



**Society of Systematic Biologists (SSB)
Society for the Study of Evolution (SSE)
American Society of Naturalists (ASN)
Numerical Taxonomy Group (NT)**

8th - 12th July 1995
McGill University, Montreal, Quebec

Program

Society of Systematic Biologists (SSB)
Society for the Study of Evolution (SSE)
American Society of Naturalists (ASN)
Numerical Taxonomy Group (NT)

8th - 12th July 1995
McGill University, Montreal, Quebec

Program

The academic program comprises 847 papers
arranged in 70 symposia, oral and poster sessions,
in addition to four presidential addresses,
contributed by 1372 authors.

The participants at the time of printing come from
26 countries.

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Local Organizing Committee

Co-Chairs and Academic Program:

Graham Bell

Department of Biology and Redpath Museum, McGill University

David Green

Redpath Museum and Department of Biology, McGill University

Catering: Martin Lechowicz

Audio-visual: Peter Crnokrak and Rick Preziosi

Local Attractions: Dan Schoen and Cliff Zeyl

Signage: Derek Roff and the staff of the Redpath Museum

Exhibits

The Conference book displays will take place during the regular conference hours in the Stephen Leacock Building, room 232, on the mezzanine level. The following companies are participating:

Academic Press

Blackwell Science Inc.

Chapman & Hall

Johns Hopkins University Press

Oxford University Press

Princeton University Press

Sinauer Associates, Inc.

The University of Chicago Press

General Information

Program Format

The program consists of plenary, symposium, oral, and poster presentation sessions. Program sessions will take place in several buildings on McGill University lower campus. Please refer to your McGill map and program schedule for session locations. Half hour coffee breaks are scheduled for 10:00-10:30 am and 3:30-4:00 pm daily.

Registration and Information Desk

The Registration desk is located on the lobby level of the Stephen Leacock building and will be open at the following times:

Saturday, July 8	2:00 pm to 8:00 pm
Sunday, July 9	8:00 am to 6:00 pm
Monday, July 10	8:00 am to 6:00 pm
Tuesday, July 11	8:00 am to 6:00 pm
Wednesday, July 12	8:00 am to 11:00 am

Please come to the desk for any help or information you may require.

Message Centre

A message board is located at the Registration desk and will be available during the hours of registration.

Registration Package

Your conference kit contains a program, restaurant list, McGill map, and Montreal tourist information.

Badge Identification

An identity badge is required for admission to all conference activities. A badge with a ribbon designates staff members and organizers who can provide general information and assistance.

Audiovisual Headquarters

Audiovisual arrangements are coordinated from a desk near the Registration desk in the lobby of the Leacock building. Please consult this desk when any problem arises.

Speakers are responsible for organizing their own slides in carousels. Extra carousels are available in room 214 of the Leacock Building. Speakers should take their carousels to the meeting room prior to the beginning of the session and collect their slides at the end of the session. Student staff will be available to help you with your presentation requirements. The meeting organizers can accept no liability for lost, stolen or damaged slides.

All speakers are advised to meet with their session chairs in the session room at least 10 minutes before the session.

Poster Presentations

Poster sessions will be held in the Shatner Ballroom of the University Centre, located at 3480 McTavish Street, directly across from the Stephen Leacock Building. The Ballroom will be open throughout the day Sunday and Monday. Authors should be in attendance at their posters Sunday, July 9 from 9:00 -11:00 pm and Monday, July 10 from 9:00 - 11:00 pm.

Posters scheduled for session 1 on Sunday, July 9, must be mounted before 12:00 noon and removed no later than 10:00 am on Monday, July 10. Posters scheduled for session 2 must be mounted between 10:00 am and noon on Monday, July 10. They must be removed no later than 10:00 am, Tuesday, July 11.

Persons with Disabilities

Please inform the registration desk of your special needs.

City Buses and Metro (Subway)

The cash fare is \$1.75. Strips of tickets costing \$7.00 for six tickets may be purchased at metro stations. Tickets and transfers can be used interchangeably on buses and metro. Telephone A-U-T-O-B-U-S for free route directions. The Metro is the best way to get to the Olympic Park, Place des Arts, La Ronde, the Forum, and Old Montreal. The station nearest to you is the McGill metro on University Street and President Kennedy (south of Sherbrooke Street).

Tipping

In Canada, a service charge is usually not included in the cost of a meal. The normal gratuity is 10% to 15%. When a service charge is included, it will be indicated on the menu. Taxi drivers will expect a 10% to 15% tip.

Please note that two taxes, G.S.T. and P.S.T. (T.P.S. and T.P.V., respectively, in French) will be added.

Currency and Exchange Facilities

The Canadian dollar is the legal tender in Canada but the American dollar is accepted almost everywhere at the prevailing rate of exchange. There are no restrictions on the amount of foreign currency or traveller's cheques brought into Canada. Banks are open from 09:00 to 16:00 Monday to Friday. Several banks are open on Saturday.

Foreign currencies can be exchanged at the airports and at most banks.

Session Schedule

Sunday, 9th July

Monday, 10th July

9:00 - 9:30

Session 1 Plenary
Welcoming Remarks

9:30 - 10:00

Session 2 Symposium
Phylogenetics of Historically-Associated Lineages: Parasites and Hosts, Taxa and Areas, Genes and Species

10:00 - 10:30

Session 3 Concurrent
Conservation Genetics

Session 4 Concurrent
Comparative Analysis of Adaptation

Session 5 Concurrent
Selection: Theory and Practice

Session 6 Concurrent
Molecular Evolution: Gene Evolution

Session 7 Concurrent
Evolution and Behaviour

Session 8 Concurrent
Local Adaptation

Session 9 Concurrent
Hybridization

Session 10 Concurrent
Sex and Evolution

11:00 - 12:00

Lunch

Session 22 Symposium
Recent Developments in the Analysis of Morphometric Data

Session 23 Concurrent
Mutation and Evolution

Session 24 Concurrent
Phylogenetics: Reptiles and Birds

Session 25 Concurrent
Quantitative Genetics

Session 26 Concurrent
Species and Speciation

Session 27 Concurrent
Numerical Taxonomy and Evolution

Session 28 Concurrent
Molecular Evolution: Estimation and Variation

Session 29 Concurrent
Phylogenetics: Mammals

Session 30 Concurrent
Evolution of Cichlids and Other Fishes

Lunch

1:00 - 5:30

Session 11 Symposium
ASN Young Investigators' Prize

Session 12 Concurrent
Phylogenetic Methods: Theory and Practice

Session 13 Concurrent
Evolution of Phenotypic Plasticity

Session 14 Concurrent
Gender Evolution and Allocation

Session 15 Concurrent
Molecular Phylogeny: Arthropods

Session 16 Concurrent
Hybrid Zones and Species Complexes

Session 17 Concurrent
Response to Environmental Change

Session 18 Concurrent
Experimental Evolution

Session 19 Concurrent
Molecular Evolution: Large-Scale Phylogeny

Session 31 Symposium
Numerical Taxonomy in Quantitative and Evolutionary Morphology

Session 32 Symposium
The Evolution of Specialization

Session 33 Concurrent
Quantitative Genetics of Flies and Plants

Session 34 Concurrent
Molecular Evolution and Phylogeny: Insects

Session 35 Concurrent
Comparative Evolutionary Biology: Methods and Results

Session 36 Concurrent
Topics in Population Genetics

Session 37 Concurrent
Genetic Population Structure I

Session 38 Concurrent
Biogeography and Macroevolution

Session 39 Concurrent
Sexual Selection: Mates and Mating

Session 40 Plenary
NT Presidential Address
New Avenues in the Numerical Study of Behaviour

5:30 - 9:00

Session 20 Plenary
ASN Presidential Address
In Defense of Founder Flush Speciation

Session 41 Plenary
SSB Presidential Address
Salvador Dali, Flying DNA, and the Parametric Bootstrap

5:30 - 11:00

Session 21 Poster
Mostly Evolution

Session 42 Poster
Mostly Systematics

Tuesday, 11th July**Wednesday, 12th July**

8:30 - 12:00	Session 43 Symposium Molecular Mechanisms of Evolutionary Adaptation Session 44 Concurrent Phylogenetics: Fish and Amphibians Session 45 Concurrent Coevolution Session 46 Concurrent Molecular Evolution: General Issues Session 47 Concurrent Gene Flow and Genetic Diversity Session 48 Concurrent Sexual Selection: Choice and Combat Session 49 Concurrent Life Histories: Optimization, Correlation and Constraint Session 50 Concurrent Parasitic Genetic Elements Session 51 Concurrent Molecular Evolution: Selection	Session 62 Symposium Mapping Quantitative Trait Loci Session 63 Symposium Rapid Evolutionary Changes in Wild Populations Session 64 Concurrent Molecular Systematics: Fungi, Algae and Plants Session 65 Concurrent Genetic Variability and Metapopulations Session 66 Concurrent Evolution and Development Session 67 Concurrent Cytонuclear Interaction and Gene Evolution Session 68 Concurrent Molecular Population Genetics: Models and Mutations Session 69 Concurrent Sex Ratios and Sex Allocation Session 70 Concurrent Molecular Evolution: Small-Scale Variation and Phylogeny
10:00 - 10:30 Break	Lunch	End of formal proceedings
2:00 - 5:30	Session 52 Symposium Incorporating Molecular Evolution into Molecular Systematics Session 53 Concurrent Biogeography Session 54 Concurrent Molecular Systematics: Viruses, Bacteria and Invertebrates Session 55 Concurrent Demography Session 56 Concurrent Inbreeding Depression in Plants Session 57 Concurrent DNA Sequence Variation Session 58 Concurrent Species Interactions Session 59 Concurrent Life Histories: Development, Dispersal and Density Session 60 Concurrent Genetic Population Structure II	
3:30 - 4:00 Break	Banquet	
6:00 - 8:30		
9:00 - 10:00	Session 61 Plenary SSE Presidential Address Light, Vision, Colour Patterns, and Behaviour: Suites of Interactive Traits and the Direction of Evolution	

Social Activities

Welcome Reception

The Welcome Reception will be held on Saturday, July 8 at 6:30 pm on the Redpath Hall Terrace, weather permitting (inside, if not). This activity is included in the registration fee for all conference participants.

Banquet

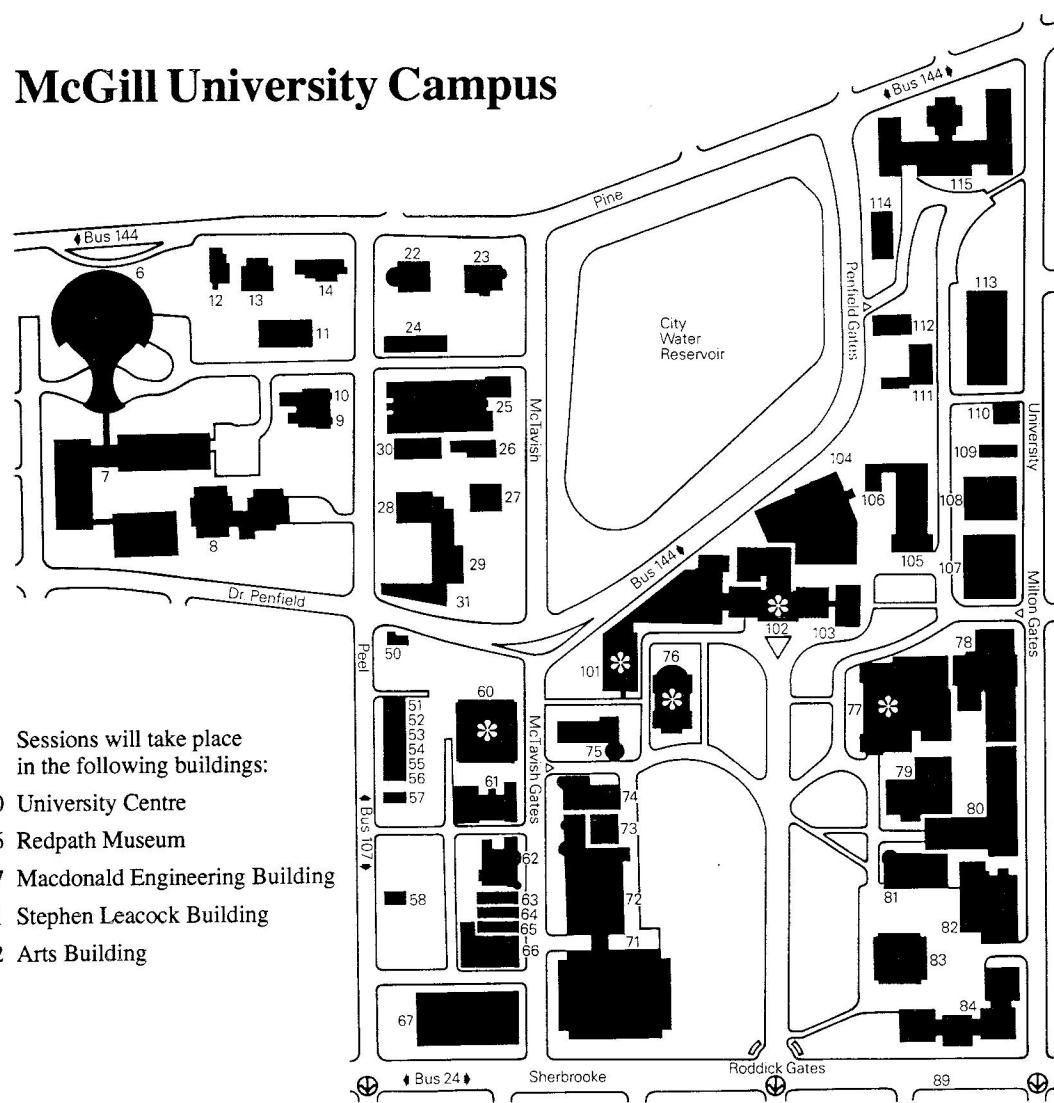
The conference banquet will take place at Bishop Mountain Hall, 3935 University Street (at the very top of the hill), Tuesday, July 11, 6:00 to 8:30 pm.

Dress: CASUAL.

Ernst Mayr Student Award

Submitted paper titles eligible for the Ernst Mayr Student Award (SSB) are indicated with a bullet (♦) in the program schedule. The announcement of the recipient of this award will be made at the ASN Presidential Address on Tuesday evening.

McGill University Campus



1995 Annual Meeting

Society of Systematic Biologists (SSB)
Society for the Study of Evolution (SSE)
American Society of Naturalists (ASN)
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Session Listing

Note:

- * indicates the presenter
- ♦ indicates student presentation in competition for the Ernst Mayr Award (SSB)

Sunday, 9th July 1995: Morning

Leacock 132

8:00 - 8:30

Session 1 Welcoming Remarks

Plenary

David M. Green

Vice-Principal (Academic) T. H. Chan

Graham Bell

Leacock 26

8:30 - 12:00

Session 2 Phylogenetics of Historically-Associated Lineages: Parasites and Hosts, Taxa and Areas, Genes and Species

Symposium

Chair: Richard O'Grady

8:30

- 1 **Genes, Organisms, and Areas: A New Threefold Parallelism?**
* R.D.M. Page

9:00

- 2 **Genes and Their Trees: Connections between Levels in the Hierarchy of Life**
* J.J. Doyle

9:30

- 3 **Gene Trees in Species Trees**
* W. Madison

10:00

Break

10:30

- 4 **Parsimony and Component: What Do They Really Do—and Why?**
* D.R. Brooks

11:00

- 5 **Component-Compatibility in Analyzing Historically-Associated Lineages**
* R. Zandee

Redpath Museum Auditorium

8:30 - 12:00

Session 3 Conservation Genetics

Contributed Papers

Chair: Leonard Nunney

8:30

- 6 **Effective Size of Spatially Structured Populations**
* L. Nunney

8:45

- 7 **Estimating Changes in Population Size from Molecular Data Using Metropolis-Hastings Likelihood Sampling**
* M.K. Kuhner, J. Yamato, J. Felsenstein

9:00

- 8 **Effect of Population Decline on Molecular Genetic Variation in the Endangered Mauna Kea Silversword**
* E. Friar, R. Robichaux, D. Mount

9:15

- 9 **Hybridization and the Extinction of Rare Plant Species**
* D.A. Levin

9:30

- 10 **RAPD Markers Reveal Fine-Scale Genetic Variation in *Iris lacustris*, a Threatened Clonal Endemic**
* C. Landry, G. Hannan

9:45

- 11 **New DNA Markers Applied to Genetic Monitoring Studies of Endangered Pacific Salmon Populations**
* P. Moran, D.A. Dightman, R.S. Waples, L.K. Park

10:00

Break

10:30

- 12 **Temporal Allele Frequency Variance in the Striped Bass Santee-Cooper, SC, Population**
* M. Diaz, G. Leclerc, B. Ely

10:45

- 13 **Conservation and Loss of Genetic Variation in Fish Life History Traits: Implications of Gene Flow and Strong Size-Based Selection**
* J.C. Trexler

11:00

- 14 *** Systematics and Conservation of the North American Boreal Toad (*Bufo boreas*)**
* A. Goebel

Sunday, 9th July 1995: Morning

11:15	15	A Mitochondrial DNA Study of Museum Specimens Reveals Low Historic Genetic Diversity in the Endangered Morro Bay Kangaroo Rat (<i>Dipodomys heermanni morroensis</i>) * M.D. Matocq, F.X. Villalobos, J.A. Randall, C. Orrego
11:30	16	* No MHC Diversity in the Hawaiian Monk Seal * P. Armstrong
11:45	17	Conservation Genetics of Small Cetaceans * P.E. Rosel

Arts 125

8:30 - 12:00 Session 4 Comparative Analysis of Adaptation

Contributed Papers
Chair: Jonathan Losos

8:30	18	The Witch's Nose is a Carrot: A Review of Objective Criteria for Invoking Character Displacement, and an Evolutionary Example Using Phylogenetic Autocorrelation * J. Bernardo
8:45	19	* Exploring Uncertainty: How do Different Models of Ancestral Character State Reconstruction Affect Hypotheses of Character Displacement in Lesser Antillean <i>Anolis</i> Lizards? * M.A. Butler, J.B. Losos
9:00	20	Is Evolutionary Specialization a One-Way Street: Studies on Caribbean <i>Anolis</i> Lizards * J. Losos, K. de Queiroz
9:15	21	* A Comparative Analysis of Clinging Ability in Pad-Bearing Lizards * D. Irschick, O. Ellers, J.B. Losos, K. Petren, C. Austin, R. Fisher
9:30	22	Physiological and Evolutionary Aspects of Marine Adaptation in Crocodilians * K. Jackson
9:45	23	* The Evolution of Sound Signal Structure and Function in Arioid Catfishes: A New Model System * I.M. Kaatz
10:00		Break
10:30	24	Coevolution of Egg Size and Ovipositor Length in Crickets * Y. Carriere, S. Masaki, D.A. Roff
10:45	25	A Comparative Analysis of the Allometry for Sexual Size Dimorphism: Testing Rensch's Hypothesis * E. Abouheif, D.J. Fairbairn
11:00	26	Caenogenesis in the Evolution of Viviparity * M.H. Wake
11:15	27	Phylogenetic Relationships, Sympatry and the Divergence of Gamete Recognition Proteins Among Turban Snails (<i>Tegula</i>) * M.E. Hellberg
11:30	28	Evolution of Locomotion in Centipedes: Falsification of Manton's Model * J.W. Shultz, B.D. Anderson, B.C. Jayne
11:45	29	Evolutionary Coupling of Coloration and Chemical Defense: When Are Chemically-Defended Prey Cryptic? * K. Kelley

