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Presentation and Poster Abstracts

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Asset Mapping: A Case Study

Valencia Gaspard, Scott Brown, Lissel Hernandez Gongora, and Renee Le Roux
PhD in Rural Studies | gaspardv@uoguelph.ca

Four Rural Studies students from The University of Guelph were asked to develop a community-based tool that fosters strategic, transparent, sustainable decision-making in the rural Ontario municipality of Grey Highlands. In this presentation, we would like to unpack both the processes of collaboration with the Municipal sub-committee and the processes of community engagement that went into building the deliverable of the project -- a framework connecting community-identified assets to the community capitals framework. Our presentation is broadly related to the notion of regional development and more specifically, the capacity of regional governments and communities to "maintain a pulse" on and build connections between their own regional assets.

Key words: Asset mapping, community identity

Before the Bulldozer Hits the Ground: Measuring Farmland Loss in Ontario

Sara Epp and James Newlands
PhD in Rural Studies | sepp@uoguelph.ca
MSc in Rural Planning and Development | newlandj@uoguelph.ca

Rural Ontario is in a constant state of change, as economic, environmental and political pressures impact the viability and resilience of many rural communities. Agricultural areas, in particular, are often negatively impacted by such changes, as this land may be more valuable for development purposes. Farmland is often redesignated to residential, commercial or aggregate land uses, among others, significantly impacting the viability of the agricultural industry. The future sustainability of agriculture in Ontario is dependent upon a stable land base and precise understanding of the availability of farmland. To date, accurate data regarding the amount of farmland being converted to non-farm land uses is not available as existing methods have significant limitations regarding data accuracy, consistency and timing. This research seeks to evaluate the current state of Ontario's farmland in terms of the land available and policies regarding land conservation. In order to ensure that farmland is available, it is necessary to measure the existing land base and determine the quantity of land being lost to development. This study has developed a new methodology for measuring the amount of farmland converted to non-farm land uses through official plan amendments and has been applied to nine regions and counties in southern Ontario. This presentation and poster will detail this new methodology and provide an analysis of the data collected to date. Recommendations regarding policy development, challenges associated with data collection and future research will also be presented.

Key words: Greenbelt; Urban Sprawl; Farmland Protection

Educating Producers to Systematically Evaluate the Cows they are Culling

Allison Moorman

Master of Population Health | amoorman@uoguelph.ca

Our research will assess the effectiveness of an effort to educate Ontario dairy producers to systematically evaluate the cows they plan to cull. Using a number of health and welfare-related criteria, our team aims to advance decision-making of producers regarding whether culled cows are fit for transport. Our goal is to educate dairy producers to eliminate the shipping of unfit cows, involve their veterinarians in the decision-making process, and to encourage development of standard operating procedures (SOPs) for evaluating cull cows.

Currently, Ontario's dairy industry lacks a systematic evaluation method to aid producers in the decision to remove and transport cows. Moreover, the dairy industry's proAction initiative requires all farms to have a documented SOP regarding the shipping of cattle. Additionally the veterinary community is interested in being more involved in the SOP development and decision-making process on their client's farms.

This pilot research project will run from January to April 2017, inclusive. Twenty bovine veterinarians have been recruited to each enrol 10 of their dairy clients. Veterinarians will provide their clients with a Pre-survey, Cull Cow Evaluation Forms, an information package, and a Post-survey. The Pre-survey is intended to gauge the knowledge of dairy producers regarding culling and shipping cattle and assess their current attitudes and practices. The producers will then be asked to complete an Evaluation Form for every cow they cull from the milking herd during the study period. A Post-survey will then be sent to the producers to assess if their attitudes and practices have changed .

