# Frederick M Cohan

List of Publications by Year
in descending order



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|---|---|---|---|
| 78 papers | 7,056 citations | 87888 38 h-index | 82547 72 g-index |
| 84 all docs | 84 docs citations | 84 times ranked | 6188 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Re-evaluating prokaryotic species. Nature Reviews Microbiology, 2005, 3, 733-739. | 28.6 | 1,019 |
| 2 | What are Bacterial Species?. Annual Review of Microbiology, 2002, 56, 457-487. | 7.3 | 660 |
| 3 | Origins of bacterial diversity through horizontal genetic transfer and adaptation to new ecological niches. FEMS Microbiology Reviews, 2011, 35, 957-976. | 8.6 | 517 |
| 4 | Bacterial Species and Speciation. Systematic Biology, 2001, 50, 513-524. | 5.6 | 339 |
| 5 | Identifying the fundamental units of bacterial diversity: A paradigm shift to incorporate ecology into bacterial systematics. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 2504-2509. | 7.1 | 286 |
| 6 | A Systematics for Discovering the Fundamental Units of Bacterial Diversity. Current Biology, 2007, 17, R373-R386. | 3.9 | 236 |
| 7 | Population level functional diversity in a microbial community revealed by comparative genomic and metagenomic analyses. ISME Journal, 2007, 1, 703-713. | 9.8 | 216 |
| 8 | Community ecology of hot spring cyanobacterial mats: predominant populations and their functional potential. ISME Journal, 2011, 5, 1262-1278. | 9.8 | 206 |
| 9 | Barriers to Genetic Exchange between Bacterial Species: Streptococcus pneumoniae Transformation. Journal of Bacteriology, 2000, 182, 1016-1023. | 2.2 | 194 |
| 10 | Towards a conceptual and operational union of bacterial systematics, ecology, and evolution. Philosophical Transactions of the Royal Society B: Biological Sciences, 2006, 361, 1985-1996. | 4.0 | 187 |
| 11 | Cyanobacterial ecotypes in the microbial mat community of Mushroom Spring (Yellowstone National) Tj ETQq1 1 0.784314 rgBT /Ove function. Philosophical Transactions of the Royal Society B: Biological Sciences, 2006, 361, 1997-2008. | 4.0 | 183 |
| 12 | Note: Relationship of Bacillus subtilis clades associated with strains 168 and W23: A proposal for Bacillus subtilis subsp. subtilis subsp. nov. and Bacillus subtilis subsp. spizizenii subsp. nov.. International Journal of Systematic and Evolutionary Microbiology, 1999, 49, 1211-1215. | 1.7 | 177 |
| 13 | Differentiation strategies of soil rare and abundant microbial taxa in response to changing climatic regimes. Environmental Microbiology, 2020, 22, 1327-1340. | 3.8 | 164 |
| 14 | The Origins of Ecological Diversity in Prokaryotes. Current Biology, 2008, 18, R1024-R1034. | 3.9 | 159 |
| 15 | DNA Sequence Similarity Requirements for Interspecific Recombination in Bacillus. Genetics, 1999, 153, 1525-1533. | 2.9 | 142 |
| 16 | RECOMBINATION AND MIGRATION RATES IN NATURAL POPULATIONS OF<i>BACILLUS SUBTILIS</i>AND<i>BACILLUS MOJAVENSIS</i>. Evolution; International Journal of Organic Evolution, 1995, 49, 1081-1094. | 2.3 | 107 |
| 17 | GENETIC DIVERGENCE UNDER UNIFORM SELECTION. II. DIFFERENT RESPONSES TO SELECTION FOR KNOCKDOWN RESISTANCE TO ETHANOL AMONG <i>DROSOPHILA MELANOGASTER</i> POPULATIONS AND THEIR REPLICATE LINES. Genetics, 1986, 114, 145-164. | 2.9 | 105 |
