

An Exploration into the Operating Status and Visitor Use over Ontario's Provincial Parks System

Wang Lian-yong and Paul F. J. Eagles

Department of Recreation and Leisure Studies, University of Waterloo

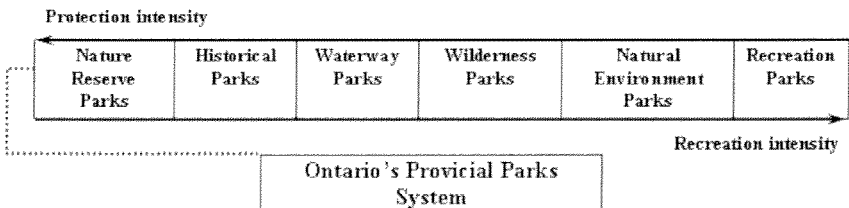
Abstract

In order to get a good understanding of the Ontario Provincial Parks System (OPPS), the authors have collected a complete set of basic data, including its classification, size, location and operating status for every single provincial park in Ontario. Then we created a small database to analyze the operating status and visitor use within the different classes. Based on the analysis, the authors have found some characteristics of OPPS while showing some concerns about human pressure upon some individual Nature Reserve Parks. The authors also made a recommendation that user data also should be collected for all non-operating parks, even if only on a sporadic basis.

Introduction

Keeping the balance between development and preservation has been constantly the main task for almost all provincial / state or national parks systems. This paper explores the balancing mechanism and how much it has been achieved in the OPPS. Ontario has a class system, ranging in recreation intensity, just as Figure 1 shows below.

Figure 1. The intensity of protection and recreation.



Nature Reserve Parks

Reconfirming the importance of natural heritage protection and preservation, the 1978 provincial park policies inherited the notion of Nature Reserve Parks from the

1967 classification. They are defined as *areas selected to represent the distinctive natural habitats and landforms of the Province, and are protected for the educational purposes and as gene pools for research to benefit present and future generations* (Provincial Parks Branch, 1978).

Among the four objectives of the provincial parks system, the Nature Reserve Parks mainly contribute to Protection and Heritage Appreciation. To guarantee the high-intensity protection, these parks use only three zones, including Nature Reserve Zones, Historical Zones and Access Zones. Scientific research is mainly related to life and earth sciences. All qualified researchers must gain the permission from the Ministry of Natural Resources. Recreational activities or facilities are extremely restricted, with only 11 types clearly allowed, and 9 possibly permitted in Access Zones. In Nature Reserve Zones and Historical Zones, none of the recreational activities are clearly allowed.

As of 2000, there are 98 Nature Reserve Parks among the 275 provincial parks. Within the 106 operating parks in OPPS, only two of them are Nature Reserve Parks. Table 1 contains basic information about these two parks.

Table 1. Operating Nature Reserve Parks information in 2000.

Name	Size	Location	Visitors	Day Use Visits	Visit Intensity	Day Use Rate
John E. Pearce	68 ha	Southwest	13,717	13,717	202 visits per ha	100%
Ouimet Canyon	777 ha	Northwest	32,489	32,489	42 visits per ha	100%

Table 1 tells us that John E. Pearce and Ouimet Canyon Provincial Nature Reserve Parks together accommodated roughly 46,000 day use visitors in 2000. There are no data for the other 96 parks of the class. However, it is realistic to assume that these parks did receive some level of usage.

Historical Parks

Historical Parks were first incorporated into OPPS in the 1978 policies. As a new class, they are defined as *areas selected to represent the distinctive historical resources of the Province in an open space setting, and are protected for interpretive, educational, and research purposes* (Provincial Parks Branch, 1978).

Historical Parks can be regarded as highly protected cultural heritage areas in Ontario. The main purposes were described as Protection and Heritage Appreciation.

Although this class provides for five different zones, Historical Zones and Natural Environment Zones cover the predominant proportion in theory and in practice. Within the Development Zones 17 recreational activities or facilities are clearly permitted, and 25 possibly allowed. In the Access Zones, only 14 are clearly permitted and 16 allowed, subject to a particular situation.

Up until 2000, there are four Historical Parks out of the total 275 provincial parks. Only Petroglyphs Provincial Historical Park holds an operating status. Table 2 conveys the Park's basic information.

Table 2. Petroglyphs Provincial Historical Park's Basic Information.

