

PRELIMINARY SCHEDULE
2002 AMERICAN SOCIETY OF NATURALISTS MEETING--BANFF

THURSDAY 7/11/02

All Day FIELD TRIP: BURGESS SHALE
All Day FIELD TRIP: MONTANE ECOSYSTEMS
12:00-1:30 LUNCH (Main Dining Room)
4:00-6:00 ASN Executive Committee Meeting. Max Bell 160.
6:00-8:00 POSTER SESSION AND RECEPTION. Max Bell 253.

FRIDAY 7/12/02

MORNING

7:00-8:30 BREAKFAST (Main Dining Room)

VICE-PRESIDENTIAL SYMPOSIUM--BEYOND THE PAIRWISE PERSPECTIVE ON MUTUALISM.

Organized by Maureen Stanton.

Max Bell Auditorium.

- 8:30 STANTON, M. L. A contra dance, not a tango: Beyond a pair-wise perspective on mutualisms
8:40 KNOWLTON, N. Mutualisms on coral reefs.
9:15 HOEKSEMA, J. D. & M. KUMMEL. Understanding interspecific mutualism in diverse plant/soil-microbe systems: the importance of the degree and mechanism of competition among symbionts.
9:50 BREAK
10:20 GOMULKIEWICZ, R., J. N. THOMPSON, & S. NUISMER. Coevolution of mutualisms embedded within and among communities: some simple models.
10:55 BRONSTEIN, J. L., W. G. WILSON, & W. F. MORRIS. The ecological dynamics of mutualist-exploiter communities
11:30 Panel discussion: Future directions for research

7-12:00 POSTER SESSION. Max Bell 253.

AFTERNOON

12:00-1:30 LUNCH (Main Dining Room)

CONTRIBUTED PAPER SESSION 1: EVOLUTION.

Max Bell Auditorium.

- 1:30 ARNOLD, S. J., P. C. PHILLIPS, A. M. BRONIKOWSKI, & J. C. AVISE. The Triple Alignment Model for Adaptive Radiation: a Garter Snake Test Case.
1:45 ROFF, D. A., D. J. FAIRBAIRN & S. MOSTOWY. The evolution of trade-offs: Testing predictions on response to selection.
2:00 RUVINSKY, J. & D.D. ACKERLY. Adaptive phenotypic plasticity in *Mimulus guttatus* .
2:15 SORK, V.L., R. J. DYER, & K. J. BAILEY. Variation in pollen movement and mating patterns for three tree species in a Missouri Ozark landscape.

- 2:30 WILSON, A. C. C., B. B. CAMERON & R. K. GROSBERG. Fuse or fight? The costs and benefits of chimera formation in the hydroid, *Hydractinia symbiolongicarpus* .
- 2:45 ACKERLY, D.D. Evolution of leaf form in the California chaparral: Adaptation and community assembly.
- 3:00 BREAK
- 3:15 ASHTON, K. G. Bergmann's rule in tetrapod vertebrates.
- 3:30 DURAN, K.L. AND J.B. MITTON. The piñon pine dwarf mistletoe: effects of the pleistocene on population structure.
- 3:45 GOVEDICH, F. R., B. A. BAIN, L. R. GRANT, G. CUNNINGHAM & M. BURD. The evolution of parental care in glossiphoniid leeches: A phylogenetic perspective on animal behaviour.
- 4:00 GREENWOOD-LEE, J.M., & P.D. TAYLOR. The evolution of dispersal in spatially varying environments.
- 4:15 MCADAM, A.G. & S. BOUTIN. Maternal effects and the dynamics of juvenile growth rates in red squirrels.
- 4:30 MUNCH, S. B. The relation between Bergmann's Rule and countergradient variation: modeling the interplay of growth- and size-dependent seasonal mortality at different latitudes.
- 4:45 UDOVIC, D. Phenological analysis of flowering and fruiting in *Yucca whipplei* .
- 5:00 WRIGHT, J.W., M.L. STANTON, R. SCHERSON, & D. THIEDE. Local adaptation to serpentine soils in *Collinsia sparsiflora* : A story of morphology, phenology, and physiology.
- 5:15 FAIRBAIRN, D. & A. WILBY. Estimating the potential for selection: What is the appropriate index?

CONTRIBUTED PAPER SESSION 2: BEHAVIORAL ECOLOGY & EVOLUTION.

Max Bell 251.

