

Affiliation

International Center for Agricultural Research in the Dry Areas (ICARDA)

Principal Scientist

P.O. Box 950764 - Amman, 11195, Jordan

Phone: +962-06- 590-3120 Fax: +962-06-552-5930

M.Louhaichi@cgiar.org

Oregon State University

College of Agricultural Sciences

Courtesy Faculty

112 Withycombe Hall, Corvallis, OR - USA

Phone: 541-737-3431 - Fax: 541-737-4174

Mounir.Louhaichi@oregonstate.edu

Profile

Mounir Louhaichi holds a Ph.D. and a M.Sc. from the department of Rangeland Ecology & Management at Oregon State University (OSU, USA). Currently he holds a principal scientist position and team Leader for Rangeland Ecology & Management Unit at the International Center for Agricultural Research in the Dry Areas ([ICARDA](#)). Dr Louhaichi has a proven track record of more than 25 years in terrestrial ecological restoration and landscape ecology. He has a solid background in assessing and monitoring rangeland health using advanced geospatial tools (certified GIS professional). He has authored and co-authored more than 140 scientific and technical publications including peer reviewed papers, conference proceedings, training manuals and copyrighted / patented scientific software and hardware (https://www.researchgate.net/profile/Mounir_Louhaichi). In November 2013, he was nominated as the ICARDA focal point for the [FAO-ICARDA cactus network](#). In January 1st 2015, he was named courtesy faculty member in the [Department of Animal and Rangeland Sciences](#) at Oregon State University (OSU-USA) and in July 2016 he was elected vice president of the [International Rangeland Congress](#).

Current Projects

- Provision of Proven Feed Resource Technologies to Improve the Red Meat Value Chain in Tunisia (GIZ funded project) (600,000 euro)
- Mind the Gap: Improving Dissemination Strategies to Increase Technology Adoption by Smallholders (BMZ funded project) (1.2 million euro)
- CRP Livestock: Livestock and environment (300,000 USD/year)
- Promoting cactus (*Opuntia ficus-indica*) as drought resilient feed resource under different agro-ecological production systems across India (ICAR funding) (300,000 USD)
- Partnerships For Improving Pastoral Policies (PIPP) (GIZ funded project) (100,000 USD)
- Forage options for smallholder livestock in water-scarce environments of Afghanistan (ACIAR funded project) (3.6 million dollars)
- Sustainable Development of landscape depressions in pastoral ecosystems (OPEC Fund for International Development (OFID funded project) funded project) (150,000 USD)
- Restoration of Badia ecosystem services for enhanced community livelihood (Arab Fund for Social and Economic Development (AFSED funded project) (200,000 USD/year)
- Using promising range and cacti species to improve provisioning of ecosystem services (Arab Fund for Social and Economic Development (AFSED funded project) (50,000 USD/year)

Selected Publications

Refereed Publications

Louhaichi, M., Hassan, S., Clifton, K., and Johnson, D. E. 2017. A reliable and non-destructive method for estimating forage shrub cover and biomass in arid environments using digital vegetation charting technique. *Agroforestry Systems* doi:10.1007/s10457-017-0079-4

Tarhouni, M., Ben Salem, F., Tlili, A., Ouled Belgacem, A., Neffati, M. and Louhaichi, M. 2016. Measurement of the aboveground biomass of some rangeland species using a digital non-destructive technique. *Botany Letters* 163(3): 281-287 doi:10.1080/23818107.2016.1196147

Larson, L., Johnson, D.E., Wilson, M., Wilson, K., Louhaichi, M., and Williams, J. 2016. Spatial occupancy patterns and activity of arid rangeland cattle grazing small riparian pastures. *Animal Science Journal* doi:10.1111/asj.12670

Louhaichi, M., Yigezu, A. Y., Werner, J., Dashtseren, L., El-Shater, T., and Ahmed, M. 2016. Financial incentives: Possible options for sustainable rangeland management? *Journal of Environmental Management* 180: 493-503. doi:10.1016/j.jenvman.2016.05.077

Mahyou, H., Bernard, T., Balaghi, R., Louhaichi, M., and Mimouni, J. 2016. A Knowledge-Based Approach for Mapping Land Degradation in the Arid Rangelands of North Africa. *Land Degradation and Development* 27: 1574–1585 doi:10.1002/ldr.2470

Porqueddu, C., Ates, S., Louhaichi, M., Kyriazopoulos, A.P., Moreno, G., del Pozo, A., Ovalle, C., Ewing M.A. and Nichols, P.G.H. 2016. Grasslands in 'Old World' and 'New World' Mediterranean climate zones: past trends, current status and future research priorities *Grass and Forage Science* 71: 1-35

Mirzabaev, A., Ahmed, M., Werner, J., Pender, J., and Louhaichi, M. 2016. Rangelands of Central Asia: challenges and opportunities. *Journal of Arid Land* 8(1): 93–108

