Noa M. Pinter-Wollman, PhD

Department of Ecology and Evolutionary Biology University of California, Los Angeles nmpinter@ucla.edu https://pinterwollmanlab.eeb.ucla.edu/

Education:

2008	Ph.D. Animal Behavior. University of California, Davis
	Dissertation title: The effects of translocation on the behavior of African elephants (Loxodonta africana)
2004	M.S. Animal Behavior. University of California, Davis
2003	B.Sc. Biology in the program for outstanding students of the Life Sciences Faculty, <i>Summa Cum Laude</i> . Tel-Aviv University (TAU), Israel

Appointments:

2016-present	Assistant Professor, Department of Ecology & Evolutionary Biology, UCLA
2012-2016	Assistant Research Scientist, BioCircuits Institute, University of California, San Diego
2011-2012	Lecturer and core course coordinator, Program in Human Biology, Stanford University
2010-2011	Postdoctoral Fellow, Department of Statistics, Stanford University
2008-2010	NSF Postdoctoral Fellow in Biological Informatics, Department of Biology, Stanford University

Grants and Fellowships:

2016-2021	NIH NIGMS R01 #GM115509 "Modeling how keystone individuals emerge and influence disease transmission" (\$2,031,286)
2015-2019	NIH NIGMS R01 #GM113967 "Multiscale model of exploration-exploitation tradeoff: from genes to collectives" (Consortium PI, \$1,154,614)
2015-2018	NSF IOS-Behavioral Systems #1456010 "Collaborative Research: The effects of keystone individuals on collective behavior" (\$310,000)
2015-2016	NAKFI Collective Behavior grant "How do architectural designs affect collective behavior?" (\$100,000)
2012-2015	Investigator in the NIH P50 #GM085764 Center of Excellence Grant to the San Diego Center for Systems Biology (SDCSB)
2008-2010	NSF Postdoctoral Fellowship in Biological Informatics (\$123,000)
2007	International Elephant Foundation (\$9,780)
2005-06	Lincoln Park Zoo – Field Conservation Funds (\$5,810)

Scholarships and Awards:

2011	Southwestern Research Station Award, American Museum of Natural History
2009	International Ethological Conference (IEC) student grant
2009	NSF travel grant through the Animal Behavior Society to participate in the IEC
2008	UC Davis Graduate Studies Travel Award
2003-07	Animal Behavior Graduate Group Block Grant (tuition and stipend, 6 quarters)
2005 & 2006	UC Davis Science and Humanities Research Award
2005	Scholarship for Graduate Summer Research, African Studies department
2005	Consortium for Women and Research – Graduate Research Award
2004 & 2007	UC Davis Graduate Student Association (GSA) Travel Award
2001-03	Tel-Aviv University, President's List – full tuition scholarship for three years as part of the
	University's program for excellent students (top 1% university wide)
2000-03	Tel-Aviv University, half tuition scholarship as a part of the program for outstanding students of
	the Life Sciences Division (top 3% in department)

Publications:

