

1 CURRICULUM VITAE: C. Randal Linder

Office:

Biological Sciences 110A
Section of Integrative Biology
Center for Computational Biology and
Bioinformatics
The University of Texas at Austin
Austin, TX 78712
512-471-7825 (office)
512-323-3402 (fax)

Citizenship: United States of America

1.1 EDUCATION

- 1994-1996 INDIANA UNIVERSITY, NSF/Sloan Postdoctoral Fellow. Sponsor: Loren Rieseberg.
1989-1994 BROWN UNIVERSITY, Ph.D. May 1994, Ecology and Evolutionary Biology.
Advisor: Johanna Schmitt.
1984-1987 CORNELL UNIVERSITY, M.S. August 1987, Ecology and Evolutionary Biology.
Advisor: Deborah Rabinowitz.
1985 ORGANIZATION FOR TROPICAL STUDIES Special course in Tropical Agricultural
Ecology Summer 1985, Costa Rica,
1979-1982 ST. JOHN'S COLLEGE, Santa Fe, NM, B.A. May 1982, Liberal Arts.
1976-1978 STANFORD UNIVERSITY, Undergraduate course work.
1975-1976 MIAMI UNIVERSITY, Middletown, OH, undergraduate course work concurrent with
high school education.

1.2 PROFESSIONAL EXPERIENCE

- 2002-present Associate Professor, Section of Integrative Biology, THE UNIVERSITY OF
TEXAS AT AUSTIN.
1996- 2002 Assistant Professor, Section of Integrative Biology (1999-present) and
Department of Botany (1996-1999), THE UNIVERSITY OF TEXAS AT
AUSTIN.
1994-1996 NSF/Sloan Postdoctoral Fellow in Molecular Evolution, INDIANA
UNIVERSITY, Bloomington, IN. Sponsor: Dr. Loren Rieseberg. Studied
the evolution of and selective pressures upon seed oil composition in
Helianthus (Asteraceae); mapped the chromosomal locations of markers
from cultivated sunflower (*Helianthus annuus*) introgressed into wild *H.*
annuus populations; and analyzed genome architecture in natural and
artificial diploid hybrids.
First Semester Research Assistant, BROWN UNIVERSITY, Providence, RI. Studied seed bank
1992 dynamics and seedling vigor of transgenic canola (*Brassica napus*) and wild x
canola hybrids.
Summer 1990, Research Assistant, BROWN UNIVERSITY, studied the ecology and population
1991 & 1992 dynamics of canola (*Brassica rapa*) and *B. rapa* weed-crop hybrids escaped
from cultivation.
Nov. 1987- Graduate Research Assistant, Human Retroviruses and AIDS Database, T-10
Aug. 1989 Theoretical Biology and Biophysics, LOS ALAMOS NATIONAL
LABORATORY, Los Alamos, NM.

Sept.-Oct. 1987	Consultant to the Section of Ecology and Systematics, CORNELL UNIVERSITY, Ithaca, NY.
Summer 1987	Graduate research assistant, CORNELL UNIVERSITY, analyzing data from work done in Perú and writing papers.
Summer 1986	Graduate research assistant, CORNELL UNIVERSITY, analyzing data from work done in Perú.
Jan.-May 1986.	Research assistant for Dr. Deborah Rabinowitz, CORNELL UNIVERSITY, studying the ecology of gene flow in Perú.
Oct. 1982- May 1984	Graduate Research Assistant, GenBank, T-10 Theoretical Biology and Biophysics, LOS ALAMOS NATIONAL LABORATORY, Los Alamos, NM.

1.3 Dissertation (Ph.D.) and Thesis (M.S.)

1.3.1 Dissertation Title: The Ecology of Population Persistence for Wild, Crop, and Crop-Wild Hybrid *Brassica* and Its Implications for Transgenes Escaped from Canola

1.3.2 Thesis Title: Diversity within Traditional Potato Agriculture in the Peruvian Andes and Its Relevance to Crop Evolution

1.4 Dissertation and Thesis Advisors

1.4.1 Dissertation Advisor: Dr. Johanna Schmitt, Department of Ecology and Evolutionary Biology, Brown University, Providence, RI.

1.4.2 Thesis Advisor: Dr. Deborah Rabinowitz (deceased), Section of Ecology and Systematics, Cornell University, Ithaca, NY.

1.5 Current Research Interests:

1. Adaptive macro and microevolution of seed oil composition
2. Development of multiple universal markers for plants for use in phylogenetic reconstruction
3. Development and testing of phylogenetic methods for reticulate evolution
4. Development of molecular tools for ecology including identification of deep-rooted species and individuals using DNA sequence variation
5. Identification of plant and microbial DNA trapped in calcite-based rocks for studying prehistoric flora and responses of soil microbial communities to climatic changes. .

1.6 Professional Societies

American Association for the Advancement of Science
 Society for the Study of Evolution
 The American Society of Naturalists
 Botanical Society of America
 Ecological Society of America
 Society of Systematic Biologists
 Sigma Xi

1.7 Grants

1.7.1 Previous Funding

1.7.1.1 PI

Adaptation of Seed Oil to Germination Temperature in *Helianthus annuus*, National Science Foundation, Integrative Biology and Neurobiology, Ecological and Evolutionary Physiology. \$325,000. 04/01/00-03/31/04.

Workshop: Linking Molecular Insights and Ecological Research, National Science Foundation. \$21,775. 08/01/01-07/31/02.

Gravitational Seed Dispersal of *Brassica campestris* L. and Its Role in Gene Flow between Rapeseed (*B. campestris* var. *oleifera*) and Naturalized Weedy Relatives. Sigma Xi Grant-in-Aid of Research. \$600. Summer 1990. (PI)

Potential for persistence of genetically engineered genes escaped from canola (*Brassica campestris*), USDA \$22,000. 1991-1993. (PI)

National Science Foundation/Sloan Foundation Postdoctoral Fellowship in Molecular Evolution. \$80,000. 07/01/94-06/30/96. (PI)

University of Texas Summer Research Assignment. 2 months summer salary. (PI)

University of Texas Research Grant (1 year). \$6000. (PI)

1.7.2 Current Funding

1.7.2.1 PI

Dissertation Research: Phylogeny of *Helianthus* Including New Methods to Detect Reticulate Evolution. National Science Foundation. \$12,000. 07/15/04 - 06/30/06. (with graduate student Ruth Timme)

Controlled environment chambers for plant and insect research. National Science Foundation, Division of Biological Infrastructure, Multi-User Biological Equipment and Instrumentation Resources Program. \$372,242. 08/01/04 - 07/31/07. (plus \$200,000 matching funds from the University of Texas).

Dissertation Research: The Evolution of the Actinorhizal Symbiosis in *Cercocarpus* H.B.K. (Rosaceae), National Science Foundation. \$9,998. 6/01/01-5/31/04. (with graduate student, Brian Vanden Heuvel)

1.7.2.2 Co-PI

IGERT: Computational phylogenetics and applications to biology, National Science Foundation. \$2,699,106. 09/01/01-08/31/06

ITR/AP: Collaborative Research in Reconstructing Complex Evolutionary Histories, National Science Foundation. \$2,500,000. 09/01/01-08/01/06.

1.7.2.3 Senior Person

ITR/AP: Collaborative Research, Visualization in Large-Scale Phylogeny, National Science Foundation. \$704,275. 09/01/01-08/01/06.

ITR/AP: Collaborative Research, Building the Tree of Life: A National Resource for Phyloinformatics and Computational Phylogenetics, National Science Foundation. \$12,500,000. 09/01/03-8/31/08.

