CURRICULUM VITAE

David C. Queller

Business Address:

Department of Ecology and Evolutionary Biology
P.O. Box 1892
Rice University
Houston, Texas 77251-1892
(713) 285-5220 fax: (713) 285-5232
electronic mail: queller@rice.edu
http://www.ruf.rice.edu/~evolve/

Date of Birth: May 20, 1954.

Personal Data: Married to Joan Strassmann; 3 children.

Current Position: Harry Carothers and Olga Keith Wiess Professor in Natural Sciences, Rice University.

Research Interests:

Evolutionary biology, particularly the evolution of social interactions: the evolution of altruistic behavior, parent-offspring conflict; conflict and cooperation in social insects and social amoebae; mating systems and sexual selection in plants and animals; applications of population genetic and quantitative genetic methods in these areas.

Education:

1976-82	University of Michigan, M. S. and Ph.D. (biological sciences).
1979	University of Costa Rica--Organization for Tropical Studies, field course in tropical ecology.
1972-76	University of Illinois, B. A. (history and philosophy of science).

Academic Positions Held:

Harry Carothers and Olga Keith Wiess Professor in Natural Sciences, Rice University (2005-)
Professor, Rice University (1996-2005)
Associate Professor, Rice University (1994-1996)
Assistant Professor, Rice University (1989-1994)
J. S. Guggenheim Fellow, Rice University (1988-89).
Senior Research Associate, Rice University (1988-1989).
Research Associate, Rice University (1987-1988).
Huxley Research Instructor, Rice University (1984 - 1987).
N.A.T.O. Postdoctoral Fellow, University of Sussex (1983-84).

Memberships:

Society for the Study of Evolution, International Union for the Study of Social Insects, Behavioral Ecology Society, American Society of Naturalists, American Association for the Advancement of Science.

Foreign languages

Italian, French (reading & rudimentary speaking)

Honors, Awards, Elected Positions:

Elected Fellow of American Association for the Advancement of Science, 2004.
Elected Councilor of Society for the Study of Evolution. 2003-5
Elected member, of Scientia (an institute for the history of science and culture) 2003.
Gold Award for best article in Scholarly Journals/Feature Article category. For "Kin selection in social insects", by Queller & Strassmann. Society of Association Journals (SNAP) 1999.
John Simon Guggenheim Memorial Fellowship, The evolution of altruism. 1988. 1 year. $26,000.
Sigma Xi (elected 1987).
American Society of Naturalists, Young Investigator Award, 1985.
N.A.T.O. Postdoctoral Fellowship, University of Sussex. 1983. 1 year.
N.S.F. Predoctoral Fellowship. 1976. 3 years.
Phi Beta Kappa (elected 1976).

Grants:

NSF EF-0328455, The Evolution of Biological Social Systems. 5 years $5,000,000 (with Kuspa, Shaulsky, Shaw, Strassmann)
NSF DEB-0108478 Cell lineage conflicts in the social amoeba, *Dictyostelium discoideum.* 2001. 3 years $390,000 (with Strassmann)
NSF DBI-0070330 An automated DNA sequencer for microsatellite genotyping of social insects and sequencing in molecular biology, 2000, 1 year, $108,080 (plus cost sharing $50,916). (with Strassmann, Bennett, Gomer, and Parry)
N.S.F. DEB-0075581. Cell lineage conflicts in the cellular slime mold, *Dictyostelium discoideum.* $90,000 for 1 year (with Strassmann)
N.S.F. IBN-9975351. Cooperation with and without genetic relatedness. $240,000 for 3 years (with Strassmann).
N.S.F. IBN-9808809. Conflict over male production in stingless bees. $225,000 for 3 years (with Strassmann).
FAPESP (Fundação de Amparo e Pesquisa do Estado de São Paulo) Organizacão colonial e padroes de reproducão em abelhas indigenas (Colony organization and patterns of reproduction in native bees [Meliponinae]), 1998, 3 years, $198,000 plus salaries, through Universidad de São Paulo (with Vera Lucia Imperatriz Fonseca, Hayo Velthuis, Joan Strassmann, Carminda Cruz Landim)
N.S.F. IBN-9507515. Worker control of reproduction in multiple-queen wasp societies. 3 years, $250,000 (with Strassmann).
N.S.F. DEB-9510126. Genetic relatedness and successional structure in *Polistes*. 3 years, $220,000 (with Strassmann).
N.S.F. BIR-9419451. Computer software for kinship analysis. 3 years, $192,000.
N.S.F. BSR-9021514REU. Research experience for undergraduates supplement. Relatedness and sociality in neo-tropical swarm-founding wasps. $5000.
N.S.F. IBN-9210051. Within-colony kin discrimination in a social insect (with Strassmann). 1992. 3 years. $166,000.
N.S.F. BSR-9021514. Relatedness and sociality in neo-tropical swarm-founding wasps (with Strassmann & Hughes). 1991. 3 years. $263,000.
N.S.F. BSR-8805915, Demographic advantages of eusociality (with Strassmann & Hughes). 1988. 3 years. $218,000.

National Geographic Society, Relatedness and the evolution of sociality in tropical wasps. 1988. 1 year. $12000 (with Strassmann & Hughes).
N.S.F. BSR-8605026, Relatedness and inclusive fitness in *Polistes*. 1986. 3 years, $203,000 (with Strassmann).
Rackham Graduate School Block Grant, for thesis research. 1982.
University of Michigan E. S. George Reserve Scholarship. 1980 and 1981.
University of Michigan, travel and tuition grant for O.T.S. tropical ecology course. 1979.

