

**Understanding the Interaction of Outdoor Recreation Motivation,  
Serious Leisure Perspective and Environmental Concern: A Study  
of Park Visitors**

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Thesis submitted to the University of Ottawa  
in partial Fulfillment of the requirements for the  
**Doctor of Philosophy in Human Kinetics \_ Leisure Studies**

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## **Abstract**

This doctoral thesis investigates the relationship between leisure engagement, motivation, and environmental concern among visitors to Gatineau Park, Canada. Grounded in the Serious Leisure Perspective (SLP), Self-Determination Theory (SDT), and environmental concern literature, the research explores how different forms of park-based recreation—casual, project-based, and serious—are linked to motivational patterns and ecological awareness.

Study 1 used structural equation modeling (SmartPLS) on survey data from 248 participants, revealing that serious leisure engagement significantly predicted environmental concern ( $R^2 = 0.563$ ), particularly in areas like balance of nature ( $\beta = 0.771$ ) and ecological crisis ( $\beta = 0.766$ ). Younger, educated individuals showed higher ecological sensitivity, emphasizing leisure's role in fostering environmental stewardship.

Study 2 applied Two-Step Cluster Analysis to identify three main visitor types—Casual, Transitional, and Committed—along with five subgroups within the transitional category. This highlighted the fluid and developmental nature of leisure commitment, influenced by factors such as gender, income, and education. Findings offer actionable insights for park management in designing inclusive, responsive programs.

Study 3 involved 23 interviews and identified distinct motivations among serious, casual, and project-based visitors. Serious participants emphasized emotional resilience and identity, casual users prioritized relaxation, and project-based participants combined episodic engagement with learning or goal orientation. Motivation was dynamic and context-driven across all types.

Overall, the thesis proposes a “leisure engagement pathway” illustrating how deepening park involvement can nurture environmental awareness. The findings contribute to leisure theory and offer practical strategies for creating sustainable, user-centered park experiences.

**Keywords:** Serious Leisure Perspective, Environmental Concern, Outdoor Recreation, Motivation, Self-Determination Theory, Visitor Segmentation, Gatineau Park, Mixed Methods, Park Management

## 🌿 Acknowledgment 🌿

As I reach the conclusion of this profoundly fulfilling journey, I reflect on the wisdom of Robin Wall Kimmerer, who wrote in *Braiding Sweetgrass* (2013, p. 215):

*"To become naturalized is to live as if your children's future matters, to take care of the land as if our lives and the lives of all our relatives depend on it. Because they do".*

With immense gratitude, I would like to extend my deepest appreciation to my supervisor, Dr. François Gravelle, for his invaluable guidance, unwavering support, and encouragement throughout my research journey. His insightful feedback and patience have been instrumental in shaping this thesis, and I am forever grateful for his mentorship.

I am also profoundly thankful to my committee members, Dr. Toni Liechty, Dr. Eileen O'Connor, and Dr. Alexandra Arellano whose expertise, constructive critiques, and thoughtful advice have significantly enriched my work.

To Dr. Paul Heintzman, with whom I began this academic journey, I extend my heartfelt appreciation. Your wisdom and kindness have left a lasting impact on me, and I will always be grateful for the knowledge I have gained under your guidance.

To Dr. Robert A. Stebbins, since our first correspondence in 2017–18, your generosity in sharing your latest publications in *Serious Leisure Perspective* has shaped my academic path in profound ways. Your insights have made this journey both intellectually adventurous and remarkably smooth, and for that, I am deeply thankful.

I am especially grateful to my beloved partner, whose endless love, patience, and unwavering belief in me have been my greatest source of strength. There is nothing in this world more worth living for than you.

I would also like to acknowledge the financial and institutional support from the University of Ottawa, School of Human Kinetics, which has made this research possible.

To everyone who has contributed to this journey, whether directly or indirectly, I extend my sincerest gratitude.

Sincerely,

Kolsoum Heidari

فرا تر از من و خیال بی ساحل ام  
تقدیم به سرزمینی که در من زیست می کند  
و من به تکرار برایش باریدم

به امید نور برای مادری ترین وطن  
و به امید آغوشی مادرانه برای سرزمینی بی نور  
و به نام "نور"  
که "ایمان" دارم پایان تمام تاریکی است  
و سرآغاز "فرح"

و به نام تو  
تو  
و تقدیم به تو که پایان و شروع هر غزل و قصیده ای  
که هم نقطه پایانی و هم سرآغاز

از تمام عزیزانی که راه مرا هموار کردند سپاسگزارم. بودن تان را شکرگزارم.

سپاس خدایی را که آفرید مرا؛ تا آسان سازم سخت را؛ که سخت هرگز نمانده و هرگز نیز نخواهد ماند. تقدیم به تمام قلب های که در این  
چهار سال کنار من بودند؛ آغوششان برآیم باز بود و امن ترین جای جهان بود. تقدیم به همراه همیشگی؛ به نهایت امید؛ به خورشید  
همیشه در حال طلوع؛ به همپای تمام جاده های منتظر. همچنین تقدیم به مادری که مرا به جهان بخشید و درد بخشیدن مرا به جان  
خرید؛ تقدیم به خواهر و برادرهایم. هرگز غمی توانستم محتر از شما را آرزو کنم.

با احترام

کلثوم حیدری

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# Chapter I

## **Introduction**

In an era of growing environmental awareness, nature is increasingly valued not only for its beauty and biodiversity but also for its contribution to human health, psychological well-being, and cultural identity (Brymer, 2015; Russell et al., 2013). As societies face mounting ecological challenges, maintaining access to natural spaces and encouraging meaningful engagement with the outdoors has become more important than ever—for both individual flourishing and collective responsibility. Outdoor leisure activities play a significant role in fostering these connections. Participation in such activities offers a wide range of physical, emotional, and social benefits (Godbey, 2009), while also deepening individuals' appreciation for the natural world. Understanding why people engage in outdoor recreation and how they experience it can provide valuable insights into their behaviours, values, and motivations.

This study comprehensively explores the diverse experiences of outdoor recreationists in a national park setting, with a particular focus on understanding their motivations and the relationship between leisure engagement and environmental concern. Specifically, the research examines how serious leisure engagement shapes visitors' perceptions of environmental issues, segments park visitors according to the seriousness of their participation and identifies the intrinsic and extrinsic motivations that drive different types of visitors to Gatineau Park. Therefore, the purpose of this chapter is to provide an overview of the study and elucidate the three main theoretical frameworks that guide the research: the Serious Leisure Perspective (SLP), the New Ecological Paradigm (NEP), and Self-Determination Theory (SDT). Following this theoretical foundation, the chapter explores outdoor recreation, particularly its significance in Canadian contexts. A statement of the problem, the purpose of the study, and its specific objectives and hypotheses are then outlined. Finally, the chapter concludes with definitions of key terms to ensure

conceptual clarity and consistency throughout the thesis. Together, these components offer a foundation for the analysis that follows.

## **Leisure as Activity**

The definition of leisure as activity is “non-work activity in which people engage during their free time – apart from obligations of work, family, and society” (Murphy, 1974, p. 4). This view of leisure places it at the service of work and as part of a rhythm of life dominated by work and recreation. Dumazedier (1967) and Stebbins (2015) have based their concept of leisure on this view. Dumazedier (1967) described leisure as activities done beyond the needs and unpleasant responsibilities of daily life. It is any activity that exhibits the four basic characteristics. Two of them are negative (by social institutions) and two are positive (by reference to personal needs) (Stebbins, 2016). Leisure activities have proliferated greatly since the turn of the twentieth century even though they date back at least to classical Greek culture (de Grazia, 1994; Rybczynski, 1991). Scholars have noted that leisure takes many forms in society. Over the years, Stebbins has introduced the Serious Leisure Perspective (SLP). The SLP is a theoretical framework that can synthesize all at once, three major leisure forms and their differences, similarities, and interrelationships (Stebbins, 2012, 2015). According to Stebbins (1992), the most important distinction between leisure activities can be found in what he calls "casual" and "serious".

## **Theoretical framework**

This thesis is based on three primary theoretical frameworks, which are outlined in the following. As a first, the Serious Leisure Perspective (SLP) developed by Stebbins (1982) serves as a central framework, providing insight into the depth, commitment, and meaningful engagement of individuals involved in outdoor recreation. To examine participants' attitudes toward the environment, the study uses the New Ecological Paradigm (NEP) Scale developed by Dunlap et

al. (1978), which provides a measure of environmental concern. Furthermore, in order to examine the motivations underlying recreational behavior, particularly the distinction between intrinsic and extrinsic drivers, the study incorporates Self-Determination Theory (SDT) introduced by Ryan and Deci (2000).

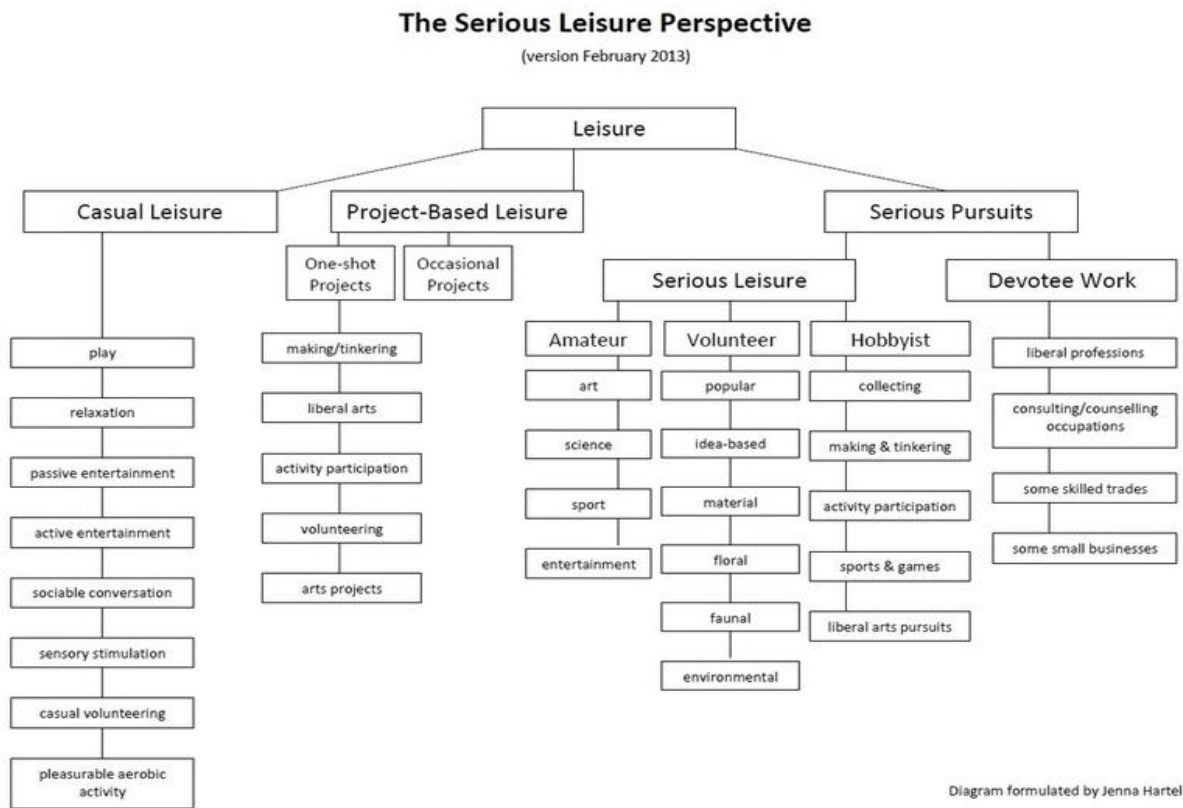
### **Serious Leisure Perspective**

A significant contribution to understanding leisure can be found in Stebbins' (1982, 1997) work, which distinguished between 'serious' and 'casual' leisure (Best, 2009). It was almost forty-two years ago that Stebbins coined the term 'serious leisure' to more clearly identify a field of research in the leisure sciences in which he believed there was a need for greater empirical scrutiny and theoretical consideration (Stebbins, 1982). Hobson Bryan and Robert Stebbins conducted research in the 1970s on leisure forms that shape the identities and lifestyles of participants (Scott, 2012). Stebbins's (1997) early research focused on amateur performers, archaeologists, and baseball players. As Stebbins documented, these individuals dedicated themselves to their avocations.

An accurate definition of leisure goes beyond activities that are separate from work. In leisure, interests are pursued beyond the necessities and objectionable commitments of everyday life (Stebbins, 2016). Stebbins (2015) defined leisure as follows: “uncoerced activity engaged in during free time, which people want to do and, in either satisfying or a fulfilling way (or both), use their abilities and resources to succeed at this” (p. 4). For Stebbins (2015, 2018) leisure is an optimistic outlook, characterized by pleasure, expectations and recollections of activities and situations. Leisure is the act of doing something you enjoy in your free time. A person's experience of an activity refers to their emotions, physical attributes, intellectual attributes, and social attributes (Stebbins, 2016). Meanwhile, general activity is situated within a larger context that

includes domains (work, leisure, and non-work obligations), the social world, organizations, culture, etc. (Stebbins, 2016).

The serious leisure perspective (SLP) describes the way people experience leisure activities (Stebbins, 2016). Stebbins (2007) and Elkington & Stebbins (2014) argue that the Serious Leisure Perspective (SLP) offers the most robust theoretical and empirical framework currently available for classifying leisure activities. The three forms of leisure (serious, casual, and project-based) may not cover all leisure activities, considering the depth and breadth of exploration within the SLP perspective (Stebbins, 2015). During more than four decades of research and theory on leisure, Stebbins (2013) developed a typological map of the leisure world based on his Serious Leisure Perspective. In figure 1 you can see the Serious Leisure Perspective diagrams prepared by Jenna Hartel (2013), based on the work of Stebbins.



**Figure 1-1.** The serious leisure perspective (SLP) - The Serious Leisure Perspective \_

Source: Diagram formulated by Jenna Hartel

The SLP is the theoretical framework for synthesizing three main forms of leisure displaying their distinctive attributes, similarities, and interrelationships at the same time (Stebbins, 2020). Furthermore, the SLP perspective considers how different psychological, social, cultural, and historical conditions shape the three forms of leisure - serious pursuits (serious leisure/devotee work), casual leisure, and project-based leisure. These forms act as conceptual umbrellas for a variety of related activities (Stebbins, 2020).

A study of serious leisure was started by Stebbins in 1973, and it has been pursued since then, followed by studies of casual leisure and then project-based leisure (Stebbins, 1982). Over time, different types and subtypes have emerged within each form. While the Serious Leisure Perspective (SLP) derives its name from serious leisure, this does not mean it is inherently more significant or superior to the other two forms in any abstract or conceptual sense. The Serious Leisure Perspective (SLP) is so named because it initially focused on the study of serious leisure, which, from an intellectual standpoint, laid the conceptual foundation for the two other forms—casual and project-based leisure (Stebbins, 2007). Beyond offering a framework for understanding a wide range of intrinsically rewarding activities, SLP also provides tools to assess the degree of intrinsic satisfaction individuals derive from these pursuits (Stebbins, 2016). Such activities typically take place during free time—on days with minimal or no obligatory tasks—when time is commonly regarded as leisure (Stebbins, 2016).

**Serious leisure**

The development of thought within the Serious Leisure Perspective (SLP) has contributed to a broader and more nuanced understanding of the concept of serious leisure (Stebbins, 2012). “The systematic pursuit of an amateur, a hobbyist, or a volunteer activity that participants find so enjoyable and meaningful that they embark on a career centered on acquiring and expressing the skills, knowledge, and experience in that activity” (Stebbins, 1992, p. 3). The sense of accomplishment is high in such occupations, and the core activity possesses such intense appeal that it virtually obliterates the boundary between work and leisure (Elkington & Stebbins, 2014). The object of serious leisure (in contrast to casual leisure and project-based leisure) is to acquire and express one's skills, knowledge, and experience (Stebbins, 1992, p. 3).

Serious leisure may be viewed as a different type of activity from casual leisure (Jones, 2021). In the context of casual leisure, individuals may be motivated to volunteer for a church fair or some other enjoyable activity that has immediate gratification (Stebbins, 2004). In contrast, serious leisure is not necessarily an enjoyable activity (Jones, 2021). For instance, Stebbins suggests caring for autistic children or running a grassroots organization are examples of serious leisure (Stebbins, 2004).

There are three types of serious leisure: amateurs, hobbyist, and volunteering (Stebbins, 2006). Amateurs are inherently connected to their professional counterparts in the arts, sciences, sports and entertainment fields. With some exceptions, these professionals form a three-way system of interactions and relationships that also involve the public (Stebbins, 2004) and with which they both have a common interest (the professional-amateur-public, or P-A-P, system). The "professionals are identified and defined according to sociological theory, a more exact procedure than the commonsense approach, which measures professionalism according to the criteria of more or less full-time employment for remuneration" (Stebbins 1992, p. 2). "Professional" in leisure

studies can be defined in economic (rather than sociological) terms as people who depend on an activity other people pursue without remuneration for their enjoyment (Stebbins, 2011). The professional may be dependent on the income as his or her sole source of income (full-time professional) or on more than one source of income (part-time professional) (Stebbins, 2011).

In contrast to amateurs, hobbyists lack the professional alter egos and often have relatively small audiences (Stebbins, 2006). There are five categories of hobbyists: "collectors, makers and tinkerers, activity participants in non-competitive, rule-based, pursuits (e.g. hunting, mountain climbing, barbershop singing), players of sports and games in competitive, rule-based activities with no professional counterparts (e.g. field hockey, shuffleboard, badminton) and the enthusiasts of the liberal arts hobbies" (Stebbins, 2006, p. 201). A liberal arts hobbyist is enamored of acquiring knowledge for its own sake. This learning is often accomplished by reading voraciously in a field such as sports, cuisine, language, culture, history, science, or literature (Stebbins 1992). Some of hobbyists, however, go beyond reading, traveling, giving talks, watching documentaries, etc., to expand their knowledge even further (Stebbins, 2006).

Volunteering refers to voluntary activities that assist oneself or others (Stebbins, 2006). The definition refers to two main motives for volunteering. Cnaan et al. (1996) identified four dimensions that ran through the various definitions of volunteerism they examined. "These dimensions are free choice, remuneration, structure, and intended beneficiaries" (Stebbins, 2011, p. 240). From these four, the following definition emerged: "volunteering is uncoerced help offered either formally or informally with no or, at most, token pay and done for the benefit of both other people and the volunteer" (Stebbins, 2007, p. 9). Volunteering can be viewed as either helping others - altruism - or helping oneself – self-interest (Stebbins, 2006).

Those who are serious leisure participants and stay with their activities eventually go through five career stages: "beginning, development, establishment, maintenance, and decline" (Stebbins, 2011, pp. 245-246). The boundaries between these stages, however, are ambiguous, since, as the condition of continuity implies, participants pass from one stage to another imperceptibly (Stebbins, 2011). "The beginning lasts as long as necessary for interest in the activity to take root" (Stebbins, 2011, p. 246). An awareness of the activity is the first step toward developing a serious leisure career (Stebbins, 1992). Sherry (2001) defined kayaking as a serious leisure activity and described three routes into beginning kayaking. Taking a course is the most common way to get started in whitewater kayaking. The first step of an introductory course is usually to develop basic skills in a pool, and then to progress to a flat-water paddling course in the open water (Sherry, 2001). In some cases, people are taught informally by friends, or they rent equipment and try to learn on their own. Kayak racers can also be whitewater kayakers (Sherry, 2001). By doing so, they can skip beginner classes and jump straight into the establishment career stage. Most whitewater paddlers do not have a racing background, even though many kayak racers try recreational whitewater river running (Sherry, 2001).

Development occurs when an activity's "interest solidifies and its pursuit becomes systematic and routine" (Stebbins, 2011, p. 246). For people engaged in serious leisure pursuits, there are five patterns of development: "sporadic, gradual, steady, broken-steady, and delayed-steady" (Stebbins, 2014, p. 43). Whitewater kayaking exhibits each of these patterns (Sherry, 2001). In the Canadian Rockies, paddling is not commonly done in the winter due to cold and icy conditions, as well as river levels (Sherry, 2001). As a result, kayakers in the Canadian Rockies often paddle in broken-steady patterns due to the seasonality of their activity (Sherry, 2001). In a broken-steady pattern, leisure activities are interrupted by forced interruptions (Stebbins, 2014).

In the establishment stage, serious leisure participants are beyond the requirement of learning the basics of their activity (Stebbins, 1992). Kayakers who have moved beyond the basics enter the establishment stage (Sherry, 2001). In this stage, whitewater kayakers typically paddle at least once or twice a week during kayaking season. Therefore, kayaking on rivers becomes more important than practicing on flat water. It is also common for whitewater kayakers to build regular networks of paddling partners (Sherry, 2001).

During the maintenance phase, serious leisure enthusiasts assess their abilities and determine where they will place their future (Stebbins, 1992). As the leisure career enters its maintenance phase, participants can now enjoy the pursuit of it to the fullest, with most of the uncertainties of establishing it behind them (Stebbins, 2007). As Sherry (2001) stated, the maintenance stage of a whitewater kayaker's career is usually the longest stage. In this study, half of the respondents were in this stage. By this point, their kayaking partnership was firmly established (Sherry, 2001). A kayaker may join a group through their network, but it is rare to join a completely new group. In the maintenance stage, one quarter of those studied moved to the Canadian Rockies (Sherry, 2001). Those who are paddling at a lower level frequently want to learn rodeo boating skills to make the experience more enjoyable. Even though new equipment may facilitate more advanced kayaking skills in the long run, once one gets used to it, it is usually necessary to go back and relearn those skills (Sherry, 2001).

Most serious leisure participants do not experience decline, but those who do may suffer from declining mental or physical skills (Stebbins, 1992). According to Sherry (2001), there are several reasons why whitewater kayaking careers decline. Death is the least likely reason. The risky nature of kayaking makes death a very real possibility, even if it is not common (Sherry, 2001). With age, kayaking participation declines. Kayakers are more likely to suffer cumulative

injuries and deteriorated physical abilities as they age (Sherry, 2001). A new activity needs to be sought after this stage (Stebbins, 1992).

## **Casual Leisure**

In 1997, Stebbins shifted his focus to the concept of "casual leisure," which had received less attention compared to serious leisure. He defined casual leisure as a short-term, inherently enjoyable activity that provides immediate intrinsic reward and requires little to no specialized training or skill to participate in (Stebbins, 1997). According to Stebbins (1997), "casual leisure comes in at least six types, treated here under the headings of play, relaxation, passive entertainment, active entertainment, sociable conversation, and sensory stimulation" (Stebbins, 1997, p. 18). The concept of casual leisure is commonly used to describe or illuminate serious leisure, requiring only a modest degree of skill, knowledge, or experience (Stebbins, 2004). In addition to these definitional statements, Stebbins (1982) suggests that casual leisure can also be defined as all leisure that does not fall within the serious leisure category.

Participants can experience two or more of these types of leisure activities while engaging in a particular leisure activity, although they are conceptually distinct (Stebbins, 1997). However, all forms of 'casual leisure' have one thing in common: these activities all provide hedonic satisfaction; people participate in them because they bring pleasure (Stebbins, 1997). Taking a closer look at Stebbins' discussion of casual leisure raises several questions regarding leisure participation, its nature and purpose, and pleasure, deviance, and desire as motivating forces (Best, 2009). Casual leisure has played a marginal role among researchers who have written about serious leisure over the years (Stebbins, 1997). In this regard, Stebbins considered himself "the most responsible, for he used casual leisure, "among other ways, as a foil to illuminate the distinguishing qualities of serious leisure (Stebbins, 1992, pp. 6–7) and to describe its enthusiasts by showing

how they are much more than mere dabblers, players, or dilettantes, all basically casual leisure participants" (Stebbins, 1997, p. 17).

There are many implications of casual leisure that extend far beyond its theoretical role as a counterpart to serious leisure (Stebbins, 1997). While casual leisure occupies a unique position in the leisure world (Stebbins, 1992), the views of researchers and casual leisure participants differ. "Many more people participate in casual leisure than in serious leisure and many of the interviewees in Stebbins studies of amateurs, hobbyists, and career volunteers have pointed out that they also enjoy and therefore value their casual leisure" (Stebbins, 1997, p. 18). Thus, casual leisure can be viewed as an important form of leisure on its own, so it should be conceptually addressed and clarified (Stebbins, 2009).

### **Project-Based Leisure**

Project-based leisure is one way to discover life and acquire positive emotions (Argan et al., 2015). Even though project-based leisure has various definitions, the most used one is developed by Stebbins (2009). Generally, project-based leisure involves short-term, reasonably complex, one-off or occasional, but infrequent, innovative endeavors undertaken during free time (Stebbins, 2005). "Project-based leisure can also enhance a person's leisure lifestyle" (Elkington & Stebbins, 2014, p. 30). This type of leisure requires significant planning, effort, and sometimes skill or knowledge, but is not considered serious leisure nor would it be intended to turn into one (Stebbins, 2005).

In project-based leisure, individuals take a few courses without expecting to stay engaged in the subject for very long (Elkington & Stebbins, 2014). Many people have attended adult education courses on astronomy, appreciation of music, or a genre of history simply for the sheer satisfaction of learning something related to those subjects (Elkington & Stebbins, 2014). When

the learner has achieved the desired outcome, they consider the "project" completed, and perhaps then move on to another one (Elkington & Stebbins, 2014).

Increasing knowledge about project-based leisure will not only satisfy academic inquiries about leisure but will also likely have practical applications in the real world (Palso, 2008). A project-based leisure approach can contribute to a sense of wellbeing through the effective use of free time effectively, as Stebbins (2005) suggests, as part of an "optimal leisure lifestyle" (Stebbins, 2000) that emphasizes a deeper sense of satisfaction and one or more deeply absorbing pursuits complemented by casual leisure (Stebbins, 2007). Project-based leisure can serve as a filler between serious leisure and non-leisure obligations, like casual leisure (Palso, 2008). As an alternative to traditional leisure activities, project-based leisure can be ideal for people with limited time to devote to serious leisure, such as those with heavy workloads or family commitments, but who would like to engage in something more fulfilling than mere casual leisure (Stebbins, 2007).

According to Stebbins, project-based leisure includes volunteering for special events, preparing for birthdays and holidays, or building an ornamental stone wall in the backyard (Stebbins, 2005). Each of these activities involves a high degree of commitment and involvement, and they all build up to a completion point, such as a holiday celebration or a final stone laid in a backyard wall. It is possible that these activities will be repeated later, or even stopped and then restarted, but they will not be continuous (Stebbins, 2005). According to Stebbins (2007), project-based leisure can be classified into two types: one-shot projects and occasional projects. The one-shot projects are only undertaken once, and then no more are undertaken (Stebbins, 2007). Occasional projects happen repeatedly, but with a substantial gap between the ending of one and the beginning of the next, which contributes to their independence (Stebbins, 2007).

## **Six Qualities that Distinguish Serious Leisure from Casual Leisure**

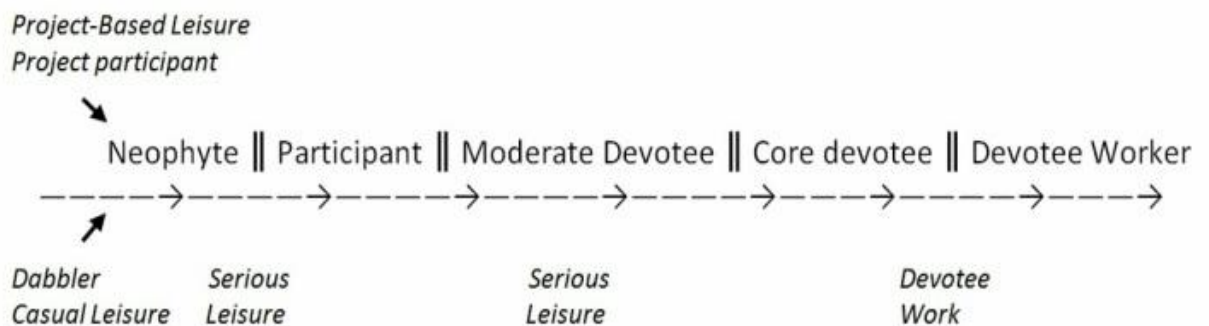
Over the past century, serious leisure communities have proliferated, providing a range of leisure-related identities and experiences for people of all ages and backgrounds (Anderson & Taylor, 2010). Through serious leisure activities, individuals can develop specialized skills, knowledge, and experiences that allow them to distinguish themselves (Anderson & Taylor, 2010). For an activity to be classified as serious leisure, it must meet the following six criteria (Stebbins, 1992): Perseverance, having a career in the endeavour, significant personal efforts, durable individual benefits, the unique ethos that exists within the activity, and identifying strongly with the activity" (Stebbins, 1997, p. 17).

First, activities require perseverance, which involves overcoming embarrassment, danger, and failure. In a study of serious leisure participants in running, this aspect of serious leisure was explored in detail, which found that despite injuries or disappointment, as well as a lack of general safety, running's benefits outweighed its costs, resulting in participants continuing to run (Major, 2001). Furthermore, involvement in this activity can lead to a career, which may include awards, certifications, and/or achievements. According to Heuser (2005), female lawn bowlers develop a leisure career from their introduction to playing to their involvement in organizations until they retire. Third, participation requires a high level of personal effort derived from "specially acquired skills or knowledge" (Green & Jones, 2005, p. 168). There was evidence of these skills and knowledge attainments amongst serious leisure volunteers at the Francophone Games in Ottawa, Canada (Gravelle & Larocque, 2005).

Fourth, participation can result in "the enhancement of the self-concept, self-actualization, self-enrichment, self-expression, feelings of accomplishment...and social interaction" (Green & Jones, 2005, p. 168). Serious leisure participation may also lead to these durable outcomes

(Stebbins, 1992). Dilley and Scraton's (2010) study which focused on women and rock climbing as a serious leisure pursuit highlighted this aspect of serious leisure. Asserting that “constructing climbing bodies, developing climbing relationships and negotiating the (potential) constraints of motherhood were all central defining aspects” in the leisure pursuit of climbing among study participants (Dilley & Scraton, 2010, p. 138). Fifth, engaging in serious leisure often leads to the development of social structures, hierarchies, and communities that share a distinct ethos. This subcultural dimension was highlighted in Green and Jones' (2005) study on sport tourism and serious leisure, which noted that travel allows participants to temporarily step away from fixed roles—such as those tied to work—and immerse themselves in a serious leisure subculture (p. 177). Sixth, participation in serious leisure also fosters a strong sense of social identity (Stebbins, 1992), a feature that stands in sharp contrast to casual leisure. Unlike serious leisure, casual leisure, while not insignificant or disgraceful, is viewed as too fleeting and shallow to cultivate a meaningful sense of identity (Stebbins, 2007, p. 12).

**SLP Involvement Scale**  
(version February 2014)



Notes:

- Level of involvement may peak at any point on this scale.
- Some dabblers and project participants never become neophytes.
- Some neophytes before their involvement neither dabbled nor participated in a project.

**Figure 1-2.** A map of the SLP – (Stebbins, 2014).

While everyday indoor leisure is beneficial for individuals, leisure in natural environments may allow them to experience novel and stimulating outdoor experiences, improving their quality of life (Chang et al., 2019). Thus, individuals can experience a sense of achievement, assert their uniqueness, and pursue avenues for self-expression (Bernard & Huckins, 1975; Dumazedier, 1974; Mitchell, 1934; Sapora & Mitchell, 1961; Stebbins, 2018). Additionally, leisure activities are repeated if they provide individuals with opportunities to explore, learn or improve (Dumazedier, 1974; Freire, 2018; Kaplan, 1960), as well as provide enjoyable feelings and relaxation (Brightbill, 1973; Neumeyer & Neumeyer, 1958; Schmalz & Blomquist, 2016), absorbs their attention and interest (Kraus, 1971; Neumeyer & Neumeyer, 1958). Leisure activities also enable individuals to express their individuality and seek self-expression by pursuing activities that reflect their interests and personality, which contribute to overall quality of life, and wellbeing (Schmalz & Blomquist, 2016).

### **Serious Leisure, Casual Leisure, and Project-Based Leisure**

Many serious leisure activities can be classified as outdoor recreation, including orienteering, ice-boating, fishing, hiking, surfing, mountain climbing, and silo ice climbing (Briggs & Stebbins, 2014). However, casual outdoor leisure activities are probably more common than serious leisure activities (Briggs & Stebbins, 2014). Casual forms of outdoor recreation might include picnicking, hot air ballooning, climbing trees, swimming, strolling in nature, and dog walking (Briggs & Stebbins, 2014). Despite not being extensively studied, project-based leisure can include outdoor recreational activities (Briggs & Stebbins, 2014). For instance, some tourists purchase once-in-a-lifetime white-water rafting sessions in Africa or attend live animal shows.

While not all outdoor recreation activities can be considered serious leisure, some can be (Briggs & Stebbins, 2014). A paper by Briggs and Stebbins (2014) explored silo ice climbing as an outdoor recreation activity. Silo ice climbing is a contemporary form of leisure activity that draws its inspiration from traditional ice climbing but with distinct characteristics (Briggs & Stebbins, 2014). To comprehend silo ice climbing, it's necessary to first understand the context of ice climbing itself. Ice climbing, which has been practiced since the early 1700s, involves ascending natural ice formations such as frozen waterfalls and icy slopes in outdoor settings (Briggs & Stebbins, 2014). In contrast, silo ice climbing takes place within cylindrical silo structures, which are typically human-made and designed to simulate the challenges of ice and rock climbing (Briggs & Stebbins, 2014). The primary distinction lies in the environment and setting. Traditional ice climbing takes place in the unpredictable and natural outdoor terrain, including frozen waterfalls and ice-covered slopes. On the other hand, silo ice climbing transpires within the controlled environment of a human-made silo. This controlled environment allows climbers to practice and refine their skills in a consistent and safe manner, offering a unique and controlled climbing experience that is distinct from the challenges posed by natural ice formations (Briggs & Stebbins, 2014). Using SLP, Briggs and Stebbins (2014) described how silo ice climbing can be a serious leisure, casual leisure, or project-based leisure. Most silo ice climbers begin their activity as casual leisure, which is defined as playful, brief, enjoyable activities that demand minimal or no specialized training. Casual silo ice climbing is too fleeting, mundane, and commonplace to find a distinctive identity in it (unlike serious silo ice climbing); however, enjoyment dominates (Briggs & Stebbins, 2014). Even so, for some silo ice climbing participants, this experience is a project-based leisure experience; a one-time activity they are unlikely to participate in again, due to factors such as failure, unfavourable geographic location, or a lack of

interest in the activity for the long haul (Briggs & Stebbins, 2014). Some people who engage in silo ice climbing may only engage in project-based leisure once, just like those who go for bungee jumps or whitewater raft rides often only do these activities once (Briggs & Stebbins, 2014). Others, however, experience an initial climb that leads to something more enduring, either as a repeated casual activity, or as a serious leisure pursuit with ongoing personal development, consistent with the SLP perspective (Briggs & Stebbins, 2014).

Silo ice climbing as a serious leisure activity reflects the six distinctive qualities of serious leisure (Stebbins, 2007). First, a serious silo ice climber, for example, identifies with the activity (Briggs & Stebbins, 2014). A second characteristic is perseverance; serious climbers come to the ice to test their skills in this activity. While most climbers want to reach the top, some attempt to reach halfway up or at least a significant distance up (Briggs & Stebbins, 2014). Usually, those who return strive to achieve their initial goal or even go beyond it. Even though many beginning climbers do not reach the top, they do not give up (Briggs & Stebbins, 2014). These beginners often come back down to rest, then approach an instructor for some additional instruction before their next climb. As a testament to their perseverance, serious leisure silo ice climbers may climb every weekend to apply and perfect their skills (Briggs & Stebbins, 2014).

Third, several veteran silo ice climbers have also gone on to pursue a leisure career in this activity (Briggs & Stebbins, 2014). Climbers often wish to add another skill to their repertoire of familiar activities. Those who enjoy serious leisure can hone their skills to a point where they can climb ice almost anywhere in the world (Briggs & Stebbins, 2014). Also, continual development is achieved through reading periodicals and websites (Briggs & Stebbins, 2014). Unique is the fourth characteristic. As a result of silo ice climbing small groups, and larger social networks form among those who participate in this activity (Briggs & Stebbins, 2014). Climbers' bonding begins

as soon as they enter a silo ice climbing group (Briggs & Stebbins, 2014). The purpose of these sessions is to get climbers acquainted with each other and with staff members (Briggs & Stebbins, 2014). As a result, the social world of silo ice climber begins to emerge. Groups that engage in silo ice climbing will possess norms, values, beliefs, styles, ethics, performance standards, and representations similar across social worlds (Briggs & Stebbins, 2014). Silo ice climbing exhibits many, if not all, of these characteristics (Briggs & Stebbins, 2014). Fifth, as a serious leisure activity, silo ice climbing brings durable benefits as well. Briggs and Stebbins (2014) mention the feeling of belonging and relationship as one durable benefit. Many climbers return to silo ice climbing groups and experience the social bonding that comes with more social leisure activities (Briggs & Stebbins, 2014). Participants in silo ice climbing as a serious leisure activity also gain a sense of accomplishment from the activity; the thrill of success when they reach the top of the silo (Briggs & Stebbins, 2014). The sixth characteristic is significant effort. When it comes to casual silo ice climbing, consider walking on low angled ice in a stream bed, as well as on ice up to 60 degrees steepness. Those interested in silo ice climbing as a serious leisure activity will experience silo ice climbing on a steep and strenuous pitch of vertical ice, taking occasional rests in between (Briggs & Stebbins, 2014). As experienced participants climb sites, the skills, knowledge, and training from silo climbing can easily be transferred to them (Briggs & Stebbins, 2014).

From the results of the paper by Briggs and Stebbins (2014) on silo ice climbing as an outdoor leisure activity, several key insights can be gleaned: 1) Diverse Leisure Perspectives: The study demonstrates that silo ice climbing can be seen as serious leisure, casual leisure, or project-based leisure. The experience of participants may evolve over time, starting as casual leisure but potentially transitioning into more committed and enduring serious leisure involvement (Briggs &

Stebbins, 2014). 2) Identity and Perseverance: Silo ice climbers form a cherished identity as participants in a unique outdoor activity, especially in regions not commonly associated with ice climbing, such as Iowa. The climbers exhibit perseverance, even in the face of challenges or initial failures, as they strive to achieve their goals and improve their skills in ice climbing (Briggs & Stebbins, 2014). 3) Effort and Transferable Skills: Serious leisure silo ice climbing requires considerable effort, especially when tackling steep and strenuous pitches of vertical ice. The skills and knowledge gained from silo climbing can be transferred and applied to other climbing sites and outdoor pursuits (Briggs & Stebbins, 2014). 4) Outdoor Recreation as Serious Leisure: The paper highlights the relationship between serious leisure and outdoor recreation. While not all outdoor recreation falls under the category of serious leisure, many outdoor recreation activities, such as silo ice climbing, can be considered as serious leisure, which hold deeper meanings and motivations for individuals, leading to long-term commitment and personal development (Briggs & Stebbins, 2014).

### **Environmental concern**

Environmental concern, while not a strictly scientific term, originates from political discourse and encompasses a range of beliefs, feelings, attitudes, norms, values, and behaviors regarding the environment (Bamberg, 2003). Within academic literature, environmental concern has been operationalized in various ways, often encompassing constructs such as ecological beliefs, personal environmental norms, and behavioral intentions (Minton & Rose, 1997). The 1970s marked a pivotal period for environmental awareness, as both researchers (e.g., Kilbourne et al., 2002) and the public (Grunert & Juhl, 1995) began paying significant attention to issues surrounding the natural environment and human impacts on it. This period spurred a need to measure public concern for the environment, leading to various scholarly attempts to define and

operationalize the concept. One notable contribution was made by Dunlap and colleagues (1978), who developed the New Ecological Paradigm (NEP) Scale. The New Environmental Paradigm (NEP) offers a framework for interpreting foundational ecological beliefs, emphasizing concerns about humans disrupting nature's balance, recognizing limits to growth, and questioning the notion of human dominance over the natural environment (Dunlap et al., 2005).

The original NEP Scale incorporated both anthropocentric views (e.g., humans rule over nature) and ecocentric perspectives (e.g., “humans severely abuse the environment). The NEP Scale has also been widely applied in tourism research, offering insights into the environmental orientations of individuals within recreational and natural settings. For example, Uysal et al. (1994) utilized the NEP Scale to examine variations in environmental concern among national park visitors, finding that trip characteristics significantly influenced levels of environmental concern. In a comparative study, Fennell and Nowaczek (2003) explored the ecological orientations of ecotourists from different nations, revealing that Canadian ecotourists scored higher on eco-centric items, whereas Polish ecotourists exhibited stronger agreement with anthropocentric items. These findings underscore the utility of the NEP Scale in capturing variations in environmental concern based on cultural and demographic differences.

Environmental concern refers to an individual's evaluation of facts, their own behavior, and other people's behavior as they relate to the effects they may have on the environment (Fransson & Garling, 1999). For more than 25 years, researchers have investigated the relationship between environmental concerns and outdoor participation (Teisl & O'Brien, 2003). Outdoor recreation participation has been linked to environmental concern in a multitude of studies, but the conclusions drawn are lacking coherence, and how specific types of participation may yield a different level of benefit (Berns & Simpson, 2009; Teisl & O'Brien, 2003; Thapa & Graefe, 2003).

Berns and Simpson (2009) claimed there is a significant gap in literature when it comes to the relationship between outdoor recreation participation and the development of environmental concern. Recreational activities involving outdoor activities have been associated with heightened concern for the environment for decades (Dunlap & Heffernan, 1975; Thapa & Graefe, 2003). A variety of outdoor activities provide a variety of opportunities to play, discover, and explore. These endeavors may provide people with a better understanding of environmental problems since they may witness the effects of the problems firsthand. Furthermore, interactions with nature during an outdoor activity might increase one's commitment to protecting those areas in which those activities take place (Wilson et al., 2014). Experiencing nature directly plays an important role in influencing an individual's environmental views (Ewert et al., 2005; Palmer, 1993). Participating in outdoor recreation is a common way for people to have contact with nature (Wilson et al., 2014). In addition to providing an opportunity for people to learn more about their natural surroundings, outdoor recreation also enables them to develop a deeper appreciation for nature (Wilson et al., 2014).

### **Self-Determination Theory**

Social scientists are often interested in explaining and predicting human behaviour. Self-Determination Theory (SDT) from Ryan and Deci (2000) and Planned Behaviour Theory (TPB) from Ajzen (1991) are two of the most well-known methods for doing this. It has been established that both SDT and TPB meet commonly espoused criteria for “good” theories (Popper, 1959; Ramsing, 2005). In this study, however, we used the SDT to analyze park visitors’ motivations.

It is likely that many factors within the park visitors’ experience will influence their motivation to participate in outdoor recreation. The purpose of this section is to describe the meta-theory of Self-Determination Theory (SDT, Deci & Ryan, 1985) to emphasize the importance of

understanding the principles of motivation in recreational, sporting, and social settings. This study will examine the impact of SDT sub-theories on motivation, initiative, and achievement in recreation and sport. SDT is widely recognized as the leading theory of motivation, initiative, and achievement (Deci & Ryan, 1985).

Self-determined behaviours, as defined by Deci and Ryan (1987), are intentional behaviours that are initiated and controlled through choice. Based on Deci and Ryan's 1987 article, one of the main conclusions is that autonomy is crucial to motivation since it allows one to feel that one's actions originate from within. Generally, the more autonomous, the more the behaviour is endorsed by one's whole self and is perceived as an action in which one is responsible. Clearly, persistence has been one of the most important applications of this theory in sport. As part of this study, the SDT framework will be used to investigate how park experiences influence motivation.

### **Intrinsic and Extrinsic Motivation**

It has been proposed by Pelletier et al. (1995) that intrinsic motivation can be divided into three dimensions, each of which contributes to self-determination. The first form of intrinsic motivation is the motivation to know. When we learn new things or acquire new skills, we are satisfied with what we learn. A second motivation is motivation to accomplish, in which people experience pleasure from improving upon previously acquired skills. According to Nicholls (1992), the motivation to accomplish is a function of achievement motivation. The third type of motivation is the desire to experience stimulation and a pleasant sensation.

Extrinsic motivation can be defined as activities motivated by external factors or that are carried out for a specific purpose rather than for their own sake. According to Deci and Ryan (1991), extrinsic motivation can be classified into four dimensions. As the most self-determined form of extrinsic motivation, integrated regulation is the first dimension. In terms of integrated

regulation, behaviours are carried out voluntarily and often to achieve an overarching objective. Therefore, the behaviour has no intrinsic or direct motivation but is indirectly motivated.

Identified regulation is the second dimension of extrinsic motivation. A behaviour that is identified is like an activity that is integrated in the sense that it is highly valued by the individual and is performed out of a desire to do so, although the activity is restricted to a particular activity. An individual may, for example, wish to achieve cardiovascular fitness, however, due to weather concerns, the only activity available is a stationary bike in someone's basement. Introjected motivation is the third dimension of extrinsic motivation. Introjected motivation is a result of social pressure and a desire to avoid guilt. The concept of intrinsic motivation is related to the concept of social motivation orientation. The latter concept has been incorporated throughout the study (Allen, 2003, 2005).

Lastly, external regulation refers to behaviours that are controlled from outside sources, such as rewards, constraints, or being instructed to perform tasks. There are some forms of extrinsic motivation which can be self-motivated and some forms which cannot. When investigating the motivations of individuals participating in recreational activities, these factors must be considered. There is no doubt that people may also be purely intrinsically motivated, which studies have shown to be associated with greater levels of motivation, persistence, and intent to revisit or repurchase (Han & Hwang, 2014; Huang & Hsu, 2009). We intend to investigate the motivational factors of park visitors in the current study. We expect that outdoor recreation experiences provide a broad range of motivational profiles, including those of serious park visitors, casual park visitors, and project-based park visitors.

