (lead) D. Snow and M. Harner. Nebraska Environmental Trust, \$656,737. UNL Subcontract \$620,879 includes \$200,000 NDEE and \$30,000 IANR/NWC direct cost share. UNK Subcontract \$235,859. Submitted 04 September 2020. Project period 01 July 2021-30 June 2024.
- 36. A Summary of Soil Health and Water Quality in Nebraska. C. Proctor(lead) K. Koehler-Cole, B. Maharajan, A. Basche, L. Sandall, D. Snow. Nebraska Environmental Trust. \$90,000. Submitted on 08 September 2020, project period 07/01/2021 06/30/2022.
- 37. Novel nutrient management approaches for reducing nitrate leaching below crop rootzone in Nebraska. J. Igbal(Lead), D. Snow, A. Schmidt, R. Koelsch, B. Maharjan, D. Miller. Nebraska Environmental Trust, \$251,162, submitted on 08 September 2020, Project Period 07/01/2021 06/30/2024.
- 38. Radioecological assessment of environmental pollution in the area of the Akshatau tungsten-molybdenum deposit. B. Uralbekov (Lead), B. Satybaldiyev, and D. Snow, Kazakh Ministry of Education and Science, (\$25,590 subcontract to Al-Farabi Kazakh National University), \$126,450, Submitted on 16 August 2020.
- 39. Advancing water reuse in agriculture through understanding stakeholders' perception and changing behaviors. Yulie Meneses, C. Ray, A. Ahmad, J. Weigle, D. Snow, X. Qiao, C. Cahn, C. Williams. USDA Conservation Innovation Grant. \$814,793, Submitted on 06/29/2020. Project Period: 02/01/2021 01/31/2024.
- 40. Nucleotide analysis and chemical markers to track the spread of COVID-19 via community wastewater in Chennai City: Implication for monsoonal trend. Paromita Chakraborty (lead), Mukesh Pasupuleti and D. Snow. Indo-US Science and Technology Forum. 4983000 INR. Submitted on 05/14/2020, project period 09/01/2020 through 03/31/2022.
- 41. USDA AFRI Protective effect of 2-line Ferrihydrite in controlling mobility and uptake of contaminants and nutrients in the rhizosphere. D. Snow(lead), M. Kaiser, B. Maharjan, A. Malakar, C. Ray and D. Rudnick, USDA-NIFA-AFRI-006772, \$499,059, Submitted on 04/02/2020, project period 10/01/2020-09/30/2023.

Conference Abstracts, (Italics indicates Student Author)- last 10 years

- 1. **Snow, D. D.** Wastewater Reuse for Irrigation. 3rd International Conference on Higher Education Institute, Challenges & Solutions for Sustainable Development Goals 2024 SRMIST Kattankulathur Campus, Chengalpattu, Tamil Nadu, 4 December 2024 (Virtual).
- 2. Brock-Contraras, Sara, Daniel D. Snow, and Christopher Olson. Youth participatory science

- impact on domestic well water quality monitoring and protection in Nebraska. Abtract ID 1630814. American Geophysical Union, AGU24. Washington, D.C. (Note: This abstract and a interview was features in a separate article published in AGU Eos article 11 December 2024. https://eos.org/articles/nebraska-high-schoolers-test-well-water-quality.
- 3. Arshdeep Singh, Javed Iqbal, Daran R Rudnick, Christopher Proctor, **Daniel D Snow**, Laila A Puntel, Swetabh Patel. Impact of Nitrogen Stabilizers and Application Timing on Corn Yields, Groundwater Quality, and Economic Profits. ASA, CSSA, SSSA International Annual Meeting. San Antonio, TX. 13 November 2024

 https://scisoc.confex.com/scisoc/2024am/meetingapp.cgi/Paper/160480.
- 4. *Arshdeep Singh*, Javed Iqbal, Daran R Rudnick, Christopher A Proctor, **Daniel D Snow**, Laila A Puntel, Laura Thompson. ASA, CSSA, SSSA International Annual Meeting, San Antonio, TX. 11 November 2024. https://scisoc.confex.com/scisoc/2024am/meetingapp.cgi/Paper/160496.
- 5. **Snow, D. D.** Modern Pesticides: Challenges in Measuring, Monitoring, and Understanding Environmental Effects. Alternate CirCular Engineering for PesTicides, ACCEPT, 28-29th October 2024, Tecnológico de Monterrey (Virtual).
- 6. *Madeline G. Rauhauser*, Shannon Bartelt-Hunt, **Daniel D. Snow**. Occurrence of Per- and Polyfluoroalkyl Substances in Wastewater Treatment Plants Serving Rural Communities. SETAC North America 45th Annual Meeting, Fort Worth, TX, 20 24 October 2024.
- 7. *Sarah Tucker*, **Daniel D. Snow**, Alex Egbuchiem, Julia Bai, JoEllyn McMillan, Kristina Kintziger, and Aaron Yoder. Analysis of Per- and Polyfluoroalkyl Substances in Nebraska Drinking Water. SETAC North America 45th Annual Meeting, Fort Worth, TX, 20 24 October 2024.
- 8. Adriano S. Silva, Ana Paula Ferreira, P. Zadra, Fernanda F. Roman, Maddee Rauhauser, Juliana M. T. Pietrobelli, Marzhan S. Kalmakhanova, **Daniel D. Snow**, and Helder T. Gomes. Monitoring and Mitigating Micropollutant Contamination in River Waters: A Focus on Catalytic Treatment of Hospital Wastewater. SETAC North America 45th Annual Meeting, Fort Worth, TX, 20 24 October 2024.
- 9. *Aidana Khabashova, Aisha Nurlybaeva*, Helder T. Gomes, **Daniel D. Snow**, Marzhan S. Kalmakhanova. Contaminants of Emerging Concern in Effluent of Municipal Wastewater Facilities in Kazakhstan and Proposed Treatment Alternatives for Water Reuse. SETAC North America 45th Annual Meeting, Fort Worth, TX, 20 24 October 2024.
- 10. *Sara Brock-Contraras* and **Daniel D. Snow.** Evaluation of Youth Participatory Science Program on Groundwater Quality Management. SETAC North America 45th Annual Meeting, Fort Worth, TX, 20 24 October 2024.
- 11. *Jascika Maclean*, Shannon Bartelt-Hunt, **Daniel D. Snow**, Moushumi Hazra, *Raquel Becker*. Watershed Scale Occurrence, Fate and Potential Ecotoxicity Of Pesticide-Treated Seed Residues Resulting From Ethanol Production Waste Product Release. SETAC North America 45th Annual Meeting, Fort Worth, TX, 20 24 October 2024.
- 12. Michelle L. Hladik, Dana W. Kolpin, Matthew D. De Parsia, **Daniel D. Snow**, Shannon Bartelt-Hunt, Brenda K. Densmore, Laura E. Hubbard, David L. Rus, Jonathan J. Spurgeon, Brittany G. Perrotta, Karen A. Kidd, Johanna M. Kraus, Carrie E. Givens, Christopher J. Kotalik, David M. Walters. SETAC North America 45th Annual Meeting, Fort Worth, TX, 20 24 October 2024.
- 13. Joyce Cristale, *Raquel Wielens Becker*, Valdemar Luiz Tornisielo, Renato Falcão Dantas, Shannon Bartelt-Hunt, Sathaporn Onanong, and **Daniel D. Snow**. Development of an analytical method to assess the occurrence and potential risks associated with neonicotinoid insecticides and their metabolites in wastewater. Brazilian Ecotoxicology Congress (ECOTOX2024, ecotox2024.com.br) Belém, Brazil, October 22-25, 2024.

- 14. *H. Olupathage*, D.S. Hage, *K. Suh*, *J. Ayars*, and **D.D. Snow.** Use of novel high-performance affinity microcolumns to study interactions by humic acids with pharmaceuticals and emerging pollutants in water. ACS Midwest Regional Meeting 13-14 October 2024. Omaha, NE.
- 15. S. Sharmeen, I. Kyei, A. Hatch, S. Poddar, K. Suh, S. Iftekhar, **D.D. Snow**, and D.S. Hage. Analysis of interactions between pharmaceuticals and humic acid using high-performance affinity microcolumns. ACS Midwest Regional Meeting 13-14 October 2024. Omaha, NE.
- 16. *I. Kyei, M. Gonzales, N. Kotlin, H. Olupathage,* **D.D. Snow,** and D.S. Hage. Evaluation of interactions between pharmaceuticals and humic acid in water by ultrafast affinity extraction. ACS Midwest Regional Meeting 13-14 October 2024. Omaha, NE.
- 17. D.S. Hage, S. Sharmeen, A. Wolfork, S. Iftekhar, K. Suh, H. Olupathage, I. Kyei, S. Poddar, J. Ayars, M. Gonzales, N. Kotlin, M. Rauhauser, **D.D. Snow.** Studies of chemical and biochemical interactions with high-performance affinity microcolumns: New developments for biomedical and environmental applications. ACS Midwest Regional Meeting 13-14 October 2024. Omaha, NE.
- 18. **D. D. Snow**, A. Malakar, and C. Huber. Sharing the Chemistry of Water through Youth-Led Participatory Science. ACS Midwest Regional Meeting 13-14 October 2024. Omaha, NE.
- 19. David L. Hage, **Daniel D. Snow**, Sadia Sharmeen, Kyunggah Suh, Isaac Kyei, Harshana Olupathage. New Developments in Drug Binding Studies using High-Performance Affinity Microcolumns and Non-Covalent Entrapment: Environmental and Pharmaceutical Applications. 34th International Symposium on Chromatography 6-10 October 2024, Liverpool, UK,
- 20. **Snow, D.D.** Collaboration and Youth-led Participatory Science. Nebraska Water Conference, Collaboration and Innovation in Nebraska Water, October 9 and 10, 2024, Lincoln, NE.
- **21. Snow, D.D.** Hastings Well Head Protection Area Subsurface Case Study in Data-Driven Nitrate Management. Nebraska Water Conference, Collaboration and Innovation in Nebraska Water, October 9 and 10, 2024, Lincoln, NE.
- 22. *Madeleine Rauhauser, Sarah Tucker*, Shannon Bartelt-Hunt, and **Daniel D. Snow.** Challenges Measuring PFAS by EPA Method 1633, Adapting To Current And Future Testing Demands With Comprehensive PFAS Application Solutions Seminar, Nebraska Innovation Campus, Oct 8, 2024, Lincoln, NE.
- 23. *Dong, X.* **Daniel Snow,** and Arindam Malakar. Controlling nitrate leaching with subsoil carbon injection. American Chemical Society Fall Meeting, Denver, Colorado, 18-20 August 2024.
- 24. *Sadia Harmeen, Sazia Iftekhar*, **Daniel Snow**, and David Hage. Characterization of binding by pharmaceuticals to humic acid using high-performance affinity chromatography. American Chemical Society Fall Meeting, Denver, Colorado, 18-20 August 2024.
- 25. Kumar, Chandan, Yvon Ukwishaka, Daniel Snow, Daniel Miller, Chittaranjan Ray, David Fleisher, Dennis Timlin, Vangimalla Reddy, Arindam Malakar, Impact of irrigation and fertilization practices on reactive nitrogen dynamics in the deep vadose zone: Insights for sustainable groundwater quality management. American Chemical Society Fall Meeting, Denver, Colorado, 18-20 August 2024.
- 26. Brittany G. Perrotta, Karen A. Kidd, Michelle L. Hladik, Shannon Bartelt-Hunt, Brenda K. Densmore, Carrie E. Givens, Laura E. Hubbard, Christopher J. Kotalik, David L. Rus, **Daniel D. Snow**, Dana W. Kolpin, Johanna M. Kraus, David M. Walters. Mixed pesticide exposure results in transport of neonicotinoid insecticides into riparian food webs and alterations to insect and spider microbiome communities. Society for Freshwater Science. June 2-6, 2024: Philadelphia, Pennsylvania, USA.
- 27. **Snow, D.D.** Water Quality, Youth-led Citizen Science & Public Health. Nebraska Public Heath

