

Program

Saturday, November 1

08:30-17:00 **ESC Governing Board Meeting - Skaha**

Contact: Rick West, Secretary, ESC

Sunday, November 2

13:00-14:15 **Opening Address, ESC Awards, Gold Medal Address - Okanagan**

14:15 Refreshments - *Grand Foyer*

14:45-16:45 **Plenary Session (PL): Insects in Shifting Environments - Okanagan**

14:45 **Bernie ROITBERG**—Introduction

14:50 **Francis ZWIERS**—Climate change in the 20th and 21st centuries.

15:15 **Jacques RÉGNIÈRE**, JA Logan, AL Carroll, L Safranyik, SW Taylor—Modeling potential impacts of climate change on insects in North American forest ecosystems: a basic phenological approach.

15:45 **L. Philip LOUNIBOS**—Impact of human activities on invasions by insect vectors of disease.

16:15 **Rosemarie DE CLERCK-FLOATE**—Intentional releases of insects into novel environments: lessons from classical biocontrol.

18:00-22:00 Student Mixer (no-host bar and food, Kelowna Curling Club)

19:00-21:00 President's Reception (By invitation only) – Cassiar/Cascade

Monday, November 3

08:00-11:00 **Symposium A (SA): Adaptations and constraints: a symposium in honour of Richard Ring - Vaseaux/Kootenay**

08:00 **Neville WINCHESTER**—Introduction

08:05 **Hugh DANKS**—Insect adaptations to cold and changing environments.

08:45 **Geoff SCUDDER**, RG Footitt—Alien true bugs (Heteroptera) in Canada: composition and adaptations.

09:10 **Jens ROLAND**—Melanism in arctic and alpine *Colias* butterflies.

9:35 Refreshments - *Grand Foyer*

10:05 **Leland HUMBLE**, RA Ring—Overwintering adaptations in Arctic sawfly communities: cold tolerance and desiccation resistance.

10:30 **Neville WINCHESTER**, RA Ring–The sky is the limit: patterns in the distribution and abundance of invertebrates inhabiting suspended soils in ancient northern temperate coniferous rainforests.

10:55 **Robb BENNETT**–Concluding remarks

08:00-11:00 **Symposium B (SB): Insects in a changing climate – Pennask/Skeena**

08:00 **Richard FLEMING**–Introduction

08:05 **Allan CARROLL**, J Régnière, SW Taylor–Implications of climate change on natural disturbance in western pine forests: range expansion by the mountain pine beetle.

08:30 **Jean-Noel CANDAU**, R Fleming–Landscape-scale spatial distribution of spruce budworm defoliation in relation to bioclimatic conditions.

09:00 **David GRAY**–Climate change impacts on the duration and severity of eastern spruce budworm outbreaks in Canada.

09:30 Refreshments - *Grand Foyer*

10:00 **Dan JOHNSON**–Frequentist flies, Bayesian bugs: why Murphy’s Law predicts more insect plagues as climate variation increases, and weather records are broken.

10:30 **Robert MEYERS** *et al.*–Investigating the relationship among climatic factors and landscape characteristics in West Nile Virus transmission.

08:00-11:00 **Workshop A (WA): Temperate Fruit Flies: ecology, behaviour, and management – Columbia**

08:00 **Howard THISTLEWOOD**–Introduction

08:05 **Bernie ROITBERG**– Exploiting food and oviposition site foraging behaviors of *Rhagoletis*: applied behavioral ecology.

08:30 **Wee YEE**– Host usage and feeding biology of cherry fruit flies.

09:00 **Charles VINCENT**, S Gaul, K McKenzie, P Lemoyne–Research on the blueberry maggot in eastern Canada.

09:15 **Howard THISTLEWOOD**– Exploring cherry fruit fly management at the agricultural-urban interface.

09:40 Refreshments - *Grand Foyer*

10:00 **Heidrun VOGT**, K Köppler, A Peters–Cherry fruit fly (*Rhagoletis cerasi* L.) in Germany and Europe: its importance, limits to its control, and research into selective management strategies.

10:30 **Larry GUT**, K Pelz, J Wise–New management strategies and controls for cherry fruit fly and apple maggot.

11:00-13:00 **Poster Session (PO): Regular and President's Prize - Grand Foyer**

Lunch provided

13:00-16:45 **President's Prize Papers – Concurrent Sessions**

President's Prize (PP1): Biodiversity & Systematics - Shuswap

13:00 **Michael ALPERYN** –Factors affecting the community ecology of predacious water beetles (Coleoptera: Dytiscidae) in ponds across Manitoba.

13:15 **Hirondelle VARADY-SZABO**, CM Buddle– Arthropods associated with downed woody material in Forillon National Park, Québec

13:30 **Jennifer GRIXTI**, L Packer–Bee community composition change over a 35-year period.

13:45 **Amy RUTGERS**, MH Richards–Habitat restoration of Glenridge Quarry Landfill: how do the bees come back?

14:00 **Wayne HALLSTROM**–Effect of habitat loss and invasion by scotch broom (*Cytisus scoparius*) on rare butterflies of garry oak meadows.