- 1:30 HARDER, L. D., & S. D. JOHNSON. Plants regulate the size of floral displays in response to pollinator activity.
- 1:45 HEDRICK, P. W. Hopi Indians, "cultural" selection, and albinism.
- 2:00 JOHNSON, J. B. & A. L. BASOLO. Big swords and dangerous mates: predators reverse female preference for conspicuous male ornaments in the green swordtail
- 2:15 ADAMS, E. M., & A. G. JONES. Microsatellite-based parentage analysis in the salamander *Desmognathus ocoee* .
- 2:30 BAIN, B. A. An overview of paternal care in Pycnogonids (sea spiders).
- 2:45 BREDEN, F. Genetics of female preference in the guppy.
- 3:00 BREAK
- 3:15 LOEB, M. L. G. Costs of egg dumping in a subsocial insect.
- 3:30 MILES, D. B & B. I. KNAPP. The ontogeny of sexual size dimorphism reveals a performance advantage for small males in the Northern Fence Lizard.
- 3:45 MOORE, A. J., V. T. MONTROSE, J. E. LOCK, M. GIBBS, M. & P. T. SMISETH. Female burying beetles prefer small servile males.
- 4:00 O'STEEN, S., S. EBY & J. BUNCE. Sex, speed and survival: does courtship locomotor skill predict skill escaping predators?
- 4:15 SCHUETZ, J. G. Picking out parasitic young: A model for parental decision-making.
- 4:45 WESTPHAL, M. F. Behavioral mediation of color pattern in garter snakes.
- 4:30 FELDHOFF, S. M. ROLLMANN AND S. J. ARNOLD. Molecular evolution of a salamander
- 5:00 DOMINGUE, M.J., W.T. STARMER, & S.A. TEALE. The genetic control of pheromone blend production among geographic variants of the pine engraver beetle, *Ips pini* (Say).

CONTRIBUTED PAPER SESSION 3: ECOLOGY.

Max Bell 252.

- 1:30 CHASE, J. M. Effects of invasion history on community assembly and ecosystem function.
- 1:45 FRIEDENBERG, N. A. Competition in finite patchy landscapes: when does the capitalist beat the vagabond?
- 2:00 PFISTER, C. A. & S. D. PEACOR. Variable performance of individuals: The role of population density and endogenously formed landscape heterogeneity.
- 2:15 DEWOODY, Y., Z. FENG & R. SWIHART. A spatially explicit patch model in a dynamic landscape.
- 2:30 DONOHUE, K., C. GRIFFITH, L. DORN, E. S. KIM & A. AGUILERA. Latitudinal differences in germination timing and in the adaptive value of seed after-ripening in *Arabidopsis thaliana* .
- 2:45 ELLE, E. Does the reproductive assurance benefit of selfing vary with flower size?
- 3:00 BREAK
- 3:15 KERR, B., S. E. FORDE, M. A. RILEY, M. W. FELDMAN, & B. J. M. BOHANNAN. The role of spatial structure in a real-life game of rock-paper-scissors.
- 3:30 LONSDORF, E. V. Inbreeding and nutrient supply in metapopulations: empirical and theoretical predictions of ecological response to evolutionary and environmental disturbance.
- 3:45 TOONEN, R. J. Where have all the larvae gone? Inferring patterns of larval dispersal in an intertidal crab using microsatellite markers.
- 4:00 MCELROY, T. C. & J. C. TREXLER. Population structure of the spotted sunfish (*Lepomis punctatus*) in the Florida Everglades as revealed by polymorphic enzyme-encoding loci and microsatellite analysis.
- 4:15 PILSON, D., & H. M. ALEXANDER. Local and metapopulation dynamics of wild sunflower: effects of seed production and the seed bank.
- 4:30 ROACH, D. A. Age-Specific Mortality Dynamics in *Plantago lanceolata* .
- 4:45 PHILIPPI, T. E., & M. A. SIMOVICH. Temporary, Ephemeral, Unpredictable: aspects of diapause and prolonged diapause in temporary aquatic habitats.
- 5:00 DAVIDOWITZ, G., L. J. D'AMICO, D. A. ROFF, & H. F. NIJHOUT. The physiological regulation of insect body size: How is an insect the size that it is?
- 5:15 FUENTES, M. Ecological drift in heterogeneous environments.

EVENING

5:30-6:30 PRESIDENTIAL ADDRESS (JOHANNA SCHMITT)

6:30-8:00 BANQUET AND AWARDS CEREMONY. Private Function Rooms 3-5.

