

Mohamed Ahmed B. Abdallah

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A highly self-motivated doctoral degree holder in Rangeland Ecology and Management, with ten years of experience in graduate level research. Research interests and expertise include rangeland ecology and management, soil science, plant ecophysiology, soil-plant-water relationships, watershed management/hydrology, restoration ecology, carbon sequestration, and ecosystem services. A dedicated, detail oriented, and dependable individual who possesses skills such as superior problem-solving, time management abilities, and critical thinking.

Education

Oregon State University

Ph.D. Major in Rangeland Ecology and Management, Minor in Soil Science - December 2019.

Dissertation title: "Ecosystem processes in treated and untreated western juniper systems in semiarid watersheds: A paired watershed study in central Oregon."

Committee: Profs. Ricardo Mata-Gonzalez, Jay Noller, Carlos Ochoa, Thomas Chastain, and Badege Bishaw.

Oregon State University

M.S. Major in Soil Science - March 2017.

Project title: "Soil carbon accumulation as related to western juniper encroachment in Oregon."

Committee: Profs. Ricardo Mata-Gonzalez, Jay Noller, and Carlos Ochoa.

Oregon State University

M.S. Major in Rangeland Ecology and Management, Minor in Soil Science - June 2013.

Thesis title: "Physiological impacts of groundwater and surface water application on desert graminoids of different geographic origin."

Committee: Profs. Ricardo Mata-Gonzalez, Jay Noller, David Martin, and Carol Mallory-Smith.

Omar Al-Mukhtar University, Libya

B.Sc. Natural Resources and Environmental Sciences - June 2008.

Professional Appointments

- January/2021– Present; Postdoctoral Scholar, Oregon State University.
- July/2020 – December/2020; Bioscience Research Technician, Oregon State University.
- February/2020 – June/2020; Volunteer Researcher, Oregon State University.
- October/2013 – March/2015; Graduate Research Assistant, Oregon State University.

Publications

Forthcoming

- [1] Morán-Villa, V.L., Monterroso-Rivas, A.I., Mata-González, R., Márquez-Berber, S.R., **Abdallah, M.A.B.**, Valdes-Velarde, E., & Hernández-Sánchez, R. Above-ground biomass estimation by developing allometric equations for *Theobroma cacao* in Tabasco, Mexico. *Under review: Agroforestry Systems*.
- [2] Hovland, M., Mata-González, R., Prado-Tarango, D., & **Abdallah, M.A.B.** Distribution of Agave lechuguilla in rosette desert scrublands of the northern Chihuahuan desert. *In preparation for submission*.

In Refereed Journals

- [1] Louhaichi, M., Hassan, S., Gamoun, M., Safi, N., **Abdallah, M.A.B.**, & Ates, S. (2022). Evaluation of rainwater harvesting and shrub establishment methods for sustainable watershed management in northern Afghanistan. *Journal of Mountain Science* 19.
- [2] Contreras-Cisneros, A.J., Mata-González, R., Trejo-Calzada, R., Pedroza-Sandoval, A., Prado-Tarango, D., & **Abdallah, M.A.B.** (2022). Carbon and nitrogen stocks through time in abandoned croplands of the Comarca Lagunera, Mexico. *Agriculture, Ecosystems and Environment*, 327, 107828.
- [3] Mata-González, R., Averett, J.P., **Abdallah, M.A.B.**, & Martin, D.W. (2022). Variations in groundwater level and microtopography influence desert plant communities in shallow aquifer areas. *Environmental Management*, 69, 45-60.
- [4] **Abdallah, M.A.B.**, Mata-González, R., Noller, J.S., & Ochoa, C.G. (2021). Effects of western juniper (*Juniperus occidentalis*) control on ecosystem nitrogen stocks in central Oregon, USA. *Journal of Plant Ecology*, 14, 1073–1089.
- [5] Mata-González, R., Hovland, M., **Abdallah, M.A.B.**, Martin, D.W., & Noller, J.S. (2021). Nutrient uptake and gas exchange of Great Basin plants provide insight into drought adaptations and coexistence. *Journal of Plant Ecology*, 14, 854-869.
- [6] Louhaichi, M., Gamoun, M., Hassan, S., & **Abdallah, M.A.B.** (2021). Characterizing biomass yield and nutritional value of selected indigenous range species from arid Tunisia. *Plants*, 10, 2031.
- [7] Mata-González, R., **Abdallah, M.A.B.**, & Ochoa, C.G. (2021). Water use by mature and sapling western juniper (*Juniperus occidentalis*) trees. *Rangeland Ecology & Management*, 74, 110-113.

[8] **Abdallah, M.A.B.**, Durfee, N., Mata-González, R., Ochoa, C.G., & Noller, J.S. (2020). Water use and soil moisture relationships on western juniper trees at different growth stages. *Water*, *12*, 1596; doi:10.3390/w12061596.

[9] **Abdallah, M.A.B.**, Mata-Gonzalez, R., Noller, J.S., & Ochoa, C.G. (2020). Ecosystem carbon in relation to woody plant encroachment and control: juniper systems in Oregon, USA. *Agriculture, Ecosystems and Environment*, *290*, 106762.

[10] **Abdallah, M.A.B.**, Mata-González, R., Martin, D.W., Noller, J.S., & Wan, C. (2018). Consequences of surface and subsurface water use on wetland graminoids of different geographic origin. *Wetlands*, *38*, 121-131.

