# Michael Poulsen

List of Publications by Year
in descending order



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|---|---|---|---|
| 109 papers | 5,285 citations | 94433 37 h-index | 98798 67 g-index |
| 126 all docs | 126 docs citations | 126 times ranked | 4676 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Dentigerumycin: a bacterial mediator of an ant-fungus symbiosis. Nature Chemical Biology, 2009, 5, 391-393. | 8.0 | 360 |
| 2 | Coevolved Crypts and Exocrine Glands Support Mutualistic Bacteria in Fungus-Growing Ants. Science, 2006, 311, 81-83. | 12.6 | 296 |
| 3 | Complementary symbiont contributions to plant decomposition in a fungus-farming termite. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 14500-14505. | 7.1 | 243 |
| 4 | Hemimetabolous genomes reveal molecular basis of termite eusociality. Nature Ecology and Evolution, 2018, 2, 557-566. | 7.8 | 223 |
| 5 | Comparison of 26 Sphingomonad Genomes Reveals Diverse Environmental Adaptations and Biodegradative Capabilities. Applied and Environmental Microbiology, 2013, 79, 3724-3733. | 3.1 | 151 |
| 6 | Identifying the core microbial community in the gut of fungusâ€growing termites. Molecular Ecology, 2014, 23, 4631-4644. | 3.9 | 151 |
| 7 | Mutualistic Fungi Control Crop Diversity in Fungus-Growing Ants. Science, 2005, 307, 741-744. | 12.6 | 143 |
| 8 | Diet is the primary determinant of bacterial community structure in the guts of higher termites. Molecular Ecology, 2015, 24, 5284-5295. | 3.9 | 143 |
| 9 | Experimental evidence for the costs and hygienic significance of the antibiotic metapleural gland secretion in leaf-cutting ants. Behavioral Ecology and Sociobiology, 2002, 52, 151-157. | 1.4 | 139 |
| 10 | Specificity in the symbiotic association between fungus-growing ants and protective Pseudonocardia bacteria. Proceedings of the Royal Society B: Biological Sciences, 2011, 278, 1814-1822. | 2.6 | 135 |
| 11 | Sceliphrolactam, a Polyene Macrocyclic Lactam from a Wasp-Associated Streptomyces sp.. Organic Letters, 2011, 13, 752-755. | 4.6 | 127 |
| 12 | Chemical Analyses of Wasp-Associated Streptomyces Bacteria Reveal a Prolific Potential for Natural Products Discovery. PLoS ONE, 2011, 6, e16763. | 2.5 | 125 |
| 13 | The fungus-growing termite Macrotermes natalensis harbors bacillaene-producing Bacillus sp. that inhibit potentially antagonistic fungi. Scientific Reports, 2013, 3, 3250. | 3.3 | 117 |
| 14 | Macrotermycins Aâ€“D, Glycosylated Macrolactams from a Termite-Associated Amycolatopsis sp. M39. Organic Letters, 2017, 19, 1000-1003. | 4.6 | 115 |
| 15 | Natural products from microbes associated with insects. Beilstein Journal of Organic Chemistry, 2016, 12, 314-327. | 2.2 | 101 |
| 16 | Exploring the Potential for Actinobacteria as Defensive Symbionts in Fungus-Growing Termites. Microbial Ecology, 2012, 63, 975-985. | 2.8 | 99 |
| 17 | Convergent Bacterial Microbiotas in the Fungal Agricultural Systems of Insects. MBio, 2014, 5, e02077. | 4.1 | 96 |
| 18 | Microtermolides A and B from Termite-Associated Streptomyces sp. and Structural Revision of Vinylamycin. Organic Letters, 2012, 14, 2822-2825. | 4.6 | 95 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Natalamycin A, an ansamycin from a termite-associated Streptomyces sp.. Chemical Science, 2014, 5, 4333-4338. | 7.4 | 83 |
| 20 | Variation inPseudonocardiaantibiotic defence helps govern parasiteâ€induced morbidity inAcromyrmexleafâ€cutting ants. Environmental Microbiology Reports, 2010, 2, 534-540. | 2.4 | 77 |
| 21 | Specificity of the mutualistic association between actinomycete bacteria and two sympatric species of Acromyrmex leaf-cutting ants. Molecular Ecology, 2005, 14, 3597-3604. | 3.9 | 72 |