14:15 **James MISKELLY**, DS Eastman–The precipitous decline and uncertain future of Taylor's checkerspot butterfly (*Euphydryas editha taylori*).

14:30 Refreshments - Grand Foyer

15:00 **Krista RYALL**, L Fahrig–Effects of habitat fragmentation and loss of scolytid and its predators at various spatial scales.

15:15 **Robert HIGGINS**, BS Lindgren–Effectiveness of Nordlander pitfall traps for ants, with comparison to standard sampling methods.

15:30 **MD HOCKING**, TE Reimchen, RA Ring–Salmon-derived nitrogen and carbon in terrestrial invertebrates from coniferous forests of coastal British Columbia.

15:45 **Jeffrey JOY**, BJ Crespi–Adaptive radiation of gall-inducing insects within a single host plant species.

16:00 **Amanda ROE**, G Grant, L Stein, N Gillette, F Sperling–Genetic lineages and morphological characters: important partners for coneworm (Pyralidae: Dioryctria) identification.

16:15 **Tonya MOUSSEAU**, RE Roughley–Revision of the Nearctic species of *Brychius* Thomson (Coleoptera: Haliplidae).

16:30 **Kevin WANNER**, LG Willis, DA Theilman, MB Isman, Q Feng, E Plettner–The insect chemosensory protein family.

President's Prize (PP2): Management – Pennask/South Hall

13:00 **Vanessa CARNEY**, RA De Clerke-Floate–A biocontrol success story: impact of a shoot-boring weevil on Dalmatian toadflax in British Columbia.

13:15 **Mohammud AL-MAZRA'AWI**, JL Shipp, AB Broadbent, PG Kevan–Biological control of *Lygus* and thrips pests on greenhouse peppers by *Beauveria bassiana* vectored by bumble bees.

13:30 **Colleen ALMA**, MS Goettel, DR Gillespie, BD Roitberg–The biological control of the greenhouse whitefly, *Trialeurodes vaporariorum*, with the insect predator *Dicyphus hesperus* and the entomopathogenic fungus *Paecilomyces fumosoroseus* Apopka 97 (PFR-97™).

13:45 **Ian HATHERLY**, JS Bale, KFA Walters–Cold tolerance and establishment potential of the non-native glasshouse biological control agent, *Typhlodromips montdorensis* in the UK.

14:00 **Sagrario GÁMEZ-VIRUÉS**, A Eben–Reduviidae as possible biocontrol agents for some Diabroticite beetles in Mexico?

14:15 **Roger GRAVES**–The pattern of disease spread in balsam fir sawfly populations.

14:30 Refreshments - *Grand Foyer*

15:00 **Ashley LAMB**, SM Salom, LT Kok–Evaluation of field cage releases of *Laricobius nigrinus* (Fender) [Coleoptera: Derodontidae], a predator of the hemlock woolly adelgid, *Adelges tsugae* (Annand) [Homoptera: Adelgidae].

15:15 **Marie-Pierre MIGNAULT**, M Roy, J Brodeur–Potential of three species of coccinellids as biological control agents against the soybean aphid in Quebec.

15:30 **Jon MULLAN**, C Stafford, R Gries, D Gillespie, J Borden, G Gries–Characterization and application of semiochemical-based Attract-and-Kill to suppress cabbage looper, *Trichoplusia ni* (Hübner), populations in commercial vegetable greenhouses

15:45 **Tara SACKETT**, C Buddle, C Vincent– Effect of kaolin on the leaf-rolling behaviour of the oblique-banded leafroller.

16:00 **Janisse BAILEY**, CD Scott-Dupree, CR Harris, JH Tolman–Relative impact of sweet corn pest management strategies on foraging honey bees.

16:15 **Lucian MIRCIU**, O Olfert, B Mirciou, M Brown, G Gries–Development of pheromone-based monitoring of the orange wheat blossom midge.

President's Prize (PP3): Behaviour – Skeena/South Hall

13:00 **Stuart CAMPBELL**, JH Borden–Integration of visual and semiochemical cues by host-seeking mountain pine beetles, *Dendroctonus ponderosae* (Coleoptera: Scolytidae).

13:15 **Mark SIDNEY**, G Judd, K Brown, R Gries, G Gries– Stimuli affecting oviposition choices by female peach twig borers, *Anarsia lineatella*.

13:30 **Cindy BROBERG**–Resistance in clonal poplars to the poplar and willow borer, *Cryptorhynchus lapathi* (Coleoptera: Curculionidae).

13:45 **Shannon DERKSEN**, M Chatterton, G Judd, R Gries, G Gries— Kairomone-mediated oviposition behaviour of peachtree borer (Lepidoptera: Sesiidae).

14:00 **Marie-Claude NICOLE**, R Lavallée, É Bauce, M-J Morency, A Séguin— Induction of specific terpenoids synthases gene expression, in Norway spruce, *Picea abies* (Karst.), in response to feeding and oviposition of white pine weevil, *Pissodes strobi* (Coleoptera: Curculionidae).

