Monday, April 7, 2025

Ecosystem Services and Integrative Systems in Agriculture Plenary

Moderators and Organizers: Kris Wyckhuys, Chrysalis Consulting, Hanoi, Northern Vietnam, Viet Nam

Crop rotation diversification begets diversity across trophic levels. **Carmen Blubaugh** (blubaugh@illinois.edu), Univ. of Illinois Urbana Champaign, Urbana, IL

Systems thinking for sustainable pest management: Introductory remarks. **Kris Wyckhuys** (kagwyckhuys@gmail.com), Chrysalis Consulting, Danang, Danang, Viet Nam

Relative strength of social, environmental, and spatial filters for insect species assembly in urban community gardens. **Heidi Liere** (heidil@lclark.edu), Lewis and Clark College, Portland, OR

Using soil microbiomes to improve aboveground insect pest control in agriculture. **Martijn Bezemer** (t.m.bezemer@biology.leidenuniv.nl), Leiden Univ., Leiden, Leiden, Netherlands

Integrating predictive modelling into participatory approaches to quantify spatial interdependencies between farmers in the delivery of pest control services. **Sandrine Petit** (sandrine.petit-michaut@inrae.fr), INRAE French National Research Institute for Agriculture, Paris, Paris Cedex 07, France

The future of weed management in agroecosystems: Optimization of weed-insect interactions. **Anna Moonen** (Camilla.Moonen@santannapisa.it), Sant'Anna School of Advanced Studies, Pisa, PI, Italy

Ecosystem Services and Integrative Systems in Agriculture Posters

The impact of Quebec cranberry farming practices on wild pollinator diversity. **Samantha Dizon** (sam.dizon23@gmail.com)[1] and Jessica Gillung[2], [1]McGill Univ., Sainte-Anne-De-Bellevue, QC, Canada, [2]McGill Univ., Sainte-Anne-de-Bellevue, QC, Canada

Stem-cutting dipping in insecticides and spray application of biopesticide control cassava whitefly (*Bemisia tabaci*). **Everlyne Wosula** (e.wosula@cgiar.org), Khamis Issa, Massoud Amour and James Legg, International Institute of Tropical Agriculture, Dar es Salaam, Tanzania, United Republic of

Orange springtail (*Protnura* spp.) recorded as predator of Earthworm, *Eisenia fetida:* a threat to the production of vermicompost. **Bachu lakshmi Manisha** (angraumanish2@gmail.com)[1], K Manjula[2], Msv Chalam[3], Padimi Venkatesh[4], Shaik Abdul Mujeeb[5], K Suneethamma[6], D Kanchana[7] and D Gayatri[7], [1]Research Associate, New Delhi, New Delhi, India, [2]Programme coordinator kalikiri, Tirupati, India, [3]Professor Entomology, Tirupati, ANDHRA PRADESH, India, [4]Graduate Ph. D student, Fortcollins Colorado, CO, [5]Doctorate student, Tirupati, ANDHRA PRADESH, India, [6]Assistant Professor Entomology(Contractual), Badvel, ANDHRA PRADESH, India, [7]Post Graduate Entomology, Tirupati, ANDHRA PRADESH, India

Wild pollinator functional diversity across landscapes in Quebec's cranberry agroecosystems. **Alexa Brunet** (alexa.brunet@mail.mcgill.ca) and Jessica Gillung, McGill Univ., Sainte-Anne-de-Bellevue, QC, Canada

Impact of Elevated Temperature and Arbuscular Mycorrhizal Fungi on *Medicago truncatula* Growth and Pea Aphid Interactions. **N.M Asif Billah** (bill3117@bears.unco.edu), Univ. of Northern Colorado, Greeley, CO

Ecosystem Services and Integrative Systems in Agriculture 10-Minute Presentations

Monitoring entomofauna as an indicator of soil health in the agroecosystems of Imbabura. **Julia Prado** (jkprado@utn.edu.ec)[1], Daniela Terán[1], Heidi Méndez[1], Julio Cabezas[2] and Magali Cañarejo[1], [1]Universidad Técnica del Norte, Ibarra, Imbabura, Ecuador, [2]Fundación EkoRural, Quito, Pichincha, Ecuador