- * authors who conducted work as undergraduate or **high school students
- 37. Keiser C.N., **Pinter-Wollman N.**, *Ziemba M.J., *Kothamasu K.S., & Pruitt J.N. 2017. The index case is not enough: Variation among individuals, groups, and social networks determine bacterial transmission dynamics. <u>Journal of Animal Ecology</u>. *In press*
- 36. **Pinter-Wollman N.**, *Mi B. & Pruitt J.N. 2017. Social stability influences the effect of keystone individuals on group performance. <u>Behavioral ecology.</u> 28(3): 883-889.
- 35. **Pinter-Wollman N.**, Fiore S.M. & Theraulaz G. 2017. Uncovering the impact of architecture on collective behavior. <u>Nature Ecology and Evolution.</u> 1:0111 DOI: 10.1038/s41559-017-0111
- 34. Pruitt J.N., Howell K.A., Gladney S.J., Yang Y., Lichtenstein J.L.L., Spicer M.E., Echeverri S.A., & **Pinter-Wollman N**. 2017. The behavioral hypervolume of predator groups and predator-predator interactions shape prey survival rates and selection on prey behavior. <u>American Naturalist</u>. 189(3):254-266.
- 33. Lichtenstein J.L., Wright C.M., Luscuskie L.P., Montgomery G.A., **Pinter-Wollman N.** & Pruitt J.N., 2017. Participation in cooperative prey capture and the benefits gained from it are associated with individual personality. *Current Zoology*. doi: 10.1093/cz/zow097
- 32. Pruitt J.N., Bolnick D.I., Sih A., DiRienzo N. & **Pinter-Wolman N.** 2016. Behavioral hypervolumes of spider communities predict community performance and disbandment. <u>Proceedings of the Royal Society B.</u> 283: 20161409.
- 31. Keiser C.N., Howell K.A., **Pinter-Wollman N.**, Pruitt J.N. 2016. Personality composition alters the transmission of cuticular bacteria in social groups. <u>Biology Letters.</u> 12: 20160297.
- 30. **Pinter-Wollman N.**, Keiser C.N., Wollman R., & Pruitt J.N. 2016. The effect of keystone individuals on collective outcomes can be mediated through interactions or behavioral persistence. <u>The American Naturalist</u> 188 (2).
- 29. Keiser C.N., **Pinter-Wollman N.,** Augustine D., Ziemba M., *Hao L., Lawrence J., & Pruitt J.N. 2016. Individual differences in boldness influence patterns of social interactions and the transmission of cuticular bacteria among group-mates. <u>Proceedings of the Royal Society B.</u> 283: 20160457
- 28. Pruitt J.N., Wright C.M., Keiser C.N., DeMarco A., Grobis M.M., & **Pinter-Wollman N.** 2016. The Achilles heel hypothesis: misinformed keystone individuals impair collective learning and reduce group success. <u>Proceedings of the Royal Society B.</u> 283: 20152888.
- 27. **Pinter-Wollman N.** 2015. Nest architecture shapes the collective behavior of harvester ants. <u>Biology Letters.</u> 11:20150695.
- 26.*Pless E., *Queirolo J., **Pinter-Wollman N.**, *Crow S., *Allen K., & Gordon D.M. 2015. Interactions increase forager availability and activity in harvester ants. PLoS One. 10(11): e0141971.
- 25. Pruitt J.N. & **Pinter-Wollman N.** 2015. The legacy effects of keystone individuals on collective behavior scale to how long they remain within a group. <u>Proceedings of the Royal Society B.</u> 282:20151766.
- 24. **Pinter-Wollman N.** & Brown M.J.F. 2015. Variation in nest relocation of harvester ants is affected by population density and food abundance. <u>Behavioral Ecology</u>. 26(6): 1569–1576.
- 23. Greening B.R., **Pinter-Wollman N.**, & Fefferman N.H. 2015. Higher-order interactions: Understanding the knowledge capacity of social groups using simplicial sets. <u>Current Zoology</u>. 61(1):114 -127.
- 22. **Pinter-Wollman N.** 2015. Persistent variation in spatial behavior affects the structure and function of interaction networks. <u>Current Zoology</u>. 61(1):98-106.
- 21. Udiani O., **Pinter-Wollman N.**, & Kang Y. 2015. Identifying robustness in the regulation of collective foraging of ant colonies using an interaction-based model with backward bifurcation. <u>Journal of Theoretical Biology.</u> 367:61–75.
- 20. *Hui A. & **Pinter-Wollman N.** 2014. Exploratory Argentine ant workers improve both the speed and accuracy of local invasion. <u>Animal Behaviour.</u> 93:261-266.
- 19. **Pinter-Wollman N.**, Hobson E.A., Smith J.E., Edelman A.J., Shizuka D., Waters J.S., de Silva S., Prager S.D. Sasaki T., Wittemyer G., Fewell J., & McDonald D.B. 2014. The dynamics of animal social networks: analytical, conceptual, and theoretical advances. <u>Behavioral Ecology.</u> 25(2):242-255.
- 18. Jandt J.M., Bengston S., **Pinter-Wolman N.**, Pruitt J., Raine N.E., Dornhaus A. & Sih A. 2014. Behavioral syndromes and social insects: personality at multiple levels. <u>Biological Reviews</u>. 89(1):48-67.

