

Plus ça change, plus c'est la même chose: visit types across Canada's National Parks

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Abstract — Parks Canada is continuing to use latent class analysis to identify behaviour-based 'visit type' segments (created through the analysis of reported activities and the places visited) in different national parks. The current paper reviews three studies conducted in different national parks. We will discuss improvements in the efficiency of data collection and highlight the consistency in visit type segments across different national parks. The appearance of consistent visit type segments across national parks serves to reinforce Parks Canada's move to behaviour-based segmentation. These visit type segments contrast with the different visitor profiles of each national park (as measured by origin and motivations for visiting). Identifying consistent visit type segments across different national parks allows Parks Canada to develop regional-level programs and products for each of these groups, rather than continuing to develop products for each park in isolation.

Index Terms — Behaviour patterns, national parks, latent class modelling, trip diaries, activities.

1 INTRODUCTION

Parks Canada has a long history of conducting research with visitors to Canada's national parks and for the past eight years has been working to develop a systematic approach to segment its visitors. Previous papers by McVetty [1], [2] review Parks Canada's initial attempts to analyze trip diary data collected in a survey of visitors to Banff, Jasper, Kootenay, and Yoho National Parks. After comparing classification systems based on respondent origin, motive segmentation, and visit type segmentation, McVetty [2] concludes that the 'visit type' approach (segments based on activities reported and locations visited) is the most effective method to reducing complex recreational behaviour into meaningful typologies. He also emphasizes that latent class analysis

is the most efficient method for developing visit type classifications from trip diaries.

Developments in the trip diary format will be discussed. The trip diary has evolved from a labour-intensive format requiring visitors to report on each activity, its location, and its duration to a more streamlined version that asks visitors to identify the specific activities they participate in across different areas of the park.

This paper will present the visit type segments that have been identified in three different research projects: the 2007 Summer Survey of Visitors to Prince Albert National Park, the 2005/06 Survey of Visitors to Elk Island National Park, and the 2003 Survey of Visitors to Banff, Jasper, Kootenay, and Yoho National Parks. The review of these behaviour-based segments will emphasize the consistency in visit type segments between national parks. The similarity of the behaviour-based visit type segments stands in stark contrast to the different profiles (as measured by origin and motivations for visiting) of visitors to each park.

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We will discuss how the identification of consistent visit type segments across national parks holds implications for how Parks Canada can research and plan for new programs and products on a regional basis.

2 METHOD

Parks Canada consistently conducts two-stage surveys of visit-party arrivals to its national parks. The unit of analysis is the visit-party (1 itinerary per visit party). Independent visit-parties (those arriving by personal vehicle or public transportation) are systematically intercepted at all entry points to the park. An intercept interview determines each potential party's eligibility (excluding park residents and employees, commuting workers, commercial vehicles, and parties re-entering on an existing visit) and gathers baseline population information. Willing respondents receive a questionnaire to be returned in a postage-paid envelope after their visit. Intercept interview information is used to weight data by relevant categories (intercept location, season, respondent gender, or origin) to represent all independent visitors. Tour groups may be intercepted, but their information is not included in these visit type analyses.

3 THE TRIP DIARY

The 2003 Survey of Visitors to Banff, Jasper, Kootenay, and Yoho National Parks used a very detailed form of the trip diary. Visitors were asked to report every activity they engaged in, its location, and its duration. This information was collected in a diary format so that a visitor's movements through the park could be tracked from point of entry to their final departure. Visitors were asked to refer to tables of activities, locations, and time periods and input the codes for each of these categories into daily records.

Diary Day (Sample) 2

Day of the Week	Month	Date
Monday	May	12
Time of Day	Activity	Place
1	4	J3
1	6	J3
2	31	J3
2	13	J3
3	32	J5
3	10	J8

Where did you spend the night? (Please see the Place, Accommodation Type codes inside the back cover of this survey form). If you had prepaid for your accommodation, please check the "Prepaid" box.

Place	Accommodation Type	CDN\$	Spending or Prepaid?
J3	1	\$150.00	<input type="checkbox"/>

Fig. 1. Detailed trip diary format.