Key words: Cull cow, dairy cattle, transport

Essex County Agri-Tourism: Exploring Regional and Farm-Level Diversification

Heather Reid

MA in Geography | hreid06@uoguelph.ca

The character of many Canadian rural regions is changing rapidly as farms continue to become larger and more specialized and new (ex)urban actors influence rural economies with new expectations of rural space. In Essex County, Ontario, this changing character is being directed, in part, through tourism promotion and by leveraging its location within a designated wine appellation. As tourism is being pushed to a more prominent position within the County's brand, farmers are provided opportunities to capitalize on increased visitation and an evolving perception of the region. Considering this regional context, this research aims to explore the uses of and motivations behind agri-tourism in Essex County, Ontario by three stakeholder groups:

farmers, winery owners, and the Destination Marketing Organization (DMO). To accomplish this, document analysis was conducted alongside interviews with agri-tourism providers and DMO representatives. The dominant narrative emerging from analysis is the development of an emerging tourism destination. While winery owners actively collaborate to co-create a wine destination with the help of the DMO, farmers who have diversified into agri-tourism provision are more likely to work in silos and cultivate a personal niche without regard for a regional brand or destination creation. Though tourism promotional materials emphasize local food and beverages, it is questionable if farmers are actively buying into or are aware of this potential tourism opportunity. This research contributes to an understanding of Canadian farm diversification, particularly within the context of an emerging tourism destination.

Key words: agri-tourism; farm diversification; rural tourism

Exploring the Transitory Experiences of Immigrants in Rural Ontario

Pallak Arora

MSc in Community Development and Extension | pallak@uoguelph.ca

Immigration has been an important characteristic of the Canadian society for hundreds of years as it has often been used as a tool to maintain the demographic trends in the country. Historically, most immigrants have chosen to migrate to urban areas, especially the three metropolitan cities: Toronto, Montreal and Vancouver. Immigrants make this choice due to a variety of reasons including job opportunities, social networks, family etc., all of which are perceived as abundant in urban centres. However, the current state of rural areas in Canada has created a need for attracting and retaining immigrants. I would like to focus in rural Ontario which, like most rural areas in the country, is experiencing a relative decline in population due to out-migration of youth and an ageing cohort of baby-boomers. With continuing low birth rates, rural Ontario will have to rely on transforming communities to become more attractive for immigrants. Through my research I present an exploratory case of immigrants who are currently living in Bruce and Grey county. The research delves into unique stories of individuals- their successes and challenges by painting a picture of the life of an immigrant in a rural Canadian town.

Key words: rural, immigration, transition into Canadian culture, small town, rural immigrants

127-I levels in Ontario Bulk Tank Milk and its Association with Groundwater, Milking Management, and Other Risk Factors

Courtney Rogerson

MSc in Epidemiology | crogerso@uoguelph.ca

The objectives of the present study were to determine the iodine concentration in milk sampled from 80 commercial dairy farms located in eastern (n=58) and southwestern (n=22) Ontario, and to identify if the iodide content of groundwater consumed by the lactating herd, along with other factors, are associated with higher bulk milk iodine (BMI). A bilingual questionnaire addressing water consumption, nutrition, milking management practices, and well characteristics was completed by each producer. The 127I concentration in milk and groundwater samples was established using inductively coupled plasma mass spectrometry. Potential predictor variables were screened for univariable significance ($p < 0.05$), and a general linear regression model was fitted to assess associations between BMI and explanatory variables such as 127I in water, well depth and age, water treatment, the use of iodine-based pre or post-dips, application strategies and post-dip coverage goal. Results of the data analysis suggest that there is a strong positive correlation between the iodide content of groundwater and BMI levels ($p < 0.001$). Post-milking practices including the use of an iodine-based teat disinfectant, the application strategies of a post-milking teat disinfectant and overall coverage goal of the solution on teats were also significantly ($p < 0.05$) associated with increased BMI levels. These results suggest a significant association exists between BMI levels in relation to post-milking management practices and the iodine content in groundwater consumed by the lactating herd. Post-milking practices and drinking water containing excessive levels of iodine should be monitored frequently and where needed mitigation strategies implemented to prevent high BMI levels on farm.