| 22 | Insect Symbioses: A Case Study of Past, Present, and Future Fungus-growing Ant Research. Environmental Entomology, 2009, 38, 78-92. | 1.4 | 66 |
| 23 | Promises and challenges in insectâ€“plant interactions. Entomologia Experimentalis Et Applicata, 2018, 166, 319-343. | 1.4 | 66 |
| 24 | Density-dependence and within-host competition in a semelparous parasite of leaf-cutting ants. BMC Evolutionary Biology, 2004, 4, 45. | 3.2 | 64 |
| 25 | Avian gut microbiomes taking flight. Trends in Microbiology, 2022, 30, 268-280. | 7.7 | 64 |
| 26 | Within-colony transmission and the cost of a mutualistic bacterium in the leaf-cutting ant Acromyrmex octospinosus. Functional Ecology, 2003, 17, 260-269. | 3.6 | 62 |
| 27 | Natural Products from Actinobacteria Associated with Fungus-Growing Termites. Antibiotics, 2018, 7, 83. | 3.7 | 61 |
| 28 | A genomic comparison of two termites with different social complexity. Frontiers in Genetics, 2015, 6, 9. | 2.3 | 60 |
| 29 | Mutualistic bacteria and a possible trade-off between alternative defence mechanisms in Acromyrmex leaf-cutting ants. Insectes Sociaux, 2002, 49, 15-19. | 1.2 | 54 |
| 30 | Pseudoxylallemycins Aâ€“F, Cyclic Tetrapeptides with Rare Allenyl Modifications Isolated from Pseudoxylaria sp. X802: A Competitor of Fungus-Growing Termite Cultivars. Organic Letters, 2016, 18, 3338-3341. | 4.6 | 50 |
| 31 | Symbiont recognition of mutualistic bacteria by Acromyrmex leaf-cutting ants. ISME Journal, 2007, 1, 313-320. | 9.8 | 48 |
| 32 | Bacterial communities in termite fungus combs are comprised of consistent gut deposits and contributions from the environment. Microbial Ecology, 2016, 71, 207-220. | 2.8 | 48 |
| 33 | Comparative Analyses of the Digestive Tract Microbiota of New Guinean Passerine Birds. Frontiers in Microbiology, 2018, 9, 1830. | 3.5 | 47 |
| 34 | COVID-19 drug practices risk antimicrobial resistance evolution. Lancet Microbe, The, 2021, 2, e135-e136. | 7.3 | 47 |
| 35 | Antagonistic Bacterial Interactions Help Shape Host-Symbiont Dynamics within the Fungus-Growing Ant-Microbe Mutualism. PLoS ONE, 2007, 2, e960. | 2.5 | 44 |
| 36 | The origin of the chemical profiles of fungal symbionts and their significance for nestmate recognition in Acromyrmex leaf-cutting ants. Behavioral Ecology and Sociobiology, 2007, 61, 1637-1649. | 1.4 | 43 |

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|---|---|---|---|
| 37 | Isolation, Biosynthesis and Chemical Modifications of Rubterolones Aâ€“F: Rare Tropolone Alkaloids from Actinomadura sp. 5â€². Chemistry - A European Journal, 2017, 23, 9338-9345. | 3.3 | 39 |
| 38 | The effect of metapleural gland secretion on the growth of a mutualistic bacterium on the cuticle of leaf-cutting ants. Die Naturwissenschaften, 2003, 90, 406-409. | 1.6 | 38 |
| 39 | Symbiotic Plant Biomass Decomposition in Fungus-Growing Termites. Insects, 2019, 10, 87. | 2.2 | 38 |
| 40 | Potential for Nitrogen Fixation in the Fungus-Growing Termite Symbiosis. Frontiers in Microbiology, 2016, 7, 1993. | 3.5 | 37 |
| 41 | Symbiont-Mediated Digestion of Plant Biomass in Fungus-Farming Insects. Annual Review of Entomology, 2021, 66, 297-316. | 11.8 | 37 |
| 42 | Specificity in Chemical Profiles of Workers, Brood and Mutualistic Fungi in Atta, Acromyrmex, and Sericomyrmex Fungus-growing Ants. Journal of Chemical Ecology, 2007, 33, 2281-2292. | 1.8 | 36 |
| 43 | Interaction between Workers during a Short Time Window Is Required for Bacterial Symbiont Transmission in Acromyrmex Leaf-Cutting Ants. PLoS ONE, 2014, 9, e103269. | 2.5 | 36 |
| 44 | Disease-free monoculture farming by fungus-growing termites. Scientific Reports, 2019, 9, 8819. | 3.3 | 36 |
| 45 | Differential resistance and the importance of antibiotic production in Acromyrmex echinatior leaf-cutting ant castes towards the entomopathogenic fungus Aspergillus nomius. Insectes Sociaux, 2006, 53, 349-355. | 1.2 | 35 |
