

## Abstracts—Poster

**Jaimée Dupont (MSc candidate) *Bioscience, Technology and Public Policy.*  
Conservation and Enhancement of Poweshiek Skipper (*Oarisma poweshiek*)  
in Manitoba**

The Poweshiek skipperling (Lepidoptera: Hesperidae) is an endemic tall grass prairie species currently listed as threatened under SARA (Species at risk act) in Canada. The only Canadian populations of Poweshiek skipperlings are found in scattered pockets within the tall Grass Prairie Preserve in southeastern Manitoba. Key information gaps exist because there is limited data on the biology and conservation of the Poweshiek skipperling in Canada. Our research is designed to fill some of these information gaps as well as testing two key hypotheses regarding Poweshiek skipper movement and site selection. We hypothesize that Poweshiek skipperlings show preferential site selection based on vegetative and physical site characteristics and that Poweshiek skipperlings demonstrate minimal movement between preferred sites. The intention of this project is to test these hypotheses in order to improve current and future management strategies for the Poweshiek skipper in the Tall Grass Prairie Preserve.

**Timothy E. Nyhof (MA candidate) *Theology*  
Brotherly Love? The Cox Brothers and Dutch Catholic Immigration  
to Manitoba**

This paper seeks to explore and unravel some of the controversies regarding a Dutch settlement near Plumas, Manitoba just before the Great Depression of the 1930's. This emigration scheme was initiated by Cornelius Cox a recent immigrant, and his brother a priest in the Netherlands, with the tacit support of the Archbishop of Winnipeg. The settlement was not well received in the Netherlands by the Roman Catholic Emigration Society of Holland that actively and publicly worked against the settlement. The perceived damage from the Plumas venture to Dutch Catholic migration was considered so severe that it required the direct intervention of the Archbishop of Winnipeg to quell the controversy which had erupted in the Dutch Catholic newspapers and which had degenerated into a nasty war of words.

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## Special Thanks

*Keynote Speaker: Dr. Sonia Bookman, Assistant Professor, University of Manitoba Sociology Dept*

*Judge: Dr. Jennifer Brown, Canada Research Chair in Aboriginal Peoples in an Urban and Regional Context*

*Judge: Dr. Jacques Tardif, Canada Research Chair in Dendrochronology*

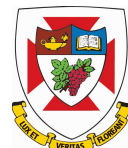
*Judge: Dr Charles Wong, Canada Research Chair in Environmental Toxicology*

*Opening Greetings: Dr. Neil Besner, VP (International) & Deputy Provost*

*Prize Presentation: Dr. Brian Stevenson, Provost & VP Academic*

*Moderators: Basil Elmayergj & Chris Wells*

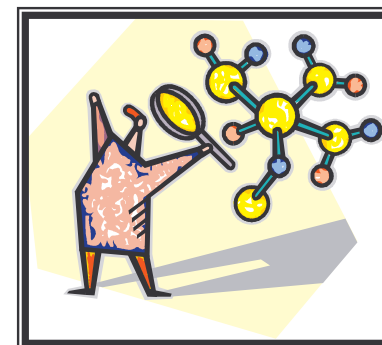
*Catering: Chartwells and the University of Winnipeg Faculty & Staff Club*



THE UNIVERSITY OF  
WINNIPEG



# Graduate Students Research Colloquium



*April 8, 2009*  
*9:00 AM—3:00 PM*  
*2M70*

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## Schedule of Events:

### Agenda:

8:00AM– 9:00 AM: Registration & Coffee

9:00 AM: Opening Greetings—Dr. Neil Besner

9:20 AM – 12:00 PM: Oral Presentations

12:00 PM – 12:45 PM: Poster Presentations

12:00- 1:30 PM: Lunch

1:30 PM: Keynote Speaker— Dr. Sonia Bookman, University of Manitoba  
“The Graduate Studies Journey”

2:00PM: Prize Presentation—Dr. Brian Stevenson

2:30 PM – 3:00 PM: Reception

## Abstracts—Oral

**Nada Sagga (MSc candidate) *Bioscience, Technology and Public Policy.***

**Reproductive isolation between two species of the *Drosophila virilis* group.**

Reproductive isolation prevents breeding between species. Traditionally, prezygotic (e.g. behavioural) and postzygotic (e.g. progeny infertility) barriers to reproduction have been studied. Species of the *Drosophila virilis* group have been traditionally studied as examples of behaviourally isolated species. However, females of some species are willing to mate and produce viable offspring with heterospecific males. We have surveyed *D. virilis* females from different geographic locations and identified that they hatch low proportions of eggs when mated with a heterospecific male. Using cell staining and microscopy techniques, we show that the unhatched eggs are unfertilized, which confirms a postmating prezygotic form of reproductive isolation. We are in the process of testing sperm transfer and storage inside the female reproductive tract to elucidate why eggs are not fertilized. These results contribute to the understanding of postmating- prezygotic isolation as a mechanism of isolation during species diversification and isolation.

