MARK KIRKPATRICK Curriculum Vitae

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EDUCATION:

Harvard University, B.A., Magna cum Laude with Highest Honors in Biology, 1978 University of Washington, Ph.D. in Zoology, 1983

PROFESSIONAL EXPERIENCE:

Miller Postdoctoral Fellow, Museum of Vertebrate Zoology, U.C. Berkeley, 1983 - 1985 Assistant Professor of Zoology, University of Texas at Austin, 1985 - 1990 Associate Professor of Zoology, University of Texas at Austin, 1990 - 1994 Professor of Zoology, University of Texas at Austin, 1994 – 1998 T.S. Painter Centennial Professor in Genetics, University of Texas at Austin, 1998 - present

HONORS:

Young Investigators Award, American Society of Naturalists, 1986 Presidential Young Investigator, National Science Foundation, 1987 - 1992 Guggenheim Fellow, 1997 - 1998 Poste Rouge Fellow, National Center for Scientific Research (France), 1997 - 1998 American Society of Naturalists President's Award, 1998 College of Natural Sciences Award for Excellence in Teaching, 2002 Fellow of the American Academy of Arts and Sciences, 2008 Miller Visiting Professor, University of California at Berkeley, 2009

PROFESSIONAL SERVICE:

Associate Editor, *The American Naturalist*, 1990 - 1993 Associate Editor, *Theoretical Population Biology*, 1990 - 1993 Sewall Wright Award Committee, American Society of Naturalists, 1993 Officer Nominations Committee, Society for the Study of Evolution, 1993 - 1995 Associate Editor, *Genetics*, 1994 – 1997 Editorial Committee, *Annual Review of Ecology and Systematics*, 1996 Councilor, Society for the Study of Evolution, 2000 – 2002 National Science Foundation, Population Biology Panel, 2001, 2002 Search Committee for the editor of the *American Naturalist*, 2005 Councilor, European Society for the Study of Evolution, 2005 – 2009

- Editorial Board, Annual Review of Ecology, Evolution, and Systematics, 2006 2011
 - Councilor, The American Genetics Association, 2007 2009

Editorial Board, Proceedings of the Royal Society of London B, 2007 - present

Events Committee chairperson, The American Genetics Association, 2008 - 2009

Officer Nominations Committee, American Society of Naturalists, 2008 - 2011

INVITED SEMINARS

- 1983: University of California at Davis
- 1984: University of Michigan, University of Texas at Austin, University of California at San Diego, University of Iowa, University of Chicago, University of California at Los Angeles, Bay Area Biosystematists
- 1985: University of Edinburgh, University College London, University of Wisconsin
- 1986: Rice University
- 1987: State University of New York at Stony Brook, University of Wyoming
- 1988: Oxford University, University of California at San Diego
- 1989: Cornell University, University of California at Davis
- 1990: Stanford University, University of Oklahoma, San Diego State University, Trinity University
- 1991: Baylor University
- 1992: University of Edinburgh, University of Chicago, University of Washington, University of Oregon
- 1993: University of Kansas, University of Miami, Florida State University, University of Nevada at Las Vegas
- 1994: University of Montpellier, University of Kentucky, University of Edinburgh, University of Missouri, University of Illinois, University of California at Santa Barbara, Michigan State University, University of Toronto, The Royal Ontario Museum
- 1995: Oxford University, University of Sussex, University College London, Uppsala University, University of Paris, University of Montpellier, University of Edinburgh, University of Minnesota, McGill University
- 1996: University of Chicago, University of Georgia, University of Montpellier
- 1997: Duke University, University of Edinburgh, University of Montpellier
- 1998: University of Basel, University of Lausanne, University of Montpellier, University of Grenoble, University of Lille, University of Paris VI
- 1999: University of British Columbia, University of Montpellier, University of Washington
- 2000: University of Rochester, Texas A&M University, University of North Carolina, University of Kansas
- 2001: University of Vigo (Spain), Washington State University, University of Maryland, University of Zurich (Switzerland), University of Edinburgh
- 2002: University of Minnesota

