

Armin P Moczek

List of Publications by Year in descending order

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100
papers

6,544
citations

101543

36
h-index

69250

77
g-index

103
all docs

103
docs citations

103
times ranked

5163
citing authors

#	ARTICLE	IF	CITATIONS
1	Phenotypic plasticity's impacts on diversification and speciation. Trends in Ecology and Evolution, 2010, 25, 459-467.	8.7	961
2	The extended evolutionary synthesis: its structure, assumptions and predictions. Proceedings of the Royal Society B: Biological Sciences, 2015, 282, 20151019.	2.6	755
3	The role of developmental plasticity in evolutionary innovation. Proceedings of the Royal Society B: Biological Sciences, 2011, 278, 2705-2713.	2.6	432
4	Male horn dimorphism in the scarab beetle, <i>Onthophagus taurus</i> : do alternative reproductive tactics favour alternative phenotypes?. Animal Behaviour, 2000, 59, 459-466.	1.9	381
5	Genome of the Asian longhorned beetle (<i>Anoplophora glabripennis</i>), a globally significant invasive species, reveals key functional and evolutionary innovations at the beetle-plant interface. Genome Biology, 2016, 17, 227.	8.8	244
6	On the origins of novelty in development and evolution. BioEssays, 2008, 30, 432-447.	2.5	230
7	Differential recruitment of limb patterning genes during development and diversification of beetle horns. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 8992-8997.	7.1	173
8	Food availability controls the onset of metamorphosis in the dung beetle <i>Onthophagus taurus</i> (Coleoptera: Scarabaeidae). Physiological Entomology, 2001, 26, 173-180.	1.5	162
9	Diversification of <i>doublesex</i> function underlies morph-, sex-, and species-specific development of beetle horns. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 20526-20531.	7.1	151
10	Phenotypic plasticity and diversity in insects. Philosophical Transactions of the Royal Society B: Biological Sciences, 2010, 365, 593-603.	4.0	146
11	Developmental Bias and Evolution: A Regulatory Network Perspective. Genetics, 2018, 209, 949-966.	2.9	146
12	Trade-offs during the Development of Primary and Secondary Sexual Traits in a Horned Beetle. American Naturalist, 2004, 163, 184-191.	2.1	143
13	Diverse developmental mechanisms contribute to different levels of diversity in horned beetles. Evolution & Development, 2005, 7, 175-185.	2.0	137
14	Rapid evolution of a polyphenic threshold. Evolution & Development, 2003, 5, 259-268.	2.0	133
15	Developmental mechanisms of threshold evolution in a polyphenic beetle. Evolution & Development, 2002, 4, 252-264.	2.0	125
16	The significance and scope of evolutionary developmental biology: a vision for the 21st century. Evolution & Development, 2015, 17, 198-219.	2.0	92
17	Brood Ball-Mediated Transmission of Microbiome Members in the Dung Beetle, <i>Onthophagus taurus</i> (Coleoptera: Scarabaeidae). PLoS ONE, 2013, 8, e79061.	2.5	82
18	Developmental capacitance, genetic accommodation, and adaptive evolution. Evolution & Development, 2007, 9, 299-305.	2.0	80