Sunday, 9th July 1995: Morning

Macdonald Engineering Building 279

8:30 - 12:00

Session 5 Selection: Theory and Practice

Contributed Papers
Chair: Don Stratton

8:30	30	The Evolution of Genomic Imprinting * H.G. Spencer
8:45	31	The Dominance Theory of Haldane's Rule * M. Turelli, H.A. Orr
9:00	32	Environmental and Evolutionary Effects of Temperature on Metabolic Acclimation * D. Berrigan
9:15	33	Small-Scale Balancing Selection and the Maintenance of Genetic Variation * D. Stratton
9:30	34	Natural Selection on Seed Size * L. Mojonnier
9:45	35	The Targets of Selection in a Colicin Plasmid System * M. Feldgarden, M. Laubichler
10:00		Break
10:30	36	Comparing Methods for the Analysis of Selection and Performance: Sprint Speed in Larval Wood Frogs (<i>Rana sylvatica</i>) * P.C. Phillips
10:45	37	♦ Quantifying Selection in a Population of Tropical Treefrogs * K.R. Lips
11:00	38	Evidence for Positive Selection in the <i>white</i> Region of <i>Drosophila melanogaster</i> * D. Kirby, W. Stephan
11:15	39	Selection in <i>Conyza</i>: The Importance of Species Identity, Habitat, and Neighborhood Competition * C. Thebaud
11:30	40	Kin Selection in the Annual Plant Species <i>Impatiens capensis</i> * J. Kelly
11:45	41	Do Herbivores Impose Selection on Resistance in Natural Populations of <i>Arabidopsis thaliana</i>? * R. Mauricio

Leacock 219

8:30 - 12:00

Session 6 Molecular Evolution: Gene Evolution

Contributed Papers
Chair: Guy Drouin

8:30	42	Evolution of Mitochondrial and Nuclear Transfer RNAs * M. Lynch
8:45	43	Accelerated Rates of Molecular Evolution in the Chloroplast Gene <i>rps2</i> From Photosynthetic and Nonphotosynthetic Parasitic Plants * C.W. de Pamphilis, N.D. Young, A.D. Wolfe
9:00	44	Evolution of Genes Which Control Floral Morphology * M. Purugganan, S. Rounseley, R. Schmidt, M. Yanofsky
9:15	45	♦ Evolution of the <i>recA</i> Protein and the Phylogeny of Bacteria * J.A. Eisen, A.I. Roca
9:30	46	Molecular Evolution of Mitochondrial <i>coxI</i> Sequences in Plants and Animals: A Comparative Analysis * N.D. Young, A.D. Wolfe, C.W. dePamphilis
9:45	47	Molecular Evolution of Three Fungal Proteins * V. Koufopanou, A. Burt, J.W. Taylor
10:00		Break

Sunday, 9th July 1995: Morning

10:30	48	The Transposition and Concerted Evolution of 5S Genes Within Other Multigene Families * G. Drouin
10:45	49	The Evolution of P-Glycoprotein, A Member of the ABC Superfamily of Transporters * M. Ell, G. Drouin
11:00	50	Concerted Evolution of the Rubisco Small Subunit Gene Family in the Solanaceae * A. Colwell, R. Olmstead
11:15	51	Nucleotide Substitution Rates in Adh1: Comparisons Between Grass and Palm Sequences B. Morton, * B.S. Gaut, M.T. Clegg
11:30	52	Evolution of Regulatory Sequences: The Lactate Dehydrogenase -B Gene in <i>Fundulus heteroclitus</i> * P.M. Schulte, D.A. Powers
11:45	53	The Comparative Method at the DNA Level: The Evolution of Multiple Beta-Globin Genes (and Pseudogenes) In Antarctic Fish * L. Bargelloni, T. Patarnello

Macdonald Engineering Building 280

8:30 - 12:00 Session 7 Evolution and Behavior

Contributed Papers
Chair: Bruce Waldman

8:30	54	Evolution and Coevolution of Male and Female Mating Behavior in a Polygynandrous Mating System * S.L. Lance, L. Chao
8:45	55	Evolution of Foraging Mechanisms and the Currency of Energy Maximization in Bumble Bees * D.E. Taneyhill
9:00	56	Allozyme Evidence Suggests that Quantitative Trait Loci Candidate Genes Correlated with Geotaxis in <i>Drosophila melanogaster</i> are Located Near Adh (2-50.1) * S.F. Stoltzenberg, J. Hirsch
9:15	57	Genetic Correlations and Learning Phenotypes in <i>Drosophila melanogaster</i> * K. Lofdahl, Y. Shin, L. Borja
9:30	58	Colony Cycles and Kin Recognition in a Neotropical Swarm-forming Wasp: Evidence From Microsatellites * J. Strassmann, J. Klingler, K. Goodnight, D. Queller, E. Arevalo
9:45	59	Worker Policing and Conflicts of Interest in the Paper Wasp, <i>Polistes bellicosus</i>, Determined by Microsatellites * E. Arevalo, J.E. Strassmann, D. Queller
10:00		Break
10:30	60	Microsatellite-Based Analysis of Maternity and Reproductive Control in the Paper Wasp, <i>Polistes annularis</i> * D. Queller, J. Peters, J. Strassmann, C. Solis
10:45	61	Alternative Mating Strategies of the Marine Amphipod <i>Jassa marmorata</i>: Why Are Some Males All Thumbs? * R.A. Clark
11:00	62	Evolutionary Responses of Escape Swimming Performance in Guppies to Differing Natural Predation Intensity * A. J. Cullum
11:15	63	Larval Kin Recognition in the Joint Nesting Salamander Species <i>Hemidactylum scutatum</i> (Caudata: Plethodontidae): Avoidance vs. Attraction T.J. Vess, * R.N. Harris
11:30	64	Inbreeding Avoidance and Genetic Differentiation of Breeding Populations in American Toads (<i>Bufo americanus</i>) * B. Waldman
11:45	65	Bright Female Coloration and Signalling between Females and Males of the South American Iguanid Lizard <i>Microlophus occipitalis</i> * G. Watkins

Sunday, 9th July 1995: Morning

Macdonald Engineering Building 497

8:30 - 12:00

Session 8 Local Adaptation

Contributed Papers

Chair: Murray Littlejohn

8:30	66	How Does Immigration Influence Local Adaptation? A Re-examination of a Familiar Paradigm * R.D. Holt, R. Gomulkiewicz
8:45	67	Molecular Phylogenetic Evidence for Adaptive Radiation Through Shifts in Habitat Preference * M. Stanhope
9:00	68	Restricted Gene Flow between Locally Adapted Aphid Populations: Role of Habitat Choice * S. Via
9:15	69	Local Adaptation, Morphological Maturation, and the Potential for Selection by a Gill Net Fishery on Spawner Morphology in Sockeye Salmon * T.R. Hamon, R. Hilborn, D.E. Rogers
9:30	70	Trade-Offs of Ecological Specialization: An Intraspecific Comparison of Pumpkinseed Sunfish Phenotypes * B.W. Robinson, D.S. Wilson
9:45	71	Reproductive Character Displacement in the Tree Frogs <i>Litoria ewingii</i> and <i>Litoria verreauxii</i>: A Re-examination * M.J. Littlejohn, G.F. Watson
10:00		Break
10:30	72	Postmating Reproductive Isolation Between Zimbabwe and Non-Zimbabwe <i>Drosophila melanogaster</i> * N.A. Johnson
10:45	73	Host Effects on Body Size Associated with Host Shifts in <i>Enchenopa</i> Treehoppers * A.B. Shantz, K.J. Tilmon, T.K. Wood
11:00	74	Adaptation by <i>Enchenopa</i> Treehoppers to Novel Plants in the Initial Stages of a Host Shift * K.J. Tilmon, T.K. Wood
11:15	75	Experimental Insect Race Formation: Host Plant Fidelity During Mating and Oviposition * T.K. Wood, K.J. Tilmon
11:30	76	Sex-Linked Loci Associated with Host Race Differentiation in Fall Armyworm <i>Spodoptera frugiperda</i> * D.G. Heckel, J. Adamczyk, H. Fescemyer, Y.T. Ma
11:45	77	Multiple Song Species in a Single Morphological Species: The Complex Story of a Green Lacewing, <i>Chrysoperla carnea</i> * C.S. Henry

Arts 255

8:30 - 12:00

Session 9 Hybridization

Contributed Papers

Chair: Michael Wade

8:30	78	Developmental Genetic Variation Revealed by Hybridization * M.J. Wade, N.A. Johnson
8:45	79	Natural Hybridization in <i>Daphnia</i>: Genetic and Evolutionary Consequences * K. Schwenk
9:00	80	Hybridization of Two Sympatric <i>Colias</i> Butterflies: Estimation of the Rate of Gene Flow Using Allozyme Data * K.C. Fletcher
9:15	81	Barriers of Cross-Fertilization in Sympatric Sea Urchins (Echinoida:Strongylocentrotidae) * C.H. Biermann
9:30	82	Tracking Paleointrogressive Events: Evidence from Vertebrates and Insects * L. Bullini, R. Cianchi, G. Nascetti, S. Urbanelli, E. De Vito, P. Sallicandro, A. Verardi
9:45	83	The Effects of Natural Hybridization on the Inheritance of mtDNA in Marine Mussels (<i>Mytilus</i> spp) * P.D. Rawson, T.J. Hilbish
10:00		Break

Sunday, 9th July 1995: Morning

8:30	84	Formation of a Hybrid Population: Production of F1 Progeny Constrains the Frequency and Genotypes of Future Hybrid Generations S.A. Hodges, * J.M. Burke, M.L. Arnold
8:45	85	Effective Hybridization in Sympatric Populations of Milkweeds (<i>Asclepias exaltata</i> and <i>Asclepias syriaca</i>) * S.B. Broyles, C. Vail, D. Laffin, S. Bauer
9:00	86	The Origin and Maintenance of a New Tetraploid <i>Senecio</i> Hybrid in York, England * A. Lowe, R. Abbott
9:15	87	Effects of Pollen-Tube Growth Rate and Ovule Position on Hybridization in the Louisiana Irises * S.E. Carney, S.A. Hodges, M.L. Arnold
9:30	88	Fitness of Hybrids in Two Oak Hybrid Zones * J.H. Williams Jr., W.J. Boecklen, D.J. Howard
9:45	89	Frequency and Direction of Hybridization in Sympatric Populations of <i>Pinus taeda</i> L. (Loblolly Pine) and <i>P. echinata</i> Mill. (Shortleaf Pine) * M.A. Edwards, J.L. Hamrick, R.A. Price

Macdonald Engineering Building 476

Session 10 Sex and Evolution

Contributed Papers
Chair: Gary Sullivan

8:30	90	The Effect of Sex on the Variance in Fitness and Mean Fitness: An Experiment with <i>Chlamydomonas</i> * J. Da Silva, G. Bell
8:45	91	Sex and the Tangled Bank: Sex Provides No Benefit to <i>Paramecium</i> in a Complex Environment * A.O. Parman
9:00	92	Tropical Ostracodes and the Ecology of Sex * T.J. Little, P.D.N. Hebert
9:15	93	Antigenic Variation and Intragenic Recombination in the <i>ospC</i> gene of <i>Borrelia burgdorferi</i> * D. Dykhuizen, D. Guttman, B. Luft
9:30	94	Change of Genetic Architecture in Response to Sex * H. Deng, M. Lynch
9:45	95	Molecular Markers Reveal Cryptic Sex in the Human Pathogen <i>Coccidioides immitis</i> (Fungi) * A. Burt, D.A. Carter, G.L. Koenig, T.J. White, J.W. Taylor
10:00		Break
10:30	96	Molecular Evidence for Sex Without Genetic Recombination in the Metagenic Life-Cycle of <i>Eleutheria dichotoma</i> (Hydrozoa) * B. Schierwater, H. Hadrys
10:45	97	Genetic Evidence for Ancient Loss of Sex in Bdelloid Rotifers * D. Welch, J. Mark, A. Fagen, M. Meselson
11:00	98	Origins of Polyploidy in Obligately Asexual Lineages of the <i>Daphnia pulex</i> Complex from Arctic North America * F. Dufresne, P.D.N. Hebert
11:15	99	Vegetative Reproduction and Mutational Meltdown in Small Populations of a Rare Eucalypt Species * W.J. Kennington, S.H. James
11:30	100	Genetic Variation in a Tradeoff Between Sexual and Asexual Reproduction in a Dioecious Clonal Plant * G. Sullivan

Sunday, 9th July 1995: Afternoon

Leacock 26

2:00 - 5:30

Session 11 ASN Young Investigators Prize Symposium

Symposium

Chair: Andrew G. Clark

- | | | |
|------|-----|---|
| 2:00 | 101 | Molecular Population Genetics of <i>Drosophila</i>
* D. Begun |
| 2:45 | 102 | Reconstruction of Ancestral Nucleotide or Amino Acid Sequences by the Likelihood Approach
* Z. Yang |
| 3:30 | | Break |
| 4:00 | 103 | Behavioral and Evolutionary Dynamics of Sexual Conflict in Water Striders
* G. Arnqvist |
| 4:45 | 104 | The Evolutionary Transition Between Haploidy and Diploidy
* S.P. Otto |

Arts 125

2:00 - 5:30

Session 12 Phylogenetic Methods: Theory & Practice

Contributed Papers

Chair: Michael Sharkey

- | | | |
|------|-----|---|
| 2:00 | 105 | Discriminating Compatibility Measures as Weights in Parsimony Analysis
* M. Sharkey |
| 2:15 | 106 | Total Evidence vs. Consensus with Molecular Data Sets: Is There Just One Answer?
* R. Olmstead |
| 2:30 | 107 | * Polymorphic Characters in Phylogenetic Systematics
* J.J. Wiens |
| 2:45 | 108 | Detection of Conflicting Phylogenetic Signals
* J. Huelsenbeck, J.J. Bull |
| 3:00 | 109 | Phylogenetic Invariants: The Geometry and Algebra of Phylogenetic Estimation
* J. Kim |
| 3:15 | 110 | An Evaluation of the Performance of Successive Weighting Using Simulation and a Well Supported Phylogeny
* J.A. McGuire, J.P. Huelsenbeck |
| 3:30 | | Break |
| 4:00 | 111 | The Estimation of Evolutionary Distances under Nonstationary Nucleotide Content
* A. Zharkikh, W. Li |
| 4:15 | 112 | The Phylogenetic Utility of LogDet/Paralinear Distances for More Realistic Evolutionary Models. I. Do They Perform as Advertised?
* P.O. Lewis, D.L. Swofford, P.J. Waddell |
| 4:30 | 113 | The Phylogenetic Utility of LogDet/Paralinear Distances for More Realistic Evolutionary Models. II. Is There a Heavy Price For Using Them When a Simpler Model Would Suffice?
* D.L. Swofford, P.O. Lewis, P.J. Waddell |
| 4:45 | 114 | A Fast Method for Approximating Likelihoods in the Estimation of Phylogenetic Trees from Nucleotide Sequences
* J. S. Rogers, D. L. Swofford |
| 5:00 | 115 | * A Procedure for Phylogenetic Taxonomy
* M.S. Caterino |
| 5:15 | 116 | Maps and Legends: Independence Between the Phylogenies We Use and the Stories We Tell
* J. T. Streelman |

Sunday, 9th July 1995: Afternoon

Macdonald Engineering Building 279

2:00 - 5:30

Session 13 Evolution of Phenotypic Plasticity

Contributed Papers

Chair: Samuel Scheiner

2:00	117	Mutations for Phenotypic Plasticity in <i>Arabidopsis</i> * C. Schlichting, M. Pigliucci, G. Tyler
2:15	118	Pleiotropic Effects of Genes Affecting Phenotypic Plasticity in <i>Arabidopsis</i> * M. Pigliucci, J. Schmitt
2:30	119	Testing the Adaptive Plasticity Hypothesis: Density Dependent Selection on Manipulated Stem Length in <i>Impatiens capensis</i> * S.A. Dudley, J. Schmitt
2:45	120	Plasticity of Stem Elongation and Leaf Area in Response to Irradiance and Light Quality in <i>Impatiens capensis</i> * J. Balis, S.A. Dudley, J. Schmitt
3:00	121	Phenotypic Plasticity and Genetic Similarity among Genotypes of an Annual Plant * M Jasienski, F.J. Ayala, F.A. Bazzaz
3:15	122	Phenotypic Plasticity in Sun versus Shade Native Populations of <i>Amphicarpaea bracteata</i> * H. Callahan, D.M. Waller
3:30		Break
4:00	123	The Evolution of Phenotypic Plasticity in an Unpredictable Environment * G. De Jong
4:15	124	Plasticity Evolution: A Genomic Model with Spatial Structure -Part 2 * S.M. Scheiner
4:30	125	Selection on Plasticity: Can Costs or Genetic Constraints Lead to (Co-Existing) Specialists? * P. Van Tienderen
4:45	126	Does Phenotypic Plasticity Evolve in Response to a Heteroscedastic World? * A. Aldous, M. Waterway, P. Dutilleul
5:00	127	Selection and Adaptive Limitations on a Seasonally Plastic Trait * J. Kingsolver
5:15	128	Ontogenetic Constraints and Genetic Variation of Morphological Reaction Norms in Grasshoppers * D.B. Thompson

Macdonald Engineering Building 280

2:00 - 5:30

Session 14 Gender Evolution and Allocation

Contributed Papers

Chair: Daniel Heath

2:00	129	Evolution of "First Male" Effects on Sperm Use and Remating by Female <i>Drosophila</i> * P.M. Service, R.E. Vossbrink
2:15	130	Sexual Reproduction of <i>Daphnia pulex</i> in a Temporary Habitat * D.J. Innes, D.R. Singleton
2:30	131	Competition Among Clones of <i>Daphnia pulex</i> Varying in Allocation to Male Function * D.R. Singleton, D.I. Innes
2:45	132	Quantitative and Molecular Determinations of the Genetic Basis of an Alternative Male Life History Strategy in Salmon * D.D. Heath, K. Ritland, T. Mousseau
3:00	133	Genetic and Social Control of Male Maturation in <i>Phallichthys quadripunctatus</i> (Pisces:Poeciliidae) * G.R. Kolluru, D.N. Reznick
3:15	134	Genetic Polymorphism for Alternative Male Mating Strategies in the Ruff (Aves: Scolopacidae): Support From Pedigree Data * D.B. Lank, C.M. Smith
3:30		Break

Sunday, 9th July 1995: Afternoon

- 4:00 135 Maintenance of Environmentally Cued Polymorphism Promoted by Gender-Specific Fitness Payoffs
* H. Whiteman
- 4:15 136 Variance at the Floral Level in Contribution to Whole-Plant Fitness: The "Male Function" Hypothesis Revisited
* M. Burd
- 4:30 137 The Evolution of Floral Scent Production and Hawkmoth Pollination in *Clarkia breweri* (Onagraceae)
* R.A. Raguso
- 4:45 138 Large Flowers Are Costly: Trade-Offs with Female Fitness Components in *Solanum carolinense*
* E. Elle
- 5:00 139 Transexuality in the Pulpit: An Examination of Gender Choices
* P. Vitt, K.E. Holsinger
- 5:15 140 Evolution of Protandry in the Pitcher-Plant Mosquito *Wyeomyia smithii*
* W.E. Bradshaw, C.M. Holzapfel, C.A. Kleckner, J.J. Hard

