

#### Curriculum Vitae - Dr. Bernard Crespi

\_\_\_\_\_

### **Brief Overview of Contributions & Accomplishments**

- (1) Canada Research Chair in Evolution and Psychology, Tier I, in 2017.
- (2) Election to the Royal Society of Canada in 2010.
- (2) Killam Research Fellowship in 2005.
- (3) Two publications in *Science*, six in *Nature* (two of them single-authored), and five in *PNAS*.
- (4) Over 180 refereed publications overall, and five books.
- (5) Ten members from my laboratory now in tenured or tenure-track academic positions.
- (6) Multiple major international awards in evolutionary and behavioral biology (Theodosius Dobzhansky Prize from the *Society for the Study of Evolution*, E. O. Wilson Award from the *American Society of Naturalists*, and Quest Award from the *Animal Behavior Society*).
- (7) Collaborations that have led to publications with various SFU faculty (e. g., Gries and Christians), and training of students and PDFs and free and open use of my lab, for various DNA work (e. g., Cory, Lank and Williams).
- (8) Foundational and central member and contributor in two research groups, Fab-Lab and HESP (Human Evolutionary Studies Program).
- (9) Exemplary teaching, as evidenced, for example, by my teaching reviews, my merit increases, and a statement to me from our Undergraduate Adviser

that my Evolution of Health and Disease course BISC 441 is 'the most popular course in the Department'.

(10) Consistent contributions over the years to service in the Department, and participation in many Departmental extra-curricular activities such as talk series and presentations to high school students.

### **Research Summary**

The main purpose of my research program is to use integrated genetic, behavioural, ecological and phylogenetic approaches to study the evolution of social and sexual systems across all levels in the hierarchy of life, from genes, to cells, to organisms, to social systems, and to the brain.

In my lab we study several of the outstanding and emerging questions in evolutionary biology, including the evolution of social behaviour, the evolution of human health and disease, the evolution of placentation and maternal-fetal interactions, the evolution of asexual reproduction, and the roles of genetics, ecology and geography in speciation and adaptive radiation. As research systems we use non-clinical ('normal') humans and insects, mainly walking sticks, with a combination of fieldwork, molecular genetics, phylogenetics, and behavioral and evolutionary ecology.

Our research currently focuses on: (1) the proximate mechanisms of reproductive isolation and speciation in walking-sticks, (2) the roles of imprinted genes in human cognition and psychiatric condtiions, (3) the functions of 'autism risk' and 'schizophrenia risk' genes in non-clinical populations, (4) the integration of human evolutionary genetics with disease genetics, and (5) extending and testing a model that we developed for human cognitive architecture and psychiatric conditions, whereby autism spectrum and psychotic-affective spectrum disorders represent diametric (opposite) conditions mediated by cognitive tradeoffs.

#### **Educational Background**

1987 Ph.D. Biology, *University of Michigan*, Ann Arbor, U.S.A, with Richard D. Alexander (Chair), William D. Hamilton, Richard W. Wrangham, and Bobbi S. Low.

1980 B.Sc. Biology (Honors), *University of Chicago*, Chicago, IL, U.S.A.

#### **Employment History at Academic Institutions**

| 2002 - Current | Professor, Biological Sciences, Simon Fraser University  |
|----------------|--|
| 1997 - 2001    | Associate Professor with tenure, Biological Sciences, Simon Fraser University  |
| 1992 - 1997    | Assistant Professor, Biological Sciences, Simon Fraser University  |
| 1991 - 1992    | NSF Environmental Biology Postdoctoral Fellow, Section of Ecology and Systematics, Corson Hall, Cornell University, with Rick Harrison |
| 1989 - 1990    | NATO-NSF Postdoctoral Fellow, Animal Behaviour<br>Research Group Department of Zoology, Oxford University,<br>with W. D. Hamilton      |
| 1988 - 1989    | NSF Environmental Biology Postdoctoral Fellow, School of Biological Science, University of New South Wales, with Ross Crozier          |
|                |  |

#### **Refereed Publications**

Riesch, R., Muschick, M., Lindtke, D., Villoutreix, R., Comeault, A.A., Farkas, T.E., Lucek, K., Hellen, E., Soria-Carrasco, V., Dennis, S.R. and de Carvalho, C.F. (2017) Transitions between phases of genomic differentiation during stick-insect speciation. Nature Ecology & Evolution, 1, p.0082.

Crespi, B., Read, S. amd P. Hurd (2017) Segregating polymorphisms of FOXP2 are associated with measures of inner speech, speech fluency and strength of handedness in a healthy population. Brain and Language (in press)

Procyshyn, T., Hurd, P., Crespi, B. (2017) Association testing of vasopressin receptor 1a microsatellite polymorphisms in non-clinical autism spectrum phenotypes. Autism Research 10:750-756

Procyshyn TL, Spence J, Read S, Watson NV, Crespi BJ. (2017) The Williams syndrome prosociality gene GTF2I mediates oxytocin reactivity and social anxiety in a healthy population. Biology Letters 13.

Crespi BJ, Procyshyn TL. (2017) Williams syndrome deletions and duplications: Genetic windows to understanding anxiety, sociality, autism, and schizophrenia. Neuroscience and Biobehavioral Reviews 79:14-26.

-

Crespi, B. J. (2016) The evolutionary etiologies of autism spectrum and psychotic-affective spectrum disorders. Chapter 20. In: Evolutionary Thinking in Medicine: From Research to Policy and Practice. Edited by Alexandra Alvergne. Oxford University Press.

Crespi, B. (2016) The convergent and divergent evolution of social-behavioral economics. Behavioral and Brain Sciences 39:e96.

Crespi, B. (2016) The kin selection of religion. In: Oxford Handbook of the Evolution of Religion (eds. J. M. Liddle and T. Shackleford) (in press).

Crespi, B., E. Leach, N. Dinsdale, and P Hurd (2016) Imagination in human social cognition, autism, and psychotic-affective conditions. Cognition 150:181-199.

Robinson, K. J., P. Hurd, S. Read, and B. Crespi (2016) The PCSK6 gene is associated with handedness, the autism spectrum, and magical ideation in a non-clinical population. Neuropsychologia 84:205-212.

Dinsdale, N., M. Mokkonen and B. Crespi (2016) The 'extreme female brain'; increased cognitive empathy as a dimension of psychopathology. Evolution and Human Behavior DOI: http://dx.doi.org/10.1016/ j.evolhumbehav.2016.02.003

--

Crespi, B. and M. Go. (2015) Diametrical diseases reflect evolutionary-genetic tradeoffs: evidence from psychiatry, neurology, rheumatology, oncology and immunology. Evolution, Medicine and Public Health 2015: 216-253.

Kolte, A.M., H. S. Nielsen, R. Steffensen, B. Crespi and O. B. Christiansen (2015) Inheritance of the 8.1 ancestral haplotype in recurrent pregnancy loss. Evolution, Medicine, and Public Health, 2015;325-331.

Arnal, A., B. Ujvari, B. Crespi, R. A. Gatenby, T. Tissot, M. Vittecoq, P. W. Ewald, A. Casali, H. Ducasse, C. Jacqueline and D. Missé (2015) Evolutionary perspective of cancer: myth, metaphors, and reality. Evolutionary Applications, 8:541-544.

Arbuthnott, D., T. Schwander and B. J. Crespi (2015) Female stick insects mate multiply to find compatible mates. American Naturalist 186:519-530.

Crespi, B. J. and P. L. Hurd (2015) Genetically-based correlates of serum oxytocin and testosterone in autism and schizotypy. Personality and Individual Differences 79:39-43.

Mökkonen, M. and B. J. Crespi (2015) Genomic conflicts and sexual antagonism in human health: insights from oxytocin and testosterone. Evolutionary Applications 8:307-325.

Crespi, B. J. (2015) Cognitive tradeoffs and the costs of resilience. Behavioral and Brain Sciences 38:e99.

Elliot, M. G. and B. J. Crespi. (2015) Genetic recapitulation of human preeclampsia risk during convergent evolution of reduced placenta invasion in eutherian mammals. Philosophical Transactions of the Royal Society of London B Biol Sci. 370:20140069.

Crespi, B. J. (2015) Oxytocin, testosterone and human social cognition. Biological Reviews 2015; doi: 10.1111/brv.12175.

--

Crespi, B. J. and P. L. Hurd (2014) Cognitive-behavioral phenotypes of Williams syndrome are associated with genetic variation in the GTF2I gene, in a healthy population. BMC Neuroscience 15:1-6

Crespi B. J. (2014) An evolutionary framework for psychological maladaptation. Psychological Inquiry 25:322-324.

Crespi B. J. (2014) The insectan apes. Human Nature 25:6-27.

Crespi B and K Summers (2014) Inclusive fitness theory for the evolution of religion. Animal Behaviour 92:313-323.

Crespi B (2014) Medical, ethical and personal dimensions of parent-offspring conflicts. Evolution, Medicine and Public Health. 2014(1):51-3. doi: 10.1093/emph/eou008.

Crespi B, Foster K, Úbeda F. (2014) First principles of Hamiltonian medicine. Philosophical Transactions of the Royal Society of London B Biol Sci. 369:20130366. doi:10.1098/rstb.2013.0366.

Soria-Carrasco V, Gompert Z, Comeault AA, Farkas TE, Parchman TL, Johnston JS, Buerkle CA, Feder JL, Bast J, Schwander T, Egan SP, Crespi BJ, Nosil P. (2014) Stick insect genomes reveal natural selection's role in parallel speciation. Science 344(6185):738-742. doi: 10.1126/science.1252136

Leach EL, Prefontaine G, Hurd PL, Crespi BJ. (2014) The imprinted gene LRRTM1 mediates schizotypy and handedness in a nonclinical population. Journal of Human Genetics 59(6):332-336.

Ablard. K., K. Simonetto, L. Weir. B. Crespi, P. Schaefer, G. Gries (2014) First-male sperm precedence and the post-copulatory ritual in the parasitoid wasp *Oencyrtus kuvenae*. Canadian Entomologist 146:548-559.

--

Summers, K. and B. Crespi, editors (2013) Human Social Evolution: The Foundational Works of Richard D. Alexander. Oxford University Press.

Konefal S, Elliot M, Crespi B. (2013) The adaptive significance of adult neurogenesis: an integrative approach. Frontiers in Neuroanatomy 7:21. doi: 10.3389/fnana.2013.00021.

Thompson, G., P. Hurd and B. Crespi (2013) Genes underlying altruism. Biology Letters 9:20130395.

Crespi, B. (2013) Developmental heterochrony and the evolution of autistic perception, cognition and behavior. BMC Medicine 11:119.

Dinsdale, N. P. Hurd and B. Crespi (2013) How are autism and positive schizotypy related? Evidence from a non-clinical population. PLoS ONE 8(5): e63316.

Leach, E., P. Hurd and B. Crespi (2013) Schizotypy, cognitive performance, and genetic risk of schizophrenia in a non-clinical population. Personality and Individual Differences 55:334-338.