- Conference, March 25, 2024, Lincoln, NE.
- 28. **Snow, D.D.** Sustainable Reuse of Wastewater for Irrigation. International Conference on Pollution Control for Clean Environment (ICPCCE-2023), IIT Bhubaneswar, India (Virtual)15-16 December 2023.
- 29. **Snow, D.D.** Emerging Contaminants, Water Quality and Agriculture. Guest Lecture. BSEN 455 Nonpoint Source Pollution, University of Nebraska, Lincoln, NE December 6, 2023.
- 30. **Snow, D.D.** How Citizen Science Can be Used in Environmental Chemistry. Seminar in Chemistry Department M.Kh. Dulaty University, Taraz Kazakhstan, November 15, 2023.
- 31. **Snow, D.D.** Importance of Environmental Science in Science Education. International Education Seminar Presentation at M.Kh. Dulaty University, Taraz Kazakhstan, November 16, 2023.
- **32. Snow, D.D.** Water Quality in Irrigated Agriculture Examples from U.S. and Kazakhstan. Seminar, Seminar M. Kh. Dulaty University Department of Chemistry, Taraz, Kazakstan, November 5, 2023.
- 33. *Carolyn Billings*, Martha Rhoades, Katie Kim, Eric S. Peeples, **Daniel Snow**. Extraction and Analytical Methods to Assess Placental Transfer of N-Nitrosoatrazine in a Rat Model. Student Poster. Society of Toxicology Regional Meeting, Lincoln, Nebraska, October 19, 2023.
- 34. *Arshdeep Singh*, Javed Iqbal, Daniel D Snow, Daran R Rudnick, Christopher A Proctor, Richard Little. The Impact of Split Nitrogen Application on Nitrate Leaching in Loamy Sand Soil of Nebraska ASA, CSSA, SSSA International Annual Meeting, St. Louis, Missouri, 2023/11/1.
- 35. *Arshdeep Singh*, Javed Iqbal, **Daniel D Snow**, Daran R Rudnick, Christopher A Proctor, Richard Little, Christopher Misar. Effects of Nitrogen and Irrigation Rates on Nitrate Leaching in Irrigated Corn of Nebraska. ASA, CSSA, SSSA International Annual Meeting, St. Louis, Missouri, 2023/11/1.
- 36. *Xiaochen Dong*, **Daniel D Snow**, Arindam Malakar. Controlling Nitrate Leaching in Subsoil with Woodchips Injection. ASA, CSSA, SSSA International Annual Meeting, St. Louis, Missouri, 2023/11/1.
- 37. Arshdeep Singh, Javed Iqbal, Daniel D Snow, Laila A Puntel, Daran R Rudnick, Christopher A Proctor, Laura Thompson, Haishun Yang, Humberto Blanco, Richard Little, Christopher Misar. Comparing Process-Based Crop Models and Statistical Models As Nitrogen Management Tools to Reduce Nitrate Leaching in Nebraska. ASA, CSSA, SSSA International Annual Meeting, St. Louis, Missouri, 2023/11/1.
- 38. *Arshdeep Singh*, Javed Iqbal, **Daniel D Snow**, Daran R Rudnick, Christopher A Proctor, Swetabh Patel, Richard Little, Christopher Misar. Evaluation of Stabilized Nitrogen Fertilizers, Nitrogen Timing, and Their Interaction on Nitrate Leaching in the Loamy Sand Soil of Nebraska. ASA, CSSA, SSSA International Annual Meeting, St. Louis, Missouri, 2023/11/1.
- 39. *B. Ndayambaje*, **D. Snow**, A. Malakar, *A. Uwase*, and E. VanWormer. Investigating differences in drinking water quality among surface water sources, public taps, and household water storage containers in rural communities in Rwanda. Child Health Research Institute Conference. University of Nebraska Medical Center, Omaha, Nebraska, November 3-4, 2023.
- 40. **Snow, D.D.** Sustainable Reuse of Wastewater for Irrigation. 2nd International Conference on Higher Education Institutes Challenges & Solution for Sustainable Development Goals '23. SRM University (Virtual), Chennai, India November 2, 2023.
- 41. **Snow, D.D.** Nebraska Drinking Water Past, Present, and Future. Nebraska State Legislature Planning Committee Meeting, Lincoln, NE October 25, 2023.
- 42. Snow, D. D. Nitrate in the Vadose Zone. Guest Lecture, NRES 299 Special Topics Course.

- University of Nebraska Lincoln, Lincoln, NE October 18, 2023.
- 43. **Snow, D.D.** Introduction to Environmental Chemistry, NRES 115 Lecture, School of Natural Resources, University of Nebraska Lincoln, NE October 5 and 7, 2023.
- **44. Snow, D.D.** Per- and Polyfluorinated Alkyl Substances (PFAS) An Emerging Class of Environmental Contaminants. 2023 Nebraska Water Conference, Omaha, Nebraska, October 2-3, 2023.
- 45. Meisbach, D.L. and **D.D. Snow**. Nebraska Drinking Water Past, Present, and Future. Water Resources Advisory Panel (WRAP) Meeting, Nebraska Department of Environment and Energy, Lincoln, NE September 25, 2023.
- **46. Snow, D.D.** Connecting Vadose Zone and Groundwater Quality Platte River Valley. Haskell Ag Lab Climate and Crops Family Field Day. Concord, NE August 13, 2023.
- **47. Snow**, **D.D.** 2022-24 Vadose Zone Project—Well Water Testing Isotope Study. Lower Elkhorn Natural Resources District Board Meeting, Norfolk, NE May 27, 2023.
- 48. Sadia Sharmeen, Arden Hatch, Isaac Kyei, Saumen Poddar, Sazia Iftekhar, Kyungah Suh, Harshana, Olupathage, **Daniel D. Snow**, and David S. Hage. Characterization of binding by pharmaceuticals to humic acid using high-performance affinity chromatography. 2023 Water for Food Global Conference, Lincoln, Nebraska, May 08 May 11, 2023.
- 49. Adriano Silva, Fernanda Roman, Ana Paula Silva, Jose Luis Diaz de Tuesta, Marzhan Kalmakhanova, **Daniel Snow** and Helder Gomes, Reactive materials and solutions towards treatment and reuse of waters with contaminants of emerging concern. Number: 62. ICoWEFS 2023, International Conference on Water Energy Food and Sustainability 2023, Polytechnic of Leiria, Leiria, Portugal, May 10-12, 2023.
- 50. Russell, Matthew, Tiffany Messer, Shannon Bartelt-Hunt and **Daniel Snow.** 2023. Assessing the impact of Veterinary Antibiotic species on Treatment Wetland Nutrient Removal at the Mesocosm Scale. AEES 2023 (2023 Annual Meeting of American Ecological Engineering Society):
- 51. **Snow, D. D.** Introduction to Nebraska Water Quality Opportunities. Seminar Portugal Polytechnical Institute Braganca. June 25, 2023.
- 52. Hage, David, S. Poddar, S. Iftekhar, A. Woolfork, S. Sharmeen, J. Jones, M. Rauhauser, J. Lin, **D. Snow**, M. Wilson. 2023. New Developments in Drug Screening and Binding Studies using High-Performance Affinity Microcolumns and Non-Covalent Entrapment: Biomedical and Environmental Applications. HPLC 2-23. 51st International Symposium on High Performance Liquid Phase Separations and Related Techniques. June 18-22-2023, Dusseldorf, Germany.
- 53. **Snow, D.D.** Nebraska Water Center-Water Sciences Laboratory. Nebraska Agribusiness Club Meeting, Lincoln, NE April 3, 2023.
- **54. Snow, D.D.** Analytical Applications for PFAS, Pesticides and other Chemical Contaminants of Concern Using UPLC-MS/MS. Successful Development of LC-MS Applications: A Mass Spectrometry Summit Sponsored by Waters Corporation, University of Nebraska, Lincoln, NE March 21, 2023.
- 55. **Snow, D.D.** Per- and Polyfluorinated Alkyl Substances (PFAS) An Emerging Class of Environmental Contaminants. Nebraska Association of Resource Districts Water Programs Conference. Kearney Holiday Inn, Kearney, Nebraska March 7, 2023.
- 56. Ehrman, Dick, Dave Miesbach, Charlie Pierce and **Daniel Snow**. Ground Water Monitoring for NRDs The Hows, Whys and Why Nots. Nebraska Association of Resource Districts Workshop, Kearney Holiday Inn, Kearney, Nebraska March 8, 2023

- 57. **Snow, D.D.** Trends and connections in Groundwater Quality for the Platte River Valley. Central Plains Irrigation Association Conference Holiday Inn Conference Center, Kearney, NE February 28, 2023
- 58. **Snow, D.D.** Vadose Zone and Groundwater Nitrate Water Quality Management Areas. Nitrogen and Water Management Workshop Lower Platte North NRD, Oak Ballroom, Schuyler, NE February 28, 2023.
- 59. **Snow, D. D.** Current Water Quality Issues in Nebraska. Conservation Nebraska Webinar. Lincoln, NE February 7, 2023.
- **60. Snow, D. D.** Domestic Wells What's in my drinking water? Seminar Chadron State College Geosciences Department, Chadron, Nebraska January 30, 2023
- 61. **Snow, Daniel.** 2022. Measuring micro-contaminants in the soil environment. Seminar for Kasetsart University Department of Environmental Sciences, Bangkok, Thailand December 21, 2022
- 62. **Snow, Daniel.** 2022. Environmental Mass Spectrometry of Per- and Polyfluoroalkyl Substances (PFAS). Lecture for NRES 115, Introduction to Environmental Science, School of Natural Resources, University of Nebraska-Lincoln, NE. November 30, 2022.
- 63. **Snow, Daniel**. 2022. Crop Production for Groundwater Protection. Water and Cropping Systems (WICS) Conference. November 30, 2022. Graduate Hotel, Lincoln, Nebraska.
- 64. **Snow, Daniel**. Water Use and Conservation in a Changing World. Water Quality in Agriculture. Going Green: Environmental Conservation & Sustainability Conference, Institute of Environment & Sustainable Development, BHU, Varanasi, India, November 28, 2022.
- 65. **Snow, Daniel**. 2022. Growing Know Your Well in Nebraska. Platte River Basin Conference and Playa Research Symposium Braided Paths: Science, Policy, and Culture. October 24-27, 2022, Younes Conference Center, Kearney, Nebraska.
- 66. **Snow, Daniel**. 2022. Update on Vadose Zone and Groundwater Nitrate Isotope Projects. Lower Elkhorn Natural Resources District. Norfolk, Nebraska. October 10, 2022.
- 67. **Snow, Daniel**. 2022. Water Quality and Analytical Chemistry. Water quality and treatment short course, M.Kh. Dulaty University, Taraz, Kazakhstan. June 23, 2022.
- 68. **Snow, Daniel.** 2022. Writing for a Science Audience. Science Writing Short Course, Al Farabi Kazakh National University, Almaty, Kazkahstan. June 15, 2023.
- 69. **Snow, Daniel** 2022. Academic Programs and Water Resources Research University of Nebraska. Presentation for EducationUSA program. American Councils for International Education. Almaty, Kazakhstan. June 16, 2023.
- 70. Kaiser, Michael; Lidong Li, Elnaz Hosseiniaghdam, **Daniel Snow**, Arindam Malakar, Jordan Shields, Svendja Vormstein, Hans-Peter Piepho, Bernard Ludwig. 2022. Deep Soil Carbon. Invited Presentation. 2022 ASA, CSSA, SSSA International Annual Meeting, Baltimore, Maryland November 9, 2022.
- 71. Severson, Marie A; David A. Cassada, Victor C. Huber, **Daniel D. Snow**, Lisa McFadden. 2022. Population Health Metrics During the Early Stages of the COVID-19 Pandemic: A Correlative Pilot Study. University of South Dakota Symposium on Substance Use Research. Vermillion, South Dakota. November 9, 2022.
- 72. *Ndayambaje*, *B.*, **D. Snow**, A. Malakar, *A. Uwase*, and E. VanWormer. 2022. Investigating Drinking Water Quality and Shared Zoonotic Pathogens in Rural Communities in Rwanda. 7th World One Health Congress, Singapore, November 7-11.