Arts 255

Session 15 Molecular Phylogeny: Arthropods

Contributed Papers
Chair: Trisha Spears

- 2:00 141 Pleistocene Refugia in Coastal British Columbia: Tests Using Molecular Data From Endemic Vertebrates
* T.E. Reimchen, B.E. Deagle, A. Byun
- 2:15 142 Evolutionary Relationships Among the Deep-Sea Hydrothermal Vent and Hydrocarbon Seep Endemic Shrimp (Decapoda: Caridea: Bresiliidae)
* T.M. Shank, M. Black, R.A. Lutz, R.C. Vrijenhoek
- 2:30 143 Molecular Phylogeny of Peracarid Crustaceans and Selected Relatives Based on 18SrDNA
* T. Spears, R.W. DeBry, L.G. Abele
- 2:45 144 * Molecular Systematics of Orb-Web Weaving Spiders
* C. Hayashi
- 3:00 145 * Tetragnathid Phylogeny and Size Dimorphism in Nephiline Spiders
* G. Hormiga, J. Coddington
- 3:15 146 * Systematics of the Spider Genera *Mallos* and *Mexitilia* (Dictynidae): Congruence between Molecular and Morphological Data
* J.E. Bond, B.D. Opell
- 3:30 Break
- 4:00 147 Phylogenetics of New Zealand Ground Weta (Orthoptera: Anostostomatidae)
* A.S. Gerber
- 4:15 148 DNA Sequence Variation in Some Members of the *Geocoris bullatus-pallens* Species Complex (Heteroptera: Lygaeidae) Which Occur in Western Canada
* D. Mulyk
- 4:30 149 * Elongation Factor 1- α DNA Sequences Provide New Evidence on Relationships among Subfamilies of Noctuoid Moths
* A. Mitchell, J.C. Regier, C. Mitter
- 4:45 150 Molecular Systematics of Nymphalid Butterflies Based on Cladistic Analysis of Mitochondrial COII and wings Genes
* A. Brower, R. DeSalle, J.S. Miller
- 5:00 151 Molecular Phylogeny of Giant Silk Moths (Saturniidae: Saturninae: Aracini)
* K. Horst, T. Friedlander, J. Regier
- 5:15 152 Molecular Phylogenetics and Evolution of Life Cycles in Aphids
* C.D. von Dohlen, N.A. Moran

Sunday, 9th July 1995: Afternoon

Redpath Museum Auditorium

2:00 - 5:30

Session 16 Hybrid Zones and Species Complexes

Contributed Papers

Chair: Adam Porter

- 2:00 153 **Hybridization in Disjunct Meadow Katydid Contact Zones: Molecules, Morphology and Behavior**
* L. Shapiro
- 2:15 154 **Distinguishing Secondary Contact and Hybridization from Intraspecific Clinal Variation**
* B. Chernoff, T.M. Bert
- 2:30 155 **Ancient Intergenomic Introgression in *Gossypium* (Cotton)**
* J.F. Wendel, A. Schnabel, T. Seelanan
- 2:45 156 **Asymmetric Mitochondrial Gene Flow: Patterns and Origins among Sibling Species of Mussels**
P. Rawson, * J. Hilbish
- 3:00 157 **A Three-Way Zone of Genetic Interactions in Salamanders of the *Ensatina* Complex**
* D.B. Wake, C. Schneider
- 3:15 158 **Genetic Consequences of Range Contraction and Expansion in the Spotted Frog Complex, *Rana pretiosa***
* D.M. Green
- 3:30 Break
- 4:00 159 **The *Pieris napi-bryoniae* (Lepidoptera: Pieridae) Hybrid Zone at Pont de Nant, Switzerland: Dispersal and Selection Dynamics**
* A. Porter, P. Benninger, R. Wenger, H. Geiger, A. Scholl
- 4:15 160 **Oviposition Preference for Soil Type in and around a Field Cricket Hybrid Zone**
* C. Ross
- 4:30 161 *** Nature of Selection that Stabilizes the Big Sagebrush Hybrid Zone in Utah**
* H. Wang, D.C. Freeman, E. Durant McArthur, J.H. Graham
- 4:45 162 **Inferring Mating System and Gene Flow in a Fire Ant Hybrid Zone: An Application of Cytonuclear Theory and Data in a Haplodiploid Organism**
* M. Goodisman, D. Shoemaker, M. Asmussen
- 5:00 163 **Factors Controlling Hybrid Zone Structure in Louisiana Irises: Reciprocal Transplant Experiments**
* S.K. Emms, M.L. Arnold

Macdonald Engineering Building 497

2:00 - 5:30

Session 17 Response to Environmental Change

Contributed Papers

Chair: Alan E. Stiven

- 2:00 164 **Genetic Constraints on Diet Expansion in the Leaf-Mining Fly *Amauromyza flavifrons* (Diptera: Agromyzidae)**
* S.J. Scheffer
- 2:15 165 **Demographic and Genetic Responses of Eastern Mosquitofish Populations to Chronic Environmental Stress**
* K.L. Kandl
- 2:30 166 **Population Size, Inbreeding Depression and Extinction in a Perennial Plant Species**
* N. J. Ouborg
- 2:45 167 **The Response of Mating System to Different Plant Densities in the Natural Population of *Impatiens capensis* (Balsaminaceae)**
* Y. Lu, D. Waller
- 3:00 168 **Effective Use of Transgenic Crops to Manage Evolving Pathogens**
* J. Winterer
- 3:15 169 **Paternal Effects on Disease Resistance in the Tall Morning Glory**
* E.L. Simms, J. Triplett
- 3:30 Break
- 4:00 170 **Stress and the Genetic Heterozygosity Growth Rate Association in a Terrestrial Gastropod**
* A. Stiven

Sunday, 9th July 1995: Afternoon

4:15	171	Genetic Response of <i>Arabidopsis thaliana</i> to Interacting Stresses * C. Bennington, D. Stratton
4:30	172	Thinning Reduces the Effect of Rust on Jewelweed (<i>Impatiens capensis</i>) * S.G. Johnson, C.M. Lively, L.F. Delph, K. Clay
4:45	173	The Genetics of Heavy Metal Tolerance in <i>Chironomus riparius</i> * J. Jobe
5:00	174	Dropping Like Flies: Artificial Selection on Heat Sensitivity in <i>Drosophila</i> * G.W. Gilchrist, R. B. Huey
5:15	175	The Red Mangrove (<i>Rhizophora mangle</i>): An Evolutionary Success Story in Tropical Intertidal Zones * U. Stoltz, J. Cheeseman

Macdonald Engineering Building 476

Session 18 Experimental Evolution

Contributed Papers

Chair: Cliff Cunningham

2:00	176	Clocks and Convergence: Observing the Course of Molecular Evolution in Experimentally Generated Lineages of Bacteriophage T7 * C. Cunningham, J. Bull, D. Hillis
2:15	177	Evolution of Virulence in an Experimental Bacteriophage System * S. Messenger, J.J. Bull
2:30	178	Evolutionary Potential of Generalists and Specialists: An Experimental Study with Bacteriophage * G. Krukonis
2:45	179	100 Generations of Selection for Accelerated Development: Direct and Correlated Responses in <i>Drosophila</i> Life-History * A. Chippindale
3:00	180	Evolution of Desiccation Resistance in <i>Drosophila melanogaster</i> * A. Gibbs
3:15	181	Allozymic Differentiation in Response to Laboratory Selection in <i>Drosophila melanogaster</i> * D.J. Deckert, M.R. Rose
3:30		Break
4:00	182	Does Selection For Anthelmintic Resistance Alter the Life History Traits of a Parasitic Nematode? * A. Chehresa, M.E. Scott, R.N. Beech
4:15	183	Costs of Defense: Artificial Selection for Foliar Glucosinolate Content in <i>Brassica rapa</i> * K.A. Stowe, R.J. Marquis
4:30	184	mRNA Abundances in <i>Drosophila melanogaster</i> Selected for Postponed Senescence * H. Brar, M. Rose, J. Tower
4:45	185	Evolution of Cyto-Nuclear Genotypes in Experimental Populations of <i>Drosophila melanogaster</i> * M. Kiparsky, D. Rand
5:00	186	Sexual Size Dimorphism as a Correlated Response to Selection on Body Size: A Test of Quantitative Genetic Theory * J. Reeve, D. Fairbairn
5:15	187	Experimental Studies on the Ancestry of tRNA Isoaccepting Groups * M. Saks, J. Sampson

Sunday, 9th July 1995: Afternoon

Leacock 219

2:00 - 5:30

Session 19 Molecular Evolution: Large-Scale Phylogeny

Contributed Papers

Chair: Lefteri Zouros

- | | | |
|------|-----|---|
| 2:00 | 188 | The Universal Tree of Life: Can the Root Be Resolved?
* J.R. Brown, W.F. Doolittle |
| 2:15 | 189 | The Evolutionary Origin of Slime Molds, Mycetozoa, and Their Relationship to Higher Eukaryotes
* S.L. Baldauf, W.F. Doolittle |
| 2:30 | 190 | Phylogenetic Characterization of Bacteria Associated with Gills of Deep-Sea Hydrothermal Vent Crustaceans
* R. Feldman, T. Shank, R. Lutz, R. Vrijenhoek |
| 2:45 | 191 | Peculiarities of Molluscan Mitochondrial DNA
* E. Zouros, C. Saavedra, D. Stewart, R. Hoeh |
| 3:00 | 192 | Accelerated Rates of Molecular Evolution in Bivalves
* D. Stewart, R. Hoeh, E. Zouros |
| 3:15 | 193 | Expression of a Conserved Body-Patterning Gene in Radially Symmetrical Echinoderms
* G. Wray, C. Lowe, D. Jauies |
| 3:30 | | Break |
| 4:00 | 194 | The Molecular Evolution of 18s rDNA in Angiosperms
E.R. Waters, * G. Bharathan |
| 4:15 | 195 | Mitochondrial DNA and Monocot-Dicot Divergence Time
* J. Laroche, P. Li, J. Bousquet |
| 4:30 | 196 | Evolutionary History of Duplication Events in the Vertebrate Lactate Dehydrogenase Gene Family
D. Stock, J. Quattro, G. Whitt, * D. Powers |
| 4:45 | 197 | Evolutionary Rate Heterogeneity in the Mitochondrial 16S rRNA of Teleost Fishes: Secondary Structural Constraints and Phylogenetic Implications
J. Alves-Gomes, * A.M. Shedlock, M.G. Haygood |
| 5:00 | 198 | Relative Rates of Evolution of the Cytochrome-b Gene Among Rodents
* T.A. Spradling, M.S. Hafner |
| 5:15 | 199 | Microsatellites and Human Evolution
* D. Goldstein, A. R. Linures, L.L. Cavalli Sforza, M.W. Feldman |

Sunday, 9th July 1995: Evening

Leacock 132

8:00 - 9:00 pm

Session 20 ASN Presidential Address

Plenary

In Defense of Founder Flush Speciation

Montgomery Slatkin

Shatner Ballroom

9:00 - 11:00 pm

Session 21 Mostly Evolution

Poster

- 200 **Outcrossing Rate, Neighbourhood and Effective Population Size in *Datura stramonium***
* E. Cuevas Garcia, J. Nunez-Farfán
- 201 **Effects of Deleterious Background Selection on Nucleotide Diversity**
* B. Charlesworth, M. Nordborg, D. Charlesworth
- 202 **Evolutionary History of Planthoppers (Homoptera) Associated With the Hawaiian Silversword Alliance**
* G. Roderick, E. Metz
- 203 **Making Faces: Increased Genetic Variability Following Founder Events in Happy Face Spiders**
* R.G. Gillespie, G.S. Oxford
- 204 **The Effect of Forest Fragmentation on the Genetic Diversity of the Little Wood Satyr Butterfly (*Megisto cymela*): Implications For Conservation Biology**
* K.A. Marshall
- 205 **Programs for Calculating Relatedness and Parentage Using Single-Locus Genetic Markers**
* K. Goodnight, D. Queller
- 206 **The Distribution of Transposable Elements on X Chromosomes from a Natural Population of *D. simulans***
* S. Nuahdin
- 207 **The Frequency and Geographical Distribution of the Mariner Transposable Element in Natural Populations of *Drosophila simulans***
* A.L. Russell, R.C. Woodruff
- 208 **Aging and the Evolution of Germline Heteroplasmy in *Drosophila melanogaster***
* L.M. Kann, D.M. Rand
- 209 **Patterns of Gene Flow in *Pinus contorta* Dougl.**
* R. Yang, F.C. Yeh
- 210 **Maternal and Non-Maternal Components of Inbreeding Depression in *Phacelia***
* R.F. Del Castillo
- 211 **Diversity and Distribution of *Daphnia* Clones on the Alaskan North Slope (Toolik Lake Area)**
* R. H. Hagen, W. J. O'Brien
- 212 **Natural Selection and Frequency Distribution of "Silent" DNA Polymorphism in *Drosophila***
* H. Akashi, S.W. Schaeffer
- 213 **mtDNA Haplotypes and Gene Flow in a Morphologically and Behaviorally Atypical Population of Sage Grouse**
* T.W. Quinn, N.W. Kahn, J.R. Young, C.E. Braun
- 214 **Population Genetics and Ecological Variation of Tropical Tree Species along a Montane Gradient**
* M.P. Skupski, K.A. Schicrenbeck, M. Lieberman, D. Lieberman
- 215 **Inbreeding and Relatedness in the Termite, *Nasutitermes corniger***
* L. Atkinson
- 216 **Quantitative Genetics of Resistance to Herbivores in *Salix sericea*, the Silky Willow**
* B.M. Roche, R.S. Fritz
- 217 **A Pleiotropic Model of Quantitative Variation and Phenotypic Evolution**
* Y. Tanaka
- 218 **Detection of Linkage Using an F2 and a Recombinant Inbred Population**
* J. Shoemaker, B. Weir
- 219 **A Comparison of Continuous and Discrete Population Growth Models and Their Effects on the Timing of Diapa**
* R. Smock, W. Hazel

Sunday, 9th July 1995: Evening

- 220 Sources of Variation of the Sea Scallop (*Placopecten magellanicus*)
* R. Jones
- 221 A Comparison of Continuous and Discrete Population Growth Models and Their Effects on the Timing of Diapause
R. Smock, * W. Hazel
- 222 Phenotypic Plasticity in Sticklebacks
* T. Day
- 223 Does Selection Over 15 Generations Using the Drug Ivermectin Affect the Life History Traits of a Parasitic Nematode?
* J.M. Njoroge, M.E. Scott
- 224 The Effect of Genetic Variability on Small Populations of an Annual Plant
* D. Kohn
- 225 Patterns of Phenotypic Selection on Red Oak Subjected to Defoliation by Gypsy Moth
* J.B. McGraw, C.C. Bennington, T.S. Byington
- 226 An Ecological Genetics Study of Anther Smut Infection of *Silene virginica*
* S.L. Taliaferro, H.M. Alexander
- 227 Microsatellite and cDNA Marker Analysis in Sea Scallop *Placopecten magellanicus*, Reveal No Genetic Differences in Physiologically Distinct Populations
B.M. Vercaemer, * B. Gjetvaj, C.M. Herbinger, R.K. O'Dor
- 228 Impact of Genomic Interactions on Stress Resistance and Expression of Heat Shock Proteins in Hybrids of *Poeciliopsis*
* P. d'Iorio, R. Schultz, L. Hightower
- 229 Parental and Grandparental Effects on Components of Seed Size
* E.P. Lacey, A.L. Case, S.E. Smith
- 230 Pseudo Self-Compatibility in *Campanula rapunculoides*
* S.V. Mosquin, D. Vogler, A. Stephenson
- 231 Seasonal and Spatial Variation in Gall Morphology and Parasitoid Community in the Gall Midge, *Asphondyla flocosa*
* K. Dixon, R. Lesma, J. Park, T. Craig
- 232 Distinguishing Chaos From Noise in Nematode Population Dynamics
* P.C. Phillips
- 233 Frequency-Dependent Selection in Plants: an Experimental Approach
* R. Castillo, C.A. Dominguez
- 234 Phenotypic and Genetic Diversity of Indigenous *Rhizobium trifolii*
* J. Wernegreen, E. Harding
- 235 Genotypic Variation in Reproductive Strategies under Different Environmental Conditions in *Allium vineale*
* M. Ronsheim, J. Bever
- 236 Implications of the High Recessive Lethal Frequency of *Drosophila albomicans*
* H.Y. Chang, F.J. Lin
- 237 The Effects of Embryo Competition with Mixed Mating on the Genetic Load in Plants
* R.G. Latta
- 238 Phenotypic Correlations in Selected Prey Fitness Traits: Are Trade-Offs Likely?
* L. Hartt, J.W. Haefner
- 239 Somatically Active Transposable Elements and Lifespan of *Drosophila* species
* A.G. Nikitin, R.C. Woodruff
- 240 Selection on Early Fecundity and the Correlated Response of Longevity
* G. Miller, M.H. Gromko
- 241 Parasite-Induced Gigantism in a Snail: A Host Adaptation?
* P. Ballabeni
- 242 Laboratory Evolution of Longevity in Bean Weevil (*Acanthoscelides obtectus*): Relationships Between Age-Specific and Density-Dependent Selection
* O. Stojkovic, I. Gliksman, D. Milanovic
- 243 Laboratory Evolution of Longevity in Bean Weevil (*Acanthoscelides obtectus*): Selection for Early and Late Reproduction
* I. Gliksman, D. Milanovic, S. Mikuljanac, O. Stojkovic, D. Seslija

Sunday, 9th July 1995: Evening

- 244 **Mapping Life History QTLs Using *C. elegans* Recombinant Inbred Strains: A Model System for Detecting Antagonistic Pleiotropy and Epistasis at the Single Locus Level**
* D.R. Shook, A. Brooks, T. Johnson
- 245 **Ultrastructural Observations on the Myzorhynchus of a Tetraphyllidean Cestode From a Skate (*Raja erinacea*)**
* C. Keeling
- 246 **Ethological Isolation, Habitat Selection and Small Marginal Populations: An Ecological Perspective of Evolution**
* R. Catchpole
- 247 **How to Quantify Degree of Specialization**
* K. Iwao
- 248 **Testing the Positive Selection Hypothesis of Colicin Evolution by Competition Experiments**
* Y. Tan, M.A. Riley
- 249 **Use of Site-Directed Mutagenesis to Study the Evolution of Conserved Non-Coding Sequences at the Adh Locus of *Drosophila melanogaster***
* J. Parsch, S. Tanda, W. Stephan
- 250 **The Maintenance of Sex by Parasitism and Mutation Accumulation under Synergistic Epistasis**
* R.S. Howard
- 251 **Estimating the Rate of Fixation of Favorable Mutations**
* M. Perlitz, W. Stephan
- 252 **Are There Genetic Limits to Phenotypic Complexity?**
* J. Seger
- 253 **Clusters of New Mutations and the Fate of Underdominant Alleles**
* H. Huai, R.C. Woodruff
- 254 **Sexual Differentiation in *Salix arctica* From the High Arctic: Implications for Response to Climate Change**
* S.E. Macdonald, M. Hunt Jones, G.H.R. Henry
- 255 **Chemical and Mechanical Defense of a Tropical Shrub: Phenotypic Selection in Two Light Environments**
* C.L. Sagers
- 256 **Competition, Plasticity and Selection in Marine Stickleback Colonization Events**
* J.R. Pritchard, D. Schlüter
- 257 **Role of Fluctuating Selection in Maintaining Genetic Diversity in Life History Traits: Models Meet Data**
* S. Ellner, N.G. Hairston Jr.
- 258 **The Contribution of New Mutations to Genotype-Environment Interaction for Fitness in *Drosophila melanogaster***
* J.D. Fry, S. Lee, T.F.C. Mackay
- 259 ***In Vitro* Evolution of a Group I Ribozyme**
* M. Hanczyc, J. Matlow, R. Dorit
- 260 ***In Vitro* Evolution: Selection for Novel Catalysis by the M1 Ribozyme**
* K. Cole, D. Young, R. Dorit
- 261 **DNA Binding Factors for the Androgen Inducible RP2 Gene Differ among *Mus* Species**
* N. Singh, F.G. Berger
- 262 **The Reproductive Tract Proteins of *Drosophila*: Species Differences, Sexual Selection, and Reproductive Isolation**
* A. Civetta, R.S. Singh
- 263 **Influences by Neighboring Base Composition on Transversion- Transition Ratio in Non-Coding Regions of Chloroplast DNA**
* V.M. Oberholzer, B.R. Morton, M.T. Clegg
- 264 **Interspecific Genetics of Female Preference: Inheritance of Phenotactic Behavior in Hawaiian Crickets**
* K.L. Shaw
- 265 **Effects of Plant Hybridization on Resistance to Herbivores and a Pathogen of Willow**
* R.S. Fritz, S.J. Brunsfeld, B.M. Roche, C.M. Orians
- 266 **Characterization of Hybrid Male Sterility in *Drosophila***
* R.J. Kulathinal, R.A. Morton, R.S. Singh
- 267 **Interspecific Cuckoldry Among Sunfishes: A Consequence of Behavioral Miscues?**
* B.R. Konkle, D.P. Philipp
- 268 **Maintenance of a "Selfish" B-Chromosome in a Mealybug: Data from Lab Cultures**
* U. Nur

