Christine Mary Frances Miller

University of California Davis | Department of Animal Science | 517-944-0896 | cmfmiller@ucdavis.edu

Education

University of California, Davis Dec 2020
Ph.D. in Animal Biology
Advisor: Dr. Deanne Meyer

University of California, Davis June 2019
M.S. in Statistics

Wellesley College May 2011
B.A. in Biological Sciences

Research Experience

Postdoctoral Researcher, *University of California, Davis* 2020-present
Designed new measurement protocols to enable dairy farmers to precisely apply manure fertilizers to forage crops.

Graduate Student Researcher, *University of California, Davis* 2013-2019
Better protected groundwater resources by improving dairy manure management practices using statistical modeling.

Field Data Quality Intern, *The Climate Corporation, San Francisco, CA* 2017
Explored potential to use satellite imagery to fill gaps in precision harvest maps of agricultural fields.

Ecological Research Project, *Wellesley College, Wellesley, MA* 2009-2010
Designed and conducted study testing new method of mapping bird populations using affordable digital recording devices.

Lab Manger Assistant, *Michigan State University, MI* 2011
Worked in biochemistry lab focused on protein crystallography

Directed Research Project Abroad, *School for Field Studies, Australia* 2009
Conducted study to gauge beef cattle farmer's perspectives on implemented best management practices

Peer Reviewed Publications

Miller, C.M.F., Waterhouse, H., Harter, T., Fadel, J.G., Meyer, D. (2020) Quantifying the uncertainty in nitrogen application and groundwater nitrate leaching in manure based cropping systems. *Agricultural Systems*. 184, 102877

Miller, C.M.F., Heguy, J., Karle, B., Price, P.L., Meyer, D. (2019) Optimizing accuracy of sampling protocols to measure nutrient content of solid manure. *Waste Management*. 85, 121-130

Miller, C.M.F, Fadel, J.G., Heguy, J., Karle, B., Price, P.L., Meyer, D. (2018) Optimizing accuracy of protocols for measuring dry matter and nutrient yield of forage crops. *Science of the Total Environment*. 624, 180-188.

Miller, C.M.F, Price, P.L., Meyer, D. (2017). Mass balance analysis of nutrients of California dairies to evaluate data quality for regulatory review. *Science of the Total Environment.* 579, 37–46.

Fellowships and Awards

Austin Eugene Lyons Fellowship, *University of California, Davis* 2016 – present

1st Place Graduate Student Oral Presentation, *American Society of Agronomy* 2018

NSF Graduate Research Fellowship, *Honorable Mention* 2015

Graduate Program Fellowship, *University of California, Davis* 2014 & 2015

Henry A. Jastro Graduate Research Award, *University of California, Davis* 2014

Block Grant Fellowship, *University of California, Davis* 2013

Summer Research Award, *Wellesley College* 2009 & 2010

Outreach Publications

Miller, C. M. F., Meyer, D. (2018). The easiest way to accurately measure forage nutrient yields. *University of California Agriculture and Natural Resources California Dairy Newsletter*, Vol. 10, Issue 3; pg. 6 - 7

Miller, C. M. F., Meyer, D. (2017). Do your Annual Report numbers make sense? *University of California Agriculture and Natural Resources California Dairy Newsletter*, Vol. 9, Issue 2, pg. 2

Data Science Experience

Insight Data Science Fellow, *Seattle, WA* 2020

Built AWS data pipeline to provide hikers with live updates and forecasts of trailhead popularity using yolo3 to detect cars in webcam images.

Teaching Experience

Teaching Assistant Consultant, *University of California Davis* 2017-2018

Provide one-on-one consultations for Teaching Assistants and Associate Instructors; collaboratively facilitated workshops for Teaching Assistants and Associate Instructors; participate in professional development on scholarship and practice of teaching and learning.

Teaching Assistant, *University of California, Davis* 2013-2016

Courses: Agricultural Applications of Linear Programing; Domesticated Animals and People; Reproductive Physiology; Animal Growth and Development

Summer Placement Coordinator, *Roxbury Prep Charter School, Boston* 2013

Placed students in affordable and educational summer programs; Tutored students in algebra

Educator, *Museum of Science, Boston* 2011-2012

Delivered 3-4 educational presentations weekly to audiences aged 5-15; Developed and facilitated educational activities for museum guests; customized and implemented ipad software to improve museum accessibility for autism spectrum guests.

Youth Development Professional, *American Youth Foundation, MI* 2011-2012

Lead wilderness trips for teenagers lasting up to 4 weeks; Demonstrated proficiency in trip leading, group development, behavior management, and youth education techniques.

Presentations

Miller, C.M.F, Waterhouse, H., Heguy, J, Karle, B, Price, P.L., Hater, T., Fadel, J.G, Meyer, D. (2019) Improving the accuracy of nitrogen application and removal measurements in manure based cropping systems to reduce environmental losses. *Seminar,* Department of Animal Science, University of California Davis.

Miller, C.M.F, Fadel, J.G, Heguy, J, Karle, B, Price, P.L., Meyer, D. (2018) Optimizing Accuracy of Nutrient Management Measurements to Protect Water Resources. *Submitted Talk*, ASA, CSSA and CSA Annual Meeting, Baltimore, MD.

Miller, C.M.F, Fadel, J.G, Heguy, J, Karle, B, Price, P.L., Meyer, D. (2017) Optimizing accuracy of protocols for measuring dry matter and nutrient yield of forage crops. *Submitted Poster,* FREP/WPHA Conference, Modesto, CA.

Miller, C. M. F., Heguy, J., Karle, B., Price, P. & Meyer, D. (2017). Optimizing protocols for measuring harvested dry matter of silage crops. *Submitted Poster*. CALASA California Plant and Soil Conference.

Miller, C.M.F., Meyer, D. (2015) Checks and Balances: Evaluating Reliability of Diary Nutrient Budget Data. *Submitted Talk.* ADSA®-ASAS Joint Annual Meeting, Orlando, FL.

Miller, C.M.F., Meyer, D. (2015) Checks and Balances: Evaluating Reliability of Dairy Nutrient Budget Data. *Submitted Poster.* ADSA®-ASAS Joint Annual Meeting, Orlando, FL.

Miller, C.M.F., Meyer, D. (2014) Checks and Balances: Evaluating Reliability of Dairy Nutrient Budget Data. *Submitted Poster*. University of California Davis Animal Biology Colloquium, Davis, CA

Miller, C.M.F., Rodenhouse, N.L. (2010) Testing Digital-Audio Recording Method for Mapping Bird Populations Affected by Climate Change. *Submitted Poster*. Wellesley College Summer Research Conference

Miller, C.M.F., Madahan D., (2009) Cost Benefit Analysis of Best Management Practices on Beef Farms of the Atherton Tablelands. *Submitted Poster.* School for Field Studies Community Night, Queensland, Australia

Editorial Review

Science of the Total Environment 2019-Present

Ciência Rural 2018-Present

Other

Wikipedia editor, Username: *Koalafication*, significant edits to “Dairy Farming” and “Cattle”

Graduate Group Executive Committee Member

Graduate Student Association Representative for Animal Biology

Graduate Group Social Chair

Experience programing in R, Python, SQL and html

Proficient in French

Avid Ultimate Frisbee Player