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## Birdwatchers' specialisation characteristics and national park tourism planning

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Decline in birding visitation to Point Pelee National Park stimulated investigation of recreation specialisation to better prepare programmes for birdwatchers. This research identified characteristics of birdwatchers' at three specialisation levels and advised park managers in the design and management of birding programmes. Research found that the intermediate and expert birders were similar to each other, and were different from the beginners. The beginners were a distinct group, from the more experienced groups, as they were more likely to be in their first year of bird watching, stayed the least number of nights in the local area, had the lowest expenditures, participated more in activities outside the national park, used more sources of information, and participated more in non-birding activities during their trip to the national park. The research found that this beginner group required programmes aimed at an introduction to the park, the regional area, birding, and a wide range of activities and sites. The more experienced birders required specialised programmes on bird identification, bird biology, and bird watching. The research concluded that bird watching management should be an integrated, regional activity, involving many public and private organisations, many of which occur outside the national park.

**Keywords:** national park; bird watching; self-classification; specialisation; visitor management; wildlife tourism

### Introduction

Bird watching has increased in popularity in both North America and abroad in the 20 years prior to the turn of the century (Hvenegaard, 2002; McFarlane, 1994; National Survey on Recreation and the Environment [NSRE], 2000–2002). Birdwatchers have varying levels of knowledge, skill, interest, and satisfaction due to different degrees of involvement, or specialisation, in bird watching. Point Pelee National Park is a major migratory stopover for birds and thus a popular birding destination (Parks Canada, 2007). The research by Butler and Fenton (1987), Fenton (1988), and Hvenegaard, Butler, and Krystofiak (1989) highlighted the significance of bird watching to this national park and the regional community. Point Pelee National Park is a top birding spot and has been ranked fifth overall on the continent (Konrad, 1996; Parks Canada, 2007). From 2002 to 2006, there was a 17%

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decline in park visitation (Parks Canada, 2007). In a typical year, park use is the heaviest in the May birding period, with approximately 20% of yearly use occurring in that 1 month (Parks Canada, 2007). Recently, a decline in birding visitation brought the use to below the capacity limits set in the park management plan. The park agency concluded that ‘serious competition from other birding destinations has reduced the park’s market share’ and ‘increasing site visitation in a sustainable manner will require a continued cycle of research, product development and marketing’ (Parks Canada, 2007, p. 32). Some of this decline could be due to a general decline in American travel to Canada after 2002 (Canadian Tourism Commission, 2004, 2007), since American visitation is a major component of Pelee visitation and this use has declined (Parks Canada, 2007). It is possible that part of the decline is due to some aspect of the national park’s education and recreation programmes that affect bird watching. The national park agency has no ability to deal with the macro issues of international travel, but the development of a better understanding of recreation specialisation can assist in improving recreation and tourism programmes for birdwatchers in this national park. The goal of this research was to investigate the characteristics of birders according to their level of specialisation in order to advise park managers on the design and management of birding programmes, both within the park and in the regional area.

The programmes offered for visitors to the Point Pelee National Park are provided by both park employees and by the staff and volunteers of the cooperating association, The Friends of Point Pelee. The programmes are highly coordinated between the two providers. In this research, no discrimination was made between those programmes provided by the park staff and those provided by the non-government, cooperating association. This paper uses the terms birdwatchers and birders as synonyms.

## Literature review

### *Recreational specialisation*

Bryan’s (1977) definition of the recreational specialisation construct as ‘a continuum of behaviour from the general to the particular, reflected by equipment and skills used in the sport and activity setting preferences’ (p. 175) has been widely used (Ditton, Loomis, & Choi, 1992; Hvenegaard, 2002; Kuentzel & Heberlein, 2006; McFarlane, 1994; Scott, Ditton, Stoll, & Eubanks, 2005; Scott & Shafer, 2001; Scott & Thigpen, 2003).

Bryan (1977) inferred a predictable movement into more specialised stages over time. However, there was no requirement that participants had to start at the ‘bottom’ and work their way to the ‘top’, but there was a tendency to ‘move toward the specialization end of the continuum’ (Bryan, 1977, p. 182).

Ditton et al. (1992) concluded that more specialised participants were more likely to focus on a more holistic experience when involved in an activity, as opposed to less specialised individuals who were more satisfied with superficial elements. This is important for classifying levels of recreational specialisation because it highlights the notion that as participants move along the specialisation continuum they can be identified by the amount of interest given to the activity, whereas less specialised participants have a much broader focus to their participation.

There may be multiple dimensions related to the progression of specialisation. Bryan (1977) believed specialisation to be more than just a measure of intensity, but instead is a developmental process in which participants progress to a higher stage of involvement with more time spent in the activity. Scott and Shafer (2001) used the concept of a

developmental process to examine the progression of an activity towards an end point and identified this progression to be based on behavioural and attitudinal measures. Behavioural indicators are a quantifiable means of measuring recreational specialisation because they include such factors as 'years of experience, frequency of participation, number of sites visited. . . monetary investments and distance traveled to participate in an activity' (Scott & Shafer, 2001, p. 326). Among these measures of behaviour, attitudinal measures should be noted. Higher levels of skill and knowledge may be acquired the longer a participant is involved in an activity. However, progression is dependent on the participant's desire to develop the skills and knowledge required to progress. Without that desire, it is possible for the participant to maintain a low level of specialisation, even as behavioural factors such as years of experience, number of sites visited, and types of equipment used, progress over time (Scott & Shafer, 2001).