Crosley, E., M. Elliot, J. Christians and B. Crespi (2013) Placental invasion, preeclampsia risk and adaptive molecular evolution at the origin of great apes: evidence from genome-wide analyses. Placenta, 34:127-132.

Schwander T, Arbuthnott D, Gries R, Gries G, Nosil P, Crespi B. J. (2013) Hydrocarbon divergence and reproductive isolation in *Timema* stick insects. BMC Evolutionary Biology 13:151. doi:10.1186/1471-2148-13-151

Crespi, B. J and P. Nosil (2013) Conflictual speciation: species formation via genomic conflict. Trends in Ecology and Evolution 28:48-57

Crespi. B. J. (2013) Diametric gene dosage effects as windows into neurogenetic architecture. Current Opinion in Neurobiology. 23:143-151.

Stencel, A. and B. Crespi (2013) What is a genome? Molecular Ecology 22:3437-3443.

Schwander, T, B. Crespi, G. Gries and R. Gries (2013) Neutral and selection-driven decay of sexual traits in asexuals. Proceedings of the Royal Society B, published 19 June 2013, 10.1098/rspb.2013.0823.

--

Crespi, B. and H. Crofts (2012) Association testing of copy number variants in schizophrenia and autism. Journal of Neurodevelopmental Disorders 4:15-24.

Crespi, B. and T. Schwander (2012) Asexual evolution: do intragenomic parasites maintain sex? Molecular Ecology 21:3893-3895.

Dinsdale, N. and B. Crespi (2012) The borderline empathy paradox: evidence and conceptual models for empathic enhancements in borderline personality disorder. J. Personality Disorders 27:172-195.

Joy, J. and B. Crespi (2012) Island phytophagy: explaining the remarkable diversity of plant-feeding insects. Proceedings of the Royal Society of London B 279:3250-3255.

Henry, L., Schwander, T. and B. J. Crespi (2012) Deleterious mutation accumulation in asexual *Timema* stick insects. Molecular Biology and Evolution 29:401-408.

Ryan, C and B. Crespi (2012) Androgen receptor polyglutamine repeat number: models of selection and disease susceptibility. Evolutionary Applications 6:180-196.

Antolin M, Jenkins K, Crespi B, Hanley K, Omenn G, Stearns S. (2012) Evolutionary medicine in pre-medical undergraduate education: a prescription for all biology students. Evolution 88:1991-2006.

--

Crespi B, and Thiselton D. (2011) Comparative immunogenetics of autism and schizophrenia. Genes Brain Behavior 10:689-701

Schwander, T., Henry, L., and B. J. Crespi (2011) Molecular evidence for ancient asexuality in *Timema* stick insects. Current Biology 21:1129-1134. (cover article)

Frank, S. A. and Crespi, B. J. (2011) Pathology from evolutionary conflict, with a new theory of X versus autosome conflict over sexually-antagonistic traits. Proceedings of the National Academy of Sciences, 108: 10886-10893.

Crespi, B. (2011) Autism and cancer risk. Autism Research 4:302-310.

Somjee, U., K. Ablard, B. Crespi, P. W. Schaefer and G. Gries (2011) Local mate competition in the solitary parasitoid wasp *Ocencyrtus kuvanae*. Behavioral Ecology and Sociobiology 65:1071-1077.

Crespi, B. J. (2011) The evolutionary biology of child health. Proceedings of the Royal Society of London B. 278: 1441-1449.

Crespi, B. J. (2011) One hundred years of insanity: genomic, psychological and evolutionary models of autism in relation to schizophrenia. In: Textbook of Schizophrenia-Spectrum Disorders, edited by M. Ritsner, Springer.

Springer, S. A., B. J. Crespi and W. J. Swanson (2011) Beyond the phenotypic gambit: molecular behavioral ecology and the evolution of genetic architecture. Molecular Ecology 20:2240-2257.

Abbot P, Abe J, Alcock J, ... Crespi, B ... et al. (2011) Inclusive fitness theory and eusociality. Nature 471:E1-4.

--

Crespi, B. J. (2010) The origins and evolution of genetic disease risk in modern humans. Year in Evolutionary Biology (Annals New York Academy of Sciences) 1206:80-109.

Summers, K. and B. Crespi (2010) Xmrks the spot: life-history tradeoffs, sexual selection, and the evolutionary ecology of carcinogenesis. Molecular Ecology 19:3022-3024.

Crespi, B. J. (2010) Revisiting Bleuler: the relationship of autism with schizophrenia. British Journal of Psychiatry 196:496.

Crespi, B. J. (2010) The emergence of human-evolutionary medical genomics. Evolutionary Applications 4:292-314.

Crespi, B., P. Stead and M. Elliot (2010) Comparative genomics of autism and schizophrenia. Proceedings of the National Academy of Sciences, USA 107:1736-1741.

Arbuthnott, D., M. Elliot, M. McPeek and B. Crespi (2010) Divergent patterns of diversification in courtship and genitalic characters of *Timema* walking-sticks. Journal of Evolutionary Biology 23:1399-1411.

Schwander T., Vuilleumier S., Dubman J., Crespi B. (2010) Positive feedback in the transition from sexual reproduction to parthenogenesis. Proceedings of the Royal Society of London B. 277:1435-1442.

Crespi, B. (2010) The strategies of the genes: genomic conflicts, attachment theory and development of the social brain. Chapter in Art Petronis and Jonathon Mill (Editors). Brain, Behavior and Epigenetics.

Crespi, B. J., K. Summers and S. Dorus (2010) Evolutionary genomics of human intellectual disability. Evolutionary Applications 3:52-63.

--

Crespi, B. (2009) Gender, biology and mathematics performance. Proceedings of the National Academy of Sciences, USA 196:E102.

Parent, C. E. and B. Crespi (2009) Ecological opportunity in adaptive radiation of Galapagos endemic land snails. American Naturalist 174:898-905.

Elliot, M. and B. Crespi (2009) Phylogenetic evidence for early hemochorial placentation in Eutheria. Placenta 30:949-967.

Arbuthnott, D. and B. Crespi (2009) Courtship and mate discrimination within and between species of *Timema* walking-sticks. Animal Behaviour 78:53-59.

Schwander, T. and B. Crespi (2009) Evidence for multiple direct transitions from sexual reproduction to apomictic parthenogenesis in *Timema* stick insects. Evolution 63:84-103.

Schwander, T. and B. Crespi (2009) Twigs on the tree of life? Neutral and selective models for integrating macroevolutionary patterns with microevolutionary processes in the analysis of asexuality. Molecular Ecology 18:24-82.

Crespi, B. J. (2009) Evolutionary genetics of affective disorders. IN: Depression: Translational Approaches to Understanding and Treating, edited by C. Pariante and R. Nesse. Oxford University Press.

Crespi, B. J. (2009) Social conflict resolution, life history theory, and the reconstruction of skew. In: Reproductive Skew in Vertebrates, edited by C. Jones and R. Hager, Cambridge University Press.

Crespi, B. J., K. Summers and S. Dorus (2009) Genomic sister-disorders of neurodevelopment: an evolutionary approach. Evolutionary Applications 2:81-100.

---

Badcock, C. and B. Crespi (2008) Battle of the sexes may set the brain. Nature 454:1054-1055.

Crespi, B. J. (2008) Turner syndrome and the evolution of human sexual dimorphism. Evolutionary Applications 1:449-461.

Bono, J. and B. Crespi (2008) Cofoundress relatedness and group productivity in colonies of social *Dunatothrips* (Insecta: Thysanoptera) on Australian Acacia. Behavioral Ecology and Sociobiology 62:1489-1498.

Summers, K. and B. Crespi (2008) Molecular evolution of the prostate cancer susceptibility locus RNASEL: Evidence for positive selection. Infection, Genetics and Evolution 8:297-301.

Summers K, Crespi B. (2008) The androgen receptor and prostate cancer: A role for sexual selection and sexual conflict? Medical Hypotheses 70: 435-443.

Crespi, B. J. (2008) Language unbound: genomic conflict and psychosis in the origin of modern humans. In: Social Communication, edited by David Hughes and Patricia D'Ettorre.

Crespi B. J. and C. Badcock (2008) Psychosis and autism as diametrical disorders of the social brain. Behavioral and Brain Sciences 31:284-320.

Crespi, B. J. (2008) Genomic imprinting in the development and evolution of psychosis. Biological Reviews 83:441-493.

Elliot, M. and B. Crespi (2008) Divergent brain-body allometry between mammals with invasive vs non-invasive placentation. Journal of Evolutionary Biology 21:1766-1776.

Sandoval, C. and B. Crespi (2008) Adaptive parallel evolution of dorsal stripes in *Timema* walking-sticks. Biological Journal of the Linnean Society 94:1-5.

Chapman, T.W. and B.J. Crespi (2008) The Evolutionary Ecology of Eusociality in Australian Gall Thrips: a 'Model Clades' Approach. In: Ecology of Social Evolution (editors Judith Korb and Jurgen Heinze). Princeton University Press.

\_\_\_

Thompson G. J., Lenz, M., Crozier, R. H., and Crespi, B. J. (2007) Molecular-genetic analyses of dispersal and breeding behaviour in the Australian termite *Coptotermes lacteus*: evidence for non-random mating in a swarm-dispersal mating system. Australian Journal of Zoology 55: 219-227.

Crespi B.J., K. Summers and S. Dorus (2007) Adaptive evolution of genes underlying schizophrenia. Proceedings of the Royal Society of London B 274:2801-2810.

Crespi B. J. (2007) Sly FOXP2: Genomic conflict in the evolution of language. Trends in Ecology and Evolution 22:174-175.

Crespi B. (2007) Comparative Evolutionary Ecology of Social and Sexual systems: Water-breathing Insects Come of Age. Pages 442-460, IN: E. Duffy and M. Thiel (Editors). Evolutionary Ecology of Crustacea, Oxford University Press.

Joy J. and Crespi, B. (2007) Adaptive radiation of gall-inducing insects on a single host plant. Evolution 61: 784-795.

Nosil P., B. J. Crespi, R. Gries, G. Gries. (2007) Natural selection and divergence in mate preference during speciation. Genetica 129:309-27.

McLeish M. J., Crespi, B. J., Chapman, T. W., and Schwarz, M. P. (2007) Parallel diversification of Australian gall-thrips on *Acacia*. Molecular Phylogenetics and Evolution 43:714-725.

Springer S. A. and B. J. Crespi (2007) Adaptive gamete-recognition divergence in a hybridizing *Mytilus* population. Evolution 61:772-83.

---

Parent C. E. and Crespi B. J. (2006) Sequential colonization and diversification of Galapagos endemic land snail Genus *Bulimulus* (Gastropoda, Stylommatophora). Evolution 60:2311-28.

Bono J and B. J. Crespi (2006) Costs and benefits of joint colony founding in Australian *Acacia* thrips. Insectes Sociaux 53:489-495.