**Dragana Majhen (MA candidate) *JMP Religious Studies***

**‘You are Crazy and that’s All Right, because We Have a Cure for You’: Buddhist and Taoist Approach to Mental Illness**

The pursuit of moral, physical, and social perfection has always been a great concern of Chinese thinkers and ideologists. Although approached from different starting points, Confucianism and Taoism, as Chinese indigenous philosophies, and Buddhism, as an adopted new spiritual character, strived to promulgate the idea of self-enrichment as their continuous and permanent activity. In this process, especially prior to the Song dynasty, a significant “borrowing” of their basic philosophical elements and their mutually syncretic metamorphosis was a common practice among these three religious communities. This paper focuses, firstly, on the historical situation of the time; second, on the partial exegesis of two classical texts; and third, on the analysis of the forms, methods, and broader context used to define mental instability within Buddhist and Taoist writings; with specific emphasis on *xin*, ambiguously understood and translated as heart or mind, the center of human rationale and vital energy that flows within.

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## Abstracts—Oral

**Siavash Darbandi (MSc candidate) *Bioscience, Technology and Public Policy***  
**Molecular Evolution and Gene Expression Analysis of Ryanodine Receptors (RyRs) Orthologues in bichir (*Polypterus ornatipinnis*).**

Ryanodine receptors (RyR) control the release of intracellular stores of calcium from the sarcoplasmic reticulum. This release of calcium is part of the signal transduction pathway that initiates muscle contraction. Three RyR genes have been characterized in mammals; RyR1 is expressed in skeletal muscle, RyR2 is expressed in cardiac muscle, while RyR3 is ubiquitously expressed. Additionally, in teleost fish, tissue-specific isoforms of RyR1 are expressed in the fast-twitch and slow-twitch skeletal muscles known as RyR1-fast (RyR1b) and RyR1-slow (RyR1a) respectively. Using molecular approaches including a genomic PCR survey and low stringency Southern blot analyses, I have preliminary evidence that bichir (*Polypterus ornatipinnis*) possesses orthologues for RyR1a, RyR1b, RyR2 and RyR3 genes. By employing quantitative Real Time PCR (qRT-PCR) I have preliminary evidence that RyR1b is highly expressed in skeletal muscle and liver tissue samples, RyR2 is highly expressed in cardiac tissue and RyR3 is predominantly expressed in brain samples.

**Timothy E. Nyhof, (MA candidate) *Theology***

**The Elusive Image of Anneke Janszdr. of Rotterdam!**

This paper is a critical review and examination of the changing image of the 16th century Dutch Anabaptist martyr Anneke Janszdr. Her image continues to pose a challenging conundrum within Anabaptist historiography due to her revolutionary song I Hear the Trumpet Blowing. The song with its vivid imagery and violent apocalyptic message has proven to be out of “step” with the historical construction of an irenic Dutch Anabaptism. At the same time her Testament to Isaiah written on the day of her martyrdom has proven much more difficult to interpret and categorise. This paper will suggest another image must be considered which will show a consistency between I Hear the Trumpet Blowing, and her Testament to Isaiah from a close read of her extant writings and Bibles written in the Dutch vernacular.

**Zhaopeng Fan (MSc candidate) *Applied Computer Science Program***  
**Pulse Wave Data Analysis**

We inspected the relationship between cardiovascular disease and clinical pulse wave data. The pulse wave data were collected from the Department of Cardiology at Shandong Provincial Hospital by infrared light pulse wave sensor. Based on the risk factors, Stiffness Index (SI) and Cardiac Output (CO) are utilized as the characteristics to detect cardiovascular disease. The results show a close relationship between cardiovascular disease and the derived pulse wave characteristics.

**Vignesh Sundararajan (MSc candidate) *Bioscience, Technology and Public Policy***

**Relative expression of spermatogenesis genes in parental and hybrids**

**species of *Drosophila simulans* and *Drosophila mauritiana***

Spermatogenesis is the process by which a single germ line stem cell develops into motile sperm. Spermatogenesis involves 4 developmental stages – initial proliferation, mitosis, meiosis and final maturation. Males from crosses between closely related species are often sterile, a common form of post-zygotic isolation. In hybrid male *Drosophila*, disruption of spermatogenesis results in the production of non-motile sperm. Our study focuses on detecting misregulation of spermatogenesis genes in hybrid relative to parental species of *Drosophila simulans* and *Drosophila mauritiana*. Candidate genes – nanos, bam, aly and scat were chosen as they are representatives of developmental stages during spermatogenesis. Preliminary results show that, except for scat, these genes are highly overexpressed in testes relative to the rest of the body. We are currently using polymerase chain reaction (PCR) to quantify differences in gene expression of the candidate genes between hybrids testes and parental species.

**Alex Paterson, (BA, MA candidate) *Aboriginal Governance Program***

**Locating Reconciliation: Peaceful Coexistence and the End of the State**

The research will be focusing on the possibility of meaningful and truthful reconciliation of a relationship that has been dominated by violence, disrespect and other forms of oppression. The research will also focus on developing an understanding of alternatives to state driven forms of coexistence and reconciliation. This paper will be a response to recent literature by Indigenous scholarship on how to shape the relationship between settlers and Indigenous peoples. This paper will conceptualize how it is necessary to build relationships of solidarity outside the state to have meaningful reconciliation. This paper will develop a concept of shared oppression and coalition building. This paper will be grounded in Anishinaabeg and Anarchist Philosophy.