[11] Mata-González, R., **Abdallah, M.A.B.**, Trejo-Calzada, R., & Wan, C. (2017). Growth and leaf chemistry of *Atriplex* species from Northern Mexico as affected by salt stress. *Arid land research and management*, *31*, 57-70.

[12] **Abdallah, M.A.B.**, Mata-Gonzalez, R., Martin, D.W., Trejo-Calzada, R., & Noller, J.S. (2017). Effects of surface and subsurface water application on nitrogen and sodium relations of desert graminoids of different geographic origin. *Arid land research and management*, *31*, 1-13.

Conference Proceedings & Presentations

[1] Louhaichi, M., **Abdallah, M.A.B.**, Safi, N., Hassan, S., Gamoun, M., and Ates, S. Watershed rehabilitation using rainwater harvesting and shrub establishment methods in Northern Afghanistan. 2022. Society for Range Management – Annual Meeting. February 21-25, Albuquerque, New Mexico (Conference Poster).

[2] **Abdallah, M.A.B.**, Mata-González, R., Noller, J.S., and Ochoa, C.G. Ecosystem nitrogen stocks in response to western juniper encroachment and control in semiarid watershed systems of central Oregon, USA. 2022. Society for Range Management – Annual Meeting. February 21-25, Albuquerque, New Mexico (Conference Poster).

[3] **Abdallah, M.A.B.**, Gamoun, M., Hassan, S., and Louhaichi, M. Nutritive potential of native forages in arid rangelands of Tunisia. 2022. Society for Range Management – Annual Meeting. February 21-25, Albuquerque, New Mexico (Conference Poster).

[4] **Abdallah, M.A.B.**, Durfee, N., Mata-González, R., Ochoa, C.G, and Noller, J.S. Western juniper water uptake and soil moisture relationships: A paired-watershed study in Central Oregon, USA. 2020. Society for Range Management – Annual Meeting. February 16–20, Denver, Colorado. (Conference Poster).

[5] Ochoa, C.G., N. Durfee, **M. Abdallah**, R. Mata-González, and T. Deboodt. Assessing the long-term water and vegetation response to western juniper removal and recovery. 2019. Society for Range Management – Annual Meeting. February 10–14, Minneapolis, Minnesota. (Conference Presentation).

[6] **Abdallah, M.A.B.**, R. Mata-González, C. Ochoa, and J. Noller. 2018. Aboveground and belowground carbon in treated and untreated western juniper (*Juniperus occidentalis*) systems in Oregon. Proceedings International Meeting on Carbon. Programa Mexicano del Carbono. 615-619. Alamos, Sonora, Mexico. (Conference Paper).

[7] **Abdallah, M.A.B.**, Mata-González, R., Ochoa, C.G., and Noller, J.S. Aboveground carbon accumulation in treated and untreated western juniper (*Juniperus occidentalis*) systems in Central Oregon. 2018. Society for Range Management – Annual Meeting. January 28- February 2, Reno, Nevada. (Conference Poster).

[8] **Abdallah, M.A.B.**, Mata-González, R., Martin, D.W., and Noller, J.S. Physiological impacts of groundwater and surface water application on desert graminoids of different geographic origin. 2014. Society for Range Management – Annual Meeting. February 8-13, Orlando, Florida. (Conference Poster).

Technical Report

[1] **Abdallah, M.A.B.**, Mata-González, R., Ochoa, C. G. (2018). How much water do mature and sapling juniper trees really use? (pp. 60–64). BEEF.

It can be found here:

http://osu-wams-blogs-uploads.s3.amazonaws.com/blogs.dir/2753/files/2018/12/OBC_2018R1.pdf

This publication contains information about research studies funded by the Oregon Beef Council and conducted by faculty members from Oregon State University.

Awards/Funding

- Funding from the Oregon Beef Council (OBC) for the juniper water use study.
- 2015-2019: LNASP extension scholarship from MS to Ph.D. based on meeting eligibility requirements.
- 2010-2013: Libyan-North American Scholarship Program (LNASP). Governmental fully funded scholarship including English learning and MS studies based on my outstanding achievement during my B.Sc. (Ranked first among all undergraduate students in my department). The scholarship can be found on the website:
<https://cbie.ca/what-we-do/current-programs/libyan-north-american-scholarship/>

Skills

- Field work and computer-based information gathering.
- Data collection, correlation, interpretation, and analysis.
- IT skills: MS Office (Word, Excel, and PowerPoint), Statistical software (SigmaPlot and R Software).

- Basic use of Geographic Information Systems.
- Languages: proficient in English and native in Arabic.

Professional Activities

Membership: A former member in the Society for Range Management (SRM).

Referee: Reviewed research papers for the following journals:
International Journal of Environmental Research and Public Health (1)
PeerJ – the Journal of Life and Environmental Sciences (3)
Journal of Global Ecology and Environment (1)
Journal of Environmental Management (2)
Arid Land Research and Management (3)
Rangeland Ecology and Management (2)
Agricultural and Forest Meteorology (1)
Ecology and Evolution (1)
Applied Sciences (1)
Horticulturae (1)
Sustainability (3)
Wetlands (3)
Forests (2)
Plants (1)