

First Name	Last Name	Abstract
Upendra	Bom	<p>Understanding the relationship between rise in the average CO2 emission and crop yield change in developed and developing countries in 2020.</p> <p>The United Nations Millennium Summit in 2000 prompted many countries across the globe to step up their efforts to achieve newly established Millennium Development Goals to increase food security in their region. However, climate change is expected to affect agricultural crop yields, farming systems and challenge food security all over the globe. The concentration of carbon dioxide is a major greenhouse gas contributing to global warming and variability in crop yields. Studies to understand elevated CO2 emissions and crop production have shown conflicting results in the yields of annual crops such as wheat and rice. In this context, the paper attempts to reconfirm the relationship between projected CO2 emission in atmosphere and its impact on yield change of wheat and rice production in developed and developing nations in 2020. The data used for this study were downloaded from Socioeconomic Data and Applications Center online that included average Carbon dioxide emission in the atmosphere in 2000 and future projections of CO2 average emission an emphasis on Fossil Fuels (A1FI) scenarios in 2020. In order to see level of association among developed and developing nations in their yield change, the Chi-Squared Tests were conducted separately for each crop. The result showed that the level of development does not have clear projection of wheat yield change with rise in CO2 in 2020. However, there is a strong association decrease in yield change in developed and developing nations, supporting direct impact of CO2 due to direct physiological effect of CO2 on crop yield.</p>
Saber	Brasher	<p>Human use of and developments on coastlines continue to increase. When tropical cyclones strike coastlines, they cause financial damage and create problems for human livelihood. Tropical cyclones have been increasing in destructiveness over the past 30 years, and with this upward trend comes an increase in tropical cyclone destructive potential. To better prepare for such occurrences, this study examines the trend in accumulated cyclone energy (ACE) for the North Atlantic Basin from 1900 to 2015. This study also addresses trends in North Atlantic tropical cyclones and major North Atlantic tropical cyclones (Saffir-Simpson scale 3-5) to determine whether long-term changes in storm intensity exist. In addition, we provide a statistical description of North Atlantic tropical cyclone characteristics to document their inter-annual variability.</p>

Alejandro	Cascante	<p>Title: What Kind of Geography Education Research is Being Developed in Latin America? A Review of Open Access Journals from 2005 to 2015.</p> <p>Abstract: The status of Latin America geography education research is widely unknown, despite the existence of several geography departments and hundreds of publications in open access journals within the region. The paucity of work addressing the development of geography education research affects the recognition of what scholars have been working on, areas of research that should be developed or improved, as well as, the opportunities for developing collaborative research within the region and with other members of the international geography education community.</p> <p>The present study contributes to the analysis of how geography education research has been developed in the past decade in the region. The research explores the spatial and temporal patterns of research on geography education, based on the publications in Latin American open access journals from 2005 to 2015, In addition, the study explains the features that characterize the most relevant areas of research identified. The research analyzed 925 articles of 123 open access journals from eight countries who have published geography education research.</p> <p>The results inform of an increasing number of publications over time, although such growth is associated to regional disparities. In addition, the patterns of geography education research indicated the need to increase the efforts for developing studies in topics not commonly explored in Latin America such as, the use of geospatial technologies in geography education, geospatial thinking, learning progressions, online learning, assessment and research practices.</p>
Isaac	Colmenero	<p>According to the Garland Encyclopedia of World Music, cumbia is a “Colombian genre of Caribbean music, existing in both rural and urban forms, the latter popular throughout Latin America's Pacific rim regions from Chile to Central America and Mexico as a salsa genre; (2) Panamanian group circle dance.” This paper will explore the origins of Cumbia music; how it began in Latin America, hybridized with popular music in the United States, and migrated back to Latin America. Texas based cumbia musicians will be asked a series of questions and mental map surveys will be given to see how they perceive geographic space. The mental maps are then analyzed with the interviewed musicians’ compositions and compared to the level of penetration in markets outside of Texas and the United States.</p>