1.7.3 Pending Funding

1.8 Publications

1.8.1 Guide to C. Randal Linder's Publication List

1.8.1.1 Categorization by Contribution

I am author or co-author of all publications listed. My role in each publication falls into one of the following four categories, which have been labeled as A, B, C, or D in the right-hand margin of the publication list. Unrefereed publications are marked with an asterisk (*). Invited articles are designated with a double dagger (‡). This list includes only publications in print. For publications submitted, in press or in preparation, see the appropriate categories below.

- A** Group leader and principal investigator. For publications in this category, I was responsible for conceiving the scientific idea and approach underlying the research project, writing proposals and obtaining extramural funding for the work, hiring graduate student and postdoctoral co-workers, supervising the purchase and/or construction of necessary laboratory facilities, supervising the conduct of the research on a daily basis, and writing (or actively supervising the writing of) the paper. Work reported in these publications was performed exclusively in my UT laboratory. Faculty and other senior co-authors, where present, played a secondary supporting role such as providing theoretical and computational modeling of my group's experimental data, providing essential instrumentation for the project, providing samples and sample characterization, or participating in data collection. On these publications my name either appears as the first or the last co-author. Four of my publications since joining UT fall into this category.
- B** Primary junior researcher. For publications in this category, I was the primary graduate student or postdoctoral fellow performing work supervised and directed by a senior scientist whose role was similar to that described in category "A" above. In these cases, I had primary responsibility for data collection, interpretation, and analysis for the specific project reported in the publication and for writing the paper. Graduate student, postdoctoral, and non-supervising senior co-authors, where present, played a secondary supporting role such as providing samples or assisting in data collection, analysis, or interpretation. On these publications my name usually appears as the first co-author. Thirteen of my publications as a graduate student (7) and postdoctoral fellow (6) fall into this category.
- C** Essential collaborator. For publications in this category, I made an essential contribution to the project and paper, but did not have primary responsibility for directing or performing the work. For publications as a graduate student or postdoctoral fellow, this category describes papers in which I assisted the primary junior researcher with data collection or analysis in an essential way. For publications as a faculty member at UT (3), this category describes significant collaborations in which the project could not have been completed without my contribution, but in which the center of gravity lay with another supervisor.
- D** Peripheral collaborator. Publications in this category represent collaborations in which my role was noticeable but not essential to the published work. This category includes publications on which I was an author prior to becoming a graduate student.

1.8.1.2 Co-authorship

Undergraduate students:

Former while in graduate school	Supervised by Collaborator
Lynn Adler	Yes, Johanna Schmitt
Karen Wikler	Yes, Johanna Schmitt
Felice Wyndham	Yes, Johanna Schmitt

Former while a postdoc	
Ibrahim Taha	No

Former while an Assistant Professor	
Lisa Moore	No

Current

None, but papers are being written with Benjamin Walther and Alexis Harvey

Graduate students:

Former students while also a graduate student	Supervised by Collaborator
Jim Allen	Yes, David Pimentel
Andrew Beers	Yes, David Pimentel
L. Guinand	Yes, David Pimentel
Paul McLaughlin	Yes, David Pimentel
Beth Meer	Yes, David Pimentel
Dismas Musonda	Yes, David Pimentel
Donna Perdue	Yes, David Pimentel
Susan Poisson	Yes, David Pimentel
Kim Stoner	Yes, David Pimentel
Roberta Salazar	Yes, David Pimentel
Ann Hawkins	Yes, David Pimentel
Steven Siebert	Yes, David Pimentel
Domingo Begazo	Yes, Deborah Rabinowitz
Hilda Murguia	Yes, Deborah Rabinowitz

Former students while I was a postdoc	Supervised by Collaborator
Mark Ungerer	Yes, Loren Rieseberg
Richard Noyes	Yes, Loren Rieseberg

Present students	Supervised by Collaborator
Brian Vanden Heuvel	No
Leslie Goertzen	Yes, Bob Jansen

Postdoctorals:

Former while also a postdoc	Supervised by Collaborator
Jeannette Whitton	Yes, Loren Rieseberg

Former while an assistant professor	Supervised by Collaborator
William Hoffman	Yes, Rob Jackson
William Pockman	Yes, Rob Jackson

Current
None

Collaborators:

Walter Goad	Group leader	GenBank, Los Alamos National Laboratory
Jim Fickett	Staff Scientist	GenBank, Los Alamos National Laboratory
Christian Burks	Staff Scientist	GenBank, Los Alamos National Laboratory
David Pimentel	Professor	Cornell University
Deborah Rabinowitz	Professor	Cornell University
Roberto Ortega	Professor	Universidad de San Antonio Abad, Peru
Carlos Quiros	Professor	University of California, Davis
Gerald Myers	Project Leader	AIDS and Human Retroviruses Database, Los Alamos National Laboratory
Kersti MacInnes	Research Asst.	AIDS and Human Retroviruses Database, Los Alamos National Laboratory
Johanna Schmitt	Professor	Brown University

Loren Rieseberg	Professor	Indiana University
Gerald Seiler	Senior Sci.	USDA, ARS, Northern Crop Science Laboratory
Barry Sinervo	Professor	Indiana University (at the time of the collaboration)
Dulce Arias	Professor	Univsidad Autonoma Estado Morelos, Mexico
Allison Snow	Professor	Ohio State University
Edward Schilling	Professor	University of Tennessee
Robert Jackson	Assoc. Prof.	Duke University
Malcolm Brown	Professor	University of Texas
Robert Jansen	Professor	University of Texas
Javier Francisco-Ortega	Asst. Prof.	Florida International University
David Ackerly	Asst. Prof.	Stanford University
Susan Dudley	Asst. Prof.	McMaster University, Canada
Sonia Sultan	Assoc. Prof.	Wesleyan University
James Coleman	Professor	University of Nevada, Reno (at the time of the collaboration)
Monica Geber	Assoc. Prof.	Cornell University
Ann Evans	Assoc. Prof.	University of New Mexico
Todd Dawson	Prof.	University of California, Berkeley
Marty Lechowicz	Prof.	McGill University, Canada
D. Sandquist	Asst. Prof.	California State University, Fullerton (at the time of the collaboration)

1.8.1.3 Division of Publications by Stage of Career

Publications while at rank of Assistant Professor at the University of Texas

- A** Linder, C. R., Moore, L. A., and Jackson, R. B. 2000. A universally applicable molecular method for identifying most underground plant parts to species. *Molecular Ecology* **9**:1549-1559.
- B** Ackerly, D. D., S. A. Dudley, S. E. Sultan, J. Schmitt, J. S. Coleman, C. R. Linder, D. R. Sandquist, M. A. Geber, A. S. Evans, T. Dawson, and M. J. Lechowicz, . 2000. The evolution of plant physiological traits: recent advances and future directions. *BioScience* **50**:979-995.
- A** Linder, C. R. 2000. Evolution and adaptive significance of the balance between saturated and unsaturated seed oils in angiosperms. *The American Naturalist* **156**:442-458.
- A** Linder, C. R., L. R. Goertzen, B. Vanden Heuvel, J. Francisco-Ortega, R. K. Jansen. 2000. The external transcribed spacer of the rDNA repeat: a new nuclear region for low-level taxonomic analysis of the Asteraceae and closely allied families. *Molecular Phylogenetics and Evolution* **14**:285-303
- C** Kimura, S. , W. Laosinchai, T. Itoh, X. Cui. C. R. Linder, and R. M. Brown Jr. 1999. Immunogold labeling of rosette terminal cellulose synthesizing complexes in a vascular plant (*Vigna angularis*). *The Plant Cell* **11**:2075-2086.
- C** Jackson, R. B., L. A. Moore, W. H. Hoffman, W. T. Pockman, and C. R. Linder. 1999. Ecosystem rooting depth determined with caves and DNA. *Proceedings of the National Academy of Sciences, USA* **96**:11387-11392.
- C** Rieseberg, L. H. and C. R. Linder. 1999. Hybrid classification: insights from genetic map-based

studies of experimental hybrids. *Ecology* **80**:361-370.