## Outdoor Recreation

There are conflicting views regarding what outdoor recreation is (Moore & Driver, 2005). There are several definitions of outdoor recreation, including recreation without the restrictions of a building, fun in nature, and interaction between participants and the natural setting (Cottrell & Cottrell, 1998; Douglas, 2000; Ibrahim & Cordes, 1993). Generally, outdoor recreation refers to activities people do outside, usually on weekends or as part of their daily routines, in areas where they have access to nature or green spaces (Bell et al., 2007). In this study, outdoor recreation refers to those recreational activities that can be experienced outdoors and are related to natural resources (Moore & Driver, 2005). Thus, outdoor recreation is a form of recreation that takes place in, and is dependent on, the natural environment (Morse et al., 2022). Summer camps, nature-based tourism, hiking trails, cycling, skiing, snowboarding, rafting, kayaking, fishing, and nature-based tourism are some examples of outdoor recreation activities (Confer et al., 2005; Edginton et al., 2011; Knopp & Tyger, 1973; Walker & Shafer, 2011). "Recreation activities range from the very passive, such as sitting relaxing, or enjoying a view to the very active, such as skiing, mountain biking, or horse riding" (Bell et al., 2007, p. 5). They include solitary activities, such as going for a walk alone, or gregarious ones, such as attending a picnic or hiking with friends (Bell et al., 2007).

According to Duiker (1999), outdoor recreation refers to any leisure activity performed outside, regardless of setting (Duiker, 1999, p. 40). Traditionally, outdoor recreation has been seen as activities that take place outdoors and have a direct relation to the natural environment (Jensen, 1970). A traditional view of outdoor recreation maintains that outdoor recreation occurs in rural areas, where natural resources like rivers, lakes and forests are abundant, but Betz et al. (1999) state that outdoor recreationists can also take advantage of natural settings that are close to cities.

Hiking, and camping are traditional outdoor leisure activities that are growing moderately, while consumptive hobbies such as fishing and hunting are declining (Bell et al., 2007; Foss, 2022; Stevens, 2022). Popular outdoor activities such as bird watching and wildlife, snowmobiling, and jet skiing are among new types of activities becoming more popular (Cordell, 2005).

Recreation in the outdoors is one means for individuals to connect with their environment and with each other (Schild, 2016). Outdoor recreationists enjoy a variety of activities including walking and hiking, swimming, hunting, and ball games, all of which cater to a variety of motives (Duiker, 1999, 2000). As Hiss (2010) points out, outdoor recreationists perceive that parks offer benefits in and of themselves. The National Recreation and Park Association sponsored a national survey in which exercise was mentioned most frequently as the most beneficial aspect of USA parks (Godbey et al., 1992). There are nine benefits that users value in addition to the sport benefits. Users expressed pleasure in being outdoors/natural resources, "relaxation and peace," "open space," "place for kids," "nature," "family time," "fun and entertainment," "rides and picnics," "recreation," and "place to go" (Godbey et al., 1992).

"The vast majority of studies have been oriented toward traditional outdoor recreation activities like boating, hiking, camping and the wildlife-based activities of birding, fishing and hunting" (Scott & Shafer, 2001, p. 320). The understanding and study of outdoor recreation have shifted from focusing solely on the activity itself to adopting a behavioral approach (Manning, 2011, 2014). This shift emphasizes exploring individuals' motivations and levels of satisfaction related to their participation in outdoor recreation (Manning, 2011). The behavioral perspective suggests that many people engage in outdoor recreation with specific goals, rather than merely participating for the activity's sake (Crandall, 1980). According to Driver and Brown (1986), this process begins with a fundamental desire for a specific activity, such as climbing, followed by a

preference for a particular setting, like solitude. Then come the motivators, such as the pursuit of physical exercise, and finally, the anticipated benefits, such as improved self-esteem. When the goals of an individual or group are disrupted by the behavior of others, this may lead to outdoor recreation conflict.

There is a growing trend of increased participation in outdoor recreation around the world (Bell, 2008). Recreation in the outdoors has shaped the relationship between humans and the environment throughout history (Plummer & Fennell, 2009). In Europe, for instance, outdoor recreation in parks is a long and rich tradition dating back at least 500 years, and outdoor recreation has sometimes been a driving force for social change (Eagles & McCool, 2002). The nature of outdoor recreation can be diverse, since it encompasses both individuals and the natural environment (Manning, 1999). Outdoor recreation issues are usually categorized into environmental science (such as eco-impacts) and social science (such as crowding and conflicting uses) concerns (Gartner & Lime, 2000).

Tribe (2020) argues that outdoor recreation activities include cycling, camping, fishing, hunting, snow sports, trail hiking, and wildlife viewing (Tribe, 2020). The outdoor recreation have been linked to a variety of outcomes, such as improving physical health, economic and financial issues, the environment, educational programs, employment, and political stability (Tribe, 2020; Marion & Reid, 2007). Considering the fast-changing socioeconomic, demographic, environmental, and climate conditions as well as the increasing pressures on the environment and uncertainty surrounding climate change (Bell et al., 2007).

## **Outdoor Recreation and Parks in Canada**

Parks play a vital role in Canadian society, providing open, green spaces in an increasingly urbanized world. They offer a refuge from the pressures of modern life while also preserving

biodiversity, cultural heritage, and historical sites (Manning et al., 2017). National and provincial parks are central to outdoor recreation and tourism, making the study of visitor experiences crucial for park management and policy development (Rice et al., 2020). As research on outdoor recreation, health, and well-being grows (Bell et al., 2007), the role of parks as key facilitators of these benefits becomes even more apparent.

Former Prime Minister Justin Trudeau acknowledges the deep connection between Canadian identity and the outdoors, highlighting the importance of nature and parks in shaping the national experience (CBC Radio, May 7, 2023). However, despite this strong cultural association, reports suggest that urbanization and shifting lifestyles are reducing direct engagement with nature. Studies indicate that 80% of Canadians living in cities face time constraints, 90% prefer indoor activities, and 30% do not participate in nature-based recreation at all (Scott & Tenneti, 2021). A report by the Canadian Parks Council identifies several factors influencing Canadians' relationship with nature, including urbanization, access to parks, demographic changes, time pressures, and increasing sedentary lifestyles (Parks Canada, 2014).

Given the significant role of parks in providing outdoor recreation opportunities, it is essential to ensure a diverse range of activities that cater to different interests and abilities (Harshaw et al., 2007). Studies show that outdoor recreation is a widespread activity in Canada; in 1996, 84.6% of Canadians participated in nature-based activities (Harshaw et al., 2007). Parks not only facilitate recreational engagement but also serve as educational spaces where visitors can experience and interact with Canada's forest landscapes (Harshaw et al., 2007). The Canadian Council of Forest Ministers (2004) emphasized that equitable access to parks is essential for social inclusion, while Karlis (2011) argued that recreation is a fundamental right in a social welfare state like Canada.

From an economic and social perspective, parks and recreation areas contribute significant benefits at both individual and community levels (Manning, 1999; Rollins & Robinson, 2002). Effective Park management requires consideration of both on-site and off-site users, ensuring sufficient funding for staffing, maintenance, programming, and infrastructure (Clark, 1991; Talal & Santelmann, 2021). Despite the widespread use of parks and recreation facilities, Crompton (1999) cautioned that park managers may still overlook key segments of the population. To address these gaps, this study will examine the motivations and leisure behaviors of park visitors in Canada, providing insight into how parks can continue to serve as essential spaces for outdoor recreation and public well-being.

### **Statement of Problem and Purpose of Study**

Research on serious leisure perspective has been extensively conducted (Briggs & Stebbins, 2014; Stebbins, 1992, 2006, 2012), but few studies have focused on the motivations of individuals who seek outdoor recreation activities, such as park visitors. While some studies have utilized the Serious Leisure Perspective (SLP) framework in the context of outdoor recreation (e.g., Aksu et al., 2022), a limited number of studies have examined specific outdoor activities using SLP (Briggs & Stebbins, 2014). Despite evidence suggesting that serious leisure can have positive effects on cognitive, affective, and behavioural aspects of outdoor recreation (Aksu et al., 2022), the examination of park visitors in terms of these leisure categories has been limited. Research on outdoor recreation from the serious leisure perspective focuses primarily on serious leisure activities (Davies, 2018; Song & Ahn, 2023), while limited studies have examined casual leisure and project-based leisure in an outdoor recreation context. Although there are a variety of studies that have focused on serious leisure and environmental concerns, there is still a gap regarding how serious park visitors can impact environmental concern. Many studies have focused on serious

leisure participants' motivations; however, there is a need to understand the motivations and future intentions of casual leisure participants and those involved in project-based leisure activities. There is no doubt that park visitors are vital to the health of the park's industry and learning more about how they interact with outdoor recreation activities will be paramount to the industry's future prosperity. Additionally, it is important for the recreation, leisure, and specifically the park industries to understand the motivations behind future participation.

The purpose of this study is to comprehensively explore the diverse experiences of outdoor recreationists in a national park setting, with a particular focus on understanding their motivations and the relationship between leisure engagement and environmental concern. Identifying visitor motivations has long been central to recreation research, offering insight into behavioural patterns and decision-making processes (Alexandris et al., 2009; Miller et al., 2024). This study adopts a mixed-methods approach—combining qualitative and quantitative data—to address the following objectives: To examine how serious leisure engagement shapes visitors' perceptions of environmental concern. Second, to segment park visitors based on the level of seriousness in their leisure participation. As a final step, we aim to determine the intrinsic and extrinsic motivations that drive visitors (serious park visitors, casual park visitors, and project-based park visitors) to visit Gatineau Park, as well as the factors that influence their engagement and choices.

## **Objectives, Hypotheses, and Questions**

### **Main objective:**

To explore how varying levels of leisure involvement among Gatineau Park visitors, framed by the Serious Leisure Perspective, relate to their motivations and environmental concern

### **Study 1:**

**Objective:** To determine the effect of the level of seriousness of involvement in outdoor recreation on environmental concern among visitors to Gatineau Park.

**Hypothesis:** The level of seriousness of involvement in outdoor recreation influences the level of environmental concern among visitors to Gatineau Park.

### **Study 2:**

**Objective:** Categorizing Gatineau Park visitors into distinct groups based on the level of seriousness in their leisure engagement, drawing from the Serious Leisure Perspective.

**Hypothesis:** Visitors to Gatineau Park can be categorized into distinct leisure groups based on their patterns of engagement and commitment.

### **Study 3:**

**Objective 3.1:** Identifying intrinsic and extrinsic motivations that influence Gatineau Park visitors.

**Question 3.1:** What intrinsic and extrinsic motivations influence the participation of Gatineau Park visitors in outdoor recreation?

**Objective 3.2:** To examine how different types of leisure involvement (serious, casual, and project-based) relate to the motivations expressed by Gatineau Park visitors.

**Question 3.2:** How do different types of leisure involvement (serious, casual, and project-based) relate to the motivations expressed by Gatineau Park visitors?

## **Definitions and Terms**

**Leisure:** “Uncoerced, contextually framed activity, pursued in free time and certain kinds of work, which people want to do and, using their abilities and resources, actually enact in either a satisfying or a fulfilling way (sometimes both)” (Stebbins, 2020, p. 38).

**Serious Leisure**: “The systematic pursuit of an amateur, a hobbyist, or a volunteer activity that participants find so enjoyable and meaningful that they embark on a career centered on acquiring and expressing the skills, knowledge, and experience in that activity” (Stebbins, 1992, p. 3). For this research “serious leisure” term will be referred to as “the systematic pursuit of an amateur, a hobbyist, or a volunteer activity that participants find so enjoyable and meaningful that they embark on a career centered on acquiring and expressing the skills, knowledge, and experience in that activity” (Stebbins, 1992, p. 3).

**Casual Leisure** is defined as a short-term, intrinsically enjoyable activity that provides immediate pleasure and requires minimal or no specialized training to engage in (Stebbins, 1997). According to Stebbins (1997), "casual leisure comes in at least six types, treated here under the headings of play, relaxation, passive entertainment, active entertainment, sociable conversation, and sensory stimulation" (Stebbins, 1997, p. 18). In this study, casual leisure is defined as an enjoyable, rewarding, short-lived activity requiring no special training (Stebbins, 1997).

**Project-Based Leisure** is one way to discover life and acquire positive emotions (Argan et al., 2015). Generally, project-based leisure involves short-term, reasonably complex, one-off or occasional, but infrequent, innovative endeavors undertaken during free time (Stebbins, 2005). For this research, “project-based leisure” means discovering life and gaining positive emotions (Argan et al., 2015). It involves short-term, complex, occasional, and innovative activities during free time (Stebbins, 2005).

**Recreation**: is “voluntary nonwork activity that is organized for the attainment of personal and social benefits including restoration and social cohesion” (Kelly & Godbey, 1992, p. 21).

**Outdoor Recreation** refers to a category of recreational activities that are directly experienced in and reliant upon the natural environment (Moore & Driver, 2005). These activities include, but are not limited to, hiking, biking, skiing, snowmobiling, rafting, kayaking, and fishing (Confer et al., 2005; Edginton et al., 2011; Knopp & Tyger, 1973; Walker & Shafer, 2011).

**Motivation**: Motivation in this study refers to the process whereby park visitors are encouraged to participate in, maintain, and direct their recreational activities toward a particular objective.

**Environmental Concern**: For this research, environmental concerns are defined as a person's evaluation of facts, his or her behaviour, and other people's behaviour regarding the impact they may have on the environment.

## **Chapter 2, Literature Review**

## **Literature Review**

This chapter provides a comprehensive review of the existing literature relevant to this study. It begins by exploring the nature of outdoor recreationists' experiences, followed by empirical research related to the Serious Leisure Perspective, including serious, casual, and project-based leisure, and their connection to outdoor recreation. Further sections review studies that examine the environmental concerns of outdoor recreationists and how these concerns relate to their leisure involvement. The chapter also presents a theoretical model linking serious leisure to environmental concern. The chapter then delves into an examination of their motivations and leisure activity patterns. It concludes by summarizing key findings, highlighting important insights, and identifying gaps in the literature that inform the direction of the present study.

## **The Nature of the Experience of Outdoor Recreationists**

While there has been a significant amount of research conducted on outdoor recreation in Canada, there are still several gaps in the knowledge base regarding the nature of outdoor recreation experience (Di, 2018). Also, there are several literature gaps exists in understanding outdoor recreationist experiences in Canadian parks and the lived experience of Gatineau Park visitors. Two things have stood out to those who have observed recreation management in the past two decades: first, the demand for outdoor recreation has steadily increased, and shows no signs of slowing down; second, the types of outdoor recreation that people use have changed significantly (Bell, 2008).

As early theoretical work showed, experience can play an important role in recreation, and its scope was broadened as well (Manning, 2011, 2014). Research has focused on the concept of experience in recreation - whether it be measured by frequency, years, or a variety of other metrics. Manning (2011) arguing that experience can provide an important tool for identifying

recreationists. Thus, studying the outdoor recreationist experience is critical to better understanding these changes. The purpose of this section is to better understand the nature of outdoor recreationists' experiences by discussing recreation, recreation specialization, outdoor recreation, and outdoor recreationists.

Several leisure studies research studies have been based on historical White supremacist institutional cultures and an expanding body of leisure studies research have shaped recreation experiences in natural environments (Sene-Harper et al., 2022). A number of scholars have discussed how current outdoor recreation management approaches are rooted in the earliest origins of the United States conservation movement (Finney, 2014; Mowatt, 2020). The nature of recreation experiences has also been shown to be more like “emergent experiences rather than predictable”. As for recreation activities, predictability refers to outcomes or characteristics that don't arise or unfold automatically in advance during the experience, but rather emerge or unfold dynamically (Patterson et al., 1998, p. 426). The nature of outdoor recreation experience is a broad topic that has been studied extensively among scholars and researchers from multiple disciplines (Jenkins & Pigram, 2004). After World War II, however, the nature of outdoor recreation became recognized for its multidisciplinary nature (Gartner & Lime, 2000).

The experiences of outdoor recreationists can differ significantly based on the type of activity, individual preferences, and the surrounding natural setting (Le Corre et al., 2021; Komossa et al., 2020). Undeniably, outdoor recreation is poised to play an increasingly vital role in promoting healthy living and addressing the shortcomings of modern lifestyles that often lack meaningful engagement with nature (Bell et al., 2007). However, some common themes include physical exertion, a connection to nature, social interaction with others, adventure, challenge, and a sense of escape from every day. Outdoor recreation can also provide opportunities for personal

growth (D'Amato & Krasny, 2011), relaxation, a sense of accomplishment, and self-confidence through practicing outdoor (D'Amato & Krasny, 2011). Overall, the nature of the experience is often described as immersive, exciting, and rejuvenating.

The outdoor recreation experience is a multifaceted and complex phenomenon that encompasses a wide range of activities and experiences that individuals can engage in outside of their usual indoor environments (Cordell et al., 1999). However, the nature of the outdoor recreation experience can vary depending on several factors, including the type of activity, the physical and social environment, and the individual's goals and motivations for engaging in the activity. One of the key aspects of the outdoor recreation experience is the connection that individuals can feel with nature and the natural environment (Wolsko & Lindberg, 2013). Another important aspect of the outdoor recreation experience is the opportunity for individuals to engage in physical activity and to challenge themselves physically. Outdoor recreation activities can provide individuals with opportunities to push themselves physically and to experience a sense of accomplishment and personal growth (Ofstedal & Schneider, 2013).

### **Research Studies on the Serious Leisure Perspective (Serious Leisure, Casual Leisure, and Project-Based Leisure) and Outdoor Recreation**

There have been several studies that have used the SLP framework to analyze outdoor recreation activities (e.g., Lee et al., 2023; Tian et al., 2023). Zurawik (2020) suggested investigating walking (as an outdoor recreation activity) from a serious leisure perspective. The serious leisure perspective makes it possible to examine the training, skills development, and potential benefits and rewards of walking participation. As well, the serious leisure perspective can be used to describe commitment to social world participation as well as leisure identities that may result from that participation (Zurawik, 2020). Outdoor recreation research from a serious

leisure perspective has focused on a wide variety of topics, including happiness (Kim et al., 2019; Liu & Yu, 2015), motivations (Lee et al., 2023; Tsai, 2018), behaviours (Scott, 2012), satisfaction (Mansourian, 2021; Liu & Yu, 2015; Stebbins, 2004; Tian et al., 2023), and profound experience (Lee & Ewert, 2019; Rahikainen, 2020). As a leisure pursuit, outdoor recreation can be categorized according to the level of intensity from casual leisure to serious leisure (Shen & Yarnal, 2010; Stebbins, 1982, 1992, 1997). As a continuum rather than a discrete category, SLP can include many leisure activities that can be engaged in with varying degrees of intensity (Veal, 2017).

### **Serious Leisure and Casual Leisure: A Research Review**

For some participants, a leisure activity might be considered serious, while for others it might be considered casual (Craike, 1999). There is no doubt that walking is the most popular activity in the natural world, and it is also the most popular activity in outdoor recreation areas that are managed (Davies, 2018). The academic literature, however, pays less attention to this activity than it should, since it takes place in all tourist settings (Davies, 2018). In spite of "serious walkers" and "casual walkers" being distinguished (Stebbins, 1982, 1997), Davies et al. (2012) examined the motivations and preferences of recreational walkers in near-urban areas and found that serious and casual walkers had different information needs, especially in terms of the amount and type of information they might need. As an example, casual walkers who walk about once a week look for information about public transportation to help them get to trail more easily (Davies et al., 2012). Thus, Davies et al. (2012) recommended trails for short walks near urban areas where casual walkers can frequent them. Also, Davies et al. (2012) recommended that a trail should appeal to all "types" of walkers. Some users would not have any interest in completing a long-distance walk (serious walk) (Davies et al., 2012). To understand "who walks, where and why," Davies (2018) subsequently conducted twenty-three in-depth interviews with expert practitioners involved in

managing the walking world. In a few cases, respondents called themselves casual or serious without being prompted by the interviewer. The walkers showed varying levels of commitment to walking, ranging from shorter walks for sightseeing purposes to longer, more challenging walks (Davies, 2018). The research found that the terms 'casual' and 'serious' were useful and tangible ways of distinguishing walkers (Davies, 2018). At different times, a walker may engage in 'casual' or 'serious' walks. A person might go for a casual walk one day, whether it's dog walking or simply going to the store (Davies, 2018). The serious walker, on the other hand, spends a lot of money on equipment, and chooses long-distance trails primarily for recreation or tourism purposes (Davies, 2018).

Song and Ahn (2023) examined the impact of leisure attitude, serious leisure, and leisure satisfaction on outdoor leisure activity participation in South Korea, particularly in the midst of the COVID-19 pandemic. Study aims were to examine the relationships between these factors and how they influence individuals' engagement in outdoor leisure activities (Song & Ahn, 2023). Despite the challenges posed by the pandemic, individuals with a stronger interest in leisure activities continued to participate in outdoor leisure pursuits (Song & Ahn, 2023). Research found that outdoor activities such as climbing and biking in nearby parks and mountains contributed to stress relief and improved health, leading to heightened leisure satisfaction despite pandemic-related restrictions. Serious leisure, driven by continuous participation and expertise acquisition, positively affected recreational specialization (Song & Ahn, 2023). Engaging in activities like golfing, biking, and paragliding contributed to a higher level of recreational specialization. Also, engagement in serious leisure pursuits, like mountain climbing or outdoor sports, contributed to personal and social benefits, enhancing overall leisure satisfaction (Song & Ahn, 2023).

Lee et al. (2023) examined the relationship between outdoor recreation, specifically bobsled participation in South Korea, and the concept of serious leisure. The participants' motivations for engaging in bobsledding as a serious leisure activity were varied, including athlete support, curiosity, personal attachment, and catharsis. Bobsledding's unique appeal compared to other sports contributed to its attractiveness (Lee et al., 2023). The study highlighted several experiential characteristics of serious leisure in the context of bobsledding: first, participants found bobsledding appealing due to its distinctive characteristics and the physical challenges it presented. The sport's exclusivity and speed were particularly attractive, setting it apart from other non-motorized sports (Lee et al., 2023). Second, bobsled participants faced physical stress, including injuries and the fear of injuries, as well as mental stress stemming from traumatic experiences such as sled overturning. Overcoming these challenges contributed to participants' growth, self-esteem, and confidence (Lee et al., 2023). Third, participants actively pursued specialized skills and knowledge to enhance their records, often acquiring information through continuous effort and experience (Lee et al., 2023). The study employed in-depth interviews to gain a deep understanding of participants' motivations and experiences (Lee et al., 2023). The findings suggest that bobsled participation can be interpreted through the lens of serious leisure theory, as it requires significant commitment and offers personal growth opportunities. Additionally, the study revealed a unique case in South Korea, where bobsled transitioned from being introduced as an elite sport to becoming a serious leisure activity due to factors such as athlete support and media exposure (Lee et al., 2023). In conclusion, the study highlighted how bobsled participants in South Korea engage in serious leisure by dedicating effort, facing challenges, and pursuing personal growth. This study contributes to understanding the interplay between outdoor recreation and the concept of serious leisure within the context of bobsled participation (Lee et al., 2023).

Ertaş and Aktaş (2022) conducted research focused on understanding the motives and constraints associated with motorcycle leisure from the perspective of serious leisure. They aimed to develop a new scale to measure motorcycle leisure and conducted their study in several phases. The research involved primary data collection using qualitative and quantitative methods (Ertaş & Aktaş, 2022). The researchers began by conducting semi-structured interviews with 27 Turkish motorcyclists who engage in leisure riding. These interviews helped identify motives and constraints related to motorcycle leisure. Subsequently, they conducted structured interviews with an additional 33 motorcyclists, mainly from motorcycle clubs. Additionally, two focus group interviews were conducted—one with academics specializing in various fields related to leisure and one with 10 motorcyclists—to refine and classify the identified items from the interviews (Ertaş & Aktaş, 2022). Based on the analysis of these phases, the researchers developed a scale consisting of 27 items. This scale included questions about motivations for motorcycle leisure, demographic information, and details about participants' motorcycle leisure experiences (Ertaş & Aktaş, 2022). The scale was then quantitatively tested through surveys distributed at a motorcycle festival and through online platforms. A total of 293 complete and suitable responses from the festival and 193 responses from the online distribution were used for analysis (Ertaş & Aktaş, 2022). The study's findings revealed that the motives for motorcycle leisure could be grouped into three factors: enjoyment, convenience, and adventure (Ertaş & Aktaş, 2022). The "enjoyment" factor encompassed feelings of freedom, enjoyment of nature, and the pleasure of traveling on a motorcycle. The researchers highlighted the importance of understanding the motives and constraints associated with motorcycle leisure as a form of serious leisure (Ertaş & Aktaş, 2022).

Suni (2017, 2018) examined Finnish hunters to see whether leisure activity seriousness correlated with travel intention (Suni, 2017). The respondents considered themselves to be more

serious hunters than casual hunters (Suni, 2017). Also, a higher level for the serious leisure qualities of personal commitment, career progress, and effort positively influenced hunters' travel intentions (Suni, 2017). It was more likely that Finnish hunters who consider hunting as an important leisure activity would travel abroad to engage in hunting because they wanted to improve their hunting knowledge and skills (Suni, 2017). Therefore, hunters who considered themselves as serious leisure activity participants were likely to travel more often. The connection between the degree of commitment to leisure activities and the intention to travel suggests that when people prioritize traveling for leisure, it may indicate a higher level of dedication or seriousness towards those activities (Suni, 2017, 2018).

Hatami et al. (2024) investigated the influence of serious leisure on travel intention and place attachment among Iranian tourists, focusing on trekking tourists of Mount Tochal who had spent at least one night in the Shelters (Hatami et al., 2024). They gathered data from 275 participants using the serious leisure questionnaire developed by Gould et al. (2008), the place attachment questionnaire developed by Ramkissoon et al. (2013), and the travel intention questionnaire developed by Zhang et al. (2017). Statistical analysis revealed that serious leisure and place attachment together could predict about 24% of the changes in travel intention, highlighting the importance of serious leisure in boosting individuals' desire for leisure travel (Hatami et al., 2024). Structural analysis confirmed a positive relationship between serious leisure and future travel intention, particularly in mountain tourism destinations like Mount Tochal (Hatami et al., 2024). Among the dimensions of serious leisure, identity had the most significant impact on travel intention, suggesting that participants who identified strongly with trekking were more likely to intend to travel. Additionally, participants who demonstrated effort, career, perseverance, and unique ethos in trekking were also more inclined to travel (Hatami et al., 2024).

Moularde and Weaver (2018) conducted in-depth interviews to determine whether mountain bikers, whose activity is characterized by serious leisure, are attracted to certain destinations. Mountain bikers are likely to pursue serious mountain biking participation if they travel to tourism destinations (Moularde & Weaver 2018). It is the ability of a destination to advance participants' level of seriousness that determines how serious mountain bikers rate destinations. As a result, this study suggested that the serious leisure framework can enhance tourism professionals' understanding of destination preferences in sport tourism, as well as provide insight into destination promotion and development (Moularde & Weaver 2018). A higher level of belonging and social connectedness was experienced when respondents visited mountain biking tourism destinations (Moularde & Weaver 2018). Taking serious leisure into account for market segmentation is important because mountain bikers' motivations and preferences were influenced by how they engage in an activity. Moularde and Weaver (2018) suggested examining serious leisure as a basis for segmentation. A study conducted by Sotomayor and Barbieri (2016) using the serious leisure framework found similar results to those of Moularde and Weaver (2018). As compared to casual surfers, serious surfers were found to be more avid travelers in search of the perfect wave, but their preferences for local attractions and conveniences did not differ (Sotomayor & Barbieri, 2016). This study identified serious surfers as a significant potential source of surf tourism because of their travels in search of the perfect wave and their relatively high incomes, but it was not determined whether they spend more on travels than casual surfers (Sotomayor & Barbieri, 2016). In terms of services and convenience, destinations looking to attract serious surfers need to market their surfing season, local prices (including basic accommodations and lodging), as well as safety (health and crime), since these were equally important attributes for all respondents (Sotomayor & Barbieri, 2016).

In another study, Barbieri and Sotomayor (2013) explored how serious leisure qualities, and in particular perceived benefits, influence destination choices by examining surfing travel behaviour. A sample of 126 surfers was studied to identify whether the six serious leisure qualities (effort, ethos, career, identity, perseverance, benefits) were correlated with surf travel behaviour (Barbieri & Sotomayor, 2013). Study results showed that surfers with a strong disposition for surfing exhibited a high level of serious leisure, also, those with a stronger sense of surfing identity and strong perceptions of its benefits tended to favour destinations with a strong surf appeal (Barbieri & Sotomayor, 2013). There was a positive correlation between the seriousness of respondents' surfing and their preference for surfing travel destinations. As a result of such information, surf destination development or enhancement could be assisted while businesses could provide complementary activities and services to enhance client satisfaction by examining whether serious leisure qualities predict surf travel behaviour and preferences (Barbieri & Sotomayor, 2013). In other words, understanding how committed people are to their leisure activities can help businesses tailor their offerings and create a more satisfying experience for their customers who are interested in surfing travel. Additionally, this information could be used to improve marketing strategies for attracting and retaining surf tourists or to improve their service (Barbieri & Sotomayor, 2013).

Another study on surfing as a serious leisure activity was carried out by Cheng and Tsaur (2012), who investigated the relationship between Taiwan's surfing recreational involvement and serious leisure characteristics. In this study, 434 Taiwanese surfers were surveyed, and structural equation modeling was used to examine the causal relationship between variables. A higher level of serious leisure characteristics correlated with a greater level of recreation involvement for surfers (Cheng & Tsaur, 2012). An increase in perseverance leads to greater attraction, self-

expression, and lifestyle centrality, according to findings of the relationships between the dimensions. Those who pursue careers in their endeavours and have a strong identity with their activities tend to attract more people and surfing becomes more central to their lifestyles; and those who have a strong sense of their unique ethos tend to be more attractive and expressive as well (Cheng & Tsaur, 2012). The findings also indicate that surfers' personal efforts, development of a strong identity with their activity, and career pursuits are strong indicators of their serious leisure orientation. In general, surfers who are more involved in recreation have a higher level of serious leisure characteristics (Cheng & Tsaur, 2012). These results are consistent with Stebbins' (1982) observation that recreationists with serious leisure attributes dedicate more time and resources to exploring knowledge and techniques. As a result, surfing has become the most popular activity among surfers with serious leisure characteristics. As surfers, they can be themselves and freely express who they are (Cheng & Tsaur, 2012). In addition, the results showed surfers were engaged in serious leisure and had strong dispositions to travel for surfing (Portugal et al., 2015).

Gardening is a popular outdoor recreation activity; however, levels of participation vary from person to person, ranging from those involved casually to those who see it as a form of serious leisure (Stebbins, 2007). A study by Cheng et al. (2017) examined the context of leisure gardening among older Australians in terms of serious leisure and casual leisure. Identity, unique ethos, and significant effort were the most powerful discriminating characteristics for gardeners. This strong identification is what explains continued participation in serious leisure pursuits. An increased level of engagement with gardening was associated with higher levels of overall life satisfaction (Cheng et al., 2017). The results indicated that gardening could contribute to an older adult's positive leisure identity and to a more active and mobile lifestyle (Cheng et al., 2017). In other words, gardening can be either a casual leisure activity (play and/or form of enjoyable aerobic

exercise that can enhance their physical well-being) or a serious leisure hobby that may also serve as a subsistence activity, albeit an agreeable one (Cheng et al., 2017). An earlier study was conducted by Cheng et al. (2010) to assess the contribution of gardening to older adults' leisure and life satisfaction. In April 2009, 433 older adults at a 'gardening Australia Expo' in Brisbane, Queensland completed self-administered questionnaire surveys. Cheng et al. (2010) declared that older adults were highly satisfied with gardening specifically because of the relaxation, psychological, and physiological effects. There was a greater level of leisure satisfaction reported by those who considered serious gardeners compared to those who did not consider themselves serious gardeners (Cheng et al., 2010). According to the survey, those who started "gardening earlier, gardened more frequently, and spent more time gardening reported higher levels of satisfaction, compared to those who did not have these characteristics" (Cheng et al., 2010, p. 413).

In another study by Cheng and Pegg (2016), older adults reported positive subjective experiences while engaged in serious leisure gardening. This study examined the meanings and values associated with gardening as a core leisure activity among older adults living in a community setting. In this study, 13 Australians aged 57 to 84 years were interviewed using semi-structured qualitative interviews (Cheng & Pegg, 2016). Serious gardeners also used terms such as "amateur gardener" and "a keen gardener" when asked how they would describe their current involvement in gardening to others (Cheng & Pegg, 2016). Results indicated that gardening played a significant role in enhancing participants' sense of happiness and well-being, as well as giving them a certain "desired" status among their peers. Also, providing elderly folk with gardening opportunities as a leisure activity is an effective way to help them live more fulfilling lives in their golden years (Cheng & Pegg, 2016). There is also strong evidence from previous research that older people are happiest when involved in moderate challenge and high challenges of leisure

activities and that “the level of enjoyment reported by study participants (staff group based in an educational institution) was significantly correlated with level of happiness, level of interest and visual interest” (Siddiquee et al., 2016, pp. 42–43). Study findings showed that participants viewed gardening as "an integral part of themselves" and "a defining interest in their lives," thus providing them with "a healthy lifestyle and a positive self-image” (Cheng & Pegg, 2016, p. 43). It is clear from the findings of their study that policymakers and program developers should consider gardening as a serious leisure activity that enables older adults to lead more joyous and fulfilling lives (Cheng & Pegg, 2016). Also, the researchers acknowledged that casual gardeners may also receive satisfaction and fulfillment from gardening. Therefore, the authors suggested that future research might investigate whether casual gardeners derive the same benefits as more serious gardeners (Cheng & Pegg, 2016).

There have been studies investigating outdoor recreational activities such as rock climbing and kayaking as serious leisure and casual leisure (Assor et al., 2009; Lee et al., 2017; Lee, 2013; Rahikainen, 2020; Kane & Zink, 2004). Rahikainen (2020) argued that climbing can be a serious form of leisure. Engaging systematically in a serious leisure activity such as climbing may provide a profound experience (Rahikainen, 2020). It is common for participants in serious leisure activities to speak the same 'language,' creating a distinctive vocabulary that unites them through phrases and words they are familiar with but unknown to others (Kane & Zink, 2004). As a result of their shared language, climbers are able to connect with each other in a way that is conducive to a sense of belonging (Dilley & Scraton, 2010; Rickly, 2017). Lee (2013) also found that rock-climbing as serious leisure is driven by understanding and participating in these social interactions. Serious leisure (Stebbins, 2011) requires systematic commitment. For instance, climbing can turn into "an obsessive form of commitment," a core value that drives the world in a positive direction

(Dilley & Scraton, 2010, p. 132). Therefore, occasional climbers cannot be considered serious leisure participants. Instead, occasional climbers may be viewed as engaging in 'casual' leisure activities, often unplanned (Dilley & Scraton, 2010; Stebbins, 1997). Participants in serious leisure activities often report high levels of satisfaction, fulfillment, and a sense of accomplishment from their participation in the activity (Lee & Ewert, 2019). In a study by Lee and Ewert (2019) rock climbers were studied using the serious leisure perspective to analyze their commitments, identity development, and rewards related to the activity. Additionally, the self-determination theory was employed to assess whether different levels of self-determination in motivation contributed to or hindered serious leisure. Results showed that identified motivation had a positive correlation with commitment, identity development, and personal rewards, while intrinsic motivation had a positive correlation with personal and social rewards. A mixed relationship was found between introjected motivation and self-determination theory. The study reinforced the motivational elements of the serious leisure perspective and evaluated its underlying constructs (Lee & Ewert, 2019).

Lee et al. (2017) conducted a study where they categorized rock climbers according to their engagement in serious leisure activities. This study expanded our understanding of how individuals involved in adventure recreation progress in serious leisure. By investigating aspects such as recreationists' skills, professional paths, self-concept, social connections, and recreational requirements, organizations focusing on recreation can employ the serious leisure framework as an effective assessment tool (Lee et al., 2017). According to the findings, some rock climbers must balance leisure pursuits with other life obligations while staying committed to their hobby, a common issue for serious recreational enthusiasts (Lee et al., 2017). Lee et al. (2017) also found that serious leisure experiences in paddlesports are associated with multiple outcomes in outdoor recreation contexts. Paddlesports have become an increasingly popular form of outdoor recreation

and a method for improving well-being. Findings from this study suggested that serious paddlesports participants perceive their experiences as beneficial, especially as they gradually establish themselves as insiders with strong identities in personal and social spheres (Lee et al., 2017). Based on this finding, a person who is intrinsically motivated believes that one's participation in a particular activity is completely independent from anyone else's control (Lee & Ewert, 2019). Nevertheless, a serious leisure participant does not always experience pleasure (for example, an inexperienced runner who learns to cope with uncomfortable situations such as fatigue). Recreationists with identified intrinsic motivations are more likely to continue serious leisure pursuits because they can identify desired outcomes like self-transformation (Lamont & Kennelly, 2012).

The use of equipment and commodities by serious leisure participants in outdoor recreation activities has been explored by Yoder (1997) and Littlefield and Siudzinski (2012). Littlefield and Siudzinski (2012) explored the concept of serious leisure among hikers. Researchers used qualitative methods to study how hikers learn about and use their equipment from other hikers. Through the study of novice (casual) and experienced (serious) thru-hikers, the researchers found that as hikers gain more experience, they tend to use less equipment and adapt the gear they have to better suit their needs. Experienced thru-hikers are able to substitute their knowledge and skills for specific equipment, a process that goes beyond their conscious awareness of the equipment's utility (Littlefield & Siudzinski, 2012). The study also emphasized the social aspect of learning about equipment and technology. The hikers' social worlds played a crucial role in shaping their relationship with the technology they use. Throughout their research, Littlefield and Siudzinski (2012) illustrated how social learning about equipment enhances hikers' overall experience and satisfaction. In summary, this paper expands the understanding of serious leisure and outdoor

recreation by shedding light on the role of technology (in the form of hiking equipment) and its relationship with the social world (Littlefield & Siudzinski, 2012). It highlights how experienced hikers are able to innovate and do more with less through the substitution of skills and knowledge for specific gear. The study also emphasized the importance of social learning and the dynamics of knowledge sharing within the hiking community (Littlefield & Siudzinski, 2012).

In a study conducted by Aksu et al. (2022), serious leisure activities, specifically trekking and kickboxing, were examined for their influence on positive and negative reciprocity attitudes. In comparison with indoor activities such as kickboxing, outdoor serious leisure pursuits, such as trekking, demonstrated significantly higher positive reciprocity attitudes (Aksu et al., 2022). A total of 41 wellness clubs with kickboxing activities and 21 nature clubs with trekking activities were identified through the application search. As a result of interviews conducted with the managers of these establishments, 1866 active members were found registered in wellness centers and nature clubs (Aksu et al., 2022). The study identified 319 individuals as adequately representing the population based on a random sampling method with a 95% confidence interval and 5% margin of error. Most participants were males (71%). The findings showed that participants engaged in trekking demonstrated higher mean scores for positive reciprocity, while those participants involved in kickboxing demonstrated higher mean scores for negative reciprocity (Aksu et al., 2022).

Yoder (1997) examined the tournament bass fishing as an example of serious leisure. This study examined the interactions among different groups involved in this activity as well as the role that commodity agents and professionals played in outdoor recreation (Yoder, 1997). Using a mixed methodological approach that included document reviews, participant observations, in-depth interviews, and self-administered surveys, the research examined the experiences of various

individuals engaged in tournament bass fishing. The conventional model of serious leisure, which divides participants into professionals, amateurs, and the public, was found to be insufficient in explaining the dynamics of this specific sport (Yoder, 1997). Thus, this paper introduced a new model that recognizes the role of commodity agents, who are producers, promoters, and distributors of fishing commodities (e.g., monies paid for entry fees, boats, fishing gear, fuel, or other preparations for events). In tournament bass fishing, professionals are combined with commodity agents, and amateurs and publics are considered as one group. The paper emphasized the significance of considering the commodification of leisure activities within the context of capitalist society (Yoder, 1997). Leisure participants, whether engaged in serious leisure or less structured pursuits, cannot be seen as isolated individuals but are influenced by societal institutions, particularly the economic system. Leisure that revolves around the consumption of commodities is seen as less about individual growth and more about production, potentially leading to alienation and materialistic preoccupations (Yoder, 1997). Overall, this research contributes to a better understanding of the relationships between different groups involved in commodity-intensive serious leisure activities, using tournament bass fishing as a case study (Yoder, 1997).

A study by Kane and Zink (2004) examined kayakers' experience of an adventure tour in light of Stebbins' (1992) concept of serious leisure. The study was based on observations, and in-depth interviews with nine tourists on a 14-day white-water kayaking trip in New Zealand. Based on an analysis of participants' experiences, it was found that their interpretation of these experiences was centered around several serious leisure attributes embedded in images and the language of adventure, such as personal challenges, status, and success (Kane & Zink, 2004). Participants on the tour demonstrated many attributes and qualities of serious leisure through their

kayaking involvement. Their participation in the tour also allowed them to demonstrate their serious leisure qualities of perseverance, skill acquisition, identity, career commitment, and kayaking ethos (Kane & Zink, 2004). According to this study, package adventure tours can be significant for serious leisure careers (Kane & Zink, 2004).

Camping is another outdoor recreation activity that can be classified as serious leisure or casual leisure (Briggs & Stebbins, 2014). Kim et al. (2019) investigated how serious leisure mediates the relationship between leisure functions and happiness among campers. Kim et al. (2019) used data from 284 Korean campers to examine how serious leisure impacts leisure functioning and happiness. According to this study, Koreans can use camping as a therapeutic activity or green exercise to enhance their subjective well-being and perceived happiness when camping (Kim et al., 2019). In the study, serious leisure was positively related to the campers' leisure functioning, and serious leisure was positively related to happiness. The results also indicated that serious leisure plays a significant role in perceived happiness in camping contexts (Kim et al., 2019). Moreover, Lee and Kim (2023) found that long-term participation in serious leisure was associated with higher happiness levels. Compared with people who didn't devote sufficient time and effort to learning and using camping skills, those who did devote more time and energy to learning camping skills reported higher levels of enjoyment and happiness (Kim et al., 2019). Outdoor camping experiences, especially those enjoyed by serious leisure campers, can reward and motivate these campers, as well as help them cope with small challenges that they may encounter (Stebbins, 1992). In the context of camping, Kim et al. (2019) found that serious leisure completely mediated the relationship between leisure happiness and functioning (Kim et al., 2019). The ability to truly enjoy leisure during one's leisure time is referred to as leisure functioning (Kim,

2019). Alternatively, it can be defined as “how an individual feels about his or her experiences and the kind of outcome that results from these experiences” (Pondé & Caroso, 2003, p. 73).

Outdoor camping experiences, particularly those devoted to serious leisure, are rewarding (e.g., enhancement in self-confidence) and positive camping experiences can provide a sense of accomplishment and fulfillment (e.g., setting up a tent, lighting a campfire), as well as dealing with small challenges while camping (Stebbins, 1992). It is important to consider each of the six serious leisure components carefully when considering how enhancing one's happiness through leisure can be achieved. Campers can experience serious leisure when they build strong social identities, enjoy social interactions, and realize the advantages of camping (Stebbins, 1992, 1997). Outdoor activities, such as camping, are positively influenced by a serious leisure approach (Kim et al., 2019). Compared with people who do not invest time and effort into learning and using camping skills, those who spend more time and effort on camping tend to report greater pleasure and happiness.

### **Research Studies on Project-Based Leisure**

Limited research has been published on nature-based project-based leisure. Research has explored motivations, experiences, and outcomes for participating in outdoor project-based leisure (Palso, 2008; Rosser, 2018). One study on serious road-tripping was conducted by Palso (2008), who examined Alaskan self-drive recreationists' serious and project-based leisure activities. Based on the results of the study, Palso (2008) concluded that self-drive recreation belongs to the category of project-based leisure (Palso, 2008). This study suggested that the distinction between serious and project-based leisure is likely to be highly subjective, and some participants are highly dedicated to self-drive recreation. In addition, there were unusual patterns of participation rates that raised questions about whether a recreational pursuit can be categorized as serious or project-

based based on the frequency of participation in it (Palso, 2008). Palso (2008) tested the suitability of quantitative methods for classifying recreational activities as serious or project-based leisure in part two of his study, as such methods had never been tested before. In this study, structural equation modeling was used to analyze confirmatory factors (Byrnes, 2001). As well as being more serious, self-drive recreationists are likely to identify more strongly with their recreational activities (Palso, 2008).

In a similar study, Rosser (2018) investigated project-based leisure among people ages 65 and over who engage in caving as an adventure activity. Project-based leisure played an important role in the lives of these older adults and served as a "resource for resilience" (Rosser, 2018). Also, it was found that these cavers' activities offset two of the potentially most destructive aspects of ageing, social isolation and loneliness (Rosser, 2018). Furthermore, the findings indicated that project-based leisure was a valuable distraction for older male participants and a way for them to manage their health and age-related issues. According to one participant: "going caving keeps me fit and is a distraction and if you sat at home, you would think of all the things that are wrong with you won't you, if you're not doing anything" (Rosser, 2018, p. 100).

Some events conducted by non-profit organizations for public benefit can be considered project-based leisure activities by some groups of people such as retirees who do not have a strict time constraint (Argan et al., 2015). Approximately 5000 people attend kite Turkey festivals every year that include eating and drinking, gathering with friends, and having fun with their family. To study project-based leisure Argan et al. (2015), used the Kite Fest 2013 in Turkey as a case study. The study used primary and secondary data sources. Semi-structured interviews and observations were used as primary data collection techniques (Argan et al., 2015). It was concluded that even

though project-based leisure events appear to be small, they require planning, implementing, and supervising (Argan et al., 2015).

### **Research studies on serious leisure, casual leisure, and the environmental concerns of outdoor recreationists**

Understanding the connection between leisure practices and environmental concern is increasingly important in today's context of ecological awareness and climate change. As outdoor recreation often occurs in natural environments, it provides a valuable context for examining how different forms of leisure engagement may shape individuals' environmental attitudes and behaviours. This section explores empirical research on the relationship between outdoor recreation and environmental concern. It reviews key studies that have investigated whether and how participation in outdoor activities contributes to pro-environmental attitudes, values, and actions.