McLeish M. J., Chapman, T. W., Crespi, B J. (2006) Inbreeding ancestors: the role of sibmating in the social evolution of gall thrips. Journal of Heredity 97:31-38.

Nosil P, Crespi B. J. (2006) Ecological divergence promotes the evolution of cryptic reproductive isolation Proceedings of the Royal Society of London B 273:991-997.

Nosil P., Crespi B. J. Sandoval C. P., Kirkpatrick M. (2006) Migration and the genetic covariance between habitat preference and performance. American Naturalist 167:E66-78

Nosil P, Sandoval C. P., Crespi B. J. (2006) The evolution of host preference in allopatric vs. parapatric populations of *Timema cristinae* walking-sticks. Journal of Evolutionary Biology 19:929-942.

Nosil P, Crespi B. J. (2006) Experimental evidence that predation promotes divergence in adaptive radiation. Proceedings of the National Academy of Sciences U S A. 103:9090-9095.

Crespi B. J. (2006) The natural selection of psychosis. Behavioral and Brain Sciences 29:410-411

Elliot M. G., Crespi B. J. (2006) Placental invasiveness mediates the evolution of in viability in mammals. American Naturalist 168:114-120.

Crespi B. J. (2006) Cooperation: close friends and common enemies. Current Biology 16:414-415.

Badcock C, Crespi B. J. (2006) Imbalanced genomic imprinting in brain development: an evolutionary for the aetiology of autism. Journal of Evolutionary Biology 19:1007-1032.

Crespi B. J., Summers K. (2006) Positive selection in the evolution of cancer. Biological Reviews 81:407-424.

---

Crespi, B. J. (2005) Parent-offspring conflict in farmers and foragers: a comparative approach. Current Anthropology 46:40-41

Summers K., B. Crespi (2005) Cadherins in maternal-foetal interactions: red queen with a green beard? Proceedings Royal Society of London B 272:643-649.

Crespi, B. J. and Summers, K. (2005) Evolutionary biology of cancer. Trends in Ecology and Evolution 20: 545-552.

--

Willis P. M, Crespi B. J., Dill L. M., Baird R. W, Hanson M. B (2004) Hybridization between Dall's porpoises (*Phocoenoides dall*i) and harbour porpoises (*Phocoena phocoena*). Canadian Journal of Zoology 82: 828-834

Nosil, P. and B. J. Crespi. (2004) Does gene flow constrain adaptive divergence or vice versa? A test using ecomorphology in *Timema cristinae* walking-sticks. Evolution 58:102-112

Hallet, R.H., B. J. Crespi, & J.H. Borden (2004) Synonymy of *Rhyncophorus ferrugineus* (Olivier) and *R. vulneratus* (Panzer) (Coleoptera, Curculionidae, Rhynchophorinae). Journal of Natural History 38: 2863-2882

Crespi, B. J. and C. Semeniuk (2004) Parent-offspring conflict in the evolution of vertebrate reproductive mode. American Naturalist 163:635-653.

Crespi B. J. (2004) Vicious circles: positive feedback in major evolutionary and ecological transitions. Trends in Ecology and Evolution 19:627-633.

Crespi B. J. & M J. Fulton (2004) Molecular systematics of Salmonidae: combined nuclear data yields a robust phylogeny. Molecular Phylogenetics and Evolution 31:658-679.

Perry S. P., T. W. Chapman, M. P. Schwarz and B. J. Crespi (2004) Deadly sons and daughters: willingness and effectiveness in defense by soldiers of Australian gall-inducing thrips and the advantages of morphological castes. Behavioral Ecology and Sociobiology 56:602-610

\_\_\_

Miller D. & B. J. Crespi. (2003) The evolution of inquilinism, host-plant use and mitochondrial substitution rates in *Tamalia* gall aphids. Journal of Evoutionary Biology 16: 731-743

Nosil P., B. J. Crespi, & C.P. Sandoval. (2003) Reproductive isolation driven by the combined effects of ecological adaptation and reinforcement. Proceedings of the Royal Society of London B 270: 1911-1918

Crespi B. J. and S. Springer. (2003) Social slime molds meet their match. Science 299:56-57.

---

Nosil P., Crespi, B. J. and C. P. Sandoval (2002) Host-plant adaptation drives the parallel evolution of reproductive isolation. Nature 417:440-443.

Morris D. C., Schwarz, M. P. and Crespi, B. J. (2002) Pleometrosis in phyllode-gluing thrips on Australian Acacia. Biological Journal of the Linnean Society. 75:467-474.

Crespi B. J. and R. Teo (2002) Comparative phylogenetic analysis of the evolution of semelparity and life history in salmonid fishes. Evolution 56:1008-1020.

Chapman T. W., B. D. Kranz, K. Bejah, D. Morris, M. P. Schwarz, and B. J. Crespi (2002) The evolution of soldier reproduction in social thrips. Behavioral Ecology 13:519-525.

Law J. and B. J. Crespi (2002) Recent and ancient parthenogenesis in *Timema* walking-sticks. Evolution 56:1711-1717.

Law J. and B. J. Crespi (2002) The evolution of geographic parthenogenesis in *Timema* walking-sticks. Molecular Ecology 11: 1471-1489.

Kranz B. D., Schwarz, M. P., Morris, D. C. and Crespi, B. J. (2002) Life history of *Kladothrips ellobus* and *Oncothrips rodwayi*: insight into the origin and loss of soldiers in gall-inducing thrips. Ecological Entomology 27:49-57.

---

Crespi B. J. (2001) Evolution of social behavior. In International Encyclopedia of Social & Behavioral Sciences, Elsevier.

Crespi B. J. (2001) Eusocial Insects. In: Encyclopedia of Evolution. Oxford University Press.

Crespi B. J. (2001) The evolution of social behavior in microorganisms. Trends in Ecology and Evolution 16:178-183.

Kranz B.D., Chapman, T.W., Crespi, B.J. and Schwarz, M.P. (2001). Social biology and sex ratios in the gall-inducing thrips, *Oncothrips waterhousei* and *Oncothrips habrus*. Insectes Sociaux 48: 315-323.

Morris D. C., Schwarz, M.P., Crespi, B.J. and Cooper, S.J.B. (2001). Phylogenetics of gall-inducing thrips on Australian *Acacia*. Biological Journal of the Linnean Society 74:73-86.

Crespi B. J. (2001) Altruism in the outback. Natural History 110:56-62.

Kranz B. D., T. E. Wills, T. W. Chapman, D. C. Morris, B. J. Crespi and M. P. Schwarz (2001) A fully reproductive fighting morph in a soldier clade of gall-inducing thrips. Behavioral Ecology and Sociobiology 50:151-161.

---

Crespi B. J. and J. E. Ragsdale (2000). The evolution of sociality via manipulation: why it is better to be feared than loved. Proceedings Royal Society of London. B. 267:821-828.

Crespi B. J. (2000) The evolution of maladaptation. Heredity 84:623-629.

Kranz B. J., M. P. Schwarz, L. Giles and B. J. Crespi (2000) Split sex ratios and virginity in a gall-inducing thrips. Journal of Evolutionary Biology 13:700-706.

Chapman T., B. J. Crespi, M. Schwarz and B. Kranz (2000) High relatedness and inbreeding at the origin of eusociality in Australian gall thrips. Proceedings of the National Academy of Sciences, USA 97:1648-1650.

Crespi B. J. and C. P. Sandoval. (2000) Phylogenetic evidence for the evolution of ecological specialization in *Timema* walking-sticks. Journal of Evolutionary Biology 13: 249-262.

Crespi B. J. (2000) Selection: Levels and Units. In Encyclopedia of the Life Sciences, MacMillan Publishers, London. http://www.els.net.

---

Kranz B., M. Schwarz, L. Mound and B. J. Crespi. (1999) Social biology and sex ratio in the eusocial gall-inducing thrips *Kladothrips hamiltoni*. Ecological Entomology 24:432-442.

Harrison M. and B. J. Crespi. (1999) Phylogenetics of *Cancer* crabs. Molecular Phylogenetics and Evolution 12:186-199.

Crespi B. J. and P. Abbot (1999) The behavioral ecology and evolution of kleptoparasitism in Australian gall thrips. Florida Entomologist (Behavioral Ecology Symposium Issue) 82:147-164.

Harrison M. H. and B. J. Crespi. (1999) A phylogenetic test of ecomorphological adaptation in *Cancer* crabs. Evolution 53:961-965.

Morris D. L. A. Mound, M. P. Schwarz and B. J. Crespi. (1999) Morphological phylogenetics of Australian gall-inducing thrips and their allies: the evolution of host-plant affiliations, domicile use, and social behaviour. Systematic Entomology 24:289-299.

---

Crespi B. J. and M. Worobey. (1998) Comparative analysis of gall morphology in Australian gall thrips: the evolution of extended phenotypes. Evolution 52:1686-1696.

Sandoval C., D. A. Carmean, and B. J. Crespi. (1998) Molecular phylogenetics of sexual and asexual Timema walking-sticks. Proceedings Royal Society of London B 265:589-595.

Mound L. A., B. J. Crespi and A. J. Tucker. (1998) Polymorphism and kleptoparasitism in thrips (Insecta, Thysanoptera, Phlaeothripidae) from woody stem galls on *Casuarina* trees, with a new species from Western Australia. Australian Journal of Entomology 37:8-16.

Chapman T. C. and B. J. Crespi. (1998) High relatedness and inbreeding in eusocial Australian gall thrips revealed by microsatellite analysis. Behavioral Ecology and Sociobiology 43:301-306.

----

Crespi B. J., D. Carmean, L. A. Mound. M. Worobey and D. Morris. (1997) Phylogenetics of social evolution in Australian gall-forming thrips: evidence from mitochondrial DNA sequence, adult morphology, and gall morphology. Molecular Phylogenetics and Evolution 9:163-180.

Crespi B. J. and B. Vanderkist. (1997) Fluctuating asymmetry in functional and vestigial traits in a haplodiploid insect. Heredity 79:624-630.

Crespi B. J., D. Carmean, and T. Chapman (1997) The ecology and evolution of galling thrips and their allies. Annual Review of Entomology 42:51-71.

Crespi B. J. and J. C. Choe (1997) Evolution and explanation of social systems. Pp. 499-524 in: <u>The</u> Evolution of Social Behavior in Insects and Arachnids. Edited by J. Choe and B. Crespi. Cambridge University Press.

Smith D. R., B. J. Crespi, and F. L. Bookstein (1997) Asymmetry and morphological abnormality in bees *Apis mellifera*: effects of ploidy and hybridization. Journal of Evolutionary Biology 10: 551-574.

Brown W. D., B. J. Crespi and J. C. Choe (1997) Sexual conflict and the evolution of mating systems. Pp. 352-377, IN: The Evolution of Mating Systems in Insects and Arachnids. Edited by J. Choe and B. Crespi. Cambridge University Press.