B Linder, C. R. 1998. Potential persistence of escaped transgenes: seed germination and dormancy in transgenic canola and wild x canola hybrids. *Ecological Applications* **8**:1180-1195.

B Schilling, E.E., C.R. Linder, R. Noyes, and L.H. Rieseberg. 1998. Phylogenetic relationships in *Helianthus* (Asteraceae) based on nuclear ribosomal DNA internal transcribed spacer region sequence data. *Systematic Botany* **23**:177-187.

A Linder, C. R., I. Taha, G. J. Seiler, A. Snow, and L. H. Rieseberg. 1998. Long-term introgression of crop genes into wild sunflower populations. *Theoretical and Applied Genetics* **96**:339-347.

Publications while as postdoctoral fellow at Indiana University

B Rieseberg, L. H., D. M. Arias, M. C. Ungerer, C. R. Linder, and B. Sinervo. 1996. The effects of mating design on introgression between chromosomally divergent sunflower species. *Theoretical and Applied Genetics* **93**:633-644.

B Rieseberg, L. H., J. Whitton, and C. R. Linder. 1996. Molecular marker incongruence in plant hybrid zones and phylogenetic trees. *Acta Botanica Neerlandica* **45**:243-262.

B Rieseberg, L. H., B. Sinervo, C. R. Linder, M. C. Ungerer, and D. M. Arias. 1996. Role of gene interactions in hybrid speciation: evidence from ancient and experimental hybrids. *Science* **272**:741-745.

B Rieseberg, L. H., C. R. Linder, and G. J. Seiler. 1995. Chromosomal and genic barriers to introgression in *Helianthus*. *Genetics* **141**:1163-1171.

Publications while as graduate student at Brown University

B Linder, C. R. and J. Schmitt. 1995. Potential persistence of escaped transgenes: seed and seedling performance in transgenic oil-modified canola and wild x canola hybrids. *Ecological Applications* **5**:1056-1068.

B Linder, C. R. and J. Schmitt. 1994. Assessing the risk of transgene escape through time and crop-wild hybrid persistence. *Molecular Ecology* **3**:23-30.

B Schmitt, J. and C. R. Linder. 1994. Will escaped transgenes lead to ecological release? *Molecular Ecology* **3**:71-74.

C Adler, L. S., K. Wikler, F. S. Wyndham, C. R. Linder and J. Schmitt. 1993. Potential for persistence of genes escaped from canola: germination cues in crop, wild, and crop-wild hybrid *Brassica rapa*. *Functional Ecology* **7**:736-745.

Publications while as graduate student at Cornell University

B Rabinowitz, D., C. R. Linder, R. Ortega, D. Begazo, H. Murguia, D. S. Douches, and C. F. Quiros. 1990. High levels of interspecific hybridization between *S. sparsipilum* and *S. stenotomum* in experimental plots in the Andes. *American Potato Journal* **67**:73-81.

- B** Rabinowitz, D., C. R. Linder, D. S. Douches, and C. F. Quiros. 1988. Determining natural hybridization between *Solanum sparsipilum* and *Solanum stenotomum* in the Andes. *American Potato Journal* **65**: 496.
- B** Pimentel, D., J. Allen, A. Beers, L. Guinand, R. Linder, P. McLaughlin, B. Meer, D. Musonda, D. Perdue, S. Poisson, Siebert, K. Stoner, R. Salazar, and A. Hawkins. 1987. World agriculture and soil erosion. *BioScience* **37**:277-283.
- *B** Pimentel, D., J. Allen, A. Beers, L. Guinand, R. Linder, P. McLaughlin, B. Meer, D. Musonda, D. Perdue, S. Poisson, Siebert, K. Stoner, R. Salazar, and A. Hawkins. 1986. World food economy and the soil erosion crisis. *Environmental Biology Report 86-2*. Cornell University Press, Ithaca, NY.

Publications prior to graduate school at Los Alamos National Laboratory

- C** Myers, G. L., C. R. Linder, K. A. MacInnes. 1989. Comparison of the DNA sequence of HIV from various AIDS victims reveals a genealogy for the virus that agrees with the epidemiology of the disease. *Los Alamos Science* **18**:40-
- D** Armstrong, J., and 29 others. 1985. Nucleotide Sequences 1985, special supplement to *Nucleic Acids Research* in 4 volumes: a compilation from the GenBank and EMBL data libraries. IRL Press, Washington, DC, and Oxford.
- D** Andersen, J. S., with others. 1984. Nucleotide Sequences 1984, special supplement to *Nucleic Acids Research* Parts 1 & 2: a compilation from the GenBank and EMBL data libraries. IRL Press, Washington, DC, and Oxford.
- D** Goad, W. B. with others. 1984. Nucleotide sequence databanks: GenBank (US) and the EMBL nucleotide sequence data library (Europe). In *Genetic Maps, 1984: a compilation of linkage and restriction maps of genetically studied organisms*. Vol 3. S. J. O'Brien ed. Cold Spring Harbor Laboratory, Cold Spring Harbor, NY. pp. 554-581.

1.8.2 List of Publications

- Vanden Heuvel, B. D. and Linder C. R. *In revision*. Deep coalescence of multiple paralogous external transcribed spacer sequences from nuclear ribosomal DNA within individuals of the genus *Cercocarpus*. *Molecular Biology and Evolution*
- B.M.E. Moret, L. Nakhleh, T. Warnow, C.R. Linder, A. Tholse, A. Padolina, J. Sun, and R. Timme. 2004. Phylogenetic networks: modeling, reconstructibility, and accuracy. *IEEE/ACM Transactions on Computational Biology and Bioinformatics*, 1(1):13-23.
- Linder, C. R. and Rieseberg, L. H. 2004. Reconstructing the evolutionary network of plant species: the need to account for population genetics. *American Journal of Botany*. *In press*
- Xu, W., Briggs, W. J., Padolina, J., Liu, W., Linder, C. R. and Miranker, D. P. 2004. Using MoBIOS' scalable genome joins to find conserved primer pair candidates between two genomes. *Bioinformatics*. *In press*.
- Nakhleh, L., Warnow, T and Linder, C.R. 2004. Reconstructing reticulate evolution in species - theory and practice. *RECOMB'04*, March 27-31, 2004, San Diego, California, USA.