According to academic literature, environmental concern is not a scientific concept, but a term imported from the political discourse that describes a range of perceptions, emotions, knowledge, attitudes, norms, values, and behaviors related to the environment (Bamberg, 2003). Environmental issues (such as the natural environment and human impacts on it) were extensively explored into the early 70s, both by researchers (Kilbourne et al., 2002) and by the general public (Grunert & Juhl, 1995). Experiencing nature directly plays an important role in influencing an individual's environmental views (Ewert et al., 2005; Palmer, 1993). Participating in outdoor recreation is a common way for people to have contact with nature (Wilson et al., 2014). In addition to providing an opportunity for people to learn more about their natural surroundings, outdoor recreation also enables them to develop a deeper appreciation for nature (Wilson et al., 2014). Similarly, serious forms of leisure, especially those of outdoor variety, usually involve regular and

intimate contact with the natural world than casual types of leisure (Davidson & Stebbins, 2011). By engaging in these increasingly frequent interactions, a person can advance in their serious leisure career and develop a deeper connection to nature (Wilson et al., 2014). Therefore, it is important to consider the relationship between outdoor leisure activities and environmental concern for the environment (Teisl & O'Brien, 2003). Participants in outdoor recreation activities are more likely to be environmentally concerned than their counterparts. If outdoor recreation is positively correlated with pro-environmental behaviour, it suggests that people who participate in outdoor recreation are also likely to engage in pro-environmental behaviour (Teisl & O'Brien, 2003). A need to measure outdoor recreationists' concern for the environment consequently emerged.

There has been a common belief that participation in outdoor recreation activities can facilitate heightened environmental concern (Wilson et al., 2014). However, considering the limitations of previous research on the relationship between environmental concern and outdoor recreation, and the contradictions between research findings, this section reviews studies on outdoor serious leisure activities and environmental concern.

Environmental concern refers to an individual's evaluation of facts, their own behaviour, and other people's behaviour as they relate to the effects they may have on the environment (Fransson & Garling, 1999). For more than 25 years, researchers have investigated the relationship between environmental concerns and outdoor participation (Teisl, & O'Brien, 2003). Outdoor recreation participation has been linked to environmental concern in a multitude of studies, but the conclusions drawn are lacking coherence, and how specific types of participation may yield a different level of benefit (Berns & Simpson, 2009; Teisl & O'Brien, 2003; Thapa & Graefe, 2003). Berns and Simpson (2009) claimed there is a significant gap in literature when it comes to the

relationship between outdoor recreation participation and the development of environmental concern. Recreational activities involving outdoor activities have been associated with heightened concern for the environment for decades (Dunlap & Heffernan, 1975; Thapa & Graefe, 2003). A variety of outdoor activities provide a variety of opportunities to play, discover, and explore. These endeavours may provide people with a better understanding of environmental problems since they may witness the effects of the problems firsthand. Furthermore, interactions with nature during an outdoor activity might increase one's commitment to protecting those areas in which those activities take place (Wilson et al., 2014).

Some research suggests there is a correlation between outdoor recreation involvement and environmental concern (Thapa et al., 2005, 2006), although the relationship appears to be weak (Glowinski & Moore, 2014). Dunlap and Heffernan (1975) reported that participating in outdoor recreation activities (e.g., wildlife observation, fishing) promotes an awareness of the environment, which leads to a positive attitude towards it. The presence of serious leisure participation could play an important role in the formation of an attitude indicative of someone who has a high level of concern for the environment (Wilson, 2013). Climbers who take their climbing seriously tend to interact more often with the outdoor environment as they progress (Wilson, 2013).

Recreation activities were classified into two categories by Dunlap and Heffernan (1975): consumptive (such as hunting and fishing) and appreciative (such as swimming and playing) that involve “taking something from the environment and thus reflect a utilitarian orientation toward it” (p. 19), and appreciative, defined as those activities (e.g., hiking, camping, and nature photography) that involve “attempts to enjoy the natural environment without altering it . . . thus compatible with the ‘preservationist’ orientation which attempts to maintain the environment in its natural state” (pp. 19-20). Furthermore, they found that environmental concerns were associated

more strongly with appreciative activities than consumptive activities (Dunlap & Heffernan, 1975). Bryan's research (1977) showed that as trout fishing specialization level increases, the focus shifts from consumption of fish (consumption) to preservation and focusing on nature and setting (appreciative).

In modern societies, there is widespread concern that people's lifestyles negatively impact on the environment and quality of life (Gatersleben et al., 2018). Gatersleben et al. (2018) examined the relationship between environmental values and leisure activities, specifically focusing on the distinction between intrinsic (serious) and extrinsic (casual). A study was conducted to determine if individuals who engage in casual leisure activities, such as television viewing and shopping, display lower environmental values than those who engage in serious leisure activities, such as volunteering and sports (Gatersleben et al., 2018). Three survey studies were performed among 16 to 25-year-olds in the UK, Spain, and China, involving 1,716 participants. To determine whether leisure activities (serious and casual) could be categorized into two distinct categories, factor analyses were performed (**Gatersleben et al., 2018**). This finding was not consistently supported across all countries, however. While there were identifiable clusters in China and the UK (e.g., outdoor activities, volunteering, and reading, versus television watching, shopping, and computer usage), this was not the case in Spain (Gatersleben et al., 2018). In addition, the study examined the relationship between casual leisure and environmental values and behaviour with engagement in serious leisure. Even though the patterns generally aligned with expectations, the results were inconsistent across countries and leisure activities. Based on the results of the study, it appears that respondents do not consistently prefer one type of leisure activity over another among the included leisure activities (Gatersleben et al., 2018). Additionally, this research has found a consistent link between environmental values and reading books as causal

leisure. Also, an earlier study by Liu et al. (2024) examined the relationship and functional mechanisms between serious leisure and environmentally responsible behavior among 318 mountain hikers from Shaanxi and Guizhou provinces. In order to investigate the relationships and the mediating effects among variables, bootstrapping and hierarchical regression analysis were used (Liu et al., 2024). The results of the study confirmed that participants' serious leisure activities were positively associated with the attractiveness of destinations, place attachments, and the ways they behave environmentally responsible (Liu et al., 2024).

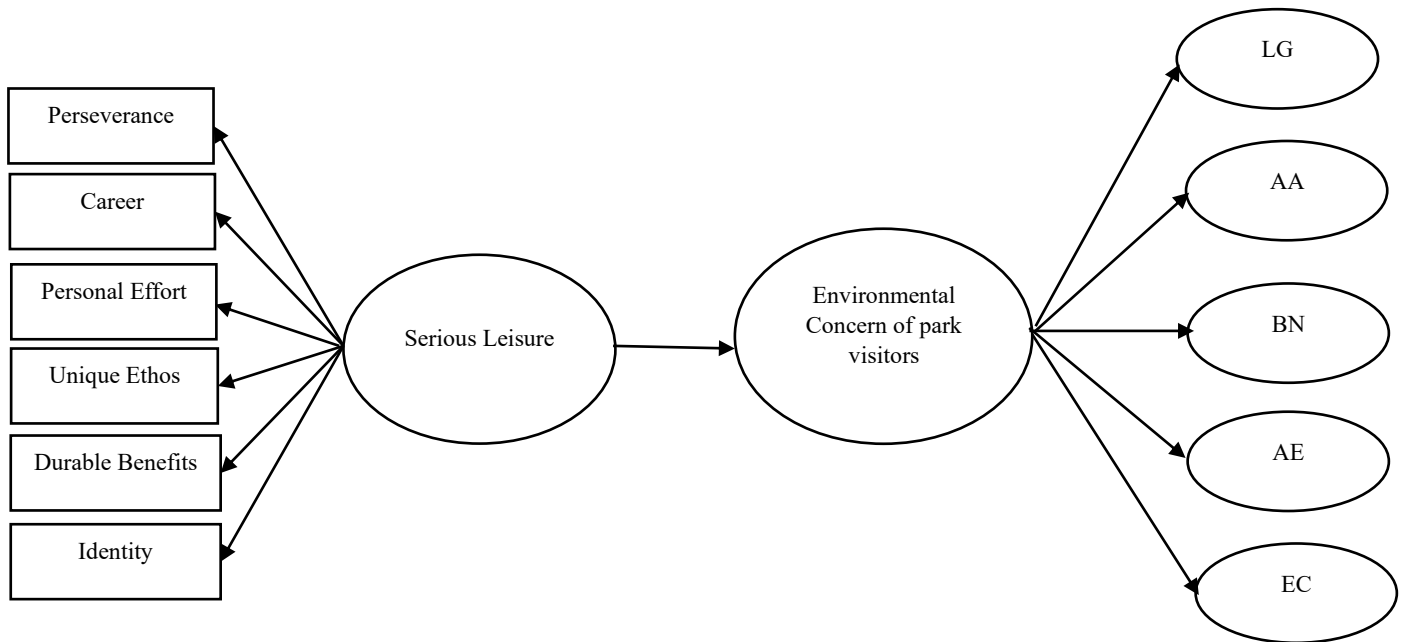
On the whole, a significant positive association was found between hikers' serious leisure attributes and their environmental responsibility, that is, the higher the serious leisure attributes, the greater the tendency to be environmentally responsible. A hiker with high serious leisure attributes engages in the outdoors more frequently and for longer as compared to those with a lower level of serious leisure attributes, such as swimmers in open water in China (Liu et al., 2024) and Tai Chi enthusiasts (Qiu et al., 2023). Increasing the participants' sense of responsibility and encouraging them to follow environmentally friendly behaviour will result from their interaction with the natural environment. Furthermore, the results validate Wilson's (2013) study of serious leisure attributes and American rock climbers' ecological behaviour in the environment.

There has been an interdependent relationship between nature and people since the beginning of human history (Dunlap et al., 1978). Nevertheless, humankind's relationship with nature has been the subject of debate for centuries (Dunlap et al., 1978). Experiencing nature directly plays an important role in influencing an individual's environmental views (Ewert et al., 2005; Palmer, 1993). Participating in outdoor recreation is a common way for people to have contact with nature (Wilson et al., 2014). In addition to providing an opportunity for people to learn more about their natural surroundings, outdoor recreation also enables them to develop a

deeper appreciation for nature (Wilson et al., 2014). Similarly, serious forms of leisure, especially those of the outdoor variety, usually involve regular and intimate contact with the natural world than casual types of leisure (Davidson & Stebbins, 2011). By engaging in these increasingly frequent interactions, a person can both advance in their serious leisure career and develop a deeper connection to nature (Wilson et al., 2014). Therefore, it is important to consider the relationship between outdoor leisure activities and concern for the environment (Teisl & O'Brien, 2003). Participants in outdoor recreation activities are more likely to be environmentally concerned than their counterparts (Teisl & O'Brien, 2003). If outdoor recreation is positively correlated with pro-environmental behaviour, it suggests that people who participate in outdoor recreation are also likely to engage in pro-environmental behaviour (Teisl & O'Brien, 2003). A need to measure park visitors' concern for the environment consequently emerged.

In summary, while empirical evidence supports a general association between outdoor recreation and environmental concern, the strength and nature of this relationship vary depending on the type of leisure involvement and the context in which it occurs. Serious leisure, characterized by long-term commitment and meaningful interaction with nature, appears to foster stronger environmental attitudes than casual or consumptive activities. However, inconsistencies across studies—particularly those comparing cultural contexts and leisure types—highlight the need for further research. This section underscores the importance of examining how different leisure profiles contribute to environmental concern, providing a foundation for the theoretical model introduced in the following section.

## Theoretical Model of Serious Leisure Perspective on Environmental Concern



**Figure 2-1.** Theoretical Mediation Model of Serious Leisure Perspective on Environmental Concern

*Note: Limits to growth (LG), Anti-anthropocentrism (AA), The Balance of Nature (BN), Anti-Exclusion (AE), Ecological Crisis (EC) dimensions.*

Although serious leisure impacts environmental concern (i.e., Thapa et al., 2005, 2006; Wilson, 2013), there is a lack of literature that examines how level of leisure involvement affects the environmental concern of park visitors. Figure 1 is a visual representation of this conceptual model, illustrating the hypothesized relationships and interactions between these three variables. This model is employed to propose how changes in “Serious Leisure, Casual Leisure, and Project-Based Leisure” may impact “Environmental Concern.” Consequently, the primary objective of Figure 1 is to present a conceptual model that elucidates the potential effects of “Serious Leisure” on “Environmental Concern.” In this conceptual model, we aim to explore the relationship between two variables. In this case: Serious Leisure: serves as the independent variable or predictor,

representing the factor believed to impact the other variables in the model. Environmental Concern: As the dependent variable, it represents the central focus of the research study, highlighting what the study aims to elucidate or predict. Environmental concern refers to an individual's evaluation of facts, their own behaviour, and other people's behaviour as they relate to the effects they may have on the environment (Fransson & Garling, 1999). Outdoor recreation participation has been linked to environmental concern in a multitude of studies.

### **The Motivations and Leisure Activity Patterns of Outdoor Recreationists**

A common theme in outdoor recreation literature is that visitors to outdoor recreation areas have different expectations of recreation opportunities, which has a profound effect on satisfaction (Manning, 2011). In addition to varying socioeconomic characteristics, cultural backgrounds, experience levels, attitudes, motives, and norms, visitors bring diverse attitudes, motivations, and expectations to the activity (Manning, 2011). Despite objective factors influencing satisfaction (e.g., the type of recreation facilities and the level of usage), certain subjective factors influence satisfaction of individual visitors as well (Graefe & Fedler, 1986). Studies on outdoor recreation indicate multiple motivations (Manning, 2011). Early empirical research in outdoor recreation focused primarily on user characteristics such as their socioeconomic status, cultural background, and attitudes toward management (Manning, 2011). Even as this descriptive framework for information was being built, the question of why people engage in outdoor recreation arose (Manning, 2011). The purpose of this section is to explore the motivations and patterns of leisure activities of outdoor recreationists. In order to do this, we will investigate the factors that motivate people to take part in outdoor recreational activities.

Understanding the motivations behind people's actions, such as engaging in outdoor recreation, is essential for gaining insight into the factors that propel them forward. Even though

basic psychological needs (such as competence and, even more so, autonomy) are all relatively stable, motivations can and do change over time (Walker et al., 2019). Further, motivations function as a reason to act, whereas basic psychological needs function as essential nutrients (Ryan & Deci, 2017). Various reasons motivate people to engage in outdoor activities like rock climbing. The main reason for participating in outdoor recreation may change over time, as most leisure activities involve more than one motive (Walker et al., 2019).

Recreational motivation can be defined as the process through which individuals are encouraged to engage in, maintain, and direct their recreational activities towards a specific goal (Tsai, 2018). Tsai (2018) explored the motivations and behaviours of individuals who participate in tennis as a recreational activity and found that the participants displayed a high level of recreational specialization, meaning that they are committed to and invested in their leisure activity. Furthermore, the study suggested that the concept of serious leisure is relevant to recreational tennis players, as many of them exhibit the characteristics of serious leisure participants, including perseverance, dedication, and a sense of community. This study concluded that understanding the motivations and behaviours of recreational tennis players can help organizations develop strategies to attract and retain participants and promote healthy and enjoyable participation in the sport (Tsai, 2018).

Initially, motivation was understood to fall into two categories: intrinsic motivation, where an activity is pursued for its inherent interest, enjoyment, or personal satisfaction; and extrinsic motivation, where the activity is undertaken to obtain external rewards such as money, awards, or social recognition. Even ulterior motives can be associated with extrinsic motivation (Walker et al., 2019). Throughout history, we have gained a greater understanding of intrinsic motivation. According to Vallerand and Losier (1999), intrinsic motivation is composed of three components:

toward knowledge, toward accomplishment, and toward experiencing stimulation. A person who has an intrinsic motivation for knowledge participates in an activity because it is enjoyable to learn something new or to gain more knowledge. Climbers, for example, might say they love learning new moves as they scale cliffs. People find pleasure in trying to achieve new goals and in outdoing themselves when they have an intrinsic motivation toward accomplishment. It is possible for climbers to say that they enjoy mastering difficult skills when scaling cliffs. Finally, intrinsic motivation involves the desire to experience stimulation by participating in an activity one finds enjoyable. For instance, climbers might say that they scale cliffs because they enjoy doing exciting things, such as leaping from one hold to another or rappelling down the rope (Vallerand & Losier, 1999).

Extrinsic motivation can also take several forms (Deci & Ryan, 2017). Although these pressures are internal to the individual, such behaviours are said to have an external locus of causality since their motivation comes from outside themselves. When people participate, they experience introjected regulation, either because it makes them feel proud of themselves when they do or guilty when they don't (Walker et al., 2019). Both intrinsic and extrinsic motivation may be absent in some situations, according to Deci and Ryan (1985). As a result, motivation involves a lack of intentionality and motivation.

In outdoor recreation, multiple motivations have long been studied. Various motives have been identified in the study of multiple motivations for recreation, including compensation, familiarity, surplus energy, relaxation, and catharsis (Manning, 2001). Bultena and Taves (1961) categorized these motivational factors into five themes: wilderness as a setting for sport and play, a source of fascination, a place of sanctuary, a link to heritage, and a means of personal gratification. For the study of outdoor recreation motivation, Driver and his colleagues laid a

systematic social-psychological foundation in the 1970s (Driver, 1972; Driver & Tocher, 1970). To gain a more comprehensive understanding of why people participate in certain activities and factors enhancing their participation experience, a psychological approach has been proposed that defines recreation as “an experience that results from recreation engagements” (Driver & Tocher, 1970).

In 1974, John Neulinger argued that psychology is essential for understanding and studying leisure. According to Neulinger, perceived freedom is the primary characteristic of leisure. As outlined in Neulinger's framework, motivation underlies a person's decision to engage in an activity. A study of motives for recreational river floating was conducted on 11 diverse rivers by analyzing motive profiles for canoeing, kayaking, rafting, and inner tubing. Despite examining one recreational activity—river floating—and its pursuit in a variety of physical settings, the study failed to identify substantive motivational differences. There are differences among the rivers, and these are described, but the profiles are notable more for their striking consistency across a range of environmental settings. In addition, 17 other forms of recreation were compared with river recreation motives. Sailboating, motorboating, and fishing are the most similar activities to the river floating from a motivational perspective. Their results challenge the assumption that outdoor recreation settings have strong relationships with the goals of people attracted to them because of their environmental characteristics (Knopf et al., 1983).

Recreational mountaineers' motivations vary according to their climbing outcomes. A study conducted by Ewert (1994) found that successful climbers on Mt. McKinley expressed challenge, accomplishment, and excitement as their main motivations. Those who turned back without reaching the summit, however, expressed being outdoors and viewing scenery as their main motivations. Burns et al. (2020) found that climbers on Mt. Hood and Mt. Baker were

motivated primarily by their aesthetic qualities and the opportunity to be in nature. Depending on the alpine wilderness setting, climbers displayed different motivations. The motivation of climbers on Mt. Baker was different from climbers on Mt. Hood because of recognition, stress relief, physical exercise, and thinking of new methods for a climb. Additionally, these visitors' motivations align with wilderness areas' mandate to protect the unique experiences they offer. It was important for these climbers to experience a mountain setting that has alpine resources and is characterized by a particular mountain setting.

Also, recreational motivations are conceptualized as desired outcomes (Manfredo et al., 1996). The motivation for recreation is distinct from expectations, which are based on the likelihood of attaining desired outcomes (Fluker & Turner, 2000). Based on Heberlein and Fredman (2002) recreational motivations are determined by both activity and setting. Motivations have traditionally been measured using scales that are specific to the setting (Driver, 1975). Rice et al. (2020) found that motivation to visit the String and Leigh Lakes (SLL) area predicts escape, relaxation, adventure, socialization, and achievement. A wide range of recreational activities are available in the SLL area of Grand Teton National Park, including hiking, picnicking, lakeside recreation, wildlife viewing, canoeing, kayaking, stand-up paddleboarding, fly fishing, backpacking, rock climbing, and more.

A study conducted with visitors to three wildlife reserves in Kenya asked participants to rate 49 motivational factors (Beh & Bruyere, 2007). Three groups of visitors were identified based on the resulting motivations using factors and cluster analyses. While one group values the possibility of getting away from daily routines and experiencing an adventure, another seeks the opportunity for self-reflection; both would benefit from being directed to less-visited areas of the

three national parks. A large group, which values education, would benefit from more highly developed educational programs (Beh & Bruyere, 2007).

Research conducted in two national forest protected areas in southern China—Nanling National Forest Park (NNFP) and Dinghushan National Nature Reserve (DNNR)—revealed insights into Chinese visitors' self-determined travel motivations and how these relate to their environmentally responsible attitudes and behaviors (Ma et al., 2018). According to the study, visitors are equally motivated by intrinsic as well as extrinsic factors. As a result, both motivations significantly influence visitors' environmental attitudes and behaviours. Based on these findings, Chinese park visitors differ from their Western counterparts when it comes to travel motivations, environmental attitudes, and environmentally responsible behaviour. These findings have important implications for managing visitor experiences in protected areas across mainland China. A substantial proportion of international visitors to parks outside China are Chinese, so these findings are useful for protected areas around the world (Ma et al., 2018).

Using the recreation experience preference theory, one study was conducted in Eskişehir, Turkey to determine outdoor recreation behaviour. Motivations were examined based on the recreation experience preference theory, and experiences were examined based on the experience economy theory. In this study, face-to-face surveys and web surveys were used to collect data, and structural equation modeling was used to analyze it. In this study, the most widely practiced activity was hiking. According to the results of this study, outdoor recreation motivations were important indicators of recreation behaviour. The REP scale was used to determine outdoor recreation motivations in the Eskişehir case. A number of factors are ranked according to their importance, such as relaxation, learning and socialization, achievement and independence, and personal development. A significant relationship was found between outdoor recreation

motivation, nature experiences, and leisure activity preferences during vacations (Aşan & Emeksiz, 2018).

To effectively serve visitors from diverse racial and ethnic backgrounds, park managers must recognize and respond to varying recreation motivations and preferences. Research has shown that such differences do exist. For example, a study conducted in three northern Georgia state parks used intercept surveys to examine variations in motivations and site preferences among a racially and ethnically diverse group of visitors (Whiting et al., 2017). The study identified four broad motivation categories: social interaction, physical health and fitness, relaxation and restoration, and nature interaction. Visitors assessed all motivational factors as important, with social interaction emerging as the most prominent. Additionally, developed and maintained outdoor spaces were generally preferred over natural areas across all user groups. Notably, African American and Asian visitors placed less emphasis on nature interaction compared to other groups. For Latino visitors, social motivations were particularly strong, highlighting the importance of culturally responsive programming. The study also found that motivations related to social interaction and physical fitness were closely linked to developed and maintained areas, while social interaction was also strongly associated with natural areas. These findings emphasize the critical role of understanding visitor motivations and preferences in guiding park design and management to ensure inclusive and meaningful experiences for people of all cultural backgrounds.

Walker et al. (2001) examined the motivations of outdoor recreationists who identify themselves as being Chinese; comparing these motivations to those of Euro-North Americans in the same outdoor setting; explaining ethnicity, acculturation, and outdoor recreation motivations using the construct of self-construal. It is generally believed that people from Western Europe and

North America tend to have independent self-construal, whereas those from Asia, Africa, Latin America, and Southern Europe tend to have interdependent ones. In this study, regressions were conducted based on these beliefs. The results revealed several key findings: (a) self-construal is influenced by both forms of ethnicity; (b) while ethnicity directly impacts four outdoor recreation motivations, this effect is generally—but not universally—mediated by self-construal; (c) ethnicity also indirectly influences four additional recreation motivations, either through interdependent self-construal alone or through a combination of both independent and interdependent self-construal's; and (d) acculturation had a direct effect on one recreation motivation and indirect effects on two others via the independent self-construal of Chinese participants (Walker et al., 2001).

### **Summary of Empirical Studies on Leisure Types in Outdoor Recreation Contexts**

As illustrated in Table 2.1, this section presents a synthesis of empirical studies regarding serious, casual, and project-based outdoor leisure. There are diverse activities, methodological approaches, and conceptual frameworks shown in the table, ranging from kayaking to hiking to gardening to dancing. In addition to highlighting recurring themes, such as motivation, identity, well-being, and environmental concern, it identifies underexplored areas, especially in project-based and casual leisure.

As shown in Table 2.1, key study elements (e.g., leisure types, sample size, methods) are organized to enhance clarity; methodological diversity in the literature is demonstrated to support the study's mixed-methods approach; and the Serious Leisure Perspective (SLP) is demonstrated in a variety of contexts to reinforce theoretical grounding. Furthermore, it provides scholars

seeking a comprehensive overview of SLP-related research in outdoor settings with links to fields such as psychology and environmental studies.

**Table 2-1.** An overview of all empirical research studies related to serious leisure that have been reviewed in this chapter.

<b>Author and Date</b>	<b>Leisure Type Covered</b>	<b>Outdoor Recreation Activity</b>	<b>Other Concepts Explored</b>	<b>Qualitative/Quantitative/Both</b>	<b>Sample Size</b>
Aksu et al., (2022)	Serious Leisure	Trekking, Kickboxing	Positive and negative reciprocity attitudes	Quantitative	319
Argan et al., (2015)	Project-Based Leisure	Kite Fest 2013 in Turkey	Planning, implementing, and supervising of events	Qualitative	NA
Assor et al., (2009)	Serious Leisure and Casual Leisure	Rock Climbing	self-determination theory	Quantitative	1,222
Barbieri & Sotomayor (2013)	Serious Leisure	Surfing	Perceived Benefits, Surf Identity	Quantitative	126
Cheng & Pegg (2016)	Serious Leisure	Gardening	Happiness, well-being, positive self-image	Qualitative	13
Cheng et al., (2017)	Serious Leisure and Casual Leisure	Gardening	Leisure identity, ethos, effort, life satisfaction	Quantitative	514
Cheng et al., (2010)	Serious Leisure	Gardening	Leisure and life satisfaction	Quantitative	433
Davies (2018)	Serious/Casual Leisure	Walking	Levels of commitment to walking distinctions between casual and serious walks	Qualitative	There were five focus groups, each with between 6 and 12 participants.
Davies et al., (2012)	Serious/Casual Leisure	Recreational walking	Motivation, preferences, information needs of serious and casual walkers	Qualitative	23
Ertaş and Aktaş (2022)	Serious Leisure	Motorcycle Leisure (Scale development)	Motives and Constraints	Qualitative and Quantitative	293 (festival), 193 (online)

<b>Author and Date</b>	<b>Leisure Type Covered</b>	<b>Outdoor Recreation Activity</b>	<b>Other Concepts Explored</b>	<b>Qualitative/ Quantitative/Both</b>	<b>Sample Size</b>
Gatersleben et al., (2018)	Serious Leisure, Casual Leisure	Various leisure activities	Environmental values	Qualitative and Quantitative	1,716
Kane & Zink (2004)	Serious Leisure	Kayaking	Personal challenges, status, success	Qualitative	9
Kim et al., (2019)	Serious Leisure	Camping	Leisure functioning, happiness	Quantitative	284
Lee (2013)	Serious Leisure	Rock Climbing	Social interactions, systematic commitment, motivation	Quantitative	401
Lee & Ewert (2019)	Serious Leisure	Rock Climbing	Profound experience, Motivation, commitment, identity development, rewards	Quantitative	486
Lee et al. (2023)	Serious Leisure, Casual Leisure, Project-Based Leisure	Bobsledding	Motivation, experiential characteristics, growth opportunities in bobsled participation	Qualitative	9
Lee, Bentley et al., (2017)	Serious Leisure	Rock Climbing	Skills, self-concept, social connections, recreational needs	Quantitative	355
Lee, Gould et al., (2017)	Serious Leisure	Paddlesports	Multiple outcomes in outdoor recreation contexts	Quantitative	171
Littlefield & Siudzinski (2012)	Serious Leisure	Hiking	Equipment use, social learning, innovation	Qualitative	35
Liu & Yu (2015)	Serious Leisure, Casual Leisure	Dance	Satisfaction	Qualitative and Quantitative	418
Liu et al., (2024)	Serious Leisure	mountain hiking	Environmental concern, place attachment	Quantitative	318
Moularde and Weaver (2018)	Serious Leisure	Mountain Biking	Belonging, tourism experiences, Social Connectedness	Qualitative	25
Palso (2008)	Project-Based Leisure	Self-drive recreation	Subjectivity of leisure categorization, participation rates	Qualitative and Quantitative	154 surveys 17 Interviews
Rahikainen (2020)	Serious Leisure	rock-climbing	Shared language, sense of belonging	Qualitative	7

Author and Date	Leisure Type Covered	Outdoor Recreation Activity	Other Concepts Explored	Qualitative/ Quantitative/Both	Sample Size
Rosser (2018)	Project-Based Leisure, Serious Leisure	Caving	Role in the lives of older adults, resilience benefits, outdoor adventure activities	Qualitative	4
Song & Ahn (2023)	Serious Leisure	Hiking, biking, golfing, and paragliding	Impact of leisure attitude, recreational specialization on participation	Quantitative	356
Suni (2017)	Serious Leisure	Hunting	Personal Commitment, Career Progress, Effort	Quantitative	1662
Tian et al., (2023)	Serious Leisure, Casual Leisure, Project-Based Leisure	Cycling	Satisfaction	Quantitative	286
Tsai (2018)	Serious Leisure	Tennis as a recreational activity	Motivations, Recreational Specialization	Quantitative	280
Cheng & Tsaur, 2012	Serious Leisure	Surfing	Perseverance, Attraction, Self-expression, Lifestyle Centrality, Ethos, Career	Quantitative	434
Wilson et al., (2014)	Serious Leisure	Rock climbers	Environmental concern, Place attachment	Quantitative	151
Yoder (1997)	Serious Leisure	Fishing	Role of commodity agents, commodification of leisure	Qualitative and Quantitative	86
Zurawik (2020)	Serious Leisure	Walking	Well-being, socio-environmental, benefits and rewards	Qualitative and Quantitative	NA

**Note:** Some information, such as sample sizes, is not explicitly mentioned in the studies.

## Conclusion

Previous research has rarely explored the experiences of outdoor recreationists in serious leisure perspective contexts (Di, 2018). While some studies have utilized the Serious Leisure Perspective (SLP) framework in the context of outdoor recreation (Aksu et al., 2022), a limited number of studies have examined specific outdoor activities using SLP (Briggs & Stebbins, 2014).

Despite evidence suggesting that serious leisure can have positive effects on cognitive, affective, and behavioural aspects of outdoor recreation (Aksu et al., 2022), the examination of outdoor recreationists in terms of these leisure categories has been limited.

After meticulously examining research studies pertaining to the serious leisure perspective (nature-based serious leisure, nature-based casual leisure, and nature-based project-based leisure), within the context of outdoor recreation, several observations can be made (Davies et al., 2012; Lee et al., 2023). Research on outdoor recreation from a serious leisure perspective focuses primarily on serious leisure activities, while limited studies have examined casual leisure in an outdoor recreation context. Therefore, in this section, I will first review the key findings and insights that are found in the literature, then I will address the points that are unknown to us (gaps), and finally, I will discuss the gaps that this research addresses.

## **Key Findings and Insights**

Several key findings and insights can be drawn from the studies on nature-based serious leisure, nature-based casual leisure, and nature-based project-based leisure. Also, there are several key conclusions and insights that can be drawn from the studies on the effect of serious leisure on outdoor recreationists' environmental concerns.

1) **Serious Leisure and Casual Leisure Distinctions:** The studies consistently highlight the distinction between nature-based serious leisure and nature-based casual leisure. Serious leisure is characterized by higher levels of commitment, identity development, perseverance, skill acquisition, and effort, while casual leisure involves more relaxed and spontaneous engagement in recreational pursuits (Davies, 2018; Davies et al., 2012; Stebbins, 1982, 1997). 2) **Motivations and Preferences:** The studies explore how motivations and preferences differ between serious and casual leisure participants. Serious leisure participants are driven by intrinsic and identified

motivations, seeking personal development, self-expression, and a sense of accomplishment. Casual leisure participants, on the other hand, may seek enjoyment, relaxation, and simple pleasures (Barbieri & Sotomayor, 2013; Scott, 2012).

3) Happiness and Well-being: Serious leisure engagement is positively associated with higher levels of happiness and overall well-being. Participants who are deeply involved in their chosen outdoor activities tend to report greater satisfaction and fulfillment in life (Cheng & Pegg, 2016; Siddiquee et al., 2016).

4) Mediating Role of Serious Leisure: Serious leisure mediates the relationship between leisure functions and happiness. Engaging in serious leisure pursuits can enhance leisure functioning and overall happiness among participants (Tian et al., 2023).

5) Social Identity and Connectedness: Serious leisure activities often foster a strong sense of social identity and connectedness among participants. Shared experiences and common language create a sense of belonging and camaraderie within recreational communities (Lee & Ewert, 2019; Ertaş & Aktaş, 2022).

6) Destination Preferences: For activities like mountain biking, surfing, and kayaking, serious leisure attributes influence destination preferences. Serious leisure participants seek destinations that can enhance their level of seriousness in the activity, providing challenging and rewarding experiences (Sotomayor & Barbieri, 2016; Moularde & Weaver 2016).

7) Potential for Market Segmentation: Understanding the distinctions between serious leisure and casual leisure can be valuable for market segmentation and tailored marketing strategies in the outdoor recreation industry (Sotomayor & Barbieri, 2016). Overall, these studies provide valuable insights into the motivations, experiences, and outcomes of engaging in various outdoor recreation activities as serious or casual leisure pursuits. The serious leisure framework offers a useful lens to understand the commitment, identity formation, and satisfaction that individuals derive from their chosen leisure activities.

8) Project-Based Leisure in Outdoor Recreation: Although only a limited number of studies have examined project-based leisure activities related to outdoor recreation (such as gardening), most of these studies focused on older adults. Rosser (2018) investigated project-based leisure among people ages 65 and over. In addition, Argan et al. (2015) stated that project-based leisure activities are attractive to some groups of people, such as retirees. Moreover, the findings indicate that project-based leisure can serve as a valuable distraction as well to manage health problems that are associated with aging. Also, this kind of outdoor recreation activity helps participants keep fit, and it is a distraction from thinking about everything wrong with them (Argan et al., 2015; Rosser, 2018).

9) Environmental Concern and Outdoor Recreation: The literature on outdoor recreation, serious leisure, and environmental concern provides a foundation for understanding these relationships (Berns & Simpson, 2009; Teisl & O'Brien, 2003; Thapa & Graefe, 2003). In the light of this, more research is needed to understand how participation in outdoor activities contributes to environmental awareness and concern. In summary, these research studies provide insights into the motivations, experiences, and outcomes of participating in project-based leisure activities related to outdoor recreation. They also shed light on the significance of such activities for older adults and their role in promoting resilience and well-being. Furthermore, the studies examine the distinction between serious and project-based leisure and explore the organizational aspects of project-based leisure events. For these reasons, it is necessary to investigate how project-based leisure is captured for other groups of participants such as rock climbing, surfing, or even young people participating in outdoor recreation.

## **Identifying Gaps**

The Serious Leisure Perspective has been studied and used to explain a wide variety of outdoor recreation activities, from climbing (Dilley & Scraton, 2010) to walking (Davies et al.,

2012). The objective of this section is to identify gaps in research conducted on outdoor recreation from a serious leisure perspective. There seem to be significant gaps in the research in the different areas. The study focuses on three interrelated themes that are central to identifying these gaps: (1) the integration and categorization of different leisure types (serious, casual, and project-based); (2) the diversity of participant profiles and motivations; and (3) the relationship between leisure involvement and environmental concerns. It is vital to address these issues not only to advance theoretical frameworks like Serious Leisure Perspective and Self-Determination Theory, but also to provide practical insights for park management, program design, and environmental sustainability initiatives.

Although these gaps may appear broad, they produce a coherent and focused agenda of research. Three interrelated studies within this dissertation are strategically linked by a common objective and methodology. By retaining all of these gaps, we can better understand how leisure engagement evolves, how it is shaped by social and contextual factors, and how it may promote environmental commitment. As well as enhancing originality and contribution, emphasizing and addressing these gaps provides new empirical evidence and theoretical integration across a currently fragmented field of research.

**First Gap:** Integration of Serious Leisure, Casual Leisure, and Project-Based Leisure: According to the serious leisure perspective outdoor recreational activities can be categorized into three forms (serious leisure, casual leisure, and project-based leisure), each with their own characteristics and motivations. Existing studies have explored these three leisure forms individually, highlighting their distinct characteristics and motivations. However, there is a lack of research that comprehensively examines how these three leisure activity forms are interconnected. Of the 33 studies reviewed on nature-based recreation from the serious leisure

perspective, only two studies examined all three forms of serious leisure, casual leisure and project-based leisure (Lee et al., 2023; Tian et al., 2023). Six studies investigated both serious leisure and casual leisure (Assor et al., 2009; Cheng et al., 2017; Davies, 2018; Davies et al., 2012; Gatersleben et al., 2018; Liu & Yu, 2015) and one study explored both serious leisure and project-based leisure (Rosser, 2018). Twenty-two studies explored only serious leisure while only two studies focused on only project-based leisure (Argan et al., 2015; Palso, 2008). Considering how individuals may transition from one serious leisure perspective to another or engage in multiple leisure experiences at once could provide valuable insights into outdoor recreation experiences. This study will address this gap. We may be able to illustrate how serious leisure perspectives intersect and interact within the context of outdoor recreation activities. The use of categorization can help bridge this research gap because it provides a structured framework for investigating a topic. We will therefore address the following question: *How do outdoor recreationists in parks differ in their engagement levels and motivations, as categorized by the serious leisure perspective (serious leisure, casual leisure, project-based leisure)?*

**Second Gap:** Inclusion of Diverse Participant Groups: The existing research has primarily focused on specific age groups, for example older adults (Cheng & Pegg, 2016; Rosser, 2018). There is a need for studies that investigate the various leisure perspectives among different participant groups, such as younger individuals participating in outdoor activities. Understanding how leisure perspectives vary across diverse participant demographics can provide a more comprehensive understanding of outdoor recreation experiences. Studies also have shown that leisure preferences and participation patterns often vary across age groups. Younger individuals may be more inclined toward serious leisure and casual leisure activities (Lee et al., 2023), while older adults may engage in more project-based leisure pursuits, seeking meaningful experiences

and opportunities for personal growth (Argan et al., 2015; Rosser, 2018). There are some effects of ages on outdoor recreational participation in different levels (Lee et al., 2001), but we are still uncertain whether age is the only factor that affects outdoor recreation participants' participation in specific outdoor recreation activities in serious recreation, casual recreation, or project-based recreation. Also, while the study by Argan et al. (2015) provides valuable insights into the concept of project-based leisure activities, particularly in the context of non-profit events like kite festivals, there is a lack of research that explores the motivations and experiences of diverse participant groups beyond retirees. Argan et al.'s (2015) study mentioned that retirees, who have more flexibility with their time, engage in project-based leisure activities. However, there is a need for further investigation into whether other demographic groups, such as working professionals, students, or families, also participate in and experience project-based leisure in similar or different ways. Additionally, Argan et al. (2015) research only focuses on one case study, the Kite Fest 2013 in Turkey. To build a more comprehensive understanding of project-based leisure, future studies should examine multiple events in various settings and cultural contexts. Comparing and contrasting project-based leisure activities across different events and locations could reveal variations in planning, implementation, and supervision processes, as well as shed light on the unique social dynamics and motivations behind participation. Furthermore, the studies primarily employ semi-structured interviews and observations as data collection techniques. While these methods are valuable, using complementary approaches like surveys or focus groups could offer a more comprehensive understanding of the participants' perspectives and experiences during project-based leisure activities.

**Third Gap:** Longitudinal Studies on Leisure Engagement: Many of the current studies provide insights into the motivations and experiences of individuals engaged in outdoor recreation

activities (Barbieri & Sotomayor, 2013; Scott, 2012). However, there is a lack of longitudinal research that tracks individuals' leisure engagement over time. Longitudinal studies could help identify patterns of leisure transformation, changes in motivations, and the long-term effects of leisure involvement on personal development and well-being.

**Fourth Gap:** The Role of Environmental and Social Factors: The literature reviewed focuses on individual motivations and experiences within outdoor recreation activities (Moularde & Weaver, 2018). There is a gap in understanding how external factors, such as the natural environment, social dynamics, and community support, influence serious leisure perspectives and experiences. Exploring the interplay between individual preferences and external factors could enrich our understanding of the complex relationship between outdoor recreation and leisure engagement.

**Fifth Gap:** One of the other gaps is the type of participation. Different types of outdoor recreation participation may be associated with different levels of environmental concern. In order to better understand how outdoor activities relate to environmental concern and whether there are variations in their effects, more research is necessary.

**Sixth Gap:** Lack of coherence in conclusions: Studies linking outdoor recreation participation to environmental concern tend not to be coherent. In other words, despite efforts to examine how engaging in outdoor activities relates to people's level of environmental concern, the conclusions drawn from these studies often lack cohesion or consistency. This lack of coherence might manifest contradictory findings, unclear relationships between variables, or inconclusive results. There is a gap in literature where more research is needed to establish consistent patterns or explanations for these relationships (Berns & Simpson, 2009).

**Seventh Gap:** Outdoor activities may increase commitment to protecting the environments where they are conducted by interacting with nature. The lack of understanding of how outdoor activities affect environmental commitment and what factors may enhance or hinder it suggests a potential gap in understanding (Berns & Simpson, 2009; Teisl & O'Brien, 2003). Overall, literature gaps focus on the need for more focused and coherent research to better understand how outdoor recreation and environmental concern are related, as well as the impact of serious leisure outdoor activities on individual environmental concern and behaviors. Therefore, a study addressing these gaps would contribute significantly to the field of outdoor recreation and environmental concern. Thus, the following question will be addressed in this study: *What impact does engagement in serious leisure have on the environmental concerns of outdoor recreationists in park visitors?*

**Eighth Gap:** While the existing research has explored nature-based project-based leisure, there seems to be a gap in the literature regarding the understanding of the long-term impacts and sustainability (the ability of project-based leisure activities related to outdoor recreation to be maintained or continued over the long term without causing harm to the environment, society, or other aspects of well-being) of such project-based leisure activities. The existing studies, conducted by Palso (2008) and Rosser (2018), have shed light on motivations, experiences, and outcomes of engaging in project-based leisure activities. However, they do not delve into the broader implications and lasting effects of these activities on individuals and communities. Palso's (2008) and Rosser's (2018) research focuses on identifying project-based leisure activities, understanding their characteristics, and exploring the motivations behind participation. However, there is limited insight into the potential contributions of these activities to personal development, community bonding, and overall well-being over time. Additionally, the sustainability of project-based leisure initiatives and their potential to address social issues like social isolation, loneliness,

and health concerns among different age groups, particularly among older adults, needs further exploration.

**Ninth Gap:** Previous studies (Davies, 2018; Davies et al., 2012) examined differences between casual and serious walkers in recreational walking. The existing literature, however, contains some gaps that can be addressed: For instance, there is a limited exploration of motivations: Although the research discusses the differences between casual and serious walkers, it does not explore in detail the underlying motivations driving individuals to adopt these unique walking styles in depth. Exploring the psychological, social, and personal factors that contribute to a person's choice of being a casual or serious walker could provide valuable insights into the motivations behind recreational walking. Also, exploring how technology, such as mobile apps, online forums, and GPS devices, influences the behaviors and information-seeking patterns of both casual and serious walkers could provide a contemporary perspective on the topic. Therefore, the last study in this research seeks to understand the motivations that motivate outdoor recreationists. The purpose of this study is to uncover the underlying motivations and drives that lead people to visit this natural recreational area. In this study, we will address the following questions: *What is the motivation, drivers, and characteristics of park visitors in National Park? What insights does the serious leisure framework provide into park visitors' motivation?*

**Tenth Gap:** One of other potential literature gap in the context of outdoor recreation activity is the lack of research focusing on the impact of age and life stage on the development and expression of serious leisure characteristics among participants (Barbieri & Sotomayor, 2013; Portugal et al., 2015; Cheng & Tsaur, 2012). Existing research mainly focuses on the relationship between serious leisure characteristics and recreational involvement, the causal relationships between different variables, and the importance of personal efforts, identity development, and

career pursuits in indicating serious leisure orientation. However, it appears to be silent on how age and life stage may influence these relationships and characteristics (Barbieri & Sotomayor, 2013; Portugal et al., 2015; Cheng & Tsaur, 2012). Addressing this gap could be crucial because individuals' leisure preferences, motivations, and levels of involvement often change as they progress through different stages of life. Understanding how age-related factors affect serious leisure characteristics could provide valuable insight into a person's leisure activities at any given point in their lives (Portugal et al., 2015; Cheng & Tsaur, 2012). For instance, it could shed light on whether serious leisure attributes are consistent throughout participants' lives or if participants change over time due to various life events, responsibilities, or shifts in personal interests (Barbieri & Sotomayor, 2013; Cheng & Tsaur, 2012). Longitudinal studies or cross-sectional comparisons among outdoor recreationists of different age groups are needed to explore how the expression of serious leisure characteristics evolves across various life stages. Also, investigating potential differences in motivations and patterns of involvement of young and older outdoor recreationists might reveal age-specific challenges and opportunities. Further, researchers could investigate how generational differences might affect the adoption and perception of outdoor recreation as a serious leisure activity.

**The Eleventh Gap:** Research on serious leisure, casual leisure, and project-based leisure in space and place has indeed been conducted (Adjizian et al., 2020; Elkington, 2013; Stalp, 2006). These forms of leisure activities can often intersect with various aspects of park use and management and understanding them can be crucial for effective park planning and programming. Therefore, it is possible that gaps in knowledge still exist with regards to these forms of leisure in park settings, even though research has been conducted on these forms of leisure. As an example, more comprehensive studies could investigate how leisure activities (serious leisure, informal

leisure, and project-based leisure) interact within parks, how environmental factors influence leisure experiences, or how park management strategies promote diverse leisure opportunities. Addressing these research gaps can provide valuable insights for park planners, policymakers, and stakeholders seeking to create inclusive, engaging, and sustainable park environments that cater to a wide range of leisure preferences and interests. Research in this area can also contribute to our understanding of how park attendance and leisure participation promote social, cultural, and health benefits, ultimately improving the quality of life for park users.