Teaching experience:

Lecture Courses: Evolution (Rice); Kin selection theory (University of São Paulo).
Field course: Visiting faculty, Organization for Tropical Studies undergraduate course, 2000.
Labs: Developed computer simulation of population genetics for introductory biology (Rice).
Seminars: Topics in Evolution, Topics in Behavioral Ecology, Quantitative Approaches to Evolutionary Biology, Plant Population Biology (Rice).
Guest Lecturer for: Evolution of Animal Behavior (Michigan), Ecology (Rice), Behavioral Ecology and Evolution (Rice), Botany (Rice), A Stroll Through Twentieth Century Science (Rice Continuing Studies).
Graduate Teaching Assistant for: Introductory Biology for majors and for non-majors, Evolution of Animal Behavior, Evolution and Human Behavior. (Michigan)

University Service:

Member, Scientia (an institute for the history of science and culture) (2003-)
Science and Engineering Information Technology Committee (2002-)
Admissions Committee (2000-2003)
Biosciences Curriculum Committee (1999-)
Natural Sciences Dean Search Committee (1997-1998)
Natural Sciences Strategic Planning Steering Committee (1996-1997)
Natural Sciences Strategic Planning, Faculty Issues Subcommittee (1996-7)
University Scholarships and Awards Committee (1996-1997)
University Library Planning Committee (1995-1997)
University Research Council (1990-1993)
Natural Sciences Undergraduate Studies Committee (1990-1991)
Department seminar organizer (1989-1999)
Faculty associate, Wiess College (1989-present; outstanding associate: 1989,1991,1998).

Professional Service

Associate Editor, *Molecular Ecology* (1999-2002)
Board of Editors, *Evolutionary Ecology Research* (1998-1999)
Advisory Editor, *Behavioral Ecology and Sociobiology* (1997-2002)
Editorial Review Board, *Molecular Ecology* (1997-1999, 2003-)
Board of Editors, *Evolutionary Ecology* (1993-1998)
National Science Foundation review panels: Population Biology (1992), Behavior (1995-9)
Referee for National Science Foundation programs in population biology, animal behavior, physical anthropology, systematics, computational biology, biological oceanography.
Referee for other granting agencies: Smithsonian Institution, Swiss National Science Foundation, Australian Research Council, Israel Science Foundation, NSERC Canada, NERC United Kingdom, American Philosophical Society.
Referee for professional journals:

American Naturalist, Animal Behaviour, Annals of Botany, Annals of the Entomol. Soc. of America, Apidologie, Behavioral Ecology, Behavioral Ecology and Sociobiology, Biochemical Genetics, Biological Bulletin, Biology Letters, Current Biology, Ecology, Ecology Letters, Ethology Ecology and Evolution, Ethology, Evolution and Human Behavior, Evolutionary Ecology, Evolutionary Ecology Research, Evolutionary Theory, Genetics, Heredity, Insectes Sociaux, J. of Biology, J. of Evolutionary Biology, J. of Hymenoptera Research, J. of Insect Biology, J. of Theoretical Biology, Molecular Ecology, Molecular Phylogenetics & Evolution, Nature, Naturwissenschaften, Oikos, Phil. Trans. of the Royal Society Evolution, PLOS Biology, Proc. Indian Natl Sci. Academy B, PNAS USA, Proc. Royal Society of London B, Theoretical Population, Science, Trends in Ecology and Evolution.

Referee for book publishers: Cambridge University Press, Oxford University Press, University of Chicago Press, Sinauer Associates, Prentice-Hall, Rutgers University Press, Benjamin-Cummings.

Public lecture on the evidence for evolution, Rice Alumni Institute (1985).

Teacher-in-service lecture on evolutionary biology (1985).

Publications:

1. Queller, D.C. 1983. The evolution of sexual and parental strategies in *Asclepias exaltata* and other plants. Ph.D. thesis, University of Michigan, (co-chairs: Richard D. Alexander and Beverly J. Rathcke), Ann Arbor Microfilms.
2. Queller, D.C. 1983. Kin selection and conflict in seed maturation. ***Journal of Theoretical Biology*** 100:153-172.
3. Queller, D.C. 1983. Sexual selection in a hermaphroditic plant. ***Nature*** 305:706-707.
4. Queller, D.C. 1984. Models of kin selection on seed provisioning. ***Heredity*** 53:151-165.
5. Queller, D.C. 1984. Kin selection and frequency dependence: a game-theoretic approach. ***Biological Journal of the Linnaean Society*** 23:133-143.
6. Queller, D.C. 1984. Pollen-ovule ratios and hermaphrodite sexual allocation strategies. ***Evolution*** 38:1148-1151.
7. Queller, D.C. 1985. Proximate and ultimate causes of low fruit production in *Asclepias exaltata*. ***Oikos*** 44:373-389.
8. Queller, D.C. 1985. Kinship, reciprocity, and synergism in the evolution of social behaviour. ***Nature*** 318:366-367.
9. Queller, D.C. 1987. Sexual selection in flowering plants. pp. 165-179. In: *Sexual Selection: Testing the Alternatives*, J.W. Bradbury and M. Andersson (eds.), Wiley, Chichester.
10. West-Eberhard, M.J., Bradbury, J.W., Davies, N.B., Gouyon, P.-H., Hammerstein, P., Konig, B., Parker, G.A., Queller, D.C., Sachser, N., Slagsvold, T., Trillmich, F. and Vogel, C. 1987. Conflicts within and between the sexes in sexual selection. pp. 180-195. In: *Sexual Selection: Testing the Alternatives*, J.W. Bradbury and M. Andersson (eds.), Wiley, Chichester.
11. Queller, D.C. 1987. The evolution of leks through female choice. ***Animal Behaviour*** 35:1424-1432.
12. Strassmann, J.E. Queller, D.C. and Hughes, C.R. 1987. Constraints on independent nesting by *Polistes* foundresses in Texas. pp. 379-380. In: ***Chemistry and Biology of Social Insects***, J. Eder and H. Rembold (eds.) Verlag J. Peperny, Munich.

13. Queller, D.C. and Strassmann, J.E. 1987. Selection on group nesting in foundresses of *Polistes annularis*. pp. 333-334 In: ***Chemistry and Biology of Social Insects***, J. Eder and H. Rembold (eds.) Verlag J. Peperny, Munich.

14. Queller, D.C. and Strassmann, J.E. 1988. Reproductive success and group nesting in the social wasp, *Polistes annularis*. pp. 76-96 In: ***Reproductive Success: Studies of Individual Variation in Contrasting Breeding Systems***, T.H. Clutton-Brock (ed.), University of Chicago Press, Chicago.