- Linder, C.R., Moret, B.M.E, Nakhleh, L., Padolina, A., Sun, J., Tholse, A., Timme, R. and Warnow, T. 2003. Phylogenetic networks: generation, comparison, and reconstruction. Technical Report TR-CS-2003-26, University of New Mexico, 2003.
- Nakhleh, L., Sun, J., Warnow, T., Linder, C.R., Moret, B.M.E., and Tholse, A. 2003. Towards the Development of Computational Tools for Evaluating Phylogenetic Network Reconstruction Methods. Proceedings of the Eighth Pacific Symposium on Biocomputing (PSB 03), January 2003.
- Ungerer, M. C., Linder, C. R., and Rieseberg, L. H. 2003. Effects of genetic background on response to selection in experimental populations of *Arabidopsis thaliana*. *Genetics* **163**:277-286.
- Goertzen, L. R., Francisco-Ortega, J., Santos-Guerra, A., Mower, J., Linder, C. R., and Jansen, R. K. 2002. Molecular systematics of the *Asteriscus* alliance (Asteraceae: Inuleae) II: combined nuclear and chloroplast data. *Systematic Botany* **27**:815-823.
- A. Jackson, R. B. Linder, C. R., Lynch, M., Purugganan, M., Somerville, S. and Thayer, S. S. 2002. Linking Molecular Insights and Ecological Research. *Trends in Ecology and Evolution* **17**:409-414.
- A Linder, C. R., Moore, L. A., and Jackson, R. B. 2000. A universally applicable molecular method for identifying most underground plant parts to species. *Molecular Ecology* **9**:1549-1559.
- B Ackerly, D. D., S. A. Dudley, S. E. Sultan, J. Schmitt, J. S. Coleman, C. R. Linder, D. R. Sandquist, M. A. Geber, A. S. Evans, T. Dawson, and M. J. Lechowicz, . 2000. The evolution of plant physiological traits: recent advances and future directions. *BioScience* **50**:979-995.
- A Linder, C. R. 2000. Evolution and adaptive significance of the balance between saturated and unsaturated seed oils in angiosperms. *The American Naturalist* **156**:442-458.
- A Linder, C. R., L. R. Goertzen, B. Vanden Heuvel, J. Francisco-Ortega, R. K. Jansen. 2000. The external transcribed spacer of the rDNA repeat: a new nuclear region for low-level taxonomic analysis of the Asteraceae and closely allied families. *Molecular Phylogenetics and Evolution* **14**:285-303
- C Kimura, S. , W. Laosinchai, T. Itoh, X. Cui. C. R. Linder, and R. M. Brown Jr. 1999. Immunogold labeling of rosette terminal cellulose synthesizing complexes in a vascular plant (*Vigna angularis*). *The Plant Cell* **11**:2075-2086.
- C Jackson, R. B., L. A. Moore, W. H. Hoffman, W. T. Pockman, and C. R. Linder. 1999. Ecosystem rooting depth determined with caves and DNA. *Proceedings of the National Academy of Sciences, USA* **96**:11387-11392.
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- B Schilling, E.E., C.R. Linder, R. Noyes, and L.H. Rieseberg. 1998. Phylogenetic relationships in *Helianthus* (Asteraceae) based on nuclear ribosomal DNA internal transcribed spacer region sequence data. *Systematic Botany* **23**:177-187.
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- of crop genes into wild sunflower populations. *Theoretical and Applied Genetics* **96**:339-347.
- B** Rieseberg, L. H., D. M. Arias, M. C. Ungerer, C. R. Linder, and B. Sinervo. 1996. The effects of mating design on introgression between chromosomally divergent sunflower species. *Theoretical and Applied Genetics* **93**:633-644.
- B** Rieseberg, L. H., J. Whitton, and C. R. Linder. 1996. Molecular marker incongruence in plant hybrid zones and phylogenetic trees. *Acta Botanica Neerlandica* **45**:243-262.
- B** Rieseberg, L. H., B. Sinervo, C. R. Linder, M. C. Ungerer, and D. M. Arias. 1996. Role of gene interactions in hybrid speciation: evidence from ancient and experimental hybrids. *Science* **272**:741-745.
- B** Rieseberg, L. H., C. R. Linder, and G. J. Seiler. 1995. Chromosomal and genic barriers to introgression in *Helianthus*. *Genetics* **141**:1163-1171.
- B** Linder, C. R. and J. Schmitt. 1995. Potential persistence of escaped transgenes: seed and seedling performance in transgenic oil-modified canola and wild x canola hybrids. *Ecological Applications* **5**:1056-1068.
- B** Linder, C. R. and J. Schmitt. 1994. Assessing the risk of transgene escape through time and crop-wild hybrid persistence. *Molecular Ecology* **3**:23-30.
- B** Schmitt, J. and C. R. Linder. 1994. Will escaped transgenes lead to ecological release? *Molecular Ecology* **3**:71-74.
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- C** Myers, G. L., C. R. Linder, K. A. MacInnes. 1989. Comparison of the DNA sequence of HIV from various AIDS victims reveals a genealogy for the virus that agrees with the epidemiology of the disease. *Los Alamos Science* **18**:40-
- B** Rabinowitz, D., C. R. Linder, R. Ortega, D. Begazo, H. Murguia, D. S. Douches, and C. F. Quiros. 1990. High levels of interspecific hybridization between *S. sparsipilum* and *S. stenotomum* in experimental plots in the Andes. *American Potato Journal* **67**:73-81.
- B** Rabinowitz, D., C. R. Linder, D. S. Douches, and C. F. Quiros. 1988. Determining natural hybridization between *Solanum sparsipilum* and *Solanum stenotomum* in the Andes. *American Potato Journal* **65**: 496.
- B** Pimentel, D., J. Allen, A. Beers, L. Guinand, R. Linder, P. McLaughlin, B. Meer, D. Musonda, D. Perdue, S. Poisson, Siebert, K. Stoner, R. Salazar, and A. Hawkins. 1987. World agriculture and soil erosion. *BioScience* **37**:277-283.
- *B** Pimentel, D., J. Allen, A. Beers, L. Guinand, R. Linder, P. McLaughlin, B. Meer, D. Musonda, D. Perdue, S. Poisson, Siebert, K. Stoner, R. Salazar, and A. Hawkins. 1986. World food economy and the soil erosion crisis. *Environmental Biology Report* 86-2. Cornell University Press, Ithaca, NY.
- D** Armstrong, J., and 29 others. 1985. Nucleotide Sequences 1985, special supplement to *Nucleic Acids Research* in 4 volumes: a compilation from the GenBank and EMBL data libraries. IRL Press, Washington, DC, and Oxford.
- D** Andersen, J. S., with others. 1984. Nucleotide Sequences 1984, special supplement to *Nucleic Acids*

Research Parts 1 & 2: a compilation from the GenBank and EMBL data libraries. IRL Press, Washington, DC, and Oxford.

D Goad, W. B. with others. 1984. Nucleotide sequence databanks: GenBank (US) and the EMBL nucleotide sequence data library (Europe). In *Genetic Maps, 1984: a compilation of linkage and restriction maps of genetically studied organisms*. Vol 3. S. J. O'Brien ed. Cold Spring Harbor Laboratory, Cold Spring Harbor, NY. pp. 554-581.

1.8.3 Papers in Press or Submitted for Publication

Nakhleh, L., Linder, C.R., St. John, K. and Warnow, T. Reconstructing Species Networks from Gene Trees. Submitted for publication in ACM-SIAM Symposium on Discrete Algorithms.

Linder, C.R., Moret, B.M.E., Nakhleh, L., Padolina, A., J. Sun, Tholse, A., Timme, R., and Warnow, T. Phylogenetic Networks: Generation, Comparison, and Reconstruction. Submitted for publication in Workshop on Algorithms in BioInformatics.

1.8.4 Papers in Preparation

Linder, C. R., Vanden Heuvel, B., and Jackson, R. B. Making the connection: fingerprinting to establish above- and below-ground connections in plants. To be submitted to *Molecular Ecology*.

Linder, C. R. and Walther, B. Adaptive germination performance of *Helianthus annuus* seeds having different seed oil compositions. To be submitted to *Evolution*

Linder, C. R., Vanden Heuvel, B., and Goertzen, L. R. Molecular Evolution of the External Transcribed Spacer in Three Tribes of the Asteraceae. To be submitted to *Journal of Molecular Evolution*.

Vanden Heuvel, B. and C. R. Linder. Complex Molecular Evolution in the External Transcribed Spacer of *Cercocarpus*. To be submitted to the *Journal of Molecular Evolution*.

1.8.5 Publications Edited

None

1.8.6 Books

None

1.8.7 Surveys, Editorials, and Reviews

None

1.8.9 Articles in Books

None

1.8.10 Articles in Conference Proceedings

1.8.11 Articles in Workshop Proceedings

Linking Molecular Insight with Ecological Research. August 21-24, 2001. From the Workshop of the same name (see current funding). To be published Fall 2001. The Proceedings from this workshop form the basis for a larger scale effort that will include additional workshops, symposia, and society meetings to develop a long range plan for fostering and funding a research program for ecological and molecular research.