Crespi B. J. and L. A. Mound (1997) Ecology and evolution of social behavior among Australian gall thrips and their allies. Pp. 166-180 in: The Evolution of Social Behavior in Insects and Arachnids. Edited by J. Choe and B. Crespi. Cambridge University.

Mound L. A., B. J. Crespi, and B. Kranz (1997) Gall-inducing Thysanoptera (Phlaeothripidae) on Acacia phyllodes in Australia: host-plant relations and keys to genera and species. Invertebrate Taxonomy 10:1171-1198.

\_\_\_

Crespi B.J. (1996). Comparative analysis of the origins and losses of eusociality: causal mosaics and historical uniqueness. Pages 253-287 in: Phylogenies and the Comparative Method in Animal Behavior (E. Martins, ed.) Oxford University Press.

Crespi B.J., D. Carmean, L. Vawter and C. Dohlen (1996) The molecular systematics of Thysanoptera. Sytematic Entomology 21:79-87.

---

Crespi, B.J. (1995). Three conditions for the evolution of eusociality: are they sufficient? Insectes Sociaux 41: 395-400.

Carmean, D. and B.J. Crespi. (1995) Do long branches attract flies? Nature 373: 666.

Crespi, B.J. and D. Yanega. (1995) The definition of eusociality. Behavioral Ecology 6: 109-115.

Mound, L.A. and B.J. Crespi. (1995) Biosystematics of two new gall-inducing thrips with soldiers (Insecta: Thysanoptera) from Acacia trees in Australia. Journal of Natural History 29: 147-157.

---

Taylor, P.D. and B.J. Crespi. (1994) ESS sex ratios when correlates of relatedness can be assessed. American Naturalist 143: 297-316.

Simon, C., F. Frati, P. Flook, A. Beckenbach, B.J. Crespi and H. Liu (1994) Evolution, weighting and phylogenetic utility of mitochondrial gene sequences and a compilation of conserved polymerase chain reaction primers. Annals of the Entomological Society of America 87: 651-701.

\_\_\_

Crespi B. J. (1993) Sex ratio selection in Thysanoptera. Pages 214-234, In: D.L. Wrensch and M. Ebbert (eds.). Evolution and Diversity of Sex Ratio in Insects and Mites. Chapman and Hall.

---

Crespi B. J. (1992) Eusociality in Australian gall thrips. Nature 359: 724-726.

Crespi B. J. (1992) Natural selection and morphometrics. Pp. 55-64. In: J.T. Sorensen and R. Footit (eds.) Ordinations in the Study of Morphology, Evolution, and Systematics in Insects. Elsevier.

Crespi B. J. (1992) The behavioral ecology of Australian gall thrips. Journal of Natural History 26: 769-809.

Crespi B.J. (1992) Cannibalism and trophic eggs in subsocial and eusocial insects. In: M. Elgar and B.J. Crespi (eds.). Cannibalism: Ecology and Evolution among Diverse Taxa. Oxford University Press, Oxford U.K.

Mound L.A. and B.J. Crespi. (1992). The complex of phlaeothipine thrips (Insecta: Thysanoptera) in woody stem galls on Casuarina in Australia. Journal of Natural History 26: 395-406.

Elgar M. and B.J. Crespi. (1992). Cannibalism: Ecology and Evolution among Diverse Taxa. Oxford University Press, Oxford, U.K. (edited volume)

---

Crespi B.J. (1991). Heterozygosity in the haplodiploid Thysanoptera. Evolution 45: 458-464.

Alexander R.D., K. Noonan, and B.J. Crespi. (1991). The evolution of eusociality, pp. 3-44 In: P.W. Sherman, J. Jarvis, and R.D. Alexander (eds.) The Biology of the Naked Mole Rat. Princeton University Press.

---

Crespi B. J. (1990) Subsociality and female reproductive success in a mycophagous thrips: an observational and experimental analysis. Journal of Insect Behavior 3:61-74.

Crespi B. J. (1990) The measurement of selection on phenotypic interaction systems. American Naturalist 135:32-47.

Crespi B. J. and P.D. Taylor. (1990). Dispersal rates under variable patch density. American Naturalist 135:48-62.

---

Crespi B. J. (1989) Facultative viviparity in a thrips. Nature 337:357-358.

Crespi B. J. and F. L. Booksein. (1989) A path-analytic model for the measurement of selection on morphology. Evolution 43:18-28.

Frank S. A. and B. J. Crespi (1989) Synergism between sib-rearing and female-biased sex ratios. Behavioral Ecology and Sociobiology 24:155-162.

Crespi B.J. (1989) Variable selection and size-related mating patterns in natural populations of *Elaphrothrips tuberculatus*: A path analysis. American Midland Naturalist 122: 142-150.

Crespi B. J. (1989) Causes of assortative mating in arthropods. Animal Behaviour 38:980-1000.

Crespi B. J. (1989) Sexual selection and assortative mating in subdivided populations of the thrips *Elaphrothrips tuberculatus* (Insecta: Thysanoptera). Ethology 3:265-278.

---

Crespi B. J. (1988) Sex ratio selection in a bivoltine thrips: Conditional sex ratio manipulation and fitness variation. Evolution 42:1199-1211.

Crespi B. J. (1988) Risks and benefits of lethal male fighting in the polygynous, colonial thrips *Hoplothrips karnyi*. Behavioral Ecology and Sociobiology 22: 293-301.

Crespi B. J. (1988) Adaptation, compromise and constraint: the development, morphometrics and behavioral basis of a fighter-flier polymorphism in male *Hoplothrips karny*i. Behavioral Ecology and Sociobiology 23: 93-104.

Crespi B. J. (1988) Alternative male mating tactics in a thrips: effects of sex ratio variation and body size. American Midland Naturalist 119: 83-92.

\_\_\_

Crespi B. J. (1986) Size assessment and alternative fighting tactics in *Elaphrothrips tuberculatus* (Insecta: Thysanoptra). Animal Behaviour 34: 1324-1335.

Crespi B. J. (1986) Territoriality and fighting in a colonial thrips, *Hoplothrips pedicularius*, and sexual dimorphism in Thysanoptera. Ecological Entomology 11: 119-130.

#### **Other Publications**

Crespi B. J., D. C. Morris and L. A. Mound (2004) *Evolution of Ecological and Behavioural Diversity: Australian Acacia Thrips as Model Organisms*. Australian Biological Resources Study & CSIRO Entomology: Canberra, Australia. Book, 328 pages.

Crespi B.J. (2000) Closing the loop. Molecular Evolution: A Phylogenetic Approach. Bioessays 22:405. (book review)

Crozier R. and B.J. Crespi (2000) A life of insight - in Memorium William D. Hamilton (1936-2000). Obituary. Insectes Sociaux 47:1.

Crespi B.J. (2000) From genes to religion, and back. Levels and Units of Selection: Journal of Evolutionary Biology. 13:732-733. (book review)

Crespi B. J. (1998). Thysanoptera, An Identification Guide, 2nd Edition. Systematic Entomology. 24:101. (book review)

Choe J. and B. J. Crespi. (1997) The Evolution of Mating Systems in Insects and Arachnids. Cambridge University Press. (edited volume).

Choe J. and B.J. Crespi. (1997) The Evolution of Social Behavior in Insects and Arachnids. Cambridge University Press. (edited volume).

Crespi B. J. (1996) Thrips Biology and Management. Quart. Rev. Biol. 71:584. (book review)

Crespi B. J. (1995) Food for thought. Nutrition and Evolution in Insect Societies. Journal of Insect Behavior 8: 731-733. (book review)

Crespi B. J. (1995) Chemical Ecology of Thrips-Host Plant Interactions. Bulletin Entomological Society of Canada 27:105-106. (book review)

Crespi B. J. (1990) The social and sexual behavior of Australian gall thrips. pp. 297-298. In: Social Insects and the Environment. Proceedings of the XXIst International Congress of Entomology, Bangalore.

Crespi B. J. (1987) Fighting behaviour in male tubuliferan thrips. pp. 424-425. In: J. Holman, J. Pelikan, A.F.G. Dixon and L. Weismann (eds.). Population Structure, Genetics and Taxonomy of Aphids and Thysanoptera. SPB Academic Publishing, The Hague, Netherlands.

Crespi B. J. (1987) Behavioral Ecology of Mycophagous Thysanoptera. Ph.D. Thesis. University of Michigan, Ann Arbor.

### **Conferences, Workshops and Presentations**

#### **Invited Talks**

| 2017 | Sydney University, Australia, Invited Departmental Seminar   |
|------|--|
| 2016 | Public Lecture, Vancouver, SFU Harbour Centre, on mental health  |
| 2015 | Yale University, Invited Departmental Seminar, and lecture to Evolutionary Medicine class  |
| 2015 | Arizona State University, Invited Symposium Talk   |
| 2014 | University of Lausanne, Switzerland, Invited 'Big Talk' Seminar  |
| 2014 | McMaster University, Margo Wilson Memorial Lecture (also considered as an Award)   |
| 2014 | University of British Columbia, Conference on Developmental Origins of Adult Disease, Invited Seminar  |
| 2014 | CNRS meeting on Evolution and Cancer, Roscoff, France, Invited Talk  |
| 2014 | Arizona State University, Invited Seminar  |
| 2013 | University of Haifa, Israel, Evolution of Child Health Conference  |
| 2012 | Simon Fraser University, 'Taste of Pi' talk to high school students in math and science  |
| 2012 | University of California San Diego, CARTA symposium on Human Origins, two invited talks (one a public lecture) http://carta.anthropogeny.org/mediaplayer/play/10347/7092 |
| 2012 | University of Michigan, Ann Arbor, Department of Ecology and Evolution,<br>Departmental Seminar  |
| 2012 | University of Michigan, Ann Arbor, Public Health and Epidemiology, Invited Seminar.  |
| 2012 | Palo Alto Institute Conference on Evolutionary Medicine, Stanford University<br>http://www.youtube.com/watch?v=kEDDgoOSPZ0   |
| 2012 | Department Seminar, University of Toronto Scarborough  |

