YAEL MANDELIK

CURRICULUM VITAE

Dept. of Entomology The Robert H. Smith Faculty of Agriculture, Food and Environment The Hebrew University of Jerusalem P.O. Box 12, Rehovot 76100, Israel

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1. <u>Higher Education</u>:

1993-1996	B.Sc.Agr., Animal Sciences, Faculty of Agriculture, The Hebrew University of
	Jerusalem, Summa cum laude
1996-1999	M.Sc., Ecology and Environmental Quality Sciences
	Department of Zoology, Tel Aviv University, Behavioral ecology, Supervisor:
	Prof. Tamar Dayan, Summa cum laude
2000-2005	Ph.D., Department of Zoology, Tel Aviv University, Biodiversity conservation
	planning, Supervisors: Professors Tamar Dayan and Eran Feitelson.
2005-2006	Post-doctoral researcher, Department of Ecology and Evolutionary Biology,
	Princeton University, Ecology and conservation of wild bees, Host: Prof. Claire
	Kremen.
2007	Post-doctoral research, Department of Zoology, Tel Aviv University, Tel Aviv,
	Ecology and conservation of wild bees, Host: Prof. Tamar Dayan, in collaboration
	with Stanford University.

2. Appointments at the Hebrew University:

2007 - present Lecturer, Department of Entomology, Robert H. Smith Faculty of Agriculture, Food and Environment.

3. <u>Professional committees and positions:</u>

2007-present	Associate curator of the Apoidea collection, The National Entomological Collections, Tel Aviv University
2011-present	Adjunct member of the scientific advising committee, Israel Nature and Parks Authority
2013-2014	Member of the steering committee, Agro-ecology section, The Israel Ministry of Agriculture
2013-present	Member of the scientific committee of "planning for ecosystem services" project, The Society for the Protection of Nature Israel
2013-present	Member of the Executive Board, The Israel Zoological Society

2014-present Member of the management committee of the COST action on "Sustainable pollination in Europe" (participate also in writing the proposal).

4. <u>Research grants</u>:

- **2007-2009** Bridging the Rift research grant, "Biodiversity in human dominated landscapes", Yael Mandelik (PI) and Tamar Dayan (PI), \$21,315/100,000.
- **2008-2009** The Ring Foundation for Atmospheric and Global Studies research grant, "The price of getting it right- incorporating economic decisions in biodiversity conservation planning: A test case from the Mediterranean region of Israel", Yael Mandelik (PI) and Aliza Fleischer (PI), \$15,000/30,000.
- **2008-2011 The Israel Ministry of Agriculture** research grant, "Pollination services in agronatural Mediterranean ecosystems: investigating the contribution of wild bees to crop pollination and the effects of landscape management and honey bee densities on them", Yael Mandelik (sole PI), \$104,500/104,500.
- **2008-2010** The Jewish National Fund research grant, "The influence of post fire salvage logging on soil dwelling arthropods and implications on nature conservation", Yael Mandelik (Collaborating Investigator), Marcelo Sternberg (PI), Yosef Steinberger (Collaborating Investigator), \$16,500/60,480.
- **2009** The Israel Taxonomy Initiative grant for surveying wild bees in a Mediterranean and an arid ecosystem in Israel, Yael Mandelik (sole PI) \$15,163.
- **2009-2011** The Niedersachsen-Israeli Research Cooperation research grant, "Biodiversity and its role in the ecosystem services and dis-services concept in agricultural landscapes in Israel", Yael Mandelik (PI) and Alexandra Klein (PI), \$105,420/190,345.
- **2009-2011** Center for Agriculture, Environment and Natural Resources research grant, "The impact of an invasive species on the economic value of open space", Yael Mandelik (PI), Sharon Shafir (PI) and Aliza Fleischer (PI), \$19,000/48,000.
- **2009-2014** Israel Science Foundation research grant, "Structure and Function in Ecological Communities: The relationship between pollinator community Structure and pollination services in agro-natural ecosystems", Yael Mandelik (sole PI), \$124,138.
- **2010** Nekudat Hen research grant, "The effect of wild flowers in the landscape surrounding agriculture fields on crop pollination", Yael Mandelik (sole PI), \$15,400.
- **2010** Israel Honey Board research grant, "Developing methods for monitoring and capturing the invasive dwarf honey bee, *Apis florea*", Yael Mandelik (Collaborating Investigator) and Sharon Shafir (PI), \$5,350/15,915.

2011-2013	The Israel Ministry of Agriculture research grant, "Multi-objective management
	of open land for foraging of both cattle and bees: a quantitative test of interactions
	in the critical season in spring", Yael Mandelik (Collaborating Investigator),
	Zalman Henkin (PI), Arnon Dag (PI), \$45,000/45,000.

- **2012-2015** The Israel Ministry of Agriculture research grant, "The effects of sowing wild flowers near field margins on the activity of pollinators, pests and their natural enemies", Yael Mandelik (PI) and Moshe Coll (co-PI), \$78,253/117,380.
- **2012-2014** Center for Agriculture, Environment and Natural Resources research grant, "External effects of open landscapes on crop pollination by wild bees", Yael Mandelik (PI) and Aliza Fleischer (PI), \$24,000/48,000.
- **2014-2016** The Jewish National Fund research grant, "Investigating the effects of forest structural complexity on pollinators' diversity and their pollination services", Yael Mandelik (sole PI), \$102,000.
- **2014-2016** The Israel Ministry of Agriculture research grant (for large-scale initiatives) "Biodiversity in agricultural ecosystems in Israel", Yael Mandelik (PI), Avi Perevolotsky (PI; manager), \$75,000/214,300.