- 17. **Pinter-Wollman N.**, **Bala A., *Queirolo J., Merrel A., Holmes S. & Gordon D.M. 2013. Harvester ants use interactions to regulate forager activation and availability. Animal Behaviour. 86:197-207.
- 16. Flanagan T., **Pinter-Wollman N.**, Moses M., & Gordon D.M. 2013. Fast and flexible: Argentine ants recruit from nearby trails. <u>PLoS One</u>. 8(8): e70888
- 15. Gordon D.M., *Dektar K., & **Pinter-Wollman N.** 2013. Harvester ant colony variation in foraging activity and response to humidity. <u>PLoS One</u>. 8(5): e63363.
- 14. Greene, M. J., **Pinter-Wollman N.,** & Gordon D.M. 2012. Combined chemical cues inform harvester ant foragers' decisions to leave the nest in search of food. <u>PLoS One</u>. 8(1): e52219
- 13. **Pinter-Wollman N.**, *Hubler J., *Holley J.A., Franks N.R. & Dornhaus A. 2012. How is activity distributed among and within tasks in *Temnothorax* ants? <u>Behavioural Ecology</u>, <u>Sociobiology</u>. 66:1407-1420
- 12. **Pinter-Wollman N.** Gordon D.M. & Holmes S. 2012. Nest site and weather affect the 'personality' of harvester ant colonies. <u>Behavioral Ecology</u>. 23:1022-1027
- 11. **Pinter-Wollman N.** 2012. Human—elephant conflict in Africa: the legal and political viability of translocations, wildlife corridors, and transfrontier parks for large mammal conservation. <u>Journal of International Wildlife Law</u> and Policy. 15(2):152-166
- 10. **Pinter-Wollman N.** 2012. Personality in social insects: how does worker personality determine colony personality? <u>Current Zoology</u>. 58(4): 579-587
- 9. **Pinter-Wollman N.,** Wollman R., Guetz A., Holmes S., & Gordon D.M. 2011. The effect of individual variation on the structure and function of interaction networks in harvester ants. <u>Journal of the Royal Society, Interface</u>. 8: 1562-1573. <u>Media coverage</u>: "Ants take a cue from Facebook" Science Now, April 12th, 2011
- 8. **Pinter-Wollman N.** 2009. Spatial behavior of translocated African elephants (*Loxodonta africana*) in a novel environment: using behavior to inform conservation actions. Behaviour. 146:1171-1192
- 7. **Pinter-Wollman N.,** Isbell L., & Hart L. 2009. Assessing translocation outcome: Comparing behavioral and physiological aspects of translocated and resident African elephants (*Loxodonta africana*). <u>Biological</u> Conservation. 142:1116-1124
- 6. **Pinter-Wollman N.,** Isbell L., & Hart L. 2009. The relationship between social behavior and habitat familiarity in African elephants (*Loxodonta africana*). <u>Proceedings of the Royal Society B.</u> 276:1009-1014. <u>Media coverage:</u> <u>"Elephant Enclaves"</u> Interview on the CBC program Quirks & Quarks, January 3rd 2009
- 5. Hart B. L., Hart L. A., & **Pinter-Wollman N.** 2008. Large brains and cognitive behavior: Where do elephants fit in? Neuroscience & Biobehavioral Reviews. 32:86-98
- 4. Carey J. R., **Pinter-Wollman N.,** Wyman M., Muller H., Molleman F., & Zhang N. 2007. A search for principles of disability using experimental impairment of Drosophila melanogaster. Experimental Gerontology. 42:166-172
- 3. *Pinter-Wollman N., Dayan T., Eilam D., & Kronfeld-Schor N. 2006 Can aggression be the force driving temporal separation between competing common and golden spiny mice? <u>Journal of Mammalogy.</u> 87(1):48-53
- 2. Gordon D.M., *Chu J., *Lillie A., *Tissot M., & **Pinter N. 2005. Variation in the transition from inside to outside work in the red harvester ant *Pogonomyrmex barbatus*. Insectes Sociaux. 52:212-217
- 1. Innocenti G., **Pinter N., & Galil B.S. 2003. Observations on the agonistic behavior of the swimming crab *Charybdis longicollis* Leene, infected by the rhizocephalan barnacle *Heterosaccus dollfusi* Boschma. <u>Journal of Canadian Zoology</u>. 81:173-176

<u>Invited Contributions:</u>

Pinter-Wollman N. 2015. Editorial: An introduction to the special column on animal social networks <u>Current Zoology</u>. 61(1):42-44.