14:15 **Zaid JUMEAN**, T Unruh, R Gries, G Gries— Semiochemical mediated location of *Cydia pomonella* host prepupae by the specialist parasitoid *Mastrus ridibundus*.

14:30

Refreshments - *Grand Foyer*

15:00 **Brian MA**—The effect of nutritional reserves on host preference behaviour in mosquitoes (*Anopheles gambiae*).

15:15 **Mireille MARCOTTE**, J Delisle, JN McNeil—Does a delay in remating influence the reproductive success of *Choristoneura rosaceana* males?

15:30 **Allison HENDERSON**—Habitat preference of the Costa Rican weevil, *Exophthalmus jekelianus*, on coffee in Costa Rica.

15:45 **Jeanne HORNING**, BS Lindgren—Tree root deformation affecting susceptibility of lodgepole pine, *Pinus contorta* var. *latifolia* Engel. to attack by the Warren root collar weevil, *Hylobius warreni* Wood.

16:00 **Véronique MARTEL**, G Boivin—Pre-mating dispersion in the egg parasitoid *Trichogramma* (Hymenoptera : Trichogrammatidae).

16:15 **Trent HOOVER**, N Yonemitsu, JS Richardson—The role of physical factors in stream insect drift.

16:30 **Michelle MCPHERSON**, ID Jonsen, PD Taylor—Between-patch movements and daily survival of a boreal peatland dragonfly (*Leucorrhinia hudsonica*): a better method for analysing mark-recapture data.

President's Prize (PP4): Population Ecology – Skaha

13:00 **Gaétan MOREAU**, DP Ostaff, ES Eveleigh, CJ Lucarotti, B Morin, DT Quiring—Factors affecting the population dynamics of balsam fir sawfly.

13:15 **Suzie LAVALLEE**—Effects of forest harvesting on the population ecology of *Scaphinotus angusticollis*.

13:30 **Kathy BLEIKER**, D Six—Interactions between mountain pine beetle and its filamentous fungal associates.

13:45 **Wade JENNER**, U Kuhlmann, J Cossentine, B Roitberg—The parasitoid community structure of a bark-feeding lepidopteran, *Enarmonia formosana* (Lepidoptera: Tortricidae).

14:00 **Tim SARETSKI**, C Gillott, J Soroka—Differences in leafhopper (Homoptera: Cicadellidae) species composition, distribution, and feeding preferences between severe and mild drought years in Saskatchewan.

14:15 **Amro ZAYED**, DW Roubik, L Packer—Diploid male production and the population size paradox in "common" orchid bees: implications for detecting pollinator declines.

14:30

Refreshments - *Grand Foyer*

PP4-continued Evolution

14:45 **Shelley HOOVER**, M Winston, B Oldroyd—Anarchy in honey bee colonies – are pheromones the solution?

15:00 **Jason PETERSON**, B Roitberg—Would you like a boy or a girl?

15:15 **Firlej ANNABELLE**, G Boivin, É Lucas, D Coderre—Development of *Dinocampus coccinellae* (Hymenoptera: Braconidae) teratocytes in a native and an exotic host.

15:30 **Chris MACQUARRIE**, G Boiteau, D Quiring—Influence of wing loading on Colorado potato beetle flight.

15:45 **Monica SLIVA**—Life history strategy of the stem galler *Aulacidea hieracii* (Hymenoptera: Cynipidae) on hawkweed (Asteraceae).

16:00 **Jen PERRY**, B Roitberg—When should mothers help their kids eat each other? Trophic eggs in ladybird beetles.

16:15 **Maxence SALOMON**, B Roitberg—Cohabitation in spiders: how does it affect web-building?

13:00-16:30 Workshop B (WB): Resistance of two kinds: insecticides and host plants - Vaseaux

13:00 **Charles VINCENT**, Y Pelletier—Resistance: the need to know.

13:05 **David PREE**, KJ Whitty, LA Bittner—Resistance to pesticides in insects and mites of tree fruits in Canada.

13:30 **NJ BOSTANIAN**, H Thistlewood, JM Hardman—Resistance and implementation of IPM programs in apple orchards.

14:00 **Michael SMIRLE**—Insecticide resistance mechanisms in Lepidoptera.

14:30

Refreshments - *Grand Foyer*

15:00 **Jeff TOLMAN**, SA Hilton, CR Harris—Colorado potato beetle- the Canadian experience.

15:30 **Yvan PELLETIER**—Wild traits: potato resistance to insects.

16:00 **Philippe GIORDANENGO**—Unexpected effects of potato genetic engineering for pest resistance.

18:30-19:30 **Student Reception** – Wine Museum

19:30-21:30 **General Reception** – Wine Museum

Tuesday, November 4

08:30-12:00: Symposium C (SC): Introduced species: Friends and foes and those we do not know – Pennask/Skeena

08:30 **Judith MYERS**–Introduction

08:35 **Alec McClAY**– Setting invaders against invaders.

09:00 **Dave GILLESPIE**, DMJ Quiring, RR McGregor, SV VanLaerhoven– Introduced pests and control agents in the greenhouse setting: concerns and considerations.