- 73. *Mohapatra, Sanjeeb*, **Daniel Snow**, Patrick Shea, Andy Gálvez-Rodríguez, Manish Kumar, Lokesh P. Padhye, and Suparna Mukherji1. Application of HRMS Techniques to Identify Phototransformation Products during the Photodegradation of a Mixture of Pharmaceuticals Commonly found in Wastewater. 18th Annual Workshop On Emerging High-Resolution Mass Spectrometry (Hrms) And LC-Ms/Ms Applications In Environmental Analysis And Food Safety. Barcelona, 10-11 October 2022. (oral)
- 74. Belt, Kevin, Igor Vestalo, Phillip Liescheski, and **Daniel Snow**. 2022. ISCO samplers and PFAS applications: Study on tubing material and vacuum sampler. ACS 2022 Midwest Regional Meeting, Oct 19 21, 2022, Iowa City, Iowa. (poster)
- 75. **Snow, Daniel D.**; Shannon Bartelt-Hunt, Liz Van Wormer, Judy Wu-Smart, and Shahab Karimifad. 2022. Insecticide and Fungicide Residue Monitoring from Treated Seed Recycling near a Nebraska Bioethanol Facility. Nebraska Groundwater Monitoring Council. Nebraska Department of Environment and Energy. April 12, 2022 Lincoln, NE (In –person)
- 76. **Snow, Daniel D**. 2022. Conserving Groundwater Quality Under Intensified Agriculture. Roorkee Water Conclave 2022, March 02-04, 2022, Indian Institute of Technology Roorkee. India (Virtual).
- 77. **Snow, D.D.** 2022. Nebraska Water Center Water Sciences Laboratory. Nebraska Association of Natural Resources Districts Water Programs Conference, March 2, 2022 (In-person)
- 78. **Snow, D.D.** 2022. Vadose Zone and Groundwater Nitrate Water Quality Management Areas. Nitrogen and Water Management Workshop Lower Platte North NRD, Oak Ballroom, Schuyler, NE February 1, 2022.
- 79. **Snow, D. D.** 2022. Update on Vadose Zone and Groundwater Nitrate Isotope Projects. Lower Elkhorn Natural Resources Districts. LENRD Board Meeting. January 13, 2022. Norfolk, NE. (inperson).
- 80. **Snow, D. D.** 2022. The "Fungus Among Us" Fusarium mycotoxins in water and food. American Chemical Society Local Section, California Virtual Seminar. January 18, 2022. (Zoom)
- 81. **Snow, D. D.** 2022. Environmental Mass SpectrometryPer-and PolyfluorylalkylSubstances (PFAS). Special Seminar for Teledyne-ISCO, Lincoln, Nebraska. January 14, 2022 (virtual via Teams).
- 82. **Snow, D.D.** 2022. Vadose Zone and Groundwater Nitrate Water Quality Management Areas Lower Platte North NRD. Lower Platte North Natural Resources District Water Resources Committee meeting, December 27, 2021, Wahoo, NE (in-person).
- 83. **Snow, D.D.** Characterization of Groundwater Nitrates Area 30 Lower Loup Natural Resources District. Nitrogen Management and Water Quality Field Day, December 9, 2021, Columbus, NE (in-person).
- 84. **Snow, D.D.** S. Onanong and D. Cassada. Environmental Mass Spectrometry Neonicotinoid Insecticides and Strobin Fungicides. Mass Spectrometry for Sustainable Water Resources: A Virtual Mass Spectrometry Summit. November 10, 2021, Waters Corporation and Nebraska Water Center. (virtual)
- 85. **Snow, D.D.;** S. Bartelt-Hunt; J. Wu-Smart; S. Kamiford and L. Van Wormer. Insecticide and Fungicide Residue Release and Exposure from Treated Seed Recycling at Nebraska Bioethanol Facility. Society of Environmental Toxicology and Chemistry (SETAC) North America 42nd Annual Meeting. Virtual Conference, 14-18 November 2021. (virtual)
- **86. Snow, D.D.** C. Neale, and J. Sagin. Advancing Institutional Capacity for Sustainable Groundwater. Central Asia University Partnerships Program (UniCEN) Sharing Knowledge and Sustaining Networks Conference, October 30, 2021, Tashkent, Uzbekistan (In-person).

- 87. **Snow, D.D.** Nitrate in Drinking Water: A Public Health Perspective, Water for Food Global Forum, A Virtual Interactive Series. October 17, 2021 (virtual).
- 88. **Snow, D.D.** Pushing the (detection) limits of environmental laboratory analysis in developing countries. Water and Air Research Initiative for Societal Health WaARISH 2021 virtual conference, Online Workshop August 24-25, 2021 (virtual).
- 89. **Snow, D.D.** Vadose Zone Nitrate, Use of Nitrate Isotopes and Agrichemical Occurrence in Nebraska's Groundwater. Lower Elkhorn Natural Resources District Board Meeting, August 12, 2021, Norfolk, NE (in-person).
- 90. **Snow, D.D. and J. Shields**. Vadose Zone Sampling Project Technical Report Central Platte Natural Resource District. Central Platte Natural Resources District Board Meeting, June 22, 2021, Grand Island, NE (in-person).
- 91. **Snow, D.D** Characterization of Groundwater Nitrates Area 30 Lower Loup Natural Resources District Board Meeting, June 22, 2021, Ord, NE (in-person).
- 92. **Snow, D.D.** Characterization of Groundwater Nitrates Area 30 Lower Loup Natural Resources District. Lower Loup Natural Resources District Water Committee Meeting, May 17, 2021, Ord, Nebraska (in-person).
- **93. Snow, D.D.** Vadose Zone Agrichemical Transport Study for the City of Hastings, NE. City of Hastings City Council Meeting, April 19, 2021, Hastings Nebraska (In-person).
- 94. **Snow, D.D**. Antibiotics, Emerging Contaminants and their analytical techniques. International Conference on Recent Advances in Applied Sciences, Technology & Health. SRM Research Institute, 3-5 March 2021 Chennai, India (virtual).
- 95. **Snow, D. D.** Current issues and available tools for groundwater quality management in Nebraska. Nebraska Association of Natural Resources Districts Water Programs Conference. March 2, 2021 (virtual).
- 96. **Snow, D.D.** The Future of Water Uses and Conservation in a Changing World Water Quality in Agriculture. One Health Approach for Global Healthy Water: USA and Latin America Perspective, Virtual Seminar Feb 22, 2021 (virtual).
- 97. **Snow, D.D.** How Nitrate Moves through the Soil Profile. Upper Big Blue Natural Resources District. Nitrogen Applicators Certification Program. Feb 10, 2021 (virtual).
- 98. **Snow, D.D.** Managing Groundwater Quality in Agriculturally-Intensive Regions. Earth and Environmental Sciences International Webinar Conference, University of Zululand and Chang'An University, Feb 1-2, 2021 (virtual).
- 99. **Snow, D.** D. Environmental Mass Spectrometry and Modern Pesticides. Mass Spectrometry for Sustainable Water Resources: A Virtual Mass Spectrometry Summit. December 16, 2020 Waters Corporation and Nebraska Water Center (Virtual).
- 100. Malakar, A. C. Ray, University of Nebraska, Lincoln; D.D. Snow; D. Rudnick; B. Maharjan, 2020. Natural Iron Dynamics in Irrigated Soils. Society of Environmental Toxicology and Chemistry (SETAC) North America 41st Annual Meeting. Virtual Meeting, 15-19 November, 2020.
- 101. Malakar, A. M. Kaiser, D.D. Snow, C. Ray. 2020. Ferrihydrite dissolution at the root zone of crops under semi-arid condition controls the plant uptake of uranium and arsenic. ACS Spring 2020 National Meeting & Expo, March 22-26, 2020.
- 102. Malakar, A., C. Ray, M. Saluja, J. Cooper, M. Kaiser, H. Walia, **D. D. Snow.** 2020. GEOC 22: Ferrihydrite soil amendment limit arsenic uptake in rice by promoting iron plaque formation. ACS Fall National Meeting and Expo, August 17 August 20, 2020.

- 103. **Snow, D.D.** A. Malakar, C. Adams, C. Ray. 2020. Vadose Zone Nitrate-N Study: Final Report Hastings Wellhead Protection Area: City of Hastings, NE. Final Report Hastings Wellhead Protection Area: City of Hastings, NE. April 30, 2020. Final Project Completion Report. Nebraska Water Center. 157 p.
- 104. Donner L, Li X, Bartelt-Hunt S, Snow, D, Sangster J, Staley, Z, Amandus L, Mathews W. 2020. A One Health Approach Examining the Potential Linkage between Agricultural Livestock and Human Antibiotic Resistance at the Watershed Level. IDWeek 2020 Abstracts. October 21 25, 2020. Pennsylvania Convention Center, Philadelphia, Pennsylvania.
- 105. Miller, D. M. D'Alessio, C. Ray, and D. Snow. 2020. Woodchip Barriers Buried Beneath the Crop Root Zone Restrict Nitrate Leaching. In: Edge of Field Practices for Nutrient Loss Reduction in Drained Landscapes, July 13, 2020. ASABE 2020 Annual International Meeting July 12-15, 2020 Omaha, Nebraska USA.
- 106. Mathews W, Bartelt-Hunt S, Donner L, Li X, Snow D, Loy D, Sangster J. 2020. Are Current FDA Methods Adequate to Monitor VFD Antibiotic Use in CAFO Watersheds? Midwest AMR Consortium Virtual Poster Sessions. May 26-29. https://amr2020-iastate.ipostersessions.com/.
- 107. Raval, Hiren, S. Ibrahim, **D. Snow**, M. Bavarian and S. Nejat. 2020. Anti-Bacterial Chitosan-Copper Supramolecular Assembly for Coating Thin-Film Composite Membranes. 2020 AIChE Annual Meeting November 15-20, 2020, San Francisco, CA
- 108. Meyer, M.F.; T. Ozersky, K.H. Woo, K. Schapov, D. Snow, E.J. Rosi, M.A. Timofeev, E.A. Zilow, Y. M. Zvereva, D Y. Karanaukhov, M. R. Brousil, S. E. Hampton. 2020. Effects of lakeside development on nearshore benthic communities along the southwestern shore of Lake Baikal (Siberia). The Ecological Society of America 105th Annual Meeting. August 2 7, 2020, Salt Lake City, UT.
- 109. Malakar, A. M. Kaiser, **D.D. Snow**, C. Ray. 2019. Impact of ferrihydrite transformation on the bioavailability of arsenic and uranium in intermittently irrigated soils. H41J Critical Zone Across Scales: Fate, Transport, and Transformation Products. Abstracts with Program. Remediation of Contaminants from Nanocolloids to Trace Metals and Their Transformation Products: AGU Fall Meeting, 9 13 December 2019, San Francisco, CA.
- 110. Malakar, A., **Snow, D. D.**, Kaiser, M., Walia, H., Maharjan, B., Rudnick, D., Panda, B., Shields, J., Ray, C. 2019. Role of Ferrihydrite at the Root Zone in Uptake of Arsenic, Selenium and Uranium by Crops in Intermittent Irrigation System, CSIR-CSIO Seminar, Chandigarh, India. September 19th, 2019.
- 111. **Snow, D.D**. 2019. Groundwater Nitrate in Northeast Nebraska. 2019 Nebraska Water Conference. Building a Clean Water Future in Northeast Nebraska Divots Conference Center, Norfolk, NE
- 112. Pradhan, Rudra Mohan, K.A. Weber, D. D. Snow. 2019. Spatio-temporal distribution of uranium concentration in shallow aquifers of Aravalli terrane (North Gujarat, India). Paper No. 267-11, Session No. 267--Booth# 164, D12. Recent Advances in Hydrogeology (Poster). Geological Society of America Abstracts with Programs. Vol. 51, No. 5 Geological Society of America (GSA) Annual Meeting. Phoenix, AZ, September 22-25, 2019.
- 113. Biswas S; **Snow D.D.**; Johnson L.T. 2019. Seasonal changes in glyphosate concentrations in the Lake Erie tributaries using high throughput monitoring using IC-ICP-MS. Special Symposium Oral presentation at 258th ACS National Meeting and Exposition, San Diego, CA. Aug 25-29, 2019.
- 114. Maria C. Hall, Noelle Mware, John Gilley, Daniel Snow, Shannon Bartelt-Hunt, Yusong Li, and Xu Li. 2019. Transport of Antibiotic Resistance Genes in Runoff Following Manure Land Application. Association of Environmental Microbiology, ASM Microbe 2019, San Francisco, CA June 20-24, 2019.

- 115. *Keilhauer, Mary;* Tiffany L. Messer; **Daniel Snow,** Aaron Mittelstet. 2019. Pesticide Exposure in Recreational Lakes. In: Session Grand Challenges Pesticides in Freshwater Ecosystems. ASABE 2019 Annual International Meeting. Marriott Copley Place, Boston Massachusetts. July 7-10, 2019
- 116. *Hall, M. Noelle Mware*, John Gilley, Daniel Snow, Shannon Bartelt-Hunt, Yusong Li, and Xu Li. 2019. Determining the Setback Distance Needed to Minimize the Transport of Antibiotics and Antibiotic Resistance Genes in Runoff Following the Land Application of Swine Manure Slurry. AEESP Research and Education Conference, Arizona State University. Phoenix, AZ. May 14-16, 2019.
- 117. Snow, D.D. 2019. Groundwater and vadose zone nitrate-association with geogenic contaminants. Nebraska Agri-Business Association & University of Nebraska Lincoln. Advanced Topics Soils School 2019, January 30-31, 2019. Grand Island, NE.
- 118. Biswas, S., L. Johnson, and D. Snow (2018) High throughput monitoring of glyphosate in the Lake Erie Basin using IC-ICP-MS: Method development and preliminary data. In: Developments in Water Quality Monitoring and Analytical Methods in Support of Water Reuse Part 1. SETAC North America 39th Annual Meeting. Sacramento, CA. 4-8 November 2018.
- 119. Gilmore, T., *M. J. Wells*, N. Nelson, A. Mittelstet, J.K. Böhlke, D. Snow (2018) Decadal changes in groundwater recharge and nitrate concentrations in a shallow aquifer under changing agricultural practices: application of repeat sampling and machine learning approaches. 2018 AGU Fall Meeting, Washington, DC 10-14 Dec 2018.
- 120. Raval, H.D, D. Snow, S. Nejati (2018) A review on Removal of Emerging Contaminants from Wastewater and Drinking water.71th Annual Session of Indian Institute of Chemical Engineers. CHEMCON–2018. Seamless Chemical Engineering in Service of Humanity: Innovations, Opportunities & Challenges, December 27 30, 2018, Dept. of Chemical Engineering, Dr. B. R. Ambedkar National Institute of Technology Jalandhar.
- 121. Raval, H.D, **D. Snow**, D. Cassada (2018). A novel, quick method to detect Azithromycin concentration by High performance Liquid chromatography using offline derivatization. 71th Annual Session of Indian Institute of Chemical Engineers. CHEMCON–2018. Seamless Chemical Engineering in Service of Humanity: Innovations, Opportunities & Challenges, December 27 30, 2018, Dept. of Chemical Engineering, Dr. B. R. Ambedkar National Institute of Technology Jalandhar.
- 122. **Snow, D.D**. 2018. Measuring Water Quality in Tomorrow's Agroecosystems. Invited Seminar. Indian Institute of Technology Gandhinagar, Gujarat, India, November 23, 2018.
- 123. **Snow, D.D**. and A. Malakar. 2018. Detecting changing water quality in intensive food production systems. Indo-US bilateral workshop on Water-Food-Energy-Climate nexus: A perspective towards a sustainable future (WFEC nexus 2018). Varanasi, India. November 16-21.
- 124. **Snow, D.D.** and S. Bartelt-Hunt. 2018. Looking After Water Quality in Tomorrow's Agroecosystems. Water and Air Research Initiative for Societal Health Workshop, (WaARISH-2018), SRM Research Institute, SRM Institute of Science and Technology, Tamilnadu, India, 13 November 2018.
- 125. Gouin, N., A. Bertin, M. Espinoza, *J. Ali, L. Allmon*, **D. Snow** & A. Kolok (2018) Pesticide contamination affects genetic diversity and population differentiation of a mayfly species within a Chilean agricultural watershed. XIX Conference of the Iberian Association of Limnology, 24 29 June 2018, Coimbra, Portugal.
- 126. *Barrios, R.; Gaonkar, O.*; Bartelt-Hunt, S.L.; Li, X.; **Snow, D.D.;** Li, Y. (2018). Influence of climate change on subsurface atrazine degradation and transport. American Chemical Society Spring Meeting, New Orleans, LA, March 18-21,2018.