Key words: Milk; Iodine; Dairy Cow

KTT in a Digital Age

Michelle Linington

Animal Science | mliningt@uoguelph.ca

Since the dawn of agriculture there has been a need to communicate in order to optimize production and yields. Extension and Knowledge Technology and Transfer (KTT) has seen a lot of changes over the past 100 years. None of these were as great as in the introduction of the Internet and computer technology. With this rapid change in technology, KTT workers and consultants have to adapt how information is getting to producers.

Though majority of farms still prefer hard copies of publications and research, we are seeing an increase in the amount of material found online. We have also seen a shift

away from demo days and on farm consultations, in order to use webinars, podcasts and social media. Farmers have been labelled as 'slow to adapt', but this is not just a generational gap anymore. Herd size, producer personalities and delivery methods all effect how the producer wants to receive information.

Though the industry is good at producing information, it is important to get it into the producers hands. Until the digital space becomes the norm for all producers there is a need to view the trends in KTT and combine traditional and new age communication methods in order to reach all farmers. As technology continues to change there will be a constant need to change how we are reaching producers while continuing with the KTT methods that have worked in the past.

Key words: KTT, Communications, Farmers

Migrating Mennonites: Understanding the Impacts of Anabaptist Farmers on Local Food in Northern Ontario

Sara Epp

PhD in Rural Studies | sepp@uoguelph.ca

As the cost of farmland in southern Ontario continues to increase, many farmers are seeking alternate locations suitable for agriculture. Northern Ontario, with an abundance of productive, less expansive land, has proven to be an opportune location for many farmers. In particular, over the past fifteen years, a significant movement of Amish and Old Order Mennonite farmers to northern Ontario has occurred. These farmers have increased access to local food, broadened the productive spectrum of crops and improved food sovereignty for many communities. Their impact on local communities has been significant, as has their impact on the broader farm community. Utilizing traditional farming practices, the Anabaptist community has significantly broadened the productive potential of northern farms, producing fruits and vegetables previously not grown locally. The potential to expand agriculture in northern Ontario is apparent and food sovereignty and security may be improved with the growth of this industry. As the potential movement of more Anabaptist farmers to northern Ontario is likely, it is important to understand their motivations to farm in the north and the challenges they incurred during and after this move. As part of this, this presentation will identify the impacts of Anabaptist farmers on both the production and consumption of local food in northern Ontario. Additionally, challenges regarding the expansion of agriculture in the north for Anabaptist farmers will be identified and opportunities to apply these lessons to the overall agricultural industry will be provided.

Key words: Local food, food security, northern Ontario

Music as Discourse to Inform Rural Policy: A Case Study of the Mayangna Artistic Initiatives in Nicaragua

Mery Perez

PhD in Rural Studies | mperez@uoguelph.ca

The conflicts that have recently intensified around land access by indigenous communities and extractive industries have highlighted a need for the development of rural policy that incorporates diverse perspectives. In North America, this has been exemplified by issues around the construction of oil pipelines which threaten resources that are considered sacred components of indigenous cultural heritage as well as their means for sustenance. Similarly, in Latin America, indigenous people face insecurity as their environments are taken by corporations and colonists whose practices are less sustainable. Community activists have responded by carrying out sit-ins and artistic and ceremonial performance, hoping to inform the creation of policies or enforce existing ones. From a performance theory and discourse analysis perspective, this presentation considers that such conflicts emerge out of clashing discourses on social justice and the relationship between humanity and nature. It also posits that artistic expression is an embodiment of these perspectives and suggests that an analysis of the discourse of music performance allows stakeholders to identify sustainability principles that are essential to Indigenous peoples. Through an in-depth case study focusing on the current struggle for land in which the Mayangna indigenous communities of Nicaragua are engaged, I argue that artistic performance remains a key example of discourse whereby communities express and concretize relationships. Understanding this process of knowledge exchange is critical for fostering collaborative relationships with Indigenous people. The outcomes of this research will inform rural policy and development that may be applicable to Ontario or other rural development environments.