- 2003: Oregon State University, Brown University, New Mexico State University, University of St. Andrews (Scotland), University of Edinburgh (Scotland), University College London (England), University of Leeds (England)
- 2004: University of Montpellier (France), University of Paris, INRA Gif-Sur-Yvette
- 2005: University of Oklahoma, University of British Columbia (graduate student symposium invitee), University of Bern (Switzerland)
- 2006: Harvard University, University of Melbourne (Australia), University of Queensland (Australia), University of New South Wales (Australia), University of New England (Australia), University of Iowa
- 2007: University of North Carolina, University of Notre Dame, University of Zurich (Switzerland), University of Basel (Switzerland), University of California Berkeley, Santa Fe Institute
- 2008: Ecole Normal Superior Lyon (France), University of Lausanne (Switzerland), University of Paris (France)
- 2009: University of Toronto, University of California Berkeley, University of California Davis, University of California Santa Cruz
- 2010: University of Houston, University of Chicago, University of Montpellier, Duke University
- 2011: National Institute for Mathematical and Biological Synthesis, University of California at Berkeley, Trinity University, Centro de Investigaciones Biológicas del Noroeste (Mexico)

INVITED SYMPOSIA:

- 1984: Society for the Study of Evolution and the American Society of Naturalists, Crested Butte
- 1985: Society for the Study of Evolution and the American Society of Naturalists, Chicago
- 1986: American Society of Naturalists, Asilomar Dahlem Konferenzen, "Sexual Selection: Testing the Alternatives", Berlin
- 1987: Second International Conference on Quantitative Genetics, Raleigh The Dynamics of Size-Structured Populations, University of Lund, Sweden Computational Approaches to Evolutionary Biology, Santa Fe Institute
- 1988: Sixteenth International Congress of Genetics, Toronto Second International Conference on Behavioral Ecology, Vancouver
- 1990: International Congress of Systematic and Evolutionary Biology, Maryland
- 1991: Management of Exploited Biological Resources, Julich, Germany Evolution of Haploid and Diploid Genetic Systems, Madison
- 1993: Society for the Study of Evolution and the American Society of Naturalists, Snowbird: Symposium organizer for "The Evolution of Genetic Life Cycles" American Society of Ichthyologists and Herpetologists, Austin Mid-Western Conference on Population Biology, Lawrence
- 1995: European Society of Evolutionary Biology, Edinburgh
- 1996: Allerton Conference: Genetic Analysis of Economically Important Traits of Livestock, Champaign-Urbana

- 1997: Population Genetics Group, Nottingham
- 1998: Local Adaptation and Spatial Heterogeneity in Host Parasite Interactions, Paris
- 1999: Society for the Study of Evolution, Madison California Population and Ecological Genetics meeting, Bodega
- 2000: Society for the Study of Evolution, Bloomington
- 2001: Guarda Workshop in Evolutionary Biology, Switzerland Speciation and Phylogeny, British Museum, London UK University of Lund Biology Symposium, Sweden
- 2002: Extinction Thresholds Symposium, Helsinki Finland Distributions, Diversity, and Evolutionary Dynamics, University of Virginia 7th World Congress of Genetics Applied to Livestock Production, Montpellier France
- 2003: European Society for Evolutionary Biology, Leeds UK
- 2005: Society for the Study of Evolution, Fairbanks European Society for Evolutionary Biology, Warsaw Poland
- 2006: Mathematical Biosciences Institute (workshop co-organizer)
- 2007: Guarda Workshop in Evolutionary Biology, Switzerland Poeciliids: A New Model System for Evolutionary Genomics, NESCent, Durham Third International Congress of Quantitative Genetics, Hangzou China Tinbergen Lecture, Association for the Study of Animal Behaviour, London UK
- 2008: Gordon Conference: Genes and Behavior, Il Ciocco Italy Chromosome Inversions: From Theory to Malaria Vectors, Montpellier France
- 2009: The Evolution of Sex Chromosomes, La Sage Switzerland Workshop in Evolutionary Biology, La Fouly Switzerland Speciation, Groningen Netherlands Evolution Since Darwin, Stony Brook USA
- 2010: Sex Chromosome Evolution, National Center for Evolutionary Synthesis
- 2011: Evolutionary Rescue, Montpellier France