1.8.12 Technical Reports

Two reports to Calgene, Inc. on the results of risk assessment studies for two transgenic oil-modified canola varieties. []

1.9 Awards and Honors

- 2001 William H. and Gladys G. Reeder Fellowship in Ecology. \$10,000.
College of Natural Sciences Teaching Excellence Award. \$500.
- 1998 American Society of Plant Taxonomists George R. Cooley Award for the best presentation at the national meeting of the Society. \$500.
- 1993 Brown University summer research fellowship. \$2,200.
- 1989 Brown University: University Fellowship (1 year). \$12,000.
- 1985 National Science Foundation Graduate Fellowship: Honorable Mention
The Harold E. Moore, Jr. Endowment Fund: Award to attend the Organization for Tropical Studies course Tropical Agricultural Ecology. \$800.
Cornell University Section of Ecology and Systematics: Award for summer funding Cornell University Graduate School: Summer tuition award. \$850.
- 1984 Cornell University: Andrew D. White Fellowship (2 years). \$18,000.
- 1982 St. John's College: Silver Medal to the Graduating Senior with the highest academic record
- 1981 Rhodes Scholarship Finalist.

1.10 University Courses Taught

The University of Texas

High School

Summer 2001 Summer Fellowship, Texas Academy of Math and Science Student

Undergraduate

Organized Classes

Spring 2004 Evolution (BIO 370) (149 students)
Spring 2003 Evolution (BIO 370) (204 students)
Fall 2002 Structure, Physiology and Reproduction of Seed Plants (BIO 322) (75 students)
Structure, Physiology and Reproduction of Seed Plants (BIO 122L) (75 students)
Spring 2002 Evolution (BIO 370) (151 students)
Spring 2001 Evolution (BIO 370) (104 students)
Fall 2000 Structure, Physiology and Reproduction of Seed Plants (BIO 322) (62 students)
Structure, Physiology and Reproduction of Seed Plants (BIO 122L) (62 students)

Fall 1999 Evolution (ZOO 370K) (103 students)
 Spring 1999 Evolution (BOT 370M) (25 students)
 Fall 1998 General Botany: seed plants (BOT 320) (143 students)
 General Botany: laboratory (BOT 120C) (143 students)
 Spring 1998 Evolution (BOT 370M) (39 students)
 Spring 1997 Evolution (BOT 370M) (39 students)

Individual Instruction

Spring 2004 Undergraduate Research (BIO 377) (1 student)
 Fall 2003 Undergraduate Research (BIO 377) (1 student)
 Summer 2003 Undergraduate Research (BIO F377) (2 students)
 Spring 2003 Undergraduate Research (BIO 377) (2 students)
 Summer 2002 Undergraduate Research (BIO F377) (1 student)
 Spring 2002 Undergraduate Research (BIO 377) (1 student)
 NSF REU (1 student)
 Summer 2001 Advanced Study and Research (BIO 377) (3 students)
 NSF REU (1 student)
 Spring 2001 Advanced Study and Research (BIO 377) (2 students)
 Fall 2000 Honors Tutorial Course (BOT 379H) (1 student)
 Spring 2000 Honors Tutorial Course (BOT 679HB) (1 student)
 Botanical Research: Undergraduate (BOT 377) (1 student)
 Spring 1997 Botanical Research: Undergraduate (BOT 377: 43680) (1 student)
 Advanced Study and Research (BOT 182: 43700) (2 students)
 Advanced Study and Research (BOT 682: 43720) (2 students)
 Fall 1996 Botanical Research: Undergraduate (BOT 377: 44150) (3 students)
 Advanced Study and Research (BOT 382: 44190) (1 student)

Undergraduate Students

<u>Duration</u>	<u>Student</u>	<u>Capacity</u>
Spring 2004	Justin Rogers	Lab assistant
	Sarah Pittman	Lab assistant
	Vance Imhoff	Work-study
Fall 2003-	Katie Golder	Independent Research
Summer 2003-	Kathryn Turner	Lab assistant
Summer 2003	Kimberly Haberlen	Independent Research
Spring 2003-	Manisha Mulani	Independent Research
Summer 2003		
Spring 2003	Amol Utturkar	Independent Research
Fall 2002-	Megan Noel	Lab assistant
	Tanya Ong	Lab assistant
Fall 2002-	Michael Liu	Work-study
Spring 2003		
Summer 2002-	Vance Imhoff	Lab assistant/Work-study
Spring 2003	Rob Myers	Lab assistant
Summer 2002-	Kathryn Turner	Lab assistant
Fall 2002		
Spring 2002-	Jennifer Threatt	Lab assistant
Spring 2003	Andrea Bowling	Lab assistant
Spring 2002	Saima Ghorl	Lab assistant
Summer 2001	Amanda Almazan	Independent Research
	Lindsey Lucas	Independent Research
Spring 2001-	Hilah Johnson	Independent Research
Summer 2001		

Spring 2001- Fall 2002	Zac Cornish	Lab Assistant & NSF REU
Spring 2001	Stas Zhuk	Independent Research
Fall 2000- Spring 2001	Hung Doan	Work-study
Summer 2000	Ben Merrill	Lab assistant
	Cindy Zhang	Lab assistant
	Nihdi Mehta	Work-study
Spring 2000- Spring 2003	Peipey Tang	Work-study
Spring 2000- Summer 2001	Adib Bensalem	Lab assistant
Spring 2000- Summer 2002	Alexis Harvey	Work-study & NSF REU
Spring 2000	Maury LeBlanc	Independent research
Spring 1999	Timica Patton	Lab assistant
Spring 1998-2001	Benjamin Walther	Lab assistant & work-study
Spring 1998	Sharon Henss	Work-study
	Molly McGlone	Lab assistant
Fall 1997- Spring 1998	Jennifer Hobson	Work-study
Fall 1997	Chloë Baldwin	Lab assistant
	Mathiew Le	Work-study
Fall 1996- Spring 1997	Irfan Faruhki	Independent Study
	Mo-Yain Tham	Lab Assistant
Fall 1996	Grace Pecson	Independent Study
	Chloë Baldwin	Lab Assistant

Graduate

Organized Courses

Spring 2004	Evolution (BIO 385K.2) (9 students)
Fall 2003	Ecology, Evolution and Phylogeny (BIO 386) (6 students)
Spring 2003	Evolution (BIO 385K.2) (7 students)
Spring 2002	Evolution (BIO 385K.2) (8 students)
Fall 2001	Ecology, Evolution, and Phylogeny (BIO 386) (9 students)
	Computational Phylogenetics and Applications to Biology (BIO 384K) (15 students)
Spring 2001	Evolution (BOT 387L) (4 students)
Spring 2000	Ecology, Evolution, and Phylogeny (BOT 394) (5 students)
	Topics in Systematics (BOT 394L) (5 students)
Fall 1999	Evolution (ZOO 382L) (10 students)
Spring 1999	Evolution (BOT 387L) (4 students)
Spring 1998	Evolution (BOT 387L) (3 students)
Fall 1997	Ecology, Evolution and Phylogeny (BOT 394) (14 students)
Spring 1997	Evolution (BOT 387L) (3 students)

Individual Instruction

Indiana University:

Undergraduate Students

Individual Instruction

<u>Duration</u>	<u>Student</u>	<u>Capacity</u>
Summer 1995-Summer 1996	Ibrahim Taha	Independent Study
Spring-summer 1995	Miriam Reynolds	Independent Study
Winter 1994-95	Amanda Lawrence	Independent Study