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19	DEVELOPMENTAL DECOUPLING OF ALTERNATIVE PHENOTYPES: INSIGHTS FROM THE TRANSCRIPTOMES OF HORN-POLYPHENIC BEETLES. <i>Evolution; International Journal of Organic Evolution</i> , 2011, 65, 231-245.	2.3	78
20	WHEN ONTOGENY REVEALS WHAT PHYLOGENY HIDES: GAIN AND LOSS OF HORNS DURING DEVELOPMENT AND EVOLUTION OF HORNED BEETLES. <i>Evolution; International Journal of Organic Evolution</i> , 2006, 60, 2329-2341.	2.3	63
21	Beetle horns are regulated by the <i>Hox</i> gene, <i>Sex combs reduced</i> , in a species- and sex-specific manner. <i>Evolution & Development</i> , 2010, 12, 353-362.	2.0	62
22	Pupal Remodeling and the Development and Evolution of Sexual Dimorphism in Horned Beetles. <i>American Naturalist</i> , 2006, 168, 711-729.	2.1	60
23	Developmental and Ecological Benefits of the Maternally Transmitted Microbiota in a Dung Beetle. <i>American Naturalist</i> , 2016, 188, 679-692.	2.1	59
24	Insulin Signaling as a Mechanism Underlying Developmental Plasticity: The Role of FOXO in a Nutritional Polyphenism. <i>PLoS ONE</i> , 2012, 7, e34857.	2.5	57
25	Allometric plasticity in a polyphenic beetle. <i>Ecological Entomology</i> , 2002, 27, 58-67.	2.2	54
26	Hedgehog signaling enables nutrition-responsive inhibition of an alternative morph in a polyphenic beetle. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 5982-5987.	7.1	53
27	RAPID ANTAGONISTIC COEVOLUTION BETWEEN PRIMARY AND SECONDARY SEXUAL CHARACTERS IN HORNED BEETLES. <i>Evolution; International Journal of Organic Evolution</i> , 2008, 62, 2423-2428.	2.3	52
28	Conservation, innovation, and the evolution of horned beetle diversity. <i>Development Genes and Evolution</i> , 2006, 216, 655-665.	0.9	50
29	Beetle horns evolved from wing serial homologs. <i>Science</i> , 2019, 366, 1004-1007.	12.6	50
30	Contextualized niche shifts upon independent invasions by the dung beetle <i>Onthophagus taurus</i> . <i>Biological Invasions</i> , 2016, 18, 3137-3148.	2.4	48
31	The Nature of Nurture and the Future of Evodevo: Toward a Theory of Developmental Evolution. <i>Integrative and Comparative Biology</i> , 2012, 52, 108-119.	2.0	46
32	Insulin signalling's role in mediating tissue-specific nutritional plasticity and robustness in the horn-polyphenic beetle <i>Onthophagus taurus</i> . <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2018, 285, 20181631.	2.6	41
33	Gene discovery in the horned beetle <i>Onthophagus taurus</i> . <i>BMC Genomics</i> , 2010, 11, 703.	2.8	40
34	Rapid Divergence of Nesting Depth and Digging Appendages among Tunneling Dung Beetle Populations and Species. <i>American Naturalist</i> , 2016, 187, E143-E151.	2.1	40
35	EST and microarray analysis of horn development in <i>Onthophagus</i> beetles. <i>BMC Genomics</i> , 2009, 10, 504.	2.8	38
36	Programed cell death shapes the expression of horns within and between species of horned beetles. <i>Evolution & Development</i> , 2010, 12, 449-458.	2.0	38

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37	Beetle horns and horned beetles: emerging models in developmental evolution and ecology. <i>Wiley Interdisciplinary Reviews: Developmental Biology</i> , 2013, 2, 405-418.	5.9	38
38	Adaptive maternal behavioral plasticity and developmental programming mitigate the transgenerational effects of temperature in dung beetles. <i>Oikos</i> , 2018, 127, 1319-1329.	2.7	38
39	Bridging the explanatory gaps: What can we learn from a biological agency perspective?. <i>BioEssays</i> , 2022, 44, e2100185.	2.5	38
40	Shape - but Not Size - Codivergence between Male and Female Copulatory Structures in Onthophagus Beetles. <i>PLoS ONE</i> , 2011, 6, e28893.	2.5	35
41	Transgenerational developmental effects of species-specific, maternally transmitted microbiota in <i>Onthophagus</i> dung beetles. <i>Ecological Entomology</i> , 2019, 44, 274-282.	2.2	33
42	Horn possession reduces maneuverability in the horn-polyphenic beetle, <i>Onthophagus nigriventris</i> . <i>Journal of Insect Science</i> , 2006, 6, 1-10.	1.5	31
43	Juvenile hormone mediates sexual dimorphism in horned beetles. <i>Journal of Experimental Zoology Part B: Molecular and Developmental Evolution</i> , 2007, 308B, 417-427.	1.3	31
44	The basis of being different: the role of gene silencing in plasticity. <i>Evolution & Development</i> , 2008, 10, 511-513.	2.0	31
45	Decapentaplegic (dpp) regulates the growth of a morphological novelty, beetle horns. <i>Development Genes and Evolution</i> , 2011, 221, 17-27.	0.9	31
46	Evidence of developmental niche construction in dung beetles: effects on growth, scaling and reproductive success. <i>Ecology Letters</i> , 2017, 20, 1353-1363.	6.4	31
47	The role of ancestral phenotypic plasticity in evolutionary diversification: population density effects in horned beetles. <i>Animal Behaviour</i> , 2018, 137, 53-61.	1.9	31
48	The nutritionally responsive transcriptome of the polyphenic beetle <i>Onthophagus taurus</i> and the importance of sexual dimorphism and body region. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2014, 281, 20142084.	2.6	29
49	Effects of parental care on the accumulation and release of cryptic genetic variation: review of mechanisms and a case study of dung beetles. <i>Evolutionary Ecology</i> , 2016, 30, 251-265.	1.2	29
50	(My Microbiome) Would Walk 10,000 Miles: Maintenance and Turnover of Microbial Communities in Introduced Dung Beetles. <i>Microbial Ecology</i> , 2020, 80, 435-446.	2.8	27
51	Nutrition-responsive gene expression and the developmental evolution of insect polyphenism. <i>Nature Ecology and Evolution</i> , 2020, 4, 970-978.	7.8	24
52	A Matter of Measurements: Challenges and Approaches in the Comparative Analysis of Static Allometries. <i>American Naturalist</i> , 2006, 167, 606-611.	2.1	23
53	Pupal remodeling and the evolution and development of alternative male morphologies in horned beetles. <i>BMC Evolutionary Biology</i> , 2007, 7, 151.	3.2	23
54	Rapid differentiation of plasticity in life history and morphology during invasive range expansion and concurrent local adaptation in the horned beetle <i>Onthophagus taurus</i> . <i>Evolution; International Journal of Organic Evolution</i> , 2020, 74, 2059-2072.	2.3	23