09:30 **Therese POLAND**, D McCullough, P deGroot, R Haack–Emerald ash borer: investigating the biology and management of a new forest insect threat.

10:00 Refreshments - *Grand Foyer*

10:30 **Fiona HUNTER**–Introduced human disease and native insect vectors: mosquitoes and West Nile Virus.

11:00 **Judith MYERS**–Is eradication a solution for introduced organisms?

11:30 **Leland HUMBLE**–Identifying threats and mitigating risk: the role of research in international regulatory efforts against exotics.

08:30-11:30 Symposium D (SD): Biodiversity – Vaseaux/Kootenay

08:30 **Geoff SCUDDER**–Introduction

08:35 **Pierre PAQUIN**–Diversity of boreal forests of western Quebec: a beetle's point of view.

09:00 **Steve MARSHALL**–Insect surveys and southern Ontario's biodiversity hotspots.

09:30 **Geoff SCUDDER**– Rarity and richness hotspots in British Columbia.

10:00 Refreshments - *Grand Foyer*

10:30 **Valerie BEHAN-PELLETIER**, M St. John, NN Winchester–Why forest canopies of the Pacific Northwest are hotspots for oribatid mite diversity.

11:00 **Neville WINCHESTER**, RA Ring, L Humble–The potentially rare and endangered terrestrial arthropods in British Columbia: revisiting British Columbia's biodiversity.

08:30-12:00: Symposium E (SE): Graduate Students - Columbia

08:30 **Jacques BRODEUR**–Introduction

08:35 **Colleen SIMPSON**, ML Reid–Forest management affects plant-insect interactions at two spatial scales.

09:00 **Christian KRUPKE**, JF Brunner, VP Jones– Biology and behaviour of the consperse stink bug, *Euschistus conspersus*: A new pest management challenge for Washington orchardists.

09:30 **Ché ELKIN**, M Reid—Behavioural plasticity in response to density-dependent environmental shifts: model and tests in mountain pine beetles.

10:00 Refreshments - *Grand Foyer*

10:30 **David MARCHAND**, JN McNeil—Searching for food and oviposition sites in shifting environments: A case study of the cranberry fruitworm, *Acrobasis vaccinii* (Lepidoptera: Pyralidae).

11:00 **Tim HAYE**, U Kuhlmann, PG Mason, H Goulet—Host specificity of *Lygus* parasitoids: understanding mirid-parasitoid associations in different habitats.

11:30 **Alida JANMAAT**, J Myers—The effect of crop on the evolution of *Bt* resistance in *Trichoplusia ni* populations.

Lunch (on your own). Posters available

13:30-16:45 **Regular Concurrent Sessions**

(C1) Biosystematics - Shuswap

13:30 **Muhammed ASHFAQ**, L Braun, M Erlandson—Hyperparasitism in *Lygus* spp. (Hemiptera: Miridae) by a parasitoid *Peristenus* near *mellipes* (Hymenoptera: Braconidae) in alfalfa.

13:45 **Phyllis DALE**, F Sperling—Genetic analysis of some coniferophagous "*Choristoneura*" populations using amplified fragment length polymorphisms (AFLPs) as molecular markers.

14:00 **Pierre PAQUIN**, MC Hedin—Spiders of the genus *Cicurina* (Dictynidae): application of molecular techniques to conservation and systematics.

14:15 **Jeffrey SKEVINGTON**—Molecular barcoding – mixed results for Pipunculidae (Diptera).

14:30 **John SWANN**—New Milichiidae (Diptera) taxa, same old phylogenetic problems?

14:45 Refreshments - *Grand Foyer*

15:15 **John SWANN**—Parsimony analysis of endemism, the best of a bad lot?

15:30 **Stéphanie BOUCHER**—New species, new records and importance of taxonomic research in the leaf-miner flies (Diptera: Agromyzidae).

15:45 **Rex KENNER**—Redescription of *Haliphus dorsomaculatus* with comments on distribution, habitat and a new synonymy.

16:00 **Terry WHEELER**—Ride a pale horse: diversity and host associations of *Pseudogaurax* (Diptera: Chloropidae), predators of arachnids.

16:15 **Andrew BENNETT**—Interactive, illustrated keys to the Ichneumonidae (Hymenoptera) parasitizing North American *Choristoneura* spp. (Lepidoptera: Tortricidae): a practical example of the advantages of Lucid over standard keys.

16:30 **Felix SPERLING**—A virtual museum for real world entomologists.

(C2) Management – Pennask/South Hall

13:30 **Paul FIELDS**, C Adarkwah–Resistance to diatomaceous earth by stored-product insects.

13:45 **François MELOCHE**–Corn rootworm, a corn pest that was always there, but now gets significantly more attention.

14:00 **Sheila FITZPATRICK**–Survival of cranberry girdler larvae in floodwater.

14:15 **Ken FRY**, B Welty–Evaluation of sampling methods for the currant fruit fly, *Euphranta canadensis* (Loew).