15. Strassmann, J.E., Queller, D.C. and Hughes, C.R. 1988. Predation and the evolution of sociality in the paper wasp, *Polistes bellicosus*. ***Ecology*** 69:1497-1505.

16. Queller, D.C., Strassmann, J.E. and Hughes, C. R. 1988. Genetic relatedness in colonies of tropical wasps with multiple queens. ***Science*** 242:1155-1157.

17. Strassmann, J.E. and Queller, D.C. 1989. Ecological determinants of social evolution. pp. 81-101 In: ***The Genetics of Social Evolution***, M. Breed and R. Page (eds.). Westview Press.

18. Queller, D.C. and Strassmann, J.E. 1989. Measuring inclusive fitness in social wasps. pp. 103-122 In:***The Genetics of Social Evolution***, M. Breed and R. Page (eds.). Westview Press.

19. Queller, D.C. and Goodnight, K.F. 1989. Estimation of genetic relatedness using allozyme data. ***Evolution*** 43:258-275

20. Queller, D.C. 1989. The evolution of eusociality: reproductive head starts of workers. ***Proceedings of the National Academy of Sciences USA*** 86:3224-3226.

21. Queller, D.C. 1989. Inclusive fitness in a nutshell. ***Oxford Surveys in Evolutionary Biology*** 6:73-109.

22. Strassmann, J.E., Queller, D.C., Hughes, C.R., Turillazzi, S., Cervo, R., Davis, S.K. and Goodnight, K.F. 1989. Genetic relatedness in primitively eusocial wasps. ***Nature*** 342: 268-270.

23. Hughes, C.R., Strassmann, J.E. and Queller, D.C. 1990. Relatedness in primitively eusocial wasps. pp. 67-68. In: ***Social Insects and the Environment***, Proceedings of the 11th International Congress of IUSSI, 1990, G.K Veeresh, B. Mallik and C.A. Viraktamath (eds.), Oxford and IBH, New Delhi.

24. Hughes, C.R., Queller, D.C. and Strassmann, J.E. 1990. Relatedness in neo-tropical polygynous wasps. pp. 252-253 In: ***Social Insects and the Environment***, Proceedings of the 11th International Congress of IUSSI, 1990, G.K Veeresh, B. Mallik and C.A. Viraktamath (eds.), Oxford and IBH, New Delhi.

25. Queller, D.C.,. Hughes, C. R. and Strassmann, J.E 1990. Wasps fail to make distinctions. ***Nature*** 344:388.

26. Strassmann, J.E., Hughes, C. R. and Queller, D.C. 1990. Colony defense in the social wasp, *Parachartergus colobopterus*. ***Biotropica*** 22:324-327.

27. Gastreich, K.R., Queller, D.C., Hughes, C.R. and Strassmann, J.E. 1990. Kin recognition in the tropical swarm-founding wasp, *Parachartergus colobopterus*. ***Animal Behaviour***. 40:598-601.

28. Strassmann, J.E., Queller, D.C., Solís, C. R. and Hughes, C. R. 1991. Relatedness and queen number in the neotropical wasp, *Parachartergus colobopterus*. ***Animal Behaviour*** 42:461-470.

29. Queller, D.C. 1992. Quantitative genetics, inclusive fitness and group selection. ***American Naturalist*** 139:540-558.

30. Queller, D.C. 1992. A general model for kin selection. ***Evolution*** 46:376-380.
31. Strassmann, J.E., Gastreich K.R., Queller, D.C. and Hughes, C. R. 1992. Demographic and genetic evidence for cyclical changes in queen number in a neo-tropical wasp, *Polybia emaciata*. ***American Naturalist*** 140:363-372.
32. Queller, D.C. 1992. Does population viscosity promote kin selection? ***Trends in Ecology and Evolution*** 7: 322-324.
33. Queller, D.C., Strassmann, J.E. and Hughes, C.R. 1992. Genetic relatedness and population structure in primitively eusocial wasps of the genus *Mischocyttarus*. ***Journal of Hymenoptera Research*** 1:81-89.
34. Reeve, H.K., Westneat, D.F. and Queller, D.C. 1992. Estimating average within-group relatedness from DNA fingerprints. ***Molecular Ecology*** 1:223-232.
35. Choudhary, M., Strassmann, J.E., Solís, C.R., and Queller, D.C. 1993. Microsatellite variation in a social insect. ***Biochemical Genetics*** 31:87-96.
36. Queller, D.C., Negrón-Sotomayor, J.A., Strassmann, J.E. and Hughes, C.R. 1993. Queen number and genetic relatedness in a neotropical wasp, *Polybia occidentalis*. ***Behavioral Ecology*** 4:7-13.
37. Hughes, C.R., Queller, D.C., Strassmann, J.E. and Davis, S.K. 1993. Relatedness and altruism in *Polistes* wasps. ***Behavioral Ecology*** 4:128-137.
38. Queller, D.C., Strassmann, J.E. and Hughes, C.R. 1993. Microsatellites and kinship. ***Trends in Ecology and Evolution*** 8:285-288.
39. Hughes, C.R. and Queller, D.C. 1993. Detection of highly polymorphic microsatellite loci in a species with little enzyme polymorphism. ***Molecular Ecology*** 2:131-137.
40. Queller, D.C. 1993. Worker control of sex ratios and selection for extreme multiple matings by queens. ***American Naturalist*** 142:346-351.
41. Queller, D.C. 1993. Genetic relatedness and its components in polygynous colonies of social insects. pp. 132-152 in: L. Keller (ed.), ***Queen Number and Sociality in Insects.*** Oxford University Press.
42. Hughes, C.R., Queller, D.C., Strassmann, J.E., Solís, C.R., Negrón-Sotomayor, J.A. and Gastreich, K.R. 1993. The maintenance of high genetic relatedness in multi-queen colonies of social wasps. pp. 153-170 in: L. Keller (ed.), ***Queen Number and Sociality in Insects***. Oxford University Press.
43. Queller, D.C., Strassmann, J.E., Solís, C.R., Hughes, C.R. and DeLoach, D.M. 1993. A selfish strategy of social insect workers that promotes social cohesion. ***Nature*** 365:639-641.
44. Gastreich, K.R., Strassmann, J.E., and Queller, D.C. 1993. Determinants of high genetic relatedness in the swarm-founding wasp, *Protopolybia exigua*. ***Ethology Ecology and Evolution*** 5:529-539.
45. Queller, D.C. 1994. Relatedness in viscous populations. ***Evolutionary Ecology*** 8:70-73.
46. Queller, D.C. 1994. A method for detecting kin discrimination within natural colonies of social insects. ***Animal Behaviour*** 47:569-576.
47. Queller, D.C. 1994. Extended parental care and the origin of eusociality. ***Proceedings of the Royal Society of London Series B*** 256:105-111.
48. Queller, D.C. 1994. Male-female conflict and parent-offspring conflict. ***American Naturalist*** 144:S84-S99.