5. <u>Teaching at the Hebrew University</u>:

a. <u>Supervision of Master's students</u>

2006-2009 2007-2012	Yael Hollender, co-supervision with Prof. Tamar Dayan; article #8 Hilla Carmely (extended due to maternity leave)
2008-2012	Eliav Rotholz; article #16
2009-present	Tomer Koznichki (extended due to health problems)
2009-2012	Hadas Marshall, co-supervision with Prof. Tamar Dayan
2010-2013	Adir Golan
2010-2012	Itai VanRijn; article #13, 19
2011-present	Tal Shapira, co-supervised with Drs. Zalman Henkin and Arnon Dag
2011-present	Yael Brener (extended due to maternity leave)
2012-present	Ziv Amar
2012-present	David Urbach, co-supervised with Dr. Einat Zchori-Fine
2013-present	Idan Elyakim
2014-present	Oded Winberger
2014-present	Tamar Chaprazaro

Supervision of doctoral degree students

2008-2014	Gideon Pisanty; Chapters in collections #1, article #15, 17, submitted articles #2, 3
2008-present	Ariella Gotlieb, co-supervision with Prof. Tamar Dayan; article #8
2014-present	Tal Shapira, co-supervision with Prof. Moshe Coll (starting April 2014)

b. Post-doctoral Fellows and Visitors (for more than 6 months)

2009-2010	Roy Kaspi, post-doctoral fellow, co-hosted with Prof. Sharon Shafir
2009-2012	Jessica Schaeckermann, a visiting Ph.D. student, University of Luneburg,
	Germany, conducting her research in my laboratory; submitted article #1
2011-2012	Ohad Afik, post-doctoral fellow; article #15, submitted article #2
2011-2012	Thomas Neeson, post-doctoral fellow; article #11, 13, 18, 19
2012-2013	Jessica Schaeckermann, post-doctoral fellow
2013	Jessica Schilde, post-doctoral fellow

c. <u>Courses Taught*</u>

Laboratory in entomology for majors (71505, Bachelor's level) Integrated landscape management (71082, Bachelor's level) Ecological principles in spatial conservation planning (71947, Master's and Doctorate level course) Workshop in bee taxonomy and biology (73511; Taught by C. Praz; Coorganized with A. Dafni)

* I was on maternity leave in Semester A 2008, Semester B 2010, Semester B 2013.

LIST OF PUBLICATIONS

1. <u>Doctoral Dissertation</u>:

Conservation planning at the local scale: ecological and land use planning tools for species diversity assessments in Mediterranean ecosystems (under the supervision of Professors Tamar Dayan and Eran Feitelson). November 2005.

Electronic thesis and hardcopy are available at the Library of Life Sciences and Medicine computers, Tel Aviv University, Tel Aviv.

Publications in the general list resulting from the dissertation: Articles #4, 5, 10; other publications # ii, iii

- 2. Books: none
- 3. **Books Edited:** none

4. <u>Chapters in Collections</u>:

- 1. Pisanty, G. & **Mandelik**, Y. 2011. Effects of alien species on plant-pollinator interactions: how can native plants adapt to changing pollination regimes? In: "Evolution of the Plant-Pollinator Relationships", S., Patiny (editor), Cambridge University Press, Cambridge, UK. pp. 414-438
- 2. Sapir, Y., Dorchin, A., & **Mandelik Y.** Environmental Indicators Pollinator Decline. In: "Environmental indicators", R., Armon (editor), Springer (in press).

5. Articles:

- 1. Jones, M.E., **Mandelik, Y.**, & Dayan, T. 2001. Coexistence of temporally partitioned spiny mice: roles of habitat structure and foraging behavior. <u>Ecology</u> 82 (8): 2164-2176.
- Kronfeld-Schor, N., Dayan, T., Jones, M.E., Kremer, I., Mandelik, Y., Wolberg, M., & Gaton, D.D.2001. Retinal structure and foraging microhabitat use of the golden spiny mouse: a nocturnal rodent seeing its way in the desert sun. Journal of Mammalogy 82 (4): 1016-1025.
- 3. **Mandelik, Y.**, Jones, M.E., & Dayan, T. 2003. Structurally complex habitat and sensory adaptations mediate the behavioral responses of a desert rodent to an indirect cue for increased predation risk. <u>Evolutionary Ecology Research</u> 5: 501-515.
- 4. **Mandelik, Y.,** Dayan, T., & Feitelson, E. 2005. Planning for biodiversity: The role of Ecological Impact Assessment. <u>Conservation Biology</u> 19(4): 1254-1261.
- 5. **Mandelik, Y.,** Chiktunov, V.^C, Kravchenko, V., & Dayan, T. 2007. Reliability of the higher-taxa approach for diversity assessment at the local scale. <u>Conservation Biology</u> 21(6): 1506-1515.
- 6. **Mandelik, Y.,** & Roll, U. 2009. Diversity patterns of wild bees in almond orchards and their surrounding landscape. <u>Israel Journal of Plant Sciences</u> 57(3): 185-191. *Invited*.