Camille	Cotsakis	<p>Using the case of a recently established inner city vineyard in Cleveland, Ohio, this research explores the extent to which grassroots, community-based initiatives might have the capacity to improve conditions in persistently declining neighborhoods in the U.S. Drawing on numerous indicator variables from a variety of secondary data sources, descriptive and inferential statistical analyses are employed in a comparative study of “social capital” in three Cleveland neighborhoods: (1) Hough, which is where the vineyard was created in 2010; (2) Fairfax, a comparison neighborhood adjacent to Hough; and (3) Central, a second comparison neighborhood southeast of Hough. Change in six surrogate variables of social capital are analyzed in Hough as well as the two comparison neighborhoods for the period 2005-2009 through the period 2011-2015. Because social capital is not well defined as an empirical measure, the six adopted indicators are drawn from existing literature, and all are included in the study for purposes of triangulation. Similarly, two comparison neighborhoods are selected for the analysis, rather than one, for robustness. That being said, by bringing together data from multiple sources and comparing Hough to two similar neighborhoods over time, the paper aims to create strong circumstantial evidence that community-based vineyards—and grassroots, community-based urban agricultural projects more generally—plausibly have value for improving conditions in neighborhoods with histories of urban decline.</p> <p>Key words: social capital, vineyard, urban agriculture, community building, urban decline</p>
Graham	Daly	<p>Social Demand of a Blue Space: Use, Values, and Perceptions of the San Marcos River, Texas</p> <p>Rivers provide a multitude of ecosystem services. While many studies have quantified the biophysical ecosystem services provided by rivers, fewer have quantified the social demand for ecosystem services. In this place-based study, we surveyed 3,193 people who visited or lived near the San Marcos River, including Texas State University students, residents, tourists, and business owners. The San Marcos River is an extremely sensitive yet highly utilized river where town-gown relationships are reinforced between Texas State University and the City of San Marcos. The analysis of response data yielded one of the largest and most comprehensive assessments of social demand for an aquatic landscape. Most stakeholders surveyed (93%) had visited the San Marcos River and were in some form of agreement with the San Marcos River providing benefits to human well-being (92%). While only 59% of respondents perceived the river as well managed and well protected, 76% indicated that the river is sensitive to rapid, urban growth. The main objective of this study was to generate a better understanding of how stakeholder groups use, value, and perceive the river from a socio-demographic perspective while exploring significant factors that contribute to the social demand for ecosystem services. The results revealed that certain lifeworld experiences disproportionately impact respondent use, value, and perception of ecosystem services. Our assessment offers a quantitative means to measure, discuss, and predict stakeholder use, value, and perception of ecosystem services.</p>

Mark	Deka	<p>Migratory and seasonal (MSFW) farmworkers contribute greatly to the U.S. economy. In recent decades their unique status has propelled research into various aspects of health and preventative measures, however even with an increased focus, geographic exploratory analysis on chronic disease is currently lacking in scope. This study explores the geospatial distribution of diagnosed cases of diabetes, hypertension, and obesity at health centers serving migratory and seasonal agricultural populations in western Michigan from 2010 - 2015. Examining the geospatial distribution of chronic disease among the migratory and seasonal farmworker (MSFW) community is critical first step for future efforts to increase advocacy and to determine current gaps in healthcare coverage.</p>
Walter	Furness	<p>Apples as actors: An actor-network approach to understanding fermented landscapes</p> <p>This exploratory paper attempts to apply the actor-network theory (ANT) framework to apple (cider) production and consumption at two scales -- one hyper-local and one hyper-global -- utilizing the concept of "fermented landscapes," an analytical framing that seeks to uncover processes of social and physical landscape change as driven by fermentation. Through the fermented landscapes lens, landscapes of production are entwined with landscapes of consumption, resulting in real, material consequences—both for "better" and for "worse"—in communities and environments across the globe. Explored here are two specific cases of apple (cider) production, processing, and consumption: small-scale, locally-distributed cider in