Sunday, 9th July 1995: Evening

- 269 **Predator-Prey Coevolution in a Metapopulation Model**
* A.M. Shumate
- 270 **The Relationship between Mode of Transmission and Virulence in the Evolution of a Marine Parasite-Host System**
* G.S. Aeby
- 271 **Mating Increases Female Condition but not Egg Productivity in the Locust *Locusta migratoria***
* J. Cabrero, A. Castro-Lopez, A. Martin-Alanza, M.D. Lopez-Leon, J.P.M. Camancho
- 272 **Somatic Condition is the Main Determinant of Female Mating Success in the Grasshopper *Eyprepocnemis plorans***
* J.P.M. Carnacho, A. Martin-Alanza, A. Castro-Lopez, M.D. Lopez-Leon, J. Cabrero
- 273 **Female Meadow Voles Choose to Mate with Multiple Males**
* D. Berteaux
- 274 **Good Genes and Old Age: Do Old Mates Provide Superior Genes?**
* T.F. Hansen, D.K. Price
- 275 **The Function of Seasonally Delayed Implantation: A Comparative Test of the Sexual Selection Hypothesis**
* T. Gardezi, J. da Silva
- 276 **QTL Cartographer: A Suite of Programs for Mapping Quantitative Trait Loci**
* C.J. Basten, B.S. Weir, Z-B. Zeng
- 277 **Testing Pattern and Process Predictions on the Evolution of Secondary Sexual Characters in Southeast Asian Frogs**
* S. Emerson
- 278 **Evolution of Freshwater Adaptation: Mapping Physiological Traits onto a Molecular Phylogeny**
* C.E. Lee
- 279 **Flight Morphology and Flight Metabolism: Allometry Within and Among 20 Species of *Drosophila***
* P.T. Barnes, L.M. Bartl, M.I. Cocilovo
- 280 **Evolution of Indirect Hyperparasitism in Perilampidae (Hymenoptera)**
* S. Perlman, D.C. Darling
- 281 **The Concentrated Changes Test for Correlated Evolution: Effects of Tree Shape and of Including "White" Branches**
* P.D. Lorch, J. Eadie
- 282 **Computer-Aided Simulation of Transposable Element Evolution**
* J.A. Foster, M. Barnett, J. Clough, W. Ireland, H. Wichman
- 283 **Characterization of Transposable Element Activity in Heterochromatin: The P Element of *Drosophila melanogaster***
* B.S. Haller, R.C. Woodruff
- 284 **Evolution of Two Coexisting Lineages of Line-1 Transposable Elements through the Peromyscine Radiation**
* N.C. Casavant, A. Sherman, H.A. Wichman
- 285 **Phylogenetic Analysis of SINEs in *Mus*: Determination of whether "There B1 or There B2" Modes of Evolution**
* D.L. Russell, R.N. Lee, C.L. Neal, H.A. Wichman

Monday, 10th July 1995: Morning

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8:30 - 12:00

Session 22 Recent Developments in the Analysis of Morphometric Data

Symposium

Chair: F. James Rohlf

8:30	286	The Morphometric Synthesis * F.L. Bookstein
9:00	287	Geometric Morphometrics: Principles and Practice * F.J. Rohlf
9:30	288	Fluctuating Asymmetries: Are They a Valid Measure of Developmental Precision? * R. Palmer
10:00		Break
10:30	289	Foraging Habitat and Predation Effects on Geomorphic Variation in Threespine Stickleback * J. Walker
11:00	290	A Comment on the Efficiency of Simplified Reports of Shape Differences Using Landmark Data * F.L. Bookstein

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8:30 - 12:00

Session 23 Mutation and Evolution

Symposium

Chair: David Houle

8:30	291	Evolution of Rates of Spontaneous Mutation * J. Drake
9:00	292	Mutation and Quantitative Variation in <i>Drosophila</i> * T. Mackay
9:30	293	Inference of Mutation Rates and Distribution of Mutation Effects for Quantitative Traits * P.D. Keightley
10:00		Break
10:30	294	Comparing Mutational Variability * D. Houle
11:00	295	Deleterious Mutations: When Will Theory Finally Meet Data? * A. Kondrashov
11:30	296	Mutation and the Evolution of Sex in RNA Viruses * L. Chao

Macdonald Engineering Building 476

8:30 - 12:00

Session 24 Phylogenetics: Reptiles and Birds

Contributed Papers

Chair: Christopher Austin

8:30	297	Phylogeny of the Spiny Lizards (<i>Sceloporus</i>): Molecular and Morphological Evidence * J.J. Wiens, T.W. Reeder
8:45	298	Phylogeography of a Wide-Ranging Lizard (<i>Phrynosoma douglassi</i>) Inferred from mtDNA Sequences * K. Zamudio, K. B. Jones
9:00	299	Green Blood and Adhesive Toe-Pads: Physiological and Morphological Evolution in South Pacific Scincid Lizards * C. Austin
9:15	300	Phylogeny and Biogeography of Middle American Jumping Vipers, <i>Atropoides</i> * P.T. Chippindale, L.K. Ammerman, J.A. Campbell

Monday, 10th July 1995: Morning

9:30	301	Origin of Hawaiian Honeycreepers as Indicated by DNA Sequence Data * J. Groth
9:45	302	Molecular Phylogenetics and Evolution of <i>Piranga tanager</i> * K.J. Burns
10:00		Break
10:15	303	♦ Phylogeny of the Cuckoos (Aves: Cuculidae) Based on Behavioral and Ecological Characters * J. M. Hughes
10:45	304	♦ Hop, Step and Gape: Do the Social Displays of Pelecaniformes Reflect Phylogeny? * M. Kennedy, R. Gray, H. Spencer
11:00	305	Songbird Phylogeny: Issues Pertaining to Outgroups, Ingroups, and Ecophylogenetics * F. Sheldon, F. Gill
11:15	306	Molecules and Morphology in Phylogenetic Reconstruction: an Example Using Manakins (Aves, Pipridae) * S.J. Hackett
11:30	307	Hybrid Origin versus Morphological Convergence in the Pomarine Jaeger: Evidence from Mitochondrial and Nuclear Genes * D. Marshall, A.J. Baker
11:45	308	Cytochrome B and the Higher-Order Evolution of Birds * T.P. Birt, V.L. Friesen, A.J. Baker

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Session 25 Quantitative Genetics

Contributed Papers
Chair: Anthony Zera

8:30	309	Dominance Variance: Associations with Selection and Fitness * P. Crnokrak, D. Roff
8:45	310	♦ Phylogenetic Analysis of the Evolution of Phenotypic Covariance Matrices: From Populations to Genus * S. Steppan
9:00	311	Selection on Sex Appeal: Variability of Correlated Responses * M.H. Gromko, J. McConnell
9:15	312	The Evolution of Genetic Correlations: An Analysis of Patterns * D. Roff
9:30	313	Laboratory Heritabilities: Reliable Estimates of Field Values or Gross Exaggerations? * I. Weigensberg, D. Roff
9:45	314	Dominance Variance in Inbred Pedigrees * F.H. Shaw
10:00		Break
10:30	315	A Diallel Analysis of Juvenile Traits in <i>Nemophila menziesii</i> * R.G. Shaw, G.A.J. Platenkamp
10:45	316	Determinants of Reproductive Traits in <i>Nemophila menziesii</i>: Analysis of an Extended Pedigree * D. Byers, R. Shaw
11:00	317	The Effect of a Variable Environment on Genetic Correlations in a Field Cricket * A.M. Simons, D.A. Roff
11:15	318	♦ Genetics and Development of a Butterfly Eyespot Pattern: How Selection for Eyespot Shape Influences Wing Shape * A. Monteiro
11:30	319	Selection on Insect Endocrine Traits: Response, Correlation and Evolutionary Implications * A. Zera

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Macdonald Engineering Building 280

8:30 - 12:00

Session 26 Species and Speciation

Contributed Papers

Chair: Stephen Palumbi

8:30	320	Retrospection and Prospection in Definitions of Species * D.A. Baum
8:45	321	Speciation and Gene Coalescence in Sea Urchins: Different Patterns in mtDNA, Nuclear Introns and Gamete Recognition Proteins * S.R. Palumbi
9:00	322	Speciation Among Panamanian Snapping Shrimp: Tests of Divergence across the Isthmus * C. Morrison
9:15	323	* Population Structure and Speciation in Appalachian Cave Spiders (<i>Nesticus</i>) * M.C. Hedin
9:30	324	* Phylogeography and Host-Associated Speciation in <i>Neochlamisus</i> Leaf Beetles * D.J. Funk
9:45	325	A Test of Reinforcement in <i>Drosophila pseudoobscura</i> and <i>D. persimilis</i> * M.A. Noor
10:00		Break
10:30	326	Speciation by Sexual Selection in <i>Drosophila melanogaster</i>: Runaway Process in Laboratory Populations * C. Wu, H. Hollocher, J. Lachance
10:45	327	Ecological Speciation in Sticklebacks * T. Hatfield
11:00	328	Reproductive Isolation, Sympatric Speciation and Temperature: Host-Associated Fitness Tradeoffs in the Apple Maggot Fly * J.L. Feder, J.B. Roethel, B. Wlazlo
11:15	329	Fruit Rot + Larval Development Rates=Directional and Balancing Selection in the Apple Maggot Fly (<i>Rhagoletis pomonella</i>) * J.B. Roethel, J.L. Feder, B. Wlazlo
11:30	330	Multi-Locus DNA Sequence Studies of Speciation and Natural Selection in Humans and Great Apes * J. Hey, N. Leahy
11:45	331	A Mitochondrial DNA Perspective on the Evolution of the Herring Gull and its Relatives * R. Howson, D. Rand

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10:30 - 12:00

Session 27 Numerical Taxonomy and Evolution

Contributed Papers

Chair: Francois Lapointe

10:30	332	Pattern and Tempo of Marsupial Evolution Based on DNA Hybridization * J.A.W. Kirsch, F.-J. Lapointe
10:45	333	Construction and Validation of the Marsupial Tree From Multiple DNA Hybridization Matrices * F.-J. Lapointe, J.A.W. Kirsch
11:00	334	Uses of Landmark- and Outline-Based Morphometric Methods in Hawthorn and Termite Systematics * T.A. Dickinson, T.G. Myles
11:15	335	Comparative Landmark Analysis of Various Oxyuridae Parasites of Primates and Rodents, Using the Patterns of the Caudal Bursa of the Males * J. P. Hugot, M. Baylac
11:30	336	The Evolution of Periodical Cicadas during the Pleistocene * J. Yoshimura
11:45	337	no title submitted * J. Hey, N. Leahy

Monday, 10th July 1995: Morning

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8:30 - 12:00

Session 28 Molecular Evolution: Estimation and Variation

Contributed Papers

Chair: Richard Kliman

8:30	338	Estimating Synonymous and Nonsynonymous Substitution Rates * S. Muse
8:45	339	Deduction of Genetic and Evolutionary Processes from DNA Migration Events * J.L. Blanchard, G.W. Schmidt
9:00	340	A Statistical Method for Detecting Areas of Gene Conversion in Multigene Families * F. Prat, G. Drouin
9:15	341	The Effects of Social and Geographic Structure on mtDNA Clocks and the Lineage Sorting Period: A Simulation Model * G.A. Hoelzer, J. Wallman, D.J. Melnick
9:30	342	Evolutionary Pharmacology: Classifying G-Protein Coupled Receptors * K. Rice, L.F. Kolzowski
9:45	343	Multiple Levels of Change in a Tetramer Microsatellite * P. Palsboll, M. Berube, H. Jergensen, P. Arctander
10:00		Break
10:30	344	Base Composition Heterogeneity in <i>Drosophila melanogaster</i> * R.M. Kliman
10:45	345	Hot Spots for Insertions/Deletions in Hawaiian <i>Drosophila</i> Yolk Protein Genes and Phylogenetic Implications K. Ho, * E. Craddock, M. Kambysellis
11:00	346	Expression of Retinal and Non-Retinal Opsin in Crayfish * M.J. Brauer, K.A. Crandall
11:15	347	The Evolution of the Aldolase Genes and Pseudogenes in Australian <i>Rattus</i> * B.A. Williams, P.R. Baverstock
11:30	348	Evolution of Cytochrome Oxidase Subunit II in New World Monkeys * M.V. Ashley, B.L. Crump, J.E. Norman, E. Margoliash
11:45	349	Molecular Evolution and Allelic Variation in a Human Gene Family * S. Hoffman, P.F. Salguero

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8:30 - 12:00

Session 29 Phylogenetics: Mammals

Contributed Papers

Chair: Steven Carr

8:30	350	Evolution and Phylogenetic Affinities among the Elusive Crocidurine Shrews of Kenya: Proteins Versus Morphology * L.J. McLellan, R. Sage
8:45	351	Phylogenetic Relationships Among Tamarins (Genus <i>Saguinus</i>) * S.C. Jacobs, A. Larson, J.M. Cheverud
9:00	352	Gibbon Phylogeny Inferred From Mitochondrial DNA Sequences * S. Zehr, M. Ruvolo
9:15	353	Are Flying Squirrels Monophyletic? J.M. Mercer, * V.L. Roth
9:30	354	Phylogeny of Caviomorph Rodents: Morphological and Molecular Evidence. Old Conclusions for New Reasons * A.H. Walton, R.L. Honeycutt, M.A. Nedbal
9:45	355	* Mitochondrial DNA Sequencing and the Phylogenetic Position of the Springhare, <i>Pedetes capensis</i> * C. A. Matthee
10:00		Break

Monday, 10th July 1995: Morning

10:30	356	Molecular Systematics of New - and Old-World Deer: Classification, Biogeography, and Antlers * S.M. Carr
10:45	357	The Origins of Cetacea and Milk Casein * J. Gatesy
11:00	358	Combined Effects of Weighting and Species Sampling on Phylogeny Reconstruction: The Example of Cetaceans * M.C. Milinkovitch, J. Adachi, R. Leduc
11:15	359	Phylogenetic Analysis of Elephantidae Based on Mitochondrial DNA Sequences From Fossil Remains * H. Yang, E.M. Golenberg, J. Shoshani
11:30	360	Convincing and Congruent Molecular Evidence for an Aardvark/Elephant Shrew/Paenungulata Clade * M. Stanhope, C. Porter, M. Goodman
11:45	361	Molecular Systematics of Xenarthrans * J. Norman, M.V. Ashley

Redpath Museum Auditorium

8:30 - 12:00 Session 30 Evolution of Cichlids and Other Fishes

Contributed Papers

Chair: Thomas Kocher

8:30	362	Evolution of NDZ in East African Cichlids: A Detailed Look At Molecular Divergence * T.D. Kocher
8:45	363	Phylogeny of the Family Cichlidae Based on Several Complete Mitochondrial Gene Sequences * A. Meyer, P. Ritchie, G. Oth, T. Titus
9:00	364	Paleogeographic Evolution of Rift Lakes: Placing Constraints on Phylogenetic Hypotheses of Endemic Radiations * A. Cohen
9:15	365	Applications of Microsatellite Variation to the Evolutionary Biology of Malawi Cichlid Fishes * I. Kornfield, A. Parker
9:30	366	Microsatellite Markers for Mapping the Cichlid Genome * W. Lee, T.D. Kocher
9:45	367	Mating Systems, Parental Care and Diversification in a Neotropical Cichlid, <i>Gymnogeophagus</i> * P. Wimberger, R. Reis
10:00		Break
10:30	368	Diet-Induced Phenotypic Plasticity in Old World Cichlids * J.R. Stauffer Jr.
10:45	369	Aspects of Sympatric Speciation in Cichlid Fishes from Three Small Cameroonian Lakes * U. Schliewen, D. Tautz
11:00	370	Genetic Differentiation Between Inshore and Offshore Atlantic Cod (<i>Gadus morhua</i>) in the Northwest Atlantic: Microsatellite DNA Variation and Antifreeze Protein Level * D. Ruzzante, C. Taggart, D. Cook, S. Goddard
11:15	371	A Comparison of Molecular Methods for Detecting Genetic Differences among Populations of Pacific Salmon * L. Park, P. Moran
11:30	372	A Phylogeographic Assessment of Lake Trout (<i>Salvelinus namaycush</i>) Postglacial Dispersal * C.C. Wilson
11:45	373	Geographic Variation in Molecular and Morphometric Characters of Atlantic Tarpon (<i>Megalops atlanticus valenciennes</i>): Subtle Differences Over the Ocean * A.L. McMillen-Jackson, T.M. Bert, T. Orsoy, H. Cruz-Lopez, S. Seyoum

Monday, 10th July 1995: Afternoon

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2:30 - 5:30

Session 31 Numerical Taxonomy in Quantitative and Evolutionary Morphology

Symposium

Chair: Richard J. Jensen

374

Panel Discussion: Numerical Taxonomy in Quantitative and Evolutionary Morphology

* R.J. Jensen, J. Cracraft, T. Dickinson, T. Garland, W. Lamboy, J. McNeill

Leacock 26

2:30 - 5:30

Session 32 The Evolution of Specialization

Symposium

Chair: May Berenbaum

2:30

375

Introduction: Specialization, Speciation, and Speculation

* M. Berenbaum

2:30

376

The Evolution of Specialization: Are "Trade-Offs" Overrated?

* J. Fry

3:00

377

Evolution of A Generalist Genotype - Assessing the Adaptiveness of Phenotypic Plasticity

* K. Spitzke

3:30

Break

4:00

378

Mixing Community-Level and Phylogenetic Approaches to Understand the Coexistence of Generalists and Specialists in Multiple Food Webs

* M. McPeek, J. Brown

4:30

379

The Phylogenetics of Specialization: Inferences From Insects

* B. Wiegmann

5:00

380

Concluding Remarks

* M. Berenbaum

Macdonald Engineering Building 279

2:00 - 5:30

Session 33 Quantitative Genetics of Flies and Plants

Contributed Papers

Chair: Marta Wayne

2:00

381

Is the Response to Short Term Selection on Bristle Number in *Drosophila* due to Frequency Changes of Polymorphic Alleles at Neurogenic Loci?

* A.D. Long, S.L. Mullaney, C.H. Langley, L.A. Reid, T.F.C. Mackay

2:15

382

Genetic and Morphometric Analysis of an Interspecific Difference in Posterior Lobe Shape in *Drosophila*

* J. Mercer, J.J. Liu, L. Stam, G. Gibson, C. Laurie

2:30

383

Quantitative Genetics of Ovariole Number, a Model Life History Trait in *Drosophila melanogaster*

* M.L. Wayne, L.M. McIntyre, T.F.C. Mackay

2:45

384

Quantitative Genetic Structure in *Clarkia* Populations: Where Have All the Good Genes Gone?