| 20 | 12 | UBC Centre for Molecular Medicine and Therapeutics, Seminar  |
|----|----|--|
| 20 | 12 | Harvard University, Departmental Seminar in Organismal and Evolutionary Biology, and Evolutionary Medicine course guest lecture                              |
| 20 | 12 | University of California Los Angeles, Department of Ecology and Evolution and David Geffen School of Medicine, Public Lecture for 'Darwinian Medicine Month' |
| 20 | 12 | Department Seminar, Department of Molecular Medicine, University of California San Diego   |
| 20 | 12 | NESCent meeting on Genomic Imprinting, Durham, North Carolina, Invited Participant.  |
| 20 | 11 | UBC, Biodiversity series, Zoology  |
| 20 | 11 | Sociaty for the Study of Evolution, Evolutionary Medicine Symposium, Invited talk  |
| 20 | 10 | Gordon Conference, Genes & Behaviour, Invited Speaker, Ventura, California   |
| 20 | 10 | University of British Columbia, Mood Disorders Clinic, Grand Rounds  |
| 20 | 09 | University of British Columbia, Brain Research Institute   |
| 20 | 09 | Canadian Society of Physical Anthropology, Invited Plenary Speaker, Vancouver.   |
| 20 | 09 | 'Darwin and Your Brain' Public Lecture, Harbour Centre, Simon Fraser University. http://www.youtube.com/watch?v=bT4xlw4rc7Q                                  |
| 20 | 08 | Departmental Seminar SFU Department of Biosciences   |
| 20 | 08 | Departmental Seminar SFU Department of Archaeology   |
| 20 | 08 | Departmental Seminar SFU Department of Psychology  |
| 20 | 08 | Departmental Seminar SFU Department of Engineering Sciences  |
|    | 80 | US National Academy Sackler Symposium, Washington DC   |
| 20 |    | Invited Seminar, Yale University, Conference on Evolutionary Medicine  |
| 20 |    | Invited Seminar, UBC Brain Research Institute  |
| 20 | 07 | Invited Plenary Speaker, Conference on Depression, London UK   |
| 20 | 02 | University of Massachusetts. "The Charles P. Alexander Lecture"  |

| 2001-2007 | Almost all invitations declined due to three small children at home             |
|-----------|---|
| 2000      | Plenary Speaker. North American Section, International Union for the Study of   |
|           | Social Insects, Arkansas  |
| 1999      | University of Puget Sound   |
| 1999      | University of Guelph  |
| 1998      | Santa Fe Institute Meeting on Social Evolution                                  |
| 1998      | University of California, Davis   |
| 1998      | University of Paris (Juisseau Campus).  |
| 1998      | University of Victoria  |
| 1998      | Plenary Speaker, International Union for the Study of Social Insects, Adelaide. |
| 1998      | Penn State University   |
| 1998      | University of Alberta   |
| 1997      | European Science Foundation Workshop on Social Behavior, Castleton, U.K.        |
| 1997      | University of Santa Barbara   |
| 1997      | University of Maryland  |
| 1996      | University of Calgary   |
| 1996      | University of Alberta   |
| 1995      | University of Kansas  |
| 1994      | University of Montana, Missoula   |
| 1994      | Plenary Speaker, Northeast Regional Animal Behavior Meetings, New Hampshire     |
| 1994      | Animal Behavior Society, Invited Symposium Speaker, Seattle                     |
| 1994      | Society of the Study of Evolution, Athens, Georgia                              |
| 1994      | Animal Behavior Society, Seattle  |
| 1994      | Northeast Regional Animal Behavior Meetings, New Hampshire                      |
| 1992      | Harvard University, Cambridge, Mass.  |
| 1992      | University of Connecticut, Storrs   |
| 1992      | University of British Columbia  |
| 1992      | Simon Fraser University, Burnaby, B.C.  |
| 1992      | LaTrobe University, Melbourne   |
| 1991      | Cornell University, Ithaca  |
| 1991      | Penn State University, University Park, P.A.                                    |
| 1991      | University of Toronto   |
| 1991      | Queen's University Biological Station, Ont.                                     |
| 1991      | Simon Fraser University, Burnaby, B.C.  |
|           |   |

|     | 1990       | Syracuse University, N.Y.  |
|-----|------------|--|
|     | 1990       | University of Sheffield, U.K.  |
|     | 1990       | Brown University, Providence, R.I.   |
|     | 1990       | Imperial College at Silwood Park, U.K.   |
|     | 1990       | University of New Mexico, Albuquerque, N.M.  |
|     | 1990       | University of Keele, U.K.  |
|     | 1990       | University of Rochester, Rochester, N.Y.   |
|     | 1989       | Australian National University, Canberra, ACT.   |
|     | 1989       | Oxford University, Oxford, U.K.  |
|     | 1989       | Cambridge University, Cambridge, U.K.  |
|     | 1989       | University of Illinois, IL.  |
|     | 1989       | Princeton University, N.J.   |
|     | 1989       | University of New South Wales, NSW   |
|     | 1989       | University of Queensland, Brisbane, QLD.   |
|     | 1988       | University of California, Irvine, CA.  |
|     | 1988       | University of Florida, Gainesville, FL.  |
|     | 1988       | Simon Fraser University, Burnaby, B.C.   |
|     | 1987       | University of Rochester, Rochester, N.Y.   |
|     | 1986       | University of Georgia, Athens, GA.   |
|     | 1985       | Oxford University, Oxford, U.K.  |
| Pre | sentations |  |
|     | 2005-2015  | Talks presented by 1-4 of my students and PDFs every year (except 2006) at Society for the Study of Evolution and other meetings |
|     | 2004       | Society for the Study of Evolution (4 talks)   |
|     | 2004       | International Congress of Entomology, Brisbane (1 talk)  |
|     | 2003       | Society for the Study of Evolution (3 talks)   |
|     | 2002       | Society for the Study of Evolution (3 talks, 1 poster, with P. Nosil, C. Parent, S.Springer, J. Joy).                            |
|     | 2002       | Invited Symposium Speaker, International Union for the Study of Social Insects, Sapporo, Japan. 2002.                            |
|     | 2001       | Society for the Study of Evolution (2 talks, 1 poster, with P. Nosil, T. Chapman, B. Kranz, D., K. Bejah, M. Schwarz, J. Law)    |
|     | 2000       | North American Section, International Union for the Study of Social Insects, Arkansas  |
|     | 1998       | International Union for the Study of Social Insects, Adelaide, Australia. (with B. Kranz, first author and M.P. Schwarz)         |
|     | 1998       | Society for the Study of Evolution (with M. Worobey)   |
|     |            |  |

| 1998 | Society for the Study of Evolution (with T. Chapman, first author).  |
|------|--|
| 1998 | Society for the Study of Evolution (with M. Harrison, first author).   |
| 1998 | Society for the Study of Evolution (with C. Sandoval, first author, and D. Carmean)  |
| 1997 | Society for the Study of Evolution (with B. Kranz, first author, M.P. Schwarz and L. Mound)  |
| 1997 | Society for the Study of Evolution. (with T. Chapman, first author)  |
| 1997 | Society for the Study of Evolution (with M. Harrison, first author).   |
| 1996 | Behavioral Ecology Society, Canberra. (with T. Chapman)  |
| 1996 | Speciation Meeting. "Speciation Meeting" Endless Forms: Species and Speciation" Asilomar, CA, (with *C. Sandoval, first author and D. Carmean) |
| 1996 | International Congress of Entomology, Florence. (with *B. Kranz, first author, M.P. Schwarz and L.A. Mound)                                    |
| 1996 | Behavioral Ecology Society, Canberra (with B. Kranz, first author, and M.P. Schwarz)   |
| 1995 | Entomological Society of Canada, Victoria  |
| 1995 | Society for the Study of Evolution, Montreal   |
| 1995 | Entomological Society of Canada, Victoria  |
| 1995 | Society of the Study of Evolution, Montreal. (with P. Abbot and D. Carmean)  |
| 1994 | Society of the Study of Evolution, Athens, Georgie   |
| 1992 | Society for the Study of Evolution, Berkeley   |
| 1991 | European Society of Evolutionary Biology, Debrecen, Hungary  |
| 1990 | International Union for the Study of Social Insects, Bangalore, India  |
| 1989 | Society for the Study of Evolution, Penn. State  |
| 1988 | Society for the Study of Evolution, Asilomar, CA.  |
| 1988 | International Congress of Entomology, Vancouver, B.C.  |
| 1987 | Society for the Study of Evolution, Bozeman, MT.   |
| 1987 | International Ethological Conference, Madison, WI.   |
| 1987 | Animal Behavior Society, Williamstown, M.A.  |
| 1986 | Animal Behavior Society, Tucson, AZ.   |
|      |  |

#### **Research Funding**

Contract/Grant: Discovery Grant Awarded: 2014 Period: 2014 – 2019

Project Title Tradeoffs, Conflicts and Cooperation in the Evolution of Behaviour and

Reproduction

Funding: NSERC Type: External Annual: \$62,200 Total: 311,000

**Involvement**: Principal Investigator

Contract/Grant: Discovery Grant Awarded: 2009 Period: 2009 – 2014

Project Title: Integrating Phylogenetics, Evolutionary Genetics & Molecular Ecology in the

Study of Diversification

Funding: NSERC Type: External Annual: \$82,400 Total: 412,000

**Involvement**: Principal Investigator

PLUS Discovery Grant Accelerator Supplement, 2010-2012, 3 years, 40,000/year

Contract/Grant: SFU Community Trust Endowment Awarded: 2011 Period: 2011-2016

Project Title: Human Evolutionary Studies Program

Type: Internal Total: \$1,143,125 Involvement: Investigator, with Mark Collard,

(Archaeology) Arthur Robson (Economics), Greg Dow (Business), Arne Mooers (Biological

Sciences), P. Nepomnaschy (Health Sciences)

Contract/Grant: Equipment Grant Awarded: 2012 Period: 2012-2012

Project Title: Illumina Mi-Seq DNA Sequencer

Funding: NSERC Type: External Total: \$136,083

Involvement: Investigator Collaboration: M. Hart, F. Breden, H. Hutter, R. Leroux, J.

Mattsson, P Unrau.

Institution of Co-Investigator(s): SFU

Contract/Grant: Discovery Grant Awarded: 2004 Period: 2004 - 2009

Project Title: An Integrated Phylogenetic and Behavioral-Ecological Approach to the

**Evolution of Adaptive Radiation** 

Funding: NSERC Type: External Annual: \$75,500 Total: 377,500

**Involvement:** Principal Investigator

Contract/Grant: Research Grant Awarded: 2002 Period: 2002 - 2005

Project Title: Co-Evolution of Sociality and Sex Allocation: Phylogenetic Comparative

Approaches Using Insects.

Funding: Australian Research Council Discovery Grant Type: External Annual: 120,000

AUS **Total**: 360,000 AUS

Involvement: Principal Investigator Collaboration: I am a "1st partner" on this grant, which

supports my lab's travel and fieldwork

Contract/Grant: Equipment Grant Awarded: 2004 Period: 2004 - 2004

Project Title: An Inexpensive DNA Sequencer for Microsatellite Genotyping in Evolutionary

**Ecology** 

Funding: NSERC Type: External Annual: \$21,463 Total: 21,463

**Involvement:** Principal Investigator **Collaboration:** M. Hart, E. Elle, F. Breden

Institution of Co-Investigator(s): SFU

Contract/Grant: Operating Grant Awarded: 1999 Period: 1999 - 2004

Project Title: "An Integrated Phylogenetic and Ecological Approach to the Evolution of Insect

Reproductive Behaviour"

Annual: \$59,800 Total: \$299,000 Involvement: Principal Investigator

Contract/Grant: Research Grant Awarded: 2000 Period: 2000 - 2002

**Project Title:** Evolution of Social Behaviour in Australian gall-forming thrips n Acacia **Funding:** Australian Research Council, Large Grant **Type:** External **Total:** \$318,000

AUS

**Involvement:** Principal Investigator **Collaboration:** I am "1st partner" on this grant, which supports my lab's travel and fieldwork

Contract/Grant: Equipment Grant Awarded: 2000 Period: 2000 - 2000

Project Title: "Thermal Cycler for Polymerase Chain Reaction"

Funding: NSERC Type: External Total: \$12,642

**Involvement:** Principal Investigator

Contract/Grant: Research Grant Awarded: 1997 Period: 1997 - 1999

Project Title: Social Behaviour, Ecology and Evolution of Australian gall-forming thrips and

their allies.