- Mandelik, Y., Roll, U., & Fleischer, A. 2010. Cost-efficiency of biodiversity indicators for Mediterranean ecosystems and the effects of socio-economic factors. <u>Journal of Applied Ecology</u> 47(6): 1179-1188.
- 8. Gotlieb, A., Hollender, Y., & **Mandelik**, Y. 2011. Gardening in the desert changes bee communities and pollination network characteristics. <u>Basic and Applied Ecology</u> 12(4): 310-320.
- Garibaldi, L. A., Steffan-Dewenter, I., Kremen, C.^C, Morales, J. M., Bommarco, R., Cunningham, S., Carvalheiro, L., Chacoff, N., Dudenhöffer, J.H., Greenleaf, S., Holzschuh, A., Isaacs, R., Krewenka, K., Mandelik, Y., Mayfield, M., Morandin, L., Potts, S., Ricketts, T., Szentgyörgyi, H.' Winfree, R., & Klein, A.M. 2011. Stability of pollination services decreases with isolation from natural areas despite honey bee visits. <u>Ecology Letters</u> 14(10): 1062-1072.
- Mandelik, Y., Chiktunov, V., Kravchenko, V., & Dayan, T. 2012. The relative performance of taxonomic vs. environmental indicators for local biodiversity assessment: a comparative study. <u>Ecological Indicators</u> 15(1): 171-180.
- 11. **Mandelik, Y.,** Winfree, R., Neeson, T., & Kremen, C. 2012. Complementary habitat use by wild bees in an agro-natural landscape. <u>Ecological Applications</u> 22(5): 1535-1546.
- Kennedy, C.M., Lonsdorf, E., Neel, M.C., Williams, N.M., Ricketts, T.H., Winfree, R., Bommarco, R., Brittain, C., Burley, A.L., Cariveau, D., Carvalheiro, L.G., Chacoff, N.P., Cunningham, S.A., Danforth, B.N., Dudenhöffer, J.H., Elle, E., Gaines, H.R., Gratton, C., Greenleaf, S.S., Holzschuh, A., Isaacs, R., Javorek, S.K., Jha, S., Klein, A.M., Krewenka, K., Mandelik, Y., Mayfield, M.M., Morandin, L., Neame, L.A., Otieno, M., Park, M., Potts, S.G., Rundlöf, M., Saez, A., Steffan-Dewenter, I., Taki, H., Tuell, J.K., Viana, B.F., Veldtman, R., Westphal, C., & Kremen, C. 2013. A global quantitative synthesis of local and landscape effects on wild bee pollinators in agroecosystems. <u>Ecology Letters</u> 16(5): 584-599.
- Neeson, T.M., Van Rijn, I., & Mandelik, Y. 2013. How taxonomic diversity, community structure and sample size determine the reliability of higher taxon surrogates. <u>Ecological</u> <u>Applications</u> 23(5): 1216-1225.
- Fleischer, A., Shafir, S., & Mandelik, Y. 2013. A proactive approach for assessing alternative management programs for an invasive alien pollinator species. <u>Ecological Economics</u> 88: 126-132.
- Garibaldi, L.A., Steffan-Dewenter, I., Winfree, R., Aizen, M.A., Bommarco, R., Cunningham, S.A., Kremen, C., Carvalheiro, L.G., Afik, O., Bartomeus, I., Benjamin, F., Boreux, V., Cariveau, D., Chacoff, N.P., Dudenhöffer, J.H., Freitas, B.M., Greenleaf, S., Harder, L., Hipólito, J., Holzschuh, A., Howlett, B., Isaacs, R., Javorek, S.K., Kennedy, C., Krewenka, K., **Mandelik, Y.**, Mayfield, M.M., Motzke, I., Munyuli, T., Nault, B.A., Otieno, M., Petersen, J., Pisanty, G., Potts, S.G., Rader, R., Ricketts, T.H., Rundlöf, M., Seymour, C.L., Schüepp, C., Smitha, K., Szentgyörgyi, H., Taki, H., Tscharntke, T., Vergara, C.H., Viana, B.F., Wanger, T.C., Westphal, C., Williams, N., & Klein, A.M. 2013. Wild pollinators enhance fruit set of crops regardless of honey bee abundance. <u>Science</u> 339(6127): 1608-1611.

- Rotholz, E., & Mandelik, Y. 2013. Roadside habitats: effects on diversity and composition of plant, arthropod, and small mammal communities. <u>Biodiversity and Conservation</u> 22(4): 1017-1031.
- 17. Pisanty, G., Klein, A.M., & **Mandelik, Y.** 2014. Do wild bees complement honey bee pollination of confection sunflowers in Israel? <u>Apidologie</u> 45(2): 235-247.
- 18. Neeson, T.M., & **Mandelik**, **Y**. 2014. Pairwise measures of species co-occurrence for conservation biology and community ecology. <u>Ecological Indicators</u> 45: 721-727.
- 19. van Rijn, I., Neeson, T.M., & **Mandelik, Y**. Reliability and refinement of the higher taxa approach for bee richness and composition. <u>Ecological Applications</u> (in press).

Articles submitted:

- 1. Schäckermann, J., **Mandelik, Y.,** Weiss, N., von Wehrden, H., Klein, A.M. Natural habitat does not mediate vertebrate seed predation as an ecosystem dis-service to agriculture
- 2. Pisanty, G., Afik, O., & **Mandelik, Y.** The role of visitation rate and pollination efficiency in promoting pollinator complementarity.
- 3. Pisanty, G., & **Mandelik**, **Y**. Profiling crop pollinators: life-history traits predict habitat preference and crop visitation by wild bees in Mediterranean landscapes

Other publications:

- i. Leshem, Y., **Mandelik, Y**., & Shamoun-Baranes, J. (editors). 1999. Proceedings of the International Seminar on Birds and Flight Safety in the Middle East. The Society for the Protection of Nature in Israel.
- ii. **Mandelik, Y.,** Gutman, R., & Dayan, T. 2002. Biodiversity indicators: proposed action plan for Israel. The Jerusalem Institute for Israel Studies, Jerusalem. In Hebrew.
- Mandelik, Y., Dayan, T., & Feitelson, E. 2005. Issues and dilemmas in ecological scoping: scientific, procedural and economic perspectives. <u>Impact Assessment and Project Appraisal</u> 23 (1): 55-63.
- iv. **Mandelik, Y.,** & Dayan, T. 2010. The Israeli national biodiversity action plan: research and monitoring. Ministry of the Environment, Jerusalem. In Hebrew.
- v. Kaspi, R., Asher, M., **Mandelik**, **Y.,** & Shafir, S. 2010. Danger! The dwarf honey bee is still here. <u>Yalkut Hamichveret</u> 49: 112-116. In Hebrew.
- vi. Golan, A., & **Mandelik, Y.** 2011. The effect of wild flowers in agricultural field margins on diversity patterns and pollination activity of honeybees and wild bees. Proceedings of the annual Nekudat Hen Conference, In Hebrew, English abstract.