Higher degrees of personal and behavioural commitment could be indicators that an activity may act as a central life interest for a participant. Commitment and centrality to lifestyle were identified by Hvenegaard (2002) as common components of specialisation frameworks. However, Scott and Shafer (2001) did not distinguish differences between commitment, involvement, and centrality.

There are multiple methods of determining levels of recreational specialisation. Number of years, frequency of participation, number and specificity of sites visited, amount of media used, desire to progress, as well as a level of personal and behavioural commitment are commonly used indicators (Bryan, 1977; Ditton et al., 1992; Hvenegaard, 2002; McFarlane, 1994; Scott & Shafer, 2001; Scott & Thigpen, 2003). Scott and Thigpen (2003) state that these various studies 'confirm that specialization is a useful framework for examining differences among individuals involved in the same recreational activity' (p. 201). Although there is little agreement between researchers about which methods are best, specialization as a framework can be applied to birding.

### ***Birder specialisation***

Researchers have used recreational specialisation as a conceptual framework to classify different groups of birders (Hvenegaard, 2002; McFarlane, 1994; Scott et al., 2005; Scott & Thigpen, 2003). Birders occur within heterogeneous groups (Hvenegaard, 2002). Specialisation groups included: less competent and more competent birders (Applegate & Clark, 1987), novice, advanced-active, and advanced-experienced (Hvenegaard, 2002), casual and committed birders (Kellert, 1985), casual, novice, intermediate, and advanced birders (McFarlane, 1994), as well as casual, involved, active and skilled birders (Scott & Thigpen, 2003). The variations in identified birder groups follow the basic specialisation continuum described by Bryan (1977), where participants range from general recreational interests to devoted interests in a specific activity.

Researchers used the constructed groups to identify the characteristics associated within each group to get a better sense about the extent of their heterogeneity. McFarlane (1994) revealed that birders' behavioural indicators and primary motivations range within specialisation groups; while casual birders sought an appreciative experience of enjoying the outdoors, novice and intermediate birders had a greater interest in contributing to conservation efforts. Hvenegaard (2002) birder groups (novice, advanced-active, advanced-experienced) were different in the amount of interest in birding and non-birding activities. Advanced-active birders were less interested than novice birders in non-birding activities; advanced-experienced birders had the most interest in birding-related activities. Scott and Thigpen (2003) found that variation tended to occur in: (1) birder's skills and

commitment levels and (2) the importance placed on other amenities. For example, novice birders reported more interest in 'areas of cultural and historic significance' (p. 202) than other birders. Scott and Thigpen also suggested that the groups did not differ significantly in terms of the age, gender, level of income, or place of residence variables. Lee and Scott (2004) studied highly specialised birders, finding that recreational specialisation could be conceptualised in terms of three distinct dimensions: behaviour, skill and knowledge, and commitment.

### ***Past birding research***

The birding literature often discusses topics such as local economic impacts, socio-demographics, and specialisation levels. Birders' ability to generate net economic value for a local community is quite substantial, although this value is often underestimated by local businesses (Hvenegaard et al., 1989; Scott, 2000). Hvenegaard et al. (1989) reported an average of CDN \$244 spent per trip, with an average of CDN \$66 per day, for a trip to Point Pelee. The daily expense increased as the number of days became longer.

The literature indicates that birders are slightly older; more employed in professional occupations; are more highly educated and have a higher household income than the general public (Applegate & Clark, 1987; Dickinson & Edmonson, 1996; Hvenegaard, 2002; Hvenegaard et al., 1989; Kellert, 1985). Advanced specialisation levels include more distance travelled and higher frequency of trips for birding (Scott & Thigpen, 2003). Hvenegaard (2002) found that age, income, and percentage of the population being male, increased with the specialisation level.

Although novice and less committed birder groups may include 25% of the birding population in the United States (Kellert, 1985), the analysis of this group is limited and is not as informative as studies on highly specialised birders (Hvenegaard, 2002; McFarlane, 1994). Exceptions to this include comparisons between novice birdwatchers and their more 'specialisation stage' or committed counterparts (Hvenegaard, 2002; Kellert, 1985; Scott & Shafer, 2001). In these comparisons, novice birdwatchers are characterised as infrequent participants, most concerned with the aesthetics of the birds and surroundings, and are content with any results. The committed birders, however, were described as having a high degree of commitment, knowledge, and focus in behaviour, and placed their personal fascination with birds as being beyond the aesthetics of the activity. There is literature available on the use of the recreational specialisation approach to gain an understanding of birding populations, but it has not yet been applied to programme design improvements. Therefore, this research uses a study of birder specialisation to better design programmes for birders within national parks and in adjacent regional areas.