REVIEWER FOR:

American Naturalist, Animal Behaviour, Auk, Australian Research Council, Behavior Genetics, Behavioral Ecology, Behavioral Ecology and Sociobiology, Biological Journal of the Linnean Society, Conservation Biology, Copeia, Developmental Genetics, Ecology Letters, Ethology Ecology & Evolution, Evolution, Finnish Academy of Science, Genetical Research, Genetics, Heredity, Journal of Ecology, Journal of Evolutionary Biology, Journal of Heredity, Journal of Theoretical Biology, Molecular Biology and Evolution, National Science and Engineering Research Council (Canada), National Science Foundation, National Geographic, Natural Environment Research Council (Britain), Nature, Netherlands Organization for Scientific Research, Oxford University Press, Paleobiology, Physical Review E, PLoS, PLoS Computational Biology, PLoS Genetics, Proceedings of the National Academy of Science U.S.A., Proceedings of the Royal Society, Quarterly Review of Biology, Science, Sinauer Associates, Swiss National Science Foundation, Theoretical Population Biology, Trends in Ecology and Evolution

EXTERNAL GRANTS RECEIVED:

"Genetic models of infinite-dimensional characters", National Science Foundation, 1986–1989

Presidential Young Investigator Award, National Science Foundation, 1987–1992 "Genetic models of natural populations", National Science Foundation, 1991–1992

Shannon Award, National Institutes of Health, 1991–1994

"Quantitative models of mating preference evolution", National Science Foundation, 1994– 1998

Burroughs-Wellcome Travel Grant, 1995

Guggenheim Fellowship, 1997–1998

"Genetic models of speciation by reinforcement", National Science Foundation, 1999-2004 "Theoretical analysis of speciation: a general framework" (with N. Barton), National

Environmental Research Council (UK), 2003-2005

"Function-valued traits in natural populations", National Science Foundation, 2003-2008 "Chromosome evolution: models and tests", National Science Foundation, 2008-2012

PUBLICATIONS:

- 1979. Kirkpatrick, M., and R.K. Selander. Genetics of speciation in lake whitefishes in the Allegash Basin. Evolution *33*: 478-485.
- 1981. Kirkpatrick, M. Spatial and age dependent patterns of growth in New England black birch. American Journal of Botany 68: 535-543.
- 1982a. Kirkpatrick, M. Sexual selection and the evolution of female choice. Evolution *36*: 1-12.
- 1982b. Kirkpatrick, M. Quantum evolution and punctuated equilibria in continuous genetic characters. American Naturalist *119*: 833-843.
- 1984a. Kirkpatrick, M. Revenge of the ugly duckling. Review of P. Bateson, ed. *Mate Choice*. Cambridge University Press, Cambridge. Evolution *38*: 704-706.
- 1984b. Kirkpatrick, M. Demographic models based on size, not age, for organisms with indeterminate growth. Ecology 65: 1874-1884.
- 1985. Kirkpatrick, M. Evolution of female mate choice and male parental investment in polygynous species: the demise of the "sexy son". American Naturalist *125:* 788-810.
- 1986a. Kirkpatrick, M. The handicap theory of sexual selection does not work. American Naturalist *127:* 222-240.
- 1986b. Kirkpatrick, M. Sexual selection and cycling parasites: A simulation study of Hamilton's hypothesis. Journal of Theoretical Biology *119*: 263-271.
- 1987a. Kirkpatrick, M., and J.J. Bull. Sex ratio selection with migration: Does Fisher's result hold? Evolution 41: 218-221.
- 1987b. Slatkin, M., and M. Kirkpatrick. Extrapolating quantitative genetic theory to evolutionary problems. Pages 283-293 in M.D. Huttle (ed.), *The Evolutionary Genetics of Invertebrate Behavior*. Plenum, New York.
- 1987c. Kirkpatrick, M. Sexual selection by female choice in polygynous animals. Annual Review of Ecology and Systematics *18*: 43-70.