Pinter-Wollman N. & Mabry K. 2010. Remote-sensing of behavior. In: <u>Encyclopedia of Animal Behavior</u>. Eds. Breed M. and Moore J. Vol 3. pp:33-40. Academic Press, Oxford.

Mabry K. & **Pinter-Wollman N.** 2010. Spatial orientation and time: Methods. In: <u>Encyclopedia of Animal Behavior</u>. Eds. Breed M. and Moore J. Vol 3. pp:308-314. Academic Press, Oxford.

Pinter-Wollman N. 2009. Book Review: Exploring Animal Social Networks. By Darren P. Croft, Richard James, and Jens Krause. <u>The Quarterly Review of Biology</u>. 84: 99-100.

Teaching experience:

reaching experience.		
2017	Designed and taught 'Advanced Statistics in Ecology and Evolutionary Biology' (EEB C202), UCLA.	
2017	Taught in the animal behavior core course for graduate students (EEB 200C), UCLA.	
2016	Guest lecturer at the EEB graduate student grant writing course (EEB 250), UCLA. Prof: Peter Nonacs	
2016-17	Design of the biological science undergraduate core course in ecology, evolution and genetics (LS7B) at UCLA converting it into a 'flipped' classroom that fosters active learning. Recorded a series of lectures on introduction to evolution.	
2016	Co-instructor in the EEB R-bootcamp (EEB 201), UCLA.	
2016	Instigated, organized, and facilitated a professional development seminar series on academic careers in systems biology for postdocs and advanced graduate students, UCSD.	
2016	Guest Lecturer for 'Network Theorizing: From Molecules to Societies' (Cog Sci 200) UCSD. Bill Bechtel	
2014,16	Guest Lecturer for Introduction to Quantitative Biology (BIMM 194), UCSD. Course professor: Jeff Hasty	
2012	Designed and taught a weekly seminar on science education for senior undergraduates at the Program of Human Biology, Stanford University (HumBio 5E – Science Education in Human Biology).	
2011	Lecturer and core course coordinator, Program in Human Biology, Stanford University.	
2011	Teaching assistant in the summer program Vertical Integration of Mathematics, Statistics and Applied Mathematics, Stanford University. Program advisor: Dr. Susan Holmes.	
2011	Guest Lecturer for Behavioral Ecology, Stanford University. Course professor: Dr. Deborah Gordon.	
2008	Teaching Assistant (TA) for Introductory Biology (BIS2B - Ecology and Evolution), UC Davis, Department of Evolution and Ecology (EVE).	
2008	Teaching Assistant for Introductory Biology (BIS1B - Animal Diversity/Evolution), UC Davis, EVE.	
2008	Guest Lecturer for Behavioral Ecology, UC Davis, Wildlife, Fish and Conservation Biology Department.	
2005-08	Co-founder, Organizer, and Facilitator of the Society for Conservation Biology Undergraduate Conservation Biology Seminar Series, UC Davis, EVE.	
	In this seminar series graduate students present their conservation biology research to undergraduates, exposing them to ongoing scientific research and future possible career paths.	
2007	Guest Lecturer and Teaching Assistant for Mechanisms of Animal Behavior (NPB102), UC Davis, Department of Neurobiology, Physiology, and Behavior (NPB). Course professor: Dr. Gabrielle Nevitt.	
2007	Guest Lecturer and Teaching Assistant for Biology for Non-biology Majors (BIS10), UC Davis, NPB. Course professor: Dr. Allen (Jerry) Marr.	
2005	Guest Lecturer for the Animal Behavior Graduate Group (ABGG) core course, UC Davis.	
2004	Teaching Assistant, three quarters for Introductory Biology (BIS1B - Animal Diversity/Evolution), UC Davis, EVE.	