## **Methodology**

### ***Site selection and initial data collection***

The popularity of bird watching at Point Pelee National Park and the abundant data on visitor profiles (Social Science Research, Ontario Service Centre, 2000, 2005, 2007) makes this park an ideal location to study birder specialisation and the associated park and tourism management. A survey of visitors occurred from late April through May of 2007, during the peak of the spring migratory season and the park's Festival of Birds. Survey distribution took place at the park's entry gate. To ensure randomness of the respondents, the person (over the age of 18) within the party with the next birthday after the date of

survey contact was asked to fill out the one-sided, bilingual (English and French) questionnaire at the end of their visit to the park. The questionnaire first sought to discover the percentage of park visitors that identified themselves as birdwatchers. From there, there were questions pertaining to demographics, trip information, perceived level of importance of facilities and services, and economic expenditures.

A total of 1088 randomly selected visitor parties were approached to participate in the survey, of which 963 agreed. A total of 386 questionnaires were filled out and returned, resulting in a 37% response rate and ensuring a sample representative of all visitors to the park during the survey period. For each of the selected individuals, data were collected upon visitors' entrance to the park on two variables; visitor origin and whether it was their first visit to the park. These data represented the expected variable; while identical data from the questionnaire was the observed variable. A chi-square test revealed that there was a significant difference between the expected and observed variables in both the origin and first visit questions, so weights were applied to the observed variable (the questionnaires) to ensure that they were representative of the expected variable (the entrance tally sheet). The weighted data was used for this study. With a 95% confidence level, the margin of error was  $\pm 4.9\%$  (Social Science Research, Ontario Service Centre, 2007). From the data set created from the completed questionnaires, three groups of birder specialisations were created.

### ***Division of birder specialisation***

Of the 386 completed surveys, 71% ( $n = 276$ ) of respondents identified themselves as a birdwatcher. Items such as self-reported skill level and identification abilities may reasonably measure birding involvement and provide a relatively easy means to differentiate users and the experiences they desire (Boxall & McFarlane, 1993; McFarlane, 1994). Scott et al. (2005) found that a self-classification measure, where respondents self-classified themselves, performed as well, if not better, than two other multi-item approaches in predicting birders' motivations. Self-classification has the advantages of being easy to administer, easy to analyse, and is a simple tool that enables comparison of levels of specialisation between destinations and events.

Following that approach, this study asked respondents to self-identify their level of expertise on a 5-point Likert scale, ranging from the beginner birdwatcher (1) to the expert birdwatcher (5). Later, the responses to the 5-point scale were further grouped into three birder specialisation groups. Points 1 and 2 on the Likert scale were collapsed together to create the 'beginner' group; Point 3 was categorised as 'intermediate'; and Points 4 and 5 were also collapsed together to create the 'expert' group. Numerous studies identified specialisation groups reporting advanced levels of expertise as well as basic or beginner levels of expertise (Hvenegaard, 2002; Kellert, 1985; McFarlane, 1994; Scott & Shafer, 2001; Scott & Thigpen, 2003). The group of intermediate levels of expertise was included in a few studies (McFarlane, 1994; Scott et al. 2005; Scott & Shafer, 2001). The use of three groups has two advantages, it allows the results to be more easily compared with other studies and it provides three groups of very similar sample size. The use of a wide variety of factors in specialisation can help develop a better sense of the differences between groups (Bryan, 1977).

The three specialisation levels became the independent variable for the data analysis, comparing it with all other variables in the data set through the use of cross-tabulations and then checking for significance, using analysis of variance (ANOVA) or chi-square analysis.

## Results

Of the respondents that identified themselves as a birdwatcher ( $n = 276$ ), 34% were classified as beginners ( $n = 94$ ), 37% as intermediate ( $n = 102$ ), and 29% as expert birdwatchers ( $n = 80$ ), a relatively balanced sample size in each group. The responses from these three groups were compared according to demographics, trip information, perceived level of importance, and economic expenditures.

### Demographics

The demographics collected from the three bird watching groups included: (a) the gender and age of respondents, (b) party composition, and (c) the number of years bird watching. The gender of birdwatchers in the three groups did not differ significantly ( $p = 0.96$ ), nor did their age ( $p = 0.69$ ) (Table 1). In all three groups, the majority of respondents indicated that they were female (60% for beginners, 61% for intermediates, 58% for experts). For the three groups, the majority of the three bird watching age groups were of 45 years of age or older. For beginners, 82% were aged 45 or greater, for intermediates 87%, and for experts 91%.

The party composition differed significantly among the three groups (Table 2,  $p < 0.05$ ). The most common composition reported among all three birding groups was 'seniors only, 55 and over'. The distribution for each expertise group was different. Over half of the intermediate and expert birders (54% and 57%, respectively) reported 'seniors only' party compositions, followed by about one-quarter (26% and 24%, respectively) of their party compositions consisting of 'adults only' (17–54). Beginner birdwatchers, by comparison, had more diverse party compositions (37% seniors only, 26% adults only, 27% seniors and adults mixed). They were also more likely to visit the park with children under the age of 16 (10%). The findings shown in Table 2 indicate that intermediate and expert birdwatchers groups had less diverse compositions than the beginners.