14:30 **Richard TRUDEL**, C Guertin, G Grant, P de Groot–The use of sex pheromones for the control of insect pests in seed orchards.

14:45 Refreshments - *Grand Foyer*

15:15 **Bob VERNON**, J Gartrell, M Rowe, T Lowery, EC Becker–Are click beetles (family Elateridae) developing a taste for the fine wines of the Okanagan Valley?

15:30 **Jennifer OTANI**, H Cárcamo–Examining application of the economic threshold for *Lygus* in canola in the Peace River region.

15:45 **Jennifer OTANI**–*Lygus* oviposition patterns and survival of eggs to adults on greenhouse-grown canola treated with new seed insecticides.

16:00 **Chris CUTLER**, CD Scott-Dupree, CR Harris, JH Tolman–Susceptibility of Colorado potato beetle, *Leptinotarsa decemlineata* (Say), to novaluron, a benzoylphenyl urea insect growth regulator.

(C3) Ecology - Skeena/South Hall

13:30 **Lloyd DOSDALL**, GW Clayton, KN Harker, JT O'Donovan, FC Stevenson–Root maggots (*Delia* spp.: Diptera) respond to soil fertility in canola agroecosystems.

13:45 **Rebecca HALLETT**, J Holowachuk, J Soroka, MY Gruber– Assessing resistance of *Arabidopsis thaliana* to the adult crucifer flea beetle, *Phyllotreta cruciferae* (Coleoptera: Chrysomelidae).

14:00 **Robert LAVALLÉE**, Y Mauffette, N Legault–Is there a phenological window for phloem feeding insect like the white pine weevil?

14:15 **Dan QUIRING**, S Sopow–Size of gall induction stimulus and plant module determine gall initiation success.

14:30 **Steven JAVOREK**–The relationship between plant biodiversity and leafcutting bee natal cell production in lowbush blueberry agroecosystems.

14:45 Refreshments - *Grand Foyer*

15:15 **Brian VAN HEZEWIJK**, R Bouchier–The effect of beetle density on emigration and within-patch movement of *Aphthona lacertosa*.

15:30 **Barry COOKE**, B Boulet–Comparative dynamics of the spruce budworm and forest tent caterpillar in Québec.

15:45 **Lorraine MACLAUHLAN**–Spatial and temporal patterns of western spruce budworm, *Choristoneura occidentalis*, outbreaks in southern British Columbia.

16:00 **Vince NEALIS**, J Régnière–Fecundity and recruitment of eggs during outbreaks of the spruce budworm.

16:15 **Brian VAN HEZEWIJK**–Landscape characteristics affect patch colonisation in a host-parasitoid community.

Workshop C (WC): Ecology and Structure of Aphid Populations – Columbia

13:15 **Kevin FLOATE**–Introduction

13:20 **Bob LAMB**, P MacKay–Population persistence in a locally ephemeral native aphid, *Uroleucon rudbeckiae*.

13:45 **Pat MACKAY**, M Smith–Climatic adaptations in some prairie aphid species: local overwintering versus annual immigration.

14:15 **Dave RAWORTH**–Life history and behavior of the blueberry aphid, *Ericaphis fimbriata*, in relation to the spread of Blueberry Scorch Virus.

14:45 Refreshments - *Grand Foyer*

15:15 **Kevin FLOATE**–Distribution and ecology of *Pemphigus* aphids in a trispecific swarm of hybridizing cottonwood (*Populus*).

15:45 **Bob FOOTIT**–Molecular analyses of aphid populations.

16:15 **Ed MONDOR**, JA Rosenheim, JF Addicott–Phenotypic plasticity and predation risk in the facultative ant-tended cotton aphid, *Aphis gossypii*.

16:45-17:30 ESC Annual General Meeting – *Pennask/South Hall*

18:30-19:30 No host bar – *Grand Foyer*

19:30-22:00 Banquet and Entertainment - *Ballroom*

Wednesday, November 5

08:45 **Heritage Lecture:** (Geoff SCUDDER–Introduction)

Richard RING–Insect Adaptations: a personal perspective.

09:30-12:15 **Regular Concurrent Sessions**

(C4) Biodiversity - Vaseaux

09:30 **Donna GIBERSON**–Aquatic insect studies in the Canadian Central Barrens (NWT and NU).

09:45 **Derrick KANASHIRO**, MJ Clapperton, V Behan-Pelletier, GHO Osler–A quest for mites: The search for oribatid soil mites from Western Canadian Grasslands.

10:00 **Susanna CARSON**—Sampling for diversity – Is 4 weeks enough?

10:15 **Chris BUDDLE**—Surprises in the boreal: experiments with dead wood and ground-dwelling spider assemblages.

10:30 Refreshments - *Grand Foyer*

11:00 **John McLEAN**, D Jones—Beetle diversity in man-maintained and wild ecosystems in the Whangamata area of New Zealand.

11:15 **Isobel PEARSALL**—Effects of forest fragmentation on carabid beetles in coastal western hemlock forests.

11:30 **Jon SWEENEY**, J Klimaszewski, G Gesner, J Price—Diversity and abundance of Staphylinidae in Acadian red spruce stands under different silvicultural regimes.