- 1987d. Kirkpatrick, M. The evolutionary forces acting on female mating preferences in polygynous animals. Pages 67–82 in J.W. Bradbury and M.B. Andersson (eds.), *Sexual Selection: Testing the Alternatives*. Dahlem Conference Proceedings. John Wiley, Chichester.
- 1987e. Heisler, L., and eleven others. The evolution of mating preferences and attractive traits. Group report. Pages 96-118 in J.W. Bradbury and M.B. Andersson (eds.), *Sexual Selection: Testing the Alternatives*. Dahlem Conference Proceedings. John Wiley, Chichester.
- 1988a. Kirkpatrick, M. Limits on adaptation. Review of V. Loeschcke (ed.), *Genetic* Constraints on Adaptive Evolution. Springer-Verlag, Berlin. Science 240: 342.
- 1988b. Price, T., M. Kirkpatrick, and S.J. Arnold. Evolution of breeding date and sexual selection in monogamous birds. Science 240: 798-799.
- 1988c. Lande, R., and M. Kirkpatrick. Ecological speciation by sexual selection. Journal of Theoretical Biology *133*: 85-98.
- 1988d. Kirkpatrick, M. Consistency in genetic models of the sexy son: reply to Curtsinger and Heisler. American Naturalist *132*: 609-610.
- 1988e. Kirkpatrick, M. The evolution of size in size-structured populations. Pages 13-28 in B. Ebenman and L. Persson (eds.), *The Dynamics of Size-Structured Populations*. Springer-Verlag, Heidelberg.
- 1989a. Kirkpatrick, M. Sexual selection: Is bigger always better? (News & Views commentary.) Nature *337*: 116-117.
- 1989b. Kirkpatrick, M., and R. Lande. The evolution of maternal characters. Evolution 43: 485-503. Errata: Evolution 46: 284.
- 1989c. Kirkpatrick, M., and C.D. Jenkins. Genetic segregation and the maintenance of sexual reproduction. Nature *339*: 300-301. Replies to Hedrick and Whittam, and Dunbrack. Nature *342*: 232.
- 1989d. Kirkpatrick, M., and N. Heckman. A quantitative-genetic model for growth, shape, reaction norms, and other infinite-dimensional characters. Journal of Mathematical Biology 27: 429-450.
- 1989e. Kirkpatrick, M., and D. Lofsvold. The evolution of growth trajectories and other complex quantitative characters. Genome *31*: 778-783.
- 1990a. Kirkpatrick, M., T. Price, and S.J. Arnold. The Darwin-Fisher theory of sexual selection in monogamous birds. Evolution 44: 180-193.
- 1990b. Kirkpatrick, M., D. Lofsvold, and M. Bulmer. Analysis of the inheritance, selection, and evolution of growth trajectories. Genetics *124*: 979-993.
- 1990c. Lande, R., and M. Kirkpatrick. Selection response in traits with maternal inheritance. Genetical Research 55: 189-197.
- 1991a. Kirkpatrick, M., and M.J. Ryan. The evolution of mating preferences and the paradox of the lek. Nature *350*: 33-38.
- 1991b. Willis, J., J. Coyne, and M. Kirkpatrick. Can one predict the evolution of quantitative characters without genetics? Evolution 45: 441-444.
- 1992a. Kirkpatrick, M. Direct selection of female mating preferences: comments on Grafen's models. Journal of Theoretical Biology *154*: 127-129.
- 1992b. Gomulkiewicz, R., and M. Kirkpatrick. Quantitative genetics and the evolution of reaction norms. Evolution *46:* 390-411.