SATURDAY 7/13/02

MORNING

7:00-8:30 BREAKFAST (Main Dining Room)

YOUNG INVESTIGATORS SYMPOSIUM.

Organized by Emilia Martins and the Young Investigator Prize Committee.

Max Bell Auditorium.

- 8:30 GANDON, S., M. J. MACKINNON, S. NEE & A. F. READ. Imperfect vaccines and the evolution of pathogen virulence.

- 9:15 RICHARDSON, J. M. L. Elucidating the relative effects of evolutionary history and selective regime on present-day phenotype.
- 10:00 BREAK
- 10:15 RONCE, O. What makes life in a metapopulation special? Some evolutionary consequences of demographic disequilibrium.
- 11:00 RUNDLE, H. D. Speciation in the wild: Natural selection and the evolution of reproductive isolation in sticklebacks
- 7-12:00 POSTER SESSION. Max Bell 253.

AFTERNOON

12:00-1:30 LUNCH

SYMPOSIUM: PRE-MATING ISOLATION.

Organized by William Etges.

Max Bell Auditorium.

- 1:00 ETGES, W. J. Divergence in mate choice systems: does evolution play by rules?
- 1:30 CARSON, H. L. Female choice in *Drosophila* : evidence from Hawaii and implications evolutionary biology.
- 2:00 FUNK, D., K. E. FILCHAK, & J. L. FEDER. Ecological adaptation and premating isolation in phytophagous insects.
- 2:30 COHAN, F. M. Sexual isolation and speciation in bacteria.
- 3:00 Break
- 3:30 BROOKS, R. Variation in mate choice within guppy populations: population divergence, multiple ornaments and the maintenance of polymorphism.
- 4:00 HENRY, C. S., M. L. WELLS, & K. E. HOLSINGER. The inheritance of mating songs in two cryptic, sibling lacewing species (Neuroptera: Chrysopidae: Chrysoperla).
- 4:30 MENDELSON, T. C., & K. L. SHAW. Genetic and behavioral components of the cryptic species boundary between *Laupala cerasina* and *L. kohalensis* (Orthoptera: Gryllidae).
- 5:00 WOODRUFF, R. C., & J. N. THOMPSON, Jr. Mutation and premating isolation.

CONTRIBUTED SESSION 4: SPECIES INTERACTIONS & CO-EVOLUTION.

Max Bell 251.

- 1:30 ABRAMS, P. A. Consequences of the behavioral dynamics of switching by predators.
- 1:45 BAUMEISTER, D. M. Hierarchical effects of shade, wind protection, and snowpack benefit species beneath *Pinus flexilis* .
- 2:00 CAVENDER-BARES, J., D. A. ACKERLY, D. D. BAUM, & F. A. BAZZAZ. Phylogenetic repulsion in the assembly of Floridean oak communities.
- 2:15 CORNELL, H. V. & B. A. HAWKINS. A test of phytochemical coevolution theory.
- 2:30 DEWITT, T. J. & R. B. LANGERHANS. Plasticity constrained: Overgeneralized induction cues cause maladaptive phenotypes.
- 2:45 GUTSELL, J. Competing for resources and investing them: modeling chemical stress response of plants in a heterogeneous landscape.
- 3:00 BREAK
- 3:15 LYTHGOE, K.A. & L. CHAO. Coexistence of bacteria and bacteriophage.
- 3:30 BRASSIL, C. E., & P. A. ABRAMS. The prevalence of asymmetrical indirect effects in two-host-one-parasitoid systems.
- 3:45 LOPEZ, J. E., L. P. GALLINOT, & M. J. WADE. Spatial structure and the spread of disease.
- 4:00 O'KEEFE, K. J. & J. ANTONOVICS. The evolution of virulence of *Microbotryum violaceum* , the anther smut pathogen of the plant *Silene alba* .

- 4:15 FORDE, S. E., & D. F. DOAK. Multitrophic interactions dampen the effects of recruitment variability on community structure.
- 4:30 HEIDEL, A. J., & X. DONG. Fitness costs and benefits in plant disease resistance.
- 4:45 LEVY, A. Anthocyanins and Plant Defense in *Brassica rapa* .
- 5:00 GILCHRIST, M. A., & A. SASAKI. A nested framework for modeling host-parasite coevolution using mechanistic models.
- 5:15 JOHANSSON, F., & J. HJELM. Resource polymorphism and population dynamics in fish.