11:45 **Heather PROCTOR**, J Kanowski, C Catterall, G Wardell-Johnson, T Reis, S Piper—Assessing success of rainforest restoration using arthropod assemblages.

(C5) Orchard Pest Management – Pennask/South Hall

09:30 **Yoo-Han SONG**, DJ Brooks, LB Coop, MK Omeg, AT Walston, H Riedl—Development of a phenology model for predicting western cherry fruit fly, *Rhagoletis indifferens* Curran (Diptera: Tephritidae), emergence and oviposition in the mid-Columbia area of Oregon.

09:45 **Helmut RIEDL**, SP Castagnoli, KP Kerwin—Orchard pest management in transition: recent experiences with reducing use of organophosphate insecticides on pears in northern Oregon.

10:00 **Kent MULLINIX**, MB Isman, JF Brunner—Effects of insecticide elimination, cover crops and augmentation attempts on apple leafroller populations, leafroller parasitism and the general orchard arthropod community.

10:15 **Dong-Soon KIM**, DJ Brooks, H Riedl—Impacts of the neonicotinyl insecticide, acetamiprid on the predator *Deraeocoris brevis* (Hemiptera: Miridae) in the laboratory: acute toxicity and sub-lethal effects.

10:30 Refreshments - *Grand Foyer*

11:00 **Sonia GAUL**, DM Nash—Towards identification of pheromone components of *Atractotomus mali*.

11:15 **Maya EVENDEN**, A Seiden, M Kline, J McLaughlin—Potential for combining attracticide formulations against the oriental fruit moth, *Grapholita molesta* and the codling moth, *Cydia pomonella* (Lepidoptera: Tortricidae).

11:30 **Michael HARDMAN**, KIN Jensen, DL Moreau, JL Franklin, ED Bent—Effects of groundcover treatments on population density and damage caused by *Lygus lineolaris* (Heteroptera: Miridae) in apple orchards.

11:45 **Deborah BROOKS**, AT Walston, H Riedl—Natural enemy complex in pear orchards and adjacent habitats.

12:00 **Allison WALSTON**, DJ Brooks, SP Castagnoli, H Riedl—Area Wide II

Demonstration Project: codling moth (Lepidoptera: Tortricidae) control strategies for pears in Oregon's Hood River Valley.

(C6) Biological Control – Columbia

9:30 **Rob BOURCHIER**, ML Crowe–Competition and co-existence between knapweed seed-head feeding insects.

9:45 **Robert McGREGOR**, DR Gillespie–Responses of *Dicyphus hesperus* Knight (Heteroptera: Miridae) to prey and plant odours in a Y-tube olfactometer.

10:00 **Bryan ULMER**, L Dossdall, G Gibson, J Huber–Hymenopteran parasitoids of the cabbage seedpod weevil (*Ceutorhynchus obstrictus*: Curculionidae) in Alberta.

10:15 **David DAMIENS**, C Bressac, C Chevrier–Sperm stock and egg-laying function with age in *Dinarmus basalis* (Hymenoptera, Pteromalidae) females.

10:30 Refreshments - *Grand Foyer*

(C7) Ecology – Columbia

11:00 **Edward MONDOR**, MN Tremblay, CS Awmack, RL Lindroth–FACE'ing the Future: Aphids alter alarm responses under climate change.

11:15 **Yori SASAERILA**, G Khaskin, R Gries, G Gries–Sexual communication in fruit bunch moths, *Tirathaba mundella* (Lepidoptera: Pyralidae).

11:30 MH Smith, **Bob LAMB**–Causes of variation in body size of the wheat midge and consequences for life-history traits.

11:45 **Gail ANDERSON**–Comparison of decomposition rates and faunal colonization of carrion indoor and outdoor environments.

10:30-11:00 **ESBC Annual General Meeting - Shuswap**

12:30 **Meeting of the Board of Directors, Entomological Society of Canada - Skaha**

Associated Meetings

Thur-Fri, Oct 30-31

Mountain Pine Beetle Symposium

Contact: Terry Shore (CFS Victoria)

Thursday, October 30

Canadian Forum for Biological Control

Contact: Rose DeClerke-Floate (AAFC Lethbridge)

Friday, October 31-

Saturday, November 1

Western Forum and Western Committees on Crop Pests and Plant Diseases

Contact: Hugh Philip (hugh.philip@gems8.gov.bc.ca)

Posters

P01 S Allombert, J-L Martin, Rob CANNINGS—Entomological research in Haida Gwaii: from studies of deer-insect interaction to a fauna inventory.

Recherches entomologiques à Haida Gwaii : de l'étude des interactions cerf-insecte à l'inventaire de l'entomofaune.

P02 Firlej ANNABELLE, G Chouinard, D Coderre—Optimization of the food rearing of *Hyaliodes vitripennis* (Hemiptera: Miridae).

Optimisation de la nourriture d'élevage de *Hyaliode vitripennis* (Hemiptera: Miridae).

