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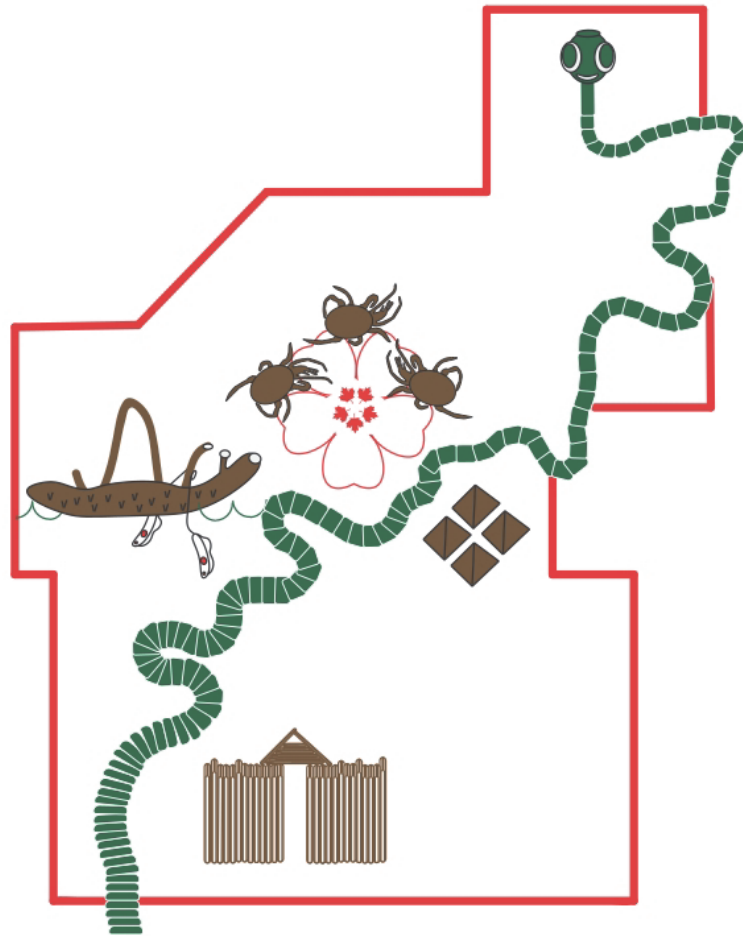
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The 91st Annual Meeting of the American Society of Parasitologists

The Westin Edmonton



Edmonton, Alberta, Canada
July 11-14, 2016

Program & Abstracts

- 10:15** (111) **S. Liu**, D.M. Roellig, Y. Guo, M.A. Frace, K. Tang, L. Zhang, Y. Feng, L. Xiao. REDUCTIVE EVOLUTION OF MITOCHONDRIAL METABOLISM AND DIFFERENTIAL EVOLUTION OF INVASION-RELATED PROTEINS IN *CRYPTOSPORIDIUM*.
- 10:30** (112) **D.J. Marcogliese**, **F. El-Shehabi**, K. Boyce, G. McClelland, C. Abbott. A MOLECULAR SURVEY OF ANISAKID NEMATODES FROM MARINE FISHES IN CANADIAN WATERS.
- 10:45** (113) **J. Sperling**, K. Lucas Silva-Brandao, M. Mendes Brandao, V. Lloyd, S. Dang, C. Davis, F. Sperling, K. Magor. ASSESSMENT OF BACTERIA IN BLACKLEGGED TICKS, *IXODES SCAPULARIS* (ACARI: IXODIDAE).
- 11:00** (114) **R. Ratnappan**, J. Vadnal, M. Keaney, I. Eleftherianos, D. O'Halloran, J.M. Hawdon. RNAI-MEDIATED GENE KNOCKDOWN BY MICROINJECTION IN THE MODEL ENTOMOPATHOGENIC NEMATODE *HETERORHABDITIS BACTERIOPHORA*.
- 11:15** (115) **G. Alama-Bermejo**, E. Meyer, S. Atkinson, A.S. Holzer, J. Bartholomew. WEAPONS OF A PARASITE: PROTEASES FROM THE TRANSCRIPTOME OF *CERATONOVA SHASTA* (CNIDARIA: MYXOZOA).
- 11:30** (116) **H.N. Cinar**, G. Gopinath, D. Choi, A. Im, R. Kim, A. Jang, E. Kim, H. Murphy, A. DaSilva. AMPLICON SEQUENCING OF MITOCHONDRIA GENOME USING NEXT GENERATION SEQUENCING FOR MOLECULAR CHARACTERIZATION OF *CYCLOSPORA CAYETANENSIS* IN PRODUCE.

