

# Heikki Helanter

## List of Publications by Year in descending order

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Version: 2024-02-01

83  
papers

2,758  
citations

218381

26  
h-index

214527

47  
g-index

92  
all docs

92  
docs citations

92  
times ranked

2157  
citing authors

#	ARTICLE	IF	CITATIONS
1	Inclusive fitness theory and eusociality. <i>Nature</i> , 2011, 471, E1-E4.	13.7	339
2	Unicolonial ants: where do they come from, what are they and where are they going?. <i>Trends in Ecology and Evolution</i> , 2009, 24, 341-349.	4.2	183
3	Worker reproduction and policing in insect societies: an ESS analysis. <i>Journal of Evolutionary Biology</i> , 2004, 17, 1035-1047.	0.8	174
4	Chemical basis of nest-mate discrimination in the ant <i>Formica exsecta</i> . <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2008, 275, 1271-1278.	1.2	149
5	Evolution of species-specific cuticular hydrocarbon patterns in <i>Formica</i> ants. <i>Biological Journal of the Linnean Society</i> , 0, 95, 131-140.	0.7	119
6	Colony-specific Hydrocarbons Identify Nest Mates in Two Species of <i>Formica</i> Ant. <i>Journal of Chemical Ecology</i> , 2008, 34, 1072-1080.	0.9	79
7	Not Only for Egg Yolk—Functional and Evolutionary Insights from Expression, Selection, and Structural Analyses of <i>Formica</i> Ant Vitellogenins. <i>Molecular Biology and Evolution</i> , 2014, 31, 2181-2193.	3.5	78
8	Flower constancy in honey bee workers ( <i>Apis mellifera</i> ) depends on ecologically realistic rewards. <i>Journal of Experimental Biology</i> , 2011, 214, 1397-1402.	0.8	72
9	Comparative transcriptomics reveals the conserved building blocks involved in parallel evolution of diverse phenotypic traits in ants. <i>Genome Biology</i> , 2016, 17, 43.	3.8	70
10	The evolution of extreme altruism and inequality in insect societies. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2009, 364, 3169-3179.	1.8	69
11	From the Origin of Sex-Determining Factors to the Evolution of Sex-Determining Systems. <i>Quarterly Review of Biology</i> , 2011, 86, 163-180.	0.0	66
12	The Role of Brood in Eusocial Hymenoptera. <i>Quarterly Review of Biology</i> , 2017, 92, 39-78.	0.0	58
13	An Ancient and Eroded Social Supergene Is Widespread across <i>Formica</i> Ants. <i>Current Biology</i> , 2020, 30, 304-311.e4.	1.8	57
14	Is parasite pressure a driver of chemical cue diversity in ants?. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2011, 278, 496-503.	1.2	55
15	Polygyny reduces rather than increases nestmate discrimination cue diversity in <i>Formica exsecta</i> ants. <i>Insectes Sociaux</i> , 2009, 56, 375-383.	0.7	52
16	A Metatranscriptomic Approach to the Identification of Microbiota Associated with the Ant <i>Formica exsecta</i> . <i>PLoS ONE</i> , 2013, 8, e79777.	1.1	52
17	Deconstructing Superorganisms and Societies to Address Big Questions in Biology. <i>Trends in Ecology and Evolution</i> , 2017, 32, 861-872.	4.2	45
18	Habitat age, breeding system and kinship in the ant <i>Formica fusca</i> . <i>Molecular Ecology</i> , 2004, 13, 1579-1588.	2.0	42