P03 André BÉLANGER, M-J Gauvin, G Boivin—Bioassay technique for determining the insecticidal activity of extracts from the neem *Azadirachta indica a. juss.*

Détermination du pouvoir insecticide des extraits de neem *Azadirachta indica a. juss* par un bioessai.

P04* Madlen DENOTH, JH Myers—Biological control of purple loosestrife only partially successful in southwestern British Columbia.

P05 Stéphanie BOUCHER, H Varady-Szabo—Effects of different diets on the survival, longevity and growth rate of the Annam stick insect, *Baculum extradentatum* (Phasmatodea: Phasmidae).

Les effets de différentes diètes alimentaires sur la survie, longévité et taux de croissance du phasme *Baculum extradentatum* (Phasmatodea : Phasmidae)

P06 Jacques BRODEUR, R Ouedraogo, M Goettel—Behavioral fever in locusts and grasshoppers: a prevalent response to infection by entomopathogenic fungi.

P07 Héctor CÁRCAMO, R Dunn, O Olfert—Luring cabbage seedpod weevils to their final supper in canola trap crops.

Pour attirer les charançons des siliques à leur dernier repas de canola dans la culture piège.

P08 Joan COSSENTINE, K Deglow, L Jensen—Orchard releases of native parasitoids of the obliquebanded leafroller.

P09* Tara GARIÉPY, M Erlandson, U Kuhlmann, C Gillott—Use of molecular markers in host range and non-target risk assessment studies of *Lygus* parasitoids.

P10 Valerie CARON, T Sackett, C Vincent, C Buddle—Effect of kaolin on fitness of the obliquebanded leafroller larva.

P11 Hyun Jung CHOE, S Lee, HJ Kim—Title: Molecular phylogenetic reconstructions of Far Eastern Asia species of the genus *Sitobion* and the genus *Macrosiphum*.

P12 Michael COHEN, CC Bernal, SS Virmani— Do crop hybrids have heterosis for insect resistance? A study with two rice pests.

P13* Maggie GLASGOW—The effects of landscape fragmentation and prey density on the regulation of forest tent caterpillars (*Malacosoma disstria*) by generalist predators.

P14 Daniel CORMIER, G Chouinard, S Carignan, F Fournier—Horizontal dispersion of *Trichogramma* sp. in apple orchards.

Dispersion horizontale des trichogrammes dans un verger de pommiers.

P15 David DAMIENS, G Boivin—Prospermatogeny as a life-history strategy in *Trichogramma*.

La prospermatogénie, une stratégie d'histoire de vie chez *Trichogramma*.

P16* Tim HAYE, B Broadbent, J Whistlecraft, U Kuhlmann—Reproductive biology of two *Peristenus* species (Hymenoptera: Braconidae), parasitoids of *Lygus* spp. (Heteroptera: Miridae).

P17 Peggy DIXON, S Berlocher—Occurrence of *Rhagoletis* spp (Diptera: Tephritidae) on the island of Newfoundland.

P18 S Tilley, Peggy DIXON, L Hermanutz, T Bell—Impact of insect herbivory on rare and endangered limestone brassicas.

P19 GK Kyei-Poku, DD Colwell, PC Coghlin, Kevin FLOATE—New strains of *Wolbachia* associated with sucking and chewing lice (Anoplura and Mallophaga). Nouvelles souches de *Wolbachia* associées aux anoploures et aux mallophages (Anoplourea et Mallophaga).

P20 GK Kyei-Poku, Kevin FLOATE, B Benkel, MS Goettel—Phylogenetic relationships of *Wolbachia* in a guild of wasps parasitic on filth flies (Diptera: Muscidae).

Relations phylogénétiques de *Wolbachia* dans une guilde de guêpes parasitoïdes attaquant les mouches associées aux déjections du bétail (Diptera: Muscidae).

P21 Sonia GAUL, LJ Eaton—Vegetative field management in integrated pest management of *Rhagoletis mendax* in Nova Scotia.

P22 Donna GIBERSON, L Purcell—Black flies in salt: *Simulium vittatum* (Zett.) in beach streams affected by tidal incursions on Prince Edward Island.

P23 L Eckersley, Dave GILLESPIE—Compatibility of *Aphidoletes aphidimyza*, (Rondani) (Diptera: Cecidomyiidae), and *Chrysopera rufilabris* (Burmeister) (Neuroptera: Chrysopidae) as biological controls for aphids on greenhouse pepper plants.

P24 Terry SHORE, WG Riel, L Safranyik, A Fall—Mountain pine beetle: modelling landscape disturbance under different management scenarios.

P25 JM Hardman, KIN Jensen, Jeffrey FRANKLIN, DL Moreau—Effects of groundcover treatments and *Typhlodromus pyri* (Acari: Phytoseiidae) on populations of *Tetranychus urticae* (Acari: Tetranychidae) in apple orchards.

P26 KS Hemachandra, K RILEY, U Kuhlmann, J Klimaszewski, NJ Holliday—Potential biological control of *Delia radicum* (Diptera: Anthomyiidae) with *Aleochara* spp. (Coleoptera: Staphylinidae).