Funding: Australian Research Council, Large Grant Total: \$212,000

**Involvement:** Principal Investigator **Collaboration:** I am "1st partner" on this grant, which

supports my lab's travel and fieldwork.

Contract/Grant: GREAT Award Awarded: 1997 Period: 1997 - 1999

**Project Title:** Cancer crab population structure **Funding:** B.C. Science Council **Total:** \$34,000

Contract/Grant: Operating Grant Awarded: 195 Period: 1995 - 1999

**Project Title:** "An Integrated Phylogenetic and Ecological Approach to the Evolution of Insect

Reproductive Behaviour".

Funding: Natural Science and Engineering Research Council Annual: \$37,800

Contract/Grant: Operating Grant Awarded: 1992 Period: 1992 - 1994

Project Title: "An Integrated Phylogenetic and Ecological Approach to the Evolution of Insect

Reproductive Behaviour"

Funding: Natural Science and Engineering Research Council Annual: \$32,200 Total:

\$96,600

Contract/Grant: Equipment Grant Awarded: 1993 Period: 1993 - 1993

Project Title: "Ultra-low Temperature Freezer for Preserving Biological Activity of Allozyme,

DNA and Tissue Samples"

Funding: Natural Science and Engineering Research Council Total: \$12,472

Contract/Grant: Development Grant Awarded: 1991 Period: 1991 - 1993

Project Title: "The Social Biology of Australian Gall Thrips" (for two periods of five-month's

work on the social biology and genetics of Australian gall thrips.) **Funding:** National Geography Society **Total:** \$24,800 US

Contract/Grant: Equipment Grant Awarded: 1992 Period: 1992 - 1992

**Project Title:** "A Cetus Thermal-Cycler for the Polymerase Chain Reaction" **Funding:** Natural Science and Engineering Research Council **Total:** \$11,502

Contract/Grant: President's Fund Awarded: 1992 Period: 1992 - 1992

Project Title: "An Integrated Phylogenetic and Ecological Approach to the Evolution of

Reproductive Behaviour"

Funding: Simon Fraser President's Fund Total: \$7,000

Contract/Grant: Fellowship Grant Awarded: 1989 Period: 1989 - 1991

Project Title: "Molecular Genetic and Systematics of Thysanoptera" (For two years of work

on evolution and genetics of Thysanoptera.)

Funding: NSF Environmental Biology Post-Doctoral Fellowship Grant

Contract/Grant: Research Grant Awarded: 1990 Period: 1990 - 1990

Project Title: "Genetic Analysis of Sex Ratio Evolution in Colonial Hoplothrips". (For

electrophoretic work on Hoplothrips)

Funding: Natural Environmental Research Council Total: \$2,700

**Involvement:** Joint Investigator **Collaboration:** (with Professor W.D. Hamilton).

Contract/Grant: Fellowship Grant Awarded: 1989 Period: 1989 - 1990

Project Title: "Genetic Analysis of Sex Ratio Evolution in Colonial Hoplothrips". (For one

year of work at Oxford University on sex ratio selection in Hoplothrips.)

Funding: NSF-NATO Post-Doctoral Fellowship

### **Active Service to Simon Fraser University**

#### **Departmental Committees**

| 2014 - 2015 | Member (Alternate), Tenure and Promotion Committee   |
|-------------|--|
| 2012 - 2012 | Member, Lecturer Search Committee  |
| 2011 - 2013 | Member, Tenure and Promotions Committee  |
| 2010 – 2011 | Chair, Strategic Planning Committee  |
| 2008 - 2009 | Member, Tenure and Promotions Committee  |
| 2005 - 2008 | Killam Research Fellowship, with Administrative Leave  |
| 2004 - 2005 | Member, Tenure and Promotions Committee  |
| 2004 - 2005 | Member, Physiology Search Committee  |
| 2002 - 2003 | Member, Appointments Committee   |
| 2001 - 2002 | Limited service on Departmental Committees due to (1) NSERC GSC-18 duties, (2) service on four Editorial Boards, (3) Parental leave. I was, however, an active participant in Departmental Meetings. |
| 1999 - 2000 | Member, Evolutionary Physiology Search Committee   |
| 1998 - 2000 | Chair, Departmental Strategic Planning Committee   |
| 1998 - 2000 | Member, Departmental Tenure Committee  |
| 1998 - 2000 | Member, Course Planning Group  |
| 1998 - 2000 | Member, Appointments Committee   |
| 1997 - 1999 | Member, Plant Evolutionary Ecology Search Committee  |
| 1995 - 1996 | Member, Genetics Search Committee  |
| 1993 - 1996 | Member, Departmental Graduate Studies Committee  |
| 1994 - 1995 | Member, Departmental Tenure Committee  |
| 1994 - 1995 | Member, Departmental Structure Working Group   |
|             |  |

# **Service to the Academic Community**

| 2015 - 2016 | Co-organizer, Evolution and Human Behavior Meeting, Vancouver  |
|-------------|--|
| 2015 - 2015 | Consultant (unpaid) for DARPA, minimalist biosocial systems  |
| 2014 - 2014 | Co-organizer, Workshop on Evolutionary Aspects of Child Development and Health, Harbour Centre   |
| 2013 - 2015 | Adjudication Committee, Society for the Study of Evolution, for E. O. Wilson Award (Chair in 3rd year)   |
| 2012 - 2015 | Faculty Adviser to the University of British Columbia Medical Student Association's 'Evolutionary Medicine' Club   |
| 2012 - 2012 | Canadian Institute of Health Research, Epigenetics Panel   |
| 2012 - 2016 | Editorial Board, Evolution, Medicine & Public Health (and Reviews Editor)  |
| 2012 - 2016 | Editorial Board, Evolution, Medicine and Public Health   |
| 2009 - 2010 | Michael Smith Foundation for Health Research, Review Panel, Clinical Research  |
| 2008 - 2009 | Grants Panel, US National Cancer Institute   |
| 2008 - 2015 | Editorial Board, Evolutionary Applications   |
| 2008 - 2016 | Evolution and Medicine Review, 'Senior Correspondent'  |
| 2008 - 2009 | Coordinator, International Union for the Study of Social Insects, 2010 meeting   |
| 2008 - 2009 | NSERC, Major Facilities Grants, Adjudication Panel Member  |
| 2007 – 2008 | Canada Research Chairs, College of Reviewers (member of panel that adjudicates CRC applications from Universities across Canada)   |
| 2003 - 2006 | Associate Editor, American Naturalist  |
| 2001 - 2016 | External Examiner on Theses  |
| 2001 - 2015 | Tenure and Full-Professor Promotion reviews (about 10 Universities, details confidential)  |
| 1992 - 2016 | Reviewer for journals: American Naturalist, Autism, Behavioral Ecology, behavioral Ecology and Sociobiology, Canadian Entomologist, Ecoscience, Evolution, Evolutionary Applications, Insectes Sociaux, Molecular Biology and Evolution, Molecular Phylogenetics and Evolution, Nature, Quarterly Review of Biology, Science, Systematic Entomology, Systematic Zoology, Trends in Ecology and Evolution, various others |
| 1992 - 2016 | Reviewer of grant proposals, ARC, MRC, NERC, NSERC, NSF  |
| 2002 - 2003 | Chair, NSERC Grant Selections Committee 18 (Ecology and Evolution)   |
| 2000 - 2003 | Member, NSERC Grant Selections Committee 18 (Ecology and Evolution) (equivalent of NSF Panel Member).  |
| 2002 - 2002 | Symposium Organizer, International Union for the Study of Social Insects, Sapporo, 2002.   |
| 2000 - 2002 | Associate Editor, Evolution  |

| 1999 - 2002 | Editorial Board, Journal of Evolutionary Biology   |
|-------------|--|
| 1999 - 2002 | Editorial Board, Journal of Ethology   |
| 1997 - 2002 | Advisory Editor, Behavioral Ecology and Sociobiology   |
| 1995 - 2002 | I established and ran an electronic mail network for scientists who use the polymerase chain reaction and DNA sequencing for insect systematics and populations biology. |
| 1999 - 2000 | Reviewer for Full Professor Decisions (or equivalent) (Dates Confidential), Smithsonian Institution, Ben-Gurion University   |
| 1999 - 2000 | I was an organizer of the Canadian Society for Ecology and Evolution at its instantiation  |
| 1998 - 2016 | I have given many interviews on my work to the CBC and other media.  |
| 1997 - 2000 | Member, NSERC GSC-18 Reallocations Steering Committee  |
|             |  |

# **Awards, Honors and Scholarships**

| 2017 | Canada Research Chair, Tier 1, 2017-2024 (\$1.4 million)   |
|------|--|
| 2016 | Sterling Prize in Support of Controversity, Simon Fraser University  |
| 2015 | QUEST Award, Animal Behavior Society, for 'outstanding seminal contributions in animal behavior'   |
| 2013 | My honours student (and coauthor) Helen Crofts was her Class Valedictorian   |
| 2010 | Induction into the Royal Society of Canada   |
| 2009 | My PDF Tanja Schwander won the John Maynard Smith Award from the European Society for Evolutionary Biology (the Society's major Award honoring a young Evolutionary Biologist)   |
| 2008 | Appointment to 'University Professorship" Chair at Simon Fraser University   |
| 2008 | Appointment as "Founding Fellow", UBC Institute of Mental Health.  |
| 2007 | My PhD student Patrik Nosil won the NSERC Doctoral Prize (awarded for best two theses in Canada every year), the Governer General of Canada Gold Medal Award, and the Dobzhansky Prize (a top award from the Society for the Study of Evolution) |
| 2005 | Killam Research Fellowship, Canada Council for the Arts  |
| 2004 | Whitley Award Research Organization: Royal Society of New South Wales, Australia Details: for best book in evolutionary biology published in Australia in 2004.  |
| 2002 | "The Charles P. Alexander Lecture" Type: Honor Organization: Department of Entomology, University of Massachusetts   |

| 2001 | E.O. Wilson Award Organization: American Society of Naturalists Details: Yearly international prize to recognize contributions to evolutionary biology and knowledge of a particular group of organisms, US \$2,000 award |
|------|---|
| 1998 | "Travel and expenses for weeklong visit to Paris, with two talks presented.<br>Type: Fellowship. Organization: The University of Paris, Juisseau Campus".   |
| 1996 | "Travel expenses paid for collaborative visit to Flinders University, Adelaide."  Type: Fellowship  Organization: Flinders University of South Australia, Visiting Fellowship   |
| 1995 | "Yearly invited series of two lectures during week-long visit, in honor of eminent entomologist Dr. Charles Michener" Type: Honor Organization: The Michener Lectures, University of Kansas, Laurence, Kansas             |
| 1989 | Theosodius Dobzhansky Prize Type: Award Organization: Society for the Study of Evolution Details: Yearly international prize to recognize outstanding young evolutionary biologist, US \$5,000 award.                     |