- 127. *Adams, C.*, C. Ray and **D. Snow** (2018) Nitrate-N Movement and Storage in the Vadose Zone of the Hastings WHPA. Nebraska Association of Resources Districts (NARD) Workshop "Connecting groundwater quality to the surface: models, monitoring and more" March 7, 2018, Kearney, NE.
- 128. *Barrios, R.; O. Gaonkar*, S.L. Bartelt-Hunt, X. Li, **D. Snow** and Y. Li. (2018) Influence of climate change on subsurface atrazine degradation and transport. 32nd Eastern Canadian Symposium on Water Quality Research, Canadian Association on Water Quality (CAWQ) May 5, 2018, Université de Sherbrooke, Québec, Canada.
- 129. Snow, D.D. 2018. Detection and occurrence of Fusarium mycotoxins in the agricultural environment. International Conference and Workshop of Mycotoxicology, ICM2018 Driving Mycotoxin Research Toward Global Food Security, Kasetsart University, Bagkok, Thailand February 14, 2018.
- 130. Snow. D.D. and A. Mittelstet. 2018. Livestock and Poultry Production: Long and Short term Monitoring For Water Quality. Poultry Interest Team Webinar Series, University of Nebraska-Lincoln, Lincoln, NE October 16, 2018. Available on-line at https://animalscience.unl.edu/poultry-interest-team-webinar-series.
- 131. Snow, D.D. 2018. Groundwater Nitrate in Nebraska. University of Nebraska Extension Focus Group. University of Nebraska-Lincoln, Lincoln, NE May 30, 2018.
- 132. Westrop, J., J. Nolan, O. Healy, S. Bone, J, Bargar, **D. Snow** and K. Weber. (2018) Mobilization of naturally occurring uranium following the influx of nitrate into aquifer sediments. T10. Natural Contaminants in Groundwater Drinking Water Sources: When Natural Doesn't Mean Healthy. North-Central 52nd Annual Meeting, Denver, CO. Geological Society of America Abstracts with Programs. Vol. 50, No. 4. doi: 10.1130/abs/2018NC-312685.
- 133. **Snow, D. D.,** P. Chakraborty, S. L. Bartelt-Hunt, and B. Uralbekov. (2017) Occurrence and potential ecotoxicological impacts of organochlorine pesticides in the riverine environments of Syr Darya, Ganga and Brahmaputra Rivers. Invited Presentation: Session "Ecotoxicology and Environmental Health in the Developing World". Society of Toxicology and Environmental Chemistry. 38th North America Annual Meeting. November 12-16, 2017, Minneapolis, MN.
- 134. Chakraborty, P. S. N. Khuman, *M. Mukhopadhyay*, B. Kumar, and **D. Snow** (2017). Occurrence of persistent organic compounds in the surface water from the lower stretch of the River Ganga in India. Dioxin 2017, August 20-25, 2017, Vancouver, Canada, http://www.dioxin2017.org/uploadfiles/others/12400_0624141301.pdf.
- 135. Snow, D. D. (2017) Viewing Water through the Lens of the Mass Spectrometer. Invited and funded presentation. 13th Annual LC-MS/MS Workshop on Environmental and Food Safety. University at Buffalo's Center for Tomorrow, June 11-12, 2017.
- 136. **Snow, D. D.** (2017) Storage of Nitrate in the Vadose Zone. Nebraska Water Symposium. University of Nebraska, October 26-27, Lincoln, NE.
- 137. Snow, D. D. (2017) Chasing Nitrate through the Vadose Zone. Nebraska Association of Resource Districts Technical Workshops, March 1, Kearney, NE.
- 138. *Wells, M.J.* T. E. Gilmore, S. Sibray, **D. Snow**, *N. Nelson*. 2017. Evaluating influence of water resources management and environmental factors on groundwater quantity and quality, Dutch Flats, NE. Nebraska Water Symposium, October 26-27, Lincoln, NE.
- 139. Gilmore, T.E., **Snow D.,** Sibray, S. 2017. Groundwater system response to water resources management in North Platte NRD. Nebraska Water Center Faculty, Retreat and Daugherty Water for Food Global Institute Faculty Dialogue. Lincoln, NE. September 19, 2017.

- 140. *Shields, J.; C. Adams, D. Snow* and C. Ray. 2017. Integrated Assessment of Vadose Zone Nitrate in Central Nebraska. Nebraska Water Symposium, October 26-27, Lincoln, NE.
- 141. *Olson. C.;* **D. Snow;** C. Ray.; A. Samal; and M. Kreifels. 2017. "Know Your Well" A Groundwater Quality Project to Inform Nebraska Students and Well-Owners. Nebraska Water Symposium, October 26-27, Lincoln, NE
- 142. Kelly, John J., Roja, Miguel, Bechtold, Heather A., **Snow, Daniel,** Reisinger, Alexander J., Rosi, Emma J., (2017) Benthic microbial communities in urban streams are impacted by anthropogenic contaminants linked to sewage infrastructure. "Navigating the Future of Water". University of Wisconsin. Milwaukee WI, October 18-20.
- 143. *Shields, J.* **D.D. Snow**, and C. Ray. 2017. Integrating the Vadose Zone into Nitrate Contamination of Groundwater in Nebraska. Watersmart Innovations, October 3-6, 2017, Las Vegas, NV.
- 144. Miller, D.N, M. D'Alessio, and **D.D. Snow** (2017) Sensitivity of soil microbial processes to livestock antimicrobials. third International Conference on Livestock and Poultry Environmental Quality. Waste to Worth Conference Series, April 17-21, 2107, Cary, North Carolina.
- 145. *Bright*, *D*. D. Miller, L. Durso, M. Speihs, B. Woodbury, **D. Snow** and G. O'Connor (2017) Antibiotic resistance genes and residual antimicrobials in cattle feedlot surface soil. 4th International Symposium on the Environmental Dimensions of Antibiotic Resistance (EDAR). 13–17 August 2017 Michigan State University in East Lansing, Michigan.
- 146. *Bright, D.* D. Miller, L. Durso, M. Speihs, B. Woodbury, **D. Snow** and G. O'Connor (2017) Antibiotic resistance genes and residual antimicrobials in cattle feedlot surface soil. American Society of Agronomy. 2017 Annual Meeting, October 22-25, Tampa, FL.
- 147. *Wells, M.* Gilmore, T. Sibray, S. and **D. Snow** (2017) Examining impacts evolving irrigation practices has on groundwater via age-dating tracers and nitrogen isotopes. ASABE Conference. Jul 16-19, 2017, Spokane, Washington
- 148. *Wells, M.* Gilmore, T. Sibray, S. and **D. Snow** (2017) Examining impacts evolving irrigation practices have on groundwater via age-dating tracers and nitrogen isotopes. 2017 Water for Food Conference. Poster abstract. Lincoln, NE USA. April 10, 2017.
- 149. *Khuntia, H.; R. Barrios,* J. Gilley, L. Durso, **D. Snow,** A. Schmidt, S. Bartelt-Hunt, X. Li (2017) Effects of Method and Timing of Swine Manure Application on the Transport of Antibiotics and Antibiotic Resistance Genes in Agricultural Runoff. Association of Environmental Engineering and Science Professors (AEESP) Conference. June 2017Ann Arbor, MI.
- 150. *Nystrom GS*, Jeffries MK, Bartelt-Hunt SL, Kolok AS, Uralbekov B, Mamylov N, **Snow DD**.(2016) An ecological collapse: biological effects of chemical contamination in Kazakhstan's Syr Darya watershed. Central Ecology and Evolution Conference, April 22, 2016 Norman, OK.
- 151. *Gogoi*, A. Y. Li, Shea, PJ, **Snow, DD.,** Kumar, M. Metal Fate and Transport in a Tropical River during Wet (Monsoon) Period: A Tale of Ligands domination. Society of Toxicology and Environmental Chemistry 7th World Congress/37th North America Annual Meeting. November 6-10, 2016, Orlando, FL.
- 152. *Nystrom GS*, **Snow DD**, Kolok AS, Bartelt-Hunt SL, Uralbekov B, Mamilov N, Jeffries MK.(2016). An ecotoxicological reconnaissance in Central Asia: Assessment of biomarker responses in wild-caught roach *(Rutilus rutilus)*. Society of Toxicology and Environmental Chemistry 7th World Congress/37th North America Annual Meeting. November 6-10, 2016, Orlando, FL.

- 153. **Snow DD**, Kolok AS, Bartelt-Hunt SL, Uralbekov B, Mamilov N, Jeffries MK.(2016). An ecotoxicological voyage into Central Asia. Society of Toxicology and Environmental Chemistry 7th World Congress/37th North America Annual Meeting. November 6-10, 2016, Orlando, FL.
- 154. *Nystrom*, *G.S.*; **D.D. Snow**, B. Uralbekov, A.S. Kolok, S.L. Bartelt-Hunt, N. Mamilov and M.K. Jeffries (2016) Biological implications of chemical contamination in the Syr Darya Watershed (Kazakhstan). South Central Society of Environmental Toxicology and Chemistry (SETAC) Regional Meeting. April 22-24, 2016. Dallas, TX.
- 155. *Nystrom GS*, Jeffries MK, Bartelt-Hunt SL, Kolok AS, Uralbekov B, Mamylov N, **Snow DD**.(2016) Biomonitoring of the Syr Darya River (Kazakhstan): Chemical contamination and biological effects. Texas Chapter of the American Fisheries Society Meeting. Kerrville, TX
- 156. Bartelt-Hunt SL, **Snow DD**, Uralbekov B, Kolok AS, Jeffries MK, Mamilov N, Hoehn E, *Sallach JB*.(2016) Documenting water quality in the Syr Darya River Basin the utility of passive sampling. Society of Toxicology and Environmental Chemistry 7th World Congress/37th North America Annual Meeting. Orlando, FL.
- 157. Uralbekov, B.; **D. Snow;** *B.Satybaldiev; N.Nurpeisov;* M.K. Jeffries; and *G. Nystrom* (2016) *Heavy Metals in the Water of Syr Darya River, Kazakhstan.* 18th International Conference on Heavy Metals in the Environment.12 to 15 September 2016, Ghent, Belgium.
- Miller, D.N., M. D'Alessio, and D.D. Snow. 2016. Determining Antimicrobial Thresholds for Soil Microbial Processes. ASA, CSSA, and SSSA Annual Meeting in Phoenix, AZ November 5-10, 2016.
- 159. **Snow, D. D.** 2016. Groundwater Forensics Tools for Identifying Contaminant Sources. (Invited) Iowa Groundwater Association. 6 October 2016, Grand River Center, Dubuque, IA.
- 160. Weber, K., J.P. Nolan, O.M Healy, D.D. Snow, D. Pan, S. Bone, J.R. Bargar, and R. Kiat. 2016. Nitrate-Stimulated Mobilization of Naturally Occurring Uranium in Groundwater. In: Biogeochemical Redox Cycling of Metals and Radionuclides. Geological Society of American Annual Meeting, 25-28 September 2106, Denver, CO.
- 161. *Nolan, J.P.*, C. Elofson, S. Bone, K. Campbell, **D.D. Snow,** J.R. Bargar, K.A. Weber. 2016. Surface Complexation of Uranium(VI) in Suboxic Aquifers in the Presence of Uranium(IV) Minerals. In: Biogeochemical Redox Cycling of Metals and Radionuclides. Geological Society of American Annual Meeting, 25-28 September, 2016, Denver, CO.
- 162. Franti, T.G. P.J. Walsh, D.P. Shelton, D.D. Snow. 2016. Quantifying Stormwater Runoff Contaminant Mitigation by Bioretention Cells in Lincoln, Nebraska. Presented at "Rooftop to Rivers: Integrating Built and Natural Ecosystems" 16th Annual Meeting of the American Ecological Engineering Society, Knoxville, TN June 7-9, 2016.
- 163. Bartelt-Hunt, S., *J.B Sallach*, **D. D. Snow**, X. Li, and L. Hodges. 2016. Influence of soil texture and drought stress on antibiotic uptake into produce. ACS Special Symposium Advances in Understanding Antibiotics, Antibiotic Resistance Genes & Antibiotic-Resistant Bacteria in Engineered & Natural Environments. 252nd ACS National Meeting in Philadelphia, PA, August 21-25, 2016.
- 164. **Snow, D.D.** 2016. Agricultural Run-off as a Source of Emerging Food and Environmental Contaminants. International Association of Food Protection Conference (Invited). August 1, 2016. St. Louis, MO.
- 165. *Akbariyek, S.* **D. Snow,** S. Bartelt-Hunt, X. Li, Z. Tang, Y. Li. 2016. Three Dimensional Modeling of Groundwater A Case Study in the Nebraska Management Systems Evaluation Area (MSEA). National Science Foundation Water Sustainability and Climate (WSC) Conference, March 9-11,