**Lastly:** most studies have not examined how participants' distance affected their outdoor recreation activities (Lee et al., 2022). The distance refers to how far participants need to travel from their homes or usual living areas to engage in outdoor recreation activities (Lee et al., 2022). Hence, this research will also examine the effects of destination on participation rates, preferred locations, or the types of outdoor activities people choose based on their proximity to their homes (Varade et al., 2022). Does the distance from home to the outdoor recreation site (Gatineau Park) influence the frequency of participation in serious leisure activities compared to casual leisure activities? Does the perception of distance (e.g., perceived travel time, accessibility) affect individuals' motivation and willingness to participate in project-based leisure activities? Therefore, this study will also address this gap.

Addressing these gaps in research would not only advance the understanding of outdoor recreationists' experiences but also contribute to the development of targeted interventions and policies to promote positive leisure experiences and well-being among individuals engaged in outdoor activities. These gaps could be addressed through a comprehensive and comparative study that examines multiple outdoor recreational activities, considering their classification as serious leisure or casual leisure. Such research could shed light on how participants' motivations,

commitment levels, experiences, and perceived benefits differ between serious leisure, casual leisure and project-based leisure as experienced through various outdoor activities. Additionally, this research could provide valuable insights into destination management, market segmentation, and tailored marketing strategies in the outdoor recreation industry to better cater to the diverse needs and preferences of different leisure groups. Therefore, the following table not only summarizes the literature gaps but also addresses those which this study will investigate.

**Table 2-2:** A summary of the identified research gaps

Gap	Study/Source	Is this study addressing this gap?	
Integration of Serious Leisure, Casual Leisure, and Project-Based Leisure	Palso (2008) Rosser (2018)	Yes	There is a lack of research that comprehensively examines how these three leisure activity forms are interconnected. The use of categorization can help bridge this research gap because it provides a structured framework for investigating a topic.
Inclusion of Diverse Participant Groups	Cheng & Pegg (2016) Rosser (2018)	No	-
Longitudinal Studies on Leisure Engagement	Barbieri & Sotomayor (2013) Scott (2012)	No	-
The Role of Environmental and Social Factors	Moularde & Weaver (2018)	No	-
Type of participation		No	-

Lack of coherence in conclusions	Berns & Simpson (2009)	No	-
Outdoor activities may increase commitment to protecting the environments where they are conducted by interacting with nature	Berns & Simpson (2009) Teisl & O'Brien (2003)	Yes	Overall, literature gaps focus on the need for more focused and coherent research to better understand how outdoor recreation and environmental concern are related, as well as the impact of serious leisure outdoor activities on individual environmental concern and behaviors. Therefore, a study addressing these gaps would contribute significantly to the field of outdoor recreation and environmental concern.
Understanding of the long-term impacts and sustainability	Palso (2008) Rosser (2018)	No	-
The motivations behind choosing a certain leisure activity	Davies (2018) Davies et al., (2012)	Yes	This research seeks to understand the motivations that motivate outdoor recreationists.
The lack of research focuses on the impact of age and life stage on the development and expression of serious leisure characteristics among participants	Barbieri & Sotomayor (2013) Portugal et al., (2015)	No	-

<p>Exploration of Serious Leisure, Casual Leisure, and Project-Based Leisure in Park Settings</p>	<p>Adjizian et al., (2020) Elkington (2013)</p>	<p>Yes</p>	<p>A comprehensive study could investigate how leisure activities (serious leisure, informal leisure, and project-based leisure) interact within parks, how environmental factors influence leisure experiences, or how park management strategies promote diverse leisure opportunities.</p>
<p>How participants' distance affected their outdoor recreation activities</p>	<p>Lee et al., (2022) Varade et al., (2022)</p>	<p>Yes</p>	<p>Does the distance from home to the outdoor recreation site (Gatineau Park) influence the frequency of participation in serious leisure activities compared to casual leisure activities? Does the perception of distance (e.g., perceived travel time, accessibility) affect individuals' motivation and willingness to participate in project-based leisure activities? Therefore, this study will also address this gap.</p>

## **Chapter 3**

## **Methodology**

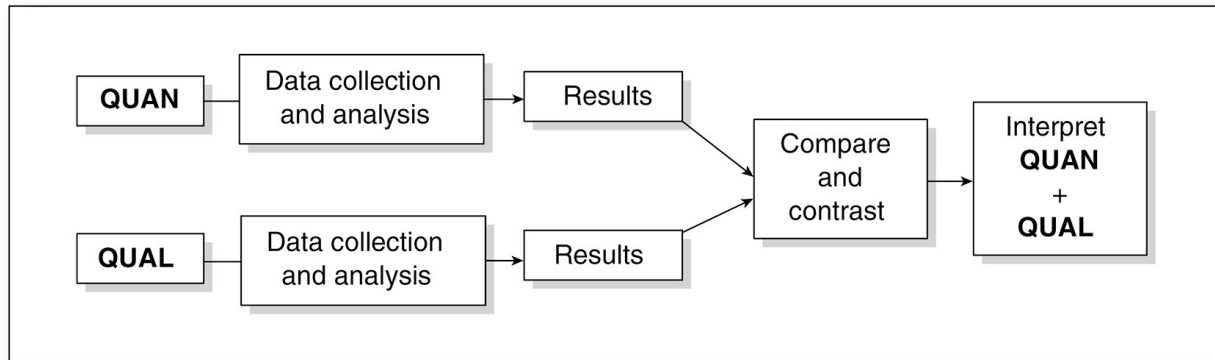
This study began by identifying existing research gaps in the field of outdoor recreationists. Based on these gaps, specific research questions were formulated to guide the inquiry and address the identified shortcomings in the literature. The overarching objective of this thesis is to enhance our understanding of park visitors' behaviors in Gatineau Park—a national park—through the lens of the Serious Leisure Perspective (SLP), with particular attention to their environmental concerns and motivations. To achieve this objective, three interrelated studies were conceptualized and conducted. Chapter 3 outlines the overall research design, which adopts a mixed-methods approach. It also details the methodology employed in each individual study, including data collection procedures, instruments used for gathering data, and analytical techniques applied.

This study employed a convergent parallel mixed-methods design (Creswell & Clark, 2017), in which quantitative and qualitative data were collected simultaneously, analyzed independently, and then integrated during the interpretation phase. The value of mixed-methods research has long been recognized by methodological scholars (Greene & McClintock 1985; Creswell, 1999; Johnson & Onwuegbuzie, 2004). Both parts were given equal priority to provide a comprehensive understanding of the research questions. The purpose of this design was to triangulate findings by directly comparing quantitative results with qualitative insights for corroboration and validation (Clark & Ivankova, 2015; Morse, 1991). The overall research process used in this study is illustrated in Figure 3-1.

### **Convergent parallel mixed-methods design**

This design allows the researcher to integrate both quantitative and qualitative data within a unified framework, applying distinct methodological strategies. The QUAN and QUAL data at

each level are subsequently merged to generate a comprehensive interpretation (Edmonds & Kennedy, 2016).



**Figure 3-1:** Parallel-Databases Design. Design from Edmonds & Kennedy (2016)

## Epistemology and Ontology

Investigating both qualitative and quantitative methods in leisure studies requires the consideration of different epistemological and ontological positions (Veal, 2017).

### *Epistemology and Ontology of Study One*

The first study utilized Structural Equation Modeling (SEM) to examine the relationship between the level of serious leisure involvement and environmental concern among park visitors. It was based on a positivist epistemology, emphasizing empirical measurement and hypothesis testing, and an objectivist ontological perspective, assuming that leisure behaviors and attitudes are real phenomena that exist independently of the researcher and can be objectively quantified.

### *Epistemology and Ontology of Study Two*

The second study employed cluster analysis to categorize park visitors based on their level of seriousness in leisure participation. This study adopted a positivist epistemology and an objectivist ontology, as it relied on measurable, observable data to identify and classify patterns of visitor behavior.

### *Epistemology and Ontology of Study Three*

The third study adopted an interpretivist epistemology, which focuses on exploring the meanings and lived experiences of individuals as shaped by their social and cultural contexts (Hiller, 2016). This approach was appropriate given the study's use of qualitative methods such as semi-structured interviews and thematic analysis to explore park visitors' motivations and levels of leisure commitment. Interpretivism prioritizes subjective perspectives, aligning with the exploratory aims of this study. The ontological position of the third study was constructivist, which holds that reality is socially constructed through individual and collective experiences (Al-Ababneh, 2020). The study aimed to explore how casual, project-based, and serious park visitors construct and interpret their motivations without imposing predetermined categories. The use of qualitative methods and an inductive analytical approach supports this ontological stance, allowing insights to emerge from participants' narratives and the themes developed through data interpretation (Al-Ababneh, 2020).

### **Location of the study: Gatineau Park**

All studies presented in this thesis were conducted in Gatineau Park. Gatineau Park was established on July 1, 1938, when the Government of Canada, under the leadership of William Lyon Mackenzie King, acquired the land and surveys for the Gatineau Valley National Trail Park and began collecting them (Smith, 2013). It was MacKenzie King's personal connection to the Gatineau Hills (he spent his free time there) that allowed the park to be created (Smith, 2013). Covering 361 square kilometers, Gatineau Park is situated next to the Canadian cities of Ottawa and Gatineau (Lait, 2021). What distinguishes Gatineau Park from other large natural parks in Eastern Ontario and Western Quebec is its close proximity to an urban center (Heintzman, 2010;

McFarlane, 2016). As the second-most visited park in Canada—surpassed only by Banff National Park in Alberta—it attracts outdoor enthusiasts seeking recreational experiences that align with environmental values (Lait, 2016, 2021). The park is organized into multiple sectors, one of which is accessible directly from downtown Ottawa–Gatineau, and each sector features historical landmarks and notable points of interest. Unlike many other national parks, Gatineau Park offers several access points and a network of roads leading to its northern and western areas (Donohoe & Gilmore, 2012).

### **Why Gatineau Park?**

Most outdoor recreation activities occur in park areas or areas that are more easily accessible to the public (Bell et al., 2007). Gatineau Park is situated in the province's southern region. Located just north of Ottawa, on the border between Quebec and Ontario (Smith, 2013). In this special place, residents and visitors can enjoy an enhanced quality of life (NCC, 2021). Gatineau Park is an important part of the Capital Region's environmental conservation efforts. Additionally, it is a very popular recreational area for residents and visitors alike. In terms of annual visitors, Gatineau Park ranks second most visited park in Canada after Banff National Park. It serves as a destination for more than 600,000 people each year (NCC, 2021). Besides cycling, rock climbing, and snowshoeing Gatineau Park also offers swimming, rowing, picnicking, camping, cross-country skiing, downhill skiing, and as well as skiing, downhill skiing, snowshoeing, and rock climbing (NCC, 2021).

As one of Canada's most popular nature parks, Gatineau Park is situated near one of the country's largest metropolitan areas (Heintzman, 2007). Visitors to Gatineau Park are expected to continue to increase (Donohoe, 2009). The park will be subject to external pressures from urbanization, cultural diversification (changing recreational demands), climate change, and

conflicting values (Donohoe, 2009). The provinces of Quebec and Ontario have a wide variety of parks and recreational areas. Gatineau Park was chosen as a research area for several reasons. This natural area plays an important role in maintaining the biodiversity and integrity of regional ecosystems and provides ecological services. The following are the specific methodological characteristics of each study presented.

**Table 3-4. Park visitors profile**

Variable	N=403	%	Variable	N=403	%
<b>Gender</b>			<b>Marital status</b>		
Female	236	58.6	Single	244	60.5
Male	167	41.4	Married or domestic partnership	150	37.2
			Divorced	4	1
			Widowed	5	1.2
<b>Age</b>			<b>Educational level</b>		
18-25		50.9	High school or less	32	7.9
26-30	205	13.2	College degree	125	31
31-34	53	9.7	Bachelor's degree	144	35.7
35-42	39	13.9	Master's or PhD degree	102	25.3
43-52	56	7.7			
53-65	31	3			
66-70	12	1			
71+	4	0.7			
	3		<b>Employment status</b>		
<b>Language</b>			Paid work	248	61.5
English	347	86.1	Not paid work/students	155	38.5
Franch	56	13.9			
<b>Income</b>			<b>Visiting the park within the past six months</b>		
<\$16,000	53	13.2	1 to 5	126	31.2
\$16,000–28,000	30	7.4	6 to 15	149	37.2
\$28,001–44,000	25	6.2	16 to 30	85	21
\$44,001–56,000	20	5	31 to 50	37	9.1
\$56,001–76,000	66	16.4	50+	6	1.5
\$76,001–100,000	46	11.4			
\$100,001–240,000	125	31			
\$240,001+	38	9.4			
<b>In Gatineau Park, what kind of leisure activities do you participate in?</b>					
<b>Hiking</b>	218	54.1	<b>Snow shoeing</b>	17	4.2
<b>Biking</b>	58	14.4	<b>Skying</b>	14	3.5
<b>Swimming</b>	23	5.7	<b>Other leisure activity</b>	30	7.4
<b>Camping</b>	24	6.0			
<b>Paddle boarding</b>	19	4.7			

## **The First Study**

### **Nature-Based Serious Leisure as a Driver of Environmental Stewardship**

Despite growing environmental challenges, limited research has explored environmental protection from the perspective of outdoor recreationists' behaviours (Bamberg, 2003; Wilson et al., 2014). Study 1 investigated how varying levels of engagement in leisure activities influence environmental concern among individuals involved in nature-based recreation, such as hiking, cycling, and skiing.

## **Research Methods**

Study 1 employed an exploratory, cross-sectional quantitative design to examine the relationship between engagement in serious leisure activities and environmental concern among outdoor recreationists. Grounded in the Serious Leisure Perspective (SLP), the study investigated how sustained leisure involvement relates to ecological attitudes and environmental stewardship (Cordell et al., 2008; Ferguson et al., 2022; Larson et al., 2011; Manning, 2011; Stebbins & Sachsman, 2017). Survey data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) to test the hypothesized relationships and evaluate the model's predictive power.

## **Sampling Strategy and Data Collection Procedures**

Accurate sample size estimation is critical to ensuring the generalizability of research findings to the broader population. Various methods can be employed for this purpose, with software-based calculations for statistical power being among the most precise (Burdenski, 2000; Hintze & Kaysville, 2007). For the present study, sample size estimation was conducted using PASS software (Hintze, 2011) based on the study's objectives and hypotheses. Under assumptions

of an alpha level of 0.01, a statistical power of 0.90, and an  $R^2$  of 0.05 for each criterion variable, the estimated sample size was determined to be 248 participants (Cohen, 2013).

Following ethics approval from the University of Ottawa's Office of Research Ethics and Integrity, data were collected between October and November 2024, using convenience sampling at high-traffic locations within Gatineau Park, including the Visitor Centre, Camp Fortune, Lac Leamy, Pink Lake Lookout, and Champlain Lookout. During data collection, visitors were approached and invited to participate in a questionnaire concerning outdoor recreational experiences and potential conflicts. Data collection occurred in two phases between October 2024 and February 2025. In the first phase, from October to mid-December 2024, we gathered data from 248 participants. This initial dataset was sufficient for the first study, which focused on specific analyses based on our sample size estimation using PASS software. After receiving expert feedback and determining the need for a larger sample for the second study, we continued data collection through February 2025. The final dataset of 403 participants was used for the second study.

The questionnaires were available in both English and French, and participants were offered their preferred language version. Approximately 86% completed the English version and 14% the French version. Recruitment and consent were conducted bilingually by research assistants fluent in both languages.

Eligibility screening was conducted prior to administering the questionnaire. Individuals were included if they confirmed that they (1) were 18 years of age or older, (2) participated in outdoor recreation activities such as hiking, mountain biking, climbing, or fishing, and (3) visited Gatineau Park for leisure purposes. Those who did not meet these criteria were excluded from

participation. Only respondents who met all eligibility requirements were invited to complete the questionnaire.

Surveys were administered primarily in paper format (approximately 85% of responses), with a digital option via iPad when participants preferred or when weather conditions permitted. To mitigate issues related to Wi-Fi or cellular connection, the digital version was designed to function offline. No major technical difficulties were reported. Participants without smartphones were offered paper questionnaires as the default option. In addition, for participants who preferred to complete the survey later, a printed QR code linking to the online questionnaire was provided.

Participants were typically invited to complete the survey immediately after finishing their recreational activity, either on-site (indoors at the Visitor Centre) or outdoors near trailheads and lookouts. When temperatures were colder (approximately 2–12°C during the study period), participants sometimes preferred to take the paper survey home and return it via email. Surveys took approximately 12–15 minutes to complete.

We acknowledge that factors such as weather conditions, questionnaire format, and timing of administration could have influenced participation rates and response quality, and these considerations will be discussed further in the limitations section.

It is acknowledged that factors such as winter weather conditions, the prominence of Camp Fortune as a major recruitment site, and the seasonal composition of visitors could have influenced the demographic profile of respondents, including an overrepresentation of younger, physically active individuals. These considerations will be discussed in more detail in the limitations section and should be taken into account when interpreting the generalizability of the findings.

**Table 3-1.** Recruitment Locations and Approximate Distribution of Respondents

Site	Description	Approximate % of Total Respondents
------	-------------	------------------------------------

Visitor Centre	Indoor facility for park information, hiking and sightseeing visitors	25%
Camp Fortune Ski Area	Alpine skiing and cross-country skiing, mountain biking	30%
Pink Lake Lookout	Scenic lookout and hiking trail access	15%
Champlain Lookout	Hiking, snowshoeing	10%
Mackenzie King Estate	Hiking	10%
Lac Leamy	Walking paths and casual recreation	10%
Total		100%

Table 3-1 summarizes the recruitment sites, the period of data collection, and the approximate distribution of completed surveys. Data was collected between October 2024 and February 2025, with 540 questionnaires distributed in total and 403 retained for analysis. A total of 137 questionnaires were excluded or not returned due to the following reasons:

- Unreturned QR code surveys: Participants who accepted a QR code to complete the questionnaire later but did not submit their responses online (n = 72)
- Incomplete responses: Surveys returned with less than 50% of items completed (n = 45)
- Duplicate or inconsistent responses: Surveys showing clear patterns of inattention or duplication (n = 20)

These exclusion criteria were established to ensure the integrity and completeness of the dataset. The potential effects of partial response rates, particularly for QR code surveys, are considered in the Limitations section.

## **The Instrument**

The first instrument for this study was the Serious Leisure Inventory and Measure (SLIM) established by Gould et al. (2008). As part of the SLIM short form, six qualities were used to develop 18 operations that were derived from Stebbins' six serious leisure factors (perseverance, personal efforts, durable benefits, identity, long-term career, and unique ethos) (Gould et al., 2011; Gould et al., 2008).

The second instrument for this study is the environmental concern survey. Several scales have been developed to assess environmental concern, making the selection of an appropriate instrument a methodological challenge (Alisat & Riemer, 2015; Cruz & Manata, 2020; Dunlap et al., 2000). For Study 1, the New Ecological Paradigm (NEP) Scale, developed by Dunlap and Van Liere (1978) and revised by Dunlap et al. (2000), was used to measure participants' pro-environmental attitudes. This widely adopted instrument consists of 15 Likert-scale items designed to capture general environmental worldviews and has been validated and applied across numerous cultural and geographic contexts (Dunlap, 2008; Ntanos et al., 2019; Zeqir et al., 2019).

The NEP scale evaluates five key dimensions of environmental concern: anti-anthropocentrism, limits to growth, balance of nature, ecological crisis, and rejection of human exemptionism (Dunlap et al., 2000; Lück, 2003). In this study, the NEP questionnaire was administered in person using a 9-point Likert scale, providing a reliable and standardized measure of environmental concern among outdoor recreationists. The questionnaire used in this study is provided in Appendix 1.

**Table 3-2:** Indicator of Environmental Care Attitude

No	Component/Indicator	Item Number of Question
1	Limits to growth	3
2	Anti-anthropocentrism	3
3	Balance of nature	3
4	Anti-exemptionalism	3
5	Eco-crisis	3

**Source:** NEP (New Ecological Paradigm) (Dunlap et al., 2000)

## Reliability and Validity

To ensure validity and reliability for the third study, what are the exact procedures that I should follow when collecting my data? To properly answer our research question, our conceptual framework must be 'truthful', i.e., will your defined and operationalized concepts provide a genuine answer (Gratton & Jones, 2004). Reliability and validity are essential criteria for evaluating the quality and credibility of research, as they help determine the 'truthfulness' of the findings (Gratton & Jones, 2004). Reliability refers to the consistency of results across repeated measurements (Cronbach, as cited in Goswami, 2011). As Joppe (2000) explains, an instrument is considered reliable if it produces consistent results when the study is replicated using the same methodology.

**Table 3-3:** Acceptance criteria of reliability and validity for reflective measurement model assessments in PLS-SEM and Cronbach's Alpha.

Latent variable	Dimensions	Cronbach's Alpha ( $\alpha$ )	Composite reliability	(AVE)
Serious Leisure	Perseverance	0.899	0.937	0.832
	Efforts	0.913	0.945	0.852
	Career	0.948	0.966	0.906
	Ethos	0.863	0.916	0.785
	Identity	0.882	0.927	0.809
	Durable Benefits	0.909	0.943	0.847
Environmental concern	Limits to growth (LG)	0.816	0.890	0.730
	Anti-anthropocentrism (AA)	0.713	0.863	0.631

	<b>The Balance of Nature (BN)</b>	0.516	0.749	0.502
	<b>Anti-Exclusion (AE)</b>	0.805	0.887	0.727
	<b>Ecological Crisis (EC)</b>	0.608	0.793	0.571

## Data Analysis

Once the questionnaires were collected, the responses were entered into SPSS software for preliminary analysis. To test the theoretical framework in Study 1, SmartPLS software was used. The structural model was evaluated using a systematic four-step approach based on Hair et al. (2016) to assess its predictive capabilities and the relationships among constructs. These steps included: (1) evaluating the structural model and linear relationships between variables; (2) assessing the significance of relationships within the model; (3) determining the coefficient of determination ( $R^2$ ); and (4) evaluating the predictive relevance ( $Q^2$ ).

Several criteria were applied to assess model quality. Structural Equation Modeling (SEM) employed the Standardized Root Mean Square Residual (SRMR) as a measure of model fit. According to Henseler et al. (2016), acceptable model fit is indicated when SRMR values are below 0.08, with significance evaluated at the 0.05 level. This variance-based approach ensured the robustness and reliability of the model.

## The Second Study

### Who Comes to the Park and Why? A Cluster Analysis of Leisure Commitment

Parks are widely recognized as vital community assets that promote physical, social, and emotional well-being through recreational and leisure activities. They contribute to public health, foster physical activity, and provide opportunities for self-expression, personal development, and

social interaction. While interest in park-based leisure continues to grow, significant gaps remain in understanding the intensity and variation of visitor engagement—particularly when examined through a theoretical framework that accounts for differing levels of leisure commitment. As was shown in chapter 1 & chapter 2, despite this growing interest, few studies have applied the SLP to systematically segment park visitors based on their engagement profiles. To address this gap, Study 2 aimed to identify distinct visitor profiles by examining both demographic characteristics and levels of seriousness in participation in Gatineau Park. Specifically, it seeks to answer the question, how do park visitors differ in their engagement levels as categorized by serious leisure?

## **Research Methods**

The research methodology chosen for this study was survey research. Several studies have been conducted on the use of surveys as assessment tools. Allen and Babbie (2008) note that "survey research is perhaps the most frequently used mode of observation in the social sciences" (Allen & Babbie, 2008, p. 366). These analytical approaches were used by leisure researchers to better understand how and why people perceive and experience constraints in leisure (Searle & Jackson, 1985). For example, the most influential articles in the field of leisure tend to be quantitative research based on survey data and non-experimental designs that relate to general leisure and outdoor recreational activities (Duerden et al., 2018). There are also several advantages to using the quantitative research method in leisure studies, including surveys, one of the most used methods for evaluating recreation and leisure services and conducting research in recreation, sport, parks, tourism, and leisure studies (Henderson, 2017). It is common for people to fill out questionnaires (Veal, 2006). Furthermore, many professionals prefer surveys to unobtrusive methods or observations (Henderson, 2017).

## **Sampling Strategy and Data Collection Procedures**

The target population for this study consisted of visitors to Gatineau Park. Accurate sample size estimation is essential to ensure the statistical power and generalizability of the results. Among various available methods, using software based on power analysis is considered one of the most precise approaches (Burdenski, 2000; Hintze & Kaysville, 2007). Accordingly, the sample size was estimated using PASS software (Hintze, 2011), based on the study's objectives and hypotheses. Assuming an alpha level of 0.01, a statistical power of 0.90, and an  $R^2$  of 0.05, the required sample size was calculated to be 403 participants (Cohen, 1988; Gatsonis & Sampson, 1989).

Following ethics approval from the University of Ottawa's Office of Research Ethics and Integrity, data were collected between October 2024 and February 2025 using convenience sampling at high-traffic locations within Gatineau Park, including the Visitor Centre, Camp Fortune, Lac Leamy, Pink Lake Lookout, and Champlain Lookout. During data collection, visitors were approached and invited to participate in a questionnaire concerning outdoor recreational experiences and potential conflicts.

Eligibility screening was conducted prior to administering the questionnaire. Individuals were included if they confirmed that they (1) were 18 years of age or older, (2) participated in outdoor recreation activities such as hiking, mountain biking, climbing, or fishing, and (3) visited Gatineau Park for leisure purposes. Those who did not meet these criteria were excluded from participation. Only respondents who met all eligibility requirements were invited to complete the questionnaire.

## The Instrument

This study employed the Serious Leisure Inventory and Measure (SLIM), developed by Gould (2005), as its primary research instrument. To suit different research contexts, Gould designed two versions of SLIM: a long form with 72 items, which demonstrated satisfactory model fit, reliability, and consistency across various samples, and a short form comprising 54 items, which also showed strong construct validity and model fit (Gould et al., 2008). The short form was used in this study to determine whether outdoor recreationists in a national park setting could be classified into serious leisure, casual leisure, and project-based leisure categories, based on the Serious Leisure Perspective.

The SLIM short form was structured around a multidimensional framework, comprising six core qualities from which 18 operational indicators were derived. The 54 items in the SLIM short form served as observed variables linked to 18 latent variables, each representing one of Stebbins' six core characteristics of serious leisure: perseverance, personal effort, durable benefits, identity, long-term career, and unique ethos (Gould, 2005; Gould et al., 2008). The "durable benefits" dimension encompassed twelve latent variables, including personal enrichment, self-actualization, self-expression abilities, individual self-expression, self-image, self-satisfaction, self-enjoyment, re-creation, financial return, group attraction, group accomplishments, and group maintenance. The "long-term career" dimension consisted of two latent variables: career progress and career contingencies (Gould, 2005; Gould et al., 2008).

All SLIM items were measured using a nine-point Likert-type scale, ranging from "Completely Agree" to "Completely Disagree." This response format was designed to offer respondents a broad range of options, including four levels of agreement and disagreement, along

with a neutral midpoint (Gould, 2005; Gould et al., 2008). A detailed list of the 54 items and corresponding six qualities is provided in Appendix 1.

## **Data Analysis**

In study 2, SPSS software was used to analyze the data through cluster analysis, a widely recognized statistical method for clustering individuals with similar characteristics by minimizing intra-group variability and maximizing inter-group differences (Kaufman & Rousseeuw, 2009). A segmentation analysis is a statistical method for the classification of individuals based on the degree of similarity between them. In other words, cluster analysis helps the researcher to categorize similar people into a group, according to a specific criterion. Basically, the purpose of cluster analysis is to identify a set of groups in which there is a minimum internal difference (maximum similarity of individuals within the group) and a maximum external difference (maximum difference with other groups) (Everitt et al., 2011; Kaufman & Rousseeuw, 2009).

After addressing the primary research objectives, the study further explores variations in the characteristics of outdoor recreationists based on different levels of leisure involvement and examines how these characteristics differ across various demographic groups. Specifically, two-step cluster analysis was applied, which is particularly effective for large datasets containing both categorical and continuous variables (Benassi et al., 2020; Tkaczynski, 2016). Although its use in leisure and recreation research has been limited, two-step cluster analysis was highly appropriate for study 2, as it enables the simultaneous analysis of demographic, psychographic, geographic, and behavioral data (Tkaczynski, 2016). Unlike traditional clustering techniques, the two-step method automatically determines the optimal number of clusters, eliminating the need for predefined classifications and enhancing analytical precision (Lan & Hoc, 2024).

## **The Third Study**

### **From Casual Walks to Deep Commitments**

#### **Motivational Profiles of Park Visitors**

Outdoor recreation experiences are deeply personal, often shaped by emotional connections to nature, individual motivations, and varying levels of engagement. Visitors to parks like Gatineau Park bring diverse expectations and participation styles, influenced by cultural, social, and psychological factors. While early research emphasized user demographics and management preferences, recent studies highlight the importance of understanding why individuals engage in outdoor recreation. Building on this shift, the present study explores the motivations of outdoor recreationists and their relationship to different forms of leisure commitment—serious, casual, and project-based—to better capture the complexity of recreation behavior.

### **Research Methods**

Study 3 explored the motivations of park visitors and their varying levels of leisure commitment—serious, casual, and project-based. Unlike Studies 1 and 2, this study relied on qualitative data. It was situated within the framework of exploratory/developmental research, which emphasizes concept clarification, insight generation, and refinement of existing ideas (Andrew et al., 2019). The study was conducted without any preconceived assumptions about participants' motivations or perceptions, allowing for an open and in-depth exploration of their leisure experiences.

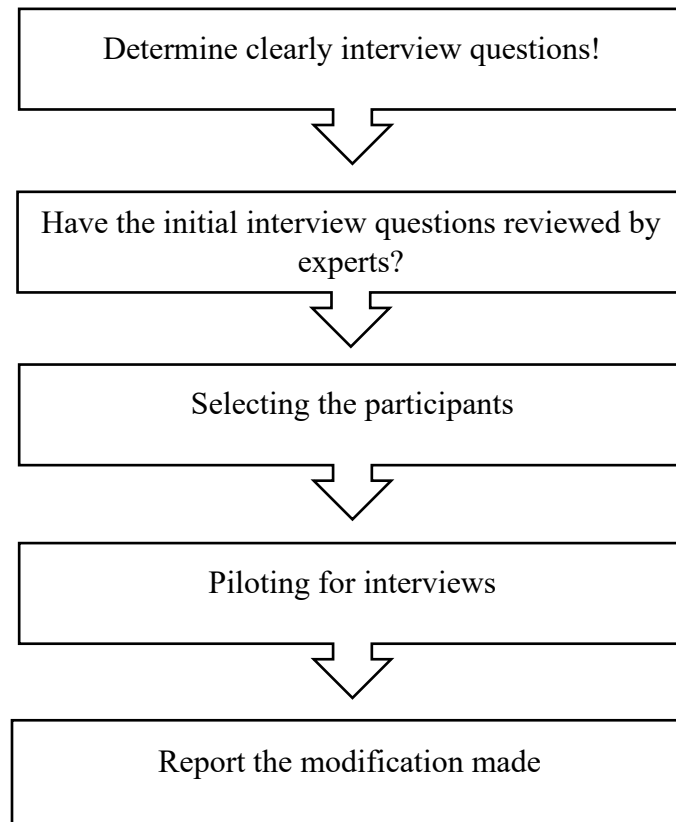
### **Interview Questions**

The interviews in this study were guided by semi-structured, open-ended questions designed to explore the experiences and motivations of park visitors. The central research question

was: "What is the nature of the experience of outdoor recreationists in Gatineau Park?" The interview protocol was carefully developed to align with this question and ensure relevance to the study's objectives (Castillo-Montoya, 2016). To enhance clarity, structure, and conceptual accuracy, the questions were reviewed by the thesis supervisor and refined as needed to avoid leading language and improve precision (Dikko, 2016; Majid et al., 2017). The semi-structured format allowed for both consistency across interviews and flexibility to pursue follow-up questions based on participants' responses, enabling a deeper understanding of their perspectives and lived experiences (Scanlan, 2020; Reja et al., 2003).

### **Piloting for Interviews**

The open-ended questions were pilot tested for reliability and validity prior to the main study. The interview guide was developed with the support of two pilot interviews, which allowed the researcher to pretest the questions, refine their clarity, and enhance interviewing techniques (Jacob & Ferguson, 2012; Majid et al., 2017). Notes, comments, and feedback obtained during the pilot interviews were incorporated into the interview guide (Appendix 2) to improve its structure and comprehensibility. These pilot studies also helped assess the appropriateness of the research questions and provided early feedback on their feasibility (Majid et al., 2017).



**Figure 3-2:** Steps in conducting the pilot study (Majid et al., 2017).

### **Data Collection and Interview Procedures**

To explore the experiences and motivations of outdoor recreationists, Study 3 employed a qualitative design using semi-structured interviews. In alignment with Turner (2010) and Hennink et al. (2020), participants in the pilot interviews were selected through purposive sampling and shared key characteristics with those in the main study. Participation was based on willingness and relevance to the study focus. The pilot study was conducted in November 2024, with interviews held at accessible locations. Each participant received an informed consent letter, and ethical approval for the study was obtained from the University of Ottawa Research Ethics Review Board (File number: H-09-24-10732). The interviews were conducted in English to create a comfortable conversational environment for both the interviewer and the participants (Majid et al., 2017). At

the end of each session, participants were asked to choose pseudonyms to represent themselves in the study. Following the interviews, the researcher transcribed the interviews verbatim and collaboratively coded the data with the thesis supervisor. Transcription and data management enabled the team to summarize the transcripts and identify initial codes (Majid et al., 2017).

To establish rapport, interviews began with brief social conversations, as recommended by Jacob and Furgerson (2012), allowing participants to feel comfortable and encouraging richer responses. While the interviews were structured around a defined guide, flexibility was maintained to allow participants to elaborate on their experiences (Majid et al., 2017). Interviews were audio recorded using digital IC recorders, with durations ranging from 60 to 120 minutes to accommodate participants' availability.

A total of 23 interviews were conducted between November 2024 and March 2025, with 15 held in person at Gatineau Park and 8 conducted online via Zoom, depending on participants' preferences. In-person interviews were held at locations chosen by the participants, including Trails 1, 70, and 72, as well as Camp Fortune, Brown Lake Shelter, Healey Shelter, and Keogan Shelter.

The interview guide consisted of three main sections. The first section included demographic questions and general reflections on participants' experiences as visitors to Gatineau Park. The second section addressed personal motivations, such as reasons for choosing the park, the role of race and ethnicity, social interactions, health and well-being, relaxation, and engagement with nature. The third section focused on participants' level of involvement in outdoor recreation, exploring the depth of their engagement, the importance of these activities in their lives, specific recreational practices (e.g., walking or biking), changes over time, and the values they

shared with other outdoor enthusiasts. A summary of participants' demographic characteristics is presented in Article 3, chapter 4.

## Data Analysis

This study used thematic analysis (TA) to identify, analyze, and report themes emerging from the experiences of outdoor recreation participants (Braun & Clarke, 2006 Castleberry & Nolen, 2018). Thematic analysis aimed to interpret key aspects and features of the phenomenon under investigation (Boyatzis, 1998; Clarke & Braun, 2017). It involved a systematic process of identifying, analyzing, and reporting patterns (themes) within the data (Terry et al., 2017). TA not only described and organized the dataset in rich detail but also allowed for deeper interpretation of various dimensions of the research topic (Boyatzis, 1998).

**Table 3-5.** Phases of Thematic Analysis (Braun & Clarke, 2006; 2012; Clarke & Braun, 2017).

	<b>Phase</b>	<b>Description of the process</b>
1	Familiarizing yourself with your data	Transcribing data (if necessary), reading and rereading the data, noting down initial ideas
2	Generating initial codes	Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code.
3	Searching for themes	Colleagues into potential themes, gathering all data relevant to each potential theme.
4	Reviewing themes	Checking in the themes work in relation to the coded extracts (Level 1) and the entire data set (Level 2), generating a thematic „map“ of the analysis.
5	Defining and naming themes	Ongoing analysis to refine the specifics of each theme, and the overall story the analysis tells; generating clear definitions and names for each theme.
6	Producing the report	The final opportunity for analysis. Selection of vivid, compelling extract examples, final analysis of selected extracts, relating back of the analysis to the research question and literature, producing a scholarly report of the analysis

## **Doing Thematic Analysis: Step-by-step**

Thematic analysis is not a linear process in which one phase is followed by another. Rather, it is a recursive process, with back-and-forth movement during all phases as necessary. It is also a process that develops over time (Ely et al., 1997), so it should not be rushed.

### **Phase 1: familiarizing yourself with your data**

This phase involved transcription of the audio interviews and becoming familiar with the data by reading and re-reading the data in the transcripts several times, seeking meanings, patterns, and making notes in the margins of participants' transcripts regarding initial ideas relevant to the study's objectives (Braun & Clarke, 2006). To conduct a thematic analysis, the data must be transcribed into written form. Even though transcription can seem time-consuming, frustrating, and even boring at times, the process can be an excellent way to familiarize yourself with the data (Riessman, 1993). "It is ideal to read through the entire data set at least once before you begin your coding, as ideas and identification of possible patterns will be shaped as you read through" (Braun & Clarke, 2006, p. 87).

### **Phase 2: Generating Initial Codes**

Phase 2 of the research process involves the initial analysis of collected data, where researchers immerse themselves in the data, generating early codes to identify interesting features (Braun & Clarke, 2006; Boyatzis, 1998). Codes, the fundamental units of analysis, are derived from the raw data and organize it into meaningful groups. While coding, researchers may adopt a data-driven or theory-driven approach, depending on whether themes emerge from the data itself or are guided by pre-existing theories or research questions. This phase emphasizes systematic exploration of the entire dataset, either manually through techniques like note-taking and highlighting, or using software programs for tagging and organizing text. The goal is to identify potential themes and patterns inclusively, while recognizing and retaining contradictions and

inconsistencies within the data (Braun & Clarke, 2006; Bryman, 2016). This phase sets the foundation for the subsequent development of themes and the interpretive analysis in Phase 3.

### **Phase 3: Searching for Themes**

Phase 3 of the research process involves transitioning from coding to thematic analysis. Once all data have been initially coded, researchers begin sorting the codes into potential themes, aiming to understand how different codes might converge to form overarching themes. This phase emphasizes the organization and collation of coded data extracts within these identified themes (Braun & Clarke, 2006). Visual representations, such as tables, mind-maps, or physical rearrangement of code descriptions, may aid in this process. Researchers contemplate the relationships between codes, themes, and different levels of themes, discerning main overarching themes and potential sub-themes (Braun & Clarke, 2006). Some initial codes may evolve into main themes, while others may become sub-themes or be discarded altogether. At this stage, any uncategorized codes may be temporarily housed under a 'miscellaneous' theme. The phase concludes with a collection of candidate themes and sub-themes, alongside all relevant coded data extracts. It's essential not to prematurely discard any themes, as their significance will become clearer upon further detailed examination of the data in the subsequent phase (Braun & Clarke, 2006).

### **Phase 4: Reviewing Themes**

Phase 4 marks the refinement stage after formulating candidate themes in qualitative analysis. This phase scrutinizes the coherence and distinctiveness of themes, guided by Patton's (1990) criteria of internal homogeneity and external heterogeneity (Braun & Clarke, 2006). It involves two levels of review: first, assessing individual coded data extracts for coherence within themes, and second, evaluating the thematic map's accuracy in reflecting the entire dataset's

meanings (Braun & Clarke, 2006). Adjustments may involve merging, splitting, or discarding themes based on data fit. The process iterates until a satisfactory thematic map emerges. However, caution is advised against endless refinement; refinement should cease when it no longer substantially adds to the analysis, akin to fine-tuning writing or decorating a cake. By the end, researchers should grasp the interrelation of themes and the narrative they convey about the data (Braun & Clarke, 2006).

### **Phase 5: Defining and Naming Them**

Phase 5 of the thematic analysis process involves refining and defining the themes identified in the data. This phase begins with the creation of a satisfactory thematic map, followed by the definition and further refinement of each theme (Braun & Clarke, 2006). The essence of each theme is identified, along with the specific aspect of the data it captures. It's crucial not to overload themes with too much complexity or diversity (Braun & Clarke, 2006). Each theme is analyzed in detail, considering its individual story and how it contributes to the broader narrative of the data analysis. Sub-themes may be identified within larger themes to provide structure and hierarchy of meaning (Braun & Clarke, 2006). The final outcome of this phase should be clearly defined themes and sub-themes, ready for naming in the final analysis, with names that are concise and reflective of their content (Braun & Clarke, 2006).

### **Phase 6: Producing the Report**

Phase 6 involves the culmination of thematic analysis, where the focus shifts to crafting a compelling report that effectively communicates the findings. Beginning with fully developed themes, this phase centers on the final analysis and write-up (Braun & Clarke, 2006). Whether intended for publication, research assignments, or dissertations, the report must intricately narrate the complexity of the data to persuade readers of the analysis's credibility and significance.

Emphasizing coherence, conciseness, logic, and engagement, the report should present themes through vivid and pertinent data extracts, showcasing their prevalence and relevance (Braun & Clarke, 2006). However, beyond mere data presentation, the narrative must delve into analytic interpretation, constructing arguments aligned with the research question. Ultimately, Phase 6 aims to encapsulate the essence of the data story while advocating for the validity and importance of the analysis (Braun & Clarke, 2006).

## **Chapter 4, Results (Articles)**

## First Article

### Nature-Based Serious Leisure as a Driver of Environmental Stewardship

#### Abstract

While nature-based recreation is widely recognized for its well-being benefits, its role in fostering long-term environmental stewardship remains underexplored. This study bridges this gap by applying the Serious Leisure Perspective (Stebbins, 1982) to examine how sustained engagement in outdoor activities cultivates ecological responsibility among recreationists in Gatineau Park, Canada. Using SmartPLS structural modeling, we analyzed survey data from 248 outdoor recreationists, assessing relationships between serious leisure (measured via the Serious Leisure Inventory and Measure) and environmental concern (using the New Ecological Paradigm Scale).

Serious leisure significantly predicted environmental concern ( $R^2 = 0.563$ ), with younger, educated participants showing heightened awareness. Subdimensions of environmental concern—anti-anthropocentrism ( $\beta = 0.329$ ), balance of nature ( $\beta = 0.771$ ), and ecological crisis ( $\beta = 0.766$ )—were strongly influenced by serious leisure engagement. Findings advance outdoor recreation research by demonstrating how serious leisure fosters place attachment and stewardship. We propose actionable strategies for park managers to design programs (e.g., skill-based workshops, citizen science) that leverage leisure engagement for sustainability outcomes.

**Keywords:** Serious Leisure, Environmental Concern, Outdoor Recreationists, Nature-based Leisure, Ecological Responsibility

## **Introduction**

Outdoor leisure activities offer significant benefits, enhancing physical health, psychological well-being, and social enrichment (Bell et al., 2007; Freeman & Zabriskie, 2002; Godbey, 2009, 2005). Increasing concerns about environmental and conservation issues have contributed to an increase in outdoor recreation and nature-based activities (Cordell et al., 2002; Jenkins & Pigram, 2005). Nature-based activities also play a critical role in fostering environmental awareness and encouraging sustainable behaviors by connecting individuals with nature and enhancing their understanding of ecological systems (Jensen & Guthrie, 2006; Nadirova, 2000; Tsaur & Yen, 2023). However, factors such as cultural background, the type of activities pursued, and the recreational settings significantly influence the extent of these benefits (Larson et al., 2011; McGinlay et al., 2018). As outdoor recreation grows in popularity, there is a pressing need to understand its broader implications, particularly in relation to environmental concern and sustainability (Bell, 2008; Martin et al., 2024; Winter et al., 2019).

This study explores the relationship between nature-based serious leisure and environmental concern among outdoor recreationists. Outdoor recreationists, individuals engaging in activities such as hiking, cycling, and skiing, often develop deep connections to nature, fostering personal growth and ecological responsibility (Cordell et al., 2008; Ferguson et al., 2022; Larson et al., 2011; Manning, 2011; Stebbins & Sachsman, 2017). Despite extensive research in Canada, gaps persist in understanding how outdoor recreation intersects with broader societal challenges, particularly environmental stewardship and sustainable practices. Taking this into consideration, the authors used the serious leisure framework to determine whether serious leisure participation influenced outdoor recreationists' environmental concern.

## **Serious Leisure Perspective: Expanding Leisure Studies**

The concept of serious leisure, first introduced by Stebbins (1982), has significantly shaped the understanding of leisure as a structured and meaningful pursuit. By distinguishing serious leisure from casual and project-based leisure, Stebbins (1992) provided a robust framework for examining activities that demand sustained commitment and yield profound personal and social benefits. Serious leisure encompasses the systematic pursuit of activities in which individuals acquire and express skills, knowledge, and experiences, often leading to the development of a leisure career that progresses through identifiable stages: beginning, development, establishment, maintenance, and decline (Stebbins, 2011). Unlike casual leisure, which offers immediate gratification and is often transient, serious leisure demands perseverance and effort, fostering a deep sense of fulfillment and identity (Elkington & Stebbins, 2014).

This framework outlines six defining qualities of serious leisure: perseverance, career trajectory, significant personal effort, durable benefits, a distinct social ethos, and a strong identity connection (Stebbins, 1992). These elements differentiate serious leisure from casual leisure by emphasizing its long-term impact on personal growth and community engagement. For instance, amateur pursuits such as kayaking or rock climbing, as well as structured volunteering efforts, serve as examples of serious leisure, wherein participants dedicate substantial time and energy to mastering specialized skills and building relationships within unique subcultures (Green & Jones, 2005; Bartram, 2001). The enduring nature of these activities not only enhances individual well-being but also contributes to a richer societal fabric by fostering connections and shared values (Anderson & Taylor, 2010).