49. Choudhary, M., Strassmann, J. E., Queller, D. C., Turillazzi, S. & Cervo, R. 1994. Are social parasites in polistine wasps monophyletic or likely to have speciated sympatrically from their hosts? ***Proceedings of the Royal Society of London Series B*** 257:31-35.

50. Strassmann, J.E., Hughes C.R., Turillazzi, S., Solís, C.R. and Queller, D.C. 1994. Genetic relatedness and incipient eusociality in stenogastrine wasps. ***Animal Behaviour*** 48:813-821.

51. Peters, J.M., Queller, D.C., Strassmann, J.E. and Solís, C.R. 1995. Maternity assignment and queen replacement in a social wasp. ***Proceedings of the Royal Society of London Series B*** 260: 7-12.

52. Strassmann, J.E., Queller, D.C. and Solís, C.R. 1995. Genetic relatedness and population structure in the social wasp, *Mischocyttarus mexicanus* (Hymenoptera: Vespidae). ***Insectes Sociaux*** 42: 379-383.

53. Queller, D.C. 1995. The spaniels of St. Marx and the Panglossian paradox: a critique of a rhetorical programme. ***Quarterly Review of Biology*** 70: 485-489.

54. Queller, D.C. 1996. The measurement and meaning of inclusive fitness. ***Animal Behaviour*** 51: 229-232.

55. Queller, D.C. 1996. The origin and maintenance of eusociality: the advantage of extended parental care, pp. 218-234 in: S. Turillazzi and M. J. West-Eberhard (eds), ***Natural History and Evolution of Paper Wasps,*** Oxford University Press.

56. Goodnight, K.F., Strassmann, J.E., Klingler, C.J. & Queller, D.C. 1996. Single mating and its implications for kinship structure in a multiple-queen wasp. ***Ethology Ecology & Evolution*** 8:191-198.

57. Strassmann, J. E., Solís, C. R., Peters, J. M. and Queller, D. C. 1996. Strategies for finding and using highly polymorphic DNA microsatellite loci for studies of genetic relatedness and pedigrees. pp. 163-180 in: J. Ferraris (ed.), ***Molecular Methods in Zoology and Evolution***, Wiley.

58. Strassmann, J.E., Solís, C.R., Barefield, K. & Queller, D.C. 1996. Trinucleotide microsatellite loci in a swarm-founding neotropical wasp, *Parachartergus colobopterus* and their usefulness in other social wasps. ***Molecular Ecology*** 5:459-461.

59. Queller, D.C. 1997. Pollen removal, paternity, and the male function of flowers. ***American Naturalist*** 149:585-589.

60. Queller, D.C., Peters, J.M., Solís, C.R. & Strassmann, J.E. 1997. Control of reproduction in social insect colonies: individual and collective relatedness preferences in the paper wasp, *Polistes annularis*. ***Behavioral Ecology and Sociobiology*** 40:3-16.

61. Strassmann, J.E., Barefield, K., Solís, C.R., Hughes, C.R., and Queller, D.C. 1997. Trinucleotide microsatellite loci for a social wasp, *Polistes*. ***Molecular Ecology*** 6:97-100.

62. Strassmann, J.E., Solís, C. R. Hughes, C. R., Goodnight, K. F. and Queller, D. C. 1997. Colony life history and demography of a swarm-founding social wasp. ***Behavioral Ecology and Sociobiology*** 40:71-77.

63. Strassmann, J.E., Peters, J.M., Barefield, K., Solís, C.R., Hughes, C. R., Queller, D.C. 1997. Trinucleotide microsatellite loci and increased heterozygosity in cross species applications in the social wasp, *Polistes*. ***Biochemical Genetics*** 35:273-279

64. Queller, D.C. 1997. Why do females care more than males? ***Proceedings of the Royal Society of London Series B*** 264: 1555-1557.

65. Strassmann, J.E., Klingler, C. J., Arévalo, E., Zacchi, F., Husain, A., Williams, J., Seppä, P & Queller, D.C. 1997. Absence of within-colony kin discrimination in behavioural interactions of swarm-founding wasps. ***Proceedings of the Royal Society of London Series B*** 264:1565-1570.

66. Queller, D. C. and Strassmann J. E. 1998. Kin selection and social insects. ***Bioscience*** 48: 165-175.

67. Solís, C.R., Hughes, C.R., Klingler, C.J., Strassmann J.E. & Queller, D.C. 1998. Lack of kin discrimination during wasp colony fission. ***Behavioral Ecology*** 9:172-176.

68. Field, J., Solís, C. R., Queller, D. C. & Strassmann, J. E. 1998. Social and genetic structure of paper wasp cofoundress associations: tests of reproductive skew models. ***American Naturalist***.151: 545-563.

69. Strassmann, J.E., Goodnight, K.F., Klingler, C J. and Queller D.C. 1998. The genetic structure of swarms and the timing of their production in the queen cycles of neotropical wasps, ***Molecular Ecology*** 7:709-718.

70. Peters, J.M., Queller, D.C., Imperatriz-Fonseca, V.L. & Strassmann, J.E. 1998. Microsatellite loci for stingless bees. ***Molecular Ecology*** 7: 784-787.