| 46 | Linear Peptides Are the Major Products of a Biosynthetic Pathway That Encodes for Cyclic Depsipeptides. Organic Letters, 2017, 19, 1772-1775. | 4.6 | 35 |
| 47 | Fungiculture in Termites Is Associated with a Mycolytic Gut Bacterial Community. MSphere, 2019, 4, . | 2.9 | 35 |
| 48 | Towards an integrated understanding of the consequences of fungus domestication on the fungusâ€growing termite gut microbiota. Environmental Microbiology, 2015, 17, 2562-2572. | 3.8 | 34 |
| 49 | Gut microbial compositions mirror casteâ€specific diets in a major lineage of social insects. Environmental Microbiology Reports, 2019, 11, 196-205. | 2.4 | 34 |
| 50 | Preliminary In Vitro Insights into the Use of Natural Fungal Pathogens of Leaf-cutting Ants as Biocontrol Agents. Current Microbiology, 2011, 63, 250-258. | 2.2 | 32 |
| 51 | Cloacal swabs and alcohol bird specimens are good proxies for compositional analyses of gut microbial communities of Great tits (Parus major). Animal Microbiome, 2020, 2, 9. | 3.8 | 32 |
| 52 | Enzyme Activities at Different Stages of Plant Biomass Decomposition in Three Species of Fungus-Growing Termites. Applied and Environmental Microbiology, 2018, 84, . | 3.1 | 31 |
| 53 | The scent of symbiosis: gut bacteria may affect social interactions in leaf-cutting ants. Animal Behaviour, 2019, 150, 239-254. | 1.9 | 31 |
| 54 | Flexibility and resilience of great tit (Parus major) gut microbiomes to changing diets. Animal Microbiome, 2021, 3, 20. | 3.8 | 30 |

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|---|---|---|---|
| 55 | Symbiont Interactions in a Tripartite Mutualism: Exploring the Presence and Impact of Antagonism between Two Fungus-Growing Ant Mutualists. PLoS ONE, 2010, 5, e8748. | 2.5 | 29 |
| 56 | Draft genome sequences of Pantoea agglomerans and Pantoea vagans isolates associated with termites. Standards in Genomic Sciences, 2016, 11, 23. | 1.5 | 29 |
| 57 | Species-specific but not phylosymbiotic gut microbiomes of New Guinean passerine birds are shaped by diet and flight-associated gut modifications. Proceedings of the Royal Society B: Biological Sciences, 2021, 288, 20210446. | 2.6 | 29 |
| 58 | Caste specialization in behavioral defenses against fungus garden parasites in Acromyrmex octospinosus leaf-cutting ants. Insectes Sociaux, 2011, 58, 65-75. | 1.2 | 28 |
| 59 | The chemical ecology of the fungus-farming termite symbiosis. Natural Product Reports, 2022, 39, 231-248. | 10.3 | 28 |
| 60 | Anthropogenic effects on interaction outcomes: examples from insect-microbial symbioses in forest and savanna ecosystems. Symbiosis, 2011, 53, 101-121. | 2.3 | 26 |
| 61 | EPHEMERAL WINDOWS OF OPPORTUNITY FOR HORIZONTAL TRANSMISSION OF FUNGAL SYMBIONTS IN LEAF-CUTTING ANTS. Evolution; International Journal of Organic Evolution, 2009, 63, 2235-2247. | 2.3 | 25 |
| 62 | Efomycins K and L From a Termite-Associated Streptomyces sp. M56 and Their Putative Biosynthetic Origin. Frontiers in Microbiology, 2019, 10, 1739. | 3.5 | 23 |
| 63 | Termite Taxonomy, Challenges and Prospects: West Africa, A Case Example. Insects, 2019, 10, 32. | 2.2 | 22 |
| 64 | Caste-specific symbiont policing by workers of Acromyrmex fungus-growing ants. Behavioral Ecology, 2009, 20, 378-384. | 2.2 | 20 |
| 65 | Synergies Between Division of Labor and Gut Microbiomes of Social Insects. Frontiers in Ecology and Evolution, 2020, 7, . | 2.2 | 20 |
| 66 | Towards a Better Understanding of the Evolution of Specialized Parasites of Fungus-Growing Ant Crops. Psyche: Journal of Entomology, 2012, 2012, 1-10. | 0.9 | 19 |
| 67 | Behind every great ant, there is a great gut. Molecular Ecology, 2012, 21, 2054-2057. | 3.9 | 19 |