- 2016, Arlington, VA.
- 166. Li, X., R. Levine, Y. Zhang, D. Snow, L. Durso, and Y. Leng. 2016. Biotransformation of Sulfadiazine by a mixed microbial culture. American Society of Microbiology National Conference. Boston, MA June 16-20, 2016.
- 167. Akbariyeh, S., D. Snow, S. Bartelt-Hunt, X. Li, and Y. Li. 2015. Three Dimensional Modeling of Agricultural Contamination of Groundwater: A Case Study in the Nebraska Management Systems Evaluation Area (MSEA). 2015 American Geophysical Union Fall Meeting, San Francisco, CA December 14-18, 2015.
- 168. **Snow, D. D.** and *N. Roddy*. 2015. Isotope fingerprinting and age-dating ground water nitrate *(invited)*. Drinking water protection workshop, Nebraska Department of Environmental Quality. Edgar, NE, December 4, 2015.
- 169. **Snow, D. D.,** D. Cassada, and S. Onanong. 2015. Detection of Antibiotic Residual in Soil (*Invited*) Symposium--Soils As the New Frontier in Antibiotic and Antibiotic Resistance Discovery. **2015 ASA, CSSA, and SSSA Annual Meeting** in Minneapolis, MN, November 15-18, 2015.
- 170. Bartelt-Hunt, S.L., *Joy, S.R., Soni, B.*, Gilley, J., Snow, D.D, Marx, D. 2015. Fate of antibiotics and antibiotic resistance genes after land application of swine manure. ASA/CSSA/SSSA Annual Meeting, Minneapolis, MN, November 15-18, 2015
- 171. **Snow, D.D.** 2015. Water quality, irrigation and reuse. Tuesday, November 10, 2015, Nebraska Agri-Business Association, Grand Island, NE.
- 172. **Snow, D. D.** 2015. Identifying sources of groundwater nitrate with stable isotopes. Drinking Water Protection Workshop, Nebraska Department of Environmental Quality, West Point, NE, November 4, 2015.
- 173. **Snow, D. D**. 2015. Identifying sources of groundwater nitrate with stable isotopes. Drinking Water Protection Workshop, Nebraska Department of Environmental Quality, Gothenburg, NE, October 28, 2015
- 174. Bartelt-Hunt, S.L. *S. Joy, B. Soni, R. Barrios*, X. Li, J. Gilley, **D.D. Snow**, D. Marx. 2015. Fate of antimicrobials and antimicrobial resistance genes after land application of swine manure slurry. Abstracts Society of Environmental Toxicology and Chemistry North America 36th Annual Meeting, November 2-6, 2015, Salt Lake City, UT.
- 175. *Sallach, J.B.* **D.D. Snow**, L. Hodges, X. Li and S. Bartelt-Hunt. 2015. Influence of soil texture on the uptake of antibiotics in wastewater irrigated lettuce. **250**th **ACS National Meeting, Boston, MA,** August 16-20, 2015. (D. Snow presented and invited by D. Aga, symposium chair).
- 176. *Sallach, J.B.*, Bartelt-Hunt, S.L., **Snow, D.D.**, Li, X., Hodges, L. 2015. The influence of soil texture on the uptake of antibiotics by lettuce from irrigation water. 2015 **AEESP Conference**, New Haven, CT, June 15, 2015.
- 177. *Sallach, J.B.*, Bartelt-Hunt, S.L., **Snow, D.D.**, Li, X., Hodges, L. 2015. Antibiotic Uptake in lettuce and accumulation in soil following irrigation with wastewater. 2015 **UNL Spring Research Fair**, Lincoln, NE. April 14-15, 2015.
- 178. *McGhee, Ryan P*.; Daniel N. Miller, Lisa M. Durso, and **Daniel D. Snow**. 2015. Abundance and Fate of Antibiotics and Hormones in a Vegetative Treatment System Receiving Cattle Feedlot Runoff. **Waste to Worth National Conference, Seattle, WA March 30, 2015**.:

 www.extension.org/pages/72825/abundance-and-fate-of-antibiotics-and-hormones-in-a-vegetative-treatment-system-receiving-cattle-fee#.VfhKV9JVhHw
- 179. Durso, Lisa M.; Daniel N. Miller, Chris Henry, and Daniel D. Snow. 2015. Abundance and Fate of

- Fecal Indicators, Pathogens and Antibiotic Resistant Bacteria in a Vegetative Treatment System Receiving Cattle Feedlot run-off. **Waste to Worth National Conference, Seattle, WA March 30, 2015.** : http://www.extension.org/pages/72764/abundance-and-fate-of-fecal-indicators-pathogens-and-antibiotic-resistant-bacteria-in-a-vegetative-t#.VfwvZ5fU164
- 180. *Matsuda, R. So-Hwang Kye, Christopher White II, Elliott Rodriguez, Donald Jobe*, **Daniel Snow** and David S. Hage, Development of Displacement Assay for Emerging Contaminants in Water using High-Performance Affinity Chromatography, HPLC 2014, New Orleans, LA, May 2014.
- 181. *Matsuda, R. Ellis Kaufmann, Xiwei Zheng, So-Hwang Kye, Elliott Rodriguez, Christopher J. White, Donald Jobe,* **Daniel Snow** and David S Hage, 2015. Displacement Assay Based on High-Performance Affinity Chromatography for Detecting Emerging Contaminants and Drugs in Water and Biological Samples", Pittcon 2015, New Orleans, LA, March 2015.
- 182. Snow, D. D., S. L. Bartelt-Hunt, Xu Li, Yuping Zhang, Ryan McGee, Lisa Durso & Daniel Miller. 2014. Trends and potential for environmental loading of antimicrobials and steroid hormones in livestock wastewater lagoons, run-off, and vegetated treatment areas. Session: Endocrine Disrupting Chemicals and Pharmaceuticals in the Environment. Society of Environmental Toxicology and Chemistry North America 35th Annual Meeting, Vancouver, B.C. November 9-13, 2014.
- 183. Weber, K. A., *Healy, O. M., Spanbauer, T. L., Nolan J.* and **Snow, D.** 2014.Nitrate mediated uranium(IV) oxidation in shallow subsurface Sediments. **Geological Society of America Abstracts with Programs,** Paper 336-10, Session 336 Geobiology: Microbe-Mineral Interactions, Vancouver, British Columbia, 19–22 October 2014.
- 184. Durso, L., D. Miller, *McGhee, R. L*, and **Snow, D.** 2014. Co-occurrence of antibiotic drugs, resistant bacteria and resistance genes in runoff from cattle feedlots. Poster Session, **EmCon 2014**, August 19-22, 2014. Iowa City, IA.
- 185. Li, X. Y. Zhang, L. Durso, and **Snow, D.** 2014. Biotransformation of Sulfadiazine by a Mixed Community Enriched from the Surface Soil in a Feedlot, Poster Session, Poster Session, **EmCon 2014**, August 19-22, 2014. Iowa City, IA.
- 186. Snow, D. D., M. Al-Sammak, and K.D. Hoagland, 2014. Analytical Methods and Seasonal Variations of Selected Cyanotoxins in Lake, Fish, and Plant Tissue in Nebraska (*Invited*). 2014 National Forum on Contaminants in Fish. Sponsored by USEPA. Office of Science and Technology, September 21-24, 2014, Alexandria, VA.
- 187. *Sallach, B., Y. Zhang,* L. Hodges, **D. Snow,** X. Li, S. Bartelt-Hunt. 2014. Accumulation of Antimicrobials in Soil and Subsequent Uptake into Lettuce Following Wastewater Irrigation. **Antibiotics and Antibiotic Resistance Genes in Agroecosystems Workshop.** USDA AFRI Conference Workshop, Biosphere 2. August 5-8, 2014, Oracle, AZ.
- 188. Zhang, Y. **D. Snow**, and X. Li, 2014. Biotransformation of Sulfadiazine by a Mixed Community Enriched from the Surface Soil in a Feedlot. Synergism Between Microbiology and Chemistry for Environmental Sustainability Symposium. **American Chemical Society National Conference**, San Francisco, CA, Aug 10-14, 2014.
- 189. *Yi-Feng, Z., D. Snow*, and A. Longo. 2014. Comparison of Different Microwave Assisted Digestion Methods of Nano-silver for Inductively Coupled Plasma Mass Spectrometry Analysis. University of Nebraska Visiting Scientist Research Symposium. Lincoln, NE August 2014.
- 190. Dvorak, B. I., *J.R. Fisher, M.J. Florek*, **D. D. Snow**, and D.M. Admiraal, 2014. Isotopic Analysis for Characterizing Nutrient Sources in a Small Urban Nebraska Watershed. **Conference Proceedings. World Environmental and Water Resources Congress.** American Society of Civil Engineers. June 1-5, 2014. Portland, OR

- 191. Matsuda, R. So-Hwang Kye, Christopher White II, Elliott Rodriguez, Donald Jobe, **Daniel Snow** and David S. Hage. 2014. Detection of Emerging Contaminants in Water by a Displacement Assay Based on High-Performance Affinity Chromatography, Pittcon 2014, Chicago, IL, March 2014.
- 192. Matsuda, R. So-Hwang Kye, Christopher White II, Elliott Rodriguez, Donald Jobe, **Daniel Snow** and David S. Hage. 2014. Detection of Emerging Contaminants in Water by a Displacement Assay Based on High-Performance Affinity Chromatography, UNL Graduate Research Fair, Lincoln, NE, April 2014.

MENTORING

Current Graduate Students – University of Nebraska (supervisor, co-advisor or reader)

- Katelyn Glause, MS. Natural Resources and Environmental Sciences. Thesis topic: Occurrence, Inputs, and Ecological Significance of Antibiotics and Pharmaceuticals in Western Nebraska Streams. Role Advisor: Graduation August 2024.
- 2. Jascika Maclean, MS in Civil Engineering. Thesis topic: Extraction and analysis of environmental samples for insecticides and fungicides. Role: co-advisor with Shannon Bartelt-Hunt. Graduation May 2024.
- 3. Farzana Rahman. MS in Earth and Atmospheric Sciences. Role: Co-advisor with Erin Haacker. Thesis Topic: An Assessment of Uranium in Groundwater from Domestic Wells in Southeastern Nebraska, USA Graduation May 2024.
- 4. Sara Brock, PhD in Natural Resources. Thesis Topic: Youth-led Groundwater Science. Role: Advisor. Expected graduation date December 2026.
- 5. Arshdeep Singh, PhD in Agronomy and Horticulture. Research Topic: On-farm Nitrogen and Irrigation Management Strategies to Protect Groundwater Quality in the Bazile Groundwater Management Area. Role co-advisor with Javed Iqbal. Graduation May 2024.
- 6. Xiaochen Dong, PhD in Natural Resources. Thesis Topic: Use of Carbon substrates to Control Nitrate Leaching in Irrigated Agriculture. Role: Co-advisor with Arindam Malakar. Expected graduation August 2025.
- 7. Sarah Tucker, PhD in Environmental, Agricultural and Occupational Health, UNMC. Topic Analysis of per- and polyfluoroalkyl substances (PFAS) and characterization of exposure in drinking water. Expected Graduation December 2025. Role Reader/technical supervisor.
- 8. Qu Wen. PhD in Civil Engineering. Topic: Microbially Facilitated Processes for Bioproduct Formation, Metal Recovery, and PFAS Biotransformation in the Agricultural Context. Role: Reader. Expected Graduation December 2025. Role Reader.