Herefordshire, England, and internationally produced and distributed "Cidre" from Stella Artois. This paper traces the connections between actors of all kinds related to fermented apple cider production, including growers, fermentation craftspeople, distributors, corporations, and apples themselves—all (inter)acting as part of a (global) chain of explanation. We utilize promotional content analysis, site visits, and interviews to gain access to the various facets and linkages across these networks, questioning whether and how the actor-networks between these two differ and what the potential implications of these differences are. By revealing and comparing the network(s) forming these material-semiotic relations, processes of power may be exposed, providing opportunities for disentangling and exposing issues related to space, place, and terroir.</p>

		<p>Traumatic Rows of Resin Ducts as a Result of Geomorphic Processes in Western North America</p> <p>Abstract</p> <p>Dendrogeomorphological dating of high magnitude and high frequency geomorphic hazards allows for the investigation of past disturbances in mountain environments. Through methodological advancements in growth disturbance (GD) analyses we are able to create baselines for geomorphic events in individual study areas and the projection of geomorphic system evolution. This study examines the extent and timing of traumatic resin duct (TRD) formation, a specific type of GD, in response to geomorphic processes in the mountains of western North America.</p> <p>Here, we analyzed approximately 75 Douglas fir (<i>Pseudotsuga menziesii</i>), Subalpine fir (<i>Abies lasiocarpa</i>), and Western larch (<i>Larix occidentalis</i>) cross sections from four different positions oriented around each disturbance wound and the opposite sides under microscope. For each sample, we classified the TRD reactions as immediate reaction around the wound, within earlywood, earlywood-latewood transition zones, and latewood. Additionally, we analyzed the occurrence of single TRDs and rows of TRDs around the circumference of each sample, specifically focusing on distributions, row continuity, and intensities related to snow avalanches. This study provides a primary index of TRD reaction characteristics for our study area. Furthermore, this study has the potential to inform future studies of responsive TRD formation in the mountains of western North America.</p>
Saeideh	Gharehchahi	<p>Rock Glaciers as Water Towers in the Greater Yellowstone Ecosystem</p> <p>Rock glaciers supply the hydrology of a region through water storage in ice reserves within alpine and periglacial zones. In the Greater Yellowstone Ecosystem, terminal meltwater features associated with rock glaciers contribute to the hydrological system, which raises questions about the impacts of those limited water reserves on local biota. Through this investigation, I predict that recent climate trends toward a warmer and drier regime will stress this particular inventory of rock glaciers through factors that negatively affect water availability, thus impacting local wildlife.</p>
Paepin	Goff	

		<p>The Uneven Geography of Asylum or other Migration Relief for Central American Migrant Youth in the United States</p> <p>From October 2013 through August 2016, almost 122,500 Unaccompanied Migrant Children (UMC) from Honduras, Guatemala, El Salvador have crossed from Mexico into the United States. These UAM are processed through the Office of Refugee Resettlement (ORR) and are eventually resettled with sponsors, dispersed throughout the United States, while they wait to go before a judge who will determine their future. Where these young migrants are resettled determines the two key factors influencing the outcome of their legal status: their access to legal representation, and which judges are presiding over their cases. This paper will map the uneven outcomes for Unaccompanied Migrant Children based on where they were originally resettled. Utilizing statistics from the Department of Justice and Transactional Records Access Clearinghouse at Syracuse University, we will visualize in ArcGIS the US counties of UMC resettlement, the immigration court locations, and outcomes of their trials. The information presented in this paper will add to the current debate around the handling of immigration cases, arguing that our current system of appointing judges and dictating the number of cases they must handle in a short amount of time unjustly affects the outcomes of their cases.</p>