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55	A Method for Sexing Final Instar Larvae of the Genus <i>Onthophagus</i> Latreille (Coleoptera: Tj ETQq1 1 0.784314 rgBT /Overlock, 10 Tf 50	0.2	22
56	A combination of developmental plasticity, parental effects, and genetic differentiation mediates divergences in life history traits between dung beetle populations. <i>Evolution & Development</i> , 2015, 17, 148-159.	2.0	22
57	Developmental regulation and evolution of scaling: novel insights through the study of <i>Onthophagus</i> beetles. <i>Current Opinion in Insect Science</i> , 2017, 19, 52-60.	4.4	21
58	When ontogeny reveals what phylogeny hides: gain and loss of horns during development and evolution of horned beetles. <i>Evolution; International Journal of Organic Evolution</i> , 2006, 60, 2329-41.	2.3	21
59	Emerging model systems in evo–devo: horned beetles and the origins of diversity. <i>Evolution & Development</i> , 2007, 9, 323-328.	2.0	20
60	The transcriptomic basis of tissue–and nutrition–dependent sexual dimorphism in the beetle <i>Onthophagus taurus</i> . <i>Ecology and Evolution</i> , 2016, 6, 1601-1613.	1.9	18
61	Intraspecific female brood parasitism in the dung beetle <i>Onthophagus taurus</i> . <i>Ecological Entomology</i> , 2006, 31, 316-321.	2.2	17
62	Neofunctionalization of embryonic head patterning genes facilitates the positioning of novel traits on the dorsal head of adult beetles. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2016, 283, 20160824.	2.6	17
63	<i>Diplogastrellus</i> nematodes are sexually transmitted mutualists that alter the bacterial and fungal communities of their beetle host. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 10696-10701.	7.1	16
64	Developmental bias in horned dung beetles and its contributions to innovation, adaptation, and resilience. <i>Evolution & Development</i> , 2020, 22, 165-180.	2.0	16
65	Evolution of, and via, Developmental Plasticity: Insights through the Study of Scaling Relationships. <i>Integrative and Comparative Biology</i> , 2019, 59, 1346-1355.	2.0	15
66	Evolutionary and plastic variation in larval growth and digestion reveal the complex underpinnings of size and age at maturation in dung beetles. <i>Ecology and Evolution</i> , 2021, 11, 15098-15110.	1.9	15
67	Reciprocal microbiome transplants differentially rescue fitness in two syntopic dung beetle sister species (Scarabaeidae: <i>Onthophagus</i>). <i>Ecological Entomology</i> , 2021, 46, 946-954.	2.2	14
68	Differentiation of ovarian development and the evolution of fecundity in rapidly diverging exotic beetle populations. <i>Journal of Experimental Zoology</i> , 2015, 323, 679-688.	1.2	13
69	The origins of novelty from within the confines of homology: the developmental evolution of the digging tibia of dung beetles. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2019, 286, 20182427.	2.6	13
70	<i>pangolin</i> expression influences the development of a morphological novelty: Beetle horns. <i>Genesis</i> , 2012, 50, 404-414.	1.6	12
71	doublesex alters aggressiveness as a function of social context and sex in the polyphenic beetle <i>Onthophagus taurus</i> . <i>Animal Behaviour</i> , 2017, 132, 261-269.	1.9	12
72	Development of functional ectopic compound eyes in scarabaeid beetles by knockdown of <i>orthodenticle</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 12021-12026.	7.1	12