Influence of pea-canola intercropping on parasitoid wasp diversity in an Albertan plot study. **Mary Asamudo** (masamudo@ualberta.ca), Univ. of Alberta, Edmonton, AB, Canada

Host plant selection and performance of ambrosia beetles in flood-stressed versus ethanol-injected trees provide implications for management strategies. **Juan Carlos Cambronero-Heinrichs**

(juancarlos.cambroneroheinrichs@studenti.unipd.it)[1], Christopher Ranger[2], Giacomo Santoiemma[1], Giacomo Cavaletto[1], Francesca Carloni[1], Andrea Battisti[1], Franco Meggio[3] and Davide Rassati[1], [1]Laboratorio di Entomologia, Dipartimento di Agronomia, Animali, Alimenti, Risorse naturali e Ambiente (DAFNAE), Università di Padova, 35020, Legnaro PD, Italia., Padova, Italy, [2]USDA - ARS, Wooster, OH, [3]Univ. of Padua, Padova, Padova, Italy

Harnessing ecosystem services from dark taxa: *Synopeas* (Hymenoptera: Platygastridae) and the soybean gall midge *Reselliella maxima* (Diptera: Cecidomyiidae). **Jessica Awad** (platygastrinae@gmail.com)[1], Elijah Talamas[2], Sarah von Gries[3], Gloria Melotto[4], Robert Koch[3] and Amelia Lindsey[3], [1]Naturalis Biodiversity Center, Leiden, South Holland, Netherlands, [2]Florida Dept. of Agriculture and Consumer Services, Gainesville, FL, [3]Univ. of Minnesota, Saint Paul, MN, [4]Universidade Estadual Paulista, Botucatu, Brazil

Tuesday, April 8, 2025

Education and Outreach Plenary

Moderators and Organizers: Wyatt Hoback, Oklahoma State Univ., Stillwater, OK

Education and Outreach Introduction. **W. Hoback** (whoback@okstate.edu), Oklahoma State Univ., Stillwater, OK

Measuring entomology literacy with the EntoEdu international survey instrument. **Andrea Lucky** (alucky@ufl.edu), Univ. of Florida, Gainesville, FL

Can commodity crops have a sustainable production? The Brazilian soybean example **Adeney Bueno** (adeney.bueno@embrapa.br), Embrapa Pesquisa e Desenvolvimento, Londrina, Brazil

Teaching beyond boundaries: Formal and informal mentorship in entomology. **Muhammad Ullah** (muhammad.irfanullah@uos.edu.pk), Univ. of Sargodha, Sargodha, Punjab, Pakistan

Using unique entomo-travel experiences as a tool to generate excitement and support for research and conservation.. **Jace Porter** (Jaceporter@entomologycoalition.org), Global Entomology Coalition, Rochester, NH

Education and Outreach 10-Minute Presentations

Moderators and Organizers:

An entomological laboratory is also a need for cultural heritage conservation. **Rosa Burgos-Chaidez** (rosa_burgos@inah.gob.mx), National Institute of Anthropology and History - INAH Mexico, Mexico City, DF, Mexico

Words matter: Empathetic interpretation can increase children's positive perceptions of cockroaches. Emily Geest (egeest@okczoo.org), Oklahoma City Zoo & Botanical Garden, Oklahoma City, OK

General Posters

BedoukianBio: Insect Phermones And Biochemicals. **Thomas McLemore** (tmclemore@bedoukian.com), Bedoukian Research Inc., Danbury, CT

Biting behavior against *Varroa* mites in honey bees is associated with changes in the mandibles. **Hongmei Li-Byarlay** (hli-byarlay@centralstate.edu), Kaila Young and Xaryn Cleare, Central State Univ., Wilberforce, OH