71. Arévalo, E., Strassmann, J. E., Queller, D. C. 1998. Conflicts of interest in social insects: male production in two species of *Polistes*. ***Evolution***.52: 797-805.

72. Hastings, M. D., Queller, D. C., Eischen, F. and Strassmann, J. E. 1998. Kin selection, relatedness and worker control of reproduction in a large-colony epiponine wasp, *Brachygastra mellifica*. ***Behavioral Ecology*** 9: 573-581.

73. Ezenwa, V.O., Henshaw, M., Queller, D.C., & Strassmann, J.E. 1998a. Patterns of buzz running, a swarm initiation behavior, in the neotropical wasp, *Parachartergus colobopterus*. ***Insectes Sociaux*** 45: 445-455.

74. Ezenwa, V. O., Peters, J. M., Hastings, M. D., Zhu, Y., Arévalo, E., Seppä, P. Pedersen, J. S., Zacchi, F. Queller, D. C. & Strassmann, J. E. 1998b. Ancient conservation of trinucleotide microsatellite loci in polistine wasps. ***Molecular Phylogenetics and Evolution*** 10: 168-177.

75. Peters, J.M., Queller, D.C., Imperatriz-Fonseca, V.L., Roubik, D.W. and Strassmann, J.E. 1999. Mate number, kin selection, and social conflicts in stingless bees and honey bees. ***Proceedings of the Royal Society of London Series B*** 266: 379-384.

76. Goodnight, K.F. and Queller, D. C. 1999. Computer software for performing likelihood tests of pedigree relationship using genetic markers ***Molecular Ecology*** 8:1231-1234.

77. Zhu, Y., Queller, D. C., and Strassmann, J. E. 2000. A phylogenetic perspective on sequence evolution in microsatellite loci. ***Journal of Molecular Evolution*** 50:324-338.

78. Herman, R. A., Queller, D. C., Strassmann, J. E. 2000. The role of queens in colonies of the swarm-founding wasp, *Parachartergus colobopterus*. ***Animal Behaviour*** 59:841-848.

79. Queller, D.C., Francesca Zacchi, F.,Cervo, R., Turillazzi, S., Henshaw, M.T., Santorelli, L.A., Strassmann, J.E. 2000. Unrelated helpers in a social insect. ***Nature*** 405: 784-787.

80. Strassmann, J. E., Seppä, P., and Queller, D. C. 2000. Absence of within-colony discrimination: foundresses of the social wasp, *Polistes carolina,* do not prefer their own larvae. ***Naturwissenschaften*** 87:266-169.

81. Henshaw, M. Strassmann, J. E. Quach, S. Queller D. C. 2000. Male production in *Parachartergus colobopterus,* a neotropical, swarm-founding wasp. ***Ethology, Ecology and Evolution*** 12:161-174

82. Queller, D.C. 2000. Relatedness and the fraternal major transitions. ***Philosophical Transactions of the Royal Society B*** 355:1647-1655.

83. Henshaw, M. T., Strassmann, J. E., Queller, D. C. 2000. The independent origin of a queen number bottleneck that promotes cooperation in the African swarm-founding wasp, *Polybioides tabidus*. ***Behavioral Ecology and Sociobiology***48:478-483.

84. Zhu, Y. , Landi, M., Queller, D. C., Turillazzi, S., Strassmann, J. E. 2000. Polymorphic microsatellite loci for primitively eusocial Stenogastrine wasps. ***Molecular Ecology*** 9:2203-2205.

85. Strassmann, J.E., Zhu, Y. & Queller, D.C. 2000. Altruism and social cheating in the social amoeba *Dictyostelium discoideum*. ***Nature*** 408:965-967

86. Zhu, Y., Strassmann, J. E., Queller, D. C. 2000. Insertions, substitutions, and the origin of microsatellites. ***Genetical Research*** 76:227-236.

87. Henshaw, M. T., Strassmann, J. E., Queller, D. C. 2001. Swarm-founding in the Polistine wasps: the importance of finding many microsatellite loci in studies of adaptation. ***Molecular Ecology*** 10:185-191.

88. Strassmann, J. E., Sullender, B. W., Queller, D. C. 2002. Caste totipotency and conflict in a large-colony social insect. ***Proceedings of the Royal Society of London B*** 269:263-270.

89. Henshaw M.T., Queller D.C., Strassmann J.E. 2002. Control of male production in the swarm-founding wasp, *Polybioides tabidus*. ***Journal of Evolutionary Biology*** 15:262-268.

90. Queller, D.C. & Strassmann, J. E., 2002. The many selves of social insects. ***Science*** 296:311-313

91. Foster, K. R., Fortunato, A, Strassmann, J.E. & Queller D.C. 2002. The costs and benefits of being a chimera. ***Proceedings of the Royal Society of London, Series B.*** 269: 2357-2362.

92. Tóth, E., Queller, D.C., Imperatriz-Fonseca, V.L. & Strassmann, J.L. 2002. Genetic and behavioral conflict over male production between workers and queens of the stingless bee, *Paratrigona subnuda*. ***Behavioral Ecology and Sociobiology*** 53:1-8.

93. Tóth, E., Strassmann, J.E., Nogueira-Neto, P., Imperatriz-Fonseca, V. L. & Queller, D. C. 2002 press. Male production in stingless bees: variable outcomes of queen- worker conflict. ***Molecular Ecology*** 11:2661-2667.

94. Seppä, P., Queller, D. C., Strassmann, J. E. 2002. Reproduction in foundress associations of the social wasp, *Polistes carolina*. ***Behavioral Ecology*** 13:531-542.

95. Queller, D.C., Ponte, E., Bozzaro, S. and Strassmann, J.E. 2003. Single-gene greenbeard effects in the social amoeba, *Dictyostelium discoideum*. ***Science*** 299:105-106.

96. Fortunato, A., Strassmann, J.E., Santorelli, L., & Queller, D. C. 2003. Co-occurrence in nature of different clones of the social amoeba, *Dictyostelium discoideum*. ***Molecular Ecology*** 12:1031-1038.

