Curriculum Vitae

Dr. Hassan Refai Hamasha

Associate Professor

Plant Biology/ Molecular Ecology & Systematics

بيولوجيا النبات

Born March 28 1977 in Amman, Jordan

Nationality: Jordanian Status: Married.

Department of Biological science/ Faculty of Science

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Education

2006 - 2010	PhD degree (Dr. rer. nat.), Institute of Biology/Geobotany and Botanical Garden, Martin-Luther University of Halle, Germany Dissertation title: **Phylogeny of Eurasian Stipeae, genetic structure and seed germination of *Stipa spp.* in Jordan** Advisor: Prof. Dr. Isabell Hensen. Rating: "Very Good" (~magna cum laude)
1999 - 2002	M. Sc. Degree in Horticultural and Plant Protection with an average of (3.72 out of 4) Rating: "Excellent". Faculty of Graduate Studies, University of Jordan, ranked the 1st. Thesis title: "Morphological characterization and seed germination of wild almond (*Amygdalus spp.*) in Jordan".
1995 - 1999	B.Sc. Degree in Plant Production (Plant Production Department), Faculty of Agriculture, Jordan University of Science and Technology, 1999. Rating: "Very Good".
1995	General Secondary Education Certification (Tawjihi), Scientific Stream, Al Hussien Collage School.

Scholarships and grants

- Full scholarship from the German Academic Exchange Programme (DAAD), Oct 2006 – Jun 2010.
- Graduate scholarship from the United Nation Development Program (Conservation and Sustainable Use of Dry land Agro-Biodiversity in Jordan), Oct 1999 – Jun 2002.

Experiences and Skills

Oct 2020 – present	Associate Professor, Department of Biological Science, Faculty of Science – Jerash University, Jerash-Jordan
Aug2018– Aug 2020	Associate Professor, Department of Biological Science, Faculty of Science – Taibah University, Al-Madinah Al-Munawwarah-Saudi Arabia
Oct 2016 –Aug 2018	Head of Science Department, Faculty of Science – Jerash University, Jerash-Jordan
Oct 2010 –Mar 2017	Assistant Professor, Department of Biological Science, Faculty of Science – Jerash University, Jerash-Jordan
Oct 2006 – Jun 2010	Teaching and research assistant, Institute of Biology/Geobotany and Botanical Garden, Martin-Luther University of Halle, Germany
Jan 2005 – Mar 2006	Research assistant in the University of Jordan on the project titled by: Deficit Irrigation of Mediterranean Agriculture Systems (DIMAS).
Jun 2002 – Dec 2004	Working with GEF/ United Nation Development Program (Conservation and Sustainable Use of Dry land Agro-Biodiversity in Jordan). Activity: Botanical survey of wild fruit trees and herbaceous vascular plants in Jordan. Collection, propagation and germination of the genetic resources of fruit trees in Jordan (*Amygdalus spp.*, *Pistacia atlantica*, *Crataegus azarolus* and *Pyrus syriaca*) and preserve them in field gene banks.
Sep 2000 – Jan 2002	Graduate teaching assistantships, faculty of graduate studies, University of Jordan.

Membership:

- Commission on ecosystem management (CEM) membership, 2017 – 2020 IUCN

- Species Survival Commission (SSC) membership, 2017 – 2020 IUCN

Research Interest

Ecological genetics, Plant population ecology, Evolutionary ecology, Biodiversity, Population & conservation genetics, Ecosystems management and Molecular phylogenetic studies.

Teaching experience: <u>Course Title:</u>

General biology	Plant Taxonomy
Pant Anatomy	Plant Morphology
Ecology / Molecular Ecology	Biotechnology
Biochemistry	Plant physiology
Biodiversity	Plant Embryology

Languages Arabic (native speaker), English (fluent), German (Es geht; Not bad!)

Workshops and conferences:

- Plant Cells In Vitro: Fundamentals & Applications II" (June 26-27, 2017)**,** Bundesamtsgebäude Radetzkystraße, Hintere Zollamtsstraße 1, 1031 Vienna, Austria

- IUCN Red List assessment review workshop for the eastern Mediterranean region, 1-5 February 2016, Athens - Greece.

- International conference on Mediterranean countries and EU opportunities, 22-23 Oct 2012, Amman- Jordan

New species description and new combinations:

- ***Oloptum miliaceum*** (L.) M. Röser & H.R. Hamasha, gen. nov.

- ***Stipellula capensis*** (Thunb.) M. Röser & H.R. Hamasha, comb. nov.

- ***Stipellula parviflora*** (Desf.) M. Röser & H.R. Hamasha, comb. nov.

- ***Stipellula staintonii*** (Bor) M. Röser & H.R. Hamasha, comb. nov.

- ***Stipellula tigrensis*** (Chiov.) M. Röser & H.R. Hamasha, comb. nov.