Service:

2017-20	Editor for the journal Biology Letters, a publication of the Royal Society (board member)
2017-20	Editor for the journal Behavioral Ecology (editorial board)
2017-18	Guest editor for the Philosophical Transactions of the Royal Society B, special issue on architecture and collective behavior.
2017-18	Seminar series organizing committee, EEB, UCLA
2017	Moderator and organizing committee, ABS Conservation Behavior Workshop, Toronto, Canada
2016 - 17	EEB departmental liaison to the QCBio program at UCLA
2016	Organized and ran a workshop on the effects of architecture on collective behavior, Phoenix, AZ

Noa Pinter-Wollman CV 2017

2016	Ad-hoc reviewer for NSF IOS Behavioral Systems
2014-16	Elected committee member, Animal Behavior Society Conservation Committee
2015	Moderator and organizing committee, ABS Conservation Behavior Workshop, Anchorage, AK
2014-15	Outreach activities coordinator for the San Diego Center for Systems Biology (SDCSB)
2014	Co-organizer of a session 'Social Insects as Complex Systems' at the 7th International Symposium
	on Biomathematics and Ecology: Education and Research (BEER-2014), Claremont, CA
2014	Guest Editor for 'Current Zoology', special issue on Animal Social Networks
2014	Panelist on an NSF IOS review panel
2014	Organizer of the BCI seminar series
2013	Co-facilitator and Advertising committee of the ABS Conservation Biology Workshop, Boulder, CO
2011	Instigator and organizer of the animal behavior journal club at Stanford University
2010	Organizer, Animal Collective Behavior: Decision Making of Groups Symposium at the national
	meeting of the Animal Behavior Society at Williamsburg, VA
2009	Postdoctoral panelist on an NSF DEB grant review panel
2009	Judge at the IEC student poster competition, Rennes, France
2009	Organizer, 11 th Bay Area Conservation Biology Symposium, Stanford University
2008	Organizer, 10 th Bay Area Conservation Biology Symposium, UC Davis
2007-2008	Student Graduate Advisor in the Animal Behavior Graduate Group, UC Davis
2005-2008	Head of seminar committee, Society for Conservation Biology, Davis chapter
2007	Organizer, 3 rd Animal Behavior Graduate Group Research Conference, UC Davis
2006	Admissions sub-committee in the Animal Behavior Graduate Group, UC Davis
2004-2005	Vice president of the Society for Conservation Biology, Davis chapter
2004	Organizer, 6 th Bay Area Conservation Biology Symposium, UC Davis

Reviewed for:

Granting agencies: NSF Behavioral Systems Cluster, NSF Division of Environmental Biology, ABS student grants, ISF (Israel Science Foundation), DFG (Deutsche Forschungsgemeinschaft).

Journals: Acta Biotheoretica, Animal Behaviour, Animal Conservation, Behavioral Ecology, Behaviour, Behavioural Ecology Sociobiology, Behavioural Processes, Biology Letters, Current Opinion in Insect Science, Current Zoology, Ecography, Ecology, Ecology and Evolution, Ecology Letters, European J. of Wildlife Research, Insect Science, Insectes Sociaux, Integrative and Comparative Biology, Integrative Zoology, Italian J. of Zoology, J. of Comparative Psychology, J. of the Royal Society Interface, J. of Theoretical Biology, J. of Wildlife Management, Nature Communications, PNAS, Proceedings of the Royal Society B, Physical Review E, Scientific Reports, The Science of Nature (Naturwissenschaften), Zoo Biology.

Outreach:		
2017	Grand award judge at the Intel International Science and Engineering Fair (ISEF), Animal Sciences category, Los Angeles, CA	
2017	Lessons on ant biology teaching experimental design and basic natural history to five 2 nd -3 rd grade classrooms at the Lab School, UCLA.	
2016	Presented a lesson on ant behavior to pre-school children at the Early Care Education center at UCLA.	
2016	Developed and taught a lesson plan on ant biology at the Montessori School of La Jolla (pre-school).	
2015-16	Participated in Reuben H. Fleet Science Center's Spotlight on San Diego Science series to develop new NGSS aligned activities with K-12 teachers.	
2015	Saturday Science Club for Girls and Women Scientist Action Summer Camp at the San Diego Reuben H.	
	Fleet Science Center.	
2014-17	Coordinator of SDCSB's public outreach activities	
2014	Outreach activities at the San Diego Reuben H. Fleet Science Center:	
	Senior Monday (lay audience lecture to seniors); Saturday Science Club for Girls; and Women	

Scientist Action Summer Camp (both promoting science education of middle school girls)