6. Participation in Scientific Conferences, Lectures, and Other Activity:

6.1. International conferences

6.1.1. Invited lectures

- 1. **2010**, **Mandelik**, **Y**. Wild bees as crop pollinators: local and landscape effects. Conference on Pollinator Biology, Health and Policy, Penn State, USA.
- 2. **2012, Mandelik, Y.** Gotlieb, A., & Dayan, T. Effects of anthropogenic disturbance on local bee communities and pollination network characteristics in an extreme desert environment. The 3rd European Congress for Conservation Biology, Glasgow, Scotland (Declined due to personal problems).

6.1.2. Other Lectures

- 2002, Mandelik, Y., Dayan, T., & Feitelson, E. Ecological impact assessment in Israel: a review of Environmental Statements. The 22nd Annual Conference of the International Association for Impact Assessment, The Hague, Netherlands.
- 2. **2003, Mandelik, Y.,** Dayan, T., & Feitelson, E. The role of Ecological Impact Assessment in promoting biodiversity conservation: A case study from Israel. The 17th Annual Meeting of the Society for Conservation Biology, Duluth, USA.
- 3. **2004**, **Mandelik**, **Y.**, Dayan, T., & Feitelson, E. Biodiversity quantification: are vegetation structure and richness reliable indicators of species richness in Mediterranean ecosystems? The 18th Annual Meeting of the Society for Conservation Biology, New York, USA.
- 4. **2006, Mandelik, Y.,** Winfree, R. and Kremen, C. Habitat use by wild bees in arable landscapes: The importance of abandoned (old) agricultural fields. The 1st European Congress of Conservation Biology, Eger, Hungary.
- 5. **2007, Mandelik, Y.,** Winfree, R., Williams, D. and Kremen, C. The role of abandoned agriculture fields as bee habitat: Local- and landscape-scale land use effects. The 21st Annual Meeting of the Society for Conservation Biology, Port Elizabeth, South Africa.
- 6. **2009, Mandelik, Y.,** Hollender, Y., Awawdeh, M., Dayan, T., Hefetz, A. and Al-Malabeh, A. Diversity patterns and pollination services provided by bees in an arid agro-natural landscape across the Jordanian-Israeli border. The 2nd European Congress of Conservation Biology, Prague, CR.
- 7. **2010**, Shafir, S., Kaspi, R., Fleischer, A., & **Mandelik**, **Y**. *Apis florea* -the future dominant honey bee in Europe? The 4th European Conference of Apidology. Ankara, Turkey.
- 8. **2011,** Gotlieb, A., Dayan, T., & **Mandelik, Y.** Gardening in the desert changes bee communities and pollination network characteristics. The 96th Annual Meeting of the Ecological Society of America, Austin, Texas. (My student's lecture).
- 9. **2011, Mandelik, Y.,** Winfree, R., & Kremen, C. Complementary habitat use by wild bees in an agro-natural landscape. The 96th meeting of the Ecological Society of America, Austin, Texas.
- 10. 2011, Mandelik, Y., Gotlieb, Y., Pisanty, Y., Hollender, Y., Carmely, Y., Hefetz, A., Awawdeh, M., Al-Malabeh, A., and Dayan, T. Diversity patterns and pollination services of wild pollinators in agro-natural gradients. The 12th European Ecological Federation conference, Avila, Spain.

- 11. 2011, Schäckermann, J., Mandelik, Y., & Klein, A.M. Landscape factors affecting Parakeet damage to sunflower fields in Israel. The 41st Annual Meeting of the Ecological Society of Germany, Austria and Switzerland, Oldenburg, Germany. (My student's lecture).
- 12. **2011,** Schäckermann, J., **Mandelik**, Y., & Klein, A.M. Power poles and tall trees adjacent to sunflower fields increase pest damage caused by the invasive Rose-ringed Parakeet in Israel. The 25th International Congress for Conservation Biology (ICCB), Auckland, New Zealand. (My student's lecture).
- 13. 2012, Pisanty, G. & Mandelik, Y. Pollination services in Mediterranean agro-natural ecosystems: The contribution of wild bees to pollination of almond, sunflower and watermelon in Central Israel. The 3rd European Congress of Conservation Biology, Glasgow, Scotland. (My student's lecture).
- 14. **2012**, Schäckermann, J., **Mandelik, Y.**, von Wehrden, H., & Klein, A.M. Landscape effects on bird and rodent communities and seed predation to agriculture in Israel. The 42nd Annual Meeting of the Ecological Society of Germany, Austria and Switzerland, Luneburg, Germany. (My student's lecture).