- 1992c. Kirkpatrick, M. Avian affairs. (Review of T.R. Birkhead and A.P. Møller, Sperm Competition in Birds: Evolutionary Causes and Consequences. Academic Press, London.) Nature 357: 30.
- 1992d. Kirkpatrick, M., and D. Lofsvold. Measuring selection and constraint in the evolution of growth. Evolution 46: 954-971.
- 1993a. Kirkpatrick, M. Evolution of size and growth in fisheries and other harvested natural populations. Pages 145-154 in K. Stokes, J.M. McGlade, and R. Law (eds.), *The Exploitation of Evolving Resources*. Lecture Notes in Biomathematics 99. Springer-Verlag, Berlin.
- 1993b. Kirkpatrick, M., and M. Slatkin. Searching for evolutionary patterns in the shape of a phylogenetic tree. Evolution 47: 1171-1181.
- 1994a. Kirkpatrick, M. (ed.) The Evolution of Haploid-Diploid Life Cycles. Lectures on Mathematics in the Life Sciences 25, American Mathematical Society, Providence. 134 pp.
- 1994b. Jenkins, C.D., and M. Kirkpatrick. Deleterious mutation and ecological selection in the evolution of life cycles. Pages 53-68 in M. Kirkpatrick (ed.), *The Evolution of Haploid-Diploid Life Cycles*. Lectures on Mathematics in the Life Sciences 25, American Mathematical Society, Providence.
- 1994c. Kirkpatrick, M., and L.A. Dugatkin. Sexual selection and the effects of copying mate choice. Behavioral Ecology and Sociobiology *34*: 443-450.
- 1994d. Kirkpatrick, M. A field guide to quantitative genetics. (Review of C.R.B. Boake, *Quantitative Genetics Studies of Behavioral Evolution*. University of Chicago Press, Chicago.) Trends in Ecology and Evolution 9: 406.
- 1994e. Kirkpatrick, M., W.G. Hill, and R. Thompson. Estimating the covariance structure of traits during growth and aging, illustrated with lactation in dairy cattle. Genetical Research *64:* 57-69.
- 1994f. Ryan, M., and M. Kirkpatrick. Sexual selection. Discovery 13: 29-33.
- 1994g. Kirkpatrick, M., and G.G. Rosenthal. Animal behaviour: Symmetry without fear. (News & Views commentary.) Nature *372*: 134-135.
- 1995a. Kirkpatrick, M. Review of M. Andersson, *Sexual Selection*. Princeton University Press, Princeton. Quarterly Review of Biology 70: 77-78.
- 1995b. Jenkins, C.D., and M. Kirkpatrick. Deleterious mutation and the evolution of genetic life cycles. Evolution 49: 512-520.
- 1995c. Kirkpatrick, M., and N. Barton. Sexual selection: Déjà vu all over again. (News & Views commentary.) Nature 377: 388-389.
- 1995d. Kirkpatrick, M. Population Genetics, Molecular Evolution, and the Neutral Theory: Selected Papers of Motoo Kimura. Edited by N. Takahata. (Book review.) Genetical Research 66: 179-180.
- 1996a. Huelsenbeck, J.P., and M. Kirkpatrick. Do phylogenetic methods produce trees with biased shapes? Evolution *50:* 1418-1424.
- 1996b. Kirkpatrick, M. Genes and adaptation: a pocket guide to the theory. Pages 125-146 in M.R. Rose and G.V. Lauder (eds.), *Evolutionary Biology of Adaptation*. Academic Press, Orlando.
- 1996c. Servedio, M.R, and M. Kirkpatrick. Mate choice copying can evolve without a cost to choice. American Naturalist *148*: 848-867.