Brown University

Undergraduate

Organized Courses

Spring 1994	Plant Ecology	Teaching Assistant
Spring 1993	Principles of Ecology	Teaching Assistant
Spring 1992	Evolutionary Biology	Teaching Assistant
Fall 1991	Diversity and Adaptation of Seed Plants	Teaching Assistant
Spring 1991	Plant Ecology	Teaching Assistant
Fall 1990	Quantitative Models of Biological Systems	Teaching Assistant

Individual Instruction

<u>Duration</u>	<u>Student</u>	<u>Capacity</u>
1992-1993	Soren Gantt	Senior Honors Project
Summer 1992	Soren Gantt	Research Assistant
Spring 1992	Greg Schwartz	Independent Study
Summer 1991	Felice Wyndham	Research Assistant

Cornell University

Undergraduate

Organized Courses

Fall 1985	Auto-Tutorial Introductory Biology	Teaching Assistant
1986-1987	Auto-Tutorial Introductory Biology	Teaching Assistant

St. John's College

Undergraduate

Organized Courses

1981-1982	Junior Laboratory Program (Newtonian physics, optics, and electrodynamics)	Teaching Assistant
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1.11 Tutorials and Short Courses Taught

None

1.12 Dissertation and Thesis Supervision

Ph.D. Dissertations Supervised

<u>Duration</u>	<u>Student</u>	<u>Capacity</u>
Fall 2004-present	Mary McGovern	Graduate advisor
Spring 2004-present	Michelle Swenson (Candidate)	Dissertation Committee
Fall 2002-present	Anushree Sanyal (Candidate)	Graduate advisor
	Ana Gonzalez (Candidate)	Dissertation Committee
Spring 2002-	Johnathan Wagner (Candidate)	Dissertation Committee
Fall 2001-present	Joshua McDill (Candidate)	Graduate advisor

	Ruth Timme (Candidate)	Graduate advisor
	Andrew Alverson (Candidate)	Dissertation Committee
	Scott Solomon (Candidate)	Dissertation Committee
	Alisha Holloway (Candidate)	Dissertation Committee
	Mary Jameison (Candidate)	Dissertation Committee
Fall 2001-Spring 2002	Ryan Hill (Candidate)	Prelim Committee
Fall 2001-Spring 2004	Luay Nakhleh (Ph.D.)	Co-advisor
Fall 2001-Summer 2002	Sarah Simmons (Ph.D.)	Dissertation Committee
Spring 2001-present	Anna Himler (Candidate)	Dissertation Committee
Spring 2001-Summer 2004	Brian Wee (Ph.D.)	Dissertation Committee
Spring 2001-Spring 2004	Wenqiang Tang (Ph.D.)	Dissertation Committee
Fall 2000-present	Michael Moore (Candidate)	Dissertation Committee
	Barbara Goodson (Candidate)	Dissertation Committee
	Johanna Schulman (Candidate)	Graduate advisor
	Sergio Sanchez-Pena (Candidate)	Dissertation Committee
Fall 1999-Spring 2001	Nicole Gerardo (Candidate)	Prelim Committee
Fall 1999-Fall 2001	Todd Schlenke (Ph.D.)	Dissertation Committee
Fall 1998-Spring 2003	Sun Yu (Ph.D.)	Dissertation Committee
Fall 1998-present	Bradley Wagstaff (candidate)	Dissertation Committee
	Margaret Batchelor (candidate)	Dissertation Committee
Fall 1998- Fall 2003	Bethany Gabbard (Ph.D)	Dissertation Committee
Fall 1998-Spring 2002	Hong Ren (transferred to IU)	Dissertation Committee
Fall 1998-Spring 2002	Leah Larkin (Ph.D.)	Dissertation Committee
Fall 1998-Spring 1999	Ani Chatterjee (Ph.D.)	Dissertation Committee
	Cellular, molecular, and electrophysiological changes in single cells of <i>Ceratopteris</i> during the period of polarity fixation by gravity. Postdoctoral Researcher, Dept. of Biology, University of North Carolina, Chapel Hill and Paradigm Genetics, Research Triangle Park, NC.	
Fall 1997- Spring 2003	Andrea Weeks (Ph.D.)	Dissertation Committee
Fall 1997-present	Jill Noel (candidate)	Dissertation Committee
Fall 1997-Spring 2004	Roshan Roy (Ph.D.)	Dissertation Committee
Fall 1997-Spring 2002	Brian Vanden Heuvel (Ph.D.)	Graduate advisor
Fall 1997-Fall 2001	Gabor Landvai (Ph.D.)	Dissertation Committee
Fall 1996- Summer 2003	Wendy Gordon (Ph.D.)	Dissertation Committee
Fall 1996-Summer 2004	Shawn Brumbaugh (Ph.D.)	Dissertation Committee
	Katie Hansen (Ph.D.)	Dissertation Committee
Fall 1996-Summer 2001	Les Goertzen (Ph.D.),	Dissertation Committee
	Studies in Asteraceae: Nuclear Ribosomal DNA and Macaronesian Endemics. Postdoctoral Associate, Department of Biology, Indiana University.	
Fall 1996 -Fall 2000	Megan Helfgott (Ph.D)	Dissertation Committee
	Evolution and molecular systematics of <i>Nemophila</i> Nutt. (Hydrophyllaceae) and the woody Bencomia alliance (Rosaceae). Postdoctoral Associate, Department of Biological	

Fall 1996-Summer 1998 Sciences, University of Idaho.
 Carolyn Ferguson (Ph.D.), Molecular systematics of eastern *Phlox* L. (Polemoniaceae). Assistant Professor, Division of Biology, Kansas State University. Dissertation Committee

Masters Theses Supervised

Fall 2002-Spring 2004	Emily Katherine Walker (withdrew)	Thesis Committee
Fall 2002-Summer 2003	Matthew Kweskin (M.S.)	Thesis Committee
Fall 2000-Summer 2003	Yushi Du (withdrew)	Graduate co-advisor

Undergraduate Honors Theses Supervised

Fall 2000-Spring 2001 Benjamin Walther, Undergraduate double majoring in Biology and Plan II studies. Currently a graduate student at Woods Hole Oceanographic Institute and studying Marine Biology/Ecology.

1.13 Service

1.13.1 Departmental

Fall 2004	Third-year Review Committee for Tom Juenger (Integrative Biology)
Fall 2003-present	Graduate Admissions Committee (Integrative Biology)
Fall 2003-Spring 2004	Search Committee for a Microbial Ecologist (Section of Integrative Biology)
Fall 2000-present	Graduate Admissions Committee (Plant Biology)
Fall 2000	Search Committee for an Empirical Evolutionary Geneticist (Section of Integrative Biology)
Spring 2000	Search Committee for a Biostatistician (Section of Integrative Biology)
1999-present	Greenhouse committee (Section of Integrative Biology)
1998-1999	Departmental Seminar Committee (Department of Botany)
1997-1999	Computer Facilities Committee (Department of Botany)
1997-1998	Outside member of committee to hire an Ecological/Evolutionary Geneticist in Zoology
1996-1998	Recording secretary (Department of Botany)
1991-1992	Organized weekly "Brown Bag" seminars. (Program in Ecology and Evolutionary Biology, Brown University).
1986-1987	Graduate student representative (Section of Ecology and Systematics, Cornell University).
1985	Committee for the Second Annual Symposium on Ecological Agriculture (Section of Ecology and Systematics, Cornell University).