A statistically significant difference was found among the three groups ( $p < 0.01$ ) when comparing their level of expertise and the number of years they have been bird watching (Table 3). Of the beginner birders, 59% had 5 years experiences or less, compared with 10% of intermediates and 4% of experts. Neither the intermediate nor the expert birdwatchers reported being in their first year of bird watching; instead the majority of birdwatchers in each group (81% and 90%, respectively) reported having 10 or more years experience in the activity. None of the respondents in the expert group reported having less than 3 years of experience.

Table 1. Gender and age categories of birdwatchers.

	Beginner		Intermediate		Expert	
Gender of respondent	$n = 94$	%	$n = 101$	%	$n = 80$	%
Female	57	60	61	61	47	58
Male	37	40	40	39	33	42
$\chi^2 = 0.08, df = 2, p = 0.96$						
Age category	$n = 92$	%	$n = 99$	%	$n = 72$	%
17–24	1	1	1	1	1	1
25–34	6	7	2	2	3	4
35–44	9	10	9	9	3	4
45–54	28	30	28	28	17	24
55–64	24	26	24	24	23	32
65+	24	26	35	35	25	35
$\chi^2 = 7.38, df = 10, p = 0.69$						

Table 2. Party composition.

Party composition	Beginner		Intermediate		Expert	
	<i>n</i> = 92	%	<i>n</i> = 99	%	<i>n</i> = 72	%
Adults with children under 16	9	10	4	4	6	8
Adults only, 17–54	24	26	26	26	17	24
Seniors only, 55 and over	34	37	53	54	41	57
Adults and seniors mixed	25	27	16	16	8	11

Note:  $\chi^2 = 12.68$ ,  $df = 6$ ,  $p < 0.05$ .

Table 3. Number of years of bird watching.

No. of years	Beginner		Intermediate		Expert	
	<i>n</i> = 93	%	<i>n</i> = 101	%	<i>n</i> = 80	%
First year	19	21	0	0	0	0
1–2	11	12	1	1	0	0
3–5	24	26	9	9	2	4
6–9	13	13	10	9	5	6
10+	26	28	81	81	73	90

Note:  $\chi^2 = 105.18$ ,  $df = 8$ ,  $p < 0.01$ .

Unsurprisingly, the expertise level was positively related with years of birding experience, suggesting that the self-identified level of expertise is positively associated with years of experience (Figure 1).

### Trip information

The information collected about the trip included: (a) first visit to the park, (b) the information that prompted their visit to the park, and (c) the activities engaged in, while outside of the park. Respondents were able to select more than one information medium and one type of activity, resulting in the total percentage of responses being more than 100 in Tables 4 and 5.

There was a statistically significant difference in the number of first-time visitors present among the three birdwatcher groups ( $p < 0.01$ ) (Table 4). About one-third of beginner birders (32%) reported visiting the park for the first time. This is much higher than the 12% for intermediate and 9% first-time expert birders.

Information that prompted visitation to a birding location is useful for park managers wishing to promote the site to birdwatchers. A wide variety of responses were given among the three groups of birdwatchers. For the information that prompted birders to the park, six sources were statistically different (Table 5). The beginners were much more likely to use the Internet ( $p < 0.01$ ), travel guides/maps ( $p < 0.02$ ), road signs ( $p < 0.05$ ), newspaper/magazine ( $p < 0.04$ ), and a tourist information centre ( $p < 0.02$ ). The intermediates and the experts were much more likely to use information obtained from a previous visit to the park ( $p < 0.01$ ).

Beginner birdwatchers reported the widest variety of information prompts: the Internet (23%), travel guides/maps (12%), newspaper or magazine (9%), and tourist information centre (8%). Intermediates were more specific regarding the communication methods



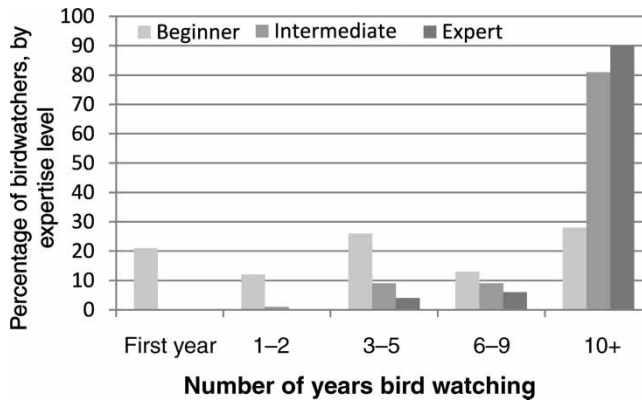


Figure 1. Number of years of bird watching, by expertise level.

Note:  $\chi^2 = 105.18$ ,  $df = 8$ ,  $p \leq 0.01$ .

Table 4. First visit of birdwatchers.

	Beginner		Intermediate		Expert	
	<i>n</i> = 94	%	<i>n</i> = 102	%	<i>n</i> = 80	%
First visit to the park						
Yes	29	32	12	12	6	9
No	65	68	90	88	74	91

Note:  $\chi^2 = 17.75$ ,  $df = 2$ ,  $p < 0.01$ .

Table 5. Information that prompted visitation.