P27* Tanya Latty, M Reid—Who goes first? Pioneer behaviour in the mountain pine beetle, *Dendroctonus ponderosae*.

P28 John HUBER, PT Dang—Biosystematics in forestry: invasive species and native biodiversity.

P29 Steven JAVOREK—Foraging flight distances of three *Andrena* species.

P30 Wade JENNER, U Kuhlmann, J Cossentine, J Whistlecraft—Assessing meridic diet quality for the cherry bark tortrix, *Enarmonia formosana* (Lepidoptera: Tortricidae).

P31 Dong-Soon KIM, DJ Brooks, H Riedl—Development and fecundity of the predator *Deraeocoris brevis* (Hemiptera: Miridae) reared on eggs of *Ephestia kuehniella* (Lepidoptera: Pyralidae).

P32* Thibaut LEINEKUGEL LE COCQ—Heritability of black spruce resistance to the yellowheaded spruce sawfly.

P33 Mario LANTHIER, LK Thompson, CM Custer–Field studies on the green ash leaf curling aphid.

P34 JK MacIntyre Allen, Jeff TOLMAN, CD Scott-Dupree, CR Harris–Field biology of onion thrips, *Thrips tabaci* Lindeman, in commercial onion fields in Thedford, Ontario.

P35 S Carbyn, S Javorek, Kenna MacKENZIE–An approach to site selection using GIS for the management and monitoring of mason bees in the Digby/Smith's Cove area, Nova Scotia.

P36* Andrew MORRISON, A Olivet, D Quiring–Influence of intra-leaf heterogeneity on preference and performance of a gall midge (*Harmandia tremulae*) on trembling aspen.

P37 Peter MASON, L Braun, SI Warwick, CN Stewart Jr–Potential Non-target Impacts of Bt-canola.

P38 S McCann, C SCOTT-DUPREE, C Harris, B Broadbent, G Murphy–An evaluation of the compatibility of *Atheta coriaria* Kraatz (Coleoptera: Staphylinidae), a new biological control agent used to control *Bradysia* spp. (Diptera: Sciaridae), with current greenhouse floriculture IPM programs.

P39 A Behennah, John McLEAN–Survey of the western hemlock looper in the Malcolm Knapp Research Forest 2002.

P40 Michelle McPHERSON, PD Taylor–Landscape matrix influences the distribution and abundance of a peatland dragonfly (*Leucorrhinia hudsonica*) in western Newfoundland.

P41* Dave ROTH–The effects of forest fragmentation on forest tent caterpillar (*Malacosoma disstria*) parasitoid communities.

P42 Dean MOREWOOD, PR Neiner, JR McNeil, JC Sellmer, K Hoover–Host suitability for the Asian longhorned beetle *Anoplophora glabripennis*

P43 Thaddée MUSABYIMANA, A Bélanger, M Brosseau–Neem seed extracts for the management of the caterpillars attacking the cabbage plant.

P44 Christine NORONHA, M Carter–Effects of two insecticide application methods on soil collembola and mite populations in commercial potato fields on Prince Edward Island.

P45 Christine NORONHA, H Hayden, D Giberson–Comparison of in-furrow and foliar insecticide treatments on carabid beetle populations in commercial potato fields on Prince Edward Island.

P46* Abdolreza Moayed SAFFARI, PG Kevan, J Grewal–Imbibition response and energy uptake of honey bee towards different concentrations of sucrose, glucose and fructose solutions.

P47 Dale PARKER–Biodiversity of aquatic insects and macroinvertebrates from a boreal lake in Saskatchewan.

P48 Dale PARKER–Emergence phenologies of mayflies (Ephemeroptera) and caddisflies (Trichoptera) in a shallow bay at Candle Lake, Saskatchewan.

P49 Mary REID–Choice or chance? Habitat selection in a bark beetle.

P50* Susan SENGER–The dispersal behaviour of the cherry fruit fly (Diptera: Tephritidae) in structured environments.

P51 C Sheffield, S Rigby, Rob SMITH, PG Kevan–Lupines for building populations of the apple pollinator *Osmia lignaria*.

P52 Rod TURNQUIST, V Nealis—Patterns of defoliation caused by the western blackheaded budworm, *Acleris gloverana*, on Haida Gwaii (Queen Charlotte Islands).

P53* Alice VERREZ—Heritability of jack pine resistance to white pine weevil.

P54 Allison WALSTON, DJ Brooks, RJ Hilton, H Riedl— European earwig (Dermaptera: Forficulidae) populations in pear orchards treated with and without organophosphate insecticides.

P55* Stacey WILKERSON, N Winchester—Arboreal arthropod community composition in lichens and branches of *Abies amabilis* in montane variable retention stands.

P56 Gabriella ZILAHY-BALOGH, JL Shipp, C Cloutier, J Brodeur, Y Zhang— Influence of light intensity on emergence and parasitism level by *Encarsia formosa* and *Eretmocerus eremicus* on greenhouse whitefly, *Trialeurodes vaporariorum*.

***President's Prize contribution**