### **Environmental concern**

Environmental concern, though not a scientific term, is a concept borrowed from political discourse to describe a spectrum of environmentally related perceptions, emotions, knowledge,

attitudes, norms, values, and behaviors (Bamberg, 2003). Within academic literature, environmental concern has been operationalized in various ways, often encompassing constructs such as ecological beliefs, personal environmental norms, and behavioral intentions (Minton & Rose, 1997). The 1970s marked a pivotal period for environmental awareness, as both researchers (e.g., Kilbourne et al., 2002) and the general public (Grunert & Juhl, 1995) began paying significant attention to issues surrounding the natural environment and human impacts on it. This period spurred a need to measure public concern for the environment, leading to various scholarly attempts to define and operationalize the concept. One notable contribution was made by Dunlap and colleagues (1978), who developed the New Ecological Paradigm (NEP) Scale. The NEP provided a framework for understanding primitive ecological beliefs, focusing on humans' ability to upset the balance of nature, the existence of limits to growth, and humans' perceived dominion over the natural world (Dunlap et al., 2005).

The original NEP Scale included both anthropocentric beliefs (e.g., "Mankind was created to rule over the rest of nature") and ecocentric beliefs (e.g., "Mankind is severely abusing the environment"). The NEP Scale has also been widely applied in tourism research, offering insights into the environmental orientations of individuals within recreational and natural settings. For example, Uysal et al. (1994) utilized the NEP Scale to examine variations in environmental concern among national park visitors, finding that trip characteristics significantly influenced levels of environmental concern. In a comparative study, Fennell and Nowaczek (2003) explored the ecological orientations of ecotourists from different nations, revealing that Canadian ecotourists scored higher on eco-centric items, whereas Polish ecotourists exhibited stronger agreement with anthropocentric items. These findings underscore the utility of the NEP Scale in capturing variations in environmental concern based on cultural and demographic differences.

Environmental concern refers to an individual's evaluation of facts, their own behavior, and other people's behavior as they relate to the effects they may have on the environment (Fransson & Garling, 1999). For more than 25 years, researchers have investigated the relationship between environmental concerns and outdoor participation (Teisl & O'Brien, 2003). Outdoor recreation participation has been linked to environmental concern in a multitude of studies, but the conclusions drawn are lacking coherence, and how specific types of participation may yield a different level of benefit (Berns & Simpson, 2009; Teisl & O'Brien, 2003; Thapa & Graefe, 2003). Berns and Simpson (2009) claimed there is a significant gap in literature when it comes to the relationship between outdoor recreation participation and the development of environmental concern. Recreational activities involving outdoor activities have been associated with heightened concern for the environment for decades (Dunlap & Heffernan, 1975; Thapa & Graefe, 2003). A variety of outdoor activities provide a variety of opportunities to play, discover, and explore. These endeavors may provide people with a better understanding of environmental problems since they may witness the effects of the problems firsthand. Furthermore, interactions with nature during an outdoor activity might increase one's commitment to protecting those areas in which those activities take place (Wilson et al., 2014). Experiencing nature directly plays an important role in influencing an individual's environmental views (Ewert et al., 2005; Palmer, 1993). Participating in outdoor recreation is a common way for people to have contact with nature (Wilson et al., 2014). In addition to providing an opportunity for people to learn more about their natural surroundings, outdoor recreation also enables them to develop a deeper appreciation for nature (Wilson et al., 2014).

### **Nature-Based Serious Leisure and Environmental Concerns**

There has been a common belief that participation in outdoor recreation activities can facilitate heightened environmental concern (Liu et al., 2024; Wilson et al., 2014). However, previous research on the relationship between environmental concern and outdoor recreation has exhibited notable limitations. For instance, many studies have relied on cross-sectional designs, which provide a snapshot of participants' attitudes at a single point in time but fail to capture long-term changes or causal relationships (Berns & Simpson, 2009; Larson et al., 2011). Additionally, much of the existing literature has focused on specific recreational activities or geographic locations, limiting the generalizability of findings across broader populations (Thapa & Graefe, 2003).

Another limitation is the inconsistent measurement of environmental concern, with studies employing various scales and metrics, such as the New Ecological Paradigm (NEP) scale or ad-hoc survey items, leading to difficulties in comparing results across studies (Dunlap et al., 2000; Glowinski & Moore, 2014). Moreover, demographic biases in sampling—such as overrepresentation of highly educated or affluent individuals—can skew findings, making it challenging to draw conclusions applicable to diverse populations (Teisl & O'Brien, 2003). Finally, some research has failed to account for the complex interplay of psychological, cultural, and situational factors that mediate the relationship between recreation and environmental attitudes, leaving gaps in understanding how different contexts influence this dynamic (McFarlane & Boxall, 1996; Schultz, 2001). Taking these limitations into account, this section reviews studies on nature-based serious leisure activities and environmental concern to provide a more nuanced understanding of their interplay and address gaps in the literature.

Leisure in natural environments, often overlapping with serious leisure pursuits, offers unique opportunities for personal satisfaction and well-being (Chang et al., 2019). Engaging in

outdoor activities allows individuals to explore, learn, and experience novelty while cultivating a sense of accomplishment and self-expression (Bernard & Huckins, 1975; Dumazedier, 1974; Mitchell et al., 1934; Sapora & Mitchell, 1961; Stebbins, 2018). This aligns with the broader benefits of leisure, which include relaxation, enjoyment, and the opportunity to reflect one's personality and interests (Schmalz & Blomquist, 2016). By immersing themselves in meaningful leisure activities, individuals can achieve a deeper connection with nature, enhance their quality of life, and develop a robust sense of identity and purpose, reinforcing the transformative potential of serious leisure (Schmalz & Blomquist, 2016).

Outdoor recreation plays a significant role in shaping individuals' relationships with the environment, offering opportunities for direct engagement with nature and fostering a sense of connection and stewardship towards natural landscapes (Wilson et al., 2014). Within this context, the concept of serious leisure has emerged as a valuable framework for understanding the deep and dedicated engagement individuals exhibit towards leisure activities, particularly those involving intimate interactions with the natural world (Davidson & Stebbins, 2011).

Some research suggests there is a correlation between outdoor recreation involvement and environmental concern (Thapa et al., 2005, 2006), although the relationship appears to be weak (Glowinski & Moore, 2014). Dunlap and Heffernan (1975) reported that participating in outdoor recreation activities (e.g., wildlife observation, fishing) promotes an awareness of the environment, which leads to a positive attitude towards it. The presence of serious leisure participation could play an important role in the formation of an attitude indicative of someone who has a high level of concern for the environment (Wilson, 2013). Climbers who take their climbing seriously tend to interact more often with the outdoor environment as they progress (Wilson, 2013).

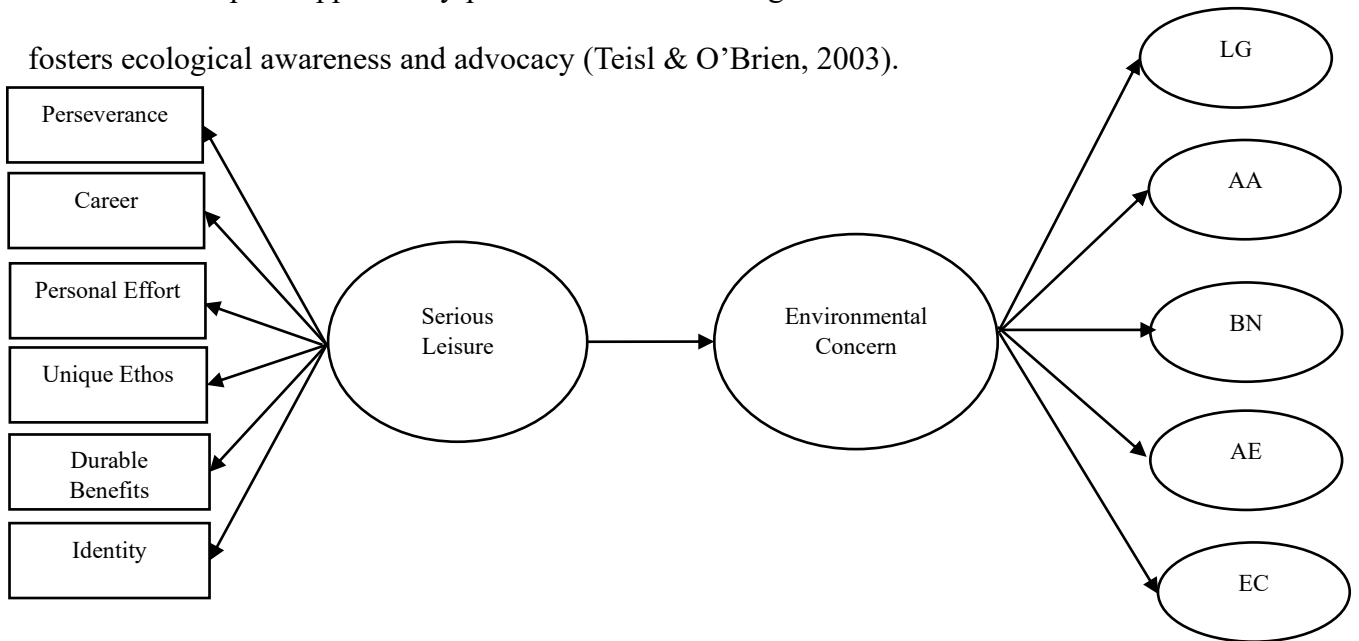
Serious forms of leisure, especially those of outdoor variety, usually involve regular and intimate contact with the natural world than casual types of leisure (Davidson & Stebbins, 2011). By engaging in these increasingly frequent interactions, a person can advance in their serious leisure career and develop a deeper connection to nature (Wilson et al., 2014). Therefore, it is important to consider the relationship between outdoor leisure activities and environmental concern for the environment (Teisl & O'Brien, 2003). Participants in outdoor recreation activities are more likely to be environmentally concerned than their counterparts. If outdoor recreation is positively correlated with pro-environmental behavior, it suggests that people who participate in outdoor recreation are also likely to engage in pro-environmental behavior (Puhakka, 2021; Teisl & O'Brien, 2003). A need to measure outdoor recreationists' concern for the environment consequently emerged.

Despite the recognized importance of outdoor recreation in influencing environmental attitudes and behaviors (Berns & Simpson, 2009), gaps in literature persist regarding the specific impact of nature-based serious leisure engagement on individuals' environmental concerns. While previous research has explored the relationship between outdoor recreation participation and environmental concern, inconsistencies in findings and methodological limitations have underscored the need for further investigation (Berns & Simpson, 2009). Additionally, the unique context of Gatineau Park provides an ideal setting to examine the intersection of serious leisure and environmental concerns, given its ecological significance and popularity among outdoor enthusiasts (NCC, 2012). This study seeks to address these gaps by comprehensively exploring the relationship between nature-based serious leisure engagement and environmental concerns among outdoor recreationists in Gatineau Park. This research aims to elucidate the nuanced dynamics underlying individuals' leisure experiences at nature and their attitudes towards environmental

conservation. Although studies suggest that nature-based serious leisure influences environmental concern (e.g., Thapa et al., 2006; Wilson, 2013), there is limited research explicitly examining how serious leisure activities shape the environmental attitudes and behaviors of outdoor recreationists.

### The Research Model and Hypotheses

The conceptual model highlights the potential influence of serious leisure engagement on environmental concern, illustrating how changes in serious leisure participation may impact individuals' ecological awareness and responsibility (figure 1). In this model, serious leisure serves as the independent variable or predictor, representing the sustained and meaningful engagement in leisure activities. Environmental concern is the dependent variable, reflecting the central focus of the study and capturing attitudes, values, and behaviors related to environmental stewardship. The hypothesized relationship suggests that individuals deeply engaged in serious leisure activities, particularly in outdoor recreation, are more likely to exhibit heightened environmental concern. This relationship is supported by prior research indicating that sustained interaction with nature fosters ecological awareness and advocacy (Teisl & O'Brien, 2003).



**Figure 1.** Research model and hypotheses.

*Note: Limits to growth (LG), Anti-anthropocentrism (AA), The Balance of Nature (BN), Anti-Exclusion (AE), Ecological Crisis (EC) dimensions*

Taking into account the literature reviewed, the present study tested the following hypotheses:

**H1:** Serious leisure engagement influences environmental concern among outdoor recreationists.

**H2:** Greater commitment to serious leisure activities is associated with stronger pro-environmental behaviors.

## **Materials & Methods**

The present study was conducted among outdoor recreationists who spent their leisure time in Gatineau Park, a prominent conservation area located near Ottawa, Canada (Lait, 2016). Known for its diverse range of outdoor recreational opportunities, Gatineau Park attracts a wide variety of visitors and offers activities such as hiking, cycling, skiing, rock climbing, and camping (Padbury, 2014).

Accurate sample size estimation is critical to ensuring the generalizability of research findings to the broader population. Various methods can be employed for this purpose, with software-based calculations for statistical power being among the most precise (Burdenski, 2000; Hintze & Kaysville, 2007). For the present study, sample size estimation was conducted using PASS software (Hintze, 2011) based on the study's objectives and hypotheses. Under assumptions of an alpha level of 0.01, a statistical power of 0.90, and an  $R^2$  of 0.05 for each criterion variable, the estimated sample size was determined to be 248 participants (Cohen, 2013).

The first instrument for this study was the Serious Leisure Inventory and Measure (SLIM) established by Gould et al. (2008). As part of the SLIM short form, six qualities were used to

develop 18 operations that were derived from Stebbins' six serious leisure factors (perseverance, personal efforts, durable benefits, identity, long-term career, and unique ethos) (Gould et al., 2011; Gould et al., 2008). The second instrument for this study is the environmental concern survey developed by Dunlap et al. (2005). The New Ecological Paradigm Scale will be used specifically to examine environmental concern. As one of the most widely used measures of environmental concern around the world, the New Environmental Paradigm Scale (NEP) has been incorporated into hundreds of studies conducted in dozens of countries (Dunlap, 2008; Dunlap & Van Liere, 1978; Ntanos et al., 2019). A survey-based metric, called the New Ecological Paradigm (NEP), was developed to assess the environmental concerns of groups of people using a standard survey instrument (Zeqir et al., 2019). Based on their research, Dunlap and van Liere (1978) claim that the NEP scale is reliable and valid. According to Lück (2003), NEP has five dimensions: anti-anthropocentrism (AA), anti-exclusion (AE), ecological crisis (EC), and limitations to growth (LG). The data collection for this study was conducted during the period of October to December 2024, utilizing both online and in-person distribution methods to ensure comprehensive coverage of the target population. The Likert-type items developed for the SLIM utilized a nine-point response scale (completely agree to completely disagree). According to Gould et al. (2008), the reason for the nine-point response scale is to ensure that the respondents had multiple options (four, plus a “neutral” option) for agreement (serious orientation) (Gould et al., 2008).

To collect data, questionnaires were distributed among outdoor recreationists who had been engaged in leisure activities in Gatineau Park for at least six months. These individuals were involved in a range of activities such as hiking, cycling, skiing, and camping. Many participants engaged in more than one recreational activity, reflecting a diversity of experiences and practices among the sample population. This diverse engagement underscores the multidimensional nature

of outdoor recreation in Gatineau Park, providing rich insights into participants' serious leisure pursuits and environmental concerns. Details of the sampled population are outlined in Table 1, which includes demographic and activity-based characteristics. This sampling approach ensures robust representation of the outdoor recreationists and supports the study's objectives of understanding their experiences and attitudes. To accommodate the linguistic diversity of Gatineau Park's visitors, the questionnaires were made available in both English and French, the two official languages of Canada. In-person surveys were administered at key entry points and popular recreational areas within Gatineau Park, such as trailheads, picnic areas, and visitor centers. Researchers engaged directly with outdoor recreationists, explaining the purpose of the study and encouraging participation. These interactions not only facilitated a higher response rate but also allowed participants to seek clarification on any questions they found unclear. The in-person distribution was strategically scheduled during weekends and peak visitation hours to maximize outreach.

## Results

### Demographic Profile of Respondents

A summary of the sociodemographic characteristics of the sample is presented in Table 1. The sample comprised 59.7% female and 40.3% male respondents. Regarding age distribution, the largest group (25.4%) fell within the 26 to 30 age range, followed by 20.2% who were 18 to 25 years old, and 12.1% who were between 43 and 52 years old.

**Table 1.** Demographic characteristics of the participants.

Variable	N=248	%	Variable	N=248	%
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<b>Gender</b>				<b>Marital status</b>		
				Single	107	43.1
	Female	148	59.7	Married or domestic partnership	133	53.6
	Male	100	40.3	Divorced	3	1.2
				Widowed	5	2
<b>Age</b>				<b>Educational level</b>		
	18-25	50	20.2	High school or less	31	12.5
	26-30	63	25.4	College degree	32	12.9
	31-34	38	15.3	Bachelor's degree	93	37.5
	35-42	48	19.4	Graduate studies such as a master's or PhD degree	92	37.1
	43-52	30	12.1			
	53-65	12	4.8			
	66-70	4	1.6			
	71+	3	1.2			
				<b>Employment status</b>		
				Paid work	193	77.8
				Not paid work	55	22.2
<b>Income</b>				<b>Visiting the park within the past six months</b>		
	<\$16,000	34	13.7	1 to 5	170	68.5
	\$16,000–28,000	18	7.3	6 to 15	45	18.1
	\$28,001–44,000	22	8.9	16 to 49	19	7.6
	\$44,001–56,000	12	4.8	50 to 99	9	3.6
	\$56,001–76,000	43	17.3	100+	5	2
	\$76,001–100,000	36	14.5			
	\$100,001–240,000	66	26.6			
	\$240,001+	17	6.9			

Educationally, the sample was relatively highly educated, with 74.6% of respondents either pursuing or having completed a university degree. In terms of income, 33.5% of participants belonged to the high-income segment, with annual household earnings exceeding CA \$100,000. This demographic profile highlights a diverse sample, providing insights into the perspectives of a well-educated and financially varied group of outdoor recreationists. In terms of participants, the majority (51.6%) were Canadians, and 48.4% were immigrants, which included India, French, Chinese, Americans, Mexicans, Iranians, residents of the Netherlands.

### **Latent Variable Analysis: Reliability and Validity**

The results of the latent variable analysis demonstrate the reliability and validity of the constructions used in this study. Each latent variable was evaluated based on its dimensions,

manifest variables, factor loadings, Cronbach’s alpha ( $\alpha$ ), composite reliability (CR), and average variance extracted (AVE). These metrics are essential for assessing the robustness and validity of the measurement model (Hair et al., 2020). In all dimensions of the serious leisure construct, factor loadings exceeded 0.856, indicating strong item reliability. The Cronbach’s alpha ( $\alpha$ ) values for each dimension ranged from 0.863 to 0.948, and composite reliability (CR) values exceeded the threshold of 0.7, confirming internal consistency. The AVE values ranged from 0.785 to 0.906, surpassing the recommended threshold of 0.5, thus establishing convergent validity for all dimensions (Dijkstra & Henseler, 2015; Henseler et al., 2016). Also, all dimensions of the environmental concern construct demonstrate satisfactory reliability and validity overall. However, the Balance of Nature and Ecological Crisis dimensions exhibited weaker factor loadings for certain items, with values as low as 0.614 and 0.519, respectively. These results indicate potential issues with item reliability that require attention. The AVE values exceeded the recommended threshold of 0.5, demonstrating convergent validity across all dimensions (Henseler et al., 2016; Henseler et al., 2009).

**Table 2.** Factor Loadings, Composite Reliability, Cronbach’s Alpha, and AVE

Latent variable	Dimensions	Manifest variables label	Factor loadings	$\alpha$	Composite reliability	(AVE)
Serious Leisure	Perseverance	PER1	0.887	0.899	0.937	0.832
		PER2	0.935			
		PER3	0.915			
	Efforts	EFF1	0.929	0.913	0.945	0.852
		EFF2	0.927			
		EFF3	0.913			
	Career	CAR1	0.942	0.948	0.966	0.906
		CAR2	0.964			
		CAR3	0.949			
	Ethos	ETH1	0.856	0.863	0.916	0.785
		ETH2	0.925			
		ETH3	0.876			
	Identity	IDE1	0.884	0.882	0.927	0.809
		IDE2	0.915			
		IDE3	0.899			

<b>Environmental concern</b>	<b>Durable Benefits</b>	DB1	0.893	0.909	0.943	0.847
		DB2	0.947			
		DB3	0.920			
	<b>Limits to growth (LG)</b>	LG1	0.872	0.816	0.890	0.730
		LG2	0.875			
		LG3	0.818			
	<b>Anti-anthropocentrism (AA)</b>	AA1	0.780	0.713	0.863	0.631
		AA2	0.818			
		AA3	0.786			
	<b>The Balance of Nature (BN)</b>	BN1	0.734	0.516	0.749	0.502
		BN2	0.614			
		BN3	0.880			
	<b>Anti-Exclusion (AE)</b>	AE1	0.788	0.805	0.887	0.727
		AE2	0.832			
		AE3	0.724			
<b>Ecological Crisis (EC)</b>	EC1	0.893	0.608	0.793	0.571	
	EC2	0.519				
	EC3	0.866				

To evaluate discriminant validity, the Fornell and Larcker criteria were applied. Discriminate validity is established when the square root of the AVE for each construct (diagonal values in the correlation table) exceeds its correlations with any other constructs (off-diagonal values) (Richter et al., 2016). The results demonstrated that all constructs met the Fornell and Larcker criterion, confirming their distinctiveness from other variables (Richter et al., 2016). The dimensions of Serious Leisure, including career (0.952), durable benefits (0.920), efforts (0.923), ethos (0.886), and identity (0.900), exhibited strong discriminant validity, with the square root of their AVE values significantly higher than their correlations with other constructs.

**Table 3.** Fornell-Larcker criterion

Variables	AA	AE	BN	Career	Durable Benefits	EC	Environmental concern	Efforts	Ethos	Identity	LG	Perseverance	Serious Leisure
<b>Anti-anthropocentrism (AA)</b>	<b>0.794</b>												
<b>Anti-Exclusion (AE)</b>	0.283	<b>0.852</b>											
<b>The Balance of Nature (BN)</b>	0.029	0.503	<b>0.709</b>										
<b>Career</b>	0.034	0.188	0.450	<b>0.952</b>									
<b>Durable Benefits</b>	0.126	0.204	0.414	0.620	<b>0.920</b>								
<b>Ecological Crisis (EC)</b>	0.201	0.499	0.427	0.275	0.433	<b>0.756</b>							
<b>Environmental concern</b>	0.326	0.836	0.763	0.382	0.443	0.518	<b>0.712</b>						

<b>Efforts</b>	0.014	0.242	0.506	0.819	0.602	0.283	0.434	<b>0.923</b>					
<b>Ethos</b>	0.058	0.147	0.385	0.584	0.565	0.273	0.349	0.556	<b>0.886</b>				
<b>Identity</b>	0.104	0.321	0.493	0.610	0.677	0.475	0.537	0.647	0.625	<b>0.900</b>			
<b>Limits to growth (LG)</b>	0.036	0.193	0.447	0.802	0.620	0.294	0.401	0.701	0.913	0.675	<b>0.854</b>		
<b>Perseverance</b>	0.028	0.302	0.581	0.572	0.414	0.277	0.490	0.696	0.452	0.482	0.523	<b>0.912</b>	
<b>Serious Leisure</b>	0.052	0.286	0.577	0.873	0.793	0.410	0.536	0.893	0.761	0.825	0.863	0.734	<b>0.748</b>

Similarly, the environmental concern dimensions, such as anti-anthropocentrism (0.794), anti-exclusion (0.852), and limits to growth (0.854), demonstrated satisfactory discriminator validity. However, the balance of nature (0.709) and ecological crisis (0.756) dimensions showed moderate discriminant validity, with correlations approaching or slightly exceeding recommended thresholds with certain constructs, such as anti-exclusion (0.503) and environmental concern (0.518). Overall, the findings confirm that the external model exhibits strong reliability and validity, providing a robust foundation for further analysis of the relationships between serious leisure and environmental concern among outdoor recreationists (Richter et al., 2016). This rigorous evaluation supports the theoretical and empirical integrity of the constructions used in the study.

**The results of the internal model analysis**

Having verified the reliability of the measurement model, the evaluation of the structural model was conducted using the systematic approach suggested by Hair et al. (2016). The analysis included the following four steps: (1) evaluation of the structural model for linear relationships; (2) significance evaluation of relationships; (3) assessment of R<sup>2</sup> values; and (4) predictive assessment of Q<sup>2</sup> values (Hair et al., 2016; Hair et al., 2019).

The structural model tested the relationships between serious leisure and environmental concern, as well as their respective dimensions. The direct relationship between serious leisure and environmental concern was strong and statistically significant, with a path coefficient of 0.534 and T-statistic of 7.360 (p<0.001) (Figure 1). Additionally, serious leisure significantly influenced the

subdimensions of environmental concern, including limits to growth (LG) ( $\beta = 0.586$  T=6.480), anti-anthropocentrism (AA) ( $\beta = 0.329$ , T=2.348), balance of nature (BN) ( $\beta = 0.771$ , T=6.580), anti-exclusion (AE) ( $\beta = 0.820$ , T=6.002), and ecological crisis (EC) ( $\beta = 0.766$ , T=6.237). These results highlight the significant role of serious leisure in shaping pro-environmental attitudes across multiple dimensions (Table 4).

**Table 4.** R square ( $R^2$ ); ( $Q^2$ ); P-Value; and T-statistic

Relationship	$R^2$	$Q^2$	P-Value	T-statistic
Serious Leisure → Environmental Concern	0.563	0.589	<0.001	7.360
Serious Leisure → AA	0.136		<0.001	2.348
Serious Leisure → AE	0.345		<0.001	6.002
Serious Leisure → BN	0.402		<0.001	6.580
Serious Leisure → EC	0.293		<0.001	6.237
Serious Leisure → LG	0.407		<0.001	6.408

The coefficient of determination ( $R^2$ ) was used to evaluate the explanatory power of the structural model. According to Hair et al. (2011),  $R^2$  values are categorized as follows: values greater than 0.75 indicate substantial predictive power, values between 0.50 and 0.75 indicate moderate predictive power, and values between 0.25 and 0.50 indicate weak predictive power. In this study, the  $R^2$  value for environmental concern was 0.563, indicating moderate predictive power as Serious Leisure explained 56.3% of the variance in environmental concern. The  $R^2$  values for the subdimensions of environmental concern were anti-anthropocentrism (AA):  $R^2 = 0.136$  (weak predictive power), anti-exclusion (AE):  $R^2 = 0.345$  (moderate predictive power), balance of nature (BN):  $R^2 = 0.402$  (moderate predictive power), ecological crisis (EC):  $R^2 = 0.293$  (weak predictive power), limits to growth (LG):  $R^2 = 0.407$  (moderate predictive power).

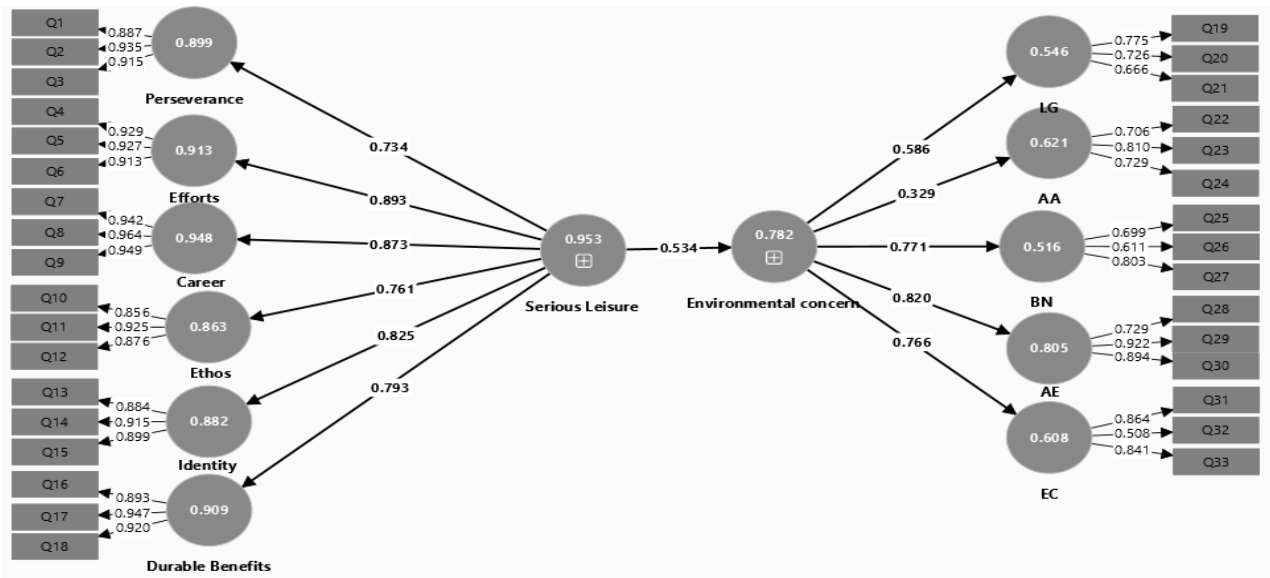
The predictive relevance ( $Q^2$ ) of the model was assessed using Stone-Geisser's test. According to Hair et al. (2016),  $Q^2$  values greater than 0.35 indicate strong predictive relevance, values between 0.15 and 0.35 indicate moderate predictive relevance, and values between 0.02 and

0.15 indicate weak predictive relevance. The  $Q^2$  value for environmental concern was 0.589, demonstrating strong predictive relevance (Table 4).

**Table 5.** Quality indicators of the model

d_G2	d_G1	d_ULS	SRMR
0.000	0.000	0.000	0.076

Furthermore, the model fit was evaluated using the Standardized Root Mean Square Residual (SRMR), which was 0.076, below the recommended threshold of 0.08, indicating a good overall model fit (Henseler, 2017; Henseler et al., 2016). These findings provide robust evidence for the relationships between serious leisure, environmental concern, and their respective dimensions, emphasizing the importance of leisure engagement in fostering pro-environmental attitudes and behaviors (Figure 2, Table 5).



**Figure 2.** The proposed hierarchical model of research hypotheses (serious leisure, and environmental concern) using Smart PLS 3.

## Discussion

Nature-based leisure, as an integral part of human life, plays a critical role in fostering physical, emotional, and environmental well-being (Carruthers & Hood, 2004; Hurly & Walker, 2019). This study examined the relationship between serious leisure participation and environmental concern among outdoor recreationists in Gatineau Park, emphasizing the unique characteristics of Canadian outdoor recreationists. The demographic profile of the sample highlights several actionable insights (Table 1). With 59.7% female and 40.3% male participants, the data suggest that women may have a higher engagement in serious leisure activities in Gatineau Park, consistent with prior research showing that women often participate in nature-based recreation for health, well-being, and environmental connection (Schmalz & Blomquist, 2016; Henderson, 1996). This gender distribution presents an opportunity to design tailored environmental programs that appeal to female recreationists, who might act as influential advocates for environmental stewardship within their communities. Additionally, the age distribution of the sample reveals that 45.6% of participants fall between the ages of 18–30, with 25.4% aged 26–30 and 20.2% aged 18–25. This strong representation of younger demographics underscores their active participation in outdoor recreation and their potential receptiveness to sustainability initiatives. Targeted campaigns, such as eco-adventure activities and sustainability-focused events, could leverage the environmental awareness of this age group to further promote conservation efforts, aligning with findings by Gatersleben et al. (2018) and Larson et al. (2011), which identify younger individuals as more environmentally conscious and open to adopting pro-environmental behaviors.

The structural model demonstrated strong predictive capabilities, with serious leisure explaining 56.3% of the variance in environmental concern ( $R^2 = 0.563$ ). The study also further validates the robustness of the model, with a  $Q^2$  value of 0.589, indicative of strong predictive

relevance, and an SRMR value of 0.076, meeting the recommended threshold for acceptable model fit (Henseler et al., 2016). This alignment between the theoretical framework and empirical data suggests that the sample's characteristics contributed directly to the robustness of the findings. For example, 33.5% of respondents earning above CAD \$100,000 had the financial means to engage in serious leisure activities, enabling them to develop stronger connections with the environment and fostering a sense of ecological responsibility. This financial stability can be leveraged by introducing premium eco-outdoor recreation experiences or memberships that fund conservation efforts while enhancing participants' connection to the natural environment. Research by Manning (2011) and White et al. (2019) supports this connection, demonstrating how economic stability facilitates deeper engagement in recreation, which in turn promotes pro-environmental behaviors. This finding underscores the transformative potential of serious leisure in shaping pro-environmental attitudes, reinforcing prior research suggesting that sustained engagement in meaningful recreational activities fosters ecological stewardship (Dunlap et al., 2000; Gatersleben et al., 2018; Stebbins, 2011). The demographic profile of the sample reinforces these outcomes. Specifically, the high proportion of participants with a university education (74.6%) suggests that their familiarity with environmental issues and ecological concepts amplified their pro-environmental attitudes, consistent with findings by Kollmuss and Agyeman (2002) and Ntanos et al. (2019). Moreover, the strong correlation between serious leisure and environmental concern is reflective of participants' capacity to translate knowledge into action, a phenomenon often linked to higher educational attainment. This highly educated population is likely to have an advanced understanding of environmental issues, making them ideal recipients for interpretive signage, educational workshops, and interactive park programs that reinforce ecological concepts.

The demographic composition also provides context for the moderate to strong  $R^2$  values observed in the subdimensions of environmental concern. For instance, Limits to Growth ( $R^2 = 0.407$ ), Balance of Nature ( $R^2 = 0.402$ ), and Anti-Exclusion ( $R^2 = 0.345$ ) demonstrated substantial relationships with serious leisure. Studies by Thapa et al. (2006) and Wilson (2013) similarly highlight the role of sustained leisure engagement in enhancing awareness of environmental limits and fostering ecological connections. The predominance of younger participants aged 18–30 likely played a role in these results, as younger generations are often more environmentally conscious and open to adopting sustainability-focused behaviors (Gatersleben et al., 2018; Larson et al., 2011). Their engagement in meaningful leisure activities that require reflection, and perseverance may have heightened their awareness of environmental limits and their interconnectedness with nature.

At the same time, the weaker predictive power observed in the Ecological Crisis subdimension ( $R^2 = 0.293$ ) highlights potential gaps in how certain environmental issues resonate with the sample. While high education levels (74.6%) may have contributed to strong overall environmental concern, global ecological crises often involve complex and distant phenomena that may not directly align with localized recreational experiences. Similar findings have been noted by Glowinski and Moore (2014) and Berns and Simpson (2009), who emphasize the importance of bridging the gap between immediate environmental interactions and broader ecological challenges. This underscores the need for targeted educational interventions to enhance participants' understanding of larger-scale environmental issues. Thus, this study also might highlight areas for improvement, particularly in engaging underrepresented groups such as older adults and individuals from lower-income brackets. Strategies to address these gaps could include improving accessibility to the park, offering subsidized or free programs, and designing inclusive

recreational opportunities that cater to different physical abilities and financial situations. Expanding access to these groups would not only broaden participation but also enhance the overall effectiveness of conservation efforts by fostering a wider appreciation for environmental stewardship.

## **Conclusion**

This study highlights the integral role of serious leisure in shaping pro-environmental attitudes, supported by robust structural modeling and insightful demographic analysis. By linking leisure engagement with environmental concern, the findings provide actionable insights for park management and sustainability initiatives. The research integrates insights from serious leisure theory, environmental psychology, and leisure studies, offering a comprehensive understanding of the relationship between serious leisure participation and environmental concern among outdoor recreationists. This research contributes to the broader discourse on leisure studies and environmental psychology by establishing a clear link between serious leisure participation and environmental concern. It integrates the multidimensional framework of environmental concern into the study of serious leisure, providing a more nuanced understanding of how leisure activities influence ecological attitudes. The findings align with existing literature, such as Stebbins' (1982) theory of serious leisure, which highlights the transformative potential of sustained engagement in leisure activities.

A relatively limited amount of research has been done in the past on the relationship between serious leisure and environmental concern. Previous research focused on demographic and behavioral aspects of outdoor recreation without fully integrating the multidimensional framework of serious leisure and environmental concern dimensions, such as limits to growth (LG), anti-anthropocentrism (AA), and ecological crisis (EC). This study bridges these gaps by

providing empirical evidence of how serious leisure fosters ecological awareness and pro-environmental behaviors. It validates and extends previous findings, such as Wilson's (2013) study on American rock climbers, by demonstrating that sustained engagement in meaningful leisure activities promotes environmental responsibility.

These findings have significant implications for park management, environmental education, and outdoor recreation policy. Gatineau Park, as the second-most visited park in Canada, attracts approximately 2.65 million visitors annually, offering a unique opportunity to foster environmental stewardship among a diverse group of outdoor recreationists. Through leveraging insight from this study, park managers can design targeted interventions to promote sustainable leisure practices and environmental responsibility. Gatineau Park is a popular tourist destination for Canadians, with 51.6% visiting from Canada, and 48.4% coming from countries like China, France, Iran, and India. These diverse outdoor recreationists base underscores the need for culturally sensitive and inclusive approaches to park management. For example, park managers should consider multilingual signage and educational materials to ensure accessibility for non-English-speaking visitors. Additionally, integrating cultural perspectives and traditions related to nature and sustainability into programming can resonate more deeply with immigrant communities, fostering a sense of belonging and shared responsibility for environmental preservation. The policies of parks should also take into account the fact that visitors have differing levels of familiarity with outdoor recreation and environmental practices. An introduction to sustainable recreation, such as proper trail use, waste management, and wildlife respect, could be invaluable to new immigrants or those less familiar with outdoor activities. In addition to benefiting visitors and the ecosystem, Gatineau Park is ideally suited to serve as a model for inclusive and environmentally conscious park management.

This study focused exclusively on Gatineau Park, a unique conservation area in Canada, limiting the generalizability of findings to other parks or regions with different cultural, environmental, or recreational contexts. Future research should explore the relationship between serious leisure and environmental concern in diverse geographic settings, including urban parks, rural conservation areas, and recreational spaces in developing countries. Expanding the scope to include varied natural and cultural contexts would provide a more comprehensive understanding of how local factors influence the interplay between leisure and environmental attitudes.

Also, the study's sample was predominantly composed of highly educated and financially stable individuals, which may not reflect the broader population of outdoor recreationists. This could lead to an overestimation of the role of serious leisure in fostering environmental concern. Future studies should strive for a more diverse participant pool, including individuals from a wider range of educational, financial, and cultural backgrounds. Recruiting participants through various channels, such as community outreach programs or partnerships with local organizations, could help ensure a more representative sample and reduce potential biases in findings.

Although the sample size of 248 was adequate for this study, a larger sample would enhance the statistical power and generalizability of the findings. Future research should aim to include larger samples to improve the robustness of statistical analyses. Larger datasets would allow for more nuanced subgroup analyses, such as exploring differences in environmental concern across age groups, genders, or activity types, providing richer insights into the dynamics of serious leisure. Additionally, this study employed a cross-sectional design, capturing participants' attitudes at a single point in time. This approach limits the ability to determine how serious leisure influences environmental concern over the long term. Longitudinal studies are recommended to track participants' attitudes and behaviors over time. By examining how serious leisure

engagement evolves across life stages or as individuals deepen their involvement in activities, researchers can uncover long-term impacts on environmental concern and sustainability practices.

Furthermore, the study did not evaluate the effectiveness of specific policies or programs aimed at fostering environmental concern among outdoor recreationists. Future research should assess the impact of park management initiatives, such as educational workshops, sustainability campaigns, or interpretive programs, on participants' environmental attitudes. Comparing these interventions across different parks or regions could help identify the best practices and inform policies to enhance environmental stewardship.

### **Acknowledgements**

This study was conducted in 2024 under Ethics File Number H-09-24-10732 at the School of Human Kinetics, University of Ottawa, Canada. The authors would like to extend their sincere gratitude to all the participants who generously contributed their time and insights to this research.

### **Disclosure Statement**

No potential conflict of interest was reported by the authors.

## Second Article

### Who Comes to the Park and Why? A Cluster Analysis of Leisure Commitment

#### Abstract

The Serious Leisure Perspective is used in this study to segment visitors to Gatineau Park according to their both demographic characteristics and levels of seriousness in participation. Using two-step cluster analyses, three distinct visitor groups were identified: Casual Park Visitors, Transitional Park Participants, and Committed Park Devotees. Further exploring the diversity within the transitional group, a secondary clustering revealed five subclusters, characterized by varying commitments, demographics, and leisure behaviors. Results demonstrate a progression in leisure involvement and how factors including gender, income, education, and activity preferences influence leisure identity development. In addition to contributing to leisure theory, the study offers practical guidance for park management, programming, and marketing through the operationalization of the SLP. These results suggest that stage-sensitive, inclusive strategies are needed in order to engage a diverse group of users in the park.

**Keywords:** Park Visitors, Serious Leisure, Cluster Analysis, Segmentation,

## Introduction

Parks are widely regarded as valuable community assets, providing recreational and leisure opportunities that contribute to individual, social, economic, and environmental well-being (Crompton, 1999; Ellis & Schwartz, 2016; Rossi et al., 2016). Parks also play a crucial role in promoting public health (Hayes Hursh et al., 2024; Perry et al., 2024), encouraging physical activity (Ayala-Azcárraga et al., 2019), and enhance positive perceptions of leisure activities (Lee & Lee, 2020; Kruger et al., 2007; McCormack et al., 2010). Leisure activities in natural settings like parks offer opportunities for exploration (Lin et al., 2014; Weber & Anderson, 2010), self-expression (Iwasaki et al., 2010; Saffari & Heidari, 2022), and personal accomplishment (Hawkes, 2023; Hawkes et al., 2024), enhancing overall quality of life (Stebbins, 2012). Various aspects of parks can be measured and analyzed in relation to leisure and physical activity (Fan & Luo, 2021; Bedimo-Rung et al., 2005). Bedimo-Rung et al. (2005) stressed the importance of transdisciplinary research to better understand the interplay between park environmental attributes and levels of leisure activity within these settings. Parks, as a familiar and accessible type of green space, offer not only scenic natural environments but also spaces for activities like walking, sports, social gatherings, and community events. Furthermore, contemporary individuals, who have become more stressed due to rapid urbanization, have shown a desire to return to nature through outdoor leisure activities (Kim, 2023). While previous studies have addressed aspects such as leisure participation frequency (Belošević & Ferić, 2022; Cha, 2018), time utilization (Behera & Parida, 2014; Istriyani, 2021; Mackenbach et al., 2018), and types of leisure activities in parks (Miller et al., 2024), considerable ambiguities remain in understanding how park-based leisure engagement intensity varies among park visitors, particularly through a theoretical framework that accounts for different forms of leisure commitment.

Despite growing interest in park-based leisure behavior, few studies have applied the serious leisure perspective to comprehensively segment park visitors based on their engagement profiles. To address this gap, the present study aims to identify distinct visitor profiles by examining both demographic characteristics and levels of seriousness in participation. Specifically, it seeks to answer the question, how do park visitors differ in their engagement levels as categorized by serious leisure? To contextualize this study, the following section reviews how park spaces and visitor behaviors have been conceptualized and studied in recent literature.

### **Park Visitors and Leisure Behavior**

Researchers have studied leisure behavior of people and parks tremendously in sociological scholarship, especially during the 1970s and 1980s (Field, 2000). In the decades before the 1960s, little systematic attention was paid to analyzing leisure behavior on public lands like parks for recreation (Field, 2000). Today, researchers have shown an increasing interest in categorizing visitors based on their visitation patterns (Baek et al., 2021). For instance, Kidd et al. (2018) classified visitors based on their vehicular behavior at the Grand Teton National Park and then applied cluster analysis to identify factors of importance for specific visitor types. Also, Newton et al. (2017) examined space and time statistics, while tracking visitors' vehicular path, to gain a better understanding of visitor flow. A greater number of studies segmented the population based on sport, tourism, etc., rather than park visitors (Galloway, 2002; Marques et al., 2010).

Parks offer expansive recreational venues based on specific or common themes, which are reflected in their landscapes, environments, facilities, or exhibitions (Mei et al., 2019). Thus, they play a pivotal role in contributing to people's leisure, education, and overall entertainment. It is important for parks to improve their visitors' experiences as they compete in an increasingly competitive market (Yuan & Zheng, 2018). Therefore, it is imperative that a marketing strategy is

developed based on an understanding of park visitors. Furthermore, the segmentation of park visitors is core to the personalization of services and targeted approaches to marketing (Zafeiroudi & Kouthouris, 2023). The segmentation technique subdivides markets using various variables, including demographic, geographic, sociocultural, behavioral, and psychographic factors such as motivation, involvement, and lifestyle (Swarbrooke & Horner, 2007; Zafeiroudi & Kouthouris, 2023). Segmenting leisure activities will allow participants to get excellent choices that they usually adore (Zafeiroudi & Kouthouris, 2023).

While segmenting park visitors helps reveal variations in demographic and behavioral patterns, it does not fully capture the depth and meaning of individuals' leisure experiences. To better understand the quality and seriousness of participation, the serious leisure offers a comprehensive theoretical framework for analyzing how people engage with leisure in more enduring and personally meaningful ways. Therefore, the following section introduces the key concepts and characteristics of serious leisure to establish its relevance for this study.

### **Serious Leisure**

A significant contribution to understanding leisure can be found in Stebbins' (1982) work. For Stebbins (2018), leisure is an optimistic outlook, characterized by pleasure, expectations, and recollections of activities and situations. A person's experience of an activity refers to their emotions, physical attributes, intellectual attributes, and social attributes (Stebbins, 2016). The serious leisure perspective describes the way people experience leisure activities (Stebbins, 2016). According to Stebbins (2007, Elkington & Stebbins, 2014), the SLP provides the strongest theoretical and empirical foundation for categorizing leisure activities that are currently available.