Information source	Beginner		Intermediate		Expert	
	<i>n</i> = 92	% = 147	<i>n</i> = 100	% = 124	<i>n</i> = 79	% = 118
Internet <sup>a</sup>	22	23	19	20	4	5
Travel guides/map <sup>a</sup>	12	12	3	3	3	4
Road sign <sup>a</sup>	3	3	0	0	0	0
Park staff/called park	4	4	1	1	1	1
Newspaper, magazine <sup>a</sup>	8	9	1	1	4	5
Friends/family	25	27	15	16	14	17
Tourist info centre <sup>a</sup>	8	8	1	1	1	1
Previous visit to park <sup>a</sup>	45	49	74	74	62	78
Other (please specify)	11	12	8	8	5	7

Note: Percentages may equal more than 100%, due to the possibility of multiple responses.

<sup>a</sup>Reported difference is significant at the 0.05 level.

that prompted the visit: as previous park visits (74%), the Internet (20%), and friends/family (16%) were their three most commonly reported responses. Expert birdwatchers reported being prompted by a previous visit to the park the most (78%), followed by 17% of prompts from family/friends. This corresponds to the finding of 91% of expert birders being repeat visitors (Table 4). The other information prompts do not appear to elicit much response from expert birdwatchers, however, as the rest reported values of 5% or lower (Figure 2).

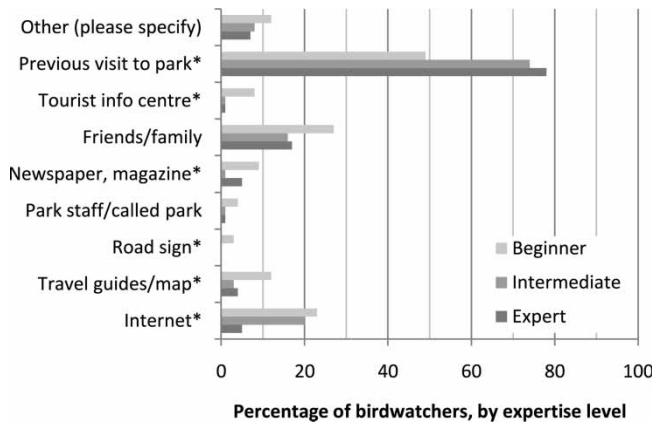


Figure 2. Information that prompted visitation, by expertise level.  
\* $p \leq 0.05$ .

### Activity participation

Of the activities engaged in while outside the park, during the trip, only three options reported a statistically significant difference among the three birding groups: visiting other natural areas ( $p < 0.01$ ), wineries ( $p < 0.04$ ), and boutique shopping ( $p < 0.02$ ) (Table 6). Approximately three-quarters of expert (77%) and intermediate birders (73%) reported going to other natural areas besides Point Pelee. Comparatively, only 36% of beginner birders reported visiting other natural areas. This shows that intermediate and expert birders are much more likely to visit other natural areas. The nearby protected areas often visited by birders are: Hillman Marsh Conservation Area; Wheatley Provincial Park; and, the provincial nature reserves on Pelee Island. Since none of these other protected areas offer birding programmes in May, it is clear that birders visit most of the sites to observe birds not to participate in programmes. Additionally, 26% of beginner birdwatchers participated in winery activities during their trip, which is much higher than the 12% of intermediate and 7% of expert birdwatchers.

These results show that the beginner birders are not as concentrated on birding as the other two groups. They tend to undertake a broader range of activities during their visit. Beginner and expert birders reported boutique shopping during their trip (13% and 12%, respectively). It is unclear how the respondents interpreted the phrase 'boutique shopping'. The specialised birding store, the Pelee Wings Nature Store, located in the nearby town of Leamington, might be considered a boutique shop.

### Importance ratings

Assessing the importance of different aspects of the park programmes is beneficial to park management as it can provide insight about what is high priority for the park's birdwatchers. Respondents were asked to rate the importance of 14 facilities, services, or educational opportunities using a 5-point Likert scale, where 5 = very important and 1 = not at all important. Five of the 14 importance ratings differed significantly in their results. These ratings with significant differences included: seasonal birding footpaths ( $p < 0.01$ ); educational activities for families ( $p < 0.01$ ); programmes about bird watching ( $p < 0.01$ ); programmes about topics other than bird watching ( $p < 0.01$ ); and, non-birding tours to other areas within the local region ( $p < 0.01$ ). The ratings which did not differ significantly

Table 6. Activities engaged in outside of Point Pelee National Park.

Activity	Beginner		Intermediate		Expert	
	<i>n</i> = 49	% = 164	<i>n</i> = 62	% = 137	<i>n</i> = 46	% = 168
Wineries <sup>a</sup>	12	26	7	12	4	7
Pelee Island	10	19	4	7	4	9
Golf course	1	2	2	3	2	5
Boutique shopping <sup>a</sup>	6	13	0	0	6	12
Cultural/historic/arts	11	21	5	8	7	16
Casino	2	4	1	2	3	7
Other natural areas <sup>a</sup>	18	36	46	73	35	77
Windsor	14	28	7	12	7	16
Other (please specify)	8	15	11	20	9	19

Note: Percentages may equal more than 100%, due to possibility of multiple responses.