Name	Size	Visitors	Visit Intensity	Day Use Visit Intensity	Day Use Rate
Petroglyphs	1,643 ha	21,217	13 persons per ha	13 persons per ha	100%

Table 2 indicates that Petroglyphs Park hosted approximately 21,000 exclusively day use visitors with very little human pressure upon the park environment. It is probable that the other three parks received some use, but due to lack of staffing the use was not recorded.

Waterway Parks

The Wild River parks of 1967 were enlarged as Waterway Parks in 1978. Being concentrated in water bodies, they are defined as areas which *incorporate outstanding recreational water routes with representative natural features and historical resources to provide high quality recreational and educational experiences* (Provincial Parks Branch, 1978).

Waterway Parks involve both natural and cultural heritage; therefore, they serve all four objectives—Protection, Recreation, Heritage Appreciation and Tourism purposes set by the Provincial Parks policy. Theoretically, they are zoned into all possible six zoning types, among which Development Zones and Access Zones contain many recreational opportunities. Within Development Zones, 24 activities or facilities are surely allowed and 27 are optional depending on particular environmental considerations. In Access Zones, 16 activities or facilities are certainly allowed and 22 possibly permitted.

Until 2000, 30 Waterway Parks were established in Ontario, but only Missinaibi Provincial Waterway Park, located in the northeast region of the province, holds the operating status. Its related information is provided in Table 3.

Table 3. Missinabi Provincial Waterway Park's Operating Status, 2000.

Size	Visitors	Day Use Visitors	Camper Nights	Visit Intensity
99,090 ha	8,260	61	8,621	0.08 visits per ha

The difficulties of managing and operating Waterway Parks can be substantial even though Table 3 demonstrates this enormously large park hosted a low number of camper night visitors in 2000. It is highly likely that the other 29 parks in the class received use that was undocumented.

Wilderness Parks

Wilderness Parks originated from the Primitive Park class of 1967. In the 1978 policies, they are defined as *substantial areas where the forces of nature are permitted to function freely and where visitors travel by non-mechanized means and experience expansive solitude, challenge, and personal integration with nature* (Provincial Parks Branch, 1978).

By the standard of protection in life and earth sciences, a Wilderness Park, with its larger area size, provides an opportunity to protect extensive faunal or flora communities, a complete ecosystem or a wide ranging landscape instead of a specific species or a single geological wonder. Wilderness Parks principally function with 3 of 4 purposes — Protection, Recreation and Heritage Appreciation. Wilderness Parks have a four-type zoning system: Nature Reserve, Historical, Wilderness and Access Zones. Typically, the overwhelming proportion is taken by Wilderness Zones. Wilderness Parks provide limited recreational options. Fifteen activities or facilities are surely permitted and 12 possibly in Access Zones, whereas in Wilderness Zones 15 activities or facilities are certainly granted, four possibly allowed.

Up to 2000, eight Wilderness Parks had been established, among which four parks hold operating status. The operating parks' information is offered in Table 4.

Table 4 indicates that most of the visitors data came for overnight use in the four Wilderness Parks located in Northern Ontario, while the visit intensity is relatively low. Wabakimi Provincial Wilderness Park only receives 5 visits per sq. km. It is probable that the four non-operating Wilderness parks also received visitation, but this is not documented.

Table 4. Operating Wilderness Parks' information, 2000.

Name	Size	Location	Visitors	Day Use Visits	Camper Nights	Visits / ha	Camper Nights Rate
Killamey	48,500	Northeast	98,802	20,299	78,503	2.037	79.45%
Quetico	475,782	Northwest	133,976	3,628	130,348	0.282	97.29%
Wabakini	892,061	Northwest	4,552	-	4,552	0.005	100%
Woodland Caribou	450,000	Northwest	11,264	4,971	6,239	0.025	55.87%

Natural Environment Parks

Natural Environment Parks have played a very important role over the history of the OPPS. The 1978 policies defined them as areas which *incorporate outstanding recreational landscapes with representative natural features and historical resources to provide high quality recreational and educational experiences* (Provincial Parks Branch, 1978).

Natural Environment Parks can be understood as relatively large-sized areas with a strong recreation-oriented purpose. They serve all four objectives – Protection, Recreation, Heritage Appreciation and Tourism, but the latter three functions involve much more than Protection. Being similar to Waterway class parks, an average Natural Environment Park contains all possible six zoning types, and with an extra type of Recreation-Utilization Zone in Algonquin. Theoretically a Natural Environment park is predominantly occupied by Wilderness Zones and Natural Environment Zones with a relatively large proportion of Development Zones, while Nature Reserve and Historical Zones are sporadically distributed in the park. Within the Development Zones, 23 kinds of recreational activities certainly and 30 possibly are allowed; while 14 are surely, and 23 possibly permitted in Access Zones.