6.1.3. Posters

- 1. **2005, Mandelik, Y.,** Chikatunov, V., Dayan, T., & Kravchenko, V. Rapid biodiversity assessment at the local scale: is the higher taxa approach a reliable shortcut? The 1st DIVERSITAS Conference, Oaxaca, Mexico.
- 2. **2005,** Levanony, T., Chikatunov, V., Dayan, T., **Mandelik, Y.,** & Zonstein, S. Afforestation in Mediterranean ecosystems: the role of semi-natural afforested habitats in supporting native plants and arthropods. The 1st DIVERSITAS Conference, Oaxaca, Mexico.
- 3. **2011**, Gotlieb, A., Dayan, T., & **Mandelik**, **Y.** Gardening in the desert changes bee communities and pollination network characteristics. The 12th European Ecological Federation conference in Avila, Spain. (My student's poster).

6.2. Local conferences

6.2.1. Invited lectures

- 1. **2007, Mandelik, Y.** Diversity patterns and pollination services by wild bees in agro-natural ecosystems. The 26th Annual Meeting of the Entomological Society of Israel, **keynote talk** in the taxonomy and biodiversity session, Rehovot, Israel.
- 2. **2009, Mandelik, Y.** Diversity patterns and pollination services of wild bees in agro-natural ecosystems. The David Rosen Conference, The Hebrew University of Jerusalem, Rehovot, Israel.
- 3. **2009, Mandelik, Y.,** Asher, M., & Shafir, S. Potential risks of the invasion of *Apis florea* to Israel. The 28th Annual Meeting of the Entomological Society of Israel, Tel Aviv University, Tel Aviv, Israel.
- 4. **2010, Mandelik, Y.** Diversity patterns and pollination services in agro-natural ecosystems. The 38th Annual Meeting of the Israel Society for Ecology and Environmental Quality Sciences, Beer Sheva, Israel.
- 5. **2011,** Golan, A., & **Mandelik, Y.** The effect of wild flowers in agricultural field margins on biodiversity patterns and pollination activity of honeybees and wild bees. Nekudat Hen Annual Meeting, Ramat Hanadiv, Israel.

- 6. **2012, Mandelik, Y.,** Roll, U., & Fleischer, A. Cost-benefit of biodiversity indicators of species diversity in Mediterranean ecosystems. The 40th Annual Meeting of the Israel Society for Ecology and Environmental Quality Sciences, Tel Aviv, Israel.
- 7. **2014**, Bernstein, I., **Mandelik**, **Y.**, & Dayan, T. Integrating biodiversity and ecosystem services into landscape planning: the Modi'in corridor test case. The annual meeting of the Israeli Planners Association, Jerusalem, Israel.

6.2.2. Other Lectures

- 1. **1999, Mandelik, Y.,** Jones, M.E., & Dayan, T. The effect of moonlight on foraging behavior and habitat use of the common spiny mouse, *Acomys cahirinus*. The 36th Annual Meeting of the Zoological Society of Israel, Tel Aviv, Israel. Journal of Zoology 45: 314-315.
- 2000, Jones, M.E., Mandelik, Y., & Dayan, T. Coexistence of temporally partitioned rocky desert rodents: foraging microhabitat use under diurnal and nocturnal physiological pressures and predator regimes. The 37th Annual Meeting of the Zoological Society of Israel, Tel Aviv, Israel. Israel Journal of Zoology 46: 163.
- 2000, Mandelik, Y., Dayan, T., & Eilam, D. Foraging activity of *Acomys cahirinus* under different illumination levels: Comparing giving-up densities to direct behavioral observations. The 37th Annual Meeting of the Zoological Society of Israel, Tel Aviv, Israel. Israel Journal of Zoology 46: 167-168.
- 4. **2001, Mandelik, Y.,** & Dayan, T. The response on the common spiny mouse, *Acomys cahirinus,* to risk of predation: investigating the relationship between behavioral response and foraging activity (in Hebrew). The 31st Annual Meeting of the Israel Society for Ecology and Environmental Quality Sciences, Tel Aviv, Israel.
- 2002, Mandelik, Y., Dayan, T., Chikatunov, V., & Kravchenko, V. Measuring species diversity: sampling effort for beetles, moths and vegetation of the Sansan Nature Reserve. The 39th Annual Meeting of the Zoological Society of Israel, Tel Aviv, Israel. Israel Journal of Zoology 48(2): 174.
- 6. **2002, Mandelik, Y.,** Dayan, T., & Feitelson, E. Ecological aspects in the Israeli Environmental Impact Statements system (in Hebrew). Proceedings of the 32^{nt} Annual Meeting of the Israel Society for Ecology and Environmental Quality Sciences, Tel Aviv, Israel.
- 2003, Mandelik, Y., Dayan, T., & Feitelson, E. Planning for biodiversity: The role of Ecological Impact Assessment in Israel. The 40th Annual Meeting of the Zoological Society of Israel, Sde-Boqer, Israel. Israel Journal of Zoology 49: 82-83.
- 8. **2003, Mandelik, Y.,** Dayan, T., & Feitelson, E. Ecological aspects in the Israeli Environmental Impact Statements system (in Hebrew). The Annual Meeting of the Israel Geographical Association, Ramat-Gan, Israel.
- 2004, Levanony, T., Columbus, E., Mandelik, Y., Chikatunov, V., & Dayan, T. Species richness of plants and beetles in pine plantations vs. natural landscapes in the Judean foothills. The 41st Annual Meeting of the Zoological Society of Israel, Haifa, Israel. Israel Journal of Zoology 50: 112-113.
- 10. 2004, Levanony, T., Columbus, E., Mandelik, Y., Chikatunov, V., Zonenstien, S., & Dayan, T. Species diversity In the KKL forests: comparing the diversity of beetles, spiders and plants in natural and forested areas in the Judean Coastal Plains. The 33rd Annual Meeting of the Israel Society for Ecology and Environmental Quality Sciences, Tel Aviv, Israel.
- 11. **2004**, **Mandelik**, **Y.**, Dayan, T., & Feitelson, E. Do open landscape evaluation analysis represent species diversity? Jerusalem Mountains and the Judean Coastal Plains as a test case (in Hebrew).