AREA 2: While in the Crean/Kingsmere Lake area,

1. Did not visit the Crean/Kingsmere area
2. Took a scenic drive
3. **Activities at a picnic/day use area**
 - Point View Waskeiu River Birch Bay Kingsmere River day use area
4. **Activities at the Hanging Hearts Marina**
 - Sightsee Rent equipment Launch my boat Set up a guided tour
5. **Activities at the Hanging Hearts Lakes**
 - Fish Canoe Motorboat Kayak Sail
6. **Activities at Crean Lake**
 - Fish Canoe Motorboat Kayak Sail Camp
7. **Activities at Kingsmere Lake**
 - Fish Sail Canoe the Bagwa/Lily route
 - Canoe Camp Visit Grey Owl's cabin
 - Motorboat Use the marine portage
 - Kayak Canoe the Bladestone Wilderness route
8. **Trails used in the Kingsmere area**
 - Narrows Peninsula Kingsmere River Southend Grey Owl's cabin
9. **Other activity while in the Crean/Kingsmere Lake area**

Fig. 2. Simplified trip diary format.

We were never able to fully utilize the information about the duration, frequency, and the order of different activities in a meaningful analysis. Our most successful attempts at segmentation are based solely on data measuring to the activities reported and the locations visited.

Due to the large time commitment we were asking of visitors to provide us with information at this level of precision, the decision was made in 2006 to move to a more simple form of the trip diary. In the newer version of the trip diary, a park is divided into key areas and the main activities that can be performed in each area are listed. Visitors are asked to identify which activities they have participated in at each of the areas of the park.

The revised trip diary format allows us to perform the same behaviour-based visit type segmentation we conduct with the more detailed trip diary format. The reduced amount of effort required from the visitor makes this format the more attractive option.

The limitation of the revised trip diary format is that we are now unable to use the information that is collected in more sophisticated analyses. On of the original intents of the detailed trip diary format was to collect data to be used in developing simulation models of visitor behaviour. Moving away from this format, we are no longer able to pursue these models and analyses.

4 RESULTS

Visit type segments are identified using LatentGOLD® to estimate the latent class models. The variables entered from the 2003 Mountain Parks study are the list of activities reported in each of the five areas of the parks. For the other two parks, the activities and the areas of the park visited are entered as separate variables into the initial estimates.

This process generally identifies distinct visit type clusters that differ from one another in the type of activities reported, the areas of the park visited, or some combination of both of these dimensions.

As displayed in Table 1, there are two primary categories of recreational activities that emerge in these analyses. Activities labelled vigorous and those labelled passive. Almost all the visit type segments in each park report some degree of participation in passive activities. What distinguish the different segments are either additional reports of vigorous activities, or the specific locations in the park where activities are reported.

The 2003 Survey of Visitors to Banff, Jasper, Kootenay, and Yoho National Parks takes place in four contiguous Rocky Mountain parks situated on the border between Alberta and British Columbia and located

TABLE 1
PRIMARY ACTIVITIES BY TYPE

Vigorous	Passive
Hike/walk on trails/backcountry	Hike/walk in town site
Cycle	Drive/sightsee
Canoe/kayak	View wildlife
Fish	Bird watch
Swim	Photography
Golf	Picnic
Cross-country ski	Eat in a restaurant
Snowshoe	Shop



Fig. 4. Map of Banff, Jasper, Kootenay, and Yoho National Parks.

one hour away from a metropolitan area (Calgary, 1 million people) that report annual visitation in excess of 3 million people from all around the globe.

McVetty [2] identifies three key summer visit types in his analysis of the trip diary data, these include:

- 1. Getaway (Townsite) Visits (56%)** represent parties who engage in both passive and vigorous activities, primarily in the area around the Banff townsite.
- 2. Touring (Sightseeing) Visits (23%)** represent parties who engage in passive recreational activities along specific through-corridors within the four parks.
- 3. Park Experience Visits (21%)** represent visit parties who report engaging in vigorous activities across all five areas in the parks.

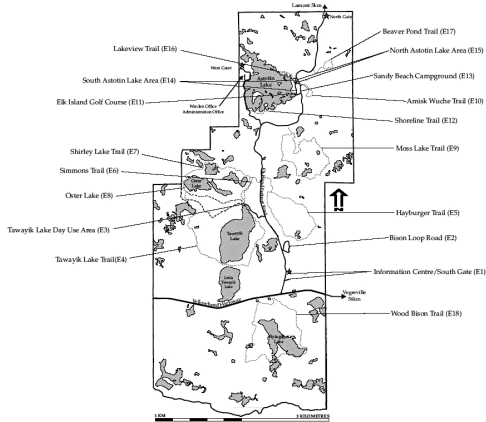


Fig. 5. Map of Elk Island National Park

Elk Island is a small, fenced park situated in central Alberta and located 45 minutes away from a metropolitan area (Edmonton, 1 million people) that reports annual visitation of approximately 100,000 people, largely from the regional area around the park.