Louhaichi, M., Tarasoff, C., Al Homesh, H., Hassan, S., Ates, S., and Pypker, T. 2015. Effect of water salinity and drought on early seedling growth of *Artemisia herb-alba*. *Range Management and Agroforestry* 36 (1): 6-12

Louhaichi, M., Park, A. G., Mata-Gonzalez, R., Mohawesh, Y. M., and Johnson, D. E. 2015. A preliminary model of *Opuntia ficus-indica* (L.) Mill. suitability for Jordan. *Proc. Acta Horticulturae* 1067: 267-273

Louhaichi, M., Hassan, S., Ates, S., and Nefzaoui, A. 2015. Screening for cold tolerant cactus species (*Opuntia ficus indica*) for West Asia. *Acta Horticulturae* 1067: 259-265

Hudson, L. N. Louhaichi, M., et al. 2014. The PREDICTS database: a global database of how local terrestrial biodiversity responds to human impacts. *Ecology and Evolution* 4(24): 4701-4735

Louhaichi, M., Clifton, K., and Hassan, S. 2014. Direct seeding of *Salsola vermiculata* for rehabilitation of degraded arid and semi-arid rangelands. *Range Management and Agroforestry* 35(2): 182-187

Louhaichi, M., Chand, K., A. K., Misra, Gaur, M. K., Ashutosh, S., Johnson, D. E., and Roy, M. M. 2014. Livestock migration in the arid region of Rajasthan (India) - strategy to cope with fodder and water scarcity. *Journal of Arid Land studies* 24(1): 61-64

Meier, J. S., Liesegang, A., Louhaichi, M., Hilali, M., Rischkowsky, B., Kreuzer, M., and Marquardt, S. 2014. Intake pattern and nutrient supply of lactating sheep selecting forage from woody plants and straw offered in binary or multiple choices. *Animal Feed Science and Technology* 188: 1-12

Nefzaoui, A., El Mourid, M., and Louhaichi, M. 2014. The Tribe - Platform of participatory local development and management of communal rangeland resources. *Journal of Arid Land Studies* 24(1): 57-60

Nefzaoui, A., Louhaichi, M., and Ben Salem, H. 2014. Cactus as a tool to mitigate drought and to combat desertification. *Journal of Arid Land studies* 24(1): 121-124

- Etteieb, S., Louhaichi, M., Gitas I. Z., and Kalaitzidis, C. 2013. Mediterranean forest mapping using hyperspectral satellite imagery. *Arabian Journal of Geosciences* 6(12): 5017-5032
- Meier, J. S., Liesegang, A., Rischkowsky, B., Louhaichi, M., Zaklouta, M., Kreuzer, M. and Marquardt, S. 2013. Influence of experience on intake and feeding behavior of dairy sheep when offered forages from woody plants in a multiple-choice situation. *Journal of Animal Science* 91(10): 4875–4886
- Louhaichi, M., Pyke, D. A., Shaff, S. E., and Johnson, D.E. 2013. Monitoring restoration impacts to endemic plant communities in soil inclusions of arid environments. *International Journal of Agriculture and Biology* 15: 767-771
- Ates, S., Isik, S., Keles, G., Aktas, A.H., Louhaichi, M., and Nangia, V. 2013. Evaluation of deficit irrigation for efficient sheep production from permanent sown pastures in a dry continental climate. *Agricultural Water Management* 119: 135-143
- Ouled Belgacem, A., and Louhaichi, M. 2013. The vulnerability of native rangeland plant species to global climate change in the West Asia and North African regions. *Climatic Change* 119: 451-463
- Ouled Belgacem, A., Tarhouni, M., and Louhaichi, M. 2013. Effect of protection on plant dynamics in the Mediterranean arid zone of southern Tunisia: The case of Bou Hedma national park. *Land Degradation & Development* 24: 57-62
- Ehsan, S., Bradford, K., Brugger, M., Hamdaoui, B., Kovchegov, Y., Johnson, D. E., and Louhaichi, M. 2012. Design and Analysis of Delay-Tolerant Sensor Networks for Animal Monitoring and Tracking. *IEEE Transactions on Wireless Communications* 11(3): 1220-1227
- Louhaichi, M., Ghassali, F., Salkini, A. K., and Petersen, S. L. 2012. Effect of sheep grazing on rangeland plant communities: Case study of landscape depressions within Syrian arid steppes. *Journal of Arid Environments* 79: 101-106
- Louhaichi, M., Carpinelli, M. F., Richman, L. M., and Johnson, D. E. 2012. Native forb response to sulfometuron methyl on medusahead-invaded rangeland in Eastern Oregon. *The Rangeland Journal* 34(1): 47-53
- Preuss, C. P, Louhaichi, M., Huang, C. Y., and Ogbonnaya, F. C. 2012. Genetic variation in the early vigor of twenty elite spring wheat under phosphate stress as characterized through digital charting. *Field Crops Research* 127: 71-78
- Louhaichi, M. 2011. ICARDA's research strategy for rangeland ecology and management in non-tropical dry areas. *Rangelands* 33(4): 64-70
- Louhaichi, M., Salkini, A. K., Estita, H. E., and Belkhir, S. 2011. Initial assessment of medicinal plants across the Libyan Mediterranean coast. *Advances in Environmental Biology* 5(2): 359-370
- Louhaichi, M., Johnson, M. D., Woerz, A. L., Jasra, A. W., and Johnson, D. E. 2010. Digital charting technique for monitoring rangeland vegetation cover at local scale. *International Journal of Agriculture and Biology* 12: 406-410
- Booth, D. T., Cox, S. E., Louhaichi, M., and Johnson, D.E. 2004. Lightweight camera stand for close-to-earth remote sensing. *Journal of Range Management* 57: 675-678
- Louhaichi, M., Borman, M. M., Johnson, A. L., and Johnson, D. E. 2003. Creating low-cost high-resolution digital elevation models. *Journal of Range Management* 56(1): 92-96
- Borman, M. M., Louhaichi, M., Johnson, D. E., Krueger, W. C., Karow, R. S., and Thomas, D.R. 2002. Yield mapping to document goose-grazing impacts on winter wheat. *Agronomy Journal* 94(5): 1087-1093
- Louhaichi, M., Borman, M. M., and Johnson, D. E. 2001. Spatially located platform and aerial photography for documentation of grazing impacts on wheat. *Geocarto International* 16(1): 63-68