The 33rd Annual Meeting of the Israel Society for Ecology and Environmental Quality Sciences, Tel Aviv, Israel.

- 2004, Mandelik, Y., & Dayan, T. Tools for biodiversity quantification: Investigating species diversity indicators in Mediterranean ecosystems. The 41st Annual Meeting of the Zoological Society of Israel, Haifa, Israel. Israel Journal of Zoology 50(1): 113.
- 13. 2004, Levanony, T., Columbus, E., Mandelik, Y., Chikatunov, V., Zonenstien, S., & Dayan, T. Species diversity of spiders and beetles in pine plantations vs. natural landscapes in the Judean foothills. The 41st Annual Meeting of the Zoological Society of Israel, Haifa, Israel. Israel Journal of Zoology Israel Journal of Zoology 51: 69.
- 14. 2005, Mandelik, Y., Dayan, T. Feitelson, E., Chikatunov, V. and Kravchenko, V. Rapid biodiversity assessment in Mediterranean ecosystems: is the higher taxa approach a reliable shortcut? The 42nd Annual Meeting of the Zoological Society of Israel, Haifa, Israel. Israel Journal of Zoology Israel Journal of Zoology 51: 70-71.
- 15. 2006, Mandelik, Y., Dayan, T., Chikatunov, V. and Kravchenko, V. Investigating the relative efficiency of taxonomic vs. environmental indicators for local diversity assessments in Mediterranean ecosystems. Proceedings of the 34th Annual Meeting of the Israel Society for Ecology and Environmental Quality Sciences, Haifa, Israel.
- 16. 2006, Mandelik, Y., Winfree, R. and Kremen, C. Habitat use by wild bees in arable landscapes: The importance of abandoned (old) agricultural fields. The 43rd Annual Meeting of the Zoological Society of Israel, Raanana, Israel.
- 17. **2007**, **Mandelik**, **Y.**, Hollender, Y., Awawdeh, M., Dayan, T., Hefetz, A. and Al-Malabeh, A. Diversity patterns and pollination services by wild bees in agro-natural ecosystems. Plenary talk at the 26th Annual Meeting of the Entomological Society of Israel, Rehovot, Israel.
- 18. 2007, Hollender, Y., Mandelik, Y., Awawdeh, M., Dayan, T., Hefetz, A. and Al-Malabeh, A. Biodiversity and pollination services 2007, provided by bees in natural and agriculture landscapes of the Arava Rift Valley. The 44th Annual Meeting of the Zoological Society of Israel, Ahava, Israel. (My student's lecture).
- 19. 2008, Hollender, Y., Mandelik, Y., Awawdeh, M., Dayan, T., Hefetz, A. and Al-Malabeh, A. Diversity Patterns and Pollination Services by Bees in Natural and Agricultural Habitats in the Araba/Arava Rift Valley. The 27th Annual Meeting of the Entomological Society of Israel, Oranim, Israel. (My student's lecture).
- 20. 2008, Carmely, H., Hollender, Y., Awawdeh, M., Dayan, T., Hefetz, A., Al-Malabeh, A., & Mandelik, Y. Effects of agriculture management and honeybees on wild be diversity in agricultural landscapes in the Central Arava Valley. The 27th Annual Meeting of the Entomological Society of Israel, Oranim, Israel. (My student's lecture).
- 21. 2008, Hollender, Y., Awawdeh, M., Dayan, T., Hefetz, A., Al-Malabeh, A. & Mandelik, Y. Diversity Patterns and Pollination Services by Bees in Natural and Agricultural Habitats in the Araba/Arava Rift Valley. The 36th Annual Meeting of the Israel Society for Ecology and Environmental Quality Sciences, Rehovot, Israel. (My student's lecture).
- 22. 2009, Mandelik, Y., Roll, U., & Fleischer, A. Cost-efficiency of biodiversity indicators for Mediterranean ecosystems and the effects of socio-economic factors. The 46th Annual Meeting of the Zoological Society of Israel, Haifa University, Israel.
- 23. 2010, Gotlieb, A., Hollender, Y., & Mandelik, Y. Effects of gardening in deserts on local pollinator communities and on pollination networks. The 29th Annual Meeting of the Entomological Society of Israel, Beit Dagan, Israel. (My student's lecture).
- 24. **2010,** Gotlieb, A., Hollender, Y., & **Mandelik, Y.** Gardening in the desert changes bee communities and pollination network characteristic. The 47th Annual Meeting of the Zoological Society of Jerusalem, Israel. (My student's lecture).