Discover the International Branch of the ESA - Who are we and why should you join? **Véronique Martel** (veronique.martel@nrcan-rncan.gc.ca)[1] and Pauline Deschodt[2], [1]Natural Resources Canada, Québec, QC, Canada, [2]Univ. of British Columbia, Vancouver, BC, Canada

Using pheromone traps and microorganisms to manage click beetle in field crops. **Julien Saguez** (saguezj@yahoo.com), CÉROM, Saint-Mathieu-de-Beloeil, QC, Canada

Within-plant herbivory variability enhances ant recruitment and predation via extrafloral nectar induction in wild cotton. **Víctor Hugo Ramírez-Delgado** (victoramirezd@gmail.com)[1], Yeyson Briones-May[1], Alejandra Garnica-Cabrera[1], Juan Sánchez-Durán[1], Lucía Martín-Cacheda[2], Xoaquín Moreira[2], Ted Turlings[3] and Luis Abdala-Roberts[1], [1]Campus de Ciencias

Biológicas y Agropecuarias, Universidad Autónoma de Yucatán, Merida, YC, Mexico, [2]Misión Biológica de Galicia (MBG-CSIC), Pontevedra, Galicia, Spain, [3]Univ. of Neuchâtel, Neuchâtel, Switzerland

A silicon-rich biochar for noctuid pest management on soybean and sorghum: potential and processes. **Alain Ratnadass** (alain.ratnadass@cirad.fr)[1], Frederic Randrianarivelo[2], Océane Gonthier-Payet[1], Herlin Rakotosolofo[2], Irénée Promi[1], Aina Andrianantoandro[3] and Richard Randriamanantsoa[2], [1]CIRAD, Saint-Pierre, Reunion, [2]FOFIFA, Antsirabe, Madagascar, [3]Univ. of Antananarivo, Antananarivo, Madagascar

Diversity and pesticide exposure of pollen collected by honey bees and small carpenter bees. **Zhaorigetu Hubhachen** (hubhache@centralstate.edu)[1], Luke Hearon[2], Danielle Kroh[1], Sandra Rehan[3], Reed Johnson[4] and Hongmei Li-Byarlay[1], [1]Central State Univ., Wilberforce, OH, [2]The Ohio State Univ., Columbus, OH, [3]York Univ., Toronto, ON, Canada, [4]The Ohio State Univ., Wooster, OH

Rearing Ganaspis kimoroum (Gk) and Leptopolina japonica (Lj) on an artificial diet. **Maggie Freeman** (freemmag@oregonstate.edu) and Christopher Adams, Oregon State Univ., Hood River, OR

Investigating Parka® skin thickener for protection against spotted wing drosophila (Drosophila suzukii) oviposition under extreme pressure. **Christopher Adams** (chris.adams@oregonstate.edu), Oregon State Univ., Hood River, OR

Seasonal polyphenism in the Cherry X-disease vector leafhopper Euscelidius variegatus. **Yan Yan** (yanya@oregonstate.edu), Anders Wohler, Glimba Kelsey, Ashley Thompson, Kelley Asselin and Christopher Adams, Oregon State Univ., Hood River, OR

Phenology of Euscelidius variegates reared under controlled conditions. **Anders Wohler** (Anders.wohler@oregonstate.edu)[1], Yan Yan[2], Christopher Adams[1], Kelsey Glimba[2] and Ashley Thompson[1], [1]Oregon State Univ., Hood River, OR, [2]Oregon State Univ., hood river, OR

Oviposition Preference of Oregon Taylor's Checkerspot Butterfly (Euphydryas editha taylori). **Kelley Asselin** (kelley.asselin@oregonstate.edu), Oregon State Univ., Hood River, OR

The impact of flight on subsequent semiochemical-mediated communication in the mountain pine beetle, Dendroctonus ponderosae (Coleoptera: Curculionidae: Scolytinae). **Maya Evenden** (mevenden@ualberta.ca), Kelsey Jones, Leanne Petro, Antonia Musso, Rahmatollah Rajabzadeh, Guncha Ishangulyyeva and Nadir Erbilgin, Univ. of Alberta, Edmonton, AB, Canada