| 18 | Genetic exchange and evolutionary divergence in prokaryotes. Trends in Ecology and Evolution, 1994, 9, 175-180. | 8.7 | 101 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Ecology of Speciation in the Genus <i>Bacillus</i>. Applied and Environmental Microbiology, 2010, 76, 1349-1358. | 3.1 | 97 |
| 20 | The Effect of Mismatch Repair and Heteroduplex Formation on Sexual Isolation in Bacillus. Genetics, 1998, 148, 13-18. | 2.9 | 95 |
| 21 | The Effects of Rare but Promiscuous Genetic Exchange on Evolutionary Divergence in Prokaryotes. American Naturalist, 1994, 143, 965-986. | 2.1 | 94 |
| 22 | Mass spectrometric analysis of lipopeptides from Bacillus strains isolated from diverse geographical locations. FEMS Microbiology Letters, 2007, 271, 83-89. | 1.8 | 94 |
| 23 | Uniform Selection as a Diversifying Force in Evolution: Evidence from Drosophila. American Naturalist, 1989, 134, 613-637. | 2.1 | 83 |
| 24 | Adapt Globally, Act Locally: The Effect of Selective Sweeps on Bacterial Sequence Diversity. Genetics, 1999, 152, 1459-1474. | 2.9 | 83 |
| 25 | Sexual Isolation and Speciation in Bacteria. Genetica, 2002, 116, 359-370. | 1.1 | 72 |
| 26 | Fine-Scale Distribution Patterns of Synechococcus Ecological Diversity in Microbial Mats of Mushroom Spring, Yellowstone National Park. Applied and Environmental Microbiology, 2011, 77, 7689-7697. | 3.1 | 72 |
| 27 | The molecular dimension of microbial species: 3. Comparative genomics of Synechococcus strains with different light responses and in situ diel transcription patterns of associated putative ecotypes in the Mushroom Spring microbial mat. Frontiers in Microbiology, 2015, 6, 604. | 3.5 | 67 |
| 28 | AMELIORATION OF THE DELETERIOUS PLEIOTROPIC EFFECTS OF AN ADAPTIVE MUTATION IN<i>BACILLUS SUBTILIS</i>. Evolution; International Journal of Organic Evolution, 1994, 48, 81-95. | 2.3 | 62 |
| 29 | Speedy speciation in a bacterial microcosm: new species can arise as frequently as adaptations within a species. ISME Journal, 2013, 7, 1080-1091. | 9.8 | 62 |
| 30 | LATITUDINAL CLINE IN<i>DROSOPHILA MELANOGASTER</i>FOR KNOCKDOWN RESISTANCE TO ETHANOL FUMES AND FOR RATES OF RESPONSE TO SELECTION FOR FURTHER RESISTANCE. Evolution; International Journal of Organic Evolution, 1985, 39, 278-293. | 2.3 | 57 |
| 31 | The quorum sensing diversity within and between ecotypes of <i>Bacillus subtilis</i>. Environmental Microbiology, 2012, 14, 1378-1389. | 3.8 | 49 |
| 32 | The molecular dimension of microbial species: 1. Ecological distinctions among, and homogeneity within, putative ecotypes of Synechococcus inhabiting the cyanobacterial mat of Mushroom Spring, Yellowstone National Park. Frontiers in Microbiology, 2015, 6, 590. | 3.5 | 49 |
| 33 | THE POTENTIAL FOR GENETIC EXCHANGE BY TRANSFORMATION WITHIN A NATURAL POPULATION OF<i>BACILLUS SUBTILIS</i>. Evolution; International Journal of Organic Evolution, 1991, 45, 1393-1421. | 2.3 | 47 |
| 34 | Transmission in the Origins of Bacterial Diversity, From Ecotypes to Phyla. Microbiology Spectrum, 2017, 5, . | 3.0 | 46 |
| 35 | Recombination and Migration Rates in Natural Populations of Bacillus subtilis and Bacillus mojavensis. Evolution; International Journal of Organic Evolution, 1995, 49, 1081. | 2.3 | 45 |
| 36 | Influence of Molecular Resolution on Sequence-Based Discovery of Ecological Diversity among <i>Synechococcus</i> Populations in an Alkaline Siliceous Hot Spring Microbial Mat. Applied and Environmental Microbiology, 2011, 77, 1359-1367. | 3.1 | 44 |