- 25. **2010**, **Mandelik**, **Y.**, Roll, U., & Fleischer, A. 2010. Cost-efficiency of biodiversity indicators for Mediterranean ecosystems and the effects of socio-economic factors. Symposium on economic and social aspects of biodiversity conservation, Haifa University, Israel.
- 26. **2010**, Pisanty, G., & **Mandelik**, **Y**. Diversity patterns of wild bees in Mediterranean agro-natural ecosystems and their contribution to crop pollination. The 29th Annual Meeting of the Entomological Society of Israel, Beit Dagan, Israel. (My student's lecture).
- 27. **2010**, Shafir, S., Kaspi, R., Hefetz, A., Zada, A., Fleischer, A., & **Mandelik**, Y. The invasion of the dwarf honey bee, *Apis florea*, to Israel. The 47th Annual Meeting of the Zoological Society of Israel, Jerusalem, Israel.
- 28. **2011**, Gotlieb, A., Dayan, T., & **Mandelik, Y.** Effects of honey bees on wild bees and local plant communities in the Rift Valley. The 30th Annual Meeting of the Entomological Society of Israel, Sde Boker, Israel. (My student's lecture; 3rd prize in students' lecture competition).
- 29. **2011**, Gotlieb, A., Dayan, T., & **Mandelik**, **Y**. Effects of honey bees on wild bees and local plant communities in the Rift Valley. The 7th meeting of the Israeli pollination researcher group, Beit Dagan, Israel. (My student's lecture).
- 30. **2011**, Pisanty, G., & **Mandelik**, **Y**. Diversity patterns of wild bees in Mediterranean agro-natural ecosystems and their contribution to crop pollination.
- 31. **2011,** Pisanty, G., & **Mandelik**, Y. Crop pollination services of wild bees in a Mediterranean agro-ecosystem in Israel. The 39th Annual Meeting of the Israel Society for Ecology and Environmental Quality Sciences, Ramat HaShofet, Israel. (My student's lecture).
- 32. **2011,** Pisanty, G., & **Mandelik**, Y. Crop pollination services of wild bees in a Mediterranean agro-ecosystem in Israel. The 7th meeting of the Israeli pollination researcher group, Beit Dagan, Israel. (My student's lecture).
- 33. 2012, Golan, A., & Mandelik, Y. The effect of wild bloom in agricultural field margins on bee activity and diversity. The 8th meeting of the Israeli pollination researcher group, Tel Aviv, Israel. (My student's lecture).
- 34. 2012, Marshal, H., Dayan, T., & Mandelik, Y. How foraging history of bees affect their pollination efficiency? The 40th Annual Meeting of the Israel Society for Ecology and Environmental Quality Sciences, Tel Aviv, Israel. (My student's lecture).
- 35. **2012**, Marshal, H., Dayan, T., & **Mandelik**, **Y**. How foraging history of bees affect their pollination efficiency? The 8th meeting of the Israeli pollination researcher group, Tel Aviv, Israel. (My student's lecture).
- 36. **2012**, Pisanty, G., & **Mandelik**, Y. The contribution of wild vs. managed pollinators to pollination of crops in a Mediterranean agro-ecosystem in Israel. The 40th Annual Meeting of the Israel Society for Ecology and Environmental Quality Sciences, Tel-Aviv, Israel. (My student's lecture).
- 37. **2012,** Pisanty, G., & **Mandelik**, Y. Crop pollination services by wild bees in a Mediterranean agro-ecosystem in Israel. The 31st Annual Meeting of the Entomological Society of Israel, Agriculture Research Organization, Rehovot, Israel. (My student's lecture).
- 38. 2012, Pisanty, G., Afik, O., & Mandelik, Y. Crop pollination services of wild bees in a Mediterranean agro-ecosystem in Israel. The 49th Annual Meeting of the Zoological Society of Israel, Tel Aviv, Israel. (My student's lecture).
- 39. **2012**, van Rijn, I., & **Mandelik**, Y. Investigating the application of the higher taxa approach for assessing bee species richness and composition. The 40th Annual Meeting of the Israel Society for Ecology and Environmental Quality Sciences, Tel Aviv, Israel. (My student's lecture).

- 40. **2013**, Golan, A., & **Mandelik**, **Y**. The effect of wild bloom in agricultural field margins on bee activity and diversity. The 32nd Annual Meeting of the Entomological Society of Israel, Tivon, Israel. (My student's lecture).
- 41. **2013,** Shapira, T., **Mandelik,** Y., Henkin, Z., & Dag, A. How does cow grazing affect bee habitat quality? The 32nd Annual Meeting of the Entomological Society of Israel, Tivon, Israel. (My student's lecture; 1st prize in students' lecture competition).
- 42. **2013**, Golan, A., & **Mandelik**, **Y**. The effect of wild bloom in agricultural field margins on bee activity and diversity. The 41st Annual Meeting of the Israel Society for Ecology and Environmental Quality Sciences, Rehovot, Israel. (My student's lecture).
- 43. **2013**, **Mandelik**, **Y.**, Shafir, S., & Fleischer, A. A proactive approach for assessing alternative management programs for an invasive alien pollinator species. The 41st Annual Meeting of the Israel Society for Ecology and Environmental Quality Sciences, Rehovot, Israel.
- 44. **2013,** Shapira, T., **Mandelik,** Y., Henkin, Z., & Dag, A. How does cow grazing affect bee habitat quality? The 41st Annual Meeting of the Israel Society for Ecology and Environmental Quality Sciences, Rehovot, Israel. (My student's lecture).
- 45. **2013**, Schäckermann, J., **Mandelik, Y.**, Weiss, N., von Wehrden, H., Klein, A.M. The effects of natural habitat on rodent and bird communities and seed predation in a Mediterranean agricultural landscape. The 41st Annual Meeting of the Israel Society for Ecology and Environmental Quality Sciences, Rehovot, Israel. (My student's lecture).

6.2.3. Posters

- 1. **2010,** Rotholz, E., & **Mandelik Y.** The effect of post-fire salvage logging on ground arthropod diversity. The 47th Annual Meeting of the Zoological Society of Israel, Jerusalem, Israel. (My student's poster).
- 2011, Gotlieb, A., Dayan, T., & Mandelik, Y. Gardening in the desert changes bee communities and pollination network characteristics. The 48th Annual Meeting of the Zoological Society of Israel, Tel Aviv, Israel. (My student's poster).
- 3. **2012**, Gotlieb, A., Dayan, T., & **Mandelik**, Y. Effects of honey bees (*Apis mellifera*) on local plant and bee communities in the Israeli Rift Valley. The 40th Annual Meeting of the Israel Society for Ecology and Environmental Quality Sciences, Tel Aviv, Israel. (My student's poster).