* R.H. Podolsky

3:00

385

QTL Influencing Heterosis and Mating System in *Mimulus*

* J. Dole, R. Kesseli

3:15

386

Natural Selection and Genotype-By-Environment Interaction in Wild Strawberry Populations

* D. Pavek, T. Mitchell-Olds

3:30

Break

4:00

387

Spontaneous Mutational Variation in Quantitative Traits of *Arabidopsis thaliana*

* J. Otterson, R.G. Shaw

4:15

388

Spontaneous Mutation in *Arabidopsis*: Its Genomic Rate and Effects

* S.T. Schultz, J.H. Willis

Monday, 10th July 1995: Afternoon

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|------|-----|--|
| 4:30 | 389 | QTL Mapping of Epistasis in <i>Arabidopsis thaliana</i>
* L. Dorn, T. Mitchell-Olds |
| 4:45 | 390 | Genetic Variation in Life-History Traits within and among Populations of <i>Impatiens capensis</i>
* C. Paoletti, K.E. Holsinger |
| 5:00 | 391 | Response to Lethal Selection against Chasmogamous Flowering in a Natural Population of <i>Impatiens pallida</i>
* J. Gross, B. Husband, S. Stewart |
| 5:15 | 392 | Quantitative Genetics of Floral Traits in <i>Ipomopsis aggregata</i>: a 9 Year Field Experiment
* D.R. Campbell |

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2:00 - 5:30 Session 34 Molecular Evolution and Phylogeny: Insects

Contributed Papers

Chair: Neil Davies

- | | | |
|------|-----|---|
| 2:00 | 393 | Backswimmer Diversity and Community Structure along a Latitudinal Gradient (Heteroptera: Notonectidae)
* E. Larsen |
| 2:15 | 394 | A Molecular Phylogeny of the <i>Drosophila willistoni</i> Sibling Species Group
* J.M. Gleason, E.A. Carew, J.R. Powell |
| 2:30 | 395 | Using Multiple Gene Regions to Reconstruct Phylogenetic Relationships within the <i>Drosophila melanogaster</i> Species Group
* V. Schawaroch, R. DeSalle, G. Simmons |
| 2:45 | 396 | * Molecular Systematics of <i>Drosophila repleta</i> Group Species
* R. Baker, W.B. Heed, W.J. Etges, R. Desalle |
| 3:00 | 397 | Evolutionary Relationships among mtDNA Haplotypes of a South American Malaria Mosquito
* J. Conn, A. Cockburn, S. Mitchell, J. Seawright |
| 3:15 | 398 | The Molecular Phylogeny of Tiger Beetles (Cicindelidae): Character Evolution in Ribosomal RNA Genes and Implications for Sequence Alignment
* A. Vogler |
| 3:30 | | Break |
| 4:00 | 399 | Vicariance or Dispersal? Using Genetic Data to Explain the Subarctic/Alpine Distribution of <i>Lasioglossum boreale</i> (Halictidae Hymenoptera)
* J.S. Taylor, L. Packer |
| 4:15 | 400 | Phylogenetic Study of Apocrita (Hymenoptera) with Emphasis on Wing Venation
* A. Roy, M. Sharkey |
| 4:30 | 401 | Behaviour, Molecules, and Morphology Combined for Phylogenetic Study of Social Wasps
* J. Wenzel |
| 4:45 | 402 | Genetic Evolution among Species of the Genus <i>Naso</i> (Acanthuridae: Nasinae) from Guam
* C.L. Dayton |
| 5:00 | 403 | * Molecular Evolutionary Dynamics in Pierid Butterflies
* D.D. Pollock |
| 5:15 | 404 | The Historical Biogeography of West Indian Butterflies
* N. Davies |

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2:00 - 5:30

Session 35 Comparative Evolutionary Biology: Methods and Results

Contributed Papers
Chair: Mark Westneat

2:00	405	A Microevolutionary Perspective on Comparative Methods * T.F. Hansen, E.P. Martins
2:15	406	Conducting Phylogenetic Comparative Studies when the Phylogeny is Unknown * E.P. Martins
2:30	407	Inference and Fallacious Reasoning in Studies of Character Evolution: to Include or Exclude the Characters of Interest during Tree Reconstruction? * K. de Queiroz
2:45	408	Character Correlation in Phylogeny: Examples Using Biomechanical and Life History Data * M. Westneat
3:00	409	Where Phylogeny Meets Ecology: Character State Evolution in the Genus <i>Daphnia</i> * J.K. Colbourne, M.J. Beaton, P.D.N. Hebert
3:15	410	Evolutionary Comparative Analyses of Plant Range Size Using the Floras of Great Britain and Crete * C.K. Kelly, Y. Hoff
3:30		Break
4:00	411	* The Roles of Historical Constraints and Adaptation in the Evolution of Behavior among a Tribe of Ant-Guest Beetles * J.A. Danoff-Burg
4:15	412	Phylogeny and the Evolution of Nonfertilizing Sperm in the <i>Drosophila obscura</i> Group * R. Snook
4:30	413	Evolution of Ecological Types and Eye Dimensions in Garter Snakes * A. de Queiroz
4:45	414	Avian Brain-Body Size Relationships: Influence of Taxonomic Level * P.M. Nealen, R.E. Ricklefs, J.M. Starck
5:00	415	Correlated Evolution of Canopy Architecture in the Genus <i>Acer</i>: A Phylogenetic Approach * D. Ackerly, M. Donoghue
5:15	416	Statistical and Phylogenetic Analyses for Allometric Evolution of Scapula Size in Terrestrial Squirrels * D. Swiderski

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2:00 - 5:30

Session 36 Topics in Population Genetics

Contributed Papers
Chair: Helene Glemet

2:00	417	Genetic Structure and the Evolution of Self/Nonself Recognition in Hydroids * R. Grosberg, D. Levitan
2:15	418	Clonal Variation in Life History and Biochemical Composition of the Euryhaline Sea Anemone <i>Haliplanella lineata</i> * M. McManus, W.E. Zamer, C. Rowell
2:30	419	Taxonomic Status and Population Genetics of the <i>Lampsilis hydiana</i> Species Complex (Bivalvia:Unionidae) * J.L. Haynes, T.F. Turner, J.C. Trexler, D.N. Kuhn
2:45	420	Stability and Selection: Long Term Changes in the Genetic Structure of a <i>Daphnia</i> Population * D.G. Stirling
3:00	421	“Adaptive” Zonation of Allozyme Variants in the Intertidal Acorn Barnacle <i>Semibalanus balanoides</i> * P. Schmidt, D. Rand
3:15	422	Evolutionary Significance of Mitochondrial Introgression in Fish (<i>Salvelinus fontinalis</i>) Assessed by Physiological Performance * H. Glemet, P. Blier, L. Bernatchez

Monday, 10th July 1995: Afternoon

3:30		Break
4:00	423	The Association Between Life History and Gene Flow in a Diverse Group of Stream Dwelling Fishes, the Darters (Pisces:Percidae) * T. Turner, J. Trexler
4:15	424	Microsatellite Analysis of Maternity in a Species with Male Pregnancy (<i>Syngnathus scovelli</i>) * A.G. Jones, J.C. Avise
4:30	425	The Importance of a Phylogenetic Perspective: Analysis of Differentiation within the <i>Anolis marmoratus</i> Complex * C. Schneider
4:45	426	RAPD PCR Data and Variation in Inbreeding and Inbreeding Depression among Full Sib Families in the Red Flour Beetle <i>Tribolium castaneum</i> * L. Pray
5:00	427	Adaptive Radiation and Molecular Phylogenetics in the High-Elevation Tropical Andean Genus <i>Espeletia</i> (Asteraceae) * J.T. Rauscher
5:15	428	Pollen-Mediated Gene Flow in the Tropical Pioneer Tree, <i>Cecropia obtusifolia</i> * S. Kaufman, E. Alvarez-Buylla, P. Smouse

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Session 37 Genetic Population Structure I

Contributed Papers

Chair: Sergio Matioli

2:00	429	The Relationship Between Dispersal and Gene Flow: Lessons From Comparative Life History Studies * A.J. Bohonak
2:15	430	Estimation of Migration Rates and Effective Population Sizes Using Coalescent Trees in a Two-Population Model * P. Beerli
2:30	431	Phylogenetic Analysis of Natural Variation in Enzyme Expression * V. Pierce, D. Crawford
2:45	432	Genetic Variation among Populations of <i>Gambusia hubbsi</i> on Andros Island, Bahamas * M.D. Schug, J.F. Downhower, P.A. Fuerst, L.P. Brown
3:00	433	Evolution of Geographic Variation Patterns in Some Caribbean Birds * N. Klein
3:45	434	The Genetical Basis of Morphological Differentiation of <i>Drosophila mercatorum</i> Populations * S.R. Matioli, A.R. Templeton
3:30		Break
4:00	435	Genetic Characterization of Atlantic and Gulf of Mexico Populations of the American Oyster * M. Hare, J.C. Avise
4:15	436	Implications of Genotype-Specific Spawning Strategies on the Genetic Structure of a Hybrid Population of Marine Mussels * C.L. Secor, T.J. Hilbish
4:30	437	Paternal Mitochondrial DNA Differentiation Far Exceeds Maternal Mitochondrial DNA and Allozyme Differentiation in the Freshwater Mussel <i>Anodonta grandis grandis</i> * H. Liu, J.B. Mitton
4:45	438	Variation in Cytochrome Oxidase 1(mtDNA) Sequence in a Marine Copepod: Geographic Structure and Evidence for Functional Significance * R.S. Burton
5:00	439	Population Structure of the Western Black-Legged Tick, <i>Ixodes pacificus</i> (Acari:Ixodidae) * D. Kain
5:15	440	t.b.a.

Monday, 10th July 1995: Afternoon

Redpath Museum Auditorium

2:00 - 5:30

Session 38 Biogeography and Macroevolution

Contributed Papers

Chair: John Alroy

- | | | |
|------|-----|---|
| 2:00 | 441 | Complex Phylogeographic Pattern in the Carib Grackle
* G. Seutin, J. Hunt, R.E. Ricklefs, E. Bermingham |
| 2:15 | 442 | An mtDNA Assessment of the Avian Colonization of Barbados
* I. Lovette, G. Seutin, R.E. Ricklefs, E. Bermingham |
| 2:30 | 443 | The Simultaneous Diversification of Echimyid Rodents (Caviomorpha): A Star-Phylogeny Based on Complete Cytochrome b Sequences
* M. Lara, J.L. Patton, M.N.F. da Silva |
| 2:45 | 444 | Genetic Structure of <i>Gymnures</i> (Mammalia: Erinaceidae) on Continental Islands: Historical Effects of Fragmentation
* M. Ruedi, L. Fumagalli |
| 3:00 | 445 | A Test of Pleistocene Montane Refugia Using mtDNA Divergence among Highland <i>Peromyscus mexicanus</i> Species Group Taxa
* P.J. Coeverden de Groot, M.D. Engstrom |
| 3:15 | 446 | Macroeconomics and Macroevolution: Is Submarine Volcanism the Key to Innovation and Diversification?
* G. J. Vermeij |
| 3:30 | | Break |
| 4:00 | 447 | Macroevolution Reflected in the Shapes of Evolutionary Trees: Patterns in Tree Balance with Variable and Evolving Speciation Rates
* S.B. Heard |
| 4:15 | 448 | The Radiation of Modern Birds Predates the K/T Boundary: Molecular Evidence
* A. Cooper, D. Penny |
| 4:30 | 449 | Is Mammalian Diversity an Integrated Evolutionary System?
* J. Alroy |
| 4:45 | 450 | A Simple Measure of Developmental Complexity
* D.W. McShea, P.D. Gingerich |
| 5:00 | 451 | Testing Higher-Taxon Innovation in Rugged Fitness Landscapes: The Fossil Record
* G. Eble |
| 5:15 | 452 | Phylogenetic Analysis of the Zosterophyllophytina: Prospects and Pitfalls of Doing Cladistics With Lower Devonian Plants
* D.P. Jensen, P.G. Gensel |

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2:00 - 5:30

Session 39 Sexual Selection: Mates and Mating

Contributed Papers

Chair: Margaret Ptacek

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|------|-----|---|
| 2:00 | 453 | Mate Recognition in a Unisexual/Bisexual System of Poeciliid Fish
M.D. Ryan, * L.A. Dries, P. Batra, D.M. Hillis |
| 2:15 | 454 | Mating Success in the Milkweed Beetle <i>Tetraopes tetraophthalmus</i>
* D. Lofsvold |
| 2:30 | 455 | The Influence of Female Size and Population Origin on Male Mating Behaviors in the Sailfin Molly, <i>Poecilia latipinna</i>
* M.B. Ptacek |
| 2:45 | 456 | Genetics of Pheromone Production and Response in the Turnip Moth, <i>Agrotis segetum</i>
* S. LaForest, W. Wu, C Lofstedt |
| 3:00 | 457 | Male Genital Modification: A Sexual Selection Interpretation
* R. Rowanchilde |

Monday, 10th July 1995: Afternoon

- 3:15 458 *** La Saboteuse: A Unifying Theory of Sexual Dimorphism in Animals Based on Intraspecific Male-Female Competition**
* J.N. Abraham
- 3:30 Break
- 4:15 459 **The Effect of Inflorescence Size on Male Fitness; Experimental Tests with *Zigadenus paniculatus***
* S.K. Emms, A.A. Snow, D.A. Stratton
- 4:15 460 **Potential Mechanisms of Hummingbird-Mediated Selection on Flower Color in an *Ipomopsis* Hybrid Zone**
* E.J. Melendez-Ackerman, D.R. Campbell
- 4:30 461 **Morphology and Density as Pollination Cues in a Sexually-Deceptive Orchid**
* S.N. Handel, A.J. Beattie
- 4:45 462 **Natural Selection on Wild Radish Floral Traits: Measurements Using Estimates of Lifetime Male Fitness Derived from Genetic Paternity Analysis**
* J. Conner, S. Rush, S. Kercher, P. Jennetten
- 5:00 463 **Pollen Competition in *Turnera ulmifolia* (Turneraceae)**
* A.M. Baker, J.S. Shore
- 5:15 464 **Costs of Producing Long Sperm in *Drosophila***
* S. Pitnick, T. Karr, T. Markow, G. Spicer

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Session 40 NT Presidential Address

Plenary

New Avenues in the Numerical Study of Behaviour

P. Legendre

Monday, 10th July 1995: Evening

- Leacock 132
8:00 - 9:00 pm
- Session 41 SSB Presidential Address**
Plenary
Salvador Dali, Flying DNA, and the Parametric Bootstrap
D.M. Hillis
- Shatner Ballroom
9:00 - 11:00 pm
- Session 42 Mostly Systematics**
Poster
- 465 **Allozyme Variation in Horse Mackerel (*Trachurus trachurus*: Carangidae) from the Gulf of Vizcaya and the Mediterranean Sea**
* M. Soriano, A. San Juan
- 466 **Initial Characterization of Microsatellite Polymorphism and Differentiation in *Drosophila melanogaster***
* K. Wetterstrand, C. Aquadro
- 467 **Genetic Structure in an Island Population of Fluctuating Size with Immigration**
* B. Rannala
- 468 **Genetic Structure of *Drosophila ruberrima* (Diptera: Drosophilidae)**
* S. Fang, H. Y. Chang, F. J. Lin
- 469 **Population Genetic Structure of a Natural Metapopulation of the Greater Wax Moth, *Galleria mellonella* (Lepidoptera: Pyralidae)**
* A. McMillan
- 470 **Mitochondrial DNA Variation in *Mytilus trossulus* from the Gulf of Gdansk (Southern Baltic)**
* R. Wenne, D.O.F. Skibinski, M. Pempera
- 471 **Genetic Structure of Butterfly Populations from the *Jethys* Complex (Lepidoptera:Papilionoidea:Enantia)**
* A. Castaneda, D. Pinero
- 472 **Population Structure in *Melanochromis*: Evidence from Simple Sequence Loci**
* J.A. Markert, T.D. Kocher, J.R. Stauffer, N.J. Bowers
- 473 **Population Structure of the Lichen Grasshopper *Trimerotropis saxatilis* (Orthoptera: Acrididae)**
* A.S. Gerber
- 474 **Evidence From Microsatellites and Mitochondrial DNA Sequences for Population Subdivision in Beluga Whales *Delphinapterus leucas***
F. Buchanan, J. Brown, L. Postma, M. Friesen, * J. Clayton
- 475 **The Edge-Effect in Concerted Evolution of Tandem Repeats**
* J. Townsend, D. Rand
- 476 **Evolution and Expression of Anthocyanin Genes in *Ipomoea purpurea* (Morning Glory)**
* B.C. McCaig, M. Durbin, M.T. Clegg
- 477 **Molecular Studies of Two Allozyme Loci in Populations of *Leavenworthia* (Brassicaceae)**
L. Zhang, * F. Liu, M. Kreitman, D. Charlesworth
- 478 ***Daphnia* Down Under II: Interspecific Hybrid Swarms in an Ancient Species Complex**
* C.C. Wilson, P.D.N. Hebert
- 479 **Cytogenetic and EOD Studies in Weakly Electric Fishes Belonging to the Genus *Gymnotus* (Pisces:Siluriformes)**
* F.M.C. Fernandes-Matioli, L.F. Alaeida-Toledo, S.A. Toledo Filho
- 480 **Microsatellites in the African Cichlid *Astatoreochromis alluaudi*: Cloning Characterization and Potential Application**
* L. Wu, M. Chandler, L. Kaufman, P.A. Fuerst
- 481 **Genetic Variation in Shortleaf Pine (*Pinus echinata* Mill.)**
* M.A. Edwards, J.L. Hamrick
- 482 **Comparative Study of the Chorionic Ultrastructure in the *dunni* Subgroup and Related Groups in the Genus *Drosophila***
* L.J. Resto

Monday, 10th July 1995: Evening

- 483 Computer Selection Model of LDH-B Allozymes in *Fundulus heteroclitus*
L. DiMichele, * E. Williamson
- 484 Are Rates of Molecular and Morphological Evolution Really Decoupled? Evidence from Eight Taxa
* K. Omland
- 485 Correlations between Allozyme Genotype and Physiological Performance in Randombred Laboratory House Mice
* P.A. Carter, T. Garland Jr., M.R. Dohm, J.P. Hayes
- 486 Morphometric Analysis of *Neochlamisus* (Coleoptera: Chrysomelidae): Inferences on Host Races and Sexual Dimorphism
* D.C. Adams, D. Funk
- 487 Characterization of Microsatellite Loci and Determination of Kinship in the Salamander *Hemidactylum scutatum* (Caudata: Plethodontidae)
* I.T. Knight, K.M. McGrath, L.A. Reid, R.N. Harris
- 488 A Process Approach to Teaching Science Content to School Teachers: An Evolutionary Biologist's Involvement
J. Keating, * J. Ihara
- 489 101 Gondwanians: the Tapestry of Marsupial Phylogeny
* J.A.W. Kirsch, F.J. Lapointe
- 490 Biology of *Xylocopa violacea* (L): Male and Female Ethology During Mating Period (Hymenoptera:Anthophoridae)
* S. Viceromini
- 491 Variation in the Sexual Behaviour of Male Guppies (*Poecilia reticulata*) in Response to Population Density and Sex Ratio: Field Manipulations
* H. Rodd
- 492 Genetics of Adaptive Learning in *Drosophila melanogaster*
* Y. Shin, R. Bailey
- 493 Influence of Natural Selection on Food Learning in *Drosophila melanogaster*
* A. Biggs
- 494 Ectoparasites and Old Nests: Effects on Nest-Site Selection in House Wrens
* C.F. Thompson, B.A. Theising, C.M. Gratton, A.J. Pacejka
- 495 Molecular Insight to Eusocial Mating System of Termites
* G.J. Thompson, P.D.N. Hebert
- 496 Phylogeny of the Genus *Aphelocoma*
* J. Brown, S. Li
- 497 Morphological change in the Woodland Deer Mouse (*Peromyscus maniculatus*) from the Upper Peninsula of Michigan: 1909-1990
* L. Hester
- 498 Morph-Specific Proteins in Distylious *Turnera*
* A. Athanasiou, J. Shore
- 499 Phylogenetic Analysis of Iridaceae Using a Chloroplast DNA Intergenic Spacer and the *rps4* Gene
* T.T. Souza Chies, S. Nadot, G. Bittar, B. Lejeune
- 500 The Evolutionary Origin of Green Lacewings of the Genus *Chrysoperla*: Testing Alternative Hypotheses Using Molecular Data
* M.M. Wells
- 501 Small Subunit Ribosomal RNA Gene Phylogeny of the Haplosporidia (Protista: Alveolata)
* B.S. Flores, M.E. Siddall, N.A. Stokes, E.M. Burreson
- 502 Relationships Between Synapomorphy, Branch Length, and Bootstrap
* P. Darlu
- 503 Phylogeny Reconstruction in Cichlids, Based on Scale Characters
* E. Lippitsch
- 504 High Resolution Genetic Markers and the Analysis of Darwin's Finch Populations
* J. Freeland, P.T. Boag
- 505 The Tree of Life: A Distributed Internet System for Information about Phylogeny and Diversity
* D. Maddison, W. Maddison
- 506 Performance of Total Evidence when Confronted with Data Inconsistency Incongruity and the Potential for Long-Branch Attraction
* D.M. McElroy