International Graduate Students/Postdoctoral Researchers/Visiting Scholars

- Joyce Crystale, Visting Postdoctoral Scholar Center for Nuclear Energy in Agriculture USP (Brazil). January-July 2023. Funded by the São Paulo Research Foundation – FAPESP, Project Development of a Wastewater-based epidemiology method for Assessment of Human Exposure to Neonicotinoids.
- 2. Raquel Wielens Becker, Visiting Postdoctoral Scholar PhD Chemistry by Federal University of Rio Grande do Sul. July 2023-January 2024. Funded by the Funded by the São Paulo Research Foundation FAPESP.
- 3. Prof. Dr Renato Falcão Dantas, Visting Fulbright Scholar, January 15, 2023- January 15, 20-24. Funded by US Fulbright Program and São Paulo Research Foundation FAPESP. Research project Assessment of a multi-barrier tertiary treatment for WWTP effluent reuse in agriculture.

- 4. Kalibekov Azat Merlanovich, PhD Student, Kazakh National Research Technical University after K.I. Satpayev, Almaty, Kazakhstan (Satbayev University). Dissertation: Investigation of the influence of technogenic factors on the change in the hydrogeological conditions of the Pustynnoye gold deposit at the stage of operation (Northern Balkhash Region, Kazakhstan). March-June 2024. Supported by the Kazakh Ministry of Education and Science. Role foreign cosupervisor.
- 5. Alen Dairzhanov, PhD Student, Kazakh National Research Technical University after K.I. Satpayev, Almaty, Kazakhstan (Satbayev University). Dissertation: "Scientific justification for the development of GIS database software for digitalization of groundwater monitoring". June August 2024. Supported by the Kazakh Ministry of Education and Science. Role foreign cosupervisor.
- 6. Sailaubek Akgulim Mukhtarbekkyzy, PhD Student, Geography and Environmental Sciences. Dissertation: Assessment of the current and future state of the flood runoff of transboundary rivers of the Kazakh part of the Zhaiyk basin. March -June 2024. Supported by the Kazakh Ministry of Education and Science. Role foreign co-supervisor.
- 7. Aruogundade Johnson, PhD Student, Geology, Kogi State University, Kogi, Nigeria. Dissertation: Impact Assessment of Solid Waste Dumpsites in Federal capital territory (FCT) Abuja, Nigeria Using Integrated Geophysical and Geochemical Methods. February-May 2024. Supported by the Tertiary Education Trust Fund.
- 8. Severinenko Mariya. PhD Student, Geography and Environmental Sciences. Dissertation: "A water quality monitoring of transboundary rivers of Kazakhstan on the Shu-Talas water basin management" Al-Farabi Kazakh National University in specialty "8D05203 Hydrology". July 2020. Role co-advisor with Solodukhin Vladimir, Associate Professor, RSE Institute of Nuclear Physics. Role co-advisor Murat Muhamedzhanov.
- 9. Zhanna Tleuova, PhD Student Satbayev University, Institute of Hydrogeology and Geoecology of U.M. Akhmedsafin. Junior researcher of the laboratory of Industrial and Geothermal waters. Thesis Title: ECOLOGICAL PROBLEMS OF SOUTHERN KAZAKHSTAN AND POLLUTION OF DRINKING GROUNDWATERS. July 2020 Role co-advisor. Graduation May 2024. Supported by the Kazakh Ministry of Education and Science.
- 10. Arindam Malakar, PhD Degree in Chemistry and Materials Science, Dissertation Title: Chemistry of iron and arsenic nanoparticles with potential to be used in arsenic treatment. Indian Association for the Cultivation of Science, Kolkata, West Bengal, India. Role Outside Advisor. Graduation date: May 2018. Supported by the Water Advanced Innovation Research (WARI) Program.
- 11. Rufai Ayuba, PhD Degree in Hydrogeology, Dissertation: Hydrochemical Evaluation and Isotopic Studies of Groundwater in Lokoja, Central Nigeria. Role: Outside Advisor. Graduation Date: May 2018. Supported by the Tertiary Education Trust Fund.

Former Graduate Students – University of Nebraska (supervisor, co-advisor or reader)

- 1. Paula R. Guastello, MS in Natural Resources and Environmental Sciences. Thesis topic: Connecting the Nebraska Water Quality Index to the Aquatic Microbiome of the North Platte River Basin, Nebraska. Role Advisor. Graduation Date December 15, 2023.
- 2. Ryan Schwaner, PhD Food Science and Technology. Dissertation Proposal: Optimization of Ozone Disinfection in Spring Waters with Minimal DBP formation, Role: Reader. Graduated December 2023.
- 3. Justin Caniglia, MS in Natural Resources, Thesis Topic: Extraction and analysis of perfluoroalkyl substances (PFAS) in wastewater matrices to determine environmental loading in the Midwest.

- Graduation Date, December 2021. Role Advisor.
- 4. Josephus Borsuah, PhD in Natural Resources: Research topic: Control of neonicotinoid transformation "hotspots" in surface water environments. Dissertation Title: Insecticide Fate and Transport in Rivers Adjacent to Agricultural Intensive Regions. Graduation December 2023. Role Reader.
- 5. Padmasankha Dissanayake, MS in Natural Resources. Thesis Topic: Does injecting air into subsurface drip irrigation increase the plant growth and improve the water quality? Graduation August 2020. Role: Advisor.
- 6. Kobi Benao, MS in Natural Resources. Thesis Topic: Comparison of Vadose Zone Nitrate-N to 50-year record of nitrogen fertilizer inputs on Nebraska groundwater. Graduation December 2021. Role: Advisor
- 7. Christopher Olson, MS in Natural Resources. Thesis topic: "Know you well" science engagement for youth and well owners in Nebraska. Graduation August 2020. Role: Advisor
- 8. Johnette Shockley. PhD in Civil and Environmental Engineering. Dissertation: *Modeling watershed sensitivity to climate change in systems affected by discharge of mine tailings*. Role Committee member.
- 9. Jeffery Westrop. PhD in Earth and Atmospheric Sciences. Thesis topic *Nitrate-driven Uranium mobilization in the High Plains Aquifer of central Nebraska*. Graduation May 2021. Role: Committee Member.
- 10. Jordon Shields, MS in Natural Resources. Thesis topic: *Management of Vadose Zone Nitrate in Central Nebraska*. Graduation: May 2021. Role: Advisor.
- 11. Elliot Rodriguez, PhD in Chemistry. Dissertation Topic: Development of microfluidic and chromatographic-based immunoassays and affinity separations. Graduation date: May 2019. Role: Committee member.
- 12. Pongpun Juntakut, PhD in Civil and Environmental Engineering. Dissertation Topic: Modeling of nitrate contamination of Nebraska groundwater. Graduation date: December 2018. Role: Reader.
- 13. Craig Adams, MS in Natural Resources. Thesis topic: *Nitrate and agrichemical leaching in the well head protection area for the City of Hastings Nebraska*. Graduation: May 2018. Role: Advisor.
- 14. Juan Jaimes, PhD Water Resources Engineering, Civil and Environmental Engineering.

 Dissertation Area. *Modeling of pharmaceuticals in surface streams at small and large scale*.

 Graduation December 2017. Role: Committee member.
- 15. Yutian Lei, PhD in Civil and Environmental Engineering. Thesis topic: Detection of Environmental Pollutants Using Direct Analysis in Real Time (DART) Mass Spectroscopy and Surface Enhanced Raman Spectroscopy (SERS). Graduated: May 2018. Role: Committee member.
- 16. Cody Drier, MS in Natural Resources. Thesis title: Nebraska Wetland Condition Assessment: Intensification of the National Wetland Condition Assessment throughout Nebraska. Role: Committee member. Graduated May 2018.
- 17. Nathan Roddy, MS in Earth and Atmospheric Sciences. Thesis Topic: *Recharge estimates and groundwater nitrate contamination using tritium-helium age dating.* Graduation: August 2018. Role: Co-advisor
- 18. Simin Akbariyeh, PhD Civil Engineering. Dissertation Proposal: *Modeling Fate and Transport of Contaminants n the Vadose Zone: Vapor Intrusion and Nitrate Leaching Under Future Climate Scenarios*. Role: Committee Member, Graduation Date May 31, 2017.

- 19. Logan Lamb, MS in Natural Resources, Thesis topic: Recycling programs at institutions of higher learning. Gradation December 2016. Committee member.
- 20. Jodi Sangster, PhD in Civil and Environmental Engineering, Dissertation Proposal: *The effect of sediment on the fate, transport, and bioavailability of steroidogenic compounds in aquatic systems*. Role Committee member/outside representative. Graduation May 2016.
- 21. Rachel Levine, MS in Civil and Environmental Engineering. Dissertation Topic: Biodegradation pathways of sulfonamide antibiotics. Graduation date: May 2016. Role Committee Member.
- 22. Jason Nolan, PhD in Earth and Atmospheric Sciences: Dissertation Proposal: *Anthropogenically Enhanced Mobilization of Naturally Occurring Uranium in Drinking Water*. Graduation August 2016. Role: Reader/outside representative.
- 23. Emily Hoehn, MS in Natural Resources. Thesis Topic: *Development of an automated fluorescence method for measurement of β-glucosidase for soil enzyme activity*. Graduation: May 2016. Role: Advisor.
- 24. Yun Zhang, PhD in Civil and Environmental Engineering, Dissertation Proposal: *Biodegradation of Steroidogenic Compounds in River Water and Alluvial Sediment*, Graduation May 2016. Role: Outside representative.
- 25. Brett Sallach, PhD in Civil and Environmental Engineering. Dissertation Area. *Fate and transport of antimicrobial compounds in irrigated food crops*. Graduated December 2015. Role: Reader and outside representative.
- 26. Yuping Zhang, PhD in Civil and Environmental Engineering, Dissertation Proposal: *Internalization of Salmonella in lettuce leaves after irrigation using recycled wastewater.* Role: Committee member, Graduation date May 2015.
- 27. Alexis Papaslof, MS in Natural Resource Sciences. Aquatic Ecology specialization. Thesis proposal: *Occurrence and ecological effects of amphetamine stimulants in municipal wastewater effluent*. Graduation May 2015. Role Advisor.
- 28. Stephan Schaepe, MS in Civil Engineering. Thesis topic: *Engineering graphene Oxide Membranes for contaminant removal and bacterial inactivation*. Graduation Date: May 2015. Role: Committee Member.
- 29. Patrick Walsh, M.S. Biological Systems Engineering, Thesis: *Quantifying Stormwater Runoff Contaminant Mitigation by Bioretention Cells*. Graduation May 2015. Role: Committee Member.
- 30. Jiaya Wang, M.S. Natural Resource Sciences, Thesis: Aquatic toxicology of cyanoneurotoxin beta-methyl amino alanine. Graduation: May 2015. Role: Co-advisor .
- 31. Audrey Boerner, MS in Earth and Atmospheric Sciences. Thesis *Hydrochemical investigation of a transient parafluvial zone under drought conditions, Platte River, Nebraska*. Graduation December 2013. Role: Reader.
- 32. Brady Kohler, MS in Natural Resources, Thesis Proposal: *Altitudnal and thermal variation in ambient nutrient uptake and uptake kinetics in temperate streams*. Graduation December 2013. Role Committee member/reader.
- 33. Carla Ahlschwede, Master of Science in Agronomy Horticulture, Thesis: *Nitrogen, Greenhouse Gas, and Microbial Dynamics of Marginal Soils Used for Cellulosic Biofuel Production in Eastern Nebraska*, Graduation August 2013. Role: co-Advisor.
- 34. Chainarong Sakulthaew, PhD in Natural Resources, Dissertation: *Remediation chemistry of polycyclic chlorinated hydrocarbons with advanced oxidation chemistry*, Graduation May 2013. Role: Reader.