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73	<i>Doublesex</i> mediates species-, sex-, environment- and trait-specific exaggeration of size and shape. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2021, 288, 20210241.	2.6	12
74	Development and evolution of insect polyphenisms: novel insights through the study of sex determination mechanisms. <i>Current Opinion in Insect Science</i> , 2014, 1, 52-58.	4.4	11
75	Appendage patterning genes regulate male and female copulatory structures in horned beetles. <i>Evolution & Development</i> , 2015, 17, 248-253.	2.0	11
76	Conservation, Innovation, and Bias: Embryonic Segment Boundaries Position Posterior, but Not Anterior, Head Horns in Adult Beetles. <i>Journal of Experimental Zoology Part B: Molecular and Developmental Evolution</i> , 2016, 326, 271-279.	1.3	11
77	Notch signaling patterns head horn shape in the bull-headed dung beetle <i>Onthophagus taurus</i> . <i>Development Genes and Evolution</i> , 2020, 230, 213-225.	0.9	11
78	Chapter 6 The Origin and Diversification of Complex Traits Through Micro- and Macroevolution of Development. <i>Current Topics in Developmental Biology</i> , 2009, 86, 135-162.	2.2	10
79	The origins of novelty. <i>Nature</i> , 2011, 473, 34-35.	27.8	10
80	The evolution of relative trait size and shape: insights from the genitalia of dung beetles. <i>Development Genes and Evolution</i> , 2018, 228, 83-93.	0.9	9
81	Incipient hybrid inferiority between recently introduced, diverging dung beetle populations. <i>Biological Journal of the Linnean Society</i> , 2021, 132, 931-944.	1.6	9
82	Wing serial homologues and the diversification of insect outgrowths: insights from the pupae of scarab beetles. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2021, 288, 20202828.	2.6	9
83	Resource allocation during ontogeny is influenced by genetic, developmental and ecological factors in the horned beetle, <i>Onthophagus taurus</i> . <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2014, 281, 20141625.	2.6	8
84	Evolution and plasticity of morph-specific integration in the bull-headed dung beetle <i>Onthophagus taurus</i> . <i>Ecology and Evolution</i> , 2020, 10, 10558-10570.	1.9	8
85	Maternal and larval niche construction interact to shape development, survival, and population divergence in the dung beetle <i>Onthophagus taurus</i> . <i>Evolution & Development</i> , 2020, 22, 358-369.	2.0	8
86	<i>Don't stand so close to me:</i> Microbiota-facilitated enemy release dynamics in introduced <i>Onthophagus taurus</i> dung beetles. <i>Ecology and Evolution</i> , 2020, 10, 13640-13648.	1.9	8
87	Integrating evolutionarily novel horns within the deeply conserved insect head. <i>BMC Biology</i> , 2020, 18, 41.	3.8	8
88	The oncometabolite L-2-hydroxyglutarate is a common product of dipteran larval development. <i>Insect Biochemistry and Molecular Biology</i> , 2020, 127, 103493.	2.7	7
89	Comparing first- and third-person perspectives in early elementary learning of honeybee systems. <i>Instructional Science</i> , 2020, 48, 291-312.	2.0	7
90	When the end modifies its means: the origins of novelty and the evolution of innovation. <i>Biological Journal of the Linnean Society</i> , 2023, 139, 433-440.	1.6	6

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91	Nutrient Stress During Ontogeny Alters Patterns of Resource Allocation in two Species of Horned Beetles. <i>Journal of Experimental Zoology</i> , 2016, 325, 481-490.	1.2	5
92	Evolutionary and Ecological Genomics of Developmental Plasticity: Novel Approaches and First Insights From the Study of Horned Beetles. <i>Advances in Experimental Medicine and Biology</i> , 2014, 781, 127-148.	1.6	4
93	From descent with modification to the origins of novelty. <i>Zoology</i> , 2020, 143, 125836.	1.2	4
94	Serotonin differentially affects morph-specific behavior in divergent populations of a horned beetle. <i>Behavioral Ecology</i> , 2020, 31, 352-360.	2.2	3
95	Endless forms most strange: a review of <i>The Superorganism: the Beauty, Elegance, and Strangeness of Insect Societies</i> , by Bert Hölldobler and Edward O. Wilson. <i>Evolution & Development</i> , 2009, 11, 754-756.	2.0	2
96	Serotonin signaling suppresses the nutrition-responsive induction of an alternate male morph in horn polyphenic beetles. <i>Journal of Experimental Zoology Part A: Ecological and Integrative Physiology</i> , 2020, 333, 660-669.	1.9	2
97	Evaluating old truths: Final adult size in holometabolous insects is set by the end of larval development. <i>Journal of Experimental Zoology Part B: Molecular and Developmental Evolution</i> , 2023, 340, 270-276.	1.3	2
98	Biases in the study of developmental bias. <i>Evolution & Development</i> , 2020, 22, 3-6.	2.0	1
99	The origins of diversity: A review of <i>Evolution of the Insects</i> , by David Grimaldi and Michael S. Engel. <i>Evolution & Development</i> , 2006, 8, 111-112.	2.0	0
100	Signals of selection beyond bottlenecks between exotic populations of the bull-headed dung beetle, <i>Onthophagus taurus</i> . <i>Evolution & Development</i> , 2021, 23, 86-99.	2.0	0