

Curriculum Vitae: Hagai Shemesh

Personal Details

- Date of birth: 09/1980
- Country of birth: Israel
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Higher Education

- 2003-2006 B.Sc, Department of Life Sciences (Faculty of Natural Sciences), Ben Gurion University of the Negev, majoring in ecology. **With distinction.**
- 2006-2011 Direct **PhD**, Department of Life Sciences, Ben-Gurion University of the Negev. Thesis: "Future perception in plants". Advisors: Prof. Ariel Novoplansky & Prof. Ofer Ovadia.
- 2012 **Post-docs** (parallel): Technion, Department of environmental, water & agricultural engineering, Prof. Yohay Carmel's lab.
- Ben-Gurion University of the Negev, Department of Life Sciences, Prof. Ofer Ovadia's lab

Academic Appointments in Institutions of Higher Education

- 2009 Adjunct lecturer, Achva College, Life Sciences
- 2012-2013 Adjunct lecturer, Tel-Hai College, Department of Environmental Sciences
- 2013 Teaching associate, Ben-Gurion University of the Negev, Eilat campus, Department of Life Sciences
- 2014 Lecturer, Tel-Hai College, Department of Environmental sciences

Research Grants

- 2011 *Iris lortetii* conservation project, Jewish National Fund, **23,000\$**, in collaboration with Professor Yohay Carmel (Technion) and Dr. Yuval Sapir (Tel-Aviv University).*
- 2011 The effect of temporal Carbon dynamics on plant growth, The Sol Leshin Fund, **20,000\$**, in collaboration with Professor Ofer Ovadia (Ben-Gurion University).*
- 2013 The effect of temporal Carbon dynamics on plant competition, The Sol Leshin Fund, **20,000\$** (additional), in collaboration with Professor Ofer Ovadia (Ben-Gurion University).*
- 2013 The effect of fire timing and intensity on the mycorrhizal community post fire plant regeneration, Binational Science Foundation research grant, **219,000\$**, In collaboration with Professor Ofer Ovadia (Ben-Gurion University), Professor Yohay Carmel (Technion), Dr. Yagil Osem (Vulcani) and Professor Tom Bruns (Berkeley).*
- 2014 The effect of pollen source on dispersal related traits in a heteromorphic annual, The Sol Leshin Fund, **20,000\$**, in collaboration with Dr. Itamar Gilaadi (Ben-Gurion University) and Professor Victoria Sork (UCLA).
- 2014 The effect of fire timing and intensity on the mycorrhizal community post fire plant regeneration, Binational Science Foundation Multiplier grant, **100,000\$** (additional), In collaboration with Professor Ofer Ovadia (Ben-Gurion University), Professor Yohay Carmel (Technion), Dr. Yagil Osem (Vulcani) and Professor Tom Bruns (Berkeley).*

****Research grants were initiated, developed, led and written by Hagai Shemesh***

Teaching experience

- 2006-2011 Evolution (TA, Undergraduate-level, Ben-Gurion University)
- 2009-10 Plant physiology (Lecturer & TA, Achva College)
- 2011-2013 Plant physiology (Lecturer, Undergraduate-level, Ben-Gurion University of the Negev)
- 2012-4 Events and consultations in environmental sciences (Lecturer, Undergraduate-level, Tel-Hai College)
- 2012-4 Biostatistics (Lecturer, Undergraduate-level, Tel-Hai College)

2012-4	Basic Ecology (Lecturer, Undergraduate-level, Tel-Hai College)
2013	Advanced statistics (Lecturer & TA, Graduate-level, Ben-Gurion University of the Negev)
2014	Plant ecology (Lecturer, Undergraduate-level, Tel-Hai College)
2014	Local topics in ecology (Lecturer, graduate level for students of the humanities, Tel-Hai College)
2014	Basic ecology for biotechnology (Lecturer, Undergraduate-level, Tel-Hai College)

Supervision of Graduate Students

2012-14	M.Sc. student Stav Livne, co-supervised with Prof. Ofer Ovadia, Ben-Gurion University of the Negev.
2014-present	M.Sc. student Efrat Dener, co-supervised with Dr Itamar Giladi, Ben-Gurion University of the Negev.
2014-present	PhD. student Stav Livne, co-supervised with Prof. Ofer Ovadia, Ben-Gurion University of the Negev.

Publications

1. Sadeh A[£], **Guterman H**^{£§}, Gersani M & O Ovadia (2009) Plastic bet-hedging in an amphicarpic annual: an integrated strategy under variable conditions. *Evolutionary Ecology*, 23:373-388.
[£] The first two authors equally contributed to this manuscript.
[§] **Previous surname: Guterman**
2. **Shemesh H**, Arbiv A, Gersani M, Ovadia O & A Novoplansky (2010) The effects of nutrient dynamics on root patch choice. *PLoS ONE*, 5(5): e10824.
3. **Shemesh H**, Ovadia O & A Novoplansky (2010) Anticipating future conditions via trajectory sensitivity. *Plant Signaling and Behavior*, 5(11): 1501 - 1503.