The thinking in SLP has led to an expansion of the concept of serious leisure (Stebbins, 2012). “The systematic pursuit of an amateur, a hobbyist, or a volunteer activity that participants find so enjoyable and meaningful that they embark on a career centered on acquiring and expressing the skills, knowledge, and experience in that activity” (Stebbins, 1992, p. 3). The object of serious leisure is to acquire and express one's special skills, knowledge, and experience (Stebbins, 1992). For an activity to be classified as serious leisure, it must meet six criteria (Stebbins, 1992). The first characteristics of serious leisure is the need for perseverance. Through perseverance, individuals can overcome psychological and physical problems during their leisure time, such as anxiety, shame, as well as physical hazards (Stebbins, 1992). Second, significant effort is required to achieve knowledge and skills (Stebbins, 2012). In other words, this involves acquiring and developing specialist knowledge, experience, education, and skills that allow one to pursue his leisure activities professionally (Shen & Yarnal, 2010; Stebbins, 2012). The third characteristic of serious leisure is career, whose nature is revealed through its related activities. Participants' identities are a fourth characteristics, allowing them to distinguish themselves from others and express their character to them (Green & Jones, 2005; Kane & Zink, 2004). Ethos is the fifth characteristic. People who share a common ethos regarding serious leisure share similar attitudes, beliefs, values, and goals, yet others may not understand these attributes (Heo et al., 2010; Pedersen & Seidman, 2004). The last characteristic is durable individual benefits. Briggs and Stebbins (2014) mention the feeling of belonging and relationship as one durable benefit. Using these six characteristics, this study attempts to capture a powerful segmentation of park visitors' behavior.

## **Material & methods**

The present study examined visitors to Gatineau Park, a popular recreation area for residents and visitors alike. Gatineau Park is the second-most visited park in Canada, and a destination for outdoor enthusiasts to engage in recreational activities (Lait, 2021). It serves as a destination for more than 600,000 people each year (Padvaiskas, 2024). Besides cycling, rock climbing, and snowshoeing Gatineau Park also offers swimming, rowing, picnicking, camping, cross-country skiing, downhill skiing, and as well as skiing, downhill skiing, snowshoeing, and rock climbing (Soulard, 2017).

The target population consisted of Gatineau Park visitors. Sample size estimation was conducted using PASS software, ensuring statistical power and generalizability. According to assumptions with an alpha level of 0.01, statistical power of 0.90, and  $R^2$  of 0.05, the final sample consisted of 403 participants (Cohen, 1988). We collected data from December 2024 to February 2025 by handing out questionnaires through convenience sampling at Gatineau Park's highly visited sites, including the Visitor Centre, Camp Fortune, Lac Leamy, Pink Lake Lookout, and Champlain Lookout.

The questionnaire for this study was the Serious Leisure Inventory and Measure (SLIM) established by Gould et al. (2008). In this study, we used the SLIM short form to classify park visitors in Gatineau Park according to their serious leisure perspective. The SLIM framework comprises six characteristics (perseverance, effort, durable benefits, identity, career, and unique ethos) with 18 operational items rated on a 9-point Likert scale (Gould et al., 2008). The questionnaire also included questions on socio-demographic characteristics.

We used the SPSS software to analyze the data. Cluster analysis is a widely used statistical method for grouping individuals with similar characteristics, which minimizes intra-group variability while maximizing inter-group variability (Kaufman & Rousseeuw, 2009). In this study,

two-step cluster analysis is used. Two-step cluster analysis excels at analyzing large datasets that contain both categorical and continuous variables (Benassi et al., 2020; Tkaczynski, 2016). The use of two-step cluster analysis in leisure and recreation research has been limited. It is highly relevant to this study, however, because this method involves the simultaneous analysis of demographic, psychographic, geographical, and behavioral data (Tkaczynski, 2016). Unlike traditional clustering methods, two-step cluster analysis enables the determination of optimal clusters automatically, eliminating the need for predefined classifications and enhancing analytical precision (Lan & Hoc, 2024).

## Results

### Demographic Profile of Respondents

The data of descriptive statistics obtained from the statistical sample revealed that out of 540 distributed questionnaires, 403 questionnaires were analyzable. Table 1 presents a summary of the sociodemographic characteristics of the sample (N = 403). The sample comprised 58.6% female and 41.4% male participants. According to the age distribution of the sample, 50.9% of participants were between 18 and 25 years old. The next largest age group was 35-42 years old (13.9%), followed by 26-30 years old (13.2%).

**Table1.** Demographic characteristics of the participants.

Variable	N=403	%	Variable	N=403	%
<b>Gender</b>			<b>Marital status</b>		
Female	236	58.6	Single	244	60.5
Male	167	41.4	Married or domestic partnership	150	37.2
			Divorced	4	1
			Widowed	5	1.2
<b>Age</b>			<b>Educational level</b>		
	205	50.9		32	7.9
18-25	53	13.2	High school or less	125	31
26-30	39	9.7	College degree	144	35.7
31-34	56	13.9	Bachelor's degree	102	25.3
	31	7.7			

35-42	12	3	Master's or PhD degree		
43-52	4	1			
53-65	3	0.7			
66-70			<b>Employment status</b>		
71+					
			Paid work	248	61.5
			Not paid work/students	155	38.5
<b>Income</b>					
<\$16,000	53	13.2	<b>Visiting the park within the past six months</b>		
\$16,000–28,000	30	7.4			
\$28,001–44,000	25	6.2	1 to 5	126	31.2
\$44,001–56,000	20	5	6 to 15	149	37.2
\$56,001- 76,000	66	16.4	16 to 30	85	21
\$76,001–100,000	46	11.4	31 to 50	37	9.1
\$100,001–240,000	125	31	50+	6	1.5
\$240,001+	38	9.4			

In terms of education, 35.7% of participants had a bachelor's degree, followed by 31 % who had a college degree. There were 25.3% of participants with master's or PhD degrees, while only 7.9% had only a high school education or less. Most participants visited the park 6-15 times in the past six months (37.2%), followed by 1-5 visits (31.2%). There were also 21% of participants who visited 16-30 times, and only 1.5% who visited more than 50 times. According to income, 61.5% of respondents were employed in paid work, while 38.5% were unemployed or students. Three-quarters of participants earned between \$100,001-\$240,000 (31%), followed by \$56,001-\$76,000 (16.4%) and \$76,001-\$100,000 (11.4%). The lowest income group (<\$16,000) constituted 13.2% of the sample, while 9.4% earned over \$240,000. Most of park visitors participated in more than one leisure activity. Furthermore, in addition to hiking and biking in Gatineau Park, they also pursued other leisure activities like swimming, camping, skiing, and other leisure activity.

### Two-Step Cluster Analysis

To classify park visitors based on their level of seriousness in participation, a two-step cluster analysis was conducted. The cluster analysis technique is useful for identifying meaningful patterns in a dataset, especially when applied to visitor segmentation in parks and recreation studies

(Ghaffari & Nematpour, 2020; Lamont & Jenkins, 2013). In this analysis, we test the effectiveness of a three-cluster solution using the Bayesian Information Criterion (BIC), Akaike Information Criterion (AIC), BIC Change Ratio, and Silhouette Measure to assess model fit and interpretability (Rađenović & Rajić, 2025; Makunda et al., 2024). The Bayesian Information Criterion (BIC) and Akaike Information Criterion (AIC) are commonly used model selection criteria in clustering, a lower value indicates a better fit to the model (Kasali & Adeyemi, 2022).

Table 2 compares the mean scores for the six serious leisure characteristics for each cluster. Using the silhouette measure of cohesion and separation, an index ranging from -1 to 1 measures a clustering solution's effectiveness by maximizing similarity within clusters while ensuring distinctiveness between clusters (Saputra et al., 2020). If the silhouette coefficient is 1, that means there is a perfect degree of internal consistency and no overlap between clusters, while if it is 0.5, then it suggests a reasonable but moderate clustering outcome (Lengyel & Botta-Dukát, 2019; Zhang, 2023). A clustering structure less than 0.2 indicates a weak clustering structure, where there is no clear differentiation. A silhouette coefficient of 0.6 was found in this study, suggesting an acceptable clustering solution.

**Table 2.** Clustering Evaluation Using BIC, AIC, and Silhouette Measure

<b>Number of Clusters</b>	<b>BIC</b>	<b>AIC</b>	<b>Ratio of BIC Changes</b>	<b>Silhouette Measure</b>
3	11.329	1.555	9.430	0.6

Since the BIC value of the 3-cluster solution (11.329) is lower than that of competing models with different cluster numbers, the 3-cluster solution balances both complexity and model fit effectively. The AIC value (1.555) further supports this selection, as a lower AIC indicates a model that optimally explains variance while avoiding overfitting (Burnham & Anderson, 2004).

A BIC change ratio of 9.43 indicates a strong improvement in model fit when moving from a 2-cluster to a 3-cluster solution. This indicates that adding the third cluster enhances model performance significantly, but adding additional clusters beyond three can diminish returns or result in over-segmentation (Burnham & Anderson, 2004).



**Figure 1.** Cluster quality

A silhouette measure of 0.7 supports the validity and separation of clusters. In Kaufman and Rousseeuw's (2009) definition, silhouette values between 0.5 and 0.7 indicate a well-defined clustering structure, meaning most points are appropriately grouped with minimal overlap. This proves that the three-cluster solution allows for meaningful segmentation of visitors.

**Table 3.** Significant Between-Cluster Comparison for SLP Characteristics

SLP characteristics	Cluster 1 Mean (N=151)	Cluster 2 Mean (N=194)	Cluster 3 Mean (N=58)	P-value
<b>Perseverance</b>	2.470	2.757	4.902	0.000
<b>Identity</b>	2.545	2.931	6.247	0.000
<b>Personal Effort</b>	2.596	2.946	6.643	0.000
<b>Unique Ethos</b>	3.019	3.419	5.821	0.000
<b>Durable Benefits</b>	2.865	3.642	5.902	0.000
<b>Career</b>	3.353	4.726	6.902	0.000

As shown in Table 3, serious leisure characteristics are compared across three clusters, and the P-value is calculated for these comparisons. Also, Table 4 illustrates differences in the demographic profiles, income levels, educational backgrounds, leisure activities, and visitation frequency of park visitors across the three clusters. The segmentation effectively reveals meaningful differences.

**Table 4.** Park Visitor’s Characteristics from Each Cluster based on Categorical Variables

<b>Demographic Characteristics</b>	<b>Cluster 1 Mean (N=151)</b>		<b>Cluster 2 Mean (N=194)</b>		<b>Cluster 3 Mean (N=58)</b>	
<b>Sex</b>	Female	98	Female	108	Female	30
	Male	53	Male	86	Male	28
<b>Income</b>	<\$16,000	12	<\$16,000	38	<\$16,000	3
	\$16,000–28,000	5	\$16,000–28,000	17	\$16,000–28,000	8
	\$28,001–44,000	19	\$28,001–44,000	3	\$28,001–44,000	3
	\$44,001–56,000	7	\$44,001–56,000	12	\$44,001–56,000	1
	\$56,001- 76,000	34	\$56,001- 76,000	24	\$56,001- 76,000	8
	\$76,001–100,000	23	\$76,001–100,000	11	\$76,001–100,000	12
	\$100,001–240,000	46	\$100,001–240,000	60	\$100,001–240,000	19
	\$240,001+	5	\$240,001+	29	\$240,001+	4
<b>Education</b>	High school	3	High school	28	High school	1
	College degree	17	College degree	101	College degree	6
	Bachelor's degree	58	Bachelor's degree	64	Bachelor's degree	22
	Master's or PhD	73	Master's or PhD	1	Master's or PhD	29
<b>Visiting the park within the past six months</b>	1 to 5	95	1 to 5	144	1 to 5	41
	6 to 15	33	6 to 15	38	6 to 15	15
	16 to 30	13	16 to 30	6	16 to 30	2
	31 to 50	0	31 to 50	2	31 to 50	0
	50+	10	50+	4	50+	0
<b>Age</b>	18-25	7	18-25	187	18-25	11
	26-30	40	26-30	1	26-30	12
	31-34	25	31-34	3	31-34	11
	35-42	43	35-42	2	35-42	11
	43-52	19	43-52	0	43-52	12
	53-65	12	53-65	0	53-65	0
	66-70	3	66-70	0	66-70	1
	71+	2	71+	1	71+	0
<b>Leisure activities</b>	Hiking	88	Hiking	89	Hiking	41

Biking	7	Biking	48	Biking	3
Swimming	14	Swimming	7	Swimming	2
Camping	9	Camping	14	Camping	1
Paddle boating	10	Paddle boating	7	Paddle boating	2
Skiing	8	Skiing	6	Skiing	0
Other leisure event	15	Other leisure event	23	Other leisure event	9

The lowest means across all SLP characteristics are found in cluster 1, “Casual Park Visitors”, which indicates that this group has the least commitment or engagement in serious leisure pursuits. Among the SLP characteristics, this group scored the lowest in perseverance (2.470), identity (2.545), and personal effort (2.596), suggesting that it invests relatively little emotion in leisure activities (Table 3). The first cluster also represents a mixed-gender group (98 females and 53 males) with a balanced income distribution across middle- and high-income brackets. However, 46 individuals reported earning between \$100,001 and \$240,000. This cluster is characterized by a high level of educational attainment: nearly half (73 individuals) have completed graduate-level education, indicating a highly professional and educated segment. There are 88 participants in this group who primarily engage in hiking as a leisure activity and the leisure activities of this group are moderately diverse. There is moderate park use, with most visitors reporting 1 to 5 visits in the past six months, but a notable minority (10 visitors) report visiting more than 50 times. Most of the cluster is composed of individuals between the ages of 26 and 42, constituting most of the cluster (Table 4).

The mean scores for cluster 2, “Transitional Park Participants” indicate a moderate level of engagement in serious leisure pursuits. As shown by Cluster 2, moderate scores across all SLP characteristics indicate a more structured and goal-oriented approach to leisure. With slightly elevated scores in identity (2.931), personal effort (2.946), and career (4.726), this group seems to view leisure as a meaningful activity that may support broader life goals (Table 3). Cluster 2 also has more female participants (108) than male participants (86), with 60 participants earning between \$100,000 and \$240,000 and 29 earning over \$240,000. Despite this, education levels are

lower in this group, with most of the participants having only a college degree (101 participants), and few pursuing graduate studies. There are 144 individuals in this cluster who have visited the park 1 to 5 times in the past six months, displaying the least frequent park engagement. The number of people participating in leisure activities in this group is higher than that in other clusters, with more people participating in biking (48 participants) and hiking (89 participants). In terms of age distribution, the cluster appears primarily to be composed of young adults (18–25 years of age) with considerable financial resources but alternative leisure interests that may compete with park visits (Table 4).

The highest mean scores across all characteristics are found in cluster 3, “Committed Park Devotees”, indicating the highest level of engagement and commitment to serious leisure pursuits. This cluster scores significantly higher in all the SLP characteristics, such as perseverance (4.902), identity (6.247), personal effort (6.643), and career (6.902). It is evident from these scores that leisure activities are deeply rooted within a person's identity, lifestyle, and even career orientation. Also, all P-values are 0.000, which is highly significant ( $p \leq 0.05$ ). Therefore, all SLP characteristics differ by statistically significant amounts across the three clusters. These findings suggest that the clusters are distinct and well-separated based on their engagement in serious leisure pursuits (Table 3). Also, cluster 3 is composed almost equally of 30 women and 28 men but shows distinct behavioral and demographic characteristics. In total, 19 individuals earn between \$100,001 and \$240,000, which is primarily middle to high income. The cluster has a relatively high level of education, with about half of the participants (29 of them) having graduate degrees. Most leisure activities are related to hiking (41 participants), with little involvement in other activities. There have been 41 visitors who have visited the park between 1 and 5 times, and 15 who have visited between 6 and 15 times in the past six months, demonstrating moderate to

frequent park use. The age distribution is more balanced across age ranges between 26 and 52 years old, indicating a mature and diverse segment likely to prioritize community-based outdoor activities (Table 4).

### Refining Cluster 2: Identification of Subcategories

The heterogeneity observed within Cluster 2 “Transitional Park Participants” necessitated a secondary clustering analysis to subdivide this group further into more refined subcategories according to demographics and behavioral factors. In Table 5, significant between-cluster differences are shown across multiple serious leisure characteristics, revealing five distinct subgroups with unique characteristics.

**Table 5.** Significant Between-Cluster Comparison for SLP Characteristics

SLP characteristics	Cluster 1 (N=21)	Cluster 2 (N=61)	Cluster 3 (N=45)	Cluster 4 (N=27)	Cluster 5 (N=40)	P-value
Perseverance	3.031	2.754	1.992	3.111	3.241	0.000
Identity	2.809	2.967	1.888	3.456	3.758	0.000
Personal Effort	2.888	2.857	1.896	3.814	3.708	0.000
Unique Ethos	4.063	3.601	2.340	3.790	3.766	0.000
Durable Benefits	2.714	3.852	2.533	4.716	4.333	0.000
Career	3.587	4.743	3.311	6.259	5.853	0.000

In Table 6, the demographic, behavioral, and leisure activity profiles of the five “Transitional Park Participants” subgroups are presented in detail.

**Table 6.** Park Visitor’s Characteristics - Cluster 2 Mean (N=194)

Demographic Characteristics	Cluster 1 Mean (N=21)	Cluster 2 (N=61)	Cluster 3 (N=45)	Cluster 4 (N=27)	Cluster 5 (N=40)
Sex	Female 8	Female 1	Female 35	Female 27	Female 37
	Male 13	Male 60	Male 10	Male 0	Male 3

<b>Income</b>	<\$16,000	12	<\$16,000	0	<\$16,000	14	<\$16,000	0	<\$16,000	12
	\$16,000–28,000	1	\$16,000–28,000	3	\$16,000–28,000	5	\$16,000–28,000	5	\$16,000–28,000	3
	\$28,001–44,000	0	\$28,001–44,000	2	\$28,001–44,000	0	\$28,001–44,000	0	\$28,001–44,000	1
	\$44,001–56,000	0	\$44,001–56,000	5	\$44,001–56,000	1	\$44,001–56,000	6	\$44,001–56,000	0
	\$56,001–76,000	2	\$56,001–76,000	9	\$56,001–76,000	2	\$56,001–76,000	2	\$56,001–76,000	9
	\$76,001–100,000	1	\$76,001–100,000	1	\$76,001–100,000	1	\$76,001–100,000	6	\$76,001–100,000	2
	\$100,001–240,000	2	\$100,001–240,000	29	\$100,001–240,000	18	\$100,001–240,000	8	\$100,001–240,000	3
	\$240,001+	3	\$240,001+	12	\$240,001+	4	\$240,001+	0	\$240,001+	10
<b>Education</b>	High school	18	High school	5	High school	0	High school	5	High school	0
	College degree	3	College degree	25	College degree	26	College degree	12	College degree	0
	Bachelor's degree	0	Bachelor's degree	30	Bachelor's degree	19	Bachelor's degree	10	Bachelor's degree	40
	Graduate studies	0	Graduate studies	1	Graduate studies	0	Graduate studies	0	Graduate studies	0
<b>Visiting the park within the past six months</b>	1 to 5	14	1 to 5	49	1 to 5	37	1 to 5	19	1 to 5	25
	6 to 15	2	6 to 15	10	6 to 15	8	6 to 15	4	6 to 15	14
	16 to 30	2	16 to 30	1	16 to 30	0	16 to 30	2	16 to 30	1
	31 to 50	2	31 to 50	0	31 to 50	0	31 to 50	2	31 to 50	0
	50+	1	50+	1	50+	0	50+	0	50+	0
<b>Age</b>	18-25	20	18-25	56	18-25	45	18-25	27	18-25	39
	26-30	0	26-30	0	26-30	0	26-30	0	26-30	1
	31-34	0	31-34	3	31-34	0	31-34	0	31-34	0
	35-42	1	35-42	1	35-42	0	35-42	0	35-42	0
	43-52	0	43-52	0	43-52	0	43-52	0	43-52	0
	53-65	0	53-65	0	53-65	0	53-65	0	53-65	0
	66-70	0	66-70	0	66-70	0	66-70	0	66-70	0
	71+	0	71+	1	71+	0	71+	0	71+	0
<b>Leisure activities</b>	Hiking	4	Hiking	25	Hiking	28	Hiking	17	Hiking	15
	Biking	2	Biking	19	Biking	10	Biking	0	Biking	17
	Swimming	1	Swimming	5	Swimming	1	Swimming	0	Swimming	0
	Camping	2	Camping	5	Camping	4	Camping	1	Camping	3
	Paddle boating	0	Paddle boating	1	Paddle boating	2	Paddle boating	3	Paddle boating	0
	Skiing	2	Skiing	3	Skiing	0	Skiing	6	Skiing	4
	Other leisure event	10	Other leisure event	3	Other leisure event	0	Other leisure event	0	Other leisure event	1

Cluster 2-1 (N = 21) can be characterized as “Early-Stage Explorers”. Most serious leisure characteristics are moderately rated in this subgroup, including perseverance (3.031), identity (2.809), and personal effort (2.888), but there is a particular emphasis on unique ethos (4.063). Although they enjoy leisure activities seriously, their durable benefits (2.714) and career development (3.587) are comparatively lower than those of other groups, suggesting they take leisure seriously, but do not fully incorporate it into their life plans (Table 5). This subgroup consists mostly of males (13 males, 8 females) and primarily of low-income individuals, with 12 individuals earning less than \$16,000 annually. There are few participants with higher education than a high school diploma, and most have only completed high school. They visit parks relatively

rarely (mainly 1 to 5 times in the past six months), and their leisure activities are somewhat diverse, with a higher concentration of "other leisure events" and moderate activity levels in hiking and camping. The age profile is concentrated among 18–25-year-olds, indicating a youthful but economically constrained segment with casual outdoor involvement (Table 6).

Cluster 2-2 (N = 61) is composed of "Goal-Oriented Beginners". This group has the highest score in durable benefits (3.852) compared to other early clusters, suggesting that their leisure activities are bringing about meaningful and long-term gains in their lives. Although they show relatively average scores in perseverance (2.754) and identity (2.967), their career-related benefit (4.743) is above average, suggesting that leisure participation contributes to long-term goals (Table 5). Among Cluster 2, most members are male (60 males, 1 female), with high income and moderate education levels, as well as limited but diverse park engagement. About 67 percent of participants report annual incomes exceeding \$100,000. There is minimal representation in the lower income brackets (\$16,000–\$76,000), indicating that money is not a limiting factor for this group. With 56 participants aged 18–25, there is a strong concentration in the 18–25 age group, indicating a very young, financially privileged group (Table 6).

Cluster 2-3 (N = 45) consists of "Nature-Inclined Dabblers". Almost all serious leisure characteristics show the lowest scores for this subgroup, notably perseverance (1.992), identity (1.888), and personal effort (1.896). In terms of their durable benefits (2.533) and career scores (3.311), they show a superficial engagement with leisure activities, largely treating them as occasional pastimes rather than serious, identity-shaping pursuits (Table 5). Most individuals in this subgroup are female (35 females, 10 males) with an upper middle-income profile, earning between \$100,000 and \$240,000 per year. Members' educational backgrounds are somewhat mixed, but they tend to have a higher concentration of higher education and bachelor's degree

attainment. The most popular leisure activity is hiking, with a visit to the park occurring between once and five times. Cluster 3 is composed entirely of young adults (18–25 years), suggesting a female-driven, moderately resourced group with a particular preference for nature-related activities (Table 6).

Cluster 2-4 (N = 27) indicates that they are “Aspiring Leisure Achievers”. Participants in this cluster score highly on all characteristics, including perseverance (3.111), identity (3.456), personal effort (3.814), durable benefits (4.716), and career integration (6.259). The high career score of this group indicates a strong connection between leisure activities and personal and professional identities, which may influence their future career trajectories (Table 5). The cluster consists entirely of females (27 females, 0 males), suggesting a gender-homogeneous subgroup. With earnings between \$56,001 and \$240,000, income distribution tends to be middle to upper-middle. Education levels are lower, with only holding a college degree. In the past six months, some individuals visited the park up to 30 times, which is slightly higher than in other clusters. The leisure activities of this group tend to be more adventurous, such as paddle boating, skiing, and hiking. Like other clusters, the age concentration remains between 18–25 years (Table 6).

In Cluster 2-5 (N = 40), participants are identified according to their identity “Emerging Identity Builders”. A high level of perseverance (3.241), identity (3.758), and personal effort (3.708) can also be found among this subgroup, along with high durable benefits (4.333) and career impacts (5.853). They score slightly lower than Cluster 4, but they still indicate serious, identity-driven engagement in leisure activities that contribute to personal and professional development (Table 5). There are 37 females and 3 males in this cluster, which is distinguished by its highly educated profile, all individuals hold a bachelor's degree. There is a wide range of income reported, with many individuals earning either less than \$16,000 or more than \$100,000, indicating they

may be students or at the beginning of their career stages. Visits to the park are slightly more varied, with a few participants visiting more frequently (6–15 times). There is a preference for biking and skiing as leisure activities, suggesting an interest in outdoor activities that are active, and fitness related. Age is mostly concentrated in the 18–25-year bracket (Table 6).

## **Discussion**

In this study, the serious leisure perspective was used as a theoretical lens for examining the differences and segmentation of visitors to Gatineau Park. The cluster analysis indicated three distinct visitor profiles, each representing a different degree of commitment to leisure activities: casual park visitors, transitional park visitors, and committed park devotees. As a result of the evaluation of BIC, AIC, the BIC change ratio, and silhouette measure, the three-cluster model is statistically the most optimal and interpretable method for segmenting park visitors and representing distinct levels of engagement in serious leisure pursuits. The progressive increase in mean scores within clusters indicates a hierarchical pattern of involvement, which aligns with Stebbins' (2007) description of leisure as a continuum from casual to serious forms. This confirms that SLP characteristics significantly distinguish between groups, reinforcing the validity of the clustering method and supporting previous findings that leisure involvement tends to follow developmental trajectories (Elkington & Stebbins, 2014; Veal, 2019).

There was minimal commitment among the casual park visitors cluster (N = 151) exhibiting the lowest scores across all SLP characteristics, which suggested minimal commitment and a predominantly passive or hedonic approach to park-based activities. These individuals likely visit the park for relaxation or light social engagement and do not strongly identify with their leisure activities. This finding aligns with earlier research showing that many park visitors engage in leisure for stress relief, social bonding, or convenience, without forming a strong leisure identity

(Hansmann et al., 2007; Kuentzel & Heberlein, 1997). Their low scores in durable benefits and career dimensions (2.865 and 3.353, respectively) support Stebbins' (2007) characterization of casual leisure as short-lived, immediately gratifying, and lacking significant personal development. This cluster likely represents casual park visitors or those engaging in leisure activities for relaxation rather than serious pursuit. As Kyle et al. (2004) described it, these visitors are situational users, meaning that they utilize park resources occasionally without being particularly attached or involved.

The transitional park visitor cluster (N = 194) showed moderate levels of engagement, particularly in personal effort, identity formation, and career-related benefits, suggesting a connection between leisure and professional development, but not as strongly as committed park devotees cluster. While leisure is likely meaningful to this group and potentially linked to long-term goals, it is not fully integrated into their daily lives. This cluster is likely to represent a transitioning group, possibly individuals who occasionally engage in serious leisure or are in the process of developing a deeper commitment. This profile is consistent with what Shen and Yarnal (2010) and Tsaur et al. (2013) referred to as emergent leisure participants, individuals whose motivation and commitment grow over time as they begin to experience the personal rewards of sustained engagement. It is likely that these visitors are at a stage in which they are negotiating leisure's role in their identity and lifestyle (Gould et al., 2008) and will progress towards more serious engagement under supportive conditions. Also, the number of female participants in cluster 2 is also higher (108) than the number of male participants (86). Previous studies have also indicated that nature connection measures are higher among female, and more educated respondents (Dean et al., 2018; Mackay & Schmitt, 2019).

The committed park devotees cluster (N = 58) exhibited the highest levels of perseverance, identity, and perceived benefits. It is evident from the scores that leisure activities are deeply integrated into individual identities, lifestyles, and even career goals. These individuals are deeply involved in their leisure pursuits and reflect the essence of Stebbins' (2007) serious leisure conceptualization, where leisure is central to self-concept, lifestyle, and even career trajectory. Participants in this cluster are likely to be motivated by intrinsic motivations, long-term benefits, and unique ethos associated with their chosen leisure pursuits, such as self-expression and self-actualization. According to previous studies (Haggard & Williams, 1992; Saffari & Heidari, 2022), high involvement is associated with psychological benefits and affirmation of identity. Previous studies also have shown that participants with higher levels of serious leisure were more likely to have psychological characteristics, such as feelings of achievement, as well as higher functional results (Ahn, 2025; Heidari et al., 2021; Song & Ahn, 2023).

There are five subclusters within the Transitional Park Participants, each with distinct profiles along the continuum of serious leisure engagement. Early-Stage Explorers are low-income, young individuals with minimal leisure integration, indicating broad interests but limited commitment (Hicks & Weisman, 2015). Identifying as Goal-Oriented Beginners, these young males are financially privileged and associate leisure with career development and personal growth, which are in line with Stebbins' (2007) notion that serious leisure contributes to personal development and social capital. Nature-Inclined Dabblers, mostly young, educated women, show low SLP scores and infrequent park use, whose leisure involvement is occasional and experience-driven. There is high motivation and alignment with serious leisure characteristics among aspirational leisure achievers, although structural barriers such as education or time may hinder their achievement. These findings support those of Wu et al. (2021) regarding transcendental

leisure that is hindered by external constraints. Lastly, Emerging Identity Builders are highly educated and exhibit strong identity and effort, fitting Stebbins' (1992) concept of "devote work," where leisure forms a core part of self-concept and lifestyle. Together, these profiles highlight the complexity of leisure pathways and support calls for dynamic, socio-demographically sensitive segmentation in outdoor recreation research.

## **Conclusion**

As urbanization increases, peri-urban green spaces are likely to be used for recreational purposes more likely (Komossa et al., 2019). It is acknowledged in the literature that diversity among park users is important, but most studies - and particularly those on landscape preferences - (Komossa et al., 2019) focus on specific users and aren't operationalized to create recreationist typologies such as serious park users and casual park users. This study proposes the Serious Leisure Perspective for segmenting park users based on visitor heterogeneity and provides empirical support for the perspective. By distinguishing between clusters, it becomes clear how important it is to design programming, marketing, and facilities to meet the needs of each group. Casual visitors, for example, need accessible and low-barrier experiences, whereas highly committed users need structured programs and recognition.

In each cluster, there are unique opportunities for leisure programming, destination planning, and targeted outreach. Casual users can benefit from low-barrier, educational events that raise awareness of outdoor recreation's long-term value. To engage transitional participants, whose commitment and lifestyles align with those of the program, programmers could offer adventure-based or social programming to facilitate a deeper connection. Additionally, the most committed park users provide a powerful foundation for co-creating community-led initiatives like wellness

workshops, sustainability efforts, and volunteer stewardship programs, as they see their park experiences as central to identity and well-being.

As the transitional cluster was subdivided, it revealed important demographic and behavioral variations, particularly related to gender, income, and leisure preferences. With this granularity, targeted interventions and marketing strategies can be developed, aligning with the current call for user-centered, inclusive planning in outdoor recreation management (Sotomayor & Barbieri, 2016). For organizations like Parks Canada and the Canadian Parks Council, these findings may have relevance as they attempt to attract nontraditional park users and foster lifelong connections with nature.

The results of this study support the hierarchical nature of leisure involvement suggested by Stebbins (2007), as well as the validity of the SLP as a conceptual tool and an empirical tool. There are, however, some gaps, such as the under-theorization of casual and project-based leisure in comparison with serious leisure which is well-developed (Veal, 2019). It is important to adopt a comparative lens in future studies to investigate differences between leisure types and outdoor activities with regard to motivations, identities, and benefits. We might be able to gain a deeper understanding of the role that leisure plays in shaping identity, well-being, and even social change through such inquiries. Segmentation approaches such as those used here can also support inclusive, multifunctional landscape management as urbanization increases and parks become more important for health and community life (Komossa et al., 2019). It is possible to design equitable and sustainable recreation environments that resonate with all levels of leisure engagement by considering the diverse motivations and needs of park users.

This research could provide valuable insights into destination management, market segmentation, and tailored marketing strategies in the outdoor recreation industry to better cater to

the diverse needs and preferences of different leisure groups. This study also may be used to cross-market to non-traditional outdoor recreation activities, such as those in parks, which can result in an increase in the number of park visitors, which is one of the primary objectives of the organizations mentioned above. This study will also contribute to academic discourse in many areas, including the study of leisure-based landscapes and the motivation of participants.

### **Acknowledgements**

This study was conducted in 2024 under Ethics File Number H-09-24-10732 at the School of Human Kinetics, University of Ottawa, Canada. The authors would like to extend their sincere gratitude to all the participants who generously contributed their time and insights to this research.

## Third Article

### From Casual Walks to Deep Commitments

#### Motivational Profiles of Park Visitors

##### Abstract

In this study, 23 semi-structured interviews with diverse park visitors are used to examine the motivations and engagement patterns of park visitors from a Serious Leisure Perspective (SLP). Our visitors were categorized into serious, casual, and project-based leisure types. Thematic analysis revealed distinct motivational profiles: serious visitors were intrinsically driven by identity and emotional resilience; casual visitors prioritized ease, relaxation, and accessibility; project-based visitors sought episodic, purposeful engagement balanced with external constraints. Findings highlight the importance of recognizing diverse leisure patterns to inform inclusive park planning, program development, and broader understandings of nature-based recreation.

**Keywords:** Outdoor recreationists, park visitors, casual, serious, national park, motivation

## **Introduction**

*"When I walk into nature, it heals me. It makes me forget my pain, it makes me feel lighter. Gatineau Park is so important that I chose my home to be close to it — it's part of who I am."* This reflection highlights the profound emotional bonds individuals form with nature, illustrating how strong attachments often reflect a deeper level of engagement, consistent with the concept of serious leisure, where individuals display perseverance, dedication, and identity-building through their activities (Stebbins, 2007). A common theme in outdoor recreation literature is that visitors bring diverse expectations, motivations, and experiences to recreation areas, profoundly affecting their participation levels (Manning, 2011). In addition to differing socioeconomic characteristics, cultural backgrounds, experience levels, and norms, subjective factors such as attitudes and personal motives also shape recreation involvement (Manning, 2011; Graefe & Fedler, 1986). Although early research primarily focused on user demographics and attitudes toward management, growing attention has been directed toward understanding why individuals engage in outdoor recreation (Manning, 2011). Therefore, it is important to develop a deeper understanding of how outdoor recreation experiences generate diverse motivational profiles, including those of serious, casual, and project-based outdoor recreationists. This study aims to examine the motivations of outdoor recreationists and their relationship to the level of seriousness in participation.

### **Intrinsic and extrinsic motivation within SDT**

Self-Determination Theory (SDT), developed by Deci and Ryan (1985, 1987), provides a comprehensive framework for understanding human motivation by emphasizing the role of autonomy, competence, and relatedness in fostering self-determined behaviors. At its core, SDT posits that individuals are most motivated when they perceive their actions as self-initiated and

aligned with their values and interests. Autonomy, in particular, is considered a foundational element in sustaining motivation, as it allows individuals to feel that their actions are volitional rather than externally imposed (Ryan & Deci, 2017). It is likely that many factors within the outdoor recreation experience will influence their motivation to participate in outdoor recreation. The purpose of this section is to describe the meta-theory of Self-Determination Theory (SDT, Deci & Ryan, 1985) to emphasize the importance of understanding the principles of motivation in recreational, sporting, and social settings. This study will examine the impact of SDT sub-theories on motivation, initiative, and achievement in recreation and sport. SDT is widely recognized as the leading theory of motivation, initiative, and achievement (Deci & Ryan, 1985).

It has been proposed by Pelletier et al. (1995) that intrinsic motivation can be divided into three dimensions, each of which contributes to self-determination. The first form of intrinsic motivation is the motivation to know. When we learn new things or acquire new skills, we are satisfied with what we learn. A second motivation is motivation to accomplish, in which people experience pleasure from improving upon previously acquired skills. According to Nicholls (1992), motivation to accomplish is a function of achievement motivation. The third type of motivation is the desire to experience stimulation and a pleasant sensation.

Extrinsic motivation can be defined as activities motivated by external factors or that are carried out for a specific purpose rather than for their own sake. According to Deci and Ryan (1991), extrinsic motivation can be classified into four dimensions. As the most self-determined form of extrinsic motivation, integrated regulation is the first dimension. In terms of integrated regulation, behaviors are carried out voluntarily and often to achieve an overarching objective. Therefore, the behavior has no intrinsic or direct motivation but is indirectly motivated. Identified regulation is the second dimension of extrinsic motivation. A behavior that is identified is like an

activity that is integrated in the sense that it is highly valued by the individual and is performed out of a desire to do so, although the activity is restricted to a particular activity. Introjected motivation is the third dimension of extrinsic motivation. Introjected motivation is a result of social pressure and a desire to avoid guilt. The concept of intrinsic motivation is related to the concept of social motivation orientation (Allen, 2003, 2005). Lastly, external regulation refers to behaviors that are controlled from outside sources, such as rewards, constraints, or being instructed to perform tasks. There are some forms of extrinsic motivation which can be self-motivated and some forms which cannot. When investigating the motivations of individuals participating in recreational activities, these factors must be considered. There is no doubt that people may also be purely intrinsically motivated, which studies have shown to be associated with greater levels of motivation, persistence, and intent to revisit or repurchase (Han & Hwang, 2014).

### **Motivations among outdoor recreationalists**

Understanding the motivations behind outdoor recreation participation is critical to gaining insight into the factors that drive individuals' engagement. While basic psychological needs such as competence and autonomy are relatively stable, motivations can shift over time (Walker et al., 2020). Motivation serves as reasons to act, while basic needs function as essential psychological nutrients (Ryan & Deci, 2017). Outdoor recreation literature has long explored multiple motivations. Early research by Bultena and Taves (1961) categorized wilderness motivations into five groups: wilderness as sport and play, fascination, sanctuary, heritage, and personal gratification. Driver and his colleagues later established a systematic social-psychological framework for studying outdoor recreation motivation in the 1970s (Driver, 1972; Driver & Tocher, 1970).

Several studies illustrate the diversity of motivational profiles among outdoor recreationists. A study of visitors to three wildlife reserves in Kenya identified three distinct groups based on motivations: one group sought escape and adventure, another valued self-reflection, and a third prioritized educational experiences (Beh & Bruyere, 2007). In China, Ma et al. (2018) found that visitors to Nanling National Forest Park and Dinghushan National Nature Reserve were equally driven by intrinsic and extrinsic motivations. Both types of motivation significantly influenced visitors' environmental attitudes and behaviors, revealing cultural differences compared to Western recreationists. Similarly, a study conducted in Eskisehir, Turkey, used the Recreation Experience Preference (REP) theory to examine outdoor recreation behavior (Aşan & Emeksiz, 2018). Hiking emerged as the most popular activity. Motivations ranked in importance included relaxation, learning and socialization, achievement and independence, and personal development. Strong connections were found between outdoor recreation motivations, nature experiences, and vacation activity preferences.

Research has also addressed how motivations vary across racial and ethnic groups. A study of Georgia State Park visitors identified key motivational categories: social interaction, physical health and fitness, relaxation and restoration, and nature interaction (Whiting et al., 2017). While all groups rated these categories as important, social interaction was the strongest motivator, particularly among Latino visitors. Differences in site preferences also emerged, with developed and maintained outdoor areas being preferred over natural areas by most visitors. African American and Asian visitors placed less emphasis on nature interaction compared to other groups, suggesting that motivations and site preferences should be carefully considered in park management and design. Walker et al. (2001) examined how ethnicity and acculturation influenced outdoor recreation motivations among Chinese and Euro-North American participants. Using self-

construal as a framework, the study found that both ethnicity and self-construal significantly impacted recreation motivations. Ethnicity often influenced motivations indirectly through interdependent or independent self-construal, while acculturation directly or indirectly affected specific motivational factors among Chinese respondents.

Recreational motivation can be defined as the process through which individuals are encouraged to engage in, maintain, and direct their recreational activities towards a specific goal (Tsai, 2018). Gaining insight into the types of motivation and the range of seriousness of participation in outdoor recreation exposes hidden aspects of outdoor recreationists' behaviors. Tsai (2018) explored the motivations and behaviors of individuals who participate in tennis as a recreational activity and found that the participants displayed a high level of recreational specialization, meaning that they are committed to and invested in their leisure activity (Tsai, 2018). Lee and Ewert (2019) investigated the relationship between serious leisure and motivation in rock climbers. An analysis revealed that identifying motivations predicted commitment, identity development, and personal rewards. Results indicated that autonomous and internalized motivations dominated sustained serious leisure experiences, while controlled motivations were less influential. Also, Pi et al. (2014) examined the relationship between volunteer motivation, serious leisure, and subjective well-being among volunteers, and the results indicated that serious leisure positively affected volunteers' motivation and subjective well-being. Herman (2015) also investigated the leisure motivations of cyclists who consider cycling to be a serious form of leisure. The highest motivation scores were found among mountain bikers, compared to the general population and commuters. There was a strong connection between a sense of risk and social connection among mountain bikers. Also, previous studies (Davies, 2018; Davies et al., 2012) examined the differences between casual and serious walkers in recreational walking. Recreation

outdoors is a multifaceted and complex phenomenon, encompassing a wide range of activities and experiences (Cordell et al., 1999). Although considerable research has been conducted on outdoor recreation in Canada, gaps remain in the understanding of park visitors' motivations (Di, 2018). There has been limited exploration of the differences between casual, project-based, and serious park visitors and their motivations with a qualitative approach. Therefore, this study seeks to deepen our understanding of park visitors' motivations as a highlight group among outdoor recreationists by uncovering the underlying drivers that lead individuals to visit natural recreational areas. Specifically, we will investigate what the motivations, drivers, and characteristics of park visitors in a national park are. What insights does the Serious Leisure Perspective (SLP) offer into understanding these motivations?

### **Research methodology**

In this article, we focus on the behaviors and experiences specific to outdoor recreationists, using a qualitative approach. Our participants were visitors to a highly frequented national park, a profile often overlooked in literature. Participants were purposefully sampled, invited, and recruited. A total of 23 semi-structured interviews were conducted with Gatineau Park visitors between November 2024 and March 2025, in two formats: in-person at Gatineau Park (n= 15) and online via the Zoom platform (n=13), based on the visitors' preferences. For the in-person interviews at Gatineau Park, locations were chosen by the visitors. Several interviews took place while hiking along Trails 1, 70, and 72, while others were held at Camp Fortune, Brown Lake Shelter, Healey Shelter, and Keogan Shelter. All interviews were recorded with participants' oral consent and permission, with durations ranging from 50 to 90 minutes. Ethical approval for this study was obtained from the University of Ottawa Research Ethics Review Board (File Number H-09-24-10732).

To explore participants' motivations and involvement in outdoor recreation, an interview guideline was developed and shared with all participants prior to the interviews. The guideline was intended to direct discussions while allowing participants the opportunity to elaborate on their experiences. It consisted of three main sections:

The first section included opening questions about participants' demographic characteristics, followed by inquiries about their experiences as visitors to Gatineau Park. The second section focused on personal motivations for choosing Gatineau Park as a preferred outdoor recreation destination. Participants were asked about the inspirations behind their visits, the influence of personal factors such as race and ethnicity, social interaction, physical health, relaxation, and interaction with nature, as well as specific instances that illustrated their engagement with the park. The third section examined participants' level of involvement in outdoor recreation activities. Questions explored their history and depth of participation, the significance of outdoor recreation in their lives, their typical recreational practices (such as walking or biking), perceived improvements over time, and the ideals they shared with other outdoor recreation enthusiasts.

To find, examine, and present themes from the motivation types and the range of seriousness of participation of park visitors, this study employed thematic analysis (TA) (Braun & Clarke, 2006). Thematic analysis was used to identify, analyze, and report themes within the data (Boyatzis, 1998; Clarke & Braun, 2017). The process of thematic analysis is not sequential, with one stage coming after another. Instead, it is a recursive process that moves back and forth as needed at each stage. It should not be hurried because it is a process that takes time to develop (Ely et al., 1997). This method involves conducting a six-phase thematic analysis (Braun & Clarke, 2006).

## Results

Table 1 shows the demographic characteristics and leisure engagement patterns of 23 park visitors. The participants ranged in the age range from early twenties to late sixties, and they came from a variety of educational, employment, and income backgrounds. Although they differ in several aspects, several consistent patterns emerged regarding their levels of park visits, leisure activities, and leisure involvements, as categorized by the serious leisure perspective. Stebbins' (1992, 2005) framework classified participants into three types of leisure engagement: serious leisure, casual leisure, and project-based leisure. Among the 23 participants, 12 demonstrated patterns characteristic of serious leisure engagement. The casual leisure pattern was exhibited by six participants, and the project-based leisure pattern by two participants, sometimes overlapping with the other types of leisure.

There is a systematic, career-like devotion to park activities among serious park visitors, who engage in multiple leisure activities, including hiking, cycling, skiing, and group camping. Visitors, such as Patrick, Eric, and Max, reported more than 50 park visits within six months, illustrating serious leisure theory's notions of perseverance, durability, and identity.

Casual park visitors, including individuals like Linda and Maya, were characterized by spontaneous, less-structured park use focused primarily on immediate pleasure and relaxation. The activities they did were usually low-skill, low-organization, such as casual strolls, short hikes, and occasional picnics, and they visited less frequently (usually fewer than 20 times within six months). The patterns of this study are consistent with Stebbins' (1997) definition of casual leisure as enjoyable, short-lived, and requiring little training or effort.

There were fewer project park visitors, but there were examples such as Noura and Andrew who participated in structured but irregular activities such as photography outings and ice fishing.

These park visitors did not sustain leisure practices on a weekly or systematic basis but instead treated these events as meaningful short-term projects in accordance with Stebbins's (2005) project-based leisure classification.