Bacterial communities identified from the salivary glands of vector species, Culicoides oxystoma Kieffer (Diptera: Ceratopogonidae). **Ankita Sarkar** (ankitasarkar785@gmail.com) and Abhijit Mazumdar, The Univ. of Burdwan, Burdwan, West Bengal, India

Major maize gene expression differences influencing compatibility of plant pathogen resistance and Beauveria bassiana efficacy towards maize caterpillar pests. **Patrick Dowd** (patrick.dowd@usda.gov), USDA, Peoria, IL

A systematic review of active surveillance methods used for detection of medically important ticks and tick-borne pathogens in the United States from 1944 – 2023. **Sulagna Chakraborty** (schkrbr4@illinois.edu)[1], Lee Ann Lyons[2], Fikriyah Winata[3], Nohra Mateus-Pinilla[4] and Rebecca Smith[5], [1]Univ. of Illinois Urbana Champaign, Urbana, IL, [2]USDA, Frankfort, KY, [3]Texas A&M Univ., College Station, TX, [4]Illinois Natural History Survey, Champaign, IL, [5]Univ. of Illinois, Champaign, IL

Plant-plant priming influences development of the diamondback moth Plutella xylostella. **M. Gabriela Bidart** (gbidart@bgsu.edu), Bowling Green State Univ., Bowling Green, OH

How Can ESA Help You Succeed? **Stacie East** (seast@entsoc.org) and Chris Stelzig, Entomological Society of America, Annapolis, MD

Microfilaments produced by eggs of Dalbulus maidis protect eggs against parasitoids. **Gustavo Moya-Raygoza** (moyaraygoza@gamil.com), Universidad de Guadalajara, Zapopan, Mexico

General 10-Minute Presentations

Puzzling taxonomy, ongoing speciation, and social parasitism: The case of the Nearctic "pyramid ants" (Formicidae: *Dorymyrmex)*. **Jill Oberski** (jtoberski@gmail.com), Senckenberg Institute for Nature Research, Frankfurt, Hesse, Germany

Flies as environmental drones for wildlife disease ecology: Tracking the persistence of *Histomonas meleagridis* in the black blow fly, *Phormia regina* (Meigen). **Makhali Voss** (mvoss2@vols.utk.edu), Univ. of Tennessee, Knoxville, TN

Local mosquito populations and their capacity to transmit Japanese encephalitis virus Genotype IV. **Astri Faizah** (astrinf@niid.go.jp)[1], Daisuke Kobayashi[1], Faustus Azerigyik[1], Ryo Matsumura[1], Haruhiko Isawa[1], Yoshihide Maekawa[1], Yukiko Higa[2], Kentaro Itokawa[3], Toshinori Sasaki[1], Kris Mulyatno[4], Sri Subekti[4], Maria Lusida[4], Etik Rohmah[4], Yasuko Mori[5], Yusuf Ozbel[6], Chizu Sanjoba[7], Tran Phong[8], Tran Tu[8], Shinji Kasai[9] and Kyoko Sawabe[1], [1]National Institute of Infectious Diseases, Shinjuku, Tokyo, Japan, [2]Nagasaki Univ., Nagasaki, Japan, [3]Japan Agency for Medical Research and Development, Tokyo, Japan, [4]Airlangga Univ., Surabaya, East Java, Indonesia, [5]Kobe Univ., Chuo, Kobe, Japan, [6]Ege Univ., Bornova, Izmir, Turkey, [7]The Univ. of Tokyo, Bunkyo, Japan, [8]National Institute of Hygiene and Epidemiology, Hanoi, Viet Nam, [9]National Institute of Infectious Diseases, Tokyo, Japan

Oviposition patterns of *Scirtothrips dorsalis*: Insights from different strawberry cultivars. **Lovely Adhikary** (l.adhikary@ufl.edu), Univ. of Florida, Wimauma, FL