<sup>a</sup>Reported difference is significant at the 0.05 level.

included: picnic areas/shelters; Nature Nook gift store; general site information; personal service from staff; shuttle from marina to park; food services at the visitor centre; food services at the marsh boardwalk; opportunities to learn new things; and a birding expert available on site.

All of the birders rated the importance of seasonal birding footpaths to be high (a rating of at least 4.00); expert birdwatchers reported a mean importance of 4.93, intermediates a mean of 4.79, and beginners birdwatchers were the lowest with a reported mean of 4.56 (Table 7). These results show that as the expertise level increases, the birdwatchers' perception of importance levels for the birding footpaths increases. This finding reveals that the more specialised the birder, the more importance is given to the foot paths that allow access to unique habitats and viewing areas throughout the park. Conversely, the importance given to the current educational activities for families decreases as specialisation

Table 7. Facilities and services (with statistically important results<sup>a</sup>).

Facilities and services	Beginner			Intermediate			Expert		
	<i>n</i>	Mean	Std. dev.	<i>n</i>	Mean	Std. dev.	<i>n</i>	Mean	Std. dev.
Seasonal birding footpaths <sup>b</sup>	82	4.56a	0.71	97	4.79b	0.55	76	4.93b	0.26
Educational activities for families <sup>c</sup>	79	3.38b	1.44	91	3.25b	1.45	71	2.51a	1.32
Programmes about bird watching <sup>d</sup>	84	3.92b	1.12	92	3.91b	1.29	75	3.38a	1.43
Programmes on topics other than bird watching <sup>e</sup>	80	3.23b	1.36	90	2.74a	1.39	70	2.49a	1.33
Non-birding tours to other areas within local region <sup>f</sup>	76	2.64b	1.29	87	1.98a	1.20	72	1.66a	0.98

Note: The letters a and b after the mean indicate statistical difference. Means with the same letters are not statistically different.

<sup>a</sup>Rated using a 5-point Likert scale where 5 = very important and 1 = not at all important.

<sup>b</sup>*f* = 9.34, *p* < 0.01.

<sup>c</sup>*f* = 8.21, *p* < 0.01.

<sup>d</sup>*f* = 4.59, *p* < 0.01.

<sup>e</sup>*f* = 5.98, *p* < 0.01.

<sup>f</sup>*f* = 13.76, *p* < 0.01.

increases. The expert birders place much less importance on programmes about bird watching than the other two groups. The beginners placed much higher significance on programmes involving non-birding programmes and tours within the local area.

These data reveal a pattern of importance rankings among the three specialisation groups. The beginner group places much higher importance than the experts on a wide variety of programmes, such as family education activities, bird watching programmes, programmes on topics other than bird watching, and non-birding tours outside the park. These findings on importance differences for some facilities and programmes have important implications for the national park programme planning.

### Expenditures

Travel expenditure questions measured the economic impact the birdwatchers had on the 60 km. area surrounding the park. This assessment included: (a) number of nights spent within 60 km of the park and (b) expenditures. The expenditure breakdown used the following categories: transportation; food/beverages; accommodations; entertainment; souvenirs; park fees/passes; other; and total expenses. Birders were placed into two residence categories: local and non-local. All birders whose main residence was beyond 60 km from the park were considered to be non-local birders.

The number of nights spent by each bird watching group differed statistically ( $p < 0.01$ ) (Table 8), with intermediate and expert birders reporting longer visits. Almost half of the non-local, overnight, beginner birdwatchers (45%) reported staying for two nights within 60 km of Point Pelee. About 9 out of every 10 (87%) beginners stayed three nights or less, revealing that beginner birdwatchers' trips last for shorter lengths of time within the local area.

Figure 3 shows that birding at Point Pelee and the surrounding area is a relatively long-stay visit, with substantial numbers of park visitors staying in the area for longer than three nights. It also illustrates that intermediate birders' stay length peaked with 40% of their respondents having stayed three nights; the next most frequent responses were four to six nights and two nights (22% and 21%, respectively). Expert birders had a wider range of responses; nearly one-third (29%) reported staying only two nights, although almost the same response (25%) was reported for four to six nights. However, over one-fifth (22%) reported staying overnight for at least 1 week (7+ nights), and 6% staying more than 2 weeks. These data reveal that as the expertise levels of birdwatchers increase, their likelihood of staying within the local area for longer periods of time also increases. This is an important finding for park tourism programme planning.

Table 8. Nights spent within 60 km of the park by non-local birdwatchers.

Nights spent	Beginner		Intermediate		Expert	
	<i>n</i> = 45	%	<i>n</i> = 63	%	<i>n</i> = 53	%
1	10	21	9	14	5	8
2	20	45	13	21	15	29
3	10	21	26	40	9	16
4–6	2	5	13	22	12	25
7–13	1	2	1	2	9	16
14–20	2	5	1	2	1	2
21+	0	0	0	0	2	4

Note:  $\chi^2 = 34.71$ ,  $df = 12$ ,  $p < 0.01$ .