Monday, 10th July 1995: Evening

- 507 Examining Patterns of Organismal Diversity Using a Combined Null Model for Phylogenetic Tree Node Analysis
* N.J. Gompper
- 508 t.b.a.
- 509 Phylogenetic Analysis of the Genus *Fraxinus* Based on Nuclear rDNA ITS Sequences
* S. Jeandroz, A. Roy, J. Bousquet
- 510 Moth Phylogeny Based on Two Nuclear Genes: Eh-1 α and DDC (Lepidoptera: Noctuidae)
* S. Cho, A. Mitchell, Q. Fang, J.C. Regier, C. Mitter
- 511 A Molecular Phylogeny of the Subgenus Sophophora Using Nuclear and Mitochondrial Genes
* P. O'Grady, M. Kidwell
- 512 Development of Node-Zero: A Computer Program to Ease the Analysis of Molecular Sequence Data
* T. Oakley
- 513 A Comparison of Populations of the Malaria Vector *Anopheles darlingi* Using ITS2 Sequence
* D.S. Currant, J. Danoff-Burg, J. Conn, M. Sibajev, H. Momen
- 514 Systematics and Evolutionary Biology of the *Drosophila quinaria* Group
* G. Spicer, J. Jaenike
- 515 Cytochrome b Phylogeny of Fowl (Aves: Anseriformes, Galliformes)
* J. Marshman
- 516 The *Bactrocera xanthodes* Species Complex: Variation According to 18S rRNA and Cytochrome b Sequences
* P. Hoeben, J Ma, D. Drew
- 517 A Phylogenetic Hypothesis of the Origin and Evolution of the Estuarine Genus *Polymesoda* (Rafinesque, 1820) (Bivalvia: Corbiculidae)
* H. Severeyn, Y. Itarua de Severeyn, J. Ewald
- 518 Approach to the Phylogeny of Atinellidae (Porifera: Demospongea) Using Molecular and Morphological Data
* B. Alvarez
- 519 Phylogeny Reconstruction of the Picidae Using 12S mt rRNA Sequences
* D.M. Webb, W. Moore
- 520 Molecular Phylogeny and the Evolution of Reproductive Systems in the Genus *Silene* (Caryophyllaceae)
* C. Desfeux, B. Lejeune, P.H. Gouyon
- 521 Phylogenetic Placement of the Vu Quang Ox Based on Multiple Genetic Loci
P. Arctander, * J. Gatesy
- 522 Phylogenetic Analysis of Lake Victoria Cichlidae Derived from rRNA Internal Transcribed Spacer One (ITS 1)
* G.C. Booton, L. Kaufman, M. Chandler, P.A. Fuerst
- 523 Phylogeny of the Sturgeons Derived from 18S rRNA Sequences
* J. Kreiger, T. Cavender, P.A. Fuerst
- 524 Phylogenetic Relationships in Noctuoids Based on a New Nuclear Gene: Dopa Decarboxylase (DDC)
Q. Fang, * J.C. Regier, C. Mitter, R. Poole
- 525 Molecular Phylogenetic Relationships among Mosquitoes of the Genus *Anopheles*
* B. Garcia, K. Mathiopoulos, A. Caccone, J. Powell
- 526 Phylogeny of Inbred Mice: Are Microsatellites Phylogenetically Useful Characters?
* P. Kennedy, E. Routman
- 527 Linking Molecular Sequence Data to Specimen and Collection Data: The Development and Implementation of the "Sequences, Sources, Taxa" (SST) Database
* C.J. Bult, J.A. Blake, A.R. Kerlavage, C.A. Fields
- 528 Phylogenetic Relationships among Chrysomelidae Taxa Inferred from Mitochondrial DNA Sequence Data
* T.H. Hsiao
- 529 Phylogeography of Alaskan Brown Bears
* G.F. Shields, S.L. Talbot
- 530 The Evolution of Allorecognition in Ascidians: A Molecular Phylogeny
* C.S. Cohen
- 531 Origins of Unique Parapatric Lake-Stream Species Pairs of Threespine Stickleback (*Gasterosteus aculeatus*) as Evidenced by Molecular Data
* C. Thompson, J. D. McPhail

Monday, 10th July 1995: Evening

- 532 **Genetic Structuring in Three Sub-Species of San Joaquin Kangaroo Rat (*Dipodomys nitratoides brevinasus*, *D.r. exilis* and *D.n. nitratoides*)**
* R.J. Robertson
- 533 **A Study of Transatlantic Phylogeography in Littoral Marine Species of the Phylum Nemertea**
* J.L. Norenburg, A.D. Rogers, C. Bustamante, J.D. Ferraris
- 534 **Comparative Utility of Mitochondrial Gene Sequences in Cyclophyllideans (Cestoda) Systematics**
* J. Mariaux, M. Zehnder
- 535 **Molecular Systematics of Orchidaceae: Analysis of ITS I/II and 25S rDNA Sequences**
* I. Kohnen, H. Dietrich, A. Rosenthal
- 536 **Assessment of Phylogenetic Relationships among Polychaetes Using Partial rDNA Sequences**
* S. Nadot, A. Grant
- 537 **Molecular Phylogeny of Right-Eyed Flounders Based on Mitochondrial coxI Gene**
* J.G. Nickerson, J.A. Cooper, G. Drouin, F. Chapleau
- 538 **Molecular Evolutionary Rates of Mitochondrial Cytochrome Oxidase I vs Cytochrome b in a Group of Piciform Birds**
* V. DeFilippis, W. Moore
- 539 **The Evolution of Microsatellites in Humans and Chimpanzees**
* J.C. Garza, M. Slatkin, N.B. Freimer
- 540 **Evolution and Duplication of the *Arabidopsis* Actin Gene Family**
* A.V. Vitale, J.M. McDowell, R. Price, R.B. Meagher
- 541 **Microsatellite loci in the Monkeyflower**
* P. Awadalla, K. Ritland
- 542 **RAPD Analysis of the Genetic Population Structure and Evolution of the Tilapiine Species (Pisces: Cichlidae) of Lakes Victoria, Albert and Edward (Uganda)**
* W. Mwanja, L. Kaufman, M. Chandler, P.A. Fuerst
- 543 **Inferences About the Origin of a Field Cricket Hybrid Zone From a mtDNA Phylogeny**
* C.S. Willett, R. Harrison
- 544 **Stock Assessment of the Geographically Widespread Endemic Long-Finned Eel *Anguilla dieffenbachii* in New Zealand**
* L. Dijkstra, D. Jellyman
- 545 **Phylogenetic Reconstruction of *Drosophila immigrans* Species Group Inferred from both Morphological and Molecular Data**
* C. Ting, S. Tsaur, F. Lin, H. Chang
- 546 **Comparative Phylogenetic Analysis of the Woodpeckers Based on DNA Sequences From Mitochondrial Cytochrome B and A Nuclear-Encoded Intron From Fibrinogen**
* T. Prychitko, W. Moore
- 547 **Evolutionary Relationships of the Grasses (Poaceae) Based on Molecular Data, Cytogenetic Evidence and Geographic Distribution**
* C. Hsiao, N.J. Chatterton, K.H. Asay

Tuesday, 11th July 1995: Morning

Leacock 26

8:30 - 12:00

Session 43 Molecular Mechanisms of Evolutionary Adaptation

Symposium
Chair: Douglas L. Crawford

8:30	548	Molecular Evolution of Compensatory Variation in <i>Ldh-B</i> Transcription Rates * D.L. Crawford
9:00	549	Functional Effects of <i>Adh</i> Polymorphisms in Relation to Their Patterns of Variation in Natural Populations * C.C. Laurie
9:30	550	Experimental Investigation of the Molecular Causes of Natural Selection * D. Dykhuizen
10:00	551	Molecular Mechanisms Underlying the Evolutionary Modification of Mammalian Gene Expression: the Mouse Kidney Model * F.G. Berger
10:30	552	The Evolution of Glutamine Synthetase Expression and Regulation of Urea Synthesis in the Marine Toadfishes * P.J. Walsh
11:00	553	Suppression of Gene Expression and Protein Turnover under Anoxia: Bioenergetic Implications for Invertebrate Dormancy * S. Hand
11:30	554	A Multilevel Approach to the Significance of Genetic Variation in Alcohol Dehydrogenase of <i>Drosophila</i> * P. Heinstra

Redpath Museum Auditorium

8:30 - 12:00

Session 44 Phylogenetics: Fish and Amphibians

Contributed Papers
Chair: Felix Breden

8:30	555	Evidence on the Origin of Tetrapods Based on 28S rRNA Sequences R Zardoya, * K. Noack, A. Meyer
8:45	556	Molecular Phylogeny of the Guppy and Related Species * F. Breden, J. Taylor
9:00	557	Molecular Systematics of the <i>leptorhaphis</i> Group of <i>Poeciliopsis</i> (Pisces:Poeciliidae) and Relationships with Endangered Populations in Arizona * O. Sanjur, C. Di Meo, R.C. Vrijenhoek
9:15	558	* Molecular Phylogeny of Snook (<i>Centropomus</i>), a New World Genus * M.D. Tringali, T.M. Bert
9:30	559	Antarctic Convergence and Speciation Pattern of Antarctic Fish * T. Patarnello, L. Bargelloni, S. Marcato
9:45	560	* To Combine or not to Combine: a Case Study from the Lungfish, Coelacanth and Tetrapods * K.R. Toal, B.I. Crother
10:00		Break
10:30	561	* A Molecular Phylogeny of Piranhas Based on Mitochondrial DNA Sequences * G. Ortí
10:45	562	* Ependymin: a Nuclear Phylogenetic Marker for Early Divergences among Euteleost Fishes * G. Ortí
11:00	563	Complete Sequence of the Mitochondrial Genome of a Lungfish, <i>Protopterus dolloi</i> * R. Zardoya, A. Meyer
11:15	564	Frog Trees and DNA Evolution: How do You Know when You Have the "Right" Tree? * B. Mable
11:30	565	Weighting 12S for Congruence with the Combined Analysis of Frog Relationships * K. Kjer
11:45	566	Phylogenetically Informative Genes for the Microhylids of Australasia * D. Bickford

Tuesday, 11th July 1995: Morning

Leacock 219

8:30 - 12:00

Session 45 Coevolution

Contributed Papers

Chair: Bernard Crespi

8:30	567	Reciprocal Natural Selection on Host-Parasite Phenotypes: A Prerequisite for Coevolution * D.H. Clayton, P.L.M. Lee, E.D. Brodie III
8:45	568	The Genetic Structure of Coevolving Host-Parasite Populations * M. Dybdahl, C. Lively
9:00	569	Insect-Virus Coevolution * M.L. Milks
9:15	570	The Coevolutionary Stability of Predator-Prey Systems * P. Abrams, H. Matsuda
9:30	571	Coevolution in the <i>Chaoborus americanus-Daphnia pulex</i> System: Adaptive Response in <i>Chaoborus</i> to Induced Morphological Antipredatory Defense in <i>Daphnia</i> * E. Lawson
9:45	572	Coevolution of Fig-Parasitic Wasps (Agaonidae), Fig-Pollinating Wasps(Agaonidae) and their Parasitic Nematodes (<i>Parasitodiplogaster</i>) * C.A. Machado, E.A. Merre, E. Bermingham
10:00		Break
10:30	573	Molecular Phylogenies and Cospeciation * R.D.M. Page
10:45	574	Coevolution of Seabirds and Lice: Reconciling the Dichotomy between Parsimony and Component Analysis * R. Gray, A. Paterson
11:00	575	Phylogenetic Evidence that Aphids rather than Plants Determine Gall Morphology * D. Stern
11:15	576	Phylogenetics at Three Trophic Levels on Australian <i>Acacia</i>: the Evolution and Coevolution of Plants, Insects, Galls and Kleptoparasites * B. Crespi, D. Carmean, P. Abbot, M. Worobey
11:30	577	Phylogenetic Relationships of Vectors of New World Alphaviruses: Prelude to Studying Mosquito-Virus Evolution * V.L. Mallampalli, T.W. Scott
11:45	578	Clade-Defining Characters and the Evolution of Host Plant Associations in the <i>Rhagoletis</i> Fruit Flies (Diptera: Tephritidae) * J.J. Smith, G.L. Bush

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8:30 - 12:00

Session 46 Molecular Evolution: General Issues

Contributed Papers

Chair: Xuhua Xia

8:30	579	Functional Causes of Variation in Evolutionary Rate * M.K. Uyenoyama
8:45	580	Nucleotide Composition: the Physiological Molecular Clock * A. Martin
9:00	581	Protein Clock and Phylogenetic Analysis * X. Xia, M. Hafner,
9:15	582	* A Comparison of Rates of Molecular Evolution in Birds and Crocodiles * S. Stanley
9:30	583	Homogeneity of the Substitution Process in Repeat Domains of Spectrin * A. Clark, S. Muse, G Thomas
9:45	584	Transversion to Transition Ratio is Highly Correlated with Neighboring Base Composition in Chloroplast DNA * B.R. Morton

Tuesday, 11th July 1995: Morning

10:00		Break
10:30	585	Combining Evolution and Protein Secondary Structure * J.L. Thorne, N. Goldman, D. Jones
10:45	586	An Examination of the Ratio of Replacement to Silent Substitutions * R. Nielsen
11:00	587	* Mechanistically Linked Mutations and Homoplasy in mtDNA * R. Broughton, T. Dowling
11:15	588	The Origin of Doubly Uniparental Inheritance of Mitochondrial DNA in Bivalves * R. Hoeh, D. Stewart, E. Zouros
11:30	589	The Evolution of the Heat Shock Response in Early Plants * E.R. Waters, E. Viesling
11:45	590	Unusual Phylogeny of the Phosphoglucose Isomerase Gene Supports Trans-Kingdom Lateral Gene Transfer * L.A. Katz

Macdonald Engineering Building 497

8:30 - 12:00 Session 47 Gene Flow and Genetic Diversity

Contributed Papers
Chair: Robert Vrijenhoek

8:30	591	Estimating Gene Flow in Island Populations * B. Rannala, J. A. Hartigan
8:45	592	How do Small Freshwater Fish Get Around? Testing One- and Two -Dimensional Models of Gene Flow in the Least Killifish * C. Baer
9:00	593	Population Structure and Dynamics of Selected Genes in the Mosquito <i>Culex pipiens</i> * C. Chevillon, N. Pasteur, M. Raymond
9:15	594	Sociogenetic Organization and Gene Flow in <i>Myrmica</i> Ants * P. Seppa, P. Pamilo
9:30	595	Allozyme and Mitochondrial DNA Evidence of Population Subdivision in the Purple Sea Urchin, <i>Strongylocentrotus purpuratus</i> * S. Edmands, R. Burton
9:45	596	Gene Flow and Dispersal in Hydrothermal Vent Organisms * R.C. Vrijenhoek
10:00		Break
10:30	597	Population Structure and Genetic Diversity of Two Sea Cucumber Species as a Function of Developmental Strategy Based on mtDNA * A. Arndt, M.J. Smith
10:45	598	Genetic Structure in Newly Founded Populations of <i>Lupinus lepidus</i> at Mount St. Helen's * J.G. Bishop
11:00	599	Genetic Structure of <i>Populus tremuloides</i> Michx. as Revealed by RAPDs * F.C. Yeh, D.K. Chong, R. Yang
11:15	600	Allozyme Studies in the Endemic Vascular Flora of the Queen Charlotte Islands * L. Goertzen, F.R. Ganders
11:30	601	Isozyme and Morphological Variation in <i>Pinus contorta</i> ssp. <i>latifolia</i> * R. Yang, F.C. Yeh, A.D. Yanchuk
11:45	602	Symbiosis - Induced Shifts in Rates of Nucleotide Substitution: An Example with Omphalinoid Mushrooms * F. Lutzoni, R. Vilgalys

Tuesday, 11th July 1995: Morning

Macdonald Engineering Building 280

8:30 - 12:00

Session 48 Sexual Selection: Choice and Combat

Contributed Papers

Chair: Daphne Fairbairn

8:30	603	The Evolution of Mating Preferences for Fitness * M. Kirkpatrick
8:45	604	Female Preferences for Ancestral Mating Calls * M.J. Ryan, A.S. Rand
9:00	605	Mate Choice Copying Can Evolve without a Cost to Choice: A Population Genetic Model * M. Servedio, M. Kirkpatrick
9:15	606	Female Mallard Preferences for Natural and Experimental Variation in Male Ornaments * K. Omland
9:30	607	Evolution of Sexual Dimorphism in the Mallard Complex of Waterfowl * J. Rhymer, D. Heckel
9:45	608	Manipulating Ornament Symmetry: Male Response to Female Choice? * J. Justus, M. Gross
10:00		Break
10:30	609	The Preference Window of the Female Brown Planthopper * A. Trickett
10:45	610	Influences of Blood Parasites, Ecological Variables and Phylogeny on the Evolution of Bright Plumage Coloration in Selected African Birds * A.P. Smyth, T.B. Smith, H.I. Jones
11:00	611	Sexual Selection on Body Size and Components of Body Size in Male Waterstriders * R. Preziosi, D. Fairbairn
11:15	612	Sexual Selection and the Evolution of Sexual Dimorphism in a Water Strider: The Interaction of Selection and Constraint * D. Fairbairn, R. Preziosi
11:30	613	Vocal Evolution and Sexual Selection in Fur Seals and Sea Lions (Pinnipedia: Otariidae) * E.H. Miller

Macdonald Engineering Building 279

8:30 - 12:00

Session 49 Life Histories: Optimization, Correlation and Constraint

Contributed Papers

Chair: James Carey

8:30	614	Is the Effect of Selection Concentrated on Life History Stages with High Mortality? * M.C. Vavrek, C.C. Bennington
8:45	615	Predicting Optimal Life History Strategies along a Gradient of Parental Quality * W.M. Hochachka
9:00	616	Virginity Increases Mortality at Older Ages in Large Medfly Cohorts * J.R. Carey, P. Liedo, J.W. Vaupel
9:15	617	Resource Availability and Allocation Options in a Perennial Herb <i>Pinguicula vulgaris</i> * A.C. Worley, L.D. Hardes
9:30	618	Age-Specific Patterns of Genetic Variance in <i>Drosophila melanogaster</i>. I. Mortality * D. Promislow, M. Tatar, A. Khazaeli, J. Curtsinger
9:45	619	Age-Specific Patterns of Genetic Variation in <i>Drosophila melanogaster</i>: II. Fecundity and its Genetic Correlation with Mortality * M. Tatar, D. Promislow, A. Khazaeli, J.W. Curtsinger
10:00		Break