CONTRIBUTED SESSION 5: GENETICS & EVOLUTION.

Max Bell 252.

- 1:30 DORN, L. A., A. AGUILERA, & K. DONOHUE. The genetic basis of plasticity of germination to maternal environment and its influence on annual life history strategies of *Arabidopsis thaliana* .
- 1:45 ASMUSSEN, M.A., R.A. CARTWRIGHT, & H.G. SPENCER. Frequency-dependent selection: a window into the behavior of mean fitness.
- 2:00 LATHAM, L. G., & E. P. SCULLY. Critters! An individual-based model for the study of mutation and fitness.
- 2:15 MANIER, M. K. Does population structure inferred from neutral molecular markers coincide with ecotypic differentiation?
- 2:30 BERTORELLE, G., GENTILE, G., & C. VERNESI. The genetic structure of roe deer (*Capreolus capreolus*) populations in Europe, as inferred from mitochondrial DNA variation.
- 2:45 HORTH, L., D. E. MCCAULEY & D. R. TAYLOR. Understanding how selfish genetic elements and population structure bias the sex-ratio of *Silene vulgaris* in nature.
- 3:00 BREAK
- 3:15 NUISMER, S. L., R. GOMULKIEWICZ, & M. T. MORGAN. Coevolution of phenotypic matching in a conditional mutualism.
- 3:30 NUNNEY, L. Pupal period and adult size in *Drosophila melanogaster* : a cautionary tale of contrasting correlations.
- 3:45 BRASWELL, W. E. Phylogenetic analysis of ground crickets.
- 4:00 FRANKS, S. J., C. L. RICHARDS, E. GONZALES, J. COUSINS, & J. L. HAMRICK. Multi-scale genetic analysis of *Uniola paniculata* L.: a coastal species with a linear, fragmented distribution
- 4:15 JONES, A. G., S. J. ARNOLD, & R. BUERGER. A theoretical study of G-matrix stability under directional and stabilizing selection.
- 4:30 MCGUIGAN, K. & M. W. BLOWS. The role of genetic variances/covariances in the evolution of rainbowfish morphology.
- 4:45 PETERS, A. D. & S. P. OTTO. The Red Queen, drift, and recombination.
- 5:00 STINCHCOMBE, J.R., K. DONOHUE, & J. SCHMITT. Quantitative genetics of flower production during a drought: temporal trends and natural selection in *Impatiens capensis* .

12:00-6:30 POSTER SESSION. Max Bell 253.

EVENING

6:30-8:30 POSTER SESSION AND RECEPTION. Max Bell 253

SUNDAY 7/14/02

MORNING

7:00-8:30 BREAKFAST (Main Dining Room)

SYMPOSIUM: SPATIAL ECOLOGY AND STATISTICS.

Organized by Jessica Gurevitch.

Max Bell Auditorium.

8:25 GUREVITCH, J. Symposium introduction.

8:30 DALE, M. Conceptual and formal relationships among methods for spatial analysis in ecology.

9:00 PERRY, J. N., A. LIEBHOLD, A., M. S. ROSENBERG, J. DUNGAN, M. MIRITI, A. JAKOMULSKA, S. CITRON-POUSTY, & P. DIXON. Selecting statistical methods for spatial patterns.

9:30 ROSENBERG, M. Reasons and methods for directional spatial analysis of ecological data.

10:00 BREAK

10:30 MIRITI, M. Spatial variables and plant demography.

11:00 GUREVITCH, J. Spatial autocorrelation and experimental design in ecology.

11:30 KEITT, T. H., O. BJØRNSTAD, P. DIXON & S. CITRON-POUSTY. Accounting for spatial pattern when modeling organism-environment interactions.

CONTRIBUTED SESSION 6: SPECIATION, HYBRIDIZATION & DIVERGENCE.

Max Bell 252.

8:30 BOUGHMAN, J. W., H. R. RUNDLE & D. SCHLUTER. Parallel speciation and the evolution of mate recognition in sticklebacks.

8:45 LINEHAM, M. E. How polygenic are the traits responsible for sexual isolation in fruit flies?

9:00 ANHOLT, B.R., H. HOTZ, G.-D. GUEX, & R.D. SEMLITSCH. Mark-recapture estimates of adult survival in the *Rana esculenta* complex.