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|---|---|---|---|
| 37 | Genomic Heterogeneity and Ecological Speciation within One Subspecies of Bacillus subtilis. Applied and Environmental Microbiology, 2014, 80, 4842-4853. | 3.1 | 44 |
| 38 | Genetic divergence under uniform selection. III. Selection for knockdown resistance to ethanol in Drosophila pseudoobscura populations and their replicate lines. Heredity, 1987, 58, 425-433. | 2.6 | 43 |
| 39 | Gradual evolution in bacteria: evidence from Bacillus systematics. Microbiology (United Kingdom), 2003, 149, 3565-3573. | 1.8 | 40 |
| 40 | Bacterial Speciation: Genetic Sweeps in Bacterial Species. Current Biology, 2016, 26, R112-R115. | 3.9 | 39 |
| 41 | Bacillus swezeyi sp. nov. and Bacillus haynesii sp. nov., isolated from desert soil. International Journal of Systematic and Evolutionary Microbiology, 2017, 67, 2720-2725. | 1.7 | 38 |
| 42 | Sexual isolation and speciation in bacteria. Genetica, 2002, 116, 359-70. | 1.1 | 38 |
| 43 | Can Uniform Selection Retard Random Genetic Divergence Between Isolated Conspecific Populations?. Evolution; International Journal of Organic Evolution, 1984, 38, 495. | 2.3 | 37 |
| 44 | Amelioration of the Deleterious Pleiotropic Effects of an Adaptive Mutation in Bacillus subtilis. Evolution; International Journal of Organic Evolution, 1994, 48, 81. | 2.3 | 34 |
| 45 | Homology among nearly all plasmids infecting three Bacillus species. Journal of Bacteriology, 1996, 178, 191-198. | 2.2 | 34 |
| 46 | Genomic plasticity and rapid host switching can promote the evolution of generalism: a case study in the zoonotic pathogen Campylobacter. Scientific Reports, 2017, 7, 9650. | 3.3 | 34 |
| 47 | A TEST OF THE ROLE OF EPISTASIS IN DIVERGENCE UNDER UNIFORM SELECTION. Evolution; International Journal of Organic Evolution, 1989, 43, 766-774. | 2.3 | 32 |
| 48 | Periodic Selection and Ecological Diversity in Bacteria. , 2005, , 78-93. | | 28 |
| 49 | Latitudinal Cline in Drosophila melanogaster for Knockdown Resistance to Ethanol Fumes and for Rates of Response to Selection for Further Resistance. Evolution; International Journal of Organic Evolution, 1985, 39, 278. | 2.3 | 27 |
| 50 | The Potential for Genetic Exchange by Transformation within a Natural Population of Bacillus subtilis. Evolution; International Journal of Organic Evolution, 1991, 45, 1393. | 2.3 | 26 |
| 51 | DOES RECOMBINATION CONSTRAIN NEUTRAL DIVERGENCE AMONG BACTERIAL TAXA?. Evolution; International Journal of Organic Evolution, 1995, 49, 164-175. | 2.3 | 26 |
| 52 | Biogeography of American Northwest Hot Spring A/Bâ€²-Lineage Synechococcus Populations. Frontiers in Microbiology, 2020, 11, 77. | 3.5 | 24 |
| 53 | Bacterial Species and Speciation. Systematic Biology, 2001, 50, 513-524. | 5.6 | 24 |
| 54 | Diversity of Bacteria and Archaea in hypersaline sediment from Death Valley National Park, California. MicrobiologyOpen, 2012, 1, 135-148. | 3.0 | 21 |

| # | Article | IF | Citations |
|---|---|---|---|
| 55 | Bacillus nakamurai sp. nov., a black-pigment-producing strain. International Journal of Systematic and Evolutionary Microbiology, 2016, 66, 2987-2991. | 1.7 | 21 |
| 56 | Systematics: The Cohesive Nature of Bacterial SpeciesÂTaxa. Current Biology, 2019, 29, R169-R172. | 3.9 | 18 |