**Table 1.** Participant characteristics

Participant	Age	Gender	Employment Status	Education	Marital Status	Income	Leisure Activity	Visiting the park within the past six months	Level of involvement
<b>Sara</b>	42	Female	Researcher	Ph.D.	Married	\$28,001–44,000	Hiking	>50	Serious
<b>Noura</b>	42	Female	Teacher	Master	Married	\$56,001- 76,000	Photographer, hiking	>7	Project
<b>Ali</b>	31	Male	Student	Ph.D.	Married	\$28,001–44,000	Cycling	>10	Casual
<b>Alex</b>	61	Male	Dentist	DMD	Married	\$240,001+	Ice fishing	>3	Project
<b>Hannah</b>	39	Female	Marketing manger	College	Married	\$100,001–240,000	Hiking, skiing	Weekly	Serious
<b>Ashley</b>	41	Female	Civil Engineering	Master	Single	\$56,001- 76,000	Photographer, hiking	>30	Serious
<b>Linda</b>	33	Female	Teacher	Master	Married	\$56,001- 76,000	Short hike	>10	Casual
<b>Lili</b>	33	Female	Student	Master	Married	\$28,001–44,000	Short hike	>15	Casual
<b>Patrick</b>	63	Male	Faculty member	Ph.D.	Married	\$240,001+	Hiking, cross-country skiing, Cycling	>70	Serious
<b>Samuel</b>	33	Male	Student	Master	Single	\$28,001–44,000	Cycling	>30	Serious
<b>Frank</b>	66	Male	Faculty member	Ph.D.	Married	\$240,001+	Cycling, skiing	>25	Serious, Casual
<b>Amy</b>	38	Female	Student	Master	Single	\$28,001–44,000	Hiking, camping	>30	Serious, Casual
<b>Charles</b>	57	Male	Pharmacist	Ph.D.	Married	\$240,001+	Casual walks, picnics, ice fishing	>10	Casual
<b>Eric</b>	34	Male	Business Management	Master	Single	\$100,001–240,000	Hiking, organizing group hikes	>50	Serious
<b>Sean</b>	37	Male	Customer service	Bachelor	Married	\$56,001- 76,000	Hiking, swimming	>20	Serious
<b>Sam</b>	33	Female	Artiest	Bachelor	Married	\$56,001- 76,000	Hiking, swimming	>20	Casual
<b>Maya</b>	26	Female	Nurse	Bachelor	Single	\$56,001- 76,000	Hiking	>10	Casual
<b>Gregory</b>	41	Male	Government employee	Master	Married	\$100,001–240,000	Hiking	>10	Casual
<b>Max</b>	35	Male	Government employee	Master	Single	\$240,001+	Group hiking, skiing	>50	Serious
<b>Samantha</b>	27	Female	Student	Bachelor	Single	\$28,001–44,000	Cycling, hiking	>30	Serious
<b>Andrew</b>	36	Male	Government employee	Master	Single	\$100,001–240,000	Group hiking	>4	Project

<b>Sadaf</b>	22	Female	Student	College	Married	<\$16,000	Hiking	>20	Casual
<b>Mary</b>	29	Female	Student	Master	Single	\$28,001–44,000	Cycling, hiking	>30	Serious

There was also interesting demographic patterns associated with leisure involvement type and depth. Serious park visitors had higher levels of education (many held master's or doctorate degrees) and reported incomes in the middle-to-high range (\$56,001 to 240,000+). The fact that these park visitors often possessed greater autonomy over their time and resources demonstrates how they routinely incorporated leisure activities into their everyday routines.

The casual park visitor was more likely to be a student or an early-career professional with a modest income (below \$44,000), indicating the potential influence of financial constraints on leisure activities. For instance, the 33-year-old artist Sam and the 22-year-old student Sadaf both engaged in hiking and swimming less frequently.

In general, the distribution of gender across leisure types was balanced, although women participated in casual leisure more, while serious leisure participants had a higher proportion of men, especially in activities that required physical exertion, such as cross-country skiing and group cycling. All demographic groups agreed that hiking was the most common leisure activity, indicating its broad appeal without regard to age, gender, income, or education level.

### **Park Engagement as Serious Leisure**

We identified main and subthemes within each form of leisure engagement to analyze how the characteristics and motives of park visitors correspond with the SLP (Stebbins, 2015, 2005) and SDT (Ryan & Deci, 2017) frameworks. Three dominant themes emerged among serious leisure park visitors: emotional connection to place, nature as a sanctuary for self-care and healing, and embracing uncertainty in natural environments. These themes reflect a spectrum of motivations—intrinsic and extrinsic—that not only shaped participants' engagement with outdoor

activities but also positioned parks as meaningful spaces for reflection, personal transformation, and identity construction.

### **Theme 1: Emotional Connection to Place**

Samuel, a 33-year-old and serious visitor to Gatineau Park, remarked:

*Whenever I feel overwhelmed or emotionally stirred, I come to Gatineau Park. Just being here calms me. It's like hitting a reset button without needing any words.*

His narrative reflects a strong emotional connection to the park, aligning with the concept of place attachment as symbolic and affective attachment individuals form with specific environments (Williams & Vaske, 2003). Similarly, Andrew, 36, a serious park visitor, stated:

*Ever since I discovered Gatineau Park, I haven't picked anywhere else for outdoor fun. I know the place so well I can find my way even at night. Nowhere else gives me that same mix of natural beauty and the feeling of completely losing track of time.*

This expression of familiarity and immersion highlights both emotional and experiential bonds, suggesting a long-term and intimate connection to the park. Frank, aged 66, further emphasized the significance of the Gatineau Park in his daily life:

*"I actually chose to move to Chelsea just so I could be closer to the park. Gatineau's not just somewhere I go—it's part of who I am and part of my everyday life."*

Frank's decision to relocate for proximity to the park illustrates the depth of place identity and how leisure settings can shape residential and lifestyle choices. These narratives collectively illustrate how sustained and meaningful engagement with Gatineau Park fosters a durable emotional and symbolic connection to place. As described by Ashley:

*"I think it's a great asset that we have Gatineau Park here and I really hope that we can be serious about maintaining it and about being environmentally friendly."*

Her reflection introduces an explicit link between place attachment and environmental responsibility, underscoring how emotional bonds can translate into ecological concern. In line with the description of wilderness campers by Davidson and Stebbins (2011), it supports the findings of Liu et al. (2024), who found that mountain hikers' resistance to environmental destruction is driven by a strong value identity and durable outcomes, supporting environmentally responsible behavior rooted in group ethos. The outcome also supports Wilson's (2013) research on the connection between American rock climbers' ecological environment behavior and serious leisure characteristics. The emotional depth and sustained engagement described by Gatineau Park visitors suggest that serious leisure may similarly enhance their commitment to environmentally responsible behavior through repeated, meaningful nature interactions. For serious park visitors, Gatineau Park is not simply a destination for recreation but an integral part of their identity, a site for emotional renewal, and a landscape they feel responsible to protect.

## **Theme 2: Nature as Sanctuary for Self-Care and Healing**

For many serious park visitors, engagement with nature extended far beyond physical activity or recreation. Their experiences reflected emotional support, recovering mentally, and personal transformation. Park visits were frequently described as essential for emotional regulation, existential reflection, and psychological resilience. As Maya, 26, explained:

*“Going to the park helps me find answers to life questions. I feel a connection with nature that transforms my mood and mental state.”*

Such reflections underscore the role of serious leisure in emotional self-regulation and identity affirmation through sustained attachment to natural environments. Regular interaction with nature provided participants with opportunities for introspection, psychological clarity, recovering mentally (Chamarro et al., 2025). This aligns with Green and Jones (2005), who argue that serious tourists use leisure to construct and affirm personal identities. Likewise, Heidari et al.

(2021) emphasizes the influence of serious leisure on self-identification. Max, 35, further illustrated the transformative dimension of nature-based leisure for serious visitors:

*“Sometimes I experience a resonance with nature that leads to personal transformation. For me, hiking is not just leisure — it’s survival. Nature is the space where I recharge, heal from the pressures of immigration, and find my strength again.”*

For some serious park visitors, nature-based leisure functioned as a form of coping and emotional restoration, particularly in response to life transitions such as migration (Gallant & Tirone, 2020; Suto, 2013). These accounts reflect the transformative potential of serious leisure, echoing Pine and Gilmore’s (2011) claim that leisure increasingly becomes a means of becoming “who we want to be.” Ross et al. (2020) similarly argue that leisure can enable individuals to reimagine themselves, confront vulnerabilities, and reclaim agency, while Wu and Chen (2025) highlight its central role in self-care. Amy, 38, described another aspect of this connection

*“Hiking continuously at Gatineau Park helps me reflect on my research and think about specific topics. Also, spending time alone in nature helps me clear my head.”*

For Amy and others, serious park visits were both emotionally restorative and intellectually enriching. Moments of solitude in nature fostered well-being and professional clarity, illustrating how natural environments served as sanctuaries for reflection, learning, and personal growth.

### **Theme 3: Embracing Uncertainty in Nature**

For some serious park visitors, engagement with nature was shaped not by structured goals or achievement-driven activity, but by a sense of autonomy, experiential freedom, and a willingness to embrace uncertainty. Rather than viewing risk as something to avoid or overcome, these individuals welcomed uncertainty as a meaningful element of their outdoor experiences—one that fostered personal growth and self-discovery. As Eric, 34, explained:

*“If I go out by myself to Gatineau Park, that challenging part is not that important to me. I don't mind if the risk is too high.”*

This perspective reflects a self-directed approach to outdoor challenges, where uncertainty is not perceived as a threat but as an essential feature of an autonomous and enriching experience. Such views align with the Adventure Experience Paradigm (Martin & Priest, 1986; Priest & Martin, 1985), which suggests that when perceived competence is high and actual risk is manageable, individuals engage with outdoor spaces as opportunities for exploration, experimentation, and self-realization rather than as sites of fear or stress. Eric's experience highlights the liberating aspect of uncertainty in natural settings:

*“It's like you know you won't get lost. And if you don't find the right path, it's still easy for me to find different paths. Because all paths have a meaning.”*

Here, the uncertainty of route-finding becomes part of an adaptive and flexible mindset that supports personal development. Rather than seeking control or predictability, serious park visitors like Eric lean into the unknown to deepen their relationship with the environment and with themselves. This aligns with Brymer et al. (2021), who argue that meaningful outdoor adventure experiences often emerge through the active negotiation of uncertainty, fostering authenticity, courage, and growth. National parks, as iconic yet unpredictable landscapes, provide fertile ground for these transformative encounters. As Buckley (2011) and Scott et al. (2017) suggest, such environments meet the psychological needs of visitors not merely through physical challenges but through introspective engagement and the freedom to chart one's own course. While traditional adventure tourism may emphasize adrenaline and achievement, the serious leisure experiences described here center on solitude, personal agency, and openness to uncertainty. This reframing reinforces Stebbins' (2005, 2007) conceptualization of serious leisure as a profoundly meaningful, identity-affirming pursuit. By navigating unstructured environments and accepting the unknown,

park visitors cultivate emotional resilience, existential awareness, and long-term psychological enrichment. In doing so, they transform nature-based recreation into a deeply personal journey of growth and self-understanding.

#### **Theme 4: Motivation and serious park visitors**

Serious Park visitors repeatedly emphasized how nature engagement fulfills their internal needs for emotional recovery, vitality, and personal reflection. These themes directly correspond to intrinsic motivation as defined by SDT (Ryan & Deci, 2000), which posits that intrinsically motivated actions are driven by an inherent interest, satisfaction, or enjoyment. For example, Hannah, 39, remarked,

*“Spending time outside definitely affects my mood,” and Samuel, 33, shared, “Going alone to self-reflect is very important to me.”*

These reflections align with SDT’s core psychological needs—autonomy, competence, and relatedness—which, when satisfied, enhance individuals' sense of volition and psychological well-being (Ryan & Deci, 2017). According to Pelletier et al. (1995), intrinsic motivation can be subdivided into the motivation to know, accomplish, and experience stimulation. Many participants described park use as a self-directed way to recharge mentally and emotionally, indicating that leisure in nature meets their desire for deep cognitive and emotional engagement. These motives also underpin greater persistence and self-regulated participation, as emphasized by Han and Hwang (2017) and Huang and Hsu (2009), who found that intrinsically motivated recreationists tend to revisit and sustain their leisure routines. The emotional and identity-enriching benefits repeatedly described by participants reflect SDT’s emphasis on intrinsic motivation and are consistent with the literature on serious leisure. Lee and Ewert (2019) note that sustained participation in serious leisure is often driven by autonomous motivations linked to identity

development and long-term personal rewards. For example, participants described how nature inspires their art or serves as a symbolic space for cultural connection. Mary, 29 years old, explained, “Nature reminds me of Iran, my home,”

while Amy, 38 years old, shared, “Nature opens my mind to new ideas for art and painting.”

Such expressions highlight how intrinsically motivated leisure is deeply tied to meaning-making and narrative continuity, extending beyond momentary enjoyment to enduring psychological investment. A variety of structured park-based activities are often organized by serious park visitors who engage not only as participants but as leaders. Eric’s involvement in organizing weekly hiking groups and developing a website to support them reflects a high level of autonomous motivation, blending intrinsic motivation with integrated regulation, the most self-determined form of extrinsic motivation (Ryan & Deci, 2000). His statement— “I run weekly hiking groups and plan outdoor activities that help me connect with nature in a meaningful way”— demonstrates intrinsic motivation rooted in personal interest and emotional satisfaction, fulfilling core psychological needs for autonomy, competence, and relatedness (Ryan & Deci, 2017). At the same time, Eric notes that

*“Gatineau Park gave me credibility... Some newcomers have even found jobs through the connections made on these hikes,” revealing how social and community-building outcomes are internalized and aligned with his identity.*

This reflects integrated regulation, where externally originated outcomes—such as social recognition—are fully adopted as personally meaningful (Ryan & Deci, 2017; Ryan et al., 2021). Rather than being driven by external pressure, Eric’s actions are self-endorsed and reinforced by a sense of purpose and contribution to others. His experience exemplifies SDT’s core insight that intentional behaviors are often multiply motivated, with intrinsic and integrated extrinsic

motivations coexisting and mutually reinforcing (Ryan & Deci, 2017). In this case, the park functions as a need-supportive environment, fostering not only individual well-being but also community engagement and empowerment. While intrinsic motivations clearly dominated, extrinsic motivations were not absent in serious park visitors. For instance, Sean, 37, acknowledged,

*“Friends inviting me to parks motivates me to go.” Another participant noted, “I create hiking groups and networking opportunities through park activities.”*

These examples point to identified regulation, a more autonomous form of extrinsic motivation, where external factors are internalized and become personally meaningful (Ryan & Rigby, 2019; Ryan et al., 2021). Although such behaviors originate externally, they are endorsed by the individual because they align with their values—such as maintaining friendships or leading community activities. These expressions demonstrate the continuum of self-determination, where motivations can be both intrinsic and internalized extrinsic, supporting psychological well-being and sustained leisure involvement. This complexity reflects SDT’s assertion that extrinsic motivation, when integrated or identified, can contribute to well-being similarly to intrinsic motivation (Ryan & Deci, 2000), particularly when leisure activities fulfill basic psychological needs of serious park visitors.

### **Park Engagement as Casual Leisure**

Nine Park visitors in this study also engaged with parks through casual leisure, which Stebbins (1997) defines as a form of leisure that is intrinsically rewarding, relatively short-lived, and spontaneous, and requires no special training or preparation. Among casual park visitors, three main themes emerged: emotional release through unstructured engagement, social enjoyment, and easy and safe access. These themes offer valuable insight into the nature of casual park visitors

within the context of outdoor recreation. While expressed in varied ways, themes share common characteristics, including a lack of long-term planning, flexibility in activity choices, and a reliance on mood, availability, or convenience.

### **Theme 1: Emotional Release through Unstructured Engagement**

Charles, a 57-year-old pharmacist who uses Gatineau Park casually, reflected on how the park has become a routine space for mental release rather than structured activity:

“I walk, I breathe, I enjoy without thinking too much. I find that being in the park helps me let my stress escape my body. I don’t set special goals. I go just to relax and escape life’s stress.”

In his narrative, nature is experienced as a source of emotional relief and everyday comfort—an informal escape from stress that requires no planning or preparation. The park becomes a space of lightness and detachment, where the pressures of daily life can be momentarily set aside. This spontaneous, restorative use of the park is echoed by Linda, a 33-year-old graduate student:

“Sometimes after a bad day, I just walk for 30 minutes to the park without any plan. Going swimming, playing badminton casually with friends. I walk, I breathe, I enjoy without thinking too much.”

For both Charles and Linda, casual park visits serve as informal coping mechanisms—accessible and low-effort ways to decompress after emotionally demanding days. These experiences exemplify Stebbins’ (1997) concept of casual leisure as intrinsically satisfying, relatively short-lived, and requiring neither skill nor structure. Their engagement is driven by the desire for emotional renewal rather than achievement or long-term commitment. This pattern reflects what Brown and Obenour (2008) describe as leisure rooted in play, relaxation, and low-stakes engagement, highlighting how casual park users prioritize emotional relief over performance or progress. Moreover, these visitors illustrate the ease of withdrawal identified by McKercher et al. (2006) and Kerins et al. (2007), showing no pressure to participate regularly or

improve over time. Their involvement is fluid and responsive, shaped by mood, availability, or momentary need. Such narratives reflect the casual tendency described by Boxall and McFarlane (1993), in which individuals approach nature as one among many interchangeable leisure options. This tendency is marked by a relaxed attitude toward objectives, limited emotional or structural investment, and a preference for spontaneity and flexibility. For casual visitors to Gatineau Park, nature engagement is not a serious pursuit but a low-threshold, therapeutic outlet—valued precisely because it requires so little to provide so much.

## **Theme 2: Sensory and Environmental Pleasure**

Casual park visitors often preferred short, accessible walks over the longer, more demanding trails typically favored by serious recreationists. As Ali shared,

“I like spending time in the park, but I prefer to go for a hike on a short trail.”

For many, the appeal of the park lay in its sensory richness—the fresh air, calming atmosphere, and visual beauty offered a soothing and pleasurable experience. These visitors viewed nature as a sensory retreat, engaging with it not for physical challenge or structured goals but for the comfort and emotional ease it provided. Linda, a 33-year-old graduate student, echoed this sentiment:

“I love going there casually just for the sake of savoring the nature, touching the tree, and making myself happy. I don’t set special goals. I go just to relax and escape life’s stress.”

Such reflections illustrate Stebbins’ (1997) notion of casual leisure as intrinsically satisfying, spontaneous, and requiring little preparation or commitment. These encounters with nature were not outcomes of deliberate planning, but rather impulsive, low-effort escapes from everyday pressure-experiences that align with Brown and Obenour’s (2008) framing of casual leisure as rooted in play, relaxation, and sensory stimulation. Beyond the emotional comfort they

offer, these behaviors reflect broader patterns identified in the literature. Scholars such as Stebbins (2007), Kuittinen et al. (2007), and Elswiler et al. (2011) have emphasized that casual leisure is driven by hedonism-focused motivation—that is, a desire for immediate enjoyment, fun, or emotional relief, rather than long-term achievement or skill development. For casual park visitors, the motivation to engage in outdoor recreation was not based on progression or performance, but on the simple and ephemeral pleasures of nature: a view, a breeze, a quiet moment of presence.

### **Theme 3: Easy and Safe Access**

Unlike serious park visitors, who tend to participate regardless of conditions or challenges, casual park visitors consistently emphasized the need for accessible, detailed, and reliable information as a prerequisite for engagement. Their participation was contingent not only on the availability of nature but also on the clarity and ease with which they could navigate the experience. As Sam, a 33-year-old casual park visitor, highlighted this challenge in her reflection:

“Better access, clearer information would make me visit more often the park. I find it difficult to participate in park activities if I have poor accessibility and lack of information.”

The statements she made reflect a pattern among several casual visitors to the park, who wanted concrete information about trails, facilities, transportation, and potential barriers before visiting. Gregory, a 41-year-old graduate student and casual cyclist, similarly explained:

“Google Maps and the Gatineau Park website are not properly connected, which makes access difficult. Better signage and more information would improve my park experience.”

A sense of spontaneity and comfort related to casual leisure can be reduced by uncertainty about accessibility, route difficulty, and trail status. Similarly, Eisenberger et al. (2010) noted that engagement with natural spaces is often linked to perceptions of availability and clarity of environmental cues. The lack of such information may drive even intrinsically motivated

individuals to withdraw from participation because of uncertainty or a fear of inconvenience. The findings of recent studies on Chinese urban and mountain park users are consistent with this emphasis on accessibility, information, and environmental clarity. For example, visitors in the three mountain parks showed a strong reliance on spatial connectivity and availability of leisure facilities to guide their recreational behavior. Specifically, spatial connectivity emerged as the strongest driver of passing behavior, and a lack of clear routes or signage was found to reduce the likelihood of sustained engagement (Fan et al., 2024). These findings resonate with the experiences of casual Gatineau Park users like Sam and Gregory, who described poor signage, disconnected information systems, and ambiguous trail maps as barriers to participation.

#### **Theme 4: Casual Park Visitors' Motivation**

Casual park visitors in this study engaged in short-lived, low-commitment leisure activities driven by motivations that can be effectively understood through the framework of SDT (Deci & Ryan, 1985, 2000). These individuals typically participated in park-based activities not for skill development or identity formations seen in serious leisure—but rather for emotional renewal, relaxation, and spontaneous enjoyment. According to SDT, such behaviors are primarily rooted in intrinsic motivation, where actions are performed for the inherent satisfaction and psychological resonance they provide (Ryan & Deci, 2017).

Participants frequently described park visits as emotionally soothing and mentally restorative, reflecting what Ryan and Deci (2000) characterize as intrinsically motivated behavior “done for its own sake.” For instance, casual users described their experiences as relaxing, spontaneous, and emotionally uplifting:

“Nature calms me down after stressful work weeks. Practicing meditation and feeling free in nature. I walk, I breathe, I enjoy without thinking too much.”

These reflections suggest a form of intrinsic motivation to experience stimulation, one of the three key subtypes identified by Pelletier et al. (1995), which highlights the emotional and sensory gratification derived from being in nature. Additionally, these casual visitors sought temporary escape and psychological balance, echoing Smith's (2021) view of relaxation as a personally driven recovery response. In line with Hartig et al. (2003) and Kaplan and Kaplan (1989), nature functioned as a psychologically restorative environment for those not engaged in structured or skill-intensive leisure.

However, while intrinsic motivation appeared to be dominant among casual visitors, extrinsic motivational factors—especially those concerning environmental and logistical accessibility—significantly shaped participation. According to SDT, extrinsic motivation can also support self-determined behavior when external factors are internalized and aligned with individual values (Deci & Ryan, 1991). In this case, park access, clear information, and reliable navigation tools emerged as prerequisites for participation, particularly among visitors who lacked prior familiarity with the park. Participants expressed that unclear signage, disconnected digital maps, and insufficient information about trails and amenities diminished their willingness to engage. For example, one casual park visitor shared:

“Google Maps and the Gatineau Park website are not properly connected, which makes access difficult. Better signage and more information would improve my park experience.”

These barriers highlight the role of external regulation and identified regulation within SDT's continuum of extrinsic motivation. While the core desire to visit the park may be internally driven, the actual decision to participate depended on whether external structures (e.g., maps, infrastructure) supported autonomy and ease of use. Scott (2005) similarly argues that situational barriers can suppress internal leisure motivations, especially among less experienced or less committed recreationists. In SDT terms, many casual visitors operated at a junction between

intrinsic motivation (enjoyment, peace, curiosity) and identified regulation (valuing nature engagement but requiring supportive conditions). As Biernacka et al. (2022) note, a park is truly "accessible" when users feel both physically welcome and informationally equipped to participate. For casual users—who lack the habituated confidence of serious park-goers, such external cues serve as critical facilitators or deterrents of leisure behavior.

### **Park Engagement as Project-Based Leisure**

In this study, project-based park visitors demonstrated intentional, goal-oriented, and personally meaningful forms of leisure that were episodic and non-routine. While lacking the frequency or enduring commitment of serious leisure, their participation was emotionally rich, socially coordinated, and often required planning, effort, and creativity (Stebbins, 2005).

### **Theme 1: Organized Leisure for Special Occasions**

Project-based park activities were tied to communal events or special milestones. These experiences were not part of participants' regular routines but were deliberately created to create meaningful, shared moments. Noura described planning a birthday hike:

*"I don't usually go hiking, but I planned a birthday hike for my brother. It was a big group, and we picked the trail based on the view."*

These examples align with Stebbins' (2007) concept of one-shot or occasional projects short-term, symbolic, and intentionally designed for closure, celebration, or tradition. Alex, a 61-year-old dentist, shared:

*"In the fall, we went to Mackenzie King Estate to watch the downfall of the leaves. It's kind of a family tradition but not something we do often."*

Also, Alex mentioned that:

*"I go ice fishing every year. Even if we don't catch fish, we go for the experience."*

Such engagements, while infrequent, were deeply meaningful (Bailey & Fernando, 2012) and connected to cultural practices, family rituals, and community identity. Rather than casual or

passive use of parks, these visitors treated the natural environment as a platform for purposeful interaction, often involving significant logistical coordination, from selecting trails to organizing group outings (Stebbins, 2005, 2012; Argan et al., 2015). Andrew reflected on his role in coordinating large outdoor outings:

*“I have organized outdoor hikes for groups of 20 to 50 people. It’s a lot of work to plan a safe and fun experience for everyone. However, I enjoy discovering new places.”*

These accounts underscore project-based leisure as a time-bound, structured, and cognitively engaging form of recreation, distinct from casual spontaneity or the long-term pursuit typical of serious leisure (Stebbins, 2005).

## **Theme 2: Hybrid Motivation**

Andrew also described a photography-based nature experience:

*“About two years ago, three photographer friends and I decided to kick off a little photography adventure at Gatineau Park... It wasn’t anything too formal, more like a mix of learning and fun... Even now, I still carry the good vibes and fresh way of looking at things that experience gave me.”*

His story illustrates a hybrid motivational profile—combining intrinsic motives such as learning and enjoyment with identified extrinsic elements, like structured group feedback and shared goals. While the activity was not identity-defining, it was intentional, emotionally fulfilling, and socially meaningful. This aligns with research by Wearing (2001) and Daniel (2007), who highlight that short-term leisure experiences may yield delayed but lasting impacts on well-being and meaning. Andrew’s narrative also reflects social capital formation. His collaboration with friends created a space for mutual learning and emotional support, reinforcing the value of episodic yet meaningful social interactions as noted by Centola (2010) and Putnam et al. (2004). Project-based park visitors in this study engaged in episodic, purposeful leisure that blended intrinsic enjoyment with structured, extrinsic components. While the sample size was limited, these findings provide important insight into a relatively underexplored dimension of outdoor recreation

in the literature. Their experiences bridged the spontaneity of casual leisure and the commitment of serious leisure, offering unique contributions to understanding leisure behavior. According to Stebbins (2000, 2007), project-based leisure is a vital component of a balanced leisure lifestyle, especially for individuals with restricted free time due to work or caregiving responsibilities. By fostering cultural continuity, emotional renewal, and social connection, project-based leisure emerges as a valuable yet often overlooked form of engagement in park settings.

## **Conclusion**

This study demonstrates that, beyond the foundational typologies outlined in the Serious SLP, park visitors engage with national parks in distinct and meaningful ways that reflect both the nature and depth of their recreational involvement. This differentiation among serious, casual, and project-based users constitutes a key contribution of the present research. The findings underscore the importance of recognizing diverse motivational profiles and behavioural patterns when examining outdoor leisure experiences and informing park planning and management.

Serious park visitors exhibited sustained, high-involvement engagement with Gatineau Park, perceiving it not merely as a recreational space, but as a site for emotional renewal, personal growth, and intellectual stimulation. Their motivations were largely intrinsic and aligned with the core psychological needs articulated in SDT, including autonomy, competence, and relatedness. Some also demonstrated internalized extrinsic motivations, such as leading group hikes or drawing cultural inspiration from the natural environment, which further supported long-term participation and identity development. In this way, Gatineau Park functioned as a need-supportive environment that fostered both individual well-being and community connection.

By contrast, casual park visitors engaged with the park in more spontaneous, short-lived, and low-commitment ways. Their involvement was shaped by a combination of intrinsic

motivations, such as the pursuit of emotional relief, and extrinsic conditions, including accessibility, information clarity, and infrastructural support. Although their participation was less structured, it remained meaningful and restorative. These findings suggest that supporting autonomy and reducing barriers through thoughtful environmental design can enhance the leisure experiences of less frequent or first-time users.

This study highlights project-based leisure as a distinct and meaningful form of park engagement marked by episodic, intentional, and socially enriched experiences. For park visitors, this type of leisure involves organized, short-term activities tied to special occasions, seasonal events, and personal enrichment, rather than routine or identity-defining commitments. Their motivations reflect a hybrid of intrinsic rewards and extrinsic structures, balancing personal enjoyment with planned, communal participation. Though infrequent, these experiences contributed to emotional fulfillment, cultural continuity, and social connection. They represented a valuable yet often overlooked component of a balanced leisure lifestyle, especially for individuals with limited time, providing important insight into how non-routine park use can foster meaningful connections with both nature and the community.

### **Managerial implications**

This study provides valuable insights for national park planners, managers, and policymakers aiming to enhance visitor experiences by addressing the diverse motivations and behaviors of park users. By distinguishing between serious, casual, and project-based visitors, the findings make clear that uniform strategies in park design, programming, and communication are insufficient. Instead, targeted management approaches are needed based on levels of engagement and motivational profiles.

First, serious park visitors, who engage frequently and develop identity-based connections with the park, benefit from well-maintained infrastructure, challenging trails and adventure opportunities, and opportunities for structured recreation. These visitors also value leadership roles and volunteer opportunities, which can deepen their long-term commitment and foster a sense of community.

Second, casual visitors engage with parks for emotional relief, relaxation, and short-term enjoyment. Their participation depends heavily on accessibility and clear, reliable information. Enhancing informational infrastructure, such as through user-friendly websites, mobile apps, signage, and real-time trail updates, can reduce psychological and logistical barriers and encourage broader use, especially among first-time or occasional visitors.

Third, project-based users require flexible, time-limited support for activities like photography or seasonal events. Managers should develop modular and event-specific programming to enable meaningful, short-term participation without requiring sustained engagement. These activities should be promoted as one-time or special occasion experiences to appeal to this type of visitor.

Finally, demographic variations in income, age, and employment status suggest the need for inclusive and equitable park strategies. Offering affordable services, designing accessible environments, and providing diverse recreational options can help meet the needs of underrepresented groups and promote widespread, long-term connections to national parks.

### **Research implications and future directions**

The findings of this research suggest that the motivations and behavioral patterns of park visitors can vary significantly based on their level of engagement in outdoor recreation. Recognizing these differences is essential for both theoretical development and practical

applications in park planning and visitor management. Future research should aim to more precisely examine the relationship between motivation and behavior by differentiating between specific types of recreationists—such as casual, project-based, and serious users—rather than treating outdoor recreationists as a uniform group. This line of inquiry could be advanced through quantitative studies employing well-designed questionnaires that specifically target understudied segments, particularly casual and project-based recreationists, who have received relatively limited scholarly attention. Investigating these groups would offer a more nuanced understanding of motivational diversity in outdoor leisure and clarify whether distinct motivational profiles are associated with different behavioral patterns and levels of commitment.

It is important to note, however, that because this study focused on a national park and its visitors to identify motivations and behaviors, the findings may not be fully generalizable to other outdoor recreation settings. Different environments—such as urban green spaces, coastal areas, or sport-based recreational sites—may evoke different motivational responses and patterns of engagement. Moreover, the findings raise the possibility that integrating context-specific variables—such as the role of national parks in shaping visitor experiences—into the Serious Leisure Perspective (SLP) framework may yield a more comprehensive understanding of leisure behavior across diverse recreational environments. Further qualitative research is recommended to explore how contextual dimensions, and cultural meanings interact with motivational orientations and influence leisure behavior.

# Chapter 5

## Conclusion

This doctoral thesis explored the diverse patterns of involvement, motivations, and environmental implications of outdoor recreation through the lenses of the Serious Leisure Perspective (SLP), Self-Determination Theory (SDT), and the environmental concern framework, focusing on visitors to Gatineau Park. Combining both quantitative and qualitative analysis, the research aimed to capture the complexity of nature-based leisure engagement and its relationship to ecological concern and motivational dynamics. Collectively, the findings reveal that park-based recreation is not a uniform experience but rather exists along a continuum of commitment, shaped by intrinsic and extrinsic motivations, socio-demographic factors, and the nature of individuals' interactions with natural environments.

Study 1 provided strong empirical support for a positive relationship between serious leisure engagement and environmental concern, as measured through structural equation modeling. The model demonstrated substantial predictive capability, with serious leisure explaining 56.3% of the variance in environmental concern ( $R^2 = 0.563$ ). Younger, educated, and financially stable individuals were more likely to engage seriously with leisure and show heightened environmental sensitivity. This finding reinforces the idea that deep, sustained involvement in nature-based leisure activities nurtures ecological responsibility—a result aligned with the premise that meaningful recreational experiences promote environmental stewardship. The study also revealed specific dimensions (e.g., limits to growth, balance of nature) that were particularly responsive to leisure intensity, while more abstract concerns (e.g., ecological crisis) resonated less strongly, suggesting a gap between local nature experiences and global environmental narratives.

Study 2 applied two-step cluster analysis to identify three distinct visitor profiles—casual visitors, transitional users, and committed park devotees. This segmentation based on SLP

characteristics revealed a hierarchical pattern of leisure involvement, offering evidence that serious leisure is not static but evolves along a continuum. The committed cluster exhibited strong psychological identification with leisure, sustained effort, and perceived long-term benefits, aligning closely with the original SLP framework. Transitional participants occupied a middle ground—potentially progressing toward more serious engagement under the right conditions—while casual visitors participated primarily for immediate enjoyment and stress relief. Importantly, five subclusters within the transitional group highlighted that leisure development is not only psychological but also shaped by socio-demographic factors, such as income, gender, and education.

Study 3 provided rich qualitative insights into the motivational landscapes underlying leisure behaviors, drawing from in-depth interviews with 23 Gatineau Park visitors. By examining serious, casual, and project-based leisure types, the study demonstrated how nature engagement fulfills core psychological needs of autonomy, competence, and relatedness (SDT). Serious park users described deep emotional connections to place, nature as a site for healing and self-reflection, and a willingness to embrace uncertainty, illustrating how sustained leisure activities are integrated into personal identity and well-being. Casual users emphasized emotional release, sensory pleasure, and the importance of accessibility and information, reflecting more spontaneous and situational participation. Project-based users treated nature as a backdrop for special, meaningful occasions, blending intrinsic joy with structured, communal goals. Across all types, motivation was dynamic and multifaceted, confirming that engagement is not merely a product of individual preference, but shaped by external constraints, internal goals, and the social context of recreation.

Taken together, these three studies reveal that nature-based leisure is both a personal journey and a social-ecological process, influenced by commitment levels, motivations, and

situational factors. The findings can be combined conceptually through the framework of a leisure engagement pathway: individuals may begin as casual or project-based users (Study 2 and 3), encounter emotional or social triggers (Study 3), and potentially transition into more serious engagement that aligns with heightened environmental concern (Study 1). This integrated view not only affirms the utility of the SLP framework across methods but also demonstrates that a holistic understanding of outdoor recreation requires both statistical modeling and narrative depth.

The first two studies, both quantitative, provided a macro-level understanding of park visitor engagement and its environmental implications. Study 1 used PLS-SEM to demonstrate a strong positive relationship between serious leisure participation and environmental concern, showing that sustained and meaningful engagement in nature-based leisure fosters pro-environmental attitudes. Study 2 used two-step cluster analysis to classify park visitors into three leisure types—casual, transitional, and serious—thereby confirming the existence of a leisure engagement continuum, as conceptualized by Stebbins (2007).

Study 3, the qualitative component, provided micro-level depth by revealing the personal meanings, motives, and experiences attached to each leisure type. The interviews corroborated the quantitative classifications while enriching them: for example, participants categorized as serious park visitors in Study 3 demonstrated the same emotional bonds and long-term integration of leisure into identity that were associated with higher environmental concern in Study 1. Similarly, casual and project-based participants reflected the more transient, low-commitment patterns identified in Study 2, but offered nuance by explaining how logistical barriers, emotional states, or cultural practices shaped their choices.

All three studies converge on the insight that leisure engagement is heterogeneous and layered, ranging from passive and situational involvement to deeply meaningful, identity-defining practices. Importantly, across all studies, engagement with nature was consistently associated with psychological and emotional restoration, regardless of commitment level—although the intensity, frequency, and depth of that experience varied. Serious leisure emerged as a central construct, not only structuring participant behaviors (Study 2) and fostering ecological concern (Study 1), but also serving as a lens through which participants made sense of themselves, their values, and their place in the natural world (Study 3).

Further, all three studies support a continuum model of leisure involvement. Rather than being fixed categories, casual, project-based, and serious leisure emerged as fluid states, shaped by life stage, socio-economic context, personal goals, and environmental factors. Transitional profiles in Study 2 and hybrid motivations in Study 3 indicate that individuals may move along this continuum depending on internal needs and external conditions. However, despite this shared framework, there are important distinctions. Study 1 captured a direct, statistical relationship between serious leisure and environmental concern, but could not account for the emotional, social, and situational dynamics that were evident in Study 3. Conversely, Study 3 offered rich, contextualized insights into motivations and identity, but its findings are not statistically generalizable. Study 2 served as a bridge, showing how leisure types can be empirically segmented, but it did not explore environmental attitudes. Thus, each study illuminated different dimensions of the same phenomenon: park visitors' behaviours. Despite their methodological and epistemological differences, the results of the three studies are mutually reinforcing. When taken together, they allow for a comprehensive interpretation of outdoor recreation that spans behavioral patterns, motivational structures, and ecological orientations.

## **Managerial Implications**

This research provides actionable insights for park planners, managers, and policymakers by highlighting the diversity of motivation, behaviors, and environmental attitudes among park visitors. Rather than relying on uniform strategies, park management should adopt tailored approaches based on leisure involvement types—serious, casual, and project-based.

### **1. Tailored Program Design**

Program offerings may be developed to reflect different levels of leisure engagement:

- For serious visitors, options such as long-term volunteer opportunities, eco-leadership roles, and skill-based initiatives could foster sustained commitment and environmental responsibility.
- Transitional users may find value in semi-structured group activities like guided hikes, nature photography meetups, or outdoor workshops that deepen their connection to the park.
- Casual visitors might respond positively to low-barrier, flexible activities, including short nature walks, sensory-based experiences, or picnic-friendly events that emphasize enjoyment and relaxation.
- Project-based users could be supported through event-specific programming, such as seasonal festivals, milestone celebrations, or special-interest group outings that offer meaningful but time-limited engagement.

### **2. Infrastructure and Access Planning**

Park infrastructure can be diversified to support varying engagement styles:

- Casual users may appreciate short, clearly marked, and easily accessible trails close to amenities.

- **Transitional users** might benefit from moderately challenging paths, social rest areas, or multi-use spaces that enable group participation.
- **Highly engaged visitors** may seek advanced trail networks, backcountry facilities, or zones designed for skill-building and sustained recreation.

### 3. **Demographic-Sensitive Management**

Opportunities exist to enhance inclusion and accessibility through thoughtful design:

- Recreational programs offered at low, or no cost could encourage participation among low-income visitors.
- Services such as gear lending or transport assistance might reduce practical barriers for newcomers or financially constrained individuals.
- Educational materials and signage presented in multiple languages and culturally inclusive formats may create a more welcoming and accessible experience for diverse visitors to populations.

### 4. **Environmental Messaging and Engagement**

Ecological awareness might be enhanced by aligning messaging with user profiles:

- Serious leisure participants with strong park attachment could be invited into roles that promote stewardship or peer education.
- Engaging younger demographics through social media, student-led initiatives, or environmental challenges may expand outreach and involvement.
- Tools like mobile apps, QR-coded signage, or interpretive trails offer creative ways to link local experiences to broader environmental themes, potentially increasing ecological awareness among visitors.

### 5. **Segmentation for Management and Outreach**

Understanding leisure-based segmentation may support efficient and visitor-centered management:

- High-use areas could be designed to support casual and transitional visitors, while ecologically sensitive zones may be more appropriate for low-impact, high-commitment users.
- Messaging might be tailored by segment: casual users may connect with themes of well-being and fun, transitional users with skill-building and community, and serious users with leadership, sustainability, and contribution.

**Limitations:**

- The quantitative samples were skewed toward younger, highly educated, and financially stable individuals. This limits the representation of broader park user populations, especially marginalized or underrepresented groups.
- All studies were conducted in Gatineau Park. Results may not generalize to parks with different ecological, cultural, or demographic characteristics.
- The research captured leisure behaviors and attitudes at a single time point, limiting the ability to assess causality or track changes over time.
- The cluster analysis relied on self-reported variables from the SLIM instrument. Actual behavior (e.g., visit frequency or environmental actions) was not directly observed.
- Although clusters were statistically distinct, leisure engagement is fluid. Some individuals may transition between types, limiting rigid classification.

**Future Directions**

- Changes in leisure commitment and environmental attitudes can be tracked over time to better understand causal relationships and the progression from casual to transitional and serious forms of involvement.
- The study may be replicated in diverse park settings, such as urban green spaces, coastal environments, and low-visitation areas, to examine the generalizability of the findings.
- Participants from a wider range of ages, income levels, cultural backgrounds, and educational experiences need to be actively included to reflect the broader population of outdoor recreationists.
- Mediating or moderating effects of variables such as place attachment, environmental knowledge, and identity in the relationship between leisure type and environmental concern can be explored.
- Additional research is needed on casual and project-based recreationists to deepen understanding of their motivations, barriers, and potential pathways to sustained engagement.
- Future research could examine the impacts of Prime Minister Carney's Canada Strong free Summer 2025 national park pass for residents and visitors, particularly in relation to patterns of leisure involvement, environmental attitudes, and perceptions of national identity. Building on the present study's findings, such investigations could explore how large-scale policies that increase park accessibility contribute to shaping a shared national experience and foster deeper connections between citizens and Canada's natural heritage.

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# Appendix 1

## Survey Consent Form (English)

**Title of the study:** Understanding the interaction of Outdoor Recreation Motivation, Serious Leisure Perspective and Environmental Concern: A Study of Park Visitors

Name of Principal Investigator: **Kolsoum Heidari**

Name of Supervisor: **Dr. François Gravelle**

Affiliation: **School of Human Kinetics | Faculty of Health Sciences | University of Ottawa**

Email address:

Email address:

Telephone number:

Telephone number:

**Invitation to Participate:** I would like to invite you to participate in this study by kindly filling out a 10–15-minute questionnaire, either on-line or on paper. And, if you do, you can be entered into a draw to win a gift card from Tim Hortons!

**Purpose of the Study:** The purpose of this study is to comprehensively explore the multifaceted experiences of park visitors in Gatineau Park, focusing especially on understanding their motivations, and the interaction between leisure engagement and environmental concerns. Hopefully, the information collected will help park managers understand how leisure participation can lead to specific environmental effects and better recreation experiences for park visitors.

**Participation:** Your participation will consist of filling an online or paper form questionnaires. After completing the online survey, a separate questionnaire will be presented to you where you can enter your e-mail if you wish to participate in the interview. Alternatively, you can contact the researcher to arrange an interview. Everyone participating in the draw may be invited to participate in an interview and can decide whether they desire to withdraw their participation.

The questionnaire asks about:

- the level of leisure involvement in Gatineau Park;
- your environmental knowledge and awareness;
- your environmental behavioural intentions;
- your motivation during leisure involvement; and
- demographic information.

You would be asked to rate how much you agree or disagree with statements regarding your experience. You would be welcome to omit any question you prefer not to answer.

**Confidentiality and Privacy:** This study will be conducted under the research ethics procedures outlined at the University of Ottawa. Your participation would be completely voluntary and anonymous. All information provided by you will remain completely confidential. This study will not produce reports or publications that contain any personally identifiable information.

**Conservation of data:** We protect all the information you enter in the survey if you complete it online. You can choose to complete the paper copy of the survey, and it will be stored in a locked filing cabinet in the supervisor’s office. The aggregated data will only be accessible by researchers. For a period of five years, all data will be preserved and certified “secure” by the site provider, FluidSurveys.

**Compensation:** Participants in the research project can choose to enter a draw to win a \$30 Tim Hortons gift card as compensation. After completing the survey, they can provide their email for the drawing through a separate questionnaire or by contacting the researcher. All participants are eligible for the draw, even if they withdraw from the study. A winner will be randomly selected from those who enter the draw and will be notified by email or phone. If not reachable within 14 days, another name will be drawn. Odds

of winning depend on the number of entries. The prize cannot be exchanged for cash. Contact information is confidential and will be destroyed after the prize is awarded. The draw follows Canadian laws. Additionally, a "Withdrawal" button is available throughout the questionnaire, allowing them to go directly to the page where contact information is collected for the drawing.

**Voluntary Participation:** You are under no obligation to participate and if you choose to participate, you are free to withdraw from study at any time, and you may decline to answer any questions that you do not want to answer. Please note that because participation is completely anonymous, if you choose to withdraw from the study, it would be impossible to single out and destroy any submitted information.

**Information about the Study Results:** Please contact us if you would like a copy of the findings. Upon completion of the online survey, you will be directed to a second survey where you will have the option to provide your e-mail address to receive the findings. You can also request copies of the results from the researcher or supervisor.

If you have any questions or concerns about this study or would like additional information before reaching a decision about participation, please contact Kolsoum Heidari. In addition, you may contact my supervisor, Dr. François Gravelle.

Please keep this form for your records. (Note: if you complete the questionnaire online, you may make a copy of this document for your file.)

**Coordinates:** If I have any questions about the study, I may contact the researcher or the thesis supervisor professor:

Kolsoum Heidari  
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Francois Gravelle, Ph.D.  
Full Professor  
School of Human Kinetics  
Faculty of Health Sciences  
University of Ottawa  
125 University Private  
Ottawa, Canada, K1N 6N5

If you have any questions with regards to the ethical conduct of this study, you may contact the Protocol Officer for Ethics in Research, University of Ottawa, Tabaret Hall, 550 Cumberland Street, Room 154, Ottawa, ON K1N 6N5, tel.: (+1) 613-562-5800 ext. 5387 or [ethics@uottawa.ca](mailto:ethics@uottawa.ca)

Researcher's signature:

Date:

## Participant Survey (English)

Please base your responses on your status on today's date.