97. Fortunato, A., Queller, D. C., & Strassmann, J.E. 2003. A linear dominance hierarchy among clones in chimeras of the social amoeba *Dictyostelium discoideum*. ***Journal of Evolutionary Biology*** 16: 438-445.

98. Queller, D.C. 2003. Theory of genomic imprinting conflict in social insects. ***BMC Evolutionary Biology*** 3:15.

99. Tóth, E., Imperatriz-Fonseca, V. L., Strassmann, J. E. & Queller, D. C. 2003. Queens, not workers produce the males in the stingless bee, *Schwarziana quadripunctata quadripunctata* ***Animal Behaviour*** 66:359-368

100. Landi, M., Queller, D. C., Turillazzi, S.& Strassmann, J. E.. 2003. Low relatedness and frequent queen turnover in the stenogastrine wasp *Eustenogaster fraterna* favor the life insurance over the haplodiploid hypothesis for the origin of eusociality. ***Insectes Sociaux*** 50:262-267.

101. Bergstrom, C.T., Bronstein, J.L., Bshary, R., Connor, R.C., Daly, M, Frank, S.A., Gintis, H., Keller, L., Leimar, O., Nöe, R. & Queller, D.C. In press. Group report: interspecific mutualism –puzzles and predictions. In P. Hammerstein, ed., *Genetic and Cultural Evolution of Cooperation.* MIT Press: Cambridge, pp. 241-256.

102. Queller, D.C., Foster, K.R., Fortunato, A. & Strassmann, J.E 2003. Cooperation and conflict in the social amoeba, *Dictyostelium discoideum.* In: Kikuchi, T., Azuma, N., & Higashi, S. (eds.) ***Genes, Behaviors and Evolution of Social Insects***. Hokkaido University Press. Sapporo, Japan. Pp. 173-200.

103. Strassmann, J.E., Nguyen, J.S., Arévalo E., Cervo, R., Zacchi, F., Turillazzi, S. and Queller, D.C. 2003. Worker interests and male production in *Polistes gallicus,* a Mediterranean social wasp. ***Journal of Evolutionary Biology*** 16:254-259

104. Platt, T. Queller, D. C. & Strassmann, J. E.. 2004. Aggression and worker control of caste fate in a multiple-queen wasp, *Parachartergus colobopterus* ***Animal Behaviour*** 67:1-10.

105. Dani, F. R., Foster, K. R., Zacchi, F., Seppä, P., Massolo, A., Carelli, A., Arévalo, E., Queller, D. C., Strassmann, J. E., Turillazzi, S. 2004. Can cuticular lipids provide sufficient information for within-colony nepotism in wasps? ***Proc. Royal Soc. Lond. B.*** 271:745-753

106. Tóth, E. Queller, D. C., Dollin, A. and Strassmann, J. E. 2004. Conflict over male parentage in stingless bees. ***Insectes Sociaux*** 51:1-11.

107. Cervo, R., Stemmer, C., Castle, W., Queller, D. C., and Strassmann, J. E. 2004. Social parasitism of *Polistes dominulus* by *Polistes nimphus* (Hymenoptera, Vespidae). ***Insectes Sociaux*** 51:101-108.

108. Foster, K.R., Shaulsky, G., Strassmann, J.E. , Queller, D. C., and Thompson, C.R.L. 2004. Pleiotropy as a mechanism to stabilize cooperation. ***Nature*** 431:693-696.

109. Strassmann, J. E., Fortunato, A., Cervo, C., Turillazzi, S., Damon, J. M.*, and Queller, D.C. 2004. The cost of queen loss in the social wasp Polistes dominulus (Hymenoptera: Vespidae). ***Journal of the Kansas Entomological Society 77: 343-355.***

110. Castillo, D. I., Switz, G. T., Foster, K. R., Queller, D. C., Strassmann, J. E. A cost to chimerism in *Dictyostelium discoideum* on natural substrates. ***Evolutionary Ecology Research***, 7:263-271.

111. Fanelli, D., Henshaw, M., Cervo, R., Turillazzi, S., Queller, D. C., Strassmann, J. E. 2005. The social parasite wasp *Polistes atrimandibularis* does not form host races. ***Journal of Evolutionary Biology*** 18: 1362-1367.

Strassmann, J., Queller, D., Emerson, J., Stagi, M., Cervo, C., Turillazzi, S. Comparing the costs and benefits of grouping with non-relatives in the social amoeba *Dictyostelium discoideum* and the social wasps *Polistes dominulus* . ***Redia*** in press

Jha, S., Casey-Ford, R.G., Pedersen, J.S., Platt, T.G. Cervo, R., Queller, D.C. & Strassmann, J.E. In press. The queen is not a pacemaker in the small colony wasps *Polistes instabilis* and *P. dominulus*. *Animal Behaviour.*

Book Reviews, Letters, etc:

1. Queller, D.C. 1989. Book review of: *Plant Reproductive Ecology: Patterns and Strategies.* J. Lovett Doust and L. Lovett Doust (eds). ***Science*** 243:244.
2. Queller, D.C. 1991. Group selection and kin selection. ***Trends in Ecology and Evolution*** 6:64.
3. Strassmann, J. E. and Queller, D. C. 1991. Correspondence on biological nomenclature. ***Nature*** 352:100.
4. Queller, D.C. and Strassmann, J.E. 1991. Book review of: *The Social Biology of Wasps.* K. G. Ross & R. W. Matthews (eds). ***Science*** 254:736-737.
5. Queller, D.C. 1997. Cooperators since life began. Book review of: *The Major Transitions in Evolution*, by J. Maynard Smith & E. Szathmáry. ***Quarterly Review of Biology*** 72:184-188
6. Queller, D.C. 1999. Book review of: The Evolution of Sibling Rivalry, by D.W. Mock & G.A. Parker. ***Animal Behaviour*** 57:262-263.
7. Queller, D.C. 2000. Pax Argentinica (News and Views) ***Nature*** 405: 519-520.
8. Queller, D.C. 2001. W. D. Hamilton and the evolution of sociality. ***Behavioral Ecology*** 12:261-263.
9. Queller, D.C. 2001. Book review of: *Defenders of the Truth: The Battle for Science in the Sociobiology Debate and Beyond.* U. Segerstråle. ***Quarterly Review of Biology*** 76:210-211.
10. Strassmann, J.E. and Queller, D.C. 2001. Selfish responses by clone invaders. ***Proc. Natl. Acad. Sci. USA*** 98:11839-1841.
11. Queller, D.C. and Strassmann, J.E. 2002. A quick guide to kin selection. ***Current Biology*** 12: R832.
12. Queller, D. C. and Strassmann, J. E. 2003. Eusociality. ***Current Biology*** 13: R861-863.
13. Queller, D.C. 2004. Kinship is relative (News and Views). ***Nature*** 430: 975.
14. Strassmann, J. E. and Queller, D. C. 2004. Genetic conflicts and intercellular heterogeneity (commentary). ***Journal of Evolutionary Biology*** 17:1189-1191.
15. Strassmann, J. E. and Queller, D. C. 2004. Sociobiology goes micro. ***ASM News*** 70:526-532.
16. Queller, D.C. 2005. Males from Mars (News and Views). ***Nature*** 435:1167-1168.