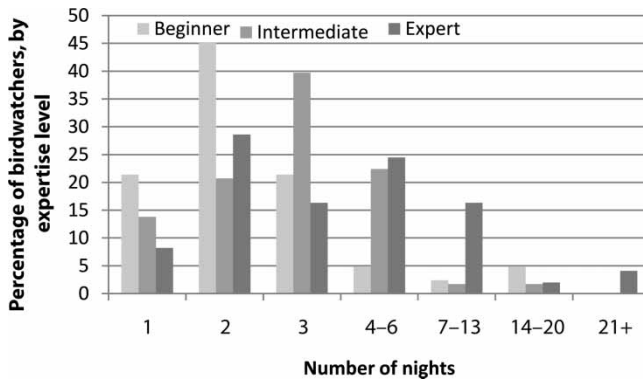


Figure 3. Length of stay within 60 km of Point Pelee, by non-local birdwatchers. Note:  $\chi^2 = 34.71$ ,  $df = 12$ ,  $p \leq 0.01$ .

Since the expenses of park visitors who were from the local area may not be entirely tourism-related, only non-local birdwatchers are considered within this analysis. The results were calculated from the non-local birders who reported staying within 60 km of the park for at least one night. Among the eight expenditure categories, the ANOVA revealed that the birder groups reported statistically significant differences for only three categories: accommodations ( $p < 0.05$ ); park fees/passes ( $p < 0.01$ ); and total expenses ( $p < 0.03$ ) (Table 9). Non-local birdwatchers that spent at least one dollar were used in the calculations.

In the case of accommodations, beginner and expert birdwatchers were statistically different in the average amount of money spent ( $M = \$242.22$  for beginners,  $M = \$389.89$  for experts) ( $p < 0.05$ ). The intermediate birders were not different from either of the other two groups, falling between them. This pattern can also be seen in the total mean expenses of the birding groups. Non-local beginner birders spent an average of \$330.68 in total within 60 km of the park, whereas non-local expert birders spent an average of \$549.38. Intermediate birders did not differ significantly, and averaged \$489.07 spent during their time within 60 km of the park. The results for the mean total of park fees/passes differed slightly from the previous two results. Non-local beginner birders, once again, reported the lowest average spent ( $M = \$21.23$ ) and non-local expert birders reported the highest mean average spent on park fees/passes ( $M = \$35.95$ ). The distinction in this analysis is that the intermediates' expenditures ( $M = \$34.90$ ) differed from the beginners, but not the experts. These findings illustrate increased expertise levels were positively correlated with larger expenditures within 60 km of Point Pelee (Table 8, Figure 4). This finding is most important for the private tourism businesses that provide all of the transportation, accommodation, and most of the food services in the regional area.

## Discussion

This study reveals that a three-category recreation specialisation approach is useful in understanding birders visiting a national park. It can help park and tourism managers design programmes that are appropriate for varying levels of expertise. Some of these implications will now be discussed.

Table 9. Expenditures within 60 km of the park (with statistically significant differences<sup>a</sup>).

Categories	Beginner			Intermediate			Expert		
	<i>n</i>	Mean	Std. dev.	<i>n</i>	Mean	Std. dev.	<i>n</i>	Mean	Std. dev.
Accommodations	38	\$242.22a	266.72	54	\$329.51a,b	250.39	49	\$389.89b	319.59
Park fees and passes	52	\$21.23a	11.63	60	\$34.90b	20.60	60	\$35.95b	29.94
Total expenses	56	\$330.68a	404.70	65	\$489.07a,b	425.41	63	\$549.38b	536.25

Note: The letters a and b after the mean indicate statistical difference. Means with the same letters are not statistically different.

<sup>a</sup>Calculated using open-ended question; exact figures input.

\* $p < 0.05$ .

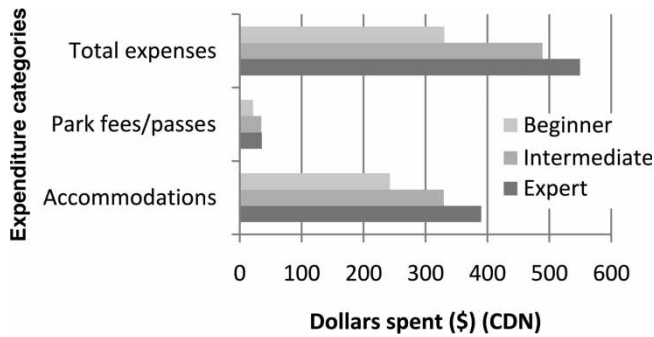


Figure 4. Expenditures within 60 km of the park, by non-local birdwatchers. Statistically significant differences only  $p \leq 0.05$ .

### Demographics

At Point Pelee, there were no significant differences with respect to gender and age among the three bird watching specialisation groups. The Pelee birder's age was older than found in most studies (Burr & Scott, 2004; Hvenegaard et al., 1989). The Pelee respondent group had more females than males, in all three categories. Burr and Scott (2004) found that attendees to a birding festival were predominately female, while Hvenegaard (2002) found a predominance of females at one birding festival and males at another. These results which do not show differences in age and gender among the specialisation groups differ from Hvenegaard (2002) who found that age and percentage of the population being male increased with the specialisation level. The research found that age and gender are not important variables in regards to birding specialisation at Point Pelee and therefore not important for the birding programme design.