8:00-11:45 am

Evolutionary Ecology II

Location: British Columbia

Presiding: **K. Lafferty**, US Geological Survey
M. Moser, University of California Berkeley

Time (Abstract No.)

- 8:00** (117) **C.J. Horn**, L.T. Luong. BIOENERGETIC RESPONSES TO PARASITE EXPOSURE AND INFECTION IN A FRUIT FLY HOST.
- 8:15** (118) **B.P. Ruehle**. RELATIONSHIP BETWEEN DIVERSITY AND ABUNDANCE OF PARASITES AND REPRODUCTIVE POTENTIAL IN TWO CYPRINIDS WITH DIFFERENT MATING STRATEGIES.
- 8:30** (109) **B.R. Krasnov**, I.S. Khokhlova, A. Degen, L.J. Fielden. HOST IDENTITY AND FLEA FITNESS: THE EFFECT OF PHYLOGENETIC DISTANCE BETWEEN HOSTS.
- 8:45** (120) **Z. Song**, H. Proctor. ELUCIDATING MECHANISMS AFFECTING ACANTHOCEPHALAN PREVALENCE IN FRESHWATER *GAMMARUS LACUSTRIS* AMPHIPODS.
- 9:00** (121) **Z. Zilz**, A.M. Kuris, R. Hechinger. MONTHLY VARIATION OF METACERCARIA ABUNDANCE OF TWO TREMATODE SPECIES IN THE CALIFORNIA KILLIFISH, *FUNDULUS PARVIPPINIS*, IN CARPENTERIA SALT MARSH.

9:15 (122) **K. Jacobson**, L. Weitkamp, D. VanDoornik, A. Aceves, J. Losee, R. Baldwin. TROPICALLY TRANSMITTED PARASITES REFLECT DIFFERENCES BETWEEN NATURAL ORIGIN AND HATCHERY PRODUCED JUVENILE PACIFIC SALMON IN FRESHWATER, ESTUARINE AND MARINE HABITATS.

9:30 (123) **S. Woodman**, C. Goater. FLOWER CHOICE OF *DICROCOELIUM*-INFECTED ZOMBIE ANTS.

9:45 – 10:15 am COFFEE BREAK

10:15 (124) **R. Donnelly**, J. Detwiler. TESTING FOR CRYPSIS WITH INTEGRATIVE TAXONOMY IN A NORTH AMERICAN ECHINOSTOME TREMATODE.

10:30 (125) **G. Sandland**, J.P. Peirce. LIFE-HISTORY RESPONSES OF AN INVASIVE SNAIL (*BITHYNIA TENTACULATA*) AND ITS TREMATODE PARASITE (*SPHAERIDIOTREMA PSEUDOGLOBULUS*) DURING A SIMULATED OVERWINTERING PERIOD.

10:45 (126) **M.A. Gordy**, J. Koprivnikar, L. Kish, V.K. Phillips, M. Tarrabain, P.C. Hanington. VARIATION IN DIVERSITY AND COMMUNITY STRUCTURE OF SNAILS AND DIGENEANS IN CENTRAL ALBERTA LAKE ECOSYSTEMS.

11:00 (127) **C. Goater**. DECOMPOSING ATTACHMENT AND DETACHMENT BEHAVIOURS OF *DICROCOELIUM*-INFECTED ZOMBIE ANTS.

11:15 (128) **V.M. Vidal Martinez**, A.C. Wunderlich. PARASITES AS BIOINDICATORS OF ENVIRONMENTAL DEGRADATION IN LATIN AMERICA.

11:30 (129) **H. Proctor**. DO FEATHER MITES COMPETE FOR SPACE ON THEIR HOSTS?