Tuesday, 11th July 1995: Morning

10:30	620	Sex and Death in the Nematode <i>Caenorhabditis elegans</i> * W. Van Voorhies
10:45	621	Genetic Trade-Offs in Golf-Course Populations of Annual Bluegrass (<i>Poa annua</i>) in Relation to Life History/Resource Allocation Theory * S. Ward
11:00	622	Responses to Selection on Leaf Length in <i>Plantago lanceolata</i>: How Tight is a Suite of Co-Adapted Characters * A. Van Hinsberg
11:15	623	Experimental Evidence of Developmental Independence across Life Stages: Multiple Mechanisms that Compensate for Tail Predation in the Salamander <i>Hemidactylum scutatum</i> * J.L. Vaglia, R.U. Harris, S.K. Babcock
11:30	624	Optimistic Growth: Rapid Growth of Pumpkinseed Sunfish in Response to a Bluegill Competitor * J. Arendt, D.S. Wilson

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8:30 - 12:00 Session 50 Parasitic Genetic Elements

Contributed Papers
Chair: Clifford Zeyl

8:30	625	P Element Evolution at the Molecular Level * J.C. Silva, J.B. Clark, M.G. Kidwell
8:45	626	Evolution and Transposable Elements: Somatic Mutation Rates in <i>Caenorhabditis elegans</i> * J.D. Glasner, J.J. Collins, T.D. Kocher
9:00	627	Repeated Sequences in the mtDNA Control Region of Shrews (Insectivora Mammalia) * L. Fumagalli, P. Taberlet, J. Hausser
9:15	628	Analysis of an Ancient Retrotransposon Insert in Six Species of <i>Peromyscus</i> * M.A. Cantrell, N. Diluglio, B. Filanoski, Z. Lister, H.A. Wichman
9:30	629	What is the Main Force Containing Transposable Element Copy Number? * S. Nuahdin, T. Mackay, E. Pasyukova
9:45	630	The Invasion of Sexual Yeast Populations by Retrotransposon Ty3 * C. Zeyl, G. Bell
10:00		Break
10:30	631	Molecular Structure and Origin of B-Chromosomes in the Frog <i>Leiopelma hochstetteri</i> * T. Sharbel, A. Houben, D.M. Green
10:45	632	Evolution of a B Chromosome (PSR) in the Parasitic Wasp <i>Nasonia vitripennis</i> * B.F. McAllister
11:00	633	Sex Ratio Distortion due to Bacterially-Mediated Male- Killing in the Seed Bug <i>Spilostethus hospes</i> * F. Groeters
11:15	634	Variation in Recombination Rates, Levels of DNA Sequence Polymorphism, and Divergence at X-Linked Loci in House Mice: Evidence for Genetic Hitchhiking? * M.W. Nachman, C. Aquadro
11:30	635	Recombination and Positive Selection Generate Extensive Polymorphism in the Gamete Recognition Protein, Bindin * E.C. Metz, S.R. Palumbi

Tuesday, 11th July 1995: Morning

Macdonald Engineering Building 476

Session 51 Molecular Evolution: Selection

Contributed Papers

Chair: John Brookfield

- 10:30 - 11:00
636 An Attempt to Detect Selection in Enhancer Sequences of *Drosophila melanogaster*
* J.F.Y. Brookfield, D.L. Jenkins
- 11:05 - 11:25
637 Molecular Evolution of Abalone Fertilization Proteins: Functional Divergence and Positive Darwinian Selection
* W.J. Swanson, V.D. Vacquier
- 11:30 - 11:50
638 Concerted Evolution and Positive Darwinian Selection of the α 1-Proteinase Inhibitor Gene Family in Mice
* R.L. Goodwin, H. Baumann, F.G. Berger
- 11:55 - 12:15
639 Natural Selection on Peptide-Binding Specificities at Class I MHC Loci
* A.L. Hughes
- 12:20 - 12:40
640 Molecular Systematics of Immune Cells Implicated in Human Rheumatoid Arthritis: A Coevolutionary View
* M. Richards, L. Nelson
- 12:45 - 12:55
641 Searching for the Consequences of Immune Selection on the Structural Proteins of Viruses
* D. Haydon
- 12:55 - 13:00
Break
- 13:30 - 13:50
642 Causes and Consequences of Concerted Evolution
* S. Wang, A. Loverre-Chyurlia, E. Yoshida, D. Hickey
- 13:55 - 14:15
643 Non-Neutral Evolution of Codon Usage and Excess Amino Acid Variation in *Drosophila* mitochondrial DNA
* D.M. Rand, L.M. Kann
- 14:45 - 14:55
644 The Effect of Clusters of New Mutations on Molecular Evolutionary Rate: Inflated Variance Relative to Mean
* H. Huai, R.C. Woodruff
- 15:15 - 15:35
645 A Single Amino Acid Substitution Converts a Carboxylesterase to a Phosphatase to Confer Organophosphate Insecticide Resistance in the Sheep Blowfly *Lucilia cuprina*
* R.D. Newcomb, P.M. Campbell, R.J. Russell, J.G. Oakeshott
- 15:40 - 15:55
646 Nucleotide Polymorphism in the 5' Promoter Region of Esterase 6 in *D. melanogaster* and its Relationship to Enzyme Activity Variation
* W. Odgers, J. Oakeshott, M. Healy
- 15:55 - 16:15
647 Molecular Evolution of Colicins in *E. coli*
* M.A. Riley

Tuesday, 11th July 1995: Afternoon

Leacock 26

2:00 - 5:30

Session 52 Incorporating Molecular Evolution into Molecular Systematics

Symposium

Chair: Chris Simon

2:00	648	Conserved Motifs, Secondary Structure, Alignment, and Phylogenetic Utility of 12S Ribosomal RNA * R.E. Hickson, * A. Cooper, C. Simon, J. Sullivan, G. Spicer, D. Penny
2:15	649	Aligning rRNA Structures - Effects on Phylogenetic Conclusions and Potential for Weighting * K. Kjer
2:30	650	Accommodating Among-Site Rate Variation in Phylogenetic Analysis * J. Sullivan, G.G.P. Naylor, K. Holsinger, C. Simon
2:45	651	Compositional Patterns, Nucleotide Substitutions, and the Evolution of Animal Mitochondrial DNA * N.T. Perna, T.D. Kocher
3:00	652	Nucleotide Compositional Bias and Related Molecular Constraints: Effects on Phylogenetic Inference * T.M. Collins, G.J.P. Naylor, P.H. Wimberger
3:15	653	Spectral Analysis of DNA Sequences: Walks Within Tree Space * G.M. Lento, R.E. Hickson, M.A. Steel, P.J. Lockhart, M.D. Hendy, D. Penny
3:30		Break
4:00	654	Molecular Evolution of <i>rbcL</i> * E.A. Kellogg, N.D. Juliano

Redpath Museum Auditorium

2:00 - 5:30

Session 53 Biogeography

Contributed Papers

Chair: Chris Eckert

2:00	655	Dispersal-Vicariance Analysis: A Nonhierarchical Approach to the Quantification of Historical Biogeography * F. Ronquist
2:15	656	Genetic Drift and Founder Effect in an Invading Plant * C.G. Eckert, D. Manicacci, , S.C.H. Barrett
2:30	657	* Phylogeography of Two Recently Diverged Species of Marine Prosobranch Snails * P. Marko
2:45	658	Phylogeography and Ecological Genetics of a Circumarctic Apomict, <i>Daphnia pulex</i> * L.J. Weider, A. Hobaek, T.J. Crease, P.D.N. Hebert
3:00	659	Biogeography, Genetic Population Structure and Evolution of <i>Membranipora</i> (Bryozoa: Cheilostomata) * H. Schwaninger
3:15	660	Population Structure and Biogeography of the Acorn Barnacle <i>Semibalanus balanoides</i> * A.F. Brown, D.M. Rand
3:30		Break
4:00	661	Molecular Phylogenies of Evolutionary Innovations: Deep Origins of Fish- and Mollusc-Eating Cone Snails * T.F. Duda Jr.
4:15	662	Molecular Systematics and Biogeography of the Central Asian Burrowing Vole (Mammalia:Rodentia:Arvicolinae) * C.W. Kilpatrick
4:30	663	Phylogeography of Bats of the Atlantic Rainforest of Brazil * A.D. Ditchfield
4:45	664	Intraspecific Answers to an Interspecific Question: Genetic Drift and Fluctuating Distributions Promote Frog Speciation in South-western Australia * D. Driscoll
5:00	665	The Biogeography and Phylogeny of Rhacophorid Frogs in Taiwan * K.Y. Lue, C.Y. Chen
5:15	666	Molecular Phylogenetics of a Complex of Cryptic Salamander Species (<i>Batrachoseps</i>) * E.L. Jockusch

Tuesday, 11th July 1995: Afternoon

Arts 125

2:00 - 5:30

Session 54 Molecular Systematics: Viruses, Bacteria and Invertebrates

Contributed Papers
Chair: David Mindell

1:00	667	The Sequences, Sources, Taxa Database (SST): Linking Public Databases for Rapid Recovery of Biological Information C.J. Bult, * J.A. Blake, A.R. Kerlavage, C. Fields
1:15	668	Phylogenetic Reconstruction with AP-PCR (Nuclear DNA) Data * R. Borowsky, L. Espinasa
1:30	669	Testing Temporal Patterns of Cladogenesis Using a Null Model of Random Diversification * K. Wollenberg, J. Avise, J. Arnold
1:45	670	Saturation and Signal in Cytochrome b * C.S. Griffiths
2:00	671	Molecular Phylogeny of Disease-Causing <i>Treponema</i> and the Origins of Syphilis H. Holzmann, * C. Anderson, A. Dietz, B. Schierwater
2:15	672	The AIDS Pandemic is New, but is HIV New? * D.P. Mindell
2:30		Break
2:45	673	Combined Analysis of Metazoan 18S rRNA and Morphology * D. Eernisse
3:00	674	Molecular Systematics of the Eucestoda (Platyhelminthes) Using Sequence Data * J. Mariaux, P. Morel Andre
3:15	675	* Evolution of Two Hidden Architectural Strategies in Scleractinian Corals Inferred from Mitochondrial 16S DNA Sequences * S. Romano, S.R. Palumbi
3:30	676	Testing the Monophyly of the Annelida Using Nuclear (EF1 α) and Mitochondrial (12S rRNA) Sequences * D. McHugh
3:45	677	Evolutionary Relationships of Vestimentiferan Tube Worms Inferred From mt DNA COI Sequence * M.B. Black, W.R. Hoeh, R. Lutz, R. Vrijenhoek
4:00	678	Genetic Evidence for Ancient Radiations in the Australian Onychophora * D. Gleeson, D. Rowell, D. Briscoe, N. Tait

Macdonald Engineering Building 497

2:00 - 5:30

Session 55 Demography

Contributed Papers
Chair: Frank Cipriano

2:00	679	Modelling the Effects of Genetic Variation of Life History Parameters on Population Dynamics * P. Duncan
2:15	680	The Consequences of Spatial Structure for Population Dynamics: Lessons from Coupled Map Models * B.E. Kendall, G.A. Fox
2:30	681	Higher-Order Interactions Among Spatially-Mapped Individuals: An Iterative Approach * K.A. Garrett, P.M. Dixon
2:45	682	From Extinction to Persistence or Chaos: The Effects of Cooperation on Population Dynamics * L. Aviles
3:00	683	A Graph Theory Approach to Demographic Loop Analysis: Partitioning Elasticity Matrices into Life History Pathways * G. Wardle
3:15	684	* Estimates of Variance Effective Population Size in Two Epiphytic Orchids <i>Lepanthes rubripetala</i> and <i>L. rupestris</i> * R.L. Tremblay
3:30		Break

Tuesday, 11th July 1995: Afternoon

4:00	685	Effects of Genetic Differentiation on Population Dynamics in the Least Killifish, <i>Heterandria formosa</i> * J. Leips
4:15	686	Genetic Evidence for Reproductive Isolation and Multiple Origins of Sympatric Trophic Ecotypes of Whitefish (<i>Coregonus</i>) * L. Bernatchez, J.A. Vuorinen, R.A. Bodaly, J.J. Dodson
4:30	687	Does Differential Survivorship in Coral Reef Fish Alter Patterns of Distribution Established during Recruitment? * L. Gutierrez
4:45	688	Life History Variation among Female <i>Gambusia hubbsi</i> on Andros, Bahamas * J. Downhower, L. Brown, M. Schug, P. Fuerst
5:00	689	Morphological Stasis and Ecological Divergence in the Evolution of Dolphins * F. Cipriano, S.R. Palumbi
5:15	690	Ovarian Diapause and Post-Diapause Reproduction in <i>Drosophila melanogaster</i> Females * K.D. Williams, M.B. Sokolowski

Leacock 219

Session 56 Inbreeding Depression in Plants

Contributed Papers
Chair: Mark Johnston

2:00	691	Mutation Rates and the Coevolution of Self-Fertilization and Inbreeding Depression * M.O. Johnston, D.J. Schoen
2:15	692	Comparison of QTL Maps of Two Independently-Derived Inbreeding <i>Mimulus</i> Species * J. Lin, K. Ritland
2:30	693	The Effects of Five Generations of Enforced Selfing on Pollen and Ovule Production in <i>Mimulus guttatus</i> (Scrophulariaceae) * D.E. Carr, M.R. Dudash
2:45	694	Genetic Basis of Inbreeding Depression in <i>Mimulus guttatus</i> : A Quantitative Genetics Approach * M. R. Dudash, D. E. Carr
3:00	695	Role of Inbreeding Depression in Maintaining the Variability of Anther-Stigma Distance in Common Morning Glories * S. Chang, M. Rausher
3:15	696	The Effects of Inbreeding in Diploid and Tetraploid Populations of <i>Epilobium angustifolium</i> : Implications for the Genetic Basis of Inbreeding Depression * B.C. Husband, D.W. Schemske
3:30		Break
4:00	697	* Evolution of Mating Systems and Floral Characters in Three Sympatric Species of <i>Linanthus</i> * C. Goodwillie
4:15	698	Individual Variation in Inbreeding Depression: The Roles of Inbreeding History and Mutation * J.H. Willis, S.T. Schultz
4:30	699	Evolution of Unisexuality in the Hawaiian Islands: A Test of Microevolutionary Theory * S.T. Schultz, F.R. Ganders
4:45	700	Pollinator Movements and Patterns of Gene Dispersal in Monkeyflower * J.D. Karron
5:00	701	Actual Variance of Inbreeding: Estimation and Relevance to Apparent Allozyme Overdominance and to Inferences about Inbreeding Depression * K. Ritland
5:15	702	Metabolic Control Theory, GXE and Inbreeding Depression: A Common Mechanism for Partial- and Overdominance * S. Tonsor, P. Batra

Tuesday, 11th July 1995: Afternoon

A-5

2:00 - 5:30

Session 57 DNA Sequence Variation

Contributed Papers

Chair: Jeff Mitton

- 2:00 703 Population Genetics and Linkage Mapping with RAPD-SSCP
* M. Antolin, W.C. Black IV
- 2:15 704 DNA Variation at CYP4D1, a *Drosophila* Cytochrome P450: Evidence of a Correlated History with 6-Pgd
* K.S. Phillips, D.J. Begun, C.F. Aquadro
- 2:30 705 DNA Fingerprinting and Hardy Weinberg Equilibrium: A Continuous Approach to Analysis of VNTR Fragments
* L.M. McIntyre, B.S. Weir
- 2:45 706 Independent versus Concerted Evolution of a Pupfish HindIII Satellite DNA Sequence
* D.D. Duvernall, B.J. Turner
- 3:00 707 Cytochrome b DNA Sequence Variability in the Hawaiian Honeycreepers
* R.A. Feldman, L. Freed, R. Cann
- 3:15 708 Mitochondrial 16S rRNA Sequence Divergence among Deep-Sea Amphipod Populations: Geographic and Bathymetric Patterns of Population Structure
* S.C. France, T.D. Kocher
- 3:30 Break
- 4:00 709 Phylogenetic Analysis of Inter-and Intraspecific Variation of the Mitochondrial 16S rRNA Gene of the Planktonic Marine Copepod *Acartia* (Crustacea:Copepoda) Evidence of Cryptic Species and Geographic Structure of *A. tonsa*
* C. Caudill, A. Bucklin
- 4:15 710 Population Differentiation: mtDNA Sequences Reveal Multiple Population Genetic Structures and Evolutionary Forces within One Species
* F. Villablanca
- 4:30 711 Allozyme and mtDNA Variation Associated with Production in Domesticated Pigs
* J.B. Mitton, J.J. Chewning, D.J. Zelenka
- 4:45 712 mtDNA Sequence Divergences in Walleyes From River Spawning Sites: Support for Natal Homing
* C.A. Stepien, J.E. Faber
- 5:00 713 * A Phylogeographic Analysis of Intraspecific Variation Using mtDNA Markers in Two Asian Primate Genera
* L.L. Rosenblum, D.J. Melnick
- 5:15 714 Demographic History of India and Mitochondrial DNA Sequence Diversity
* J.L. Mountain, L. Cavalli-Sforza

Macdonald Engineering Building 476

2:00 - 5:30

Session 58 Species Interactions

Contributed Papers

Chair: Jennifer Mattei

- 2:00 715 Frequency-Dependence and Coexistence in a Spatial Context
* J. Molofsky, R. Durrett, S.A. Levin
- 2:15 716 Geographic Structure of Lineage Associations in a Plant- Bacterial Mutualism
* M.A. Parker
- 2:30 717 Competition between Bacterial Strains Mediated by Associated Bacteriophage: Phage-Bacteria Interaction at the Predation-Mutualism Boundary
* T. Palys, G.P. Krukonis, F.M. Cohan
- 2:45 718 Competition between Plant Genotypes Mediated by Specialist vs. Generalist Mutualists
* H. Wilkinson, M. Parker
- 3:00 719 Effects of Genotype and Nutrient Environment on Tolerance and Reallocation Patterns in Response to Stimulated Herbivory in Seedlings of *Asclepias syriaca*
* C.G. Hochwender

Tuesday, 11th July 1995: Afternoon

3:15	720	Plant-Herbivore Defense Theory: Tradeoffs Found When Plants Were Subjected to Moderate Stress * J.H. Mattei
3:30		Break
4:00	721	Cyanogenesis in <i>Turnera ulmifolia</i> : Mediating Interactions at Multiple Levels * P. Schappert, J.S. Shore
4:15	722	Intra- and Interpopulation Genetic Architecture and the Evolution of Host Use in a Polyphagous Butterfly * J.L. Bossart, J.M. Scriber
4:30	723	Genetic Variation in Natural Population of <i>Drosophila ananassae</i> Reared from Different Host Plants C. Young, * K. Lofdahl
4:45	724	Dynamics of Two Symbiotic Algae that Inhabit the Same Cnidarian Host * D. Secord
5:00	725	The Effect on Ant Association on the Population Genetics of the Australian Lycorenid Butterfly <i>Jalmenus evagorus</i> * J.I. Costa, N.E. Pierce
5:15	726	Do Barnacle Epibionts Prefer Hybrid Stone Crabs? * T.M. Bert

Macdonald Engineering Building 279

Session 59 Life Histories: Development, Dispersal and Density

Contributed Papers

Chair: Steve Stearns

2:00	727	The Differential Canalization of Fitness Components * S. Stearns, M. Kaiser, T. Kaweclei
2:15	728	Optimal Investment of Resources for Resisting Rare Stresses * D. Cohen
2:30	729	Rapid Evolution or Plasticity? Life-History Variation among Four Populations of the Western Mosquitofish, <i>Gambusia affinis</i> * S.C. Weeks, C.A. Stockwell, G.K. Meffe
2:45	730	Density Regulation in Natural Populations of Guppies (<i>Poecilia reticulata</i>) * D. Reznick, M. Bryant
3:00	731	Feeding Rate and Weight Gain During the Larval Phase in Populations of <i>Drosophila melanogaster</i> Subjected to Density -dependent Natural Selection D.J. Borash, N. Bounlutay, A. Joshi, * L.D. Mueller
3:15	732	Physiological Responses to Density-dependent Natural Selection * D. Borash
3:30		Break
4:00	733	Effect of Maternal and Embryonic Environments on Diapause Incidence in the Ground Cricket, <i>Allonemobius socius</i> * A.E. Olvido, S. Busby, T.A. Mousseau
4:15	734	Facultative Egg Size in Response to Resource Quality: an Adaptive Maternal Effect * C.W. Fox, M.S. Thakar, J.D. Martin, T.A. Mousseau
4:30	735	Ovipositors, Eggs, Hatchlings and Diapause: Adaptive Maternal Effects in a Cricket * T.A. Mousseau
4:45	736	Nature and Nurture in Hydroids: Effects of Environment and Genotype on Colony Morphology * D.R. Brumbaugh
5:00	737	Flight Polymorphism in the Soapberry Bug; Environmental and Development Control * R. Winchell, H. Dingle
5:15	738	An Evolutionary Decoupling of Developmental Mechanisms: Salamander Pigment Patterns and the Lateral-Line Sensory System * D.M. Parichy