Alisa	Hartsell	<p>This study investigated the relationship between public schools' prevalence of obesity in Texas and urbanization and concentration of fast food chains at school-district level. Children's obesity was measured by Body Mass Index (BMI). The BMI data for this study were obtained from Physical Fitness Assessment Initiative (PFAI) program that has been coordinated by Texas Education Agency (TEA). Urbanization data were stem from Texas Legislative Council. The two measures of concentration of fast food chains, namely square miles per fast food chain and children per fast food chain, were derived from 20-top fast food chains in Texas from Restaurant Database. Hierarchical regression analysis showed that there is little impact of primary variables such as urbanization, square miles per fast food chain, and children per fast food chain on childhood obesity since the magnitude of associations were very weak. However, these primary variables explained additional 9% of the variance in school-district level obesity rates after controlling for demographic covariates. Two-way analysis of variance (ANOVA) revealed that there was not a significant interaction (<math>p &gt; 0.05</math>) of urbanization and two measures of concentration of fast food chains. It also indicates that obesity rates are higher in rural school districts than urban ones. This research indicates that policy makers should consider carefully obesogenic environment factors such as food environment in order to support the development of policy more effectively in local obesity issues.</p>
He (Hannah)	Jin	

Paula	Jones	<p>Urban researchers and community advocates alike have long been interested in predicting and anticipating future change, including where and when the next wave of gentrification will impact neighborhoods. Advancements in individual neighborhood-level data availability over the last several decades have helped drive a major shift towards data-driven and evidence-based approaches to community improvement efforts, but limited and uneven access to neighborhood-level administrative data in cities is a major barrier to inclusive development.</p> <p>Many communities facing both long-term decline and emergent gentrification struggle to implement successful, data-driven strategies for combating neighborhood change due to data-related challenges such as a lack of appropriate, accessible data for their neighborhoods; limited access to expensive hardware and software required for data collection and analysis; and inadequate human capital resources for interpreting and translating data into actionable community development strategies. In our data-driven world, unequal access to data and information on where and how neighborhoods are changing exacerbates exclusion and vulnerability of residents in distressed urban neighborhoods.</p> <p>First, this paper explores the problems surrounding communities' access to relevant and reliable neighborhood-level data. Using a robust parcel-level database of neighborhood property conditions collected through a collaborative effort with a community housing organization and supplemented by additional neighborhood-level longitudinal data, I seek to identify areas within a Buffalo, New York neighborhood that may be at risk of gentrifying. The approach offers one possible strategy to overcome the information resource gap and help build local capacity for data-driven approaches to community change efforts.</p>
Mael	Le Noc	<p>Family separation is a recurrent topic in virtually every Holocaust survivor's testimony. Yet little attention has been given to this topic in the field of Holocaust studies. Drawing from oral histories of Holocaust survivors arrested in France, this study explores the victim's perspective and memory of family separation. Particular attention is given to the choices, agencies, and strategies of the victims resulting or leading to family separation, and to the fact that those decisions are often gendered. Additionally, this study expands on the notion of "ambiguous loss", a term describing a situation of unclear loss resulting from not knowing whether a loved one is dead or alive, and suggests that ambiguity is often related to the uncertainty of the location of the "lost" family member.</p>
Jinhee	Lee	<p>Title: Learning Progressions on Map Understanding: A case study of elementary through college students in Korea.</p> <p>Main objective of this study is to identify Korean students' learning progression on map understanding. Students' learning progression on map understanding was identified using a test based on Item Response Theory (IRT). Findings will be discussed in the TxGSRS presentation.</p>
Stephanie	Luna	<p>I am interested in offering a presentation that explores the leading causes of climate change and how to best weaken such forces that negatively impact the environment. My focus will likely be set upon one specific contributor, animal agriculture. I will emphasize how it is one of the most major driving forces of climate change and yet, still ignored as a problem on an international scale. I will make a close with how society can best contribute to a fixation.</p>