Page 5 of 8

Noa Pinter-Wollman CV 2017

2013	Developed lesson plan and taught 6 th grade students as part of the BioCircuits Elementary School Science Partnership at Ocean Knoll Elementary School
2011-12	Docent at Año Nuevo State Park - guided interpretative tours to the elephant seal breading colony.
2010	Presented postdoctoral research at the scientific training class of high school and undergraduate interns at the Jasper Ridge Biological Preserve, Stanford, CA
2010	
	Presented PhD research at Presentation High School science colloquium, San Jose, CA
2009	Interview on the CBC program Quirks & Quarks, program title: "Elephant Enclaves"
2009	Volunteered to give "advice from the underground" at the Ant Night Life event at the California
	Academy of Science (CAS) organized by Brian Fisher and artist and poet Genine Lentine
	During this special event at the CAS we provided visitors with advice on personal challenges from
	an ant's point of view, based on their 100 million years of problem-solving.
2009-11	Mentored two graduate students as part of the Association for Women in Science (AWIS) Palo Alto
	chapter mentoring program
2006	Presented PhD research at the science club of Flintridge Prep high school, Pasadena, CA
2004	Instructed in an outreach program: WIDSI, Watch It Don't Squash It, run by the Animal Behavior
	Graduate Group
	A community outreach afternoon program for low-income students at the Harmon Johnson

Elementary School in Sacramento teaching concepts in animal behavior.

Invited Presentations:

2018	Spatial constraints on social behavior
	Marschak Interdisciplinary Colloquium on Mathematics in the Behavioral Sciences, UCLA
2017	The effects of spatial constraints on social interactions and collective behavior
	Keynote speaker, Emergent properties of individual behavior workshop, University of Kentucky
2016	Dynamic animal social networks
	Center for Adaptive Network Dynamics, California NanoSystems Institute, UCSB
2016	The effects of architecture on collective behavior
	Leonardo Art Science Evening Rendezvous (LASER), UCLA
2016	How can we resolve spatial constraints and higher order interactions in social networks?
	Multilayer Networks Conference, UC Davis
2017	Individual variation in collective behavior
	Biology Department, University of Kentucky
	7th Annual UCI Systems Biology Regional Conference, UCI
2016	Center for Behavior Evolution and Culture, UCLA
	Department of Entomology, Pennsylvania State University
	Ecology, Behavior and Evolution Section, UCSD
	Department of Ecology & Evolutionary Biology, UCLA
2015	Biology department, California State University, Long Beach
	Institute for Quantitative and Computational Biosciences, UCLA
2014	Biology Colloquium, Harvey Mudd College, Claremont CA
	Entomology Colloquium, University of Illinois, Urbana-Champaign
	BioCircuits Institute Seminar Series, UC San Diego
2014	The Interactions that regulate collective behavior
	Workshop on Animal Social Networks, NIMBioS, Knoxville TN
2013	From ants to colonies: individual variation in collective behavior
	Clore Center for Biological Physics, Weizmann Institute of Science, Israel
	Biology seminar series, San Diego State University
2012	Foraging regulation at two time scales
	Social Insect Research Group, Arizona State University
2012	From ants to colonies: individual variation in collective behavior

Noa Pinter-Wollman CV 2017

	Behavior, Evolution, and Culture seminar series, UCLA
	Symposium on Networks in Biological, Social, and Geographic Systems, University of Wyoming
	Seminar at the EBE section, Biology department, UC San Diego
	Biology Department Colloquium, San Francisco State University
2011	Animal Behavior Graduate Group Seminar Series, UC Davis
	Program in Interdisciplinary Biological and Biomedical Sciences (PIBBS) seminar, UNM
	Eco-evo lunch, Biology Department, Stanford University
2010	Human-elephant conflict: bringing together science and wildlife management
	Presentation High School science colloquium, San Jose, CA
2009	The effects of translocation on African elephants – using behavioral studies to inform conservation:
	The Society for Conservation Biology, Central California Coast Chapter
2008	Stranger in a strange land: Spatial and social behavior of African elephants in a novel environment
	Eco-evo lunch, Biology Department, Stanford University
	Department of Zoology seminar, Tel-Aviv University, Israel
	Animal Behavior Graduate Group Seminar Series, UC Davis
2007	The effects of translocation on African elephants
	SCB/EVE Undergraduate Conservation Biology Seminar Series, UC Davis
	Geography Graduate Group Wildlife Conservation, Law and Policy seminar series, UC Davis
2006	Science club and 12 grade anatomy class in Flintridge Prep high school, Pasadena, CA
	Africa and African diaspora brown bag, UC Davis

Presentations at Conferences and Symposia:

Pinter-Wollman N., 2017. Multilayer networks can advance the study of animal social behavior. *54th Annual meeting of the Animal Behavior Society*, Toronto, Canada. *Talk.*

Pinter-Wollman N., Keiser C.N., Wollman R. & Pruitt J.N., 2016. Uncovering the effects of keystone individuals on collective behavior. *International Society for Behavioral Ecology*, Exeter, UK. *Poster*.