- ***Stipella nitens*** (Bor) M. Röser & H.R. Hamasha, comb. nov.

- ***Achnatherum pelliotii*** (Dangui) M. Röser & H.R. Hamasha, comb. nov.

- ***Aristella keniensis*** (Pilg.) M. Röser & H.R. Hamasha, comb. nov.

Publications list Dr. Hassan Refai Hamasha:

Brake M. H., Al-Gharaibeh M., **Hamasha, H. R.,** Al Sakarneh, N. S., Alshomali, I. A., Migdadi H. M., Qaryouti, M. M., Haddad N. J. (2021) Assessment of genetic variability among Jordanian tomato landrace using inter-simple sequence repeats markers *Jordan Journal of Biological Sciences*, **14**, 91 – 95.

Muhammad H Alu'datt, T. Rababah, M. N. Alhamad, Abdelrazzaq Al-Tawaha, A. Al-Tawaha, S. Gammoh, K. Ereifej, G. Al-Karaki, **H. R. Hamasha,** C. C. Tranchant, S. Kubow (2019), Herbal yield, nutritive composition, phenolic contents and antioxidant activity of purslane (Portulaca oleracea L.) grown in different soilless media in a closed system. *Industrial Crops and Products*, **141**, 111746. DOI: 10.1016/j.indcrop.2019.111746

Brake M, **Hamasha HR**, Migdadi HM,. Khashroum AO, Al-Gharaibeh M, Qaryouti MM, AL-Khatib MT. (2017), Influence of storage temperature and duration of tomato leaf samples on proline contents. *European Scientific Journal*, **13 (6):** 116–123.

Al-Gharaibeh, M. M., **Hamasha, H. R**., Lachmuth, S. and Hensen, I. (2017), Local adaptation to different phytogeographic regions: habitat-related variations in seed germination in response to temperature and salinity for two medicinal *Salvia* species from Jordan. *Plant Species Biology*, **32**, 25–35.

Al-Gharaibeh, M. M., **Hamasha, H. R**., Rosche, C., Lachmuth, S., Wesche, K. and Hensen, I. (2017), Environmental gradients shape the genetic structure of two medicinal *Salvia* species in Jordan. *Plant biology*, **19 (2):** 227–238.

Hamasha HR, Schmidt-Lebuhn AN, Schleuning M, Durka W, Hensen I (2013) Bioclimatic regions influence genetic structure of four Jordanian *Stipa* species Jordan. *Plant biology* **15 (5):**882–891.

Hamasha HR, Hagen KB, Röser M (2012) *Stipa* (Poaceae) and allies in the Old World: Molecular phylogenetics realigns genus circumscription and gives evidence on the origin of American and Australian lineages. *Plant Systematics and Evolution*, **298,** 351–367.

Hamasha HR, Hensen I (2009) Seed germination of four Jordanian *Stipa* spp: differences in temperature regimes and seed provenances. *Plant Species Biology*, **24**, 127–132.

Hensen I, **Hamasha HR**, Hirsch H, Wesche K. Genetic structure of naturally isolated *Poa badensis* (Poaceae) populations in South-western Europe. Prepared and will be submitted soon.

Brake M, Migdadi H, Al Sader M, **Hamasha HR**, AL-Khatib M and El-Oqlah A. Microsatellite assessment of genetic diversity among Jordanian tomato landraces. (Submitted)

Contact details of three references

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Teaching Philosophy

My teaching interests are varied and include various topics starting from general biology for beginner students, plant ecology, botany, plant anatomy, plant taxonomy, plant physiology, and plant systematics using molecular techniques. Through these courses, I encourage my students to construct a framework of key vocabulary and concepts, which they can then use in related courses, their future professions and connect it to their own lives. For example, plant ecology are excellent means for helping students to integrate much of what they learn in biology (e.g., morphology, anatomy, physiology, taxonomy, genetics) into one clear picture.

Organization and enthusiasm are the keys for successful teaching in my giving lectures. I use a number of strategies in my style of teaching; I utilize lecturing, discussion groups, field and laboratory activities, reading assignments, research papers, and experiments. I believe that dynamic lecturing not only captures the attention, but hopefully the imagination, of the students.

I believe that it is important to help students develop an understanding of the scientific method and the different approaches to science and provide creative opportunities for students to develop their own critical-thinking skills by asking scientific questions, formulating hypotheses, and designing experiments. Another important task of science education is to teach students differences between theories, facts and opinions.

By the end of my courses, students would be familiar with many aspects such as reading literature, observing, independent learning and thinking, practice using the scientific process, improved problem-solving and logic skills, asking questions such as ‘what if’ scenarios, and using experiments to test those questions, and presenting results in both oral and written form. For graduate students, specific questions and having critical thinking skills are improved through opportunity, observation and practice such as testing theories. Reading groups and seminar discussions are a key part of this process.