14.3. Other invited lectures

- 1. **2003, Mandelik, Y.** Biodiversity indicators and their implementation in the planning system. Annual conference for science teachers on biodiversity and sustainable development, Rehovot, Israel.
- 2. 2003, Mandelik, Y. Arthropods as biodiversity indicators: The effect of sampling effort on species diversity measurements. Annual Symposium on Recent Developments in Arthropod Ecology and Evolution, Ben Gurion University, Sede Boqer Campus, Israel.
- 3. 2003, Mandelik, Y. Tools for evaluating the effect of development on species diversity in Mediterranean ecosystems: the Jerusalem Mountains and Judean Foothills as a test case. Symposium on advances in environmental planning research, The Ministry of the Environment, Tel Aviv, Israel.
- 4. 2003, Mandelik, Y. Planning for biodiversity conservation: a practical approach. Symposium on advances in conservation researches in Israel, The Nature Reserves Authority, Rosh-Haiin, Israel.

- 5. **2006, Mandelik, Y.** Tools for biodiversity assessment and their planning implementations. Internet lecture for biology teachers, Weizmann Institute of Science, Department of Science Teaching, Rehovot, Israel.
- 6. **2009, Mandelik, Y.** The potential contribution of wild bees to crop pollination in Israel. The annual meeting of the Israel Beekeepers association, Beit Dagan, Israel.
- 7. **2011,** Afik, O., Pisanty, G., & **Mandelik, Y.** The contribution of honey bees and wild bees to crop pollination in the Judean Foothills, Israel. The annual meeting of the Israel Beekeepers association, Beit Dagan, Israel. (My student's lecture).
- 8. **2013, Mandelik. Y.** Biodiversity and ecosystem services in agricultural landscapes. The Jerusalem Conference for the Environment and Nature, Jerusalem, Israel.
- 9. **2013, Mandelik, Y.** Pollination services by wild and honey bees in Israel. The annual meeting of the association of the Negev vegetables growers. Kibbutz Erez, Israel.
- 10. **2013,** Shapira, T., **Mandelik,** Y., Henkin, Z., & Dag, A. How does cow grazing affect bee habitat quality? The annual meeting of the Israel Beekeepers association, Beit Dagan, Israel. (My student's lecture).

14.3.1. Departmental seminars

- 1. **2006**, **Mandelik**, **Y**. Biodiversity patterns in natural and arable landscapes: assessment tools and conservation implications. Department of Entomology, The Hebrew University, Rehovot, Israel.
- 2. **2007**, **Mandelik**, **Y**. Conservation of wild bees and pollination services in arable landscapes. Mitrani Department of Desert Ecology, Ben Gurion University, Sde-Boqer, Israel.
- 3. **2007, Mandelik, Y.** Diversity patterns of wild bees in arable landscapes: effects of land management at different spatial scales. Department of Zoology, Tel Aviv University, Tel Aviv, Israel.
- 4. **2010**, **Mandelik**, **Y**. Diversity patterns and pollination services of wild bees in Mediterranean and arid agro-natural systems. Mitrani Department of Desert Ecology, Ben Gurion University, Sde-Boqer, Israel.
- 5. **2010**, **Mandelik**, **Y**. Diversity patterns and pollination services of wild bees in Mediterranean and arid agro-natural systems. Department of Zoology, Tel Aviv University, Tel Aviv, Israel.
- 6. **2010**, **Mandelik**, **Y**. Wild bees as crop pollinators: local and landscape effects. Institute of Plant Sciences, Agriculture Research Organization, Ministry of Agriculture, Beit Dagan, Israel.
- 7. **2011, Mandelik,** Y. Diversity patterns and pollination services by wild bees in agro-natural ecosystems. Department of Ecology, Evolution and Behavior, The Hebrew University of Jerusalem, Jerusalem, Israel.
- 8. **2014, Mandelik,** Y. Complementarity in pollinator assemblages. Department of Biology, Oranim College, Tivon, Israel.
- 9. **2014, Mandelik,** Y. Diversity and pollination services of crop pollinators. Department of Zoology, Tel Aviv University, Tel Aviv, Israel.

14.3.2. Workshops and short courses

- 1. **2001, Mandelik, Y.** Biodiversity indicators: a framework for discussion. Workshop on indicators for sustainable development, The Jerusalem Institute for Israel Studies, Jerusalem, Israel.
- 2. **2002**, **Mandelik**, **Y**. Biodiversity assessments in Mediterranean ecosystems. Workshop on biodiversity surveys, The Arava Institute for Environmental Studies, Aqaba, Jordan.
- 3. 2002, Mandelik, Y. Predator-prey interactions. Course for guides of the Society for the Protection of Nature in Israel, Tel Aviv University, Tel Aviv.

- 4. **2003, Mandelik, Y.** Ecological aspects in the Israeli EIS system. Advanced Planning Course of the Jewish National Fund (KKL), Eshtaol, Israel.
- 5. **2004, Mandelik, Y.** Biodiversity indicators and their application in Israel and abroad. Workshop of the Jewish National Fund (KKL) on biodiversity conservation, Eshtaol, Israel.
- 6. **2004, Mandelik, Y.** Conservation planning at the local scale: ecological and land use planning tools for species diversity assessments in Mediterranean ecosystems. , Workshop of the planning department, The Ministry of the Environment, Jerusalem, Israel.
- 7. **2010, Mandelik, Y. Ecosystem services of forests.** Workshop of the Jewish National Fund (KKL) on biodiversity conservation, Tel Aviv, Israel.