| 68 | The Enterobacterium Trabulsiella odontotermitis Presents Novel Adaptations Related to Its Association with Fungus-Growing Termites. Applied and Environmental Microbiology, 2015, 81, 6577-6588. | 3.1 | 18 |
| 69 | Specific gut bacterial responses to natural diets of tropical birds. Scientific Reports, 2022, 12, 713. | 3.3 | 18 |
| 70 | Comparative Genomics Reveals Prophylactic and Catabolic Capabilities of Actinobacteria within the Fungus-Farming Termite Symbiosis. MSphere, 2021, 6, . | 2.9 | 17 |
| 71 | Exploring interactions between Blastocystis sp., Strongyloides spp. and the gut microbiomes of wild chimpanzees in Senegal. Infection, Genetics and Evolution, 2019, 74, 104010. | 2.3 | 16 |
| 72 | The Termite Fungal CultivarTermitomycesCombines Diverse Enzymes and Oxidative Reactions for Plant Biomass Conversion. MBio, 2021, 12, e0355120. | 4.1 | 16 |

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|---|---|---|---|
| 73 | Resistance and Vulnerability of Honeybee (Apis mellifera) Gut Bacteria to Commonly Used Pesticides. Frontiers in Microbiology, 2021, 12, 717990. | 3.5 | 16 |
| 74 | Nocardia macrotermitis sp. nov. and Nocardia aurantia sp. nov., isolated from the gut of the fungus-growing termite Macrotermes natalensis. International Journal of Systematic and Evolutionary Microbiology, 2020, 70, 5226-5234. | 1.7 | 16 |
| 75 | Expanding the Rubterolone Family: Intrinsic Reactivity and Directed Diversification of PKSâ€derived Pyrans. Chemistry - A European Journal, 2018, 24, 11319-11324. | 3.3 | 15 |
| 76 | Can interaction specificity in the fungus-farming termite symbiosis be explained by nutritional requirements of the fungal crop?. Fungal Ecology, 2019, 38, 54-61. | 1.6 | 15 |
| 77 | Disentangling the Relative Roles of Vertical Transmission, Subsequent Colonizations, and Diet on Cockroach Microbiome Assembly. MSphere, 2021, 6, . | 2.9 | 15 |
| 78 | Streptomyces smaragdinus sp. nov., isolated from the gut of the fungus growing-termite Macrotermes natalensis. International Journal of Systematic and Evolutionary Microbiology, 2020, 70, 5806-5811. | 1.7 | 15 |
| 79 | Somatic incompatibility and genetic structure of fungal crops in sympatric Atta colombica and Acromyrmex echinatior leaf-cutting ants. Fungal Ecology, 2015, 18, 10-17. | 1.6 | 13 |
| 80 | Great Tit (Parus major) Uropygial Gland Microbiomes and Their Potential Defensive Roles. Frontiers in Microbiology, 2020, 11, 1735. | 3.5 | 13 |
| 81 | The impact of early life antibiotic use on atopic and metabolic disorders. Evolution, Medicine and Public Health, 2020, 2020, 279-289. | 2.5 | 12 |
| 82 | Spatiotemporal patterns of avian hostâ€“parasite interactions in the face of biogeographical range expansions. Molecular Ecology, 2020, 29, 2431-2448. | 3.9 | 12 |
| 83 | Association between Pseudonocardia symbionts and Atta leaf-cutting ants suggested by improved isolation methods. International Microbiology, 2013, 16, 17-25. | 2.4 | 12 |
| 84 | Recruitment of minor workers for defense against a specialized parasite ofAttaleaf-cutting ant fungus gardens. Ethology Ecology and Evolution, 2011, 23, 61-75. | 1.4 | 10 |
| 85 | Phylogenetic analyses of Podaxis specimens from Southern Africa reveal hidden diversity and new insights into associations with termites. Fungal Biology, 2016, 120, 1065-1076. | 2.5 | 10 |
| 86 | Mixed-Mode Transmission Shapes Termite Gut Community Assemblies. Trends in Microbiology, 2018, 26, 557-559. | 7.7 | 10 |
| 87 | Foraging Macrotermes natalensis Fungus-Growing Termites Avoid a Mycopathogen but Not an Entomopathogen. Insects, 2019, 10, 185. | 2.2 | 10 |
| 88 | Pycnoscelus surinamensis cockroach gut microbiota respond consistently to a fungal diet without mirroring those of fungus-farming termites. PLoS ONE, 2017, 12, e0185745. | 2.5 | 10 |
