

Pubs of James J. Bull

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Degrees:

B.S. in Zoology, Texas Tech University, Lubbock (1971)

Ph.D. in Biology, University of Utah, Salt Lake City (1977)

Positions:

2000-present	University of Texas, Austin Professor of Integrative Biology (following reorganization)
1991-2000	University of Texas, Austin Professor of Zoology
1986-91	University of Texas, Austin Associate Professor of Zoology
1983-86	University of Texas, Austin Assistant Professor of Zoology
1981-82	University of Utah, Salt Lake City Research Assistant Professor of Biology
1980-81	University of Sussex, England NATO Postdoctoral Fellow (with J. Maynard Smith)
1977-80	University of Wisconsin, Madison NIH Postdoctoral Trainee, Genetics (with J.F. Crow)

Publications

Books

1. Bull, J.J. 1983. *Evolution of Sex Determining Mechanisms*. Benjamin/Cummings Publ. Co., Menlo Park, California. 316 pp.

Articles

117. Bull, J.J. 2006. Optimality models of phage life history and parallels in disease evolution. *J. Theor. Biol.* (in press)
116. Bull, J.J., J. Millstein, J. Orcutt, and H. A. Wichman. 2006. Evolutionary feedback mediated through population density, illustrated with viruses in chemostats. *American Naturalist* **167**: E39-E51.

2005

115. Heineman, R. H., I.J. Molineux, and J.J. Bull. 2005. Evolutionary robustness of an optimal phenotype: re-evolution of lysis in a bacteriophage deleted for its lysin gene. *J. Molecular Evolution* **61**: 181-191.
114. Bull, J.J., L. Meyers, and M. Lachmann. 2005. Quasispecies made simple. *PLOS Computational Biology* **1**: e61.
113. Harcombe, W., and J. J. Bull. 2005. Impact of phages on two-species bacterial communities. *Applied Environ. Microbiol.* **71**: 5254-5259.
112. Springman, R., M.R. Badgett, I. J. Molineux, and J.J. Bull. 2005. Gene order constrains adaptation in bacteriophage T7. *Virology* **341**:141-152.
- ** Bull, J.J., and S. P. Otto. 2005. The first steps in adaptive evolution. *Nature Genetics* **37**: 342-343. (News and Views)
111. Cowperthwaite, M. C., J. J. Bull, L. Ancel Meyers. 2005. Distributions of beneficial mutations in a biological simulation model *Genetics* **170**:1449-1457.
110. Wichman, H. A., J. Millstein, and J. J. Bull. 2005. Adaptive molecular evolution for 13,000 phage generations: a possible arms race. *Genetics* **170**:19-31
109. Sachs, J.L., and J. J. Bull. 2005. Experimental evolution of conflict mediation between genomes. *Proceedings National Academy Sciences* **102**:390-395.

2004

108. Sachs, J. L., U. G. Mueller, T. P. Wilcox, and J. J. Bull. 2004. The Evolution of Cooperation. *Quart. Rev. Biology* **79**:135-160.
107. J. J. Bull, M. R. Badgett, R. Springman, and I. J. Molineux. 2004. Limits of adaptation in Bacteriophages. *Evolution* **58**:692-701.

106. Bruce R. Levin and James J. Bull. 2004. Population and evolutionary dynamics of phage therapy. *Nature Reviews Microbiology* **2**:166-173.
105. Bull, J.J., D. W. Pfennig, I-N. Wang. 2004. Genetic details, optimization, and phage life histories. *Trends in Ecology and Evolution* **19**:76-82.

2003

104. Bacher J. M., J.J. Bull, and A. D. Ellington. 2003. Evolution of phage with chemically ambiguous proteomes. *BMC Evolutionary Biology* **3**: 24.
- ** Bull, J. and D. Dykhuizen. 2003. Epidemics-in-waiting. *Nature* 426:609-10. (News & Views)
- ** Bull, J.J. and D. Ebert. 2003. Parasites at center stage. *Evolution* 57:441-3 (Book review).
103. Bull, J.J., M. R. Badgett, D. Rokyta, and I. J. Molineux. 2003. Experimental evolution yields hundreds of mutations in a functional viral genome. *J. Molecular Evolution* 57:241-8.
102. Ebert, D. and J.J. Bull. 2003. Challenging the trade-off model for the evolution of virulence: is virulence management feasible? *Trends in Microbiology* **11**: 15-20.

2002

101. Bull, J.J., B.R. Levin, T. DeRouin, N. Walker, and C. A. Bloch. 2002. Dynamics of success and failure in phage and antibiotic therapy in experimental infections. *BMC Microbiology* **2**:36.
100. Badgett, M.R., A. Auer, L.E. Carmichael, C.R. Parrish, and J.J. Bull. 2002. Evolutionary dynamics of viral attenuation. *Journal of Virology* **76**:10524-10529.
- ** Bull, J.J., and C. Parrish. 2002. A binding contract for anthrax. *Science* **297**:201-202. (A Perspective)
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98. Ancel Meyers, L. and J.J. Bull. 2002. Fighting change with change: adaptive variation in an uncertain world. *Trends in Ecology and Evolution* **17**:551-557.
97. D.A. Parish, P. Vise, H.A. Wichman, J.J. Bull, and R.J. Baker. 2002. Distribution of LINEs and other repetitive elements in the karyotype of the bat *Carollia*: implications for X-chromosome inactivation. *Cytogenet Genome Res.* **96**:191-7.

2001

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95. Bull, J.J., and H.A. Wichman. 2001. Applied evolution. *Annu. Rev. Ecology and Systematics*. **32**:183-217.
94. Bull, J.J., M.R. Badgett, and I.J. Molineux. 2001. A general mechanism for viral resistance to suicide gene expression. *J. Molecular Evolution* **53**:47-54.

2000

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- ** Bull, J.J. 2000. Deja Vu. *Nature* **408**:416-7. (New&Views).
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91. Bull, J.J., Badgett, M.R., and H.A. Wichman. 2000. Big benefit mutations in a virus inhibited with heat. *Mol. Biol. Evol.* **17**:942-950.
- ** Bull, J.J., and B.R. Levin. 2000. Mice are not furry petri dishes. *Science* **287**:1409-10. (Perspective)

1999

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1998

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- ** Bull, J.J., and H.A. Wichman. 1998. Revolution in evolution. *Science* (editorial) **281**:1959.

1997

87. Bull, J.J., M.R. Badgett, H.A. Wichman, J.P. Huelsenbeck, D.M. Hillis, A. Gulati, C. Ho, and I.J. Molineux. 1997. Exceptional convergent evolution in a virus. *Genetics* **147**:1497-1507.
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1995

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1994

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1991

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- ** . Hillis, D.M., and J.J. Bull. 1991. Of genes and genomes. *Science* **254**: 528 (*Perspective*).
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35. Bull, J. J., J. M. Legler, and R. C. Vogt. 1985. Non-temperature dependent sex determination in two suborders of turtles. *Copeia* **1985**: 784-786.
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1979

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