As of 2000, 65 Natural Environment Parks have been established, while 41 of them hold operating status, with a big share of 38.7% within the 106 operating parks. The 41 Nature Environment Parks had an annual record of 4,320,735 visits, which is 38.3% of all visitor use in the OPPS. On average, each park hosted 105,384 visits, much greater than those in the other classes.

Among these parks, Algonquin Provincial Natural Environment Park hosted the largest number of visitors. The parks with the top 10 visitation are:

List 1. The Top 10 Largest Host Natural Environment Parks in 2000.

1. Algonquin: 939,634
2. The Pinery: 481,847
3. Sandbanks: 438,419
4. Kakabeka Falls: 292,946
5. Killbear: 263,163
6. Presqu'île: 222,902
7. Lake Superior: 202,921
8. Bon Echo: 170,799
9. Rondeau: 159,453
10. MacGregor Point: 117,767

However, by the standard of day use visitation alone, Kakabeka Falls tops as 262,462, followed by Sandbanks with 252,701 and Algonquin with 240,865 respectively. By the standard of camper night visitation, the order is set by Algonquin with 698,769, The Pinery 382,596 and Killbear 247,786 respectively. It should be noted that Mono Cliffs, Forks of the Credit, Aubrey Falls and Short Hills are typically day use type parks without any camper night visitation, while the Massasauga Park does not have a record of day use visitation.

Due to high visitation and diverse recreational use, Nature Environment Parks experience substantial human pressure (List 2).

List 2. The Top 10 Most Intensively Used Nature Environment Parks (unit: visits per ha).

1. Kakabeka Falls: 585.89
2. Sandbanks: 290.34
3. Presqu'île: 237.89
4. The Pinery: 190.30
5. Killbear: 149.87
6. MacGregor Point: 97.81
7. Arrowhead: 85.11
8. Forks of the Credit: 68.11
9. Rondeau: 49.00
10. Restoule: 44.53

List 2 indicates that Kakabeka Falls, Sandbanks and Presqu'île can be ranked as the top class as most highly used parks, and followed by The Pinery, Killbear and MacGregor Point Parks. All of these sites require special attention by Ontario Parks.

Recreation Parks

Just as Figure 1 shows, Recreation Parks function as the most recreation-oriented areas within the OPPS. The pursuit of recreational value is a typical anthropocentric purpose of modern public parks. Therefore, Recreation Parks resemble urban parks to a great extent. The 1978 policies described Recreation Parks as *areas which support a wide variety of outdoor recreation opportunities for large numbers of people in attractive surroundings* (Provincial Parks Branch, 1978).

The policy further addresses, “*Recreation Parks contribute principally to the achievement of the recreation, heritage appreciation, and tourism objectives*” (Provincial Parks Branch, 1978). However, this does not imply all the Recreation Parks ignore the protection of natural or cultural heritage. Theoretically, Historical Zones and Nature Reserve Zones are incorporated into the zoning system as secondary land use areas within Recreation Parks, although Wilderness Zones can not be seen here due to the small park size. Apart from the Access Zones, both Development Zones and Natural Environment Zones function as the primary land use areas to serve the main recreational purposes. As many as 23 activities or facilities are permitted for certain, and 40 possibly allowed to occur in Development Zones, while 17 are certainly and 20 possibly permitted to exist in Access Zones.

Up to 2000, 70 Recreation Parks had been established, among which 57 parks hold the operating status. Together, the 57 parks hosted 4,224,845 visits in 2000. The largest top 10 host parks are listed in List 3.

List 3. The Top 10 Largest Host Recreation Parks, 2000.

1. Wasaga Beach: 1,316,163
2. Sibbald Point: 241,429
3. Bronte Creek: 236,504
4. Balsam Lake: 140,325
5. Earl Rowe: 135,134
6. Voyageur: 105,410
7. Long Point: 104,740
8. Darlington: 103,172
9. Turkey Point: 101,478
10. Lake on the Mountain: 90,911

Wasaga Beach impressively tops the list, followed by Sibbald Point and Bronte Creek Parks. However, in terms of camper night visitation, Balsam Lake tops with 125,096 visits, followed by Sibbald Point with 117,089, Earl Rowe with 77,843 and Voyageur with 77,678 visits. It also should be noted that Wasaga Beach, Bronte Creek and Lake on the Mountain Parks are typically day use type of Recreation Parks without any camper night visitation. Bronte Creek's new campground will open in 2002.