<b>What is your country of origin?</b>								
<b>What is your age category?</b> (Select one category)	18-25 <input type="checkbox"/>	26-30 <input type="checkbox"/>	35-42 <input type="checkbox"/>	43-52 <input type="checkbox"/>	53-65 <input type="checkbox"/>	66-70 <input type="checkbox"/>	71+ <input type="checkbox"/>	
<b>Which category represents your annual household income (in Canada dollars)?</b>	<\$16,000 <input type="checkbox"/>	\$16,000-28,000 <input type="checkbox"/>	\$28,001-44,000 <input type="checkbox"/>	\$44,001-56,000 <input type="checkbox"/>	\$56,001-76,000 <input type="checkbox"/>	\$76,001-100,000 <input type="checkbox"/>	\$100,001-240,000 <input type="checkbox"/>	\$240,001+ <input type="checkbox"/>
<b>How many dependents do you have?</b>								
<b>Which best represents your legal marital status? (choose one)</b>	Single <input type="checkbox"/>		Married <input type="checkbox"/>		Divorced <input type="checkbox"/>			
<b>Do you have stable work/employment/job?</b>		Yes <input type="checkbox"/>		No <input type="checkbox"/>				
<b>Do you have reliable transportation?</b>		Yes <input type="checkbox"/>		No <input type="checkbox"/>				
<b>In the last 6 months, how many times did you visit Gatineau Park?</b>								
<b>In the last year, how many times did you visit Gatineau Park?</b>								
<b>Education background</b>	(1) High school or less	(2) College degree	(3) Bachelor's degree		(4) Graduate studies such as a master's or PhD degree			

## Serious Leisure Survey (English)

The following questions are designed by Gould et al. (2008) to measure the degree of which you toward to serious leisure characteristics as an outdoor recreationist. Please rate these statements based on the below indications.

Completely Agree -----9 Mostly Agree ----- 8 Moderately Agree --- 7 Slightly Agree -----6 Neither Agree nor Disagree – 5 Slightly Disagree ----- 4 Moderately Disagree --3 Mostly Disagree ----- 2 Completely Disagree--- 1

Dimension	Item	1	2	3	4	5	6	7	8	9
<b>Perseverance</b>	1. If I encounter obstacles in outdoor recreation activities in Gatineau Park, I persist until I overcome them.									
	2. By persevering, I have overcome adversity in outdoor recreation activities in Gatineau Park.									
	3. I overcame difficulties in outdoor recreation activities in Gatineau Park by being persistent.									
<b>Effort</b>	1. I try hard to become more competent in outdoor recreation activities in Gatineau Park.									
	2. I practice improving my skills in outdoor recreation activities in Gatineau Park.									
	3. I am willing to exert considerable effort to be more proficient at outdoor recreation activities in Gatineau Park.									
<b>Career Progress</b>	1. I have improved at outdoor recreation activities in Gatineau Park, since I began participating.									
	2. Since I began outdoor recreation activities in Gatineau Park, I have improved.									
	3. I feel that I have made progress in outdoor recreation activities in Gatineau Park.									
<b>Career Contingencies</b>	1. For me, there are certain related events that have influenced my involvement.									
	2. There are defining moments within my practice that have significantly shaped my involvement in it.									
	3. There have been certain high or low points for me in my practice that have defined how involved I am in.									
<b>Unique Ethos</b>	1. My friends who enjoy outdoor recreation in Gatineau Park share many of my sentiments.									
	2. I share many of the same ideals as other enthusiasts of outdoor recreation in Gatineau Park.									
	3. I share many of my outdoor recreation activities in Gatineau Park group's ideals.									
<b>Identity</b>	1. Others that know me understand that outdoor recreation activities in Gatineau Park are a part of who I am.									
	2. I am often recognized as one devoted to outdoor recreation activities in Gatineau Park.									
	3. Others recognize that I identify with outdoor recreation activities in Gatineau Park.									

## Environmental Concern Survey (English)

Please rate these statements based on the below indications.

Completely Agree -----9 Mostly Agree ----- 8 Moderately Agree --- 7 Slightly Agree -----6  
 Neither Agree nor Disagree – 5 Slightly Disagree ----- 4 Moderately Disagree --3 Mostly Disagree  
 ----- 2 Completely Disagree--- 1

N	Item	1	2	3	4	5	6	7	8	9
<b>Limits to growth (LG)</b>	We are approaching the limit of the number of people the earth can support									
	The earth is like a spaceship with very limited room and resources									
	The earth has plenty of natural resources if we just learn how to develop them									
<b>Anti-anthropocentrism (AA)</b>	Humans have the right to modify the natural environment to suit their needs									
	Plants and animals have as much right as humans to exist									
	Humans were meant to rule over the rest of nature									
<b>The Balance of Nature (BN) dimension</b>	Human ingenuity will ensure that we do not make the earth unlivable									
	The balance of nature is strong enough to cope with the impacts of modern industries									
	The balance of nature is very delicate and easily upset									
<b>Anti-Exclusion (AE) dimension</b>	When humans interfere with nature, it often produces disastrous consequences.									
	Despite our special abilities humans are still subject to the laws of nature									
	Humans will eventually learn enough about how nature works to be able to control it									
<b>Ecological Crisis (EC) dimension</b>	Humans are severely abusing the environment									
	The so-called “ecological crisis” facing humankind has been greatly exaggerated									
	If things continue on their present course, we will soon experience a major ecological catastrophe									

## Formulaire de consentement pour les enquêtes (French)

**Titre de l'étude :** Comprendre l'interaction entre la motivation pour les loisirs de plein air, la perspective de loisirs sérieux et les préoccupations environnementales : une étude sur les visiteurs du parc

Nom du chercheur principal : **Kolsoum Heidari**

Nom du superviseur : **Dr. François Gravelle**

Affiliation : École de cinétique humaine | Faculté des sciences de la santé | Université d'Ottawa

Adresse courriel :

Adresse courriel :

Numéro de téléphone :

Numéro de téléphone :

**Invitation à participer :** Je voudrais vous inviter à participer à cette étude en remplissant un questionnaire de 10 à 15 minutes, en ligne ou sur papier. Vous pourriez participer ainsi à un tirage pour gagner une carte-cadeau chez Tim Hortons !

**Objectif de l'étude :** Le but de cette étude est d'explorer de manière exhaustive les expériences des visiteurs du Parc de la Gatineau, en se concentrant particulièrement sur la compréhension de leurs motivations, de l'interaction entre l'engagement en matière de loisirs et les préoccupations environnementales. Nous espérons que l'information recueillie aidera les gestionnaires du parc à comprendre comment la participation aux loisirs peut entraîner des impacts environnementaux spécifiques et de meilleures expériences récréatives pour les visiteurs du parc.

**Participation :** Ma participation consistera à remplir des questionnaires en ligne ou en format papier. Après avoir répondu au sondage en ligne, un questionnaire distinct vous sera présenté dans lequel vous pourrez y inscrire votre adresse courriel si vous souhaitez participer à une entrevue. Vous pouvez contacter le chercheur pour organiser une entrevue.

Le questionnaire est composé de questions portant sur :

- le niveau de participation aux loisirs dans le parc de la Gatineau,
- vos connaissances et votre sensibilisation à l'environnement ;
- vos intentions comportementales face à l'environnement ;
- votre motivation lors de vos loisirs ; et
- informations démographiques.

Il vous sera demandé d'évaluer dans quelle mesure vous êtes d'accord ou en désaccord avec les déclarations concernant votre expérience. Vous serez invités à omettre toute question à laquelle vous préférez ne pas répondre.

**Confidentialité et vie privée :** Cette étude sera menée selon les procédures d'éthique de la recherche prescrites par l'Université d'Ottawa. Votre participation serait totalement volontaire et anonyme. Toutes les informations fournies de votre part resteront totalement confidentielles. Cette étude ne produira pas de rapports ou de publications contenant des informations personnellement permettant de vous identifier.

**Conservation des données :** Nous protégeons toutes les informations que vous partagez dans le sondage si vous le complétez en ligne. Vous pouvez choisir de remplir la copie papier de l'enquête, et elle sera conservée dans un classeur verrouillé dans le bureau du superviseur. Les données recueillies ne seront accessibles qu'aux chercheurs. Pendant une durée de cinq ans, toutes les données seront conservées et « sécurisées » par le fournisseur du site, FluidSurveys.

**Compensation :** Les participants au projet de recherche peuvent choisir de participer à un tirage pour gagner une carte-cadeau Tim Hortons de 50 \$. Après avoir répondu au sondage, vous pouvez fournir votre adresse courriel pour le tirage au sort via un questionnaire séparé ou en contactant le chercheur. Tous les participants

sont éligibles au tirage au sort, même s'ils se retirent de l'étude. Un gagnant sera sélectionné au hasard parmi ceux qui participeront au tirage au sort et sera informé par courriel ou téléphone. S'il n'est pas joignable dans les 14 jours, un autre nom sera tiré au sort. Les chances de gagner dépendent du nombre de participations. Le prix ne peut être échangé contre de l'argent. Les coordonnées sont confidentielles et seront détruites après l'attribution du prix. Le tirage suit les lois canadiennes. De plus, un bouton « Retrait » est disponible tout au long du questionnaire, leur permettant d'accéder directement à la page où sont recueillies les coordonnées pour le tirage au sort.

**Participation volontaire :** Vous n'êtes soumis à aucune obligation de participer et si vous choisissez de participer, vous êtes libre de vous retirer de l'étude à tout moment et vous pouvez refuser de répondre aux questions auxquelles vous ne souhaitez pas répondre. Veuillez noter que la participation étant totalement anonyme, si vous choisissez de vous retirer de l'étude, il sera impossible de sélectionner et de détruire les informations soumises. **Le fait de remplir et de retourner ou soumettre le questionnaire constitue votre consentement.**

**Informations sur les résultats de l'étude :** Veuillez nous contacter si vous souhaitez une copie des résultats. Une fois le sondage en ligne terminé, vous serez dirigé vers un deuxième sondage où vous aurez la possibilité de fournir votre adresse courriel pour recevoir les résultats. Vous pouvez également demander des copies des résultats en vous adressant au chercheur ou au superviseur.

Si vous avez des questions ou des préoccupations concernant cette étude ou si vous souhaitez des informations supplémentaires avant de prendre une décision concernant votre participation, veuillez contacter Kolsoum Heidari ou mon superviseur, François Gravelle Ph.D.

Veuillez conserver ce formulaire pour vos dossiers. (Remarque : si vous remplissez le questionnaire en ligne, vous pouvez faire une copie de ce document pour votre dossier).

**Coordonnées :** Si j'ai des questions sur l'étude, je peux contacter le chercheur ou le professeur directeur de thèse :

Kolsoum Heidari  
École de cinétique humaine  
Faculté des sciences de la santé  
Université d'Ottawa  
125 Université Privée  
Ottawa, Canada, K1N 6N5

François Gravelle, Ph.D.  
Professeur titulaire  
École de cinétique humaine  
Faculté des sciences de la santé  
Université d'Ottawa  
125, Université Privée  
Ottawa, Canada, K1N 6N5

Si vous avez des questions concernant la conduite éthique de cette étude, vous pouvez contacter l'agent du protocole pour l'éthique de la recherche, Université d'Ottawa, Pavillon Tabaret, 550, rue Cumberland, salle 154, Ottawa, ON K1N 6N5, tél. : (+1) 613-562-5800 ext. 5387 ou [éthique@uottawa.ca](mailto:éthique@uottawa.ca)

Signature du chercheur :

Date :

## Enquête auprès des participants (French)

Veuillez baser vos réponses sur votre statut à la date d'aujourd'hui.

<b>Quel est votre pays d'origine ?</b>								
<b>Quelle est votre catégorie d'âge ? (Sélectionnez une catégorie)</b>		18-25 <input type="checkbox"/>	26-30 <input type="checkbox"/>	35-42 <input type="checkbox"/>	43-52 <input type="checkbox"/>	53-65 <input type="checkbox"/>	66-70 <input type="checkbox"/>	71+ <input type="checkbox"/>
<b>Quelle catégorie représente le revenu annuel de votre ménage (en dollars canadiens) ?</b>	<16 000 \$ <input type="checkbox"/>	16 000 à 28 000 \$ <input type="checkbox"/>	28 001 à 44 000 \$ <input type="checkbox"/>	44 001 à 56 000 \$ <input type="checkbox"/>	56 001 à 76 000 \$ <input type="checkbox"/>	76 001 à 100 000 \$ <input type="checkbox"/>	100 001 à 240 000 \$ <input type="checkbox"/>	240 001 \$ et plus <input type="checkbox"/>
<b>Combien de personnes à charge avez-vous?</b>								
<b>Qu'est-ce qui représente le mieux votre état matrimonial légal ? (Choisissez une option)</b>		Célibataire <input type="checkbox"/>		Marié <input type="checkbox"/>		Divorcé <input type="checkbox"/>		
<b>Avez-vous un travail/emploi/emploi stable ?</b>				Oui <input type="checkbox"/>		Non <input type="checkbox"/>		
<b>Avez-vous un moyen de transport fiable ?</b>				Oui <input type="checkbox"/>		Non <input type="checkbox"/>		
<b>Au cours des 6 derniers mois, combien de fois avez-vous visité le parc de la Gatineau ?</b>								
<b>Au cours de la dernière année, combien de fois avez-vous visité le parc de la Gatineau ?</b>								
<b>Niveau d'éducation formelle</b>	(1) École secondaire ou moins	(2) Diplôme d'études collégiales	(3) Baccalauréat			(4) Études supérieures comme un diplôme de maîtrise ou de doctorat...		

## Enquête sur les loisirs sérieux (French)

Les questions suivantes ont été conçues par Gould et coll. (2008) pour mesurer le degré auquel vous vous sentez à l'aise avec les loisirs en tant que passionné de plein air. Veuillez évaluer ces affirmations en fonction des indications ci-dessous.

Tout à fait d'accord -----9 Plutôt d'accord ----- 8 Modérément d'accord --- 7 Plutôt d'accord ----- 6 Ni d'accord ni en désaccord — 5 Légèrement en désaccord ----- 4 Modérément en désaccord --3 Plutôt en désaccord ----- 2 Totalemment en désaccord--- 1

Dimension	Article	1	2	3	4	5	6	7	8	9
<b>Persévérance</b>	1. Si je rencontre des obstacles lors d'activités récréatives de plein air dans le parc de la Gatineau, je persiste jusqu'à ce que je les surmonte.									
	2. À force de persévérance, j'ai surmonté l'adversité lors d'activités récréatives en plein air dans le parc de la Gatineau.									
	3. Je surmonte les difficultés liées aux activités récréatives de plein air dans le parc de la Gatineau en étant persévérant.									
<b>Effort</b>	1. Je m'efforce de devenir plus compétent dans les activités récréatives de plein air dans le parc de la Gatineau.									
	2. Je pratique pour améliorer mes habiletés dans les activités récréatives de plein air dans le parc de la Gatineau.									
	3. Je suis prêt à déployer des efforts considérables pour devenir plus compétent dans les activités récréatives de plein air dans le parc de la Gatineau.									
<b>Progression de carrière</b>	1. Je me suis amélioré depuis que j'ai commencé à participer à des activités de loisirs de plein air dans le parc de la Gatineau.									
	2. Depuis que j'ai commencé à pratiquer des activités récréatives de plein air dans le parc de la Gatineau, je me suis amélioré.									
	3. J'ai l'impression d'avoir progressé dans ma pratique d'activités récréatives de plein air dans le Parc de la Gatineau.									
<b>Contingences de carrière</b>	1. Pour moi, il y a certains événements connexes qui ont influencé mon implication.									
	2. Il y a des moments déterminants qui ont considérablement façonné mon implication dans des activités récréatives de plein air dans le parc de la Gatineau.									
	3. Il y a eu certains moments forts et faibles pour moi qui ont défini mon degré d'implication.									
<b>Une philosophie unique</b>	1. Mes amis qui aiment les loisirs de plein air dans le parc de la Gatineau partagent bon nombre de mes sentiments.									
	2. Je partage plusieurs des mêmes idéaux que d'autres amateurs de loisirs de plein air dans le parc de la Gatineau.									
	3. Je partage plusieurs de mes activités récréatives de plein air avec les idéaux du groupe du parc de la Gatineau.									
<b>Identité</b>	1. D'autres qui me connaissent comprennent que les activités récréatives de plein air dans le Parc de la Gatineau font partie de qui je suis.									
	2. Je suis souvent reconnu comme une personne dévouée aux activités récréatives de plein air dans le parc de la Gatineau.									
	3. D'autres reconnaissent que je m'identifie aux activités récréatives de plein air dans le parc de la Gatineau.									

## Enquête sur les préoccupations environnementales (French)

Veillez évaluer ces déclarations en fonction des indications ci-dessous.

Tout à fait d'accord -----9 Plutôt d'accord ----- 8 Modérément d'accord --- 7 Plutôt d'accord -  
 ----- 6 Ni d'accord ni en désaccord — 5 Légèrement en désaccord ----- 4 Modérément en désaccord  
 --3 Plutôt en désaccord ----- 2 Totalement en désaccord--- 1

N	Article	1	2	3	4	5	6	7	8	9
<b>Limites de la croissance (LG)</b>	Nous approchons de la limite du nombre de personnes que la Terre peut supporter.									
	La Terre est comme un vaisseau spatial avec un espace et des ressources très limités.									
	La terre regorge de ressources naturelles si nous apprenons à les exploiter.									
<b>Anti-anthropocentrisme (AA)</b>	Les humains ont le droit de modifier l'environnement naturel pour l'adapter à leurs besoins.									
	Les plantes et les animaux ont autant le droit d'exister que les humains.									
	Les humains sont censés régner sur le reste de la nature.									
<b>La dimension Équilibre de la Nature (BN)</b>	L'ingéniosité humaine nous permettra de ne pas rendre la Terre invivable.									
	L'équilibre de la nature est suffisamment solide pour faire face aux impacts des industries modernes.									
	L'équilibre de la nature est très délicat et facilement perturbé.									
<b>Dimension anti-exclusion (AE)</b>	Lorsque les humains interfèrent avec la nature, cela produit souvent des conséquences désastreuses.									
	Malgré nos capacités spéciales, les humains sont toujours soumis aux lois de la nature.									
	Les humains en apprendront finalement suffisamment sur le fonctionnement de la nature pour pouvoir la contrôler.									
<b>Dimension Crise écologique (CE)</b>	Les humains maltraitent gravement l'environnement.									
	La soi-disant « crise écologique » à laquelle l'humanité est confrontée a été grandement exagérée.									
	Si les choses continuent comme elles le sont, nous allons bientôt vivre une catastrophe écologique majeure.									

# Appendix 2

## Semi-Structured Interview Guide (English)

Please find attached the interview preparation, debrief, and questions. A similar description can be found in the recruitment post and in the participant information guide.

Interview consent forms will be written, but participants will also be able to provide oral consent during the preliminary discussion of the interview (recorded separately from the interview).

Your participation is completely voluntary, and you are free to withdraw at any time without any negative consequences. We will maintain the participant’s confidentiality and destroy the interview records and consent forms in the event the participant withdraws. We will attempt to obtain an alternative interview if the participant withdraws, and all findings, reports, and workshops that use the data will be removed.

**Confidentiality and Privacy:** This study will be conducted under the research ethics procedures outlined at the University of Ottawa. Your participation would be completely voluntary and anonymous. All information provided by you will remain completely confidential. This study will not produce reports or publications that contain any personally identifiable information.

**Compensation:** In recognition that providing an interview is a form of labour, we will compensate each interviewee a \$30 gift card. The interview will last 1–2 hours. There will be a total of 30 interviews from park visitors who visit Gatineau Park.

### **Semi-structured interview guide for the motivation of park visitors.**

Introduction	<p>—Hello, I’m Kolsoum Heidari from the University of Ottawa. I would like to start off by thanking you for agreeing to participate in this study.</p> <p>—How are you today?</p> <p>What kind of outdoor activities do you enjoy?</p> <p>What is your level of involvement with outdoor recreational activities (regularly, often, occasionally)?</p>	
<i>Research Questions Addressed</i>		<i>Sample Questions</i>
Section 1: Experience of Outdoor Recreationists	<p>What is the nature of the experience of outdoor recreationists in Gatineau Park?</p>	<ol style="list-style-type: none"> <li>1. Can you tell me about the earliest memory that you have of your involvement in outdoor recreation in Gatineau Park?</li> <li>2. Can you describe a memorable experience you had while engaging in outdoor recreation in Gatineau Park?</li> <li>3. How do you perceive the overall atmosphere and environment during your outdoor activities in the park?</li> <li>4. What emotions or feelings do you associate with your outdoor experiences?</li> <li>5. Do you recall any particular aspects or moments from your outdoor activities that were especially meaningful to you?</li> <li>6. Can you describe any challenges events you encountered?</li> </ol>

<p>Section 2: Motivations of Outdoor Recreationists</p>	<p>What are the motivations of outdoor recreationists who visit Gatineau Park?</p>	<ol style="list-style-type: none"> <li>1. What inspires you to choose Gatineau Park as your preferred outdoor recreation destination?</li> <li>2. How do personal motivations influence your choice of leisure activities within the park?</li> <li>3. Can you share a specific instance that highlights your motivation for engaging in outdoor recreation in Gatineau Park?</li> <li>4. How do your personal motivations (including factors like race and ethnicity, social interaction, physical health and fitness, relaxation and restoration, and nature interaction) shape your preferences for leisure activities in the park?</li> </ol>
<p>Section 3: Leisure Activity Patterns</p>	<p>What are the leisure activity patterns of outdoor recreationists who visit Gatineau Park? SLP</p>	<ol style="list-style-type: none"> <li>1. What was your highest level of involvement in outdoor recreation (as an amateur, a volunteer, or a professional)?</li> <li>2. How important was outdoor recreation in Gatineau Park to you?</li> <li>3. What other outdoor recreation activities did you have in your life (family, friends, association with other members of the team, alone time)?</li> <li>4. Is it more common for you to describe yourself as an outdoor recreationist (such as a walker or a biker)?</li> <li>5. How have you seen improvement since you first started participating in outdoor recreation?</li> <li>6. What ideals do you share with other outdoor recreational enthusiasts?</li> </ol>
<p>Section 4: Lived Experience</p>	<p>What is the lived experience of outdoor recreationists in Gatineau Park?</p>	<p>How has your overall experience in Gatineau Park influenced your well-being or quality of life? Can you share any challenges or obstacles you've faced while engaging in outdoor recreation, and how they have impacted your experience? In what ways do you feel a sense of connection or attachment to Gatineau Park through your lived experiences?</p>
<p>Conclusion</p>	<ul style="list-style-type: none"> <li>—Would you like to add anything?</li> <li>—Thank participants for their valuable insights.</li> <li>—Reiterate the importance of their contribution to understanding outdoor recreation experiences.</li> <li>—Provide contact information for any follow-up questions or concerns.</li> </ul>	

## Guide d'entrevue semi-structuré (French)

Veillez trouver ci-joint la préparation à l'entrevue, le débriefage et les questions. Une description similaire peut être trouvée dans le message de recrutement et dans le guide d'information du participant.

Les formulaires de consentement à l'entrevue seront écrits, mais les participants pourront également donner leur consentement oral lors de la discussion préliminaire de l'entrevue (enregistrée séparément de l'entrevue).

Votre participation est entièrement volontaire et vous êtes libre de vous retirer à tout moment sans aucune conséquence négative. Nous maintiendrons votre confidentialité et détruirons les dossiers d'entrevue et les formulaires de consentement en cas de retrait. Nous tenterons d'obtenir une entrevue alternative si vous vous retirez, et tous les conclusions, rapports et ateliers utilisant vos données seront supprimés.

**Confidentialité et vie privée :** Cette étude sera menée selon les procédures d'éthique de la recherche décrites à l'Université d'Ottawa. Votre participation serait totalement volontaire et anonyme. Toutes les informations fournies par vous resteront totalement confidentielles. Cette étude ne produira pas de rapports ou de publications contenant des informations personnellement identifiables.

**Compensation :** Reconnaisant que fournir une entrevue est une forme de travail, nous offrirons à chaque personne interrogée une carte-cadeau de 30 \$. L'entretien durera entre 1 et 2 heures. Il y aura un total de 30 entrevues avec des visiteurs du Parc de la Gatineau.

### Guide d'entrevue semi-directif pour la motivation des visiteurs du parc.

Introduction	— Bonjour, je m'appelle Kolsoum Heidari de l'Université d'Ottawa. Je voudrais tout d'abord vous remercier d'avoir accepté de participer à cette étude. — Comment allez-vous aujourd'hui ? Quel genre d'activités de plein air aimez-vous ? Quel est votre niveau de participation aux activités récréatives de plein air (régulièrement, souvent, occasionnellement) ?
<i>Questions de recherche abordées</i>	<i>Exemples de questions</i>

<p>Section 1 : Expérience des adeptes de loisirs de plein air</p>	<p>Quelle est la nature de l'expérience des adeptes de plein air dans le Parc de la Gatineau ?</p>	<ol style="list-style-type: none"> <li>7. Pouvez-vous me parler de votre premier souvenir de votre implication dans les loisirs de plein air au Parc de la Gatineau ?</li> <li>8. Pouvez-vous décrire une expérience mémorable que vous avez vécue en pratiquant des loisirs de plein air dans le Parc de la Gatineau ?</li> <li>9. Comment percevez-vous l'ambiance générale et l'environnement lors de vos activités extérieures dans le Parc de la Gatineau ?</li> <li>10. Quelles émotions ou sentiments associez-vous à vos expériences en loisirs de plein air ?</li> <li>11. Vous souvenez-vous d'aspects ou de moments particuliers de vos activités de plein air qui ont été particulièrement significatifs pour vous ?</li> <li>12. Pouvez-vous décrire les défis que vous avez rencontrés ?</li> </ol>
<p>Section 2 : Motivations des adeptes de loisirs de plein air</p>	<p>Quelles sont les motivations des adeptes de plein air qui visitent le Parc de la Gatineau ?</p>	<ol style="list-style-type: none"> <li>5. Qu'est-ce qui vous incite à choisir le Parc de la Gatineau comme destination privilégiée de loisirs de plein air ?</li> <li>6. Comment les motivations personnelles influencent-elles votre choix d'activités de loisirs au sein du parc ?</li> <li>7. Pouvez-vous partager un exemple précis qui met en évidence votre motivation à pratiquer à des loisirs de plein air dans le Parc de la Gatineau ?</li> <li>8. Comment vos motivations personnelles (y compris des facteurs tels que la race et l'origine ethnique, l'interaction sociale, la santé et la forme physique, la relaxation et la restauration, ainsi que l'interaction avec la nature) façonnent-elles vos préférences en matière d'activités de loisirs dans le parc ?</li> </ol>
<p>Section 3 : Modèles d'activités de loisirs</p>	<p>Quelles sont les habitudes de loisirs des adeptes de plein air qui visitent le Parc de la Gatineau ? Orthophoniste</p>	<ol style="list-style-type: none"> <li>7. Quel a été votre plus haut niveau d'implication dans les loisirs de plein air (en tant qu'amateur, bénévole ou professionnel) ?</li> <li>8. Quelle importance accordez-vous aux loisirs de plein air dans le Parc de la Gatineau ?</li> <li>9. Quelles autres activités de loisirs de plein air avez-vous pratiquées dans votre vie (famille, amis, association avec d'autres membres de l'équipe, temps seul) ?</li> <li>10. Est-il courant pour vous de vous décrire comme un amateur de loisirs de plein air (comme un marcheur ou un cycliste) ?</li> <li>11. Comment avez-vous constaté une amélioration depuis que vous avez commencé à participer à des loisirs de plein air ?</li> <li>12. Quels idéaux partagez-vous avec d'autres passionnés de loisirs de plein air ?</li> </ol>
<p>Section 4 : Expérience vécue</p>	<p>Quelle est l'expérience vécue par les adeptes de plein air dans le Parc de la Gatineau ?</p>	<p>Comment votre expérience globale au Parc de la Gatineau a-t-elle influencé votre bien-être ou votre qualité de vie ? Pouvez-vous partager les défis ou les obstacles que vous avez rencontrés lors de vos activités récréatives de plein air, et quel impact ils ont eu sur votre expérience ? De quelle manière ressentez-vous un sentiment de connexion ou d'attachement au Parc de la Gatineau à travers vos expériences vécues ?</p>
<p>Conclusion</p>	<ul style="list-style-type: none"> <li>— Voudriez-vous ajouter quelque chose ?</li> <li>— Remerciez les participants pour leurs précieuses idées.</li> <li>— Réitérer l'importance de leur contribution à la compréhension des expériences de loisirs de plein air.</li> <li>— Fournissez les coordonnées pour toute question ou préoccupation complémentaire.</li> </ul>	

## Consent Form for Interviews (English)

**Title of the study:** Understanding the interaction of Outdoor Recreation Motivation, Serious Leisure Perspective and Environmental Concern: A Study of Park Visitors

Name of Principal Investigator: **Kolsoum Heidari**

Name of Supervisor: **Dr. François Gravelle**

Affiliation: **School of Human Kinetics | Faculty of Health Sciences | University of Ottawa**

Email address:

Email address:

**Université d'Ottawa**  
Faculté des sciences  
de la santé

École des sciences de  
l'activité physique

**University of Ottawa**  
Faculty of Health Sciences

School of Human Kinetics

**Invitation to Participate:** We are inviting you to participate in this study by participating in a 1-to-2-hour online interview or in person.

**Purpose of the Study:** The purpose of this study is to comprehensively explore the multifaceted experiences of park visitors in Gatineau Park, focusing especially on understanding their motivations, and the interaction between leisure engagement and environmental concerns. Hopefully, the information collected will help park managers understand how leisure participation can lead to specific environmental effects and better recreation experiences for park visitors.

**Participation:** Your participation will consist of an in-person interview or an online interview.

**Confidentiality and Privacy:** This study will be conducted under the research ethics procedures outlined at the University of Ottawa. Your participation would be completely voluntary. All information provided by you will remain completely confidential. This study will not produce reports or publications that contain any personally identifiable information. For the interviews, we plan on using only audio recordings. Our team will ensure that all video recordings are securely and permanently deleted. We will disable the camera functions for the interviewee before starting the interview. Also, video features will be disabled in the platform (e.g., Zoom, Teams, or Skype).

**Conservation of data:** We protect all the information you enter in the survey/interview if you complete it on-line. All the paper copy of the survey, and interview data will be stored in a locked filing cabinet in the supervisor's office. The aggregated data will only be accessible by researchers. Data will be preserved and certified by Microsoft OneDrive for a period of five years. In addition, all interview data will be encrypted in transit and at rest (while being stored). Furthermore, we will make sure that interviewees are assigned pseudonyms or unique codes, and that we keep the key that links their real names to the codes apart from the data itself.

**Location:** We will conduct in-depth interviews in Gatineau Park or online. Participants will be interviewed in specific locations within the park based on their convenience and comfort, as well as the availability of a quiet environment. Taking place in the park provides a relaxed and conducive setting for participants to share their experiences and perspectives in a context relevant to the study.

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Ottawa ON K1N 6N5 Canada

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**Compensation:** In recognition that providing an interview is a form of labour, we will compensate each interviewee a \$30 Tim Hortons gift card.

**Voluntary Participation:** You are under no obligation to participate and if you choose to participate, you are free to withdraw from study at any time, and you may decline to answer any questions that you do not want to answer. Please note if you choose to withdraw, all data gathered until the time of withdrawal will be removed from the dataset and not used in the study.

**Information about the Study Results:** Please contact us if you would like a copy of the findings. You can also request copies of the results from the researcher or supervisor.

If you have any questions or concerns about this study or would like additional information before reaching a decision about participation, please contact Kolsoum Heidari. In addition, you may contact my supervisor, Dr. François Gravelle. The participants will also receive a copy of the consent form.

**Acceptance:** I \_\_\_\_\_, agree to participate in the above research study conducted by Kolsoum Heidari of the School of Human Kinetics. The research is under the supervision of Dr. François Gravelle, Ph.D. I understand that by agreeing to participate, I am not giving up my right to withdraw from the study.

**Coordinates:** If I have any questions about the study, I may contact the researcher or the thesis supervisor professor:

Kolsoum Heidari  
School of Human Kinetics  
Faculty of Health Sciences  
University of Ottawa  
125 University Private  
Ottawa, Canada, K1N 6N5

Francois Gravelle, Ph.D.  
Full Professor  
School of Human Kinetics  
Faculty of Health Sciences  
University of Ottawa  
125 University Private  
Ottawa, Canada, K1N 6N5

If you have any questions with regards to the ethical conduct of this study, you may contact the Protocol Officer for Ethics in Research, University of Ottawa, Tabaret Hall, 550 Cumberland Street, Room 154, Ottawa, ON K1N 6N5, tel.: (+1) 613-562-5800 ext. 5387 or [ethics@uottawa.ca](mailto:ethics@uottawa.ca)

Participant's signature:

Date:

Researcher's signature:

Date:

## Formulaire de consentement pour les entrevues

**Titre de l'étude :** Comprendre l'interaction entre la motivation pour les loisirs en plein air, la perspective de loisirs sérieux et la préoccupation environnementale : une étude sur les visiteurs du parc

Nom du chercheur principal: **Kolsoum Heidari** Nom du superviseur: M. **François Gravelle, Ph.D.**

Affiliation: École des sciences de l'activité physique | Faculté des sciences de la santé | Université d'Ottawa

**Invitation à participer :** Nous vous invitons à prendre part à cette étude en participant à une entrevue en ligne ou en personne d'une durée de deux heures.

**Objectif de l'étude :** L'objectif de cette étude est d'explorer de manière exhaustive les expériences multidimensionnelles des visiteurs du parc de la Gatineau, en mettant l'accent sur la compréhension de leurs motivations et de l'interaction entre la participation aux loisirs et les préoccupations environnementales. Nous espérons que les informations recueillies aideront les gestionnaires du parc à comprendre comment la participation aux loisirs peut entraîner des effets environnementaux précis et de meilleures expériences de loisirs pour les visiteurs du parc.

**Participation :** Votre participation consistera en une entrevue en personne ou en ligne.

**Confidentialité et vie privée :** Cette étude sera menée conformément aux procédures d'éthique de la recherche décrites à l'Université d'Ottawa. Votre participation sera entièrement volontaire. Toutes les informations que vous fournirez resteront entièrement confidentielles. Cette étude ne produira pas de rapports ou de publications contenant des informations personnelles identifiables. Pour les entrevues, nous prévoyons utiliser uniquement des enregistrements audios. Notre équipe veillera à ce que tous les enregistrements vidéo soient supprimés de manière sûre et permanente à la fin de notre étude. Nous désactiverons les fonctions de la caméra pour la personne interrogée avant de commencer l'entrevue. De plus, les fonctionnalités vidéo seront désactivées sur la plateforme (par exemple, Zoom, Teams ou Skype).

**Conservation des données:** Nous protégeons toutes les informations que vous saisissez dans le sondage/l'entretien si vous le remplissez en ligne. Toutes les copies papier du sondage et les données de l'entretien seront stockées dans un classeur verrouillé dans le bureau du superviseur. Les données agrégées ne seront accessibles qu'aux chercheurs. Les données seront conservées et certifiées par Microsoft OneDrive pendant une période de cinq ans. Toutes les données d'entretien seront cryptées en transit et au repos (pendant leur stockage). De plus, nous veillerons à ce que des pseudonymes ou des codes uniques soient attribués aux personnes interrogées et à ce que nous conservions la clé qui relie leur vrai nom aux codes en dehors des données elles-mêmes.

**Emplacement :** Nous réaliserons des entrevues approfondies dans le parc de la Gatineau ou en ligne. Les participants seront interviewés dans des endroits précis du parc en fonction de leur confort et de la disponibilité d'un environnement calme. Le fait de se dérouler dans le parc offre un cadre détendu et propice aux participants pour partager leurs expériences et leurs points de vue dans un contexte pertinent à l'étude.

**Compensation :** Reconnaisant qu'une entrevue est une forme de travail, nous offrirons à chaque personne interrogée une carte-cadeau Tim Hortons de 30 \$.

**Participation volontaire :** Vous n'êtes pas obligé de participer et si vous choisissez de participer, vous êtes libre de vous retirer de l'étude à tout moment et vous pouvez refuser de répondre aux questions auxquelles vous ne souhaitez pas répondre. Veuillez noter que si vous choisissez de vous retirer, toutes les données recueillies jusqu'au moment du retrait seront supprimées de l'ensemble de données et ne seront pas utilisées dans l'étude.

**Informations sur les résultats de l'étude :** Veuillez nous contacter si vous souhaitez obtenir une copie des résultats. Vous pouvez également demander des copies des résultats au chercheur ou au superviseur.

Si vous avez des questions ou des inquiétudes concernant cette étude ou si vous souhaitez obtenir des informations supplémentaires avant de prendre une décision concernant votre participation, veuillez contacter Kolsoum Heidari. De plus, vous pouvez contacter mon superviseur, François Gravelle Ph.D. Les participants recevront également une copie du formulaire de consentement.

**Acceptation :** Je \_\_\_\_\_, accepte de participer à l'étude de recherche ci-dessus menée par Kolsoum Heidari de l'École des sciences de l'activité physique. La recherche est sous la supervision du Dr François Gravelle, Ph.D. Je comprends qu'en acceptant de participer, je ne renonce pas à mon droit de me retirer de l'étude.

**Coordonnées :** Si j'ai des questions sur l'étude, je peux contacter le chercheur ou le professeur directeur de thèse :

Kolsoum Heidari  
École des sciences de l'activité physique  
Faculté des sciences de la santé  
Université d'Ottawa  
125 Université Privée  
Ottawa (Canada) K1N 6N5

François Gravelle, Ph.D.  
Professeur titulaire  
École des sciences de l'activité physique  
Faculté des sciences de la santé  
Université d'Ottawa  
125, rue privée Université  
Ottawa (Canada) K1N 6N5

Si vous avez des questions concernant la conduite éthique de cette étude, vous pouvez contacter l'agent du protocole pour l'éthique en recherche, Université d'Ottawa, Pavillon Tabaret, 550, rue Cumberland, salle 154, Ottawa (Ontario) K1N 6N5, tél. (+1) 613-562-5800 poste 5387 ou [ethique@uottawa.ca](mailto:ethique@uottawa.ca)

Signature du participant :

Date :

Signature du chercheur :

Date :

## Recruitment Notice

### Dear Park Visitors,

I am a PhD candidate in the School of Human Kinetics at the University of Ottawa, researching "Understanding the interaction of Outdoor Recreation Motivation, Serious Leisure Perspective and Environmental Concern: A Study of Park Visitors". The focus of my thesis is the level of leisure involvement and environmental concern of park visitors at Gatineau Park, as well as their motivation to participate in the park. I am writing to invite you to participate in this research study. If you participate in this study, you will also be entered into a drawing for a \$30 Tim Hortons gift card.

**Invitation to Participate:** I would like to invite you to participate in this study by kindly filling out a 10–15-minute questionnaire, either on-line or on paper. If you would like additional details, you may contact me, or you may contact my supervisor Dr. François Gravelle.

**Research Activities Overview:** Data collection will be divided into two phases, each involving distinct research activities designed to gather both quantitative and qualitative data. Each activity has a different frequency, duration, and type of data, including online surveys and in-depth interviews.

Phase One: Online Surveys will be conducted to gather information about participants' leisure activities, demographic information, and environmental concerns.

Details: We will ask participants to complete the Serious Leisure Inventory and Measure (SLIM) short form as well as the New Environmental Paradigm (NEP) Scale. In this way, they can be categorized according to their participation in leisure activities and attitudes towards the environment.

Phase Two: In-Depth Interviews: After completing the online survey, a separate questionnaire will be presented to you where you can enter your e-mail if you wish to participate in the interview. Alternatively, you can contact the researcher to arrange an interview. Everyone participating in the draw may be invited to participate in an interview and can decide whether they desire to withdraw their participation. The study will involve 30 participants in one interview. Interviews are expected to last between 1–2 hours.

### To be eligible for this study, participants must meet the following criteria:

Participants must be at least 18 years old. This criterion ensures that all participants are legally adults and are capable of providing informed consent.

**Language:** Participants must be proficient in English or French. As the survey and interview materials will be administered in these languages, participants must be able to understand the questions and provide meaningful responses.

**Geographic Location:** The participants must be visitors to Gatineau Park. The criterion ensures that the study targets individuals who have participated in outdoor recreational activities within a specific geographical context.

**Leisure Engagement:** Participants must have engaged in some form of outdoor recreational activity during their visit to the park. This includes serious, casual, or project-based leisure activities, as the study aims to investigate different types of leisure involvement.

**Willingness to Participate:** Participants must be willing to complete the survey or participate in the interviews. They should also provide informed consent and agree to the terms of the study, including data collection and analysis procedures.

Thank you for your consideration.

**Sincerely,**

Kolsoum Heidari

## Avis de recrutement

### Chers visiteurs du parc,

Je suis candidate au doctorat à l'École des sciences de l'activité physique de l'Université d'Ottawa, et je mène une recherche intitulée « Comprendre l'interaction entre la motivation pour les loisirs de plein air, la perspective sérieuse des loisirs et la préoccupation environnementale : une étude des visiteurs du parc ». Ma thèse porte sur le niveau d'engagement des visiteurs du parc de la Gatineau dans les loisirs et la préoccupation environnementale, ainsi que sur leur motivation à participer aux activités du parc. Je vous écris pour vous inviter à participer à cette étude. Si vous participez à cette étude, vous serez également inscrit à un tirage au sort pour gagner une carte-cadeau Tim Hortons de 30 \$.

**Invitation à participer :** Je vous invite à participer à cette étude en remplissant un questionnaire de 10 à 15 minutes, en ligne ou sur papier. Si vous souhaitez obtenir des détails supplémentaires, vous pouvez me contacter ou contacter mon superviseur, François Gravelle Ph.D..

**Aperçu des activités de recherche :** La collecte de données sera divisée en deux phases, chacune impliquant des activités de recherche distinctes conçues pour recueillir des données quantitatives et qualitatives. Chaque activité a une fréquence, une durée et un type de données différents, y compris des enquêtes en ligne et des entretiens approfondis.

**Phase 1 :** Des sondages en ligne seront menés pour recueillir des informations sur les activités de loisirs des participants, les données démographiques et les préoccupations environnementales. Il s'agira d'un sondage unique administré à tous les participants. Il devrait prendre environ 10 à 15 minutes à remplir.

**Détails :** Nous demanderons aux participants de compléter le formulaire abrégé SLIM (Serious Leisure Inventory and Measure) ainsi que l'échelle NEP (New Environmental Paradigm). De cette façon, ils pourront être classés en fonction de leur participation aux activités de loisirs et de leurs attitudes envers l'environnement.

**Deuxième phase :** Entretiens approfondis : Après avoir rempli l'enquête en ligne, un questionnaire distinct vous sera présenté dans lequel vous pourrez partager votre adresse électronique si vous souhaitez participer à l'entretien. Vous pouvez également contacter le chercheur pour organiser un entretien. Toutes les personnes participant au tirage au sort peuvent être invitées à participer à un entretien et peuvent décider si elles souhaitent retirer leur participation. L'étude impliquera un total de 30 participants. Les entretiens devraient durer entre 1 et 2 heures.

**Pour être éligibles à cette étude, les participants doivent répondre aux critères suivants :** les participants doivent être âgés d'au moins 18 ans. Ce critère garantit que tous les participants sont légalement majeurs et capables de donner leur consentement éclairé.

**Langue :** Les participants doivent maîtriser l'anglais ou le français. Comme l'enquête et les documents d'entrevue seront administrés dans ces langues, les participants doivent être en mesure de comprendre les questions et de fournir des réponses pertinentes. **Situation géographique :** Les participants doivent être des visiteurs du parc de la Gatineau. Ce critère garantit que l'étude cible les personnes qui ont participé à des activités récréatives de plein air dans un contexte géographique précis.

**Engagement de loisirs :** Les participants doivent avoir participé à une forme quelconque d'activité récréative en plein air au cours de leur visite au parc. Cela comprend des activités de loisirs sérieuses, occasionnelles ou basées sur un projet, car l'étude vise à examiner différents types d'engagement dans les loisirs.

**Volonté de participer :** Les participants doivent être disposés à répondre à l'enquête ou à participer aux entretiens. Ils doivent également donner leur consentement éclairé et accepter les conditions de l'étude, y compris les procédures de collecte et d'analyse des données.

**Sincèrement,** Kolsoum Heidari

# CERTIFICATE OF ETHICS APPROVAL

07/10/2024

**Université d'Ottawa**

Bureau d'éthique et d'intégrité de la recherche

**University of Ottawa**

Office of Research Ethics and Integrity

## CERTIFICAT D'APPROBATION ÉTHIQUE | CERTIFICATE OF ETHICS APPROVAL

<b>Numéro du dossier / Ethics File Number</b>	H-09-24-10732
<b>Titre du projet / Project Title</b>	Understanding the interaction of Outdoor Recreation Motivation, Serious Leisure Perspective and Environmental Concern: A Study of Park Visitors
<b>Type de projet / Project Type</b>	Thèse de doctorat / Doctoral thesis
<b>Statut du projet / Project Status</b>	Approuvé / Approved
<b>Date d'approbation (jj/mm/aaaa) / Approval Date (dd/mm/yyyy)</b>	07/10/2024
<b>Date d'expiration (jj/mm/aaaa) / Expiry Date (dd/mm/yyyy)</b>	06/10/2025

### Équipe de recherche / Research Team

<b>Chercheur / Researcher</b>	<b>Affiliation</b>	<b>Role</b>
Kolsoum HEIDARI	École des sciences de l'activité physique / School of Human Kinetics	Chercheur Principal / Principal Investigator
François GRAVELLE	École des sciences de l'activité physique / School of Human Kinetics	Superviseur / Supervisor

### Conditions spéciales ou commentaires / Special conditions or comments

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Ottawa (Ontario) K1N 6N5 Canada    Ottawa, Ontario K1N 6N5 Canada

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