Ross	Martin	<p>The purpose of this research is to gain a bio-geomorphologic understanding about mountain biking trails. I hypothesize that by understanding the environmental factors that most impact trail morphology, and by understanding the impact of specific user types, trails systems can be built and maintained in the more sustainably. Local environment and terrain sensitivity (soil, vegetation, topography, and hydrology) plays a critical role in trail condition and morphology. Terrain sensitivity describes the potential that exists for impact, while the forces associated with trail users meet that potential. Trail user type (horse, hiker, or biker) plays a well-documented role in trail condition and morphology. However, the literature lacks substantive quantitative research about the forces associated with the physical impact of mountain bikers. The speed, acceleration and momentum that a biker experiences fundamentally difference from other trail users. Speed, trail curvature, and 3-dimensional g-forces are empirically investigated in relation to trail morphology. This process based understanding of trail system morphology is necessary to build and maintain more sustainable trails.</p>
Caroline	McClure	<p>Texas Geography Education: How HB5 has Changed Enrollment in 9-12 Geography Courses</p> <p>In 2013, Governor Rick Perry signed House Bill 5, an omnibus education bill which proposed changes to end of course testing and the high school graduation requirements for Texas students. This legislation reduced the number of required social studies credits for students graduating with the Foundation High School graduation plan from four to three: one credit in United States history, one-half credit in government and one half credit in economics, and one credit in world history or world geography. The bill was signed in summer 2013 and began serving as the default graduation plan for students entering high school in 2014-2015. This project researches enrollment trends in world geography and world history courses from 2011-2012 (pre-HB5), 2013-2014, 2014-2015, and 2015-2016 using ANOVA methods to determine significant statistical change in course enrollment, and calculating percent change to determine the amount of positive or negative enrollment since the policy change. It was found that world history, world geography, and AP world history did not experience a statistically significant change in enrollment since HB5 was enacted. AP Human Geography did show statistically significant change over the study period (<math>p=0.001</math>). World geography was the only course that experienced a negative percent change in enrollment (-10.38%), while all others experienced a positive percent change in enrollment, with AP Human Geography experiencing the greatest (143.19%). All geography courses combined experienced only a -4.32 percent change over the study period.</p>
Niaz	Morshed	<p>The second most common reason for death in the US is cancer that surpassed just by coronary illness, accounting for about 1 of every 4 deaths. Though cancer is not the most common in children, it accounts for considerable death in children. Cancer treatment and its likelihood of cure have made significantly progresses in the past decades because of more effective diagnostic procedures and continuous improvement of multimodal treatment strategies. However, childhood cancer and its treatment have remained a challenge task for patients, their families, doctors, and other healthcare professionals. Childhood cancer diagnosis in its early stage can positively affect prognosis and also impact on survival which certainly reduces the chance of morbidity. A review of the literature about childhood cancer suggests that there are three main factors attributed to delay in the diagnosis of childhood cancer, including patients and/or parent related factor, accessibility to healthcare facilities, and the nature of the specific diseases in question. Cancer prevention and treatment program requires more effective resource allocation addressing barriers related to each of these factors.</p>

Yunuen	Reygadas	<p>Title: Assessing the Correlation of EVI and LST Clusters in the Maya Biosphere Reserve, Guatemala</p> <p>An observed strong negative relationship between Enhance Vegetation Index (EVI) and Land Surface Temperature (LST) has been used as premise in studies focused on detecting ecosystem disturbances, classifying land covers, monitoring vegetation cover changes, studying urban heat islands, or inferring evapotranspiration, transpiration and soil moisture. Some authors have performed statistical analysis of this relationship by means of scattergrams, linear regressions, the notion of Granger causality or a two-dimensional space. However, none of the studies have considered the correlation of EVI and LST clusters. Therefore, the objective of this research is to evaluate the correlation of EVI and LST clusters in the Maya Biosphere Reserve, from 2001 to 2015, through Anselin Local Moran's I, Pearson chi-square, and Crame's V statistics. To accomplish this objective monthly MODIS EVI composites and weekly MODIS LST composite were used. The main findings indicate that there is a consistent spatial association between EVI and LST clusters, but the strength of the correlation is not as strong as suggested by other studies.</p>