Three visit types emerge among visitors to Elk Island:

1. **Sightseeing visits** (50%) represent parties who engage in passive recreational activities in multiple areas of the park.
2. **Park Experience Visits** (40%) represent parties who engage in active recreational activities throughout the park.
3. **Golfing Visits** (10%) represent parties who enter the park solely to use the Elk Island Golf Course.

Prince Albert is a park containing a townsite situated in the boreal forest of Saskatchewan and reporting visitation of approximately 200,000 people per year, largely from the regional area around the park.

Four visit types emerge among visitors to Prince Albert:

1. **Townsite Visits** (42%) represent parties who report both passive and vigorous activities, all within the townsite area of Waskesiu.
2. **Sightseeing Visits** (26%) represent parties who engage in passive recreational activities in multiple areas of the park.
3. **Park Experience Visits** (21%) represent

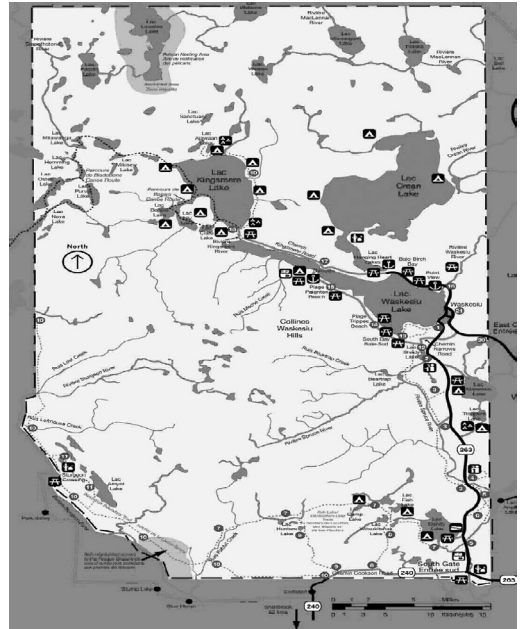


Fig. 6. Map of Prince Albert National Park

- parties who engage in passive and vigorous activities in multiple areas of the park.
4. **Single-Area Sightseeing Visits** (11%) represent parties who engage in passive recreational activities in one geographic area of the park.

These three studies are conducted in parks with large variations in the level of service and in the type and the number of vigorous recreational activities available. They draw their visitors from different geographic areas and the visitors to each park identify slightly different key motivating factors for coming to the park. Despite the differences in the visitors themselves, the ways in which they use the parks shows a remarkable consistency. The appearance of the same behaviour-based visit type segments begs the question as to why we would attempt to segment our visitors on any other dimension.

In all parks, the sightseeing visits are slightly more likely to be reported by first-time visitors and by visitors from origins farther away from the park. This is to be expected, with the emphasis of this visit type being to look around and view the highlights of the park.

The people on sightseeing visits, just like other visit types, rate the importance of 'experiencing the natural outdoors' as a primary motivator for their visit. This should serve as a reminder to park management that 'experiencing nature' is not a single construct for the range of visitors that we receive.

Despite variety in the scenery and the recreational opportunities available in the greater park ecosystem, townsites remain an important draw for visitors to Canada's national parks. For the two parks in this study with townsites, the visit type that concentrates their visits around townsites are not limited to engaging in passive recreational activities, as has largely been assumed. These visit types report that they engage in a variety of vigorous activities (similar to the park experience visit type). They tend, however, to simply concentrate their activities to those opportunities that are located in the areas immediately adjacent to the townsites.

5 CONCLUSION

The identification of consistent behaviour-based visit type segments across parks provides Parks Canada with the opportunity for the planning of new products and services at a multi-park level. Given that most management actions relate to visitor behaviour, the visit type segments presented in this paper can be effectively targeted for exploring new programs that may be of interest to these groups of visitors.

The sheer size of the sightseeing visit type in all national parks included in the current study serves as a good starting point for this process. The appearance of this visit type in each park allows us to plan further research at a scale larger than for visitors to a single park. The consistent presence of this visit type requires that Parks Canada review its

services that have largely ignored this group of visitors.

For those parks with townsites, the large proportion of visits that are focused around these areas also serves as a point of exploration for Parks Canada. Understanding the reasons across national parks for the lack of geographic dispersion by people engaged in this visit type can assist Parks Canada in determining how to develop additional product offers for this group of visitors. Contrary to previous assumptions, this group of visitors is not inactive; they simply limit their activities to those areas around the townsites.

The park experience visit type is the stereotype of what Parks Canada has long considered its visitors to be. Assessing whether the current program is consistently meeting the needs of this group is critical for us to meet our corporate goals.

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