- 1996d. Kirkpatrick, M. Good genes and direct selection in the evolution of mating preferences. Evolution *50:* 2125-2140.
- 1997a. Kirkpatrick, M., and N.H. Barton. Evolution of mating preferences for male genetic quality. Proceedings of the National Academy of Sciences USA 94: 1282-1286.
- 1997b. García-Ramos, G., and M. Kirkpatrick. Genetic models of rapid evolutionary divergence in peripheral populations. Evolution *51*: 21-28.
- 1997c. Kirkpatrick, M., and N.H. Barton. Evolution of a species' range. American Naturalist 150: 1-23.
- 1997d. Kirkpatrick, M. Genetic improvement of livestock growth using infinitedimensional analysis. Animal Biotechnology 8: 55-62.
- 1997e. Servedio, M.R., and M. Kirkpatrick. The effects of gene flow on reinforcement. Evolution *51*: 1764-1772.
- 1998. Kirkpatrick, M., and M. Servedio. The reinforcement of mating preferences on an island. Genetics *151*: 865-884.
- 1999. Kirkpatrick, M., and T. Bataillon. Artificial selection on phenotypically plastic traits. Genetical Research 74: 265-270.
- 2000a. Kirkpatrick, M., and P. Jarne. The effects of a bottleneck on inbreeding depression and the genetic load. American Naturalist *155*: 154-167.
- 2000b. Bataillon, T., and M. Kirkpatrick. Inbreeding depression due to mildly deleterious mutations in finite populations: size does matter. Genetical Research 75: 75-82.
- 2000c. Kirkpatrick, M. Reinforcement and divergence under assortative mating. Proceedings of the Royal Society of London B 267: 1649-1655.
- 2000d. Kirkpatrick, M. Fish found *in flagrante delicto*. (News & Views commentary) Nature 408: 298-299.
- 2000e. Hall, D.W., M. Kirkpatrick, and B. West. Runaway sexual selection when female preferences are directly selected. Evolution *54*: 1862-1869.
- 2001a. Kirkpatrick, M. Reinforcement during ecological speciation. Proceedings of the Royal Society of London B 268: 1259-1263.
- 2001b. Ronce, O., and M. Kirkpatrick. When sources become sinks: migrational meltdown in heterogeneous habitats. Evolution 55: 1520-1531.
- 2002a. Ebert, D., C. Haag, M. Kirkpatrick, M. Riek, J.W. Hottinger, and V.I. Pajunen. Outbreeding confers a selective advantage to immigrant genes in a metapopulation. Science 295: 485-488.
- 2002b. Kirkpatrick, M., and V. Ravigné. Speciation by natural and sexual selection: Models and experiments. American Naturalist 159: S22-S35.
- 2002c. Kirkpatrick, M., T. Johnson, and N. Barton. General models of multilocus evolution. Genetics *161*: 1727-1750.
- 2002d. Kirkpatrick, M. Artificial selection on age-dependent traits. Proceedings of the 7th World Congress of Genetics Applied to Livestock Production. (Published in CD)
- 2003a. Nuismer, S.L., and M. Kirkpatrick. Host gene flow and the coevolution of parasite range. Evolution *57*: 1746-1754.
- 2003b. Tsitrone, A., M. Kirkpatrick, and D.A. Levin. A model for chloroplast capture. Evolution 57: 1776-1782.