Key words: Indigenous knowledge, social justice, discourse analysis

Precarious Employment in Rural Ontario

Valencia Gaspard

PhD in Rural Studies | gaspardv@uoguelph.ca

In collaboration with colleagues from around Ontario and OMAFRA, I am pursuing a project reviewing the impacts of precarious employment on the social, emotional and physical health of rural communities in Ontario. This presentation will share what is known about precarious employment as a rural trend through the project's findings to date. This project's outcomes will be useful in crafting rural policy and programs, mitigating the negative impact of precarious employment trends and better understanding holistic community health.

Key words: Precarious employment, labour

Private Water and Wastewater System Policy Implementation: The South vs The North

Stephanie Worron

MSc in Rural Planning and Development | sworron@uoguelph.ca

Across Ontario the policies surrounding private on-site and private communal water and wastewater systems remain inconsistent. The provincial policies surrounding these types of systems are lacking and continue to fail in dealing with the realities of the North. In Northern Ontario, a strong basis of municipal government is not present which results in the lack of implementation of current provincial policies. Even though the land area may seem large for some of these municipalities they still are not considered large governing bodies. In the South however, even the small-medium sized municipalities have much more power than one of the equivalent size in Northern Ontario, and about twice the financial backing to run their operations. As a result of this shift in the power of a municipal office, policies such as wastewater treatment, inspection protocols, water quality testing, and system management are not given the adequate implementation as required to provide effective protection of the natural environment. In this presentation we will discuss what would work for Ontario in terms of policy implementation for these types of systems in a more broad sense. We will also outline effective implementation tools which will allow for these smaller municipalities to gain the skill easily enforce these policies for private communal and private on-site systems to ensure further protection of our natural resources for many generations to come.

Key words: rural water systems

Radio+ and Open Source Software for Mobilizing Knowledge for Sustainable Agriculture in Sri Lanka

Faria Rashid

MSc in Community Development and Extension | rashidf@uoguelph.ca

Information and Communications Technologies (ICTs) considered an important platform towards sustainable agriculture, specifically when mobile and Free and Open Source (FOSS) applications are used to broadcast radio referred to here as Radio+.

Radio+ plays an important role in educating and entertaining farmers and give beneficial farming information. Radio+ can encourage younger farmers to increase their participation in the agricultural sector and motivate them to use new ideas and techniques for agriculture. In order to boost sustainable agricultural systems, Free and Open Source (FOSS) applications recognized for low cost and user-friendly platform used on mobile devices such as Smart Phones.

In Sri Lanka, partners including the Department of Export Agriculture, Wayamba University and LIRNEasia collaborating with researchers at the University of Alberta and University of Guelph have created a community of practice for farmer media convergence. A partnership development grant from the Social Sciences and Humanities Research Council of Canada (SSHRC) in 2012 enabled the partners to establish a community-university research partnership in order to explore the potential for low cost ICTs to enhance knowledge mobilization practices within agricultural communities of practice in Sri Lanka. This paper outlines the experiences of the initiative and its use of Open Source (FOSS) and radio+ for sustainable agriculture in Sri Lanka.