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19	Worker Reproduction in <i>Formica</i> Ants. <i>American Naturalist</i> , 2007, 170, E14-E25.	1.0	39
20	Genetic diversity, colony chemical phenotype, and nest mate recognition in the ant <i>Formica fusca</i> . <i>Behavioral Ecology</i> , 2011, 22, 710-716.	1.0	39
21	Worker reproduction in the ant <i>Formica fusca</i> . <i>Journal of Evolutionary Biology</i> , 2005, 18, 162-171.	0.8	38
22	Worker policing and nest mate recognition in the ant <i>Formica fusca</i> . <i>Behavioral Ecology and Sociobiology</i> , 2007, 61, 1143-1149.	0.6	37
23	Social conflict in ant larvae: egg cannibalism occurs mainly in males and larvae prefer alien eggs. <i>Behavioral Ecology</i> , 2013, 24, 1306-1311.	1.0	36
24	Multi-locus interactions and the build-up of reproductive isolation. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2020, 375, 20190543.	1.8	34
25	Comparative transcriptomics of social insect queen pheromones. <i>Nature Communications</i> , 2019, 10, 1593.	5.8	32
26	Pedigree relatedness, not greenbeard genes, explains eusociality. <i>Oikos</i> , 2007, 116, 217-220.	1.2	30
27	Changes in gene DNA methylation and expression networks accompany caste specialization and age-related physiological changes in a social insect. <i>Molecular Ecology</i> , 2019, 28, 1975-1993.	2.0	30
28	Genetic population structure, queen supersedure and social polymorphism in a social Hymenoptera. <i>Journal of Evolutionary Biology</i> , 2007, 20, 1351-1360.	0.8	29
29	Ant Larvae as Players in Social Conflict: Relatedness and Individual Identity Mediate Cannibalism Intensity. <i>American Naturalist</i> , 2014, 184, E161-E174.	1.0	29
30	Caste-biases in gene expression are specific to developmental stage in the ant <i>Formica exsecta</i> . <i>Journal of Evolutionary Biology</i> , 2015, 28, 1705-1718.	0.8	28
31	Preemptive Defensive Self-Sacrifice by Ant Workers. <i>American Naturalist</i> , 2008, 172, E239-E243.	1.0	26
32	Accelerated evolution of developmentally biased genes in the tetraphenic ant <i>Cardiocondyla obscurior</i> . <i>Molecular Biology and Evolution</i> , 2017, 34, msw240.	3.5	26
33	A comparative study of egg recognition signature mixtures in <i>Formica</i> ants. <i>Evolution; International Journal of Organic Evolution</i> , 2015, 69, 520-529.	1.1	25
34	Sex allocation conflict in insect societies: who wins?. <i>Biology Letters</i> , 2009, 5, 700-704.	1.0	23
35	Neutral and adaptive explanations for an association between caste-biased gene expression and rate of sequence evolution. <i>Frontiers in Genetics</i> , 2014, 5, 297.	1.1	23
36	Towards greater realism in inclusive fitness models: the case of worker reproduction in insect societies. <i>Biology Letters</i> , 2013, 9, 20130334.	1.0	22

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37	An Organismal Perspective on the Evolution of Insect Societies. <i>Frontiers in Ecology and Evolution</i> , 2016, 4, .	1.1	21
38	Queen pheromones modulate DNA methyltransferase activity in bee and ant workers. <i>Biology Letters</i> , 2016, 12, 20151038.	1.0	21
39	Prior experience with eggs laid by non-nestmate queens induces egg acceptance errors in ant workers. <i>Behavioral Ecology and Sociobiology</i> , 2007, 62, 223-228.	0.6	20
40	Two independent mechanisms of egg recognition in worker <i>Formica fusca</i> ants. <i>Behavioral Ecology and Sociobiology</i> , 2009, 63, 573-580.	0.6	20
41	Are ant supercolonies crucibles of a new major transition in evolution?. <i>Journal of Evolutionary Biology</i> , 2014, 27, 1784-1796.	0.8	20
42	Geometry explains the benefits of division of labour in a leafcutter ant. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2008, 275, 1255-1260.	1.2	19
43	Do unicolonial wood ants favor kin?. <i>Journal of Biology</i> , 2009, 8, 56.	2.7	18
44	Family-based guilds in the ant <i>Pachycondyla inversa</i> . <i>Biology Letters</i> , 2013, 9, 20130125.	1.0	18
45	Genetic structure of native ant supercolonies varies in space and time. <i>Molecular Ecology</i> , 2016, 25, 6196-6213.	2.0	18
46	Egg Recognition and Social Parasitism in <i>Formica</i> Ants. <i>Ethology</i> , 2011, 117, 1081-1092.	0.5	16
47	Extended haplodiploidy hypothesis. <i>Evolution Letters</i> , 2019, 3, 263-270.	1.6	15
48	Worker policing in the common wasp <i>Vespula vulgaris</i> is not aimed at improving colony hygiene. <i>Insectes Sociaux</i> , 2006, 53, 399-402.	0.7	14
49	Fifty years of the Price equation. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2020, 375, 20190350.	1.8	14
50	Are mistakes inevitable? Sex allocation specialization by workers can reduce the genetic information needed to assess queen mating frequency. <i>Journal of Theoretical Biology</i> , 2007, 244, 470-477.	0.8	13
51	Cuticular Chemistry of Males and Females in the Ant <i>Formica fusca</i> . <i>Journal of Chemical Ecology</i> , 2012, 38, 1474-1482.	0.9	12
52	Unmatedness Promotes the Evolution of Helping More in Diploids than in Haplodiploids. <i>American Naturalist</i> , 2014, 184, 318-325.	1.0	12
53	Alarm Pheromones Do Not Mediate Rapid Shifts in Honey Bee Guard Acceptance Threshold. <i>Journal of Chemical Ecology</i> , 2010, 36, 1306-1308.	0.9	11
54	When are genes "leaders" or "followers" in evolution?. <i>Trends in Ecology and Evolution</i> , 2011, 26, 435-436.	4.2	11