1.13.2 Community

2003-present	Ad hoc Committee to develop a plan for the maintenance and care of the refrigeration, freezer and growth chamber equipment in the Natural Sciences
2001	Panel member for the National Science Foundation Ecological and Evolutionary Physiology Program.
2000-2001	Ad hoc Committee to replace autoclaves in the Biological Laboratories Building
1997	Panel member for the United States Department of Agriculture Biotechnology

- Risk Assessment Program
- 1995-2004 Reviewer for National Science Foundation, United States Department of Agriculture, *The American Naturalist*, *American Journal of Botany*, *Conservation Biology*, *Ecological Applications*, *Ecology Letters*, *Molecular Ecology*, *Molecular Phylogenetics and Evolution*, *Journal of Heredity*, *Evolution*, *Plant Systematics and Evolution*, *Theoretical and Applied Genetics*, *Trends in Biotechnology*.
- 1992 Reviewer for *Evolution*.
- 1991 Participant in workshop to determine the scientific data needed for risk assessment of genetically engineered crop plants. Sponsored by the National Wildlife Federation.

1.13.3 College/University

- Fall 2002-present TIP Committee (College of Natural Sciences)
Undergraduate Honors Committee (College of Natural Sciences)
- Spring 2001-present TA Teaching Awards Committee, Chair. (School of Biological Sciences)
- Fall 2000-present Reviewer for URI grant proposals (The University of Texas)
- 1997-1999 Reviewer for undergraduate research awards (The University of Texas)
- 1984-1985 Member of the Cornell University Ecological Agriculture Research Collective (Cornell University).

1.14 Talks and Posters

1.14.1 Conference and Departmental Speaker Presentations

- C. Randal Linder. 2004. Network (Reticulated) Evolution: Biology, Models, and Algorithms. A tutorial presented at the DIMACS Workshop on Reticulated Evolution, September 20 - 21, 2004.
- Weijia Xu, Willard Briggs, Joanna Padolina, Wenguo Liu, C. Randal Linder, Daniel Miranker. 2004. Using MoBioS' Scalable Genome Join to Find Conserved Primer Pair Candidates Between Two Genomes. A paper presented at the 12th Annual Conference on Intelligent Systems for Molecular Biology and the 3rd European Conference on Computational Biology.
- Katie Golder and C. Randal Linder. 2004. Cave Microbial Diversity: A Preliminary Look at Prokaryotic Biodiversity in Central Texas Caves. A talk presented for the Environmental Science Institute (ESI) Research Experience for Undergraduates at the University of Texas in Austin.
- Padolina, Joanna, Timme, Ruth, Linder, Randal, Briggs, Willard, Xu, Weijia, Liu, Wenguo, Miranker, Daniel. 2004. Identification of broadly applicable nuclear DNA regions for phylogenetic reconstruction in angiosperms. A talk presented at the Annual Meeting of the Botanical Society of America.
- Timme, Ruth, Linder, Randal, Simpson, Beryl. 2004. Better resolution in *Helianthus* (Asteraceae) using the rDNA external transcribed spacer (ETS). A poster presented at the Annual Meeting of the Botanical Society of America.
- Ruth Timme, Willard Briggs, Wenguo Liu, Dan Miranker, Anneke Padolina, Weijia Xu, C. Randal Linder. 2004. Identification of nuclear DNA markers for phylogenetic reconstruction in angiosperms. A talk presented at the Annual Meeting of the Society for the Study of Evolution.

- C. Randal Linder, Bernard Moret, Luay Nakhleh, and Tandy Warnow. 2004. Reconstructing reticulate evolution: an algorithm for galled networks. A talk presented at the Annual Meeting of the Society for the Study of Evolution.
- Kathryn G. Turner, Vance E. Imhoff, J. Mario McDermott, C. Randal Linder. 2004. Adaptive evolution of seed oil composition in *Helianthus annuus*: Seed performance. A poster presented at the Annual Meeting of the Society for the Study of Evolution..
- C. Randal Linder, Bernard M.E. Moret, Tandy Warnow, and Luay Nakhleh. 2004. Network (Reticulated) Evolution: Biology, Models, and Algorithms. A tutorial presented at Pacific Symposium on Biocomputing 2004, January 6-10, 2004, Hawaii. (Invited)
- Briggs, W., Liu, W., Mao, R., Padolina, J., Timme, R., Xu, W., Wang, C., Linder, C.R., and Miranker, D. P. 2003. Application of MoBioS to Conserved Primer Pair Discovery. A poster for Japanese-American Frontiers of Science Symposium 2003, Kanagawa, Japan, December 8-10, 2003. (Invited)
- Linder, C. R. 2003. Evolution is More Complicated Than It Seems: Horizontal Inheritance in Microbes (and Beyond). Japanese-American Frontiers of Science Symposium 2003, Kanagawa, Japan, December 8-10, 2003. (Invited)
- Luay Nakhleh, Tandy Warnow, and C.R. Linder. 2003. Reconstructing Reticulate Evolution in Species. A poster for IMA/RECOMB Satellite Workshop on Comparative Genomics, October 20-24, 2003. (Participant)
- Daniel P. Miranker, Weijia Xu, Wenguo Liu, and C. Randal Linder. 2003. Application of MoBioS for Conserved Primer Pair Discovery. A poster for IMA/RECOMB Satellite Workshop on Comparative Genomics, October 20-24, 2003. (Participant)
- Tandy Jo Warnow, Katherine St.John, Ruchi Kalra, Luay Nakhleh, Ruth Timme, C. Randal Linder. 2003. New techniques for detecting reticulate evolution. Annual Meeting of the Society for the Study of Evolution.
- Joanna Padolina, Craig R.Linder, Tandy Warnow, Beryl Simpson. 2003. A phylogeny of the genus *Phalaenopsis* (Orchidaceae) using nuclear and chloroplast markers with implications for the study of reticulate evolution. Annual Meeting of the Society for the Study of Evolution.
- Ruth E. Timme, C. Randal Linder, Tandy Warnow, Beryl Simpson. 2003. Better phylogenetic resolution in the genus *Helianthus* (Asteraceae) using ETS sequence data. Annual Meeting of the Society for the Study of Evolution.
- C. Randal Linder, J. Mario McDermott. 2003. A test of whether differing ratios of saturated and unsaturated fatty acids in seed oils are adaptive for different germination temperatures. Annual Meeting of the Society for the Study of Evolution.
- Linder, C. R. 2002. The nature of science and why Darwinian evolutionary explanations are good science. A public talk sponsored by the University of Texas group Panacea (Invited.)
- Linder, C. R. 2002. An evolutionary view of why tropical oils are bad for you but good for the seeds. University of Georgia Department of Genetics Departmental Seminar. (Invited.)
- Linder, C. R. 2002. Ecology and Molecular Biology: A Wedding of Complementary Interests and Expertises. Annual meeting of the Ecological Society of America, Symposium on Linking Molecular Methods and Ecological Research. (Invited.)