Pinter-Wollman N. 2015. Nest architecture shapes the collective behavior of harvester ants. 52nd Annual meeting of the Animal Behavior Society. Anchorage, AK. **Talk.**

Pinter-Wollman N. 2014. Persistent behavioral variation affects the structure and function of interaction networks. 7th International Symposium on Biomathematics and Ecology: Education and Research (BEER). Claremont, CA. **Talk.**

Pinter-Wollman N. 2014. Effects of nest architecture on collective behavior of ant colonies. 17th Congress of the International Union for the Study of Social Insects. Cairns, Australia. **Talk.**

Pinter-Wollman N. 2013. Harvester ants use interactions to regulate forager activation and availability. 50th Annual meeting of the Animal Behavior Society, Boulder, CO. *Talk*.

Hobson E.A., **Pinter-Wollman N.**, Smith J.E., Edelman A.J., Shizuka D., Waters J.S., de Silva S., Prager S.D. Sasaki T., Wittemyer G., Fewell J., & McDonald D.B. 2013. The dynamics of animal social networks: analytical, conceptual, and theoretical advances. 50th Annual meeting of the Animal Behavior Society, Boulder, CO. **Poster.**

Pinter-Wollman N. 2012. Nest site and weather affect the personality of harvester ant colonies. 49th Annual meeting of the Animal Behavior Society, Albuquerque, NM. *Talk*.

Pinter-Wollman N. 2011. Individual variation in the interaction networks of harvester ants. *Behavior: joint meeting of the International Ethological Conference and the Animal Behavior Society, Bloomington, IN. <i>Talk.*

Pinter-Wollman N. 2010. Effects of interaction network structure on information flow in social insects. 16th Congress of the International Union for the Study of Social Insects. Copenhagen, Denmark. **Talk.**

Pinter-Wollman N. 2010. Collective animal behavior. *47th Annual meeting of the Animal Behavior Society,* Williamsburg, VA. *Talk.*

Pinter-Wollman N. and Gordon D.M. 2009. Effects of interaction network structure on task allocation in social insects. 31st International Ethological Conference, Rennes, France. **Poster.**

Pinter-Wollman N. 2008. The relationship between social behavior and habitat familiarity in African elephants. 45th Annual meeting of the Animal Behavior Society, Snowbird, UT. **Talk.**

Pinter-Wollman N. 2007. Exploration of a novel environment by translocated African elephants. *44*th *Annual meeting of the Animal Behavior Society,* Burlington, VT. *Talk.*

Pinter-Wollman N. 2007. Home range acquisition in translocated African elephants. *3rd Animal Behavior Graduate Group Research Conference*. Davis, CA. *Talk*.

Pinter-Wollman N. 2007. The effects of translocation on African elephants. *9th Bay Area Conservation Biology Symposium*, Berkeley, CA. *Talk*.

Pinter-Wollman N., Dayan T., Kronfeld-Schor N. and Eilam D. 2004. Does aggression drive temporal separation between competing common and golden spiny mice? *41*st Annual meeting of the Animal Behavior Society, Oaxaca, Mexico. *Talk.*

Pinter N. Innocenti G. & Galil B.S. 2002. Observations on the agonistic behavior of the swimming crab *Charybdis longicollis* Leene, infected by the rhizocephalan barnacle *Heterosaccus dollfusi* Boschma. *14th Israeli Mediterranean-coast Symposium*, Haifa University, Israel. *Talk*.

Pinter N., Dayan T., Eilam D. & Kronfeld-Schor N. 2001. Aggressive interactions between two species of spiny mice: *Acomys russatus* and *Acomys cahirinus*. 38th meeting of the Zoological Society of Israel, Haifa University, Israel. Abstract in the Israel Journal of Zoology, 2002 48 (2):176. **Talk.**