Tuesday, 11th July 1995: Afternoon/Evening

Macdonald Engineering Building 280

1:00 - 5:30

Session 60 Genetic Population Structure II

Contributed Papers

Chair: George Barrowclough

- 1:00 739 Estimates of Long-Distance Gene Flow within a Continuous Population of *Rudbeckia hirta*
* J.S. Heywood
- 1:15 740 The Use of RAPDs to Determine Genetic Diversity in *Poikilacanthus macrathus*, a Tropical Wet Forest Shrub
in *Ammophila breviligulata*, a Temperate Dunegrass
* S.P. Bush, D.L. Mulcahy
- 1:30 741 Allozymes, RAPDs and Quantitative Traits Yield Conflicting Estimates of Population Differentiation, Suggesting
Local Adaptation in Pines of the Rocky Mountains
* R. Latta, J. Mitton
- 1:45 742 Genetic Differentiation in the Pitcher-Plant Mosquito *Wyeomyia smithii*
* P. Armbruster, W.E. Bradshaw, C.M. Holzapfel
- 2:00 743 The Genetic Structure of *Daphnia* Populations along an Ecological Gradient
* C.K. Geedey, A.J. Tessier
- 2:15 744 Ecological Genetics of Hybrid *Daphnia*: a Temporal Study on Genetic Variation and Sexual Isolation
* P. Spaak
- 2:30 Break
- 2:45 745 Genetic Variation in the Zebra Mussel (*Dreissena polymorpha*) within the St. Joseph River Drainage
* K.M. Lewis, J.L. Feder, G. Lamberti
- 2:55 746 Patterns of Control Region Variation in Mitochondrial DNA of Spotted Owls (Aves: Strigidae)
* G.F. Barrowclough, J.G. Groth, R.J. Gutierrez
- 3:30 747 A Genetic Analysis of Putative Host Races in the Common Cuckoo
* H.L. Gibbs, M. Brooke, N. Davies
- 4:45 748 Mitochondrial DNA Variation within and between Populations of Red Howler Monkeys (*Alouatta seniculus*)
* T. Pope, W. Potts
- 5:00 749 Mitochondrial DNA Sequence Relationships of the Extinct Blue Antelope *Hippotragus leucophaeus*
* T. J. Robinson, A. D. Bastos, K. Halanych, B. Herzig
- 5:15 750 Preserving Allelic Diversity: Are Translocations Successful?
* C.A. Stockwell, M. Mulvey

6:00 - 8:30

Bishop Mountain Hall

Banquet

Leacock 132

9:00 - 10:00 pm

Session 61 SSE Presidential Address

Plenary

Light, Vision, Colour Patterns, and Behaviour: Suites of Interactive Traits and the Direction of Evolution
John Endler

Wednesday, 12th July 1995: Morning

Leacock 26

8:00 - 12:00

Session 62 Mapping Quantitative Trait Loci

Symposium

Chair: Zhao-Bang Zeng

8:00	751	High Resolution Mapping of QTLs Affecting Bristle Number in <i>Drosophila melanogaster</i> * T. Mackay
8:30	752	Genetic Analysis of the Morphological Evolution of Maize * J. Doebley
9:00	753	Molecular Quantitative Genetics of Fitness Components * T. Mitchell-Olds
9:30	754	Quantitative Trait Loci for Mouse Growth * J. Cheverud, E. Routman
10:00		Break
10:30	755	Statistical Issues in Mapping Quantitative Trait Loci * Z-B Zeng
11:00	756	Influence of Inbreeding and Outcrossing on QTL Identification * W. Beavis
11:30	757	Population-Based Methods for Mapping Disease Genes in Human Populations * N. Kaplan

Leacock 219

8:00 - 12:00

Session 63 Rapid Evolutionary Changes in Wild Populations

Symposium

Chair: Elizabeth Grace Boulding

8:00	758	Predicting Evolution in Darwin's Finches * P.R. Grant, B.R. Grant
8:30	759	Old Genes in New Bodies: Do Shrinking Snow Geese Reflect Evolutionary Change? E.G. Cooch, * D.B. Lank, F. Cooke
9:00	760	Rapid Evolutionary Change in Wild Populations Caused by the Invasion of Predators * E.G. Boulding
9:30	761	Genetic Change in Introduced Organisms * J.H. Myers
10:00		Break
10:30	762	Manifest Destiny: Genetics of Adaptation during the First Few Hundred Generations of Soapberry Bug Pioneers * S. Carroll, H. Dingle
11:00	763	Environmental Shifts, Rapid Adaptation, and High Extinction Rates in a Set of Checkerspot Butterfly Populations * C. Parmesan, M. Singer
11:30	764	Ecology of Rapid Speciation and Divergence in the Threespine Sticklebacks * D. Schlüter

Wednesday, 12th July 1995: Morning

AET 2235

8:30 - 12:00

Session 64 Molecular Systematics: Fungi, Algae and Plants

Contributed Papers

- | | | |
|-------|-----|--|
| 8:30 | 765 | Molecular Phylogenetics of Fungi Cultivated by Neotropical Attine Ants
* S. Rehneri, |
| 8:45 | 766 | Molecular Systematics of Ascomycete Fungi - where do Asexual Species Fit?
* M.L. Berbee |
| 9:00 | 767 | The Molecular Phylogenetics of Algae Symbiotic with Reef Building Corals
* T. Wilcox |
| 9:15 | 768 | Molecular Evidence on the Relationships of Chlorophycean Green Algae and Higher Plants
* R.M. McCourt, K.G. Karol, C.F. Delwiche |
| 9:30 | 769 | Phylogenetic Relationships in Gnetales Based on nrDNA Sequence Data
* L. Gillespie, J. Sweese |
| 9:45 | 770 | Angiosperm Phylogeny Inferred from 18S rDNA Sequences
* P.S. Soltis, D.E. Soltis, D.L. Nickrent, L.A. Johnson, R.K. Kuzoff, J.A. Sweere, E.A. Zimmer |
| 10:00 | | Break |
| 10:30 | 771 | Levels of Taxonomic Consensus and Character Congruence Among Four Molecular Data Sets in the Triticeae (Poaceae)
* R.J. Mason-Gamer, E.A. Kellogg |
| 10:45 | 772 | Measures of Phylogenetic Congruence in Pontederiaceae
* S.W. Graham, S.C.H. Barrett |
| 11:00 | 773 | Evolution of Marine Angiosperms
* D.H. Les, M. Waycott, M. Cleland |
| 11:15 | 774 | The Use of RAPDs in Phylogenetic Analyses of Pea and its Close Relatives
* N.O. Polans, B.K. Hoey, D.M. Barnes, J.A. Nelson |
| 11:30 | 775 | A Comparison of Molecular and Morphological Approaches to the Phylogeny of <i>Korthalsella</i> (Viscaceae)
* M. Molvray, P.J. Kores |
| 11:45 | 776 | Systematics of the Vochysiaceae: Origin of an Asymmetrical Flower
* A. Litt |

Redpath Museum Auditorium

8:30 - 12:00

Session 65 Genetic Variability and Metapopulations

Contributed Papers
Chair: Kent Holsinger

- | | | |
|-------|-----|---|
| 8:30 | 777 | Population Dynamics and the Maintenance of Diversity in Fluctuating Environments
* D. Babai, S. Ellner |
| 8:45 | 778 | The Maintenance of Genetic Variation in Subdivided Populations
* M. Whitlock |
| 9:00 | 779 | The Genetic Structure of Source-Sink Metapopulations
* O. Gaggiotti |
| 9:15 | 780 | Inferring Migration Structures From Nucleotide Sequence Data: A Comparison of F_{ST} Measures
* K. Holsinger |
| 9:30 | 781 | Genetic Diversity in Endemic Plant Species of the Athabasca Sand Dunes
* B.G. Purdy, R.J. Bayer |
| 9:45 | 782 | Patterns of Genetic Variation in Two Southern Australian Seagrasses
* M. Waycott, D. Walker, S. James |
| 10:00 | | Break |

Wednesday, 12th July 1995: Morning

10:30	783	Genetic Consequences of Extinction and Colonization in a Marine Plant Population * M. Ruckelshaus
10:45	784	Patterns of Genetic Variation at Microsatellite Loci in Peripheral Population of the Eastern Collared Lizard (<i>Crotaphytus collaris collaris</i>) * D.W. Hutchison
11:00	785	Use of Microsatellite Repeats to Examine Metapopulation Structure in the Mexican Spotted Owl (<i>Strix occidentalis lucida</i>) * B.S. Johnson, P.B. Stacey
11:15	786	Effect of Dispersal Behaviour on the Maintenance of Genetic Variability in White-Tailed Deer * J.R. Purdue, M. H. Smith
11:30	787	Genetic Structure of the North Atlantic Fin Whales, <i>Balaenoptera physalus</i> * M. Berube, F. Larsen, P. Palsboll, R. Sears
11:45	788	Genetic Variation in Desert-Adapted <i>Drosophila</i> Species * C. Breitmeyer

Macdonald Engineering Building 280

Session 66 Evolution and Development

Contributed Papers

Chair: Arne Mooers

8:30	789	Testing Phylogenetic Models of Body Size Evolution * A. Mooers, D. Schlüter
8:45	790	The Cellular Basis of Body Size Evolution in Worms * A. Leroi, S. Emmons
9:00	791	Pattern and Development in a Developmental Character- Chromatin Diminution - as Revealed by Phylogenetic Analysis * G.A. Wyngaard, H. Dorward
9:15	792	Chromosomes, Development and Climate: Latitudinal Clines in the Australian Grasshopper <i>Caledia captiva</i> F. Groeters, * D. Shaw
9:30	793	Evolutionary Origin of Bilaterally Asymmetrical Structures: Relation between Behavioral Asymmetry (Handedness) and Morphological Asymmetry in the Claws of a Brachyuran Crab * A.R. Palmer, M. Harrison, L. Poulik
9:45	794	Evolution of Body Asymmetry in Hermit Crabs * A. Harvey
10:00		Break
10:30	795	Analysis of Mortality Patterns In <i>Hydra</i> Suggests Lack of Aging * D.E. Martinez
10:45	796	The Evolution of Regulatory Sequences in the Developmental Gene hairy in <i>Drosophila</i> * J. Kim, K. Nayar
11:00	797	Putative Adaptations of Larval Gastropod Shells * R. Collin
11:15	798	Multivariate Analysis of Longitudinal Growth Data with Common Principal Components * C.P. Klingenberg
11:30	799	Migration and Fate of the Cranial Neural Crest in <i>Bombina orientalis</i> : a Baseline for Studying the Evolution of Head Development in Anurans * L. Olsson, J. Hanken
11:45	800	The Genetics of Leaf Development in Three Taxa of <i>Mimulus</i> (Scrophulariaceae) * C. Ritland, K. Ritland, F. Strumas

Wednesday, 12th July 1995: Morning

Arts 125

Session 67 Cytonuclear Interaction and Gene Evolution

Contributed Papers

Chair: Bruce Turner

- 801 Hybridization and Cytonuclear Disequilibrium in Seastars (*Lepasterias*)
* D. Foltz, A. Hrincevich, E. Campagnaro, A. Himel
- 802 Cytonuclear Disequilibria under Tetrasomic Inheritance
* R.D. Overath, M.A. Asmussen
- 803 Selection Effects on a Cytonuclear System
* C. Babcock, M. Asmussen
- 804 Mating Systems, Bottlenecks and Genetic Polymorphism in Hermaphrodites
* P. Jarne
- 805 Outcrossing in a Male-Rich Natural Population of a Self-Fertilizing Fish Species
* B.J. Turner, B.A. Lubinski, W.P. Davis, D.S. Taylor
- 806 Genetic Relatedness and Population Viscosity in Multiple-Queen *Formica* Ants
* M. Chapuisat
- Break
- 807 Survival Probabilities for Mutant Alleles in Tetraploids and Two-Locus Allele Combinations in Diploids
* E. Pollak
- 808 Contrasting Patterns of Replacement and Silent Polymorphism and Differentiation at Esterase-6 in Worldwide Populations of *Drosophila melanogaster*
* V. Bauer, D. Begun, C. Aquadro
- 809 Contrasting Patterns of Molecular Evolution at the Duplicated Cytoplasmic Actin Genes of *Drosophila*: A Test of the Nearly Neutral Model
* M.T. Hamblin, C.F. Aquadro
- 810 Unequal Rates of Adaptive and Deleterious Change in the *D. melanogaster-simulans* Lineages
* W. Eanes
- 811 Molecular Population Genetics of a Pseudogene in *Drosophila melanogaster*
* S.W. Schaeffer, J.K. Pritchard
- 812 Genetic Exchange and Sequence Divergence Among Ecological Populations of Plasmids
F. Cohan, * I. Mitrica

Macdonald Engineering Building 497

Session 68 Molecular Population Genetics: Models and Mutations

Contributed Papers

Chair: Ron Woodruff

- 8:30 813 Power of Estimation of Population Parameters from Coalescent Trees of Genes: Do we Want More Sites, Samples, or Loci?
* J. Felsenstein
- 8:45 814 The Coalescent in the Presence of Selection
* R.B. Campbell
- 9:00 815 Estimating Pollen and Seed Migration From Joint Nuclear-Mitochondrial-Chloroplast Data
* M.E. Orive, M. Asmussen
- 9:15 816 Interactions of Genetics and Population Dynamics in an Age-Structured Population Model
* J. Kumm, D. Promislow
- 9:30 817 Estimating Long-Term Mating Systems from DNA Sequences
* B. Milligan
- 9:45 818 Fitness Consequences of Multiple-Locus Genotype for Successive Life Stages in *Cecropia obtusifolia*, a Neotropical Pioneer Tree Species
E. Alvarez-Buylla, * C. Lara-Moreno

Wednesday, 12th July 1995: Morning

10:00		Break
10:30	819	Clusters of New Mutations in the Evolutionary Landscape * R.C. Woodruff, H. Huai, J.N. Thompson Jr
10:45	820	The Effect of Adaptive Mutagenesis on Genetic Variation at a Linked Neutral Locus * C. Colby, S. Williams
11:00	821	Unusual Patterns of Codon Substitution in the Cytochrome-B Gene in <i>Microtus</i> from Near Reactor 4, Chernobyl, Ukraine * R.J. Baker, A.J. Wright, M.J. Hamilton, L.E. Wiggins, R.A. Van Den Bussche, M.H. Smith, R.K. Chesser, M.D.
Lomakin		
11:15	822	Rapid Evolution due to the Persistence of Escaped Transgenes in Wild Populations of Sunflower and Squash * A.A. Snow, L.H. Rieseberg
11:30	823	Persistence of Virulent Bacteriophage: Models and Experiments * J. Mittler, S. Schrag
11:45	824	Multiple Interspecies Transmissions of Human and Simian T-Cell Leukemia/Lymphoma Virus Type I Sequences * K. Crandall

Macdonald Engineering Building 279

Session 69 Sex Ratios and Sex Allocation

Contributed Papers

Chair: Willem Roosenburg

8:30	825	Queen Numbers, Parentage and Queen Mortality in the Facultatively Polygynous Ant <i>Myrmica tahoensis</i> * J. Evans
8:45	826	Annual Sex Ratio Variation in a Turtle with Temperature-Dependent Sex Determination * W.M. Roosenburg
9:00	827	Ordinary and Extraordinary Sex Ratios in Avian Blood Parasites * D. Shutler, A. Read
9:15	828	Sex Allocation and Life History Response to an Energy Gradient for the Reef Building Coral <i>Montastraea faveolata</i> * J.T. Villinski
9:30	829	Population Structure and Sex-Ratio Evolution in the Dioecious Plant <i>Silene alba</i> * D.R. Taylor
9:45	830	RAPD Markers and Sex Chromosome Genetic Variation in Dioecious Angiosperms of the Genus <i>Silene</i> (Caryophyllaceae) * V.S. Di Stilio, R. Kesseli, D.L. Mulcahy
10:00		Break
10:30	831	Breeding Patterns and Functional Gender in <i>Erythrina costaricensis</i> * M.D. Loveless, A. Schnabel, J.L. Hamrick
10:45	832	Parentage Analysis in <i>Chamaelirium luteum</i> (L.); Why do Some Males Contribute More than Others? * P.E. Smouse, T.R. Meagher, C.J. Kobak
11:00	833	Sex Liability, Resource Allocation, and Fecundity in Subdioecious Populations of <i>Wurmbea dioica</i> (Colchicaceae) S.C.H. Barrett, * A.L. Case, G.B. Peters
11:15	834	Gynodioecy Evolved Once and has been Lost Twice in Hawaiian <i>Bidens</i> (Asteraceae) * F.R. Ganders
11:30	835	The Maintenance of Female Stamens in a Cryptically Dioecious Perennial Herb * K. Karoly

Wednesday, 12th July 1995: Morning

Macdonald Engineering Building 476

Session 70 Molecular Evolution: Small-Scale Variation and Phylogeny

Contributed Papers

Chair: Margaret F. Smith

- 8:30 - 12:00
- 8:36 836 **Phylogenetic Inferences From MHC Sequence Data; Knowing the Molecule**
* R.E. Hickson, R.L. Cann
- 8:45 837 **Genome Evolution in *Poeciliopsis***
* A.S. Peek, R.C. Vrijenhoek
- 9:00 838 **Differential Expression of Androgen-Induced 3- α -Hydroxysteroid Dehydrogenase in *Mus* Species**
* M.K. Liu, F.G. Berger
- 9:15 839 **Introgressive Hybridization in Seal Worms of the Genus *Phocascaris*: a Case for Recombinant Speciation in Parasites?**
* R. Cianchi, P. Arduino, G. Nascetti, L. Bullini, P. Orecchia, S. Mattiucci, S. D'Amelio
- 9:30 840 **DNA Sequence Variation at *period* Locus of *Drosophila pseudoobscura* Species Group**
* R. Wang, J. Hey
- 9:45 841 **Using *period* Locus DNA Sequences to Study Speciation in the *Drosophila virilis* Group**
* H. Hilton
- 10:00 Break
- 10:30 842 **Analysis of scn-DNA Polymorphisms in Juvenile Oysters (*Crassostrea virginica*)**
* Y. Hu, D. Foltz
- 10:45 843 **Mitochondrial Control Region Sequence Variation in a Seastar (*Leptasterias*) Species Complex**
* A.W. Hrincevich, D. Foltz
- 11:00 844 **Variation in the Mitochondrial DNA of the Alexander Archipelago Wolf *Canis lupus ligoni***
* G.F. Shields, M. Rosing, D. Person
- 11:15 845 **Models of Length Variation in Sturgeon Mitochondrial DNA**
* J.R.T. Brown, K. Beckenbach, A. Beckenbach, M.J. Smith
- 11:30 846 **Nuclear Copies of a Mitochondrial Gene: A Cautionary Example from Pocket Gophers**
* M.F. Smith, U.K. Thomas, J.L. Patton
- 11:45 847 **The Complete Sequence of the Mitochondrial Genome of Rainbow Trout *Oncorhynchus mykiss***
* R. Zardoya, J.M. Bautista

12:00 End of formal proceedings

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