8:30-11:30 am Host-Parasite Interactions IV

Location: Yukon

Presiding: **R. Blaylock**, University of Southern Mississippi
J. Camp, Purdue University

Time (Abstract No.)

8:30 (130) **M. Batista Heitor Carneiro**, A. Romano, N. Doria, D. Sacks, N. Peters. INFLAMMATORY MONOCYTES, NOT TISSUE MACROPHAGES, ARE THE PREFERRED HOST CELL DURING THE EXPANSION PHASE OF INFECTION WITH THE OBLIGATE INTRACELLULAR PARASITE *LEISHMANIA MAJOR*.

8:45 (131) **A.D. Hernandez**, K. Philhower, D. Hoffman, M. Deganich. MACROPARASITE COMMUNITIES IN THE FISHES OF SACONY CREEK, PENNSYLVANIA.

9:00 (132) **H. Coatsworth**, P. Caicedo, G. Winsor, C. Ocampo, C. Lowenberger. FROM PHENOTYPE TO GENOTYPE: CREATING RESISTANT *AEDES AEGYPTI* TO PREVENT DENGUE TRANSMISSION.

and parasite interests to reduce their mutual risk of desiccation-induced mortality. Decomposing zombie behaviour into its fundamental components will help in our aim to uncover underlying mechanisms.

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PARASITES AS BIOINDICATORS OF ENVIRONMENTAL DEGRADATION IN LATIN AMERICA

V.M. Vidal Martinez, Centro de Investigación y de Estudios Avanzados del Instituto Politécnico Nacional
A.C. Wunderlich, Instituto de Biociências de Botucatu (IBB), Univ Estadual Paulista (UNESP)

Unregulated economic growth in Latin America has resulted in environmental degradation, including the release of toxic compounds to the environment. One strategy to understand and prevent the outcomes of this harmful environmental degradation is the use of bioindicators. These are free-living or parasite species that respond to habitat alterations with changes in their numbers, physiology or chemical composition. The aim of this review was to determine whether there is evidence of a significant parasite response to environmental damage in Latin America. We collected 27 papers published between 2003 and 2015 and conducted a meta-analysis to test the null hypothesis that there is no significant overall effect of environmental insults on parasites. The meta-analysis showed a low but still significant negative mean overall effect (-0.221; 95% CI: -0.241 to -0.200; $P < 0.0001$). However, the magnitudes and directions of the significant effects varied widely. These results suggest that different groups of parasites have distinct responses to various environmental insults and that the groups should be separately analysed after the accumulation of a sufficient number of studies. For future studies on this topic in Latin America, we suggest: 1) using field and experimental approaches to determine the response of parasites to environmental degradation; 2) using an interdisciplinary approach, including different type of biomarkers in both parasites and individuals hosts, to generate long-term data sets in polluted and reference areas; 3) conducting studies on parasites as accumulation bioindicators.

(129)

DO FEATHER MITES COMPETE FOR SPACE ON THEIR HOSTS?

H. Proctor, University of Alberta

Parasites and other symbionts often appear to be restricted to particular microhabitats on or in their hosts. A basic question is whether site-restriction is influenced by current competition among different parasite species occupying that host individual. Feather mites (Acariformes: Analgoidea, Pterolichoidea) inhabit all parts of the plumage of birds, including downy feathers and the flat vanes of the flight feathers. Most birds host at least two species of vane-dwelling mites. In this talk I present recent research on three bird-mite systems (two passerine and one seabird host) testing for evidence of competition for space or food on the flight feathers. Results show very strong microhabitat partitioning among co-existing mite species on flight feathers, but little evidence that the presence of mites of one species influences location of individuals of the other species. Stable-isotope and gut-content analyses indicate that mites on the seabird host consume similar foods. Site-specificity on host feathers may be a result of the Ghost of Competition Past.

(130)

INFLAMMATORY MONOCYTES, NOT TISSUE MACROPHAGES, ARE THE PREFERRED HOST CELL DURING THE EXPANSION PHASE OF INFECTION WITH THE OBLIGATE INTRACELLULAR PARASITE *LEISHMANIA MAJOR*

M. Batista Heitor Carneiro, Snyder Institute for Chronic Diseases, Microbiology, Immunology and Infectious Diseases Cumming School of Medicine, University of Calgary