Yahan	Teng	<p>Large quantity, real-time feature and high accessibility make Twitter data valuable and beneficial for geography studies and thus this data source has been widely used in studies of emergencies and extreme events. But studies related to terrorism on Twitter are mostly devoted to analyze how terrorists promote terrorism on social media, and information of public reaction after terrorist attacks is overlooked. In this research, using Dallas mass shooting as an example, our objective is to add to our understanding about terrorist attack message diffusion on Twitter. Specifically, we want to look at the relationship between volume of tweets and time, distance and some other factors from tweets' attributes. This research may help us develop a better understanding of the general patterns of how public react to attacks.</p>
Jennifer	Villa	<p>Spatial and Temporal Growth Analysis of Geography-Based Academic Female Geomorphologists in The United States.</p> <p>Since the late 19th century, when geography was established as an academic discipline, the representation of women as research scholars and contributors to the body of knowledge has not been equal to those of men. In the 1970s, public awareness was finally brought to the gender gap issue in geography. Subsequently, research topics involving women in place and time have been of increased interest. One of those topics is the place of women within academic geography as a whole and its sub-disciplines of human and physical geography. By conducting a temporal and spatial analysis of data collected from the AAG's Guide to Geography Programs in the Americas (previously titled Guide to Programs in Geography in the United States and Canada), a complete and current census of geography-based academic female geomorphologists in the U.S. provides a clear representation of the gender gap and its severity. Results show that in the 41 years of data analyzed (1973-2014), there has been a positive improvement. However, the improvement has been very slow and if it continues at the current rate it is going to take approximately 241 years to reach 100% gender equality in geography-based academic geomorphology.</p>

Xujiao	Wang	<p>Title: Measuring Users' Activity Pattern Similarity from Location Based Social Media: A Weighted Vector Space Model Method</p> <p>Abstract: Previous studies have utilized various types of big geodata to analyze human activity patterns, such as georeferenced mobile phone data, Taxi/public transportation data, location-based social media (LBSM) data, etc. Among these mobility studies, measuring activity pattern similarity provides useful input in analyzing the regularity and distinctions in individuals' everyday life. Compare to other georeferenced data source, LBSM data has its limitation such as low resolution, discrete in both time and location, etc. Although previous studies have analyzed the similarity of users' activity in a Euclidean space, there is not sufficient research in analyzing and clustering spatial-temporal similarity considering users' frequency of location visits in certain time period, which incorporates the temporal dimension as well. In this research, we constructed a model to measure individual activity similarity based on the check-in data collected from a Chinese LSBM site Weibo (a micro-blogging site functionally similar to Twitter). We utilized the density-based spatial clustering of applications with noise (DBSCAN) to cluster users' check-in location with different scales. Then we extended the measurement of cosine similarity in Euclidean space with a weighted vector space model (WVSM) method to investigate the role of the visit frequency dimension in measuring the similarity in each scale. At last, we acquired users' activity similarity in different scales and evaluated them in an integrated way. The constructed model has been tested using real-world Weibo user check-ins. The results indicate that our WVSM model performs well in describing the activity similarity from both spatial and frequency dimensions. This extended model contributes to the field of human mobility analysis by enhancing frequency similarity measures in the age of instant access. The result can also be used for clustering analysis and pattern recognition of other big geodata.</p>
Guixing	Wei	<p>Environmental exposure assessment is an important step in studies examining the association between exposure and adverse health outcomes. In environmental exposure assessment, it is important to take into account of the dynamics of human activities in geographic space and time, and consider how the dynamics is related to the environmental conditions under consideration. But few existing approaches fully account for this type of dynamics. In a previous study, we proposed a new multi-phase framework to assess environmental exposure using trajectories of human activities in geographic space and time. In the study reported in this presentation, we explore the variability of personal exposure assessment and uncertainty associated with the assessment in the context of using GPS-based activity data to assess exposure to ambient air pollution. In addition, we examine the differences between the results of traditional exposure assessment and the exposure assessed based on the approached reported in this presentation.</p>