- 35. Chanat Chokejaroenrat. PhD in Civil Engineering. Dissertation: *Improving the treatment of aqueous and non-aqueous phase TCE in low permeable zones with permanganate*. Graduated December 2012. Role Reader/outside committee member.
- 36. Michael J. Florek. Master of Science in Civil Engineering. Thesis: *Characterization of runoff in two urban watersheds in Lincoln, Nebraska*. Graduated December 2012. Role: Reader/outside committee member.
- 37. Maitham Ahmed Al-Sammak, PhD in Environmental Toxicology. Dissertation: *Occurrence and toxicity of cyanobacterial neurotoxins in freshwater lakes, fish and aquatic plants*. Graduated August 2012. Role: Co-advisor. Current Position Faculty member University of Bagdad, Iraq.
- 38. Sagor Biswas, PhD in Agricultural and Biological Systems Engineering. Dissertation: *Fate and Transport of Steroid Hormones in the Environment as Affected by Manure Management*. Graduated August 2012. Role: Reader/outside committee member.
- 39. Eftimia Papastavros, PhD in Chemistry. Dissertation: *Development of new immunosorbents for advanced analytical separation*. Graduated December 2011. Role: Reader.
- 40. Teyona Damon-Powell, Master of Science in Natural Resources (Hydrologic Sciences Specialization, non-thesis option *Methods for emerging contaminants*). Graduated December 2011. Role: Advisor.
- 41. Wei Hsin-Ro. Master of Science in Natural Resources. Thesis: *Formation, Adsorption, and Degradation of N-nitrososatrazine in water and soil.* Graduated: May 2011. Role: Reader.
- 42. Zhontian Li. Master of Science in Civil Engineering. Thesis: *Applied and mechanistic studies of microbial 17beta-estradiol degradation*. Graduated: May 2011. Role: Reader.
- 43. Delshawn Brown. Master of Science in Civil Engineering. Thesis: *Use of passive samplers to evaluate pharmaceutical fate in surface waters*. Graduated: May 2010. Role: Reader.
- 44. Tyler Kohler. Master of Science in Natural Resources. *Influence of canopy cover, nutrients, and season on stoichiometric variation of epilithon in neotropical streams*. Graduated: May 2010. Role: Reader.
- 45. Chris Ayris. Master of Science in Natural Resources. *Effects of alum on water quality and microcystin concentration in a hypereutrophic lake*. Graduated December 2009. Role: Reader.
- 46. Gyanendra Prasai. Master of Science in Civil Engineering. Thesis. *Detection of episodic and low-level concentrations of emerging wastewater contaminants in drinking water*. Graduated May 2008. Role: Co-advisor.
- 47. Chanat Chokejaroenrat. Master of Science in Environmental Engineering. *Laboratory and pilot-scale investigations of RDX treatment by permanganate*. Graduated: May 2008. Role: Reader.
- 48. Jong Sung Kim. Master of Science in Toxicology. *Formation of N-nitrosoamines from reaction of pharmaceuticals with nitrite and chloramines*. Graduated: August 2008. Role: Reader.
- 49. Manmeet Waria. Master of Science in Natural Resources. *Field scale cleanup of pesticide contaminated soil with a combined chemical biological approach*. Graduated December 2007. Role: Reader.
- 50. Robin Culp. Master of Science in Toxicology. *Using a bioluminescence assay to assess the toxicity of munitions-contaminated water during remediation with reducing and oxidizing agents.* Graduated: May 2004. Role: Reader.
- 51. Travis Young. Master of Science in Environmental Engineering. *Anaerobic biodegradation of hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX) and trichloroethylene (TCE): Single and dual contaminant batch tests.* Graduated August 2004. Role: Reader.
- 52. Yi Zhang. PhD in Agronomy-Horticulture. *Environmental occurrence and fate of ethanol and MTBE gasoline oxygenates in surface water and shallow groundwater in Nebraska*. Graduated May 2003. Role: Reader.

Undergraduate Advisees – Senior Thesis Projects

- Carolyn Billings, Forensic Science Major, Extraction and Analytical Method for Nnitrosoatrazine using liquid chromatography paired with tandem quadrupole mass spectrometry. Jan 2022- May 2023.
- 2. Bryce Carlen, Environmental Studies Major. Senior Thesis: *Cost benefit analysis of drinking water disinfection options*. October 2020 to May 2021.
- 3. Cleo Mullison, Environmental Studies Major. Senior Thesis Proposal: *Nitrate Accumulation in the Vadose Zone of Waverly's Wellhead Protection Area*. October 2018 to May 2019.
- 4. Yuzhe Luo, Environmental Studies Major. Senior Thesis Proposal: *Relationship between historical record of water nitrate content and animal feeding activity in the Platte River watershed.* January 2017 to December 2017.
- 5. Jessica Hansen, Undergraduate Senior UCARE Project, *Garden vegetable uptake of a pharmaceutical from recycled water* June 3, 2013 to May 3, 2014
- 6. Emily Hoehn, Environmental Studies Major, Thesis Proposal. *Low cost method for analysis of pharmaceuticals in irrigated vegetables*. May 2014.
- 7. Kyle Hauschild. Environmental Studies Major. Senior Thesis Proposal. *Comparison of erosion control products for road construction*. May 2013.
- 8. Jordon Pharris. Environmental Studies Major. Senior Thesis Proposal: *The effects of impervious structure and road salt use on dissolved halite concentrations in urban water bodies.* November 2011.
- 9. Tim Lindeen. Environmental Studies Major. Senior Thesis Proposal: *E. coli and microcystin relationship in Nebraska water bodies*. May 2011.
- 10. Carla Ahlschwede, Environmental Studies Major. Senior Thesis Proposal: *An assessment of stable isotope analysis method to assign geographic origin to migratory Red-Tailed Hawks*. January 2010.
- 11. Nicolas Cantero. Environmental Studies Major. Senior Thesis Proposal: *Synthetic hydroxapatite* as a means for concentration of lead from drinking water. August 2009.
- 12. Rebecca Nelson. Biochemistry Major NWU. Senior Thesis Proposal: A Study of Illicit Drug Contamination From Sites Upstream and Downstream of Waste Water Treatment Plants of Lincoln, Ashland and Seward, Nebraska. Spring 2010.
- 13. Rachael Tibbs. Environmental Studies Major. Senior Thesis Proposal: Immunosorbent detection of tetracycline antibiotics in water. Fall 2009.
- 14. Peggy Philson. Environmental Studies Major. Senior Thesis Proposal: *Identifying the Potential Source of Nitrate Contamination to Domestic Water Wells in the MAR-MA-RA-LO Heights Subdivision*, Lincoln, NE. January 2007. Awarded UNL Center for Science, Mathematics and Computer Education Outstanding Senior.
- 15. James Newman. Environmental Studies Major. Senior Thesis Proposal: *The need and importance of a quality assurance project plan for the ground water monitoring program in the Lower Platte South Natural Resource District.* April 2005.

PUBLICATIONS – JOURNALS (Italics indicates student authors)

**Submitted, in review, or under revision

- Arshdeep Singh, Daran R. Rudnick, Daniel Snow, Swetabh Patel, Christopher Misar, Christopher Proctor, Laila Puntel, Javed Iqbal. Coupling Effects of Enhanced Efficiency Fertilizers and Nitrogen Timing on Groundwater Quality and Maize Yield in Northeast Nebraska. Soil Science Society of America Journal. S-2024-09-0254-OA.R1. Submitted on 23 December 2024.
- Joyce Cristale, *Raquel Wielens Becker*, Valdemar Luiz Tornisielo, Renato Falcão Dantas, Shannon Bartelt-Hunt, Sathaporn Onanong, and **Daniel D. Snow.** Comparison of salting-out assisted liquid-liquid extraction to polymeric solid phase extraction for liquid chromatography tandem mass spectrometry of neonicotinoids insecticides and metabolites in wastewater: Occurrence and aquatic risk assessment. Submitted to **Environmental Pollution** 18 December 2024 Manuscript Number: **ENVPOL-D-24-12521.**
- * Matthew V. Russell, Tiffany L. Messer, **Daniel D. Snow**, and Shannon Bartelt-Hunt. Review: Fate and Ecological Effects of Antibiotic Mixtures in Aquatic Agricultural Environments. Submitted to **Current Opinion in Environmental Science & Health** 11 December 2024, Manuscript COESH-D-24-00082.
- Hladik, Michelle; De Parsia, Matthew D.; Bartelt-Hunt, Shannon; Densmore, Brenda; Hubbard, Laura; Rus, David; Spurgeon, Jonathan; Kolpin, Dana; **Snow, Daniel;** Perrotta, Brittany; Kidd, Karen; Kraus, Johanna; Givens, Carrie; Kotalik, Christopher; Walters, David. Pesticides in Multiple Physical and Biological Stream Matrices Are Impacted by a Bioenergy Production Facility Receiving Pesticide Coated Corn Seeds. Submitted to **Environmental Toxicology and Chemistry** 6 December 2024, manuscript #ETCJ-Dec-24-00852.
- * Adriano dos Santos Silva, Paulo Zadra, Ana Paula Ferreira, Fernanda Roman, Arthur P. Baldo, Madeleine Rauhauser, Jose Diaz de Tuesta, Ana I. Pereira, Adrian M T. Silva, Juliana M. T. Pietrobelli, Daniel D. Snow, Marzhan S. Kalmakhanova, Helder T. Gomes. Occurrence of micropollutants in surface water and removal by catalytic wet peroxide oxidation enhanced filtration using polymeric membranes loaded with carbon nanotubes. Submitted to **Chemical Engineering Journal Advances** CEJA-D-24-00645, Submitted 31 October 2024.
- *Arshdeep Singh, Daran Rudnik, Daniel Snow, Swettabh Patel, Chris Misar, Christopher Proctor, Laia Puntel, Javed Iqbal. Impacts of Enhanced Efficiency Fertilizers and Application Timing on Groundwater Quality and Maize Yield in the Bazile Groundwater Management Area of Northeast Nebraska. Soil Science Society of America Journal. Manuscript S-2024-09-0254-OA. Submitted on 15 September 2024.
- *Jascika Maclean, Shannon Bartelt-Hunt, Daniel Snow, Josephus F. Borsuah, Raquel Wielens Becker, Mushumi Hazra. Aquatic Occurrence, Fate, and Potential Toxicity of Insecticide and Fungicide Residues Originating from a Biofuels Production Facility Using Pesticide-Treated Seeds. Water Research Manuscript ID WR-S-24-10097. Submitted on 15 September 2024. Resubmitted to Journal of Hazardous Materials Accepted 12/15/2024.
- *Malakar, Arindam; Snow, Daniel; Kaiser, Michael; Walia, Harkamal; Roberts, Trenton; Ray, Chittaranjan. Ferrihydrite level in soil affects inorganic arsenic species in rice grains.

 Environmental Science & Technology manuscript es-2024-09724q. Submitted on 17
 September 2024. Resubmitted to Journal of Agricultural and Food Chemistry Manuscript ID: jf-2024-11510b 22 November 2024.

Published or In-press (Italics=student) 172 total

- 1. *Maclean, J.A.A.*, S. Bartelt-Hunt, **D.D. Snow,** *J.F. Borsuah*, R.W. Becker, and M. Hazra. 2025. Aquatic occurrence, fate and potential ecotoxicity of insecticide and fungicide residues originating from a biofuels production facility using pesticide-treated seeds. **Journal of Hazardous Materials**, 2025. **486**: p. 136922, https://doi.org/10.1016/j.jhazmat.2024.136922.
- 2. Sharmeen, S., I. Kyei, A. Hatch, K. Suh, S. Podder, S. Iftekhar, **D.D. Snow**, and D.S. Hage. 2024. Analysis of interactions between pharmaceuticals and humic acid: Characterization using entrapment and high-performance affinity microcolumns. **Journal of Chromatography A**, 1737: p. 465427, https://doi.org/10.1016/j.chroma.2024.465427.
- 3. Yapiyev, V., S. A. Koriche, **D. D. Snow**, K. Samarkhanov, X. Mao and J. Li. 2024. Editorial: Climate change, land surface, and critical zone processes in endorheic basins. **Frontiers in Environmental Science** 12 https://doi.org/10.3389/fenvs.2024.1479504.
- 4. Imanov, F., S. Aliyev, *E. Aliyev*, A. Nuriyev, and **D. D. Snow**. 2024. Use of Holistic Environmental Flow Assessment for the Alijanchay River, Azerbaijan. **Water** 16, no. 17: 2447. https://doi.org/10.3390/w16172447.
- Singh, A., Rudnick, D., Snow, D. D., Proctor, C., Puntel, L., & Iqbal, J. 2024. Impact of split nitrogen applications on nitrate leaching and maize yield in irrigated loamy sand soils of Northeast Nebraska. Agrosystems, Geosciences & Environment, 7, e20554. https://doi.org/10.1002/agg2.20554
- Smagulov Zh., Snow, D., Arystambekova, D.D. Sailaubek, A.M. Tairov, A.Z. 2024. Study of Water Regime of Zhaiyk Transboundary River in the context of Anthropogenic and Climatic Changes. NEWS of the National Academy of Sciences of the Republic of Kazakhstan. Series on Geology and Technical Sciences. 3(465). 164–178, https://doi.org/10.32014/2024.2518-170X.417.
- 7. Russell MV, Messer TL, Repert DA, Smith RL, Bartelt-Hunt S, Snow DD, Reed AP. 2024. Influence of Four Veterinary Antibiotics on Constructed Treatment Wetland Nitrogen Transformation. **Toxics**, 12(5):346. https://doi.org/10.3390/toxics12050346.
- 8. Malakar, A., D.D. Snow, D. Rudnick, B. Maharjan, M. Kaiser, and C. Ray, 2024. Natural Reactive Iron Dynamics in the Agricultural Soil of Semiarid to Arid Systems. ACS Agricultural Science & Technology, 2024. 4(3): p. 307-316, https://doi.org/10.1021/acsagscitech.3c00273.
- 9. Kumar, M., Honda, R. Snow, D., Mazumder, P. Bhattacharya. P. 2024. COVID-19 in environment: Treatment, Infectivity, Monitoring, Estimation (TIME). Current Opinion in Environmental Science & Health, 39: p. 100551, https://doi.org/10.1016/j.coesh.2024.100551.
- Borsuah, J.F.; Messer, T.L.; Snow, D.D.; Comfort, S.D.; Bartelt-Hunt, S. 2024. The Impact of Dissolved Organic Matter on Photodegradation Rates, Byproduct Formations, and Degradation Pathways for Two Neonicotinoid Insecticides in Simulated River Waters. Sustainability, 16, 1181. https://doi.org/10.3390/su16031181
- 11. Olson, C. A.; Malakar, A.; D'Alessio, M. Schumacher, N.; Ray, C.; Snow, D.D. 2024. Evaluating Youth-Led Citizen Science for Improved Monitoring of Domestic Well Water Quality in Nebraska. ACS ES&T Water, https://doi.org/10.1021/acsestwater.3c00640.
- 12. *Tleuova, Z, D. D. Snow, M.* Mukhamedzhanov, and A. Ermenbay. 2023. Relation of Hydrogeology and Contaminant Sources to Drinking Water Quality in Southern Kazakhstan. Water15, no. 24: 4240. https://doi.org/10.3390/w15244240