- 2004a. Lemmon, A., C. Smadja, and M. Kirkpatrick. Reproductive character displacement is not the only possible outcome of reinforcement. Journal of Evolutionary Biology 17: 177-183.
- 2004b. Kirkpatrick, M., and D.W. Hall. Male-biased mutation, sex linkage, and the rate of adaptive evolution. Evolution *58*: 437-440.
- 2004c. Kirkpatrick, M., and D.W. Hall. Sexual selection and sex linkage. Evolution 58: 683-691.
- 2004d. Kirkpatrick, M., and S.L. Nuismer. Sexual selection can constrain sympatric speciation. Proceedings of the Royal Society of London B 271: 687-693.
- 2004e. Joseph, S., and M. Kirkpatrick. Haploid selection in animals. Trends in Ecology and Evolution 19: 592-597.
- 2004f. Kirkpatrick, M, and K. Meyer. Direct estimation of genetic principal components: Simplified analysis of complex phenotypes. Genetics 168: 2295-2306.
- 2005a. Meyer, K., and M. Kirkpatrick. Restricted maximum likelihood estimation of genetic principal components and smoothed covariance matrices. Genetics, Selection, and Evolution 37: 1-30.
- 2005b. Arnqvist, G., and M. Kirkpatrick. The evolution of infidelity in socially monogamous passerines: the strength of direct and indirect selection on extrapair copulation behavior in females. American Naturalist *165*: S26-S37.
- 2005c. Meyer, K., and M. Kirkpatrick. Up hill, down dale: the quantitative genetics of curvaceous traits. Phil. Trans. R. Soc. B *360*: 1443-1455.
- 2005d. Kirkpatrick, M., and F. Rousset. Wright meets AD: Not all landscapes are adaptive. Journal of Evolutionary Biology *18*: 1166-1169.
- 2006a. Mank, J.E., D.W. Hall, M. Kirkpatrick, and J.C. Avise. Sex chromosomes and male ornaments: a comparative evaluation in ray-finned fishes. Proceedings of the Royal Society of London B 273: 233-236.
- 2006b. Kirkpatrick, M., and N. Barton. Chromosome inversions, local adaptation, and speciation. Genetics *173*: 419-434.
- 2006c. Kirkpatrick, M., A.S. Rand, and M. Ryan. Mate choice rules in animals. Animal Behaviour 71: 1215-1225.
- 2006d. Hall, D.W., and M. Kirkpatrick. Reinforcement and sex linkage. Evolution 60: 908-921.
- 2006e. Lemmon, A.R., and M. Kirkpatrick. Reinforcement and the genetics of hybrid incompatibilities. Genetics *173*: 1145-1155.
- 2006f. Nosil, P., B.J. Crespi, C.P. Sandoval, and M. Kirkpatrick. Migration and the genetic covariance between habitat choice and performance. American Naturalist *167:* E66-E78.
- 2007a. Ryan, M.J., K.L. Akre, and M. Kirkpatrick. Mate choice. Current Biology 17: R313-R316.
- 2007b. Arnqvist, G., and M. Kirkpatrick. The evolution of infidelity in socially monogamous passerines revisited: A reply to Griffith. American Naturalist 169: 282-283.
- 2007c. Brommer, J.E., M. Kirkpatrick, A. Avarnström, and L. Gustafsson. The intersexual genetic correlation for lifetime fitness in the wild and its implications for sexual selection. PLoS ONE 2: e744 (6 pages).