# **Semesterly Activity at Simon Fraser University**

| Semester | Туре     | Course                                | Number          | Session | Туре                      | Hours | Enroll-<br>ment |
|----------|----------|---------------------------------------|-----------------|---------|---------------------------|-------|-----------------|
| 2017-2   | Research |                                       |                 |         |                           |       |                 |
| 2017-1   | Teaching | Evolutionary<br>Theory                | BISC 806        |         | Lecture                   | 3.00  | 5               |
| 2016-3   | Teaching | Evolution of<br>Health and<br>Disease | BISC 441        |         | Lecture                   | 3.00  | 40              |
| 2016-2   | Research |                                       |                 |         |                           |       |                 |
| 2016-1   | Teaching | Techniques in Ecology and Evolution   |                 |         | New Course<br>Development |       |                 |
| 2016-1   | Teaching | Undergraduate<br>Research             | BISC 498        |         |                           | 3.00  | 1               |
| 2015-3   | Teaching | Evolution                             | BISC 300        |         | Lecture                   | 3.00  | 120             |
| 2015-3   | Teaching | Undergraduate<br>Research             | BISC 498        |         |                           | 3.00  | 1               |
| 2015-2   | Research |                                       |                 |         |                           |       |                 |
| 2015-1   | Teaching | Honours                               | BISC<br>490/1/2 |         |                           | 15.00 | 1               |

| 2015-1                      | Teaching                           | Undergraduate<br>Research             | BISC 498        |                       | 3.00 | 1   |
|-----------------------------|------------------------------------|---------------------------------------|-----------------|-----------------------|------|-----|
| 2014-3                      | 2014-3 Teaching Evo<br>Hea<br>Dise |                                       | BISC<br>441/880 | Lecture               | 3.00 | 40  |
| 2013-3<br>through<br>2014-2 | Study<br>Leave                     |                                       |                 |                       |      |     |
| 2013-2                      | Research                           |                                       |                 |                       |      |     |
| 2013-1                      | Teaching                           | Evolution                             | BISC 300        | Lecture               | 3.00 | 110 |
| 2012-3                      | Teaching                           | Evolution of<br>Health and<br>Disease | BISC<br>441/880 | Lecture               | 3.00 | 40  |
| 2012-2                      | Research                           |                                       |                 |                       |      |     |
| 2012-1                      | Teaching                           | Evolutionary<br>Theory                | BISC<br>806     | Lecture               | 3.00 | 10  |
| 2011-3                      | Leave                              |                                       |                 |                       |      |     |
| 2011-2                      | Research                           |                                       |                 |                       |      |     |
| 2011-1                      | Teaching                           | Evolution of<br>Health and<br>Disease | BISC<br>441/880 | Lecture               | 3.00 | 40  |
| 2010-3                      | Teaching                           | Evolution                             | BISC 300        | Lecture               | 3.00 | 105 |
| 2010-2                      | Research                           |                                       |                 |                       |      |     |
| 2010-1                      | Teaching                           | Undergraduate<br>Research             | BISC 498        | Directed<br>Studies   | 3.00 | 1   |
| 2010-1                      | Teaching                           | Evolutionary<br>Theory                | BISC 806        | Lecture               | 3.00 | 6   |
| 2009-3                      | Teaching                           | Evolution                             | BISC 300        | Lecture               | 3.00 | 123 |
| 2009-2                      | Research                           |                                       |                 |                       |      |     |
| 2009-2                      | Teaching                           | Undergraduate<br>Research             | BISC 499        | Directed<br>Studies   | 3.00 | 1   |
| 2009-2                      | Teaching                           | Undergraduate<br>Research             | BISC 497        | Writing-<br>Intensive | 3.00 | 1   |
| 2009-1                      | Teaching                           | Undergraduate<br>Research I           | BISC 498        | Directed<br>Studies   | 3.00 | 1   |
| 2009-1                      | Teaching                           | Evolution of<br>Health and<br>Disease | BISC<br>441/880 | Lecture               | 3.00 |     |
| 2008-3                      | Teaching                           | Evolution                             | BISC 300        | Lecture               | 3.00 | 144 |
| 2008-2                      | Research                           |                                       |                 |                       |      |     |

| 2008-1              | Teaching            | Evolution of<br>Health and<br>Disease        | BISC<br>441/880 |        | Lecture             | 3.00 | 30  |
|---------------------|---------------------|--|-----------------|--------|---------------------|------|-----|
| 2005-3 to<br>2007-3 | Research            | Killam Research<br>Fellowship                |                 |        |                     |      |     |
| 2005-2              | Teaching            | Directed<br>Readings                         | BISC890         | G01.00 | Directed<br>Studies | 1.50 | 1   |
| 2005-1              | Teaching            | Evolutionary<br>Theory                       | BISC806         | G01.00 | Seminar             | 3.00 | 11  |
| 2004-3              | Teaching            | Intro to Ecology                             | BISC204         | D01.00 | Lecture             | 3.00 | 88  |
| 2004-3              | Teaching            | Undergraduate<br>Research I                  | BISC498         | D02.00 | Directed<br>Studies | 1.50 | 1   |
| 2004-3              | Teaching            | Undergraduate<br>Research II                 | BISC499         | D05.00 | Directed<br>Studies | 1.50 | 1   |
| 2004-3              | Teaching            | Undergraduate<br>Research II                 | BISC499         | D03.00 | Directed<br>Studies | 1.50 | 1   |
| 2004-2              | Other Paid<br>Leave |  |                 |        |                     | 0.00 | 0   |
| 2004-1              | Teaching            | Selected Topics<br>in Behavioural<br>Ecology | BISC473         | D01.00 | Lecture             | 2.80 | 14  |
| 2004-1              | Teaching            | Social Behaviour                             | BISC817         | G01.00 | Lecture             | .20  | 1   |
| 2003-3              | Study<br>Leave      |  |                 |        |                     | 0.00 | 0   |
| 2003-2              | Study<br>Leave      |  |                 |        |                     | 0.00 | 0   |
| 2003-1              | Study<br>Leave      |  |                 |        |                     | 0.00 | 0   |
| 2002-3              | Other Paid<br>Leave |  |                 |        |                     | 0.00 | 0   |
| 2002-2              | Teaching            | Undergraduate<br>Research I                  | BISC498         | D12.00 | Seminar             | 3.00 | 1   |
| 2002-1              | Teaching            | Evolution                                    | BISC400         | D01.00 | Lecture             | 1.50 | 155 |
| 2001-3              | Teaching            | Evolutionary<br>Theory                       | BISC806         | G01.00 | Seminar             | 3.00 | 12  |
| 2001-2              | Research            |  |                 |        |                     |      |     |
| 2001-1              | Teaching            | Evolution of Social Behavior                 | BISC471         | D01.00 | Lecture             | 2.79 | 13  |
| 2001-1              | Teaching            | Social Behaviour                             | BISC817         | G01.00 | Seminar             | .21  | 1   |
| 2000-3              | Teaching            | Undergraduate<br>Research I                  | BISC498         |        | Directed<br>Studies | 1.50 | 1   |
| 2000-2              | Teaching            | Evolution                                    | BISC400         |        | Lecture             | 3.00 | 103 |

| 2000-2 | Teaching | Undergraduate<br>Research I           | BISC498 | Directed<br>Studies | 1.50 | 1   |
|--------|----------|---------------------------------------|---------|---------------------|------|-----|
| 2000-1 | Teaching | Survival<br>Strategies                | BISC824 | Seminar             | 3.00 | 5   |
| 2000-1 | Teaching | Behavioural<br>Ecology                | BISC824 | Lecture             | 3.00 | 5   |
| 1999-3 | Teaching | Evolutionary<br>Theory                | BISC806 | Seminar             | 3.00 | 17  |
| 1999-2 | Teaching | Evolution                             | BISC400 | Lecture             | 3.00 | 88  |
| 1999-1 | Research |                                       |         |                     | 0.00 | 0   |
| 1998-3 | Teaching | Introduction to Ecology               | BISC204 | Lecture             | 3.00 | 120 |
| 1998-2 | Teaching | Evolution of Social Behaviour         | BISC471 | Lecture             | 3.00 | 16  |
| 1998-2 | Teaching | Evolution of Social Behaviour         | BISC817 | Seminar             | 3.00 | 2   |
| 1998-1 | Research | Fieldwork in<br>Australia             |         |                     | 0.00 | 0   |
| 1998-1 | Teaching | Research Design                       | BISC490 | Directed<br>Studies | 2.50 | 1   |
| 1998-1 | Teaching | Research<br>Technique                 | BISC491 | Directed<br>Studies | 2.50 | 1   |
| 1998-1 | Teaching | Research<br>Reporting                 | BISC492 | Directed<br>Studies | 2.0  | 1   |
| 1997-3 | Teaching | Evolution                             | BISC400 | Lecture             | 3.00 | 105 |
| 1997-2 | Teaching | Evolution                             | BISC400 | Lecture             | 3.00 | 79  |
| 1997-1 | Research | Fieldwork in<br>Australia             |         |                     | 0.00 | 0   |
| 1997-1 | Teaching | Undergrad.<br>Research                | BISC498 | Directed<br>Studies | 1.50 | 1   |
| 1996-3 | Teaching | Evolutionary<br>Theory                | BISC806 | Seminar             | 3.00 | 10  |
| 1996-2 | Teaching | Introduction to Ecology               | BISC204 | Lecture             | 3.00 | 47  |
| 1996-1 | Research | Research<br>Fieldwork in<br>Australia |         |                     | 0.00 | 0   |
| 1995-3 | Teaching | Evolution                             | BISC400 | Lecture             | 3.00 | 138 |
| 1995-3 | Teaching | Undergraduate<br>Research             | BISC498 | Directed<br>Studies | 1.50 | 1   |
| 1995-3 | Teaching | Social Insects                        | BISC817 | Lecture             | 3.00 | 10  |
| 1995-2 | Teaching | Introduction to Ecology               | BISC204 | Lecture             | 3.00 | 38  |

| 1995-2 | Teaching | Marine<br>Behavioural<br>Ecology                | MSC502  | Other               | 0.00 | 0   |
|--------|----------|---|---------|---------------------|------|-----|
| 1995-1 | Teaching | Research Design                                 | BISC490 | Directed<br>Studies | 2.50 | 1   |
| 1995-1 | Teaching | Research<br>Technique                           | BISC491 | Directed<br>Studies | 2.50 | 1   |
| 1995-1 | Teaching | Research<br>Reporting                           | BISC492 | Directed<br>Studies | 2.50 | 1   |
| 1994-3 | Teaching | Evolution                                       | BISC400 | Lecture             | 3.00 | 154 |
| 1994-3 | Teaching | Evolutionary<br>Theory                          | BISC806 | Seminar             | 3.00 | 8   |
| 1994-2 | Teaching | Introduction to Ecology                         | BISC204 | Lecture             | 3.00 | 46  |
| 1994-2 | Teaching | Undergraduate<br>Research                       | BISC498 | Directed<br>Studies | 1.50 | 1   |
| 1994-2 | Teaching | Molecular<br>Methods,<br>Bamfield               | MSC501  | Other               | 0.00 | 0   |
| 1994-1 | Research |   |         |                     | 0.00 | 0   |
| 1993-3 | Teaching | Evolution                                       | BISC400 | Lecture             | 3.00 | 97  |
| 1993-2 | Research |   |         |                     | 0.00 | 0   |
| 1993-1 | Teaching | Evolution                                       | BISC400 | Lecture             | 3.00 | 153 |
| 1992-3 | Teaching | Evolutionary<br>Theory                          | BISC806 | Seminar             | 3.00 | 7   |
| 1992-2 | Research | Fieldwork in<br>Australia (startup<br>semester) |         |                     | 0.00 | 0   |
| 1992-1 | Research | Fieldwork in<br>Australia (startup<br>semester) |         |                     | 0.00 | 0   |