9:15 SCHEMSKE, D. W. & K. M. KAY. Speciation and reinforcement in neotropical *Costus* .

9:30 WEISSING, F. J. & G. S. VAN DOORN. Ecological versus sexual selection models of sympatric speciation.

9:45 ALEXANDER, H. J. & F. BREDEN. Population differentiation and reproductive isolation among *Poecilia reticulata* and "Endler's Live Bearer" populations.

10:00 BREAK

10:15 GEE, J. M. Ecologically-dependent narrow hybrid zone in Gambel's and California Quail (*Callipepla californica* and *C. gambelii*)

10:30 LANGERHANS, R. B., C. A. LAYMAN, A. M. SHOKROLLAHI & T. J. DEWITT. Predator-associated morphological divergence among populations of *Gambusia* .

10:45 LINDER, C. R. The problem of species revisited.

11:00 PFENNIG, D. W., & P. J. MURPHY. How fluctuating competition and phenotypic plasticity mediate species divergence.

11:15 PFENNIG, K. S. Differential selection to avoid hybridization and its role in speciation by reinforcement.

11:30 VELTHUIS, B-J, W. YANG, T. VAN OIJNEN, & J. H. WERREN. Major genes for sexual isolation in *Nasonia* : AFLP mapping and introgression of female mate discrimination.

11:45 BOLNICK, D. I. Intraspecific competition generates disruptive selection in a natural population of sticklebacks.

CONTRIBUTED SESSION 7: CONSERVATION BIOLOGY.

Max Bell 251.

- 8:30 BOYCE, M. S., S. LELE, & B. JOHNS. Egg removal enhances recruitment in Whooping Cranes.
- 8:45 CONOVER, D. O. & S. B. MUNCH. Darwinian fishery management: rapid evolution of somatic growth and yield in experimentally harvested marine fish populations.
- 9:00 FAGAN, W. F., P. UNMACK, C. BURGESS, & W. L. MINCKLEY. Rarity, fragmentation, and extinction risk in desert fishes.
- 9:15 GONZALES, E. B., & J. L. HAMRICK. Genetic consequences of habitat fragmentation for populations of rare and endangered *Trillium reliquum* (Melanthiaceae).
- 9:30 KNIGHT, T. M. Can evolution by natural selection save declining wildflower populations?
- 9:45 SHABEL, A. B. Old friends, mortal enemies, endangered species: the use of paleontological data in ecology and conservation biology.
- 10:00 BREAK
- 10:15 CAMPBELL, V, & C. STROBECK. Evidence of genetic structure in Alberta lynx (*Lynx canadensis*) populations.
- 10:30 MOOERS, A. O., & R. A. ATKINS. Indonesia's threatened birds and the loss of evolutionary patrimony.
- 10:45 WILSON, G.A. & B. RANNALA. Bayesian inference of recent migration rates using multilocus genotypes
- 11:00 GAGGIOTTI O. E. Beyond the simple estimation of parameters: Combining genetic and demographic data to study patterns of colonisation in a metapopulation.
- 11:15 BRITTON-SIMMONS, K. H. Understanding biotic resistance to invasive species: An experimental approach.
- 11:30 CROZIER, L. G. Modeling summer and winter temperature effects on population dynamics, and consequences for range shifts in response to climate change.

AFTERNOON

12:00-1:00 LUNCH (Main Dining Room)

SYMPOSIUM: RESEARCH CHALLENGES FOR NATURALISTS.

Organized by Peter Grant.

Max Bell Auditorium.

- 1:00 DAYTON, P. The Naturalist in a world of invasions and extinctions (discussant: D. Simberloff).
- 2:00 STEARNS, S. The Naturalist in the era of genomics (discussant: P. Hedrick).
- 3:00 BREAK
- 3:30 MCPEEK, M. The Naturalist in a world of ecological interactions (discussant, M. Stanton).
- 4:30 TRAVIS, J. The Naturalist in a world of individual organisms (discussant, J. Losos).

EVENING

7:30-9:30 SPECIAL INTEREST GROUP DISCUSSIONS (GRADUATE STUDENT CHATS).
Topics TBA. Max Bell 155-160.

MONDAY 7/15/02

7:00-8:30 BREAKFAST (Main Dining Room)

8-8:30 ASN BUSINESS MEETING. Max Bell Foyer Lounge.

8:30-10:00 ASN Executive Committee Meeting. Max Bell 160.

All Day FIELD TRIP: BURGESS SHALE