| 57 | Ethanol tolerances of Drosophila melanogaster populations selected on different concentrations of ethanol supplemented media. Theoretical and Applied Genetics, 1985, 69-69, 603-608. | 3.6 | 16 |
| 58 | Microbial Genomics: E.Âcoli Relatives Out of Doors and Out of Body. Current Biology, 2011, 21, R587-R589. | 3.9 | 16 |
| 59 | Recombination Does Not Hinder Formation or Detection of Ecological Species of Synechococcus Inhabiting a Hot Spring Cyanobacterial Mat. Frontiers in Microbiology, 2015, 6, 1540. | 3.5 | 16 |
| 60 | Genetic Divergence Under Uniform Selection. I. Similarity Among Populations of Drosophila melanogaster in Their Responses to Artificial Selection for Modifiers of ci D. Evolution; International Journal of Organic Evolution, 1984, 38, 55. | 2.3 | 15 |
| 61 | A Theory-Based Pragmatism for Discovering and Classifying Newly Divergent Bacterial Species. , 2011, , 21-41. | | 14 |
| 62 | Broadscale phage therapy is unlikely to select for widespread evolution of bacterial resistance to virus infection. Virus Evolution, 2020, 6, veaa060. | 4.9 | 14 |
| 63 | Prokaryotic Sex: Eukaryote-like Qualities of Recombination in an Archaean Lineage. Current Biology, 2012, 22, R601-R602. | 3.9 | 13 |
| 64 | Are Species Cohesive?-A View from Bacteriology. , 0, , 43-65. | | 13 |
| 65 | Does Recombination Constrain Neutral Divergence Among Bacterial Taxa?. Evolution; International Journal of Organic Evolution, 1995, 49, 164. | 2.3 | 12 |
| 66 | The Variable Subdomain of Escherichia coli SecA Functions To Regulate SecA ATPase Activity and ADP Release. Journal of Bacteriology, 2012, 194, 2205-2213. | 2.2 | 12 |
| 67 | Synthetic Biology: Now that We're Creators, What Should We Create?. Current Biology, 2010, 20, R675-R677. | 3.9 | 9 |
| 68 | Sequence-Based Discovery of Ecological Diversity within Legionella. , 0, , 367-376. | | 8 |
| 69 | Identifying the Fundamental Units of Diversity Among Bacillus Isolates From "Evolution Canyon" III. Israel Journal of Ecology and Evolution, 2006, 52, 543-552. | 0.6 | 7 |
| 70 | Functional Genomics in an Ecological and Evolutionary Context: Maximizing the Value of Genomes in Systems Biology. Advances in Photosynthesis and Respiration, 2012, , 1-16. | 1.0 | 7 |
| 71 | Accuracy and efficiency of algorithms for the demarcation of bacterial ecotypes from DNA sequence data. International Journal of Bioinformatics Research and Applications, 2014, 10, 409. | 0.2 | 7 |
| 72 | Olfactory responses ofDrosophila melanogaster selected for knockdown resistance to ethanol. Behavior Genetics, 1987, 17, 307-312. | 2.1 | 6 |

| # | ARTICLE | IF | CITATIONS |
|---|---|---|---|
| 73 | Sexual isolation and speciation in bacteria. Contemporary Issues in Genetics and Evolution, 2002, , 359-370. | 0.9 | 6 |
| 74 | Science Needs More <em>Moneyball</em>. American Scientist, 2012, 100, 182. | 0.1 | 5 |
| 75 | Demarcation of bacterial ecotypes from DNA sequence data: A comparative analysis of four algorithms. , 2012, , . | | 4 |
| 76 | Transmission in the Origins of Bacterial Diversity, From Ecotypes to Phyla. , 2019, , 311-343. | | 4 |
| 77 | Genotyping and Multivariate Regression Trees Reveal Ecological Diversification within the Microcystis aeruginosa Complex along a Wide Environmental Gradient. Applied and Environmental Microbiology, 2022, 88, AEM0147521. | 3.1 | 2 |
| 78 | Estimating Bacterial Diversity from Environmental DNA: A Maximum Likelihood Approach. , 2007, , 133-144. | | 0 |