### **Senior Supervisory Duties of a Thesis**

| Name                 | Degree | Project/Thesis Title                               | Status    | Began  | Completed |
|----------------------|--------|--|-----------|--------|-----------|
| Dinsdale,<br>Natalie | PhD    | The extreme female brain, psychiatry, and the self | Active    | 2017-1 |           |
| Procyshyn,<br>Tanya  | MSc    | Evolutionary biology of social neuropeptides       | Active    | 2014-1 | 2017-2    |
| Leach, Emma          | MSc    | Evolutionary genetics of schizophrenia             | Completed | 2010-1 | 2013-1    |

|                       |       |  |           |        | 1      |
|-----------------------|-------|--|-----------|--------|--------|
| Dinsdale,<br>Natalie  | MSc   | Personality genetics of autism and schizophrenia | Completed | 2009-3 | 2012-1 |
| Elliot, Mick          | Ph.D. | Phylogenetics of placentation                    | Completed | 2008-1 | 2014-2 |
| Arbuthnott,<br>Devin  | M.Sc. | Mating behaviour of Timema                       | Completed | 2007-1 | 2009-2 |
| Jeffery, Erica        | M.Sc. | Evolution of sexual conflict                     | Completed | 2005-1 | 2007-3 |
| Elliot, Mick          | M.Sc. | Evolution of placentation                        | Completed | 2004-1 | 2007-3 |
| Joy, Jeff             | Ph.D. | Phylogeny of gall midges                         | Completed | 2002-3 | 2009-3 |
| Parent,<br>Christine  | Ph.D. | Phylogeny of Galapagos snails                    | Completed | 2000-3 | 2008-1 |
| Nosil, Patrik         | M.Sc. | Ecology of speciation                            | Completed | 2000-3 | 2006-2 |
| Springer,<br>Stevan   | M.Sc. | Molecular speciation                             | Completed | 1999-3 | 2003-2 |
| Law, Jennifer         | M.Sc. | Evolution of sex                                 | Completed | 1998-3 | 2001-3 |
| Chapman,<br>Thomas    | Ph.D. | Relatedness and sociality                        | Completed | 1994-1 | 2000-2 |
| Kranz, Brenda         | Ph.D. | Ecology of gall thrips                           | Completed | 1995-1 | 2000-1 |
| Harrison,<br>Michelle | M.Sc. | Phylogenetics of <i>Cancer</i> crabs             | Completed | 1995-3 | 1997-3 |

# **Serving on a Committee of a Thesis**

| Name                                | Degree | Project/Thesis Title                | Status    | Began  | Completed |
|-------------------------------------|--------|-------------------------------------|-----------|--------|-----------|
| Kolte, Astrid (Univ. of Copenhagen) | Ph.D.  | Genetics of recurrent miscarriage   | Active    | 2012-3 |           |
| Watson, Corey                       | Ph.D.  | Immunogenetics                      | Completed | 2008-1 | 2012-1    |
| Adrienne Berthold                   | MSc    | Lionfish behavior and endocrinology | Active    | 2015-1 |           |
| Kelsey Robinson                     | ISS    | Genetics of handedness              | Completed | 2015-1 | 2015-3    |
| Keever, Carson                      | Ph.D.  | Phylogenetics of starfish           | Completed | 2007-1 | 2010-3    |
| Mull, Chris                         | Ph.D.  | Shark life histories                | Active    | 2010-3 |           |
| Davis, Bradley                      | M.Sc.  | Behavior of archerfish              | Completed | 2006-3 | 2009-1    |
| Ablard-Hickman,<br>Kelly            | Ph.D.  | Mating behavior in insects          | Completed | 2005-1 | 2011-3    |
| Gray, Suzanne                       | Ph.D.  | Evolution of fish polymorphism      | Completed | 2002-3 | 2006-1    |
| Perry, Jennifer                     | M.Sc.  | Beetle oviposition                  | Completed | 2001-3 | 2004-3    |
| Hoover, Shelley                     | Ph.D.  | Honey bee genetics                  | Completed | 2000-3 | 2006-1    |
| Alexander, Heather                  | Ph.D.  | Guppy evolution                     | Completed | 1999-3 | 2005-2    |

| Name                    | Degree | Project/Thesis Title      | Status    | Began  | Completed |
|-------------------------|--------|---------------------------|-----------|--------|-----------|
| Ragsdale, J. (Utah)     | Ph.D.  | Skew theory               | Completed | 1998-3 | 2007-1    |
| Vos, Rutger             | M.Sc.  | Supertrees                | Completed | 2001-1 | 2005-1    |
| Kuhnholz, Susanne       | Ph.D.  | Bark beetle phylogenetics | Completed | 1995-3 | 2004-1    |
| Mitchell, Jeremy        | Ph.D.  | Reef fish behavior        | Completed | 1995-3 | 2002-3    |
| Sharpe, Fred            | Ph.D.  | Whale behavior            | Completed | 1992-3 | 2002-3    |
| Willis, Pamela          | M.Sc.  | Porpoise hybridization    | Completed | 1997-3 | 2001-3    |
| Morbey, Yolanda         | Ph.D.  | Salmon behavior           | Completed | 1996-1 | 2001-3    |
| Tyerman, Jabus          | M.Sc.  | Social aphids             | Completed | 1997-3 | 2001-2    |
| Heithaus, Michael       | Ph.D.  | Intraguild predation      | Completed | 1997-1 | 2001-2    |
| Swanson, Andrew         | Ph.D.  | Kelp UV adaptation        | Completed | 1995-3 | 2000-1    |
| Taylor, John            | Ph.D.  | Guppy microsatellites     | Completed | 1994-3 | 1999-3    |
| Vanderkist, Brett       | M.Sc.  | Murrulet ecology          | Completed | 1996-3 | 1999-1    |
| Robertson, lan          | Ph.D.  | Beetle behavior           | Completed | 1992-3 | 1997-3    |
| Pocklington,<br>Richard | M.Sc.  | Human evolution           | Completed | 1994-1 | 1996-3    |
| Sharpe, Fred            | M.Sc.  | Whale behavior            | Completed | 1992-3 | 1996-1    |
| Duffy, Jacqueline       | Ph.D.  | Risk-taking in humans     | Withdrawn | 1991-1 | 1995-3    |
| McGregor, Robert        | Ph.D.  | Selection in parasitoids  | Completed | 1990-3 | 1995-3    |
| Jaramillo, Al           | Ph.D.  | Ant foraging              | Withdrawn | 1993-3 | 1995-2    |
| Abbot, Douglas          | M.Sc.  | Beetle parasite behavior  | Completed | 1991-1 | 1994-2    |
| Zaklan, Stefanie        | M.Sc.  | Crab behavior             | Completed | 1991-3 | 1994-1    |

### **Supervision of Research Personnel**

| June 2012-current           | Full time, Silven Read, Lab Manager, NSERC                    |
|-----------------------------|---|
| September 2012- May 2013    | Suhani Thakore, Undergraduate researcher, NSERC               |
| January 2014-September 2015 | Rudiger Reisch, Postdoctoral Fellow, European Union grant PDF |
| September 2012-current      | Full time, Mike Mokkonen, PDF, Finnish Academy                |
| September 2011-March 2012   | Part time, Manal Abdur Rahman, Lab Manager, NSERC             |
| May 2011-May 2012           | Part time, Helen Crofts, Undergraduate researcher, NSERC      |
| May 2011-August 2011        | Part time, Lorraine Schembri, Undergraduate assistant, NSERC  |

| December 2010-June 2012       | Full time, Daryn Stover, PDF, NSERC  |
|-------------------------------|--|
| January 2008-Jan 2012         | Full Time, Laura Weir, NSERC PDF and Research Assistant                      |
| May 2010-August 2010          | Full Time, Kendra Morgan, NSERC Undergraduate Research Award                 |
| May 2009-August 2009          | Full Time, Philip Stead, NSERC Undergraduate Research Award                  |
| September 2008-Aug. 2011      | Part Time, Kevin Simonetto, Research Assistant, NSERC                        |
| September 2008-April 2009     | Part Time, Lisa Raeburn, Lab Technician, NSERC                               |
| June 2007- January 2010       | Full Time, Tanja Schwander, Postdoctoral Fellow, Swiss NSF                   |
| September 2004 - January 2006 | Part Time, Sampson Wu, Lab Technician, NSERC                                 |
| September 2004 - Septemb 2006 | Full Time, Bono, J, Ph.D., Postdoctoral Fellow, NSF                          |
| September 2001 - Septemb 2003 | Full Time, Loeb, M, Ph.D., Postdoctoral Fellow, NSF                          |
| September 2001 - Septemb 2003 | Full Time, Thompson, G, Ph.D., Postdoctoral Fellow, NSERC                    |
| September 2001 - Septemb 2003 | Full Time, Young, K, Ph.D., Postdoctoral Fellow, NSERC                       |
| September 2000 - April 200    | Full Time, VanKoeveringe, M, Lab. Manager, NSERC and B.C. First Jobs program |
| September 1999 - April 2000   | Full Time, Bertrand, M, Lab. Manager, NSERC and B.C. First Jobs program      |
| January 1994 - January 199    | 6 Full Time, Brown, W. D. Postdoctoral Fellow, NSERC                         |
| January 1993 - January 199    | Part Time, Carmean, D., Lab. Manager, NSERC                                  |