Keywords: sustainable agriculture, low cost ICTs, Radio+, mobilizing knowledge

Regional and Rural Broadband Policy and Programming

Mamun Chowdury

PhD in Rural Studies | mchowdur@uoguelph.ca

Higher speed broadband services are considered as fundamental requirement for digital economy. Availability and usability of internet connected applications is now demanding more bandwidth and capacity in broadband services. Rural people are not excluded from this wave of usage. Focusing on SW Ontario, my research project will employ continuously updated datasets and develops and conducts outcome analysis for public broadband investment, primarily with partners in the Southwest Integrated Fibre Technology (SWIFT) network. The research will combine empirical research methods with an underlying action research process recommended by relevant literature that encourages analytical tools and findings for relevant stakeholders. The research will advance existing efforts to conduct collaborative, well-structured and systematically updated quantitative data analysis for reporting on opportunities and obstacles in current and prospective digital economy infrastructure, applications and adoption in SW Ontario. This analysis will inform evidence-based policy and decision making in various governments. This research will also support other agri-food/rural related policy and programming focused on specific digital investments including identifying connectivity for new ICT applications useful for cost-savings in rural public services or 'next generation' agri-food network technologies (e.g. Precision agriculture research). Health and education sector applications are also relevant. This analysis will support job growth and economic benefits in rural Ontario.

Key words: Broadband, rural and regional economic development, SW ontario, Precision Agriculture

Rural Educational Tourism's Potential

Danielle Robinson

PhD in Rural Studies | drobin11@uoguelph.ca

Growth trends in life-long learning, and rural tourism indicate potential for the rural educational tourism sector; however, there is very little empirical research on how this niche tourism, which may include activities such as, agricultural school excursions/exchange programmes, “farm-to-table” culinary courses, artisan craft programs, etc., might build local capacity, support sustainable rural economies, and mobilize place-based ways of learning that are required for global sustainability. This research project, which is at the conceptual/exploratory stage, aims to explore the economic, social and environmental impacts of rural educational tourism. There is no existing research that brings together rural development and place-based educational tourism in a Canadian context. Sub-questions with particular relevance to rural development policy and planning include: How was rural educational tourism integrated within a greater economic and learning development strategy? What new roles and competencies did stakeholders require and how were they developed? What changes from traditional forms of policy development were required? How were issues of sustainability, environmental impact, and conservation addressed? How did the quality and quantity of interconnections change? Since educational tourism has received very little research attention, comparative case studies with mixed methods are a suitable approach. I hope to include educational tourism activities in rural Aboriginal communities, pending consultation, and with an understanding of Aboriginal research as being research by and with Aboriginal Peoples. My approach emphasizes and values the existing strengths, assets and knowledge systems of rural communities.

Key words: place-based knowledge, rural tourism, economic development, education

Rural Space and Social Enterprise

Scott Brown

PhD in Rural Studies | sbrown08@uoguelph.ca

Geography and the spatial have been pushed to the periphery in terms of how we think about and imagine change; we are more likely to rely on history and time as the great theatres of change. However, there has been a slow “turning” toward a re-recognition of the spatial, and this unleashing of spatial thinking and the 'spatial turn' is quite profound for rural research and rural policy building in general. My presentation will push off from this premise and hone in on my own research focus more specifically, an investigation of the spaces of rural social enterprise. Utilizing the “spatial dialectics” of Henri Lefebvre, I would like to unpack briefly what a spatial understanding of social enterprise might look like and what this understanding means for rural policy.

Key words: place-based policy, geography, social enterprise

Supporting Local Food in Northern Ontario

Katherine Howes

MSc in Rural Planning and Development | khowes@uoguelph.ca

In attempting to understand the challenges faced by Northern Ontario with regards to locally produced food, this research is focusing on inventorying the existing production and distribution services available to farmers in Northern Ontario. Working with several Northern Ontario organizations including RAIN (Rural Agri-Innovation Network), NOFIA (Northern Ontario Farm Innovation Alliance), Northern Producer Animal Health Network, OFA and OMAFRA, a directory of these services ranging from production level services (veterinarians, crop advisors) to value added services (dairies, creameries) to distribution and retail services will be compiled to both identify where gaps in services exist and to also inform existing and potential Northern Ontario farmers of the existing services available to them. This project will attempt to link not only producers and distributors but also various communities through a networked approach. It will also identify systems currently in place to produce and distribute food and will identify best practices for increasing access to local food.

Key words: Local Food; Agriculture; Northern Ontario