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55	Recognition of nestmate eggs in the ant <i>Formica fusca</i> is based on queen derived cues. <i>Environmental Epigenetics</i> , 2014, 60, 131-136.	0.9	11
56	Weak population structure in the ant <i>Formica fusca</i> . <i>PeerJ</i> , 2018, 6, e5024.	0.9	11
57	Population genetics of the black ant <i>Formica lemni</i> (Hymenoptera: Formicidae). <i>Biological Journal of the Linnean Society</i> , 0, 97, 247-258.	0.7	10
58	Colony take-over and brood survival in temporary social parasites of the ant genus <i>Formica</i> . <i>Behavioral Ecology and Sociobiology</i> , 2013, 67, 727-735.	0.6	10
59	The value of oviposition timing, queen presence and kinship in a social insect. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2013, 280, 20131231.	1.2	10
60	Population genetics of wood ants. , 0, , 51-80.		10
61	The evolutionary dynamics of adaptive virginity, sex-allocation, and altruistic helping in haplodiploid animals. <i>Evolution; International Journal of Organic Evolution</i> , 2018, 72, 30-38.	1.1	10
62	The possible role of ant larvae in the defence against social parasites. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2019, 286, 20182867.	1.2	9
63	Honesty of Larval Begging Signals Covaries With Colony Kin Structure in <i>Formica</i> Ants. <i>Frontiers in Ecology and Evolution</i> , 2019, 7, .	1.1	7
64	Transcriptome sequencing reveals high isoform diversity in the ant <i>Formica exsecta</i> . <i>PeerJ</i> , 2017, 5, e3998.	0.9	7
65	Whole-genome analysis of multiple wood ant population pairs supports similar speciation histories, but different degrees of gene flow, across their European ranges. <i>Molecular Ecology</i> , 2022, 31, 3416-3431.	2.0	7
66	Acceptance by Honey Bee Guards of Non-Nestmates is not Increased by Treatment with Nestmate Odours. <i>Ethology</i> , 2011, 117, 655-663.	0.5	6
67	Different perspectives on non-genetic inheritance illustrate the versatile utility of the Price equation in evolutionary biology. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2020, 375, 20190366.	1.8	6
68	Limited dispersal and an unexpected aggression pattern in a native supercolonial ant. <i>Ecology and Evolution</i> , 2020, 10, 3671-3685.	0.8	5
69	Genetic analysis reveals Finnish <i>Formica fennica</i> populations do not form a separate genetic entity from <i>F. exsecta</i> . <i>PeerJ</i> , 2018, 6, e6013.	0.9	5
70	Pathogen Prevalence Modulates Medication Behavior in Ant <i>Formica fusca</i> . <i>Frontiers in Insect Science</i> , 2022, 2, .	0.9	4
71	The unity that does not exist ? a review of A. Burt & R. Trivers 2006: <i>Genes in Conflict</i> . <i>Journal of Evolutionary Biology</i> , 2006, 19, 2067-2070.	0.8	3
72	Genetic relatedness and its causal role in the evolution of insect societies. <i>Journal of Biosciences</i> , 2019, 44, 1.	0.5	3

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73	Pedigree relatedness, not greenbeard genes, explains eusociality. , 2007, 116, 217.		3
74	Structural equation modeling reveals decoupling of ecological and self-perceived outcomes in a garden box social-ecological system. Scientific Reports, 2022, 12, 6425.	1.6	3
75	How to test an inclusive fitness hypothesis – worker reproduction and policing as an example. Oikos, 2007, 116, 1782-1788.	1.2	2
76	Sex allocation conflict between queens and workers in <i>Formica pratensis</i> wood ants predicts seasonal sex ratio variation. Evolution; International Journal of Organic Evolution, 2016, 70, 2387-2394.	1.1	2
77	Social evolution and the two elements of causation. Oikos, 2019, 128, 905-911.	1.2	2
78	Worker Conflict and Worker Policing. , 2019, , 743-753.		1
79	Superorganismal anisogamy: queen–male dimorphism in eusocial insects. Proceedings of the Royal Society B: Biological Sciences, 2020, 287, 20200635.	1.2	1
80	Supercolonies of Ants. , 2020, , 1-3.		1
81	Supercolonies of Ants. , 2021, , 911-913.		0
82	Pathways to parasitic strategies in ants. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, e2115607118.	3.3	0
83	Genetic relatedness and its causal role in the evolution of insect societies. Journal of Biosciences, 2019, 44, .	0.5	0