Software:

Goodnight, K.F. and Queller, D.C. 1995. Relatedness, version 5. Pascal progam for Macintosh computers. Estimates genetic relatedness and F-statistics using data from codominant genes. Available at http://gsoft.smu.edu/GSoft.html

Goodnight, K.F. and Queller, D.C. 1996. Kinship. 1.2. Estimates maximum likelihood ratios for testing hypotheses of relatedness. Available at http://gsoft.smu.edu/GSoft.html

Professional Presentations:

Sexual selection in plants, Michigan State University, East Lansing, 1979.

Male and female reproductive success and sexual selection in a hermaphroditic plant, Ecological Society of America Meeting, College Park PA, 1982.

Sexual competition in a hermaphroditic plant, Univ. of Rochester, Rochester NY, 1983.

Kin selection and conflict in plants, University of Oslo, Oslo, Norway, 1983

Sexual selection in *Asclepias exaltata*, University of York, York, England, 1983.

Kin selection and frequency dependence: a game theoretic approach. Population Genetics Group Meeting, Southampton, England, 1984.

Sexual selection in a hermaphroditic plant, University of Oxford, Oxford, England, 1984.

The evolution of social interactions in plants, University of California, Irvine, 1984.

Sexual selection in the milkweed, *Asclepias exaltata*, U. California, San Diego, 1984.

Towards a general inclusive fitness theory, Society for the Study of Evolution Meeting, Crested Butte, 1984.

Towards a general inclusive fitness theory, University of Sussex, Brighton, England, 1984.

Hamilton's rule for non-additive interactions in kin selection, Center for Demographic and Population Genetics, University of Texas Health Science Center, Houston, 1984.

Kin selection and conflict in seed maturation, University of Houston, Houston, 1984.

Kin selection in plants, University of Georgia, Athens, 1985.

An exact and general theory of inclusive fitness, University of Arizona, Tucson, 1985.

The evolution of social interactions; a synthetic model, Univ. of Indiana, Bloomington,1985.

Kinship, reciprocity, and synergism in the evolution of social behavior, Young Investigator Symposium, American Society of Naturalists Meeting, Chicago, 1985.

Kin selection, inclusive fitness, and the evolution of social behavior, Cornell University, Ithaca, 1986.

Selection on group nesting in foundresses of *Polistes annularis*, 10th International Congress of the International Union for the Study of Social Insects, Munich, FRG, 1986.

Conditional strategies in natural populations of the social wasp, *Polistes bellicosus*. Purdue University, West Lafayette, 1986.

Conditional Strategies in natural populations of the social wasp, *Polistes bellicosus*. University of Missouri, Columbia, 1987.

Kinship, reciprocity, and synergism in the evolution of social behavior, University of California, Davis, 1987.

Estimating relatedness from electophoretic data, Meetings of the Society for the Study of Evolution, Bozeman, 1987.

Measuring inclusive fitness in social wasps, Entomological Society of America Meetings, Boston, 1987.

Reproductive head starts and the evolution of eusociality, Animal Behavior Society Meetings, Missoula, 1988.

Quantitative genetic models of social evolution. University of Chicago, Chicago, 1989.

The evolution of social interactions. University of Houston, Houston, 1989.

Relatedness and altruism in social wasps. Archbold Biological Station, Lake Placid, Florida, 1989.

Genetic relatedness and the evolution of altruism in primitively eusocial wasps. Meetings of the Society for the Study of Evolution. State College, 1989.

Relatedness and altruism in primitively eusocial wasps. University of Arizona. Tucson. 1989.

Relatedness and altruism in social wasps. University of Georgia. Athens. 1989.

Within-colony kin recognition in social insects, Center for Demographic and Population Genetics, University of Texas Health Science Center, Houston, 1990.

Estimating genetic relatedness in social insects, Harvard University, 1990.

Within-colony kin recognition in social insects, Entomological Society of America Meetings, New Orleans, 1990.

Queen number and genetic relatedness in tropical wasps. University of Oklahoma, Norman, 1991.

Queen number and genetic relatedness in tropical wasps. Meetings of the Society for the Study of Evolution, Hilo, Hawaii, 1991.

Relatedness with Mendelian markers. Symposium on Molecular and Mathematical Approaches to Genealogical Analysis and Strain Identification. Rutgers University, New Brunswick, 1992.

A simple and general model of kin selection. Meetings of the Society for the Study of Evolution, Berkeley, 1992.

Highly variable microsatellite loci in a social wasp. Poster. Meetings of International Society for Behavioral Ecology, Princeton, 1992.

Parent-offspring conflict: the continuation of sexual selection by other means? ASN vice-presidential symposium. Meetings of the American Society of Naturalists. Snowbird, Utah, 1993.

Demographic advantages of eusociality. Symposium of the Centro Fiorentino de Storia e Filosophia della Scienza. Castiglioncello, Italy 1993.