The bite of neglect: feeding of entomophagous *Forcipomyia* spp. (Diptera: Ceratopogonidae) on silkworm *Antheraea mylitta* (Lepidoptera: Saturniidae). **Shuddhasattwa Maitra Mazumdar** (suddhamoitra@gmail.com)[1], Hasansab Nadaf[2], Hanmant Gadad[3], T Selvakumar[2] and Abhijit Mazumdar[4], [1]Central Silk Board, Dumka, Jharkhand, India, [2]Central Silk Board, Bilaspur, India, [3]Central Silk Board, Ranchi, India, [4]The Univ. of Burdwan, Burdwan, West Bengal, India

A novel Bayesian approach to discriminate related species within *Culicoides* spp. (Diptera: Ceratopogonidae). **Nabanita Banerjee** (nabanita.banerjee12@gmail.com) and Abhijit Mazumdar, The Univ. of Burdwan, Burdwan, West Bengal, India

Genetic Sabotage: CRISPR/Cas9-mediated disruption of mating signals in fall armyworm, *Spodoptera frugiperda (Lepidoptera: Noctuidae).* **Ashok Karuppannasamy** (ashokg3s@gmail.com)[1], Bhargava Nagaraja[2] and Asokan Ramasamy[3], [1]Tata Institute for Genetics and Society, Bengaluru, Karnataka, India, [2]Univ. of Agricultural Sciences, Bengaluru, Karnataka, India, [3]ICAR-Indian Institute of Horticultural Research, Bengaluru, Karnataka, India

Systematic review of residual toxicity studies of pesticides to bees and veracity of guidance on pesticide labels. **Leah Swanson** (lswanson@unbc.ca), Univ. of Northern British Columbia, prince george, BC, Canada

Seasonality of terrestrial insect communities at Sophia Point Rainforest Research Centre, Essequibo, Guyana. **Eric Stoll** (eric.stoll@uog.edu.gy), Univ. of Guyana, Georgetown, Demerara-Mahaica, region 4, Guyana

Phenology of Systena frontalis in ornamental container nurseries in Georgia. **Rajesh Vavilapalli** (rajesh4ento@gmail.com) and Shimat Joseph, Univ. of Georgia, Griffin, GA

Mosquito vectors of Japanese Encephalitis Virus (JEV) and their potential for establishment in New Zealand. **Matthew Howse** (matthew.howse@vuw.ac.nz), Victoria Univ. of Wellington, Wellington, Wellington, New Zealand

Generating GIS range maps for insects. **Brice Hanberry** (brice.hanberry@usda.gov), USDA Forest Service, Rapid City, SD

Wednesday, April 9, 2025

Insect Learning and Memory Plenary

Moderators and Organizers: Martin Giurfa, Sorbonne Univ., Paris, Île-de-France, France

Specific shifts in learning and memory in long-lived Heliconius butterflies. **Steve Montgomery** (s.montgomery@bristol.ac.uk), Univ. of Bristol, Bristol, Bristol, United Kingdom

Learning and discrimination of tastants in the honey bee. **Jean-Christophe Sandoz** (jean-christophe.sandoz@universite-paris-saclay.fr), CNRS French National Research Center, Gif sur Yvette, France

Are some bees smarter than others? Evidence of consistent cognitive proficiency in individual honey bees **Valerie Kuklovsky** (valerie.Kuklovsky@uni-konstanz.de), Univ. of Konstanz, Konstanz, Konstanz, Germany

Insect Learning and Memory Posters

Effect of foliar application of sugars on the nutritional status of apple leaves and their uses for controlling the codling moth in apples orchards. **Abdelkader Tiffrent** (abdelkader@univ-batna.dz), Laboratory of Improvement of the Phytosanitary Protection Techniques in Mountanious Agrosystems, Batna, Batna, Algeria

Insect Learning and Memory 10-Minute Presentations

Ionotropic receptors mediate olfactory learning and memory in Drosophila melanogaster. **Jawaid Ahsan** (jahsan@cub.ac.in), Central Univ. of South Bihar, Gaya, Bihar, India