- 13. *Jabeen*, *T*, E. G. Rogan, **D. D. Snow**, C. Achutan, and M. Zahid. 2023. Characterization of Environmental Levels of Pesticide Residues in Household Air and Dust Samples near a Bioenergy Plant Using Treated Seed as Feedstock. **International Journal of Environmental Research and Public Health** 20, no. 21: 6967. https://doi.org/10.3390/ijerph20216967.
- 14. *Severson, M. A.*, S. Onanong, A. Dolezal, S. L. Bartelt-Hunt, D. D. Snow and L. M. McFadden. 2023. Analysis of wastewater samples to explore community substance use in the United States: Pilot correlative and machine learning study. JMIR Form Res 7 (2023): e45353. 10.2196/45353. https://formative.jmir.org/2023/1/e45353
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- 16. *Tulebekov, Y., Z. Orazov*, B. Satybaldiyev, **D. D. Snow**, R. Schneider, and B. Uralbekov. 2023. Reaction Steps in Heterogeneous Photocatalytic Oxidation of Toluene in Gas Phase—A Review. **Molecules** 28, no. 18: 6451. https://doi.org/10.3390/molecules28186451
- 17. Omali, A. O., J. T. Arogundade and **D. D. Snow.** 2023. Assessment of health risks associated with contaminants in groundwater in the catchment area of selected dumpsites in Abuja north central Nigeria. **Discover Environment** 1(1): 7. https://doi.org/10.1007/s44274-023-00001-5.
- 18. Satybaldiyev, B., B. Ismailov, *N. Nurpeisov*, K. Kenges, **D. D. Snow**, A. Malakar, O. Taukebayev and B. Uralbekov. 2023. Downstream hydrochemistry and irrigation water quality of the Syr Darya, Aral Sea Basin, South Kazakhstan. **Water Supply** 23(5): 2119-2134. https://doi.org/10.2166/ws.2023.114.
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- Chokejaroenrat, C., C. Sakulthaew, A. Angkaew, A. Pattanateeradetch, W. Raksajit, K. Teingtham, P. Phansak, P. Klongvessa, D. D. Snow, C. E. Harris and S. D. Comfort. 2023. Adsorptive-Photocatalytic Performance for Antibiotic and Personal Care Product Using Cu0.5Mn0.5Fe2O4. Antibiotics 12(7): 1151. https://doi.org/10.3390/antibiotics12071151.
- 21. Malakar, A., C. Ray, M. D'Alessio, *J. Shields, C. Adams*, M. Stange, K. A. Weber and **D. D. Snow.** 2023. Interplay of legacy irrigation and nitrogen fertilizer inputs to spatial variability of arsenic and uranium within the deep vadose zone. **Science of The Total Environment**, 897: 165299 https://doi.org/10.1016/j.scitotenv.2023.165299.
- 22. *Severinenko*, *M.A.*, V.P. Solodukhin, B.M. Djenbaev, S.G. Lennik, B.T. Zholboldiev, and **D.D. Snow**, 2023. Occurrence of Radionuclides and Hazardous Elements in the Transboundary River Basin Kyrgyzstan & Kazakhstan. **Water**, **15**(9) p. 1759. https://doi.org/10.3390/w15091759
- 23. Satybaldiyev, B., *B. Ismailov, N. Nurpeisov, K. Kenges*, D.D. Snow, A. Malakar, and B. Uralbekov, 2023. Evaluation of dissolved and acid-leachable trace element concentrations in relation to practical water quality standards in the Syr Darya, Aral Sea Basin, South Kazakhstan. **Chemosphere**, 313: p. 137465.https://doi.org/10.1016/j.chemosphere.2022.137465
- 24. Beegum, S., A. Malakar, C. Ray, and **D.D. Snow**, 2023. Importance of snowmelt on soil nitrate leaching to groundwater A model study. **Journal of Contaminant Hydrology**, **255**: p.

- 104163. https://doi.org/10.1016/j.jconhyd.2023.104163.
- 25. Li, L., *J. Shields*, **D.D. Snow**, M. Kaiser, and A. Malakar, 2023. Labile carbon and soil texture control nitrogen transformation in deep vadose zone. **Science of The Total Environment**, **878**: p. 163075. https://doi.org/10.1016/j.scitotenv.2023.163075
- Westrop, J.P., P. Yadav, P.J. Nolan, K.M. Campbell, R. Singh, S.E. Bone, A.H. Chan, A.J. Kohtz, D. Pan, O. Healy, J.R. Bargar, D.D. Snow, and K.A. Weber, 2023. Nitrate-Stimulated Release of Naturally Occurring Sedimentary Uranium. Environmental Science & Technology, 57(10): p. 4354-4366. https://doi.org/10.1021/acs.est.2c07683
- 27. Allen, D. S., A. S. Kolok, D. D. Snow, B. Satybaldiyev, B. Uralbekov, G. S. Nystrom, L. M. Thornton Hampton, S. L. Bartelt-Hunt and M. K. Sellin Jeffries. 2023. Predicted aquatic and human health risks associated with the presence of metals in the Syr Darya and Shardara Reservoir, Kazakhstan. Science of The Total Environment 859: 159827. https://doi.org/10.1016/j.scitotenv.2022.159827
- 28. *Mohapatra, S.*, **D. Snow**, P. Shea, A. Gálvez-Rodríguez, M. Kumar, L. P. Padhye and S. Mukherji. 2023. Photodegradation of a mixture of five pharmaceuticals commonly found in wastewater: Experimental and computational analysis. **Environmental Research** 216: 114659. https://doi.org/10.1016/j.envres.2022.114659
- 29. *Tleuova, Z.* T., **D.D. Snow,** M.A. Mukhamedzhanov, E. Z. Murtazin. 2022. Assessment of the impact of human activity on groundwater in south Kazakhstan. News of the National Academy of Sciences of the Republic of Kazakhstan, Series of Geology and Technical Sciences. 2, 252, 217-229 10.32014/2022.2518-170X.171
- 30. *Lindgren, J. K.*, Messer, T. L., Miller, D. N., **Snow, D. D.**, & Franti, T. G. 2022. Neonicotinoid pesticide and nitrate mixture removal and persistence in floating treatment wetlands. Journal of Environmental Quality, 51, 1246–1258. https://doi.org/10.1002/jeq2.20411
- 31. *Gupta Vakil*, S., S. Biswas, **D. Snow** and J. Wu-Smart. 2022. Targeted Method for Quantifying Air-Borne Pesticide Residues from Conventional Seed Coat Treatments to Better Assess Exposure Risk During Maize Planting. Bulletin of Environmental Contamination and Toxicology. https://doi.org/10.1007/s00128-022-03627-y
- **32.** *Caniglia, J.*, **D. D. Snow**, T. Messer and S. Bartelt-Hunt 2022. Extraction, analysis, and occurrence of per- and polyfluoroalkyl substances (PFAS) in wastewater and after municipal biosolids land application to determine agricultural loading. **Frontiers in Water 4.** 27 October 2022

 Sec. Environmental Water Quality. https://doi.org/10.3389/frwa.2022.892451
- 33. *Lawal, A.*, M. N. Tijani, **D. Snow** and M. D'Alessio. 2022. Quality and hydrochemical assessment of groundwater in geological transition zones: a case study from N.E. Nigeria. **Environmental Science and Pollution Research**. https://doi.org/10.1007/s11356-022-22762-x
- **34.** Severson, M.A.; Cassada, D.A.; Huber, V.C. **Snow, D.D.**; McFadden, L.M. 2022. Population Health Metrics During the Early Stages of the COVID-19 Pandemic: A Correlative Pilot Study. **JMIR Formative Research.** https://formative.jmir.org/2022/10/e40215
- Chokejaroenrat, C., C. Sakulthaew, K. Satchasataporn, D. D. Snow, T. E. Ali, M. A. Assiri, A. Watcharenwong, S. Imman, N. Suriyachai and T. Kreetachat. 2022. Enrofloxacin and Sulfamethoxazole Sorption on Carbonized Leonardite: Kinetics, Isotherms, Influential Effects, and Antibacterial Activity toward S. aureus ATCC 25923. Antibiotics 11(9): 1261. https://doi.org/10.3390/antibiotics11091261

- 36. *Meyer*, *M.F.*, Ozersky, T., Woo, K.H., Shchapov, K., Galloway, A.W., Schram, J.B., Rosi, E.J., **Snow, D.D**., Timofeyev, M.A., Karnaukhov, D.Y. and Brousil, M.R., 2022. Effects of spatially heterogeneous lakeside development on nearshore biotic communities in a large, deep, oligotrophic lake. **Limnology and Oceanography.** https://doi.org/10.1002/lno.12228
- Donner, L., Staley, Z. R., Petali, J., Sangster, J., Li, X., Mathews, W., Snow, D. Howe, A. Soupir, M.; Bartelt-Hunt, S. 2022. The Human Health Implications of Antibiotic Resistance in Environmental Isolates from Two Nebraska Watersheds. Microbiology Spectrum, e02082-02021. DOI: https://doi.org/10.1128/spectrum.02082-21
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- 40. Meyer, M. F., T. Ozersky, K. H. Woo, K. Shchapov, A. W. E. Galloway, J. B. Schram, **D. D. Snow**, M. A. Timofeyev, D. Y. Karnaukhov, M. R. Brousil and S. E. Hampton. 2021. A unified dataset of co-located sewage pollution, periphyton, and benthic macroinvertebrate community and food web structure from Lake Baikal (Siberia). **Limnology and Oceanography Letters.** https://doi.org/10.1002/lol2.10219.
- 41. Malakar, A., **Snow, D. D.**, Kaiser, M., *Shields, J.*, Maharjan, B., Walia, H., Rudnick, D. and Ray, C. (2022). Ferrihydrite enrichment in the rhizosphere of unsaturated soil improves nutrient retention while limiting arsenic and uranium plant uptake. **Science of the Total Environment**, 806, 150967. https://doi.org/10.1016/j.scitotenv.2021.150967
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- 47. *Borsuah JF*, Messer TL, **Snow D.D.**, Comfort SD, Mittelstet AR. Literature Review: Global Neonicotinoid Insecticide Occurrence in Aquatic Environments. **Water.** 2020 Dec;12(12):3388.

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- **53.** *Bedi, S.*, Samal, A., Ray, C. and **Snow, D.** 2020. Comparative evaluation of machine learning models for groundwater quality assessment. **Environmental Monitoring and Assessment** 192(12), 776. https://doi.org/10.1007/s10661-020-08695-3
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PATENTS

Nanotechnology-based soil amendment for improving crop yield, soil carbon and nutrient use efficiency. C. Ray, A. Malakar, and D. Snow. Root Zone Solutions, Omaha Nebraska. Provisional application filed by NUTECH Ventures, September 5, 2022.

WORKSHOPS, OUTREACH (organizer), and Popular Press

- Connecting groundwater quality to the surface: models, monitoring and more. Organized by Daniel Snow. The Nebraska Water Center and with support from a grant from the Nebraska Department of Environmental Quality Holiday Inn Conference Center, Kearney, Nebraska March 7, 2018
- From land surface to the aquifer: vadose zone and recharge monitoring in Nebraska. Organized by Daniel Snow, University of Nebraska Water Center, and Troy Gilmore, University of Nebraska School of Natural Resources Conservation and Survey Division and Biological Systems Engineering. Cosponsored by the Lower Platte South Natural Resources District, the Nebraska Water Center and with support from a grant from the Nebraska Department of Environmental Quality. March 1, 2017.
- Nebraska Association of Resource Districts Short Course. Characterizing sources and transport of nitrate impacting drinking water supplies. Chittaranjan Ray and Daniel Snow, University of Nebraska Water Center, Cosponsored by the Lower Platte South and Central Platte Natural Resources Districts and the Nebraska Water Center. Location: Kearney Holiday Inn Conference Center, March 2, 2016
- Dan Snow. Water Scientist (2015). Platte Basin Time Lapse Interview http://plattebasintimelapse.com/2015/08/dan-snow/
- Antibiotics in Agroecosystems: State of the Science, Workshop held August 5-8, 2014 at the Biosphere 2 Conference Center, Oracle, AZ. Attended by 42 people, participants included scientists and others from academia, government agencies (including EPA and USDA), and industry. Approximately one-third of registrants were students, and nearly 20% represented international organizations. Organized interdisciplinary workshop, and led discussion evaluating and reviewing literature on analytical methods for analysis of antibiotics in agroecosystems. Funded by AFRI Food Safety Program Area 2, "Effective Mitigation Strategies for Antimicrobial Resistance" (A4171) through the University of Arizona, McLain, J.E. (lead), D.D. Snow, and L.M. Durso. https://wrrc.arizona.edu/arasos-home