- Linder, C. R. 2002. The problem of species revisited. Annual meeting of the American Society of Naturalists.
- Linder, C. R., B. Vanden Heuvel, and R. B. Jackson. 2001. Making the connection: using DNA fingerprinting to link above- and below-ground plants parts in ecological studies. Meeting of the Botanical Society of America.
- Vanden Heuvel, B. and C. R. Linder. 2001. Breakdown of concerted evolution in the nuclear ribosomal repeat: interesting results from the external transcribed spacer region of *Cercocarpus* (Rosaceae). Meeting of the Society for the Study of Evolution.
- Linder, C. R. 2000. The adaptive evolution of seed oil composition in Angiosperms: additional micro and macroevolutionary evidence. Meeting of the Society for the Study of Evolution.
- Vanden Heuvel B. and C. R. Linder. 2000. A molecular phylogeny for *Cercocarpus* H.B.K. Rosaceae using the external transcribed spacer of the nuclear ribosomal repeat. Meeting of the Botanical Society of America and 11th Annual Wildland Shrub Conference.
- Vanden Heuvel, B. and C. R. Linder. 1999. Use of a novel nuclear region of DNA for phylogenetic reconstruction of *Cercocarpus* H.B.K. (Rosaceae). International Botanical Congress.
- Ungerer, M.C., C.R. Linder, L.H. Rieseberg. 1999. Fisherian selection in experimental populations of *Arabidopsis thaliana*. Meeting of the Society for the Study of Evolution.
- Linder, C. R. 1998. A phylogenetic perspective on the latitudinal distribution of oil composition in *Helianthus* and experimental and molecular approaches to determine its basis and importance. Ecological Society of America: Symposium on the Evolutionary Ecophysiology of Plants (Invited).
- Jackson, R. B., W. A. Hoffman, L. A. Moore, C. R. Linder. 1998. Extreme botany: using caves to assess plant water uptake from 5 to 70 m soil depths. Meeting of the Ecological Society of America.
- Linder, C. R., L. R. Goertzen, J. Francisco-Ortega, R. K. Jansen. 1998. The external transcribed spacer of the rDNA repeat: a new means of resolving low-level relationships in the Asteraceae and closely allied families. Meetings of the Botanical Society of America, the American Society of Plant Taxonomists, and the Society for the Study of Evolution.
- Goertzen, L. R., J. Francisco-Ortega, A. Santos-Guerra, C. Randal Linder, R. K. Jansen. 1998. New and improved phylogeny of the Asteriscus alliance: evidence from the external transcribed spacer of the nrDNA. Meetings of the Botanical Society of America, the American Society of Plant Taxonomists, and the Society for the Study of Evolution.
- Development of the external transcribed spacer for phylogenetic analysis in the Asteraceae. 1998. Presentation to the Ecology, Evolution and Systematics seminar in the Department of Botany. (Invited).
- Linder, C. R. 1996. Adaptive changes in seed-oil composition along a temperature gradient in the genus *Helianthus*. Meeting of the Society for the Study of Evolution.
- Rieseberg, L. H., C. R. Linder, B. Sinervo, M. C. Ungerer, D. M. Arias. 1996. Role of gene interactions in hybrid speciation: evidence from ancient and experimental hybrids. Meeting of the Society for the Study of Evolution.
- Linder, C. R. 1995. A targeted approach to ecological risk assessment of genetically modified crops:

lessons from canola (*Brassica napus*). Environmental Impact Of Genetically-Modified Crops: Workshop at Institute for Terrestrial Ecology, Monks Wood, England. (Invited).

Linder, C.R. 1994. Factors affecting persistence of crop-wild hybrids and their implications for the escape of transgenes from crops. Ohio State University Symposium Series in Botany (Invited).

Linder, C.R. 1993. The effects of two independent single-gene changes for seed oil content on the seed and seedling performance of *Brassica rapa* wild x *B. napus* canola hybrids and *B. napus* canola. Meeting of the Society for the Study of Evolution.

Linder, C.R. and G. Schwartz. 1992. The competitive ability of *Brassica rapa* crop-wild hybrids and *B. rapa* wild plants under varying nutrient and water regimes. Meeting of the Population Biologists of New England.

Linder, C.R. 1992. The impact of hybrids between genetically modified crop plants and their related species: evaluating the effect of the transgene on the persistence of hybrids. Symposium on Potential Ecological and Nontarget Effects of Transgenic Plant Gene Products on Agriculture, Silviculture and Natural Ecosystems (Invited).

Linder, C.R. and J. Schmitt. 1992. Engineered genes in the seed bank: the potential for escape in time. Symposium on Potential Ecological and Nontarget Effects of Transgenic Plant Gene Products on Agriculture, Silviculture and Natural Ecosystems (Invited).

Schmitt J. and C.R. Linder. 1992. Will transgene escape lead to ecological release? Symposium on Potential Ecological and Nontarget Effects of Transgenic Plant Gene Products on Agriculture, Silviculture and Natural Ecosystems (Invited).

Linder, C.R. 1991. Speaker and participant at a workshop to determine the scientific data needed to properly assess the risk of transgene escape and persistence in crop-wild hybrids. Workshop sponsored by the National Wildlife Federation (Invited).

1.14.2 Colloquia and Workshop Talks

An Evolutionary and Ecological Perspective on Future Plant Genomic Work. Given at the National Academy of Sciences Plant Genome Initiative Workshop. June 6-7, 2002. National Academy of Sciences, Washington, D. C. (Invited.)

In praise of taxonomic diversity: why molecular biology and ecology need more than the standard model organisms. Given at the Linking Molecular Insights and Ecological Research Workshop, August 21-24, 2001, Carnegie Institution of Washington, Stanford University. (Invited)

1.15 Professional Services

1.15.1 Journal Editing and Editorial Boards

2002-present. Editorial Board. Ecological Applications

2001-present. Editorial Board. American Journal of Botany.

1.15.2 Conference Chair Positions

ESA symposium

ESA discussion group

Chair of Session 49: Phenotypic Plasticity and G x E. 2000. Meeting of the Society for the Study of Evolution.

1.15.3 Major Conference Program Committees

None

1.15.4 Workshops and Specialized Program Committees

Co-organizer with Bernard Moret and Mel Janowitz of the DIMACS Workshop on Reticulated Evolution, September 20 - 21, 2004, DIMACS Center, CoRE Building, Rutgers University, Piscataway, NJ

Co-organizer with Bernard Moret and Mel Janowitz of the DIMACS Working Group on Reticulated Evolution, September 22, 2004, DIMACS Center, CoRE Building, Rutgers University, Piscataway, NJ

Co-chair with Rob Jackson for the Linking Molecular Insights and Ecological Research Workshop, August 21-24, 2001, Carnegie Institution of Washington, Stanford University.

1.15.5 Journal, Conference, and Book Reviewing

1.15.5.1 Journals

2001-2002 Molecular Ecology (2)
Evolution (1)
Molecular Phylogenetics and Evolution (2)
Journal of Applied Ecology (1)

2000-2001 Molecular Ecology (4)
Ecology Letters (1)
Molecular Phylogenetics and Evolution (1)

1999-2000 Ecological Applications (1)
Molecular Ecology (3)
Ecology Letters (1)

1998-1999 American Journal of Botany (1)
Conservation Biology (1)
Ecological Applications (2)
Molecular Ecology (1)
Plant Systematics and Evolution (1)
Theoretical and Applied Genetics (1)

1997-1998 American Journal of Botany (1)
The American Naturalist (1)
Molecular Ecology (1)
Plant Systematics and Evolution (4)

1996-1997 American Journal of Botany (2)
The American Naturalist (1)
Ecological Applications (1)
Evolution (1)

Molecular Ecology (3)
Trends in Biotechnology (1)

1.15.5.2 Conferences

None

1.15.5.3 Book Reviewing

1999-2000 Evolutionary Biology Text (1)

1.15.6 Grant Proposal Reviewing

2001-2002 National Science Foundation: Panel member for the Ecological and Evolutionary Physiology Program (20 proposals reviewed)
University Research Grants (1)

2000-2001 National Science Foundation (4)
University Research Grants (2)

1999-2000 National Science Foundation (2)
United States Department of Agriculture (4)
NERC (1)

1998-1999 National Science Foundation (3)
United States Department of Agriculture (2)
Smithsonian Institution (1)

1997-1998 National Science Foundation (4)
United States Department of Agriculture (2)

1996-1997 National Science Foundation (2)
United States Department of Agriculture: Panel member for the Biotechnology Risk Assessment Program (Primary reviewer for 6 grants; secondary reviewer for 5 grants; reader for 4 grants)
United States Department of Agriculture (3; in addition to grants reviewed as a Panel Member)

1.15.7 Other Service

1996-2001 Collaboration with Barton Hills Elementary School (Austin Independent School District) to educate students about the biology and ecology of the Barton Creek Greenbelt.