Demographic advantages of eusociality. Center of Demographic and Population Genetics, University of Texas Health Science Center, Houston, 1993.

Worker-queen conflict over queen succession in *Polistes annularis*. 12th International Congress of the International Union for the Study of Social Insects, Paris, 1994.

Genetic structure and sociality. University of Lausanne, Switzerland, 1994.

Cooperation and conflict in social wasps. University of Maryland, College Park, 1995.

Maternity assignment and conflicts of interest in *Polistes annularis*. Meetings of the Society for the Study of Evolution, Montreal, 1995.

Genetic structure and conflicts of interest in social wasps. Museum of Zoology. University of Michigan, 1996.

The evolution of sociality in insects. Mathematics Dept., Rice University, 1996.

Who gets to reproduce in social insect colonies: suppression versus conventional settlement. II Encontro Sobre Abelhas, Ribeirão Preto, Brazil, 1996.

Microsatellite DNA analysis of kin-selected strategies in a low-relatedness social wasp, *Parachartergus colobopterus*. Behavioral Ecology Meetings, Canberra, Australia, 1996. Lack of worker control of reproduction in *Polistes* wasps. Kinship Theory Workshop, Mols, Denmark, 1997.

Collective worker interests in *Polistes* wasps, Workshop of the European Social Insect Group. Mols, Denmark, 1997.

Two paths to sociality. Meetings of North American Section of the International Union for the Study of Social Insects. Nederland, Colorado, 1997. (September)

Collective worker interests in social wasps. Department of Entomology, Texas A & M University, College Station, 1997.

Differences in social structure between honey bees and stingless bees. Workshop on the Interplay of Ultimate and Proximate Causes of Sociality. Santa Fe Institute, Santa Fe, New Mexico, 1998.

Conflicts of interest in stingless bees and honey bees. Departimento di Biologia Animale e Genetica, Universitá degli Studi di Firenze, Florence, Italy, 1998. Genetic relatedness in the paper wasp, *Polistes dominulus*: a test of skew theory. 7th International Behavioral Ecology Congress, Asilomar, California, 1998.

Mate number, kin selection and social conflicts is social bees. Department of Zoology, University of Texas. Austin, Texas. 1998.

Mate number, kin selection and social conflicts is social bees. Meetings of the International Union for the Study of Social Insects. Adelaide, Australia. 1999. Helping with and without relatedness in the wasp, *Polistes dominulus*. Workshop on Relatedness: concept, measure and evolutionary implications. La Sage, Switzerland. 1999.

Estimating genetic relatedness. Workshop on Relatedness: concept, measure and evolutionary implications. La Sage, Switzerland. 1999.

Cooperation without relatedness; *Polistes* wasps and cellular slime molds. Department of Entomology, University of California, Davis, California. 2000.

Cooperation without relatedness; *Polistes* wasps and cellular slime molds. Department of Evolutionary Biology Centre, Uppsala University, Uppsala, Sweden. 2000.

Cooperation and conflict in the cellular slime mold, *Dictyostelium discoideum*, Meetings of the Society for the Study of Evolution, Bloomington. 2000

Unrelated helpers in the paper wasp, *Polistes dominulus*. Workshop of the European Social Insect Group. Florence, Italy, 2000.

Queen succession in the paper wasp, *Polistes dominulus*. 8th International Behavioral Ecology Congress, Zurich, 2000.

W.D. Hamilton and kin selection. 8th International Behavioral Ecology Congress, Zurich, 2000.

Genomic imprinting and social insect evolution. Department of Biology, University of Nevada-Reno, 2001.

Adam Smith's invisible elbow: conservation for conservatives. Scientia, Rice University. 2001.

Reproductive competition in chimeras. Dictyostelium 2001 Conference. San Diego, 2001.

Genomic imprinting in social insects. Symposium in honor of Richard D. Alexander, Ann Arbor, 2002.

Genomic imprinting in social insects. Meetings of the Society for the Study of Evolution, Champaign, 2002

Cooperation and conflict in the cellular slime mold, *Dictyostelium discoideum*, Meetings of the International Union for the Study of Social Insects, Sapporo, Japan. 2002.

Genetic structure of natural Dictostelium discoideum populations: Sex, relatedness, dispersal, and cooperation. Dictyostelium 2002 Conference. Palermo, Italy, 2002. 23 Sept

Evolution in Darwin's world: nasty, brutish, and short? Scientia, Rice University. 2002.

Cooperation and conflict in a social amoeba. University of Georgia, Athens, April 2003.

Theory of genomic imprinting in social insects. University of Illinois at Urbana-Champaign, April 2003.

A greenbeard gene is the social amoeba *Dictostelium discoideum*. Meetings of the Society for the Study of Evolution, Chico CA, 24 June, 2003.

Theory of genomic imprinting in social insects. International Congress of Genetics. Melbourne, 9 July 2003.

Cooperation and conflict in the cellular slime mold, *Dictyostelium discoideum*, Baylor College of Medicine, Houston. October 2003.

Cooperation and conflict in the cellular slime mold, *Dictyostelium discoideum*, University of Chicago. November 2003.

Theory of genomic imprinting in social insects. Poster. Gordon Confernece on Genes and Behavior, Ventura CA, February 2004.

Cooperation and conflict in the cellular slime mold, *Dictyostelium discoideum*, University of Arizona, Tucson, April 2004.

Genes for social behavior in the social amoeba *Dictyostelium discoideum.* Society for the Study of Evolution Meetings, Fort Collins, June 2004.

Down and dirty social behavior: cooperation and conflict in the amoeba *Dictyostelium discoideum*, Trinity University, San Antonio, April, 2004.

Genes for social behavior in the social amoeba *Dictyostelium discoideum.* University of Nebraska, Lincoln, March 2004.

Theory of genomic imprinting in social insects. University of Nebraska, Lincoln, March 2004.

Control of a cheater mutant by high relatedness in a social amoeba. Animal Behavior Society Meetings, Snowbird, June 2005

Control of cheating by high relatedness. Dictyostelium 2005 Conference. Autrans, France, 2005.