| 89 | Draft genome of the fungus-growing termite pathogenic fungus Ophiocordyceps bispora (Ophiocordycipitaceae, Hypocreales, Ascomycota). Data in Brief, 2017, 11, 537-542. | 1.0 | 9 |
| 90 | Genome reduction and relaxed selection is associated with the transition to symbiosis in the basidiomycete genus Podaxis. IScience, 2021, 24, 102680. | 4.1 | 9 |

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| 91 | The role of the glucose-sensing transcription factor carbohydrate-responsive element-binding protein pathway in termite queen fertility. Open Biology, 2016, 6, 160080. | 3.6 | 8 |
| 92 | Comparative Genomic and Metabolomic Analysis of Termitomyces Species Provides Insights into the Terpenome of the Fungal Cultivar and the Characteristic Odor of the Fungus Garden of Macrotermes natalensis Termites. MSystems, 2022, 7, e0121421. | 3.8 | 8 |
| 93 | A Visual Guide for Studying Behavioral Defenses to Pathogen Attacks in Leaf-Cutting Ants. Journal of Visualized Experiments, 2018, , . | 0.3 | 7 |
| 94 | Asexual and sexual reproduction are two separate developmental pathways in a Termitomyces species. Biology Letters, 2020, 16, 20200394. | 2.3 | 7 |
| 95 | You donâ€™t have the guts: a diverse set of fungi survive passage through Macrotermes bellicosus termite guts. BMC Evolutionary Biology, 2020, 20, 163. | 3.2 | 7 |
| 96 | Isolation, characterization, and genome assembly of Barnettozyma botsteinii sp. nov. and novel strains of Kurtzmaniella quercitrusa isolated from the intestinal tract of the termite Macrotermes bellicosus. G3: Genes, Genomes, Genetics, 2021, 11, . | 1.8 | 7 |
| 97 | Orthogonal protocols for DNA extraction from filamentous fungi. STAR Protocols, 2022, 3, 101126. | 1.2 | 6 |
| 98 | Femaleâ€biased sex allocation and lack of inbreeding avoidance in Cubitermes termites. Ecology and Evolution, 2021, 11, 5598-5605. | 1.9 | 5 |
| 99 | Biomedical exploitation of the fungus-growing ant symbiosis. Drug News and Perspectives, 2010, 23, 203. | 1.5 | 5 |
| 100 | Species- and Caste-Specific Gut Metabolomes in Fungus-Farming Termites. Metabolites, 2021, 11, 839. | 2.9 | 5 |
| 101 | Reviewing the taxonomy of Podaxis: Opportunities for understanding extreme fungal lifestyles. Fungal Biology, 2019, 123, 183-187. | 2.5 | 4 |
| 102 | Comparative Genomic and Metabolic Analysis of Streptomyces sp. RB110 Morphotypes Illuminates Genomic Rearrangements and Formation of a New 46-Membered Antimicrobial Macrolide. ACS Chemical Biology, 2021, 16, 1482-1492. | 3.4 | 4 |
| 103 | On ants, plants and fungi. New Phytologist, 2009, 182, 785-788. | 7.3 | 3 |
| 104 | The drivers of avianâ€haemosporidian prevalence in tropical lowland forests of New Guinea in three dimensions. Ecology and Evolution, 2022, 12, e8497. | 1.9 | 3 |
| 105 | The Role of Symbiont Genetic Distance and Potential Adaptability in Host Preference TowardsPseudonocardiaSymbionts inAcromyrmexLeaf-Cutting Ants. Journal of Insect Science, 2011, 11, 1-12. | 1.5 | 2 |
| 106 | GNPS-guided discovery of xylacremolide C and D, evaluation of their putative biosynthetic origin and bioactivity studies of xylacremolide A and B. RSC Advances, 2021, 11, 18748-18756. | 3.6 | 2 |
| 107 | Phylogenetic and phylogenomic analyses reveal two new genera and three new species of ophiostomatalean fungi from termite fungus combs. Mycologia, 2021, 113, 1-19. | 1.9 | 2 |
| 108 | Morphometrics, Distribution, and DNA Barcoding: An Integrative Identification Approach to the Genus Odontotermes (Termitidae: Blattodea) of Khyber Pakhtunkhwa, Pakistan. Forests, 2022, 13, 674. | 2.1 | 2 |

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| 109 | Frontispiece: Expanding the Rubterolone Family: Intrinsic Reactivity and Directed Diversification of PKS-derived Pyrans. Chemistry - A European Journal, 2018, 24, . | 3.3 | 0 |