Elizabeth	Yarbrough	<p>Kombucha, an ancient fermented tea beverage, has seen a dramatic rise in popularity among Central Texas communities over the last couple decades, touted for its numerous health benefits. Although an increasing number of people now consume kombucha regularly and practice brewing the beverage at home, there has been very little research on what is driving this phenomenon. This research project aims to uncover the deeper motivations of people who brew their own kombucha. I am working under a relational mixed methodologies approach, utilizing ethnographic study methods to uncover these underlying motivations to brew at home. Included in this study will be multiple focus groups with networks of home-brewers, personal semi-structured interviews, and participant observation as I also practice home-brewing. I am discovering that people choose to brew their own kombucha because it creates great satisfaction. Participants construct networks of sharing among each other, exchanging physical materials and valuable information. These networks foster a sense of belonging and empowerment. Many home-brewers engage in multiple traditional food and beverage practices as a rebuttal against the modern agro-industrial food system. I argue that home brewing practices create a sense of belonging to a community that satisfies the need for inclusion and connection.</p>
Francesco	Zignol	<p>Title: Surface Water Temperature Estimates Based on Historical Records and Local-Scale Future Projections of Air Temperature in the Flathead Indian Reservation</p> <p>Abstract: Stream and lake water temperatures have a direct impact on freshwater ecosystems, including fish habitats. Therefore, characterizing changes in water temperature is becoming a priority, especially in regions that are more vulnerable to climate change and where fishing is a vital activity. The main objective of this research is to investigate the long-term variation of surface water temperature (SWT) in the Flathead Indian Reservation, Montana, for both historical and future periods. First, the relationship between air and water temperature is identified using 15-year daily records of minimum and maximum temperature. Next, this relationship is used to derive historical and future trends of SWT based on historical records and future estimates of air temperature, respectively. Local-scale future scenarios of maximum and minimum air temperature are estimated by statistically downscaling global-scale climate projections obtained from General Circulation Models (GCMs). To account for uncertainty in GCM simulations, outputs from different GCMs running under three different emissions scenarios are considered in the analysis. In this research, the proposed method is only applied to a single pair of air-water temperature recording locations. Further studies, however, will take into account multiple streams and lakes across the reservation landscape to provide a broader picture of long-term SWT trends in the Flathead region.</p>

Paul	Zunkel	<p>Since the release of the Hollywood blockbuster Twister in 1996, and later the Discovery Channel television show Storm Chasers, 2007-2011, the general public has taken a larger collective interest in storm chasing. A storm chaser is defined as a person who observes and follows a developing thunderstorm either for educational purposes, scientific research, or as a recreational activity (Robinson 1999). This study examined the factors associated with participation in the risk recreation activity of storm chasing in the United States. Following previous research, both motivations and sensation-seeking attributes were explored.</p> <p>As more and more individuals take part in the recreational risk activity of storm chasing the need to examine the factors influencing these decisions is necessary. Studies have previously examined either the motivations that drive risk activities or the personality traits (i.e. sensation-seeking characteristics) associated with other risk recreational activity participants; however, little has been done to examine the risk recreational group of storm chasers.</p> <p>A survey instrument gathered information on motivational dimensions, sensation seeking characteristics, and socio-demographic characteristics of storm chaser participants. Results of this study identified that participants in storm chasing do not pursue risks as their ultimate goals, but primarily seek challenging experiences. Learning and gaining insight were identified as integral motivations that influence a particular experience. Furthermore, this study corroborates Robinson's (1999) findings while further contributing to his definition of a storm chaser. In addition to storm chasers observing and following a developing thunderstorm either for educational purposes, scientific research, or as a recreational activity this study finds that storm chasers are individuals interested in seeking an experience and are further motivated by experiencing nature and learning.</p>
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