- 2007d. Meyer, K., and M. Kirkpatrick. A note on bias in reduced rank estimates of covariance matrices. Proceedings of the Association for the Advancement of Animal Breeding and Genetics 17: 154-157.
- 2007e. van Doorn, G.S., and M. Kirkpatrick. Turnover of sex chromosomes induced by sexual conflict. Nature 449: 909-912.
- 2008a. de Cara, M.A.R., N.H. Barton, and M. Kirkpatrick. A model for the evolution of assortative mating. American Naturalist *171*: 580-596.
- 2008b. Joseph, S.B., and M. Kirkpatrick. Effects of the [PSI⁺] prion on rates of adaptation in yeast. Journal of Evolutionary Biology 21: 773-780.
- 2008c. Kirkpatrick, M., and T. Price. Sensory ecology: Seeing red doesn't get you blue. (News & Views commentary). Nature 455: 601-602.
- 2008d. Ryan, M.J., K.L. Akre, and M. Kirkpatrick. Cognitive mate choice. Pages 137-155 in R. Dukas and J. Ratcliffe (eds.), *Cognitive Ecology: The Evolutionary Ecology of Learning, Memory, and Information Use.* University of Chicago Press.
- 2008e. Meyer, K., and M. Kirkpatrick. Perils of parsimony: properties of reduced rank estimates of genetic covariance matrices. Genetics *180*: 1153-1166.
- 2009a. Price, T.D., and M. Kirkpatrick. Evolutionarily stable range limits set by interspecific competition. Proceedings of the Royal Society of London, B 276: 1429-1434.
- 2009b. Kirkpatrick, M. Patterns of quantitative genetic variation in multiple dimensions. Genetica 136: 271-284.
- 2010a. Kirkpatrick, M., R.F. Guerrero, and S.V. Scarpino. Patterns of neutral genetic variation on recombining sex chromosomes. Genetics *184*: 1141-1152.
- 2010b. Meyer, K., and M. Kirkpatrick. Better estimates of genetic covariance matrices by "bending" using penalized maximum likelihood. Genetics *185*: 1097-1110.
- 2010c. Kirkpatrick, M. Rates of adaptation: Why is Darwin's machine so slow? Pages 177-196 in M. Bell, D. Futuyma, W. Eanes, and J.S. Levinton (eds.), *Evolution Since Darwin: The First 150 Years*. Sinauer, Sunderland MA.
- 2010d. Kirkpatrick, M. How and why chromosome inversions evolve. PLoS Biology 8: e1000501.
- 2010e. van Doorn, G.S., and M. Kirkpatrick. Transitions between male and female heterogamety caused by sex-antagonistic selection. Genetics *186*: 629-645.
- 2010f. Hill, W.G., and M. Kirkpatrick. What animal breeding has taught us about evolution. Annual Review of Ecology, Evolution, and Systematics *41*: 1-20.
- 2011a. Behrman, K.D., and M. Kirkpatrick. Species range expansion by beneficial mutations. Journal of Evolutionary Biology 24: 665-675.
- 2011b. Keightley, P.D., L. Eöry, D.L. Halligan, and M. Kirkpatrick. Inference of mutation parameters and selective constraint in mammalian coding sequences by approximate Bayesian computation. Genetics 187: 1153-1161.
- 2011c. Bachtrog, D., M. Kirkpatrick, J.E. Mank, S.F. McDaniel, W. Rice, and N. Valenzuela. Are all sex chromosomes created equal? Trends in Genetics 27: 350-357.
- 2011d. Guerrero, R.F., F. Rousset, and M. Kirkpatrick. Coalescent patterns for chromosome inversions in divergent populations. Philosophical Transactions of the Royal Society B 367: 430-438.

- 2011e. The Marie Curie Speciation Network (with 27 authors). What do we need to know about speciation? Trends in Ecology and Evolution 27: 27-39.
- 2012a. Bank, C., J. Hermisson, and M. Kirkpatrick. Can reinforcement complete speciation? Evolution (in press).
- 2012b. Duputié, A., F. Massol, I. Chuine, M. Kirkpatrick, and O. Ronce. Species range shifts by multivariate adaptation to a changing environment. Ecology Letters (in press).
- 2012c. Slatkin, M., and M. Kirkpatrick. Using known QTLs to detect directional epistatic interactions. Genetic Research (in press).
- 2012d. Bolnick, D.I., and M. Kirkpatrick. The relationship between intraspecific assortative mating and reproductive isolation between divergent populations. Current Zoology (in press).
- 2012e. Peischl, S., E. Koch, R. Guerrero, and M. Kirkpatrick. A sequenctial coalescent algorithm for chromosomal inversions. Heredity (submitted).
- 2012f. Ayala, D., R.F. Guerrero, and M. Kirkpatrick. A chromosome inversion acts as a magic trait for speciation in a malaria mosquito. Evolution (submitted).
- 2012g. Peischl, S., and M. Kirkpatrick. Establishment of new mutations in changing environments. Genetics (submitted).
- 2012h. Kirkpatrick, M., and S. Peischl. Evolutionary rescue by beneficial mutations in changing environments. Philosophical Transactions of the Royal Society B (submitted).