4. **Shemesh H**, Rosen R, Tunes G, Novoplansky A & O Ovadia (2011). The effect of steepness of temporal resource gradients on spatial root allocation. *Plant Signaling and Behavior*, 6(9): 1356 - 1360.
5. **Shemesh H**, Ovadia O & A Novoplansky (2012). Context-dependent responses to herbivore saliva. *Plant Ecology*, 213(1): 167-174.
6. **Shemesh H**, Zaitchik B, Acuña T & A Novoplansky (2012). Architectural plasticity in a Mediterranean winter annual. *Plant Signaling and Behavior*, 7(4): 492-501.
7. **Shemesh H** & A Novoplansky (2012) Branching the risks: architectural plasticity and bet-hedging in Mediterranean annuals. *Plant Biology*, 15(6):1001-12.
8. **Shemesh H**, Ben-Yosef U, Livne S & O Ovadia. The effects of temporal soil carbon dynamics on resource allocation in an annual plant. *Journal of Plant Ecology*, doi: 10.1093/jpe/rtv033.
9. Stav Livne-Luzon, **Hagai Shemesh**, Osnat Gilor & Ofer Ovadia. The effect of temporal variation in soil carbon inputs on interspecific plant competition. *Journal of Plant Ecology*, doi:10.1093/jpe/rtv076.
10. Efrat Dener, Alex Kacelnik & **Hagai Shemesh**. Pea Plants Show Risk Sensitivity. *Current Biology*, 26(13): 1763–1767.

Awards

- 2003 Zlotovsky's award for excellence (Ben-Gurion University of the Negev).
- 2006 The Avinoam Livne excellence award for outstanding BSc students (Ben-Gurion University of the Negev).
- 2007 ELME graduate student scholarship from Kellogg Biological Station (MSU).
- 2009 ESA student section travel award

- 2009 Excellence in teaching (Achva College)
- 2010 Merav Ziv award for excellence in ecology (Ben-Gurion University of the Negev)
- 2010 Excellence in teaching (Achva College)
- 2011 A prize from the Department of Life Sciences for excellence in graduate studies (Ben-Gurion University of the Negev).
- 2011 Excellence in teaching (Ben-Gurion University of the Negev)
- 2013 Excellence in teaching (Tel-Hai, Environmental Sciences)

Presentations in Conferences

- 2006 **Guterman, H.**, Sadeh, A. Amphicarpic ratio response in *Emex spinosa* to intraspecific density and nutrient availability. **The annual conference of the Israeli Society of Plant Sciences.** Weizmann Institute (poster).
- 2007 Sadeh A, **Guterman H.** Plastic bet-hedging in an amphicarpic annual: an integrated strategy under variable conditions. **Annual conference of the Israeli Society of Ecology and Environmental Quality Sciences.** Weizmann Institute (poster).
- 2007 **Guterman H,** Sadeh A. Plastic bet-hedging in an amphicarpic annual: an integrated strategy under variable conditions. **Ecological Society of America meeting,** San Jose, CA (talk).
- 2008 **Guterman H,** Ovadia O & A Novoplansky. Underground communication enables plants to predict future competition. **Symposium in memory of Merav Ziv.** Sde-Boker, Israel (talk)
- 2008 Arbiv A, **Guterman H,** Ovadia O & A Novoplansky. Resource gradients as predictors of future conditions in plants. **Annual conference of the Israeli Society of Ecology and Environmental Quality Sciences.** Technion Israeli Institute of Technology (poster)

- 2008 **Shemesh H**, Arbiv A, Gersani M, Ovadia O, Novoplansky A. The effects of nutrient dynamics on root patch choice. **Annual meeting of the British Ecological Society, Imperial College London** (talk).
- 2009 **Shemesh H**, Arbiv A, Gersani M, Ovadia O, Novoplansky A. The effects of nutrient dynamics on root patch choice. **Annual meeting of the Ecological Society of America**. Albuquerque New Mexico (talk).
- 2010 **Shemesh H & A Novoplansky**. Plant adaptations to variable season length. **Symposium in memory of Merav Ziv**. Sde-Boker, Israel (talk)
- 2014 Shemesh H & E Dener. Beyond average: risk sensitivity in an annual plant. **Annual meeting of the Ecological Society of America**. Sacramento California (talk).
- 2015 Shemesh H , E Dener & Alex Kacelnik. Beyond average: risk sensitivity in an annual plant. **Annual Popbio meeting. Tübingen, Germany** (poster).
- 2016 Shemesh H , E Dener & Alex Kacelnik. Beyond average: risk sensitivity in an annual plant. **Annual meeting of the Nordic Oikos society**. Turku Finland (poster).
- 2016 Shemesh H , E Dener & Alex Kacelnik. Beyond average: risk sensitivity in an annual plant. **Invited seminar, Plant sciences department, Oxford University**.
- 2016 Hagai Shemesh, Gil Weber, Yael Avidan, Hen Migael, Stav Livne-Luzon, Thomas Bruns & Ofer Ovadia. The effects of spatial heterogeneity in mycorrhizal inoculation potential on pine seedling development. Annual Popbio meeting, Trebon, Czech Republic (poster).