Now we will explore another interesting and important issue with regards to Recreation Parks. The top 10 Recreation Parks with the most intensive use are listed in List 4.

List 4. The Top 10 most intensively used Recreation Parks, 2000 (unit: persons per ha).

1. Sauble Falls: 2,492
2. Port Bruce: 2,467
3. Springwater: 1,323
4. Oastler Lake: 1,224
5. Sibbald Point: 1,073
6. Sturgeon Bay: 1,057
7. Emily: 1,035
8. Lake on the Mountain: 874
9. Wasaga Beach: 861
10. Bass Lake: 812

List 4 shows Sauble Falls and Port Bruce as the most highly used parks, followed by the second class of Springwater, Oastler Lake, Sibbald Point, Sturgeon Bay and Emily. It also should be noted that five of the 10 are camper night type parks, including Sauble Falls with 78.51%, Oastler Lake with 92.19%, Sturgeon Bay with 95.77%, Emily with 83.54% and Bass Lake with 70.32% overnight visitation rates. In contrast, Port Bruce, Springwater, Lake on the Mountain and Wasaga Beach hosted exclusively day use visitors.

Operation and Visitor Use Comparison among the Six Classes

Looking into the 106 operating parks, we find that 57 are Recreation, 41 are Natural Environment Parks, and the other four classes combined comprise only hold eight parks with operating status. In regard to visitor use distribution, 48.7% and 47.6% of the total 8,869,857 visits are concentrated within Nature Environment Parks and Recreation Parks respectively. Only 3.7% of all visitor use is taken by the other four classes of parks. Among the top 10 largest host parks, seven of them are Natural Environmental Parks and three are Recreation Parks. The top three of them are Wasaga Beach (R), Algonquin (NE), and The Pinery (NE).

In terms of day use visitation, Recreation Parks hosted 2,425,210 visits, taking 61.1% of the total of 3,971,814; followed by Environment Parks receiving 1,450,222 visits with 36.5% of the total. The other four classes of parks only host 2.4% of the total day use visitation. Among the top 10 largest host parks in terms of day use visitation, seven of them are Natural Environmental Parks and 3 are Recreation Parks. The top three of them are Wasaga Beach (R), Kakabeka Falls (NE) and Sandbanks (NE).

Looking into the camper night visiting information, we find that 58.6% of all visitation, with 2,870,714 visits, are concentrated in Natural Environment Parks; while 36.7% visitation, with 1,799,660 visits, occurred in Recreation Parks. This implies that the other four classes of parks combined accounted only 4.7% of overnight visits. Among the top 10 camper night host parks, seven of them are Natural Environmental, two are Recreation Parks and one is a Wilderness Park. Algonquin (NE) tops the list, Quetico as the largest camper night Wilderness Park ranks 7th, and Balsam Lake as the largest Recreation Park ranks 8th.

In order to get a precise value about the human pressure upon different classes of parks, we set the unit as visits per sq. km. The results are illustrated in Table 5.

Table 5. Human pressure upon different classes of parks in 2000.

Class	Recreation	Nature Reserve	Natural Environment	Historical	Wilderness	Waterway
Value (visits/km ²)	448,254	121,767	53,071	12,914	587	83

Table 5 shows that the operating Recreation Parks receive the highest average human pressure, seconded by Nature Reserve Parks and followed by Natural Environment and other classes of parks. According to the calculated results from the database, all of the top 15 parks receiving the highest human pressure are exclusively Recreation Parks. However, within the top 40 parks, 35 of them are Recreation Parks, four of them are Nature Environment Parks and the other one is John E. Pearce Provincial Nature Reserve Park.

Conclusion

Through the exploration of Ontario's existing provincial parks system, we can understand the following points:

- 1) As of 2000, the focus of the management and operation has been put on the Natural Environment Parks and Recreation Parks.
- 2) Too few operating Nature Reserve Parks have resulted in great human pressure upon highly protected areas such as John E. Pearce.
- 3) Much has been achieved in the designation of Provincial Nature Reserve Parks and Waterway Parks, while little has been done in their operation and management.
- 4) Based on much operating practice in Natural Environment, Recreation and Wilderness Parks, the park management principles, skills and techniques should be drawn out to support the operation of other classes

of parks.

- 5) The regular data input responsibility should be intensified to guarantee a more precise official statistics.
- 6) Use level data should be collected for all non-operating parks, even if in a sporadic basis.
- 7) The basic data in the official web site should be updated based on a dynamic database management system.

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