Books and Handbooks

De Waal, H.O., Louhaichi, M., Taguchi, M., Fouche, H.J., De Wit, M. 2015. Development of a cactus pear agro-industry for the sub-Sahara Africa Region. Proceedings of International Workshop, University of the Free State, Bloemfontein, South Africa, January, 27-28, 2015. 96 pp.

Clifton, K. and Louhaichi, M. 2015. Land Tenure, climate change and livestock mobility in Central and Southern Asian Grasslands. Book chapter. In P.K Ghosh, S.K. Mhanta, J.B. Singh, P.S. Pathak, Grasslands: A Global Resource Perspective (pgs. 347-362). New Delhi, India: International Grasslands Congress

Louhaichi, M. 2015. Increasing resilience of livestock migration in the arid areas of India. Working paper # 28. ICARDA publications. p. 29. ISBN: 92-9127-474-7

Peer-Reviewed Proceedings and Technical Publications:

Hassan, S., Liguori, G., Sortino, G., Louhaichi, M., and Inglese, P. 2017. Soil volume: The effect of pot size on roots and canopy growth performance of cactus pear. Accepted as an oral presentation for the IX International Congress on Cactus Pear and Cochineal, Chile

Louhaichi, M., Kumar, S., Clifton, K., Islam, M., Hassan, S., Qamar, I. A., and Sarker, A. 2017. Changing perception of small holders about Cactus pear in South Asia. Accepted as a poster presentation for the IX International Congress on Cactus Pear and Cochineal, Chile

Gouhis, F., Louhaichi, M., and Nefzaoui, A. 2017. Cactus crop (*Opuntia ficus-indica*) to rehabilitate rangelands in semi-arid regions of Tunisia. Accepted as a poster presentation for the IX International Congress on Cactus Pear and Cochineal, Chile

Islam, M., Razzaq, A., Rafique, S., Rischkowsky, B., Ibrahim, M., and Louhaichi, M. 2017. Assessment of different supplemental feeding strategies including cactus (*Opuntia ficus-indica*) for higher productivity of small ruminants in Chakwal. Accepted as an oral presentation for the IX International Congress on Cactus Pear and Cochineal, Chile

Nefzaoui, M. Lira, M. A., Boujghagh, M., Udupa, S. M., Louhaichi, M. 2017. Morphological characterization of cactus pear (*Opuntia ficus-indica*) accessions from AGADIR, Morocco Collection. Accepted as an oral presentation for the IX International Congress on Cactus Pear and Cochineal, Chile

Nefzaoui, M., Lira, M.A., Udupa, S., Louhaichi, M., Boujghagh, M., and Santos, D.C. 2017. Assessment of genetic diversity of Brazilian and Mediterranean cactus cultivars by SSR markers and morphological traits. Accepted as an oral presentation for the IX International Congress on Cactus Pear and Cochineal, Chile

Ouled Belgacem, A., Al Farsi, S., Al Wawi, H. M., Al Yafei, M. S., Sharari, M., Al Hassan, A., and Louhaichi, M. 2017. Spineless cactus in the Arabian Peninsula: adaptive behaviors and production performances. Accepted as an oral presentation for the IX International Congress on Cactus Pear and Cochineal, Chile