The study found that birdwatchers with more years of birding experience also reported higher levels of birding expertise (Table 2,  $p < 0.01$ ), suggesting that expertise increases as more experience is gained. Therefore, in this research, birding expertise is positively correlated with years of birding experience. Hvenegaard (2002) also found that age was positively correlated with the level of experience. Such a finding is intuitively obvious; the longer a person participates in an activity, the more expertise will be developed.

However, an important finding at Pelee was that 28% of beginner birdwatchers reported 10 plus years of experience. This indicates that a portion of birdwatchers do not progress beyond the beginner level, even after 10 years of experience (Figure 1). This supports Scott and Shafer (2001) finding that an individual's skill and knowledge (which may increase their self-perception of the expertise level) are dependent on their *desire* to progress to a higher expertise level. Without this desire, it is possible for the participant to maintain a low level of specialisation, even when behavioural factors such as years of experience increase.

### Trip information

Beginner birders were more likely to be visiting the park for the first time compared with the other two birding groups ( $p < 0.01$ ) (Table 3). The information that prompted the birdwatchers' visits to the park showed significant differences among the birder groups. The less experienced birders (mostly beginners) used a broad range of information sources, likely because they were first-time visitors and needed many sources and types of information for planning and operating their trip. The majority of experienced birdwatchers

(intermediates and experts) used highly specific information resources, including their own knowledge from previous visits and from family or friends. These findings suggest that the more trips a birdwatcher takes to the park, the less likely they require various forms of media in order to be prompted to visit. This suggests that the standard tourism information sources are most necessary and valuable for beginners.

### *Activity participation*

Beginner birdwatchers were more likely to participate in non-birding activities during the trip to Point Pelee. Although one-third of beginners visited other natural sites, they were also more likely to visit Windsor, wineries, cultural or historic sites, and Pelee Island than their more experienced birding counterparts. These results support the literature that suggests that less experienced birdwatchers place a higher importance on other amenities in the area and generally have a broader range of focus in their participation (Ditton et al., 1992; Scott & Thigpen, 2003). Intermediate and expert birdwatchers are more likely to visit other natural areas outside the national park than beginner birders. Committed birders have been described as having more knowledge and focus, as well as a higher personal fascination with birds than less committed birders (Kellert, 1985; Scott & Shafer, 2001). This may result in having more knowledge about other locations to go birding, and a higher desire to seek specific birds at locales outside the national park. The national park information programme has sighting books and sighting boards in the visitor centre that post locations of all rare bird sightings in the park and in the local area. This research reveals that the intermediate and expert birders are much more likely to utilise this information and travel throughout the regional area to observe these rare birds. This reveals that bird watching at Point Pelee National Park also involves bird watching at other nearby natural areas, implying that a programme involving bird watching management must be a regional, integrated activity. This means that the Essex Region Conservation Authority, which manages the Hillman Marsh Conservation Area, Ontario Parks, which manages Wheatley Provincial Park and two nature reserves on Pelee Island, should be involved with the regional, bird watching programme management. However, it is our feeling that the birding activity is centred at Point Pelee. The poorly developed birding programmes at the other sites mean that the birders centre their activities at the national park, typically travelling to the other sites after being informed of the presence of rare birds through the programmes available at the national park.

### *Importance ratings*

Four out of the five significantly different importance ratings for park services and facilities were for educational opportunities. This is important to note since ecotourism and wildlife tourism are often seen as having a strong educational component (Fennell, 2008; Newsome, Dowling, & Moore, 2005). Therefore, finding that differences occur in the importance given to educational services by different specialisation groups can lead to management prescriptions. For all four of these ratings of educational programmes, beginner birdwatchers reported the highest mean perceived importance. For the 'educational activities for families' and 'programmes about bird watching' ratings, the intermediate birders were similar to the beginners, whereas the experts reported the lowest importance levels for both programmes. This reveals that the beginners and intermediates place more importance on family educational programmes and bird watching programmes than do the experts. The experts may have more experience in the park, have already participated



in the programmes, and feel that they already have the information provided by the programmes.

'Programmes on topics other than bird watching' and 'non-birding tours to other areas within local region' were both perceived as having low levels of importance by the intermediate and expert birders alike, while the beginner birdwatchers' mean perceptions of importance were comparatively higher and therefore statistically different from their counterparts. This reveals that the non-birding programmes and non-birding tours were more important to the beginners.

These results reveal that the current programmes are important to some expertise levels of birders. However, the current programmes are currently catering most successfully to the less specialised groups. This relationship of educational programme importance and specialisation is an important finding for park managers because the current educational programmes are not given high importance by the more specialised birders. This suggests that the park does not provide programmes that are clearly identified as being for different levels of expertise.

The differences in importance rankings show that the programmes offered by the park and by the associated Friends of Point Pelee should be provided at various levels, probably at two levels, some for beginners and some for experts. The programmes for the beginners should take the form of broadly based programmes that cater to general interest. These programmes should attempt to stimulate a level of interest in the beginners that encourages return visits at a later time. New programmes with more specialised content on birds and bird watching skills are required for the most specialised group. In order to increase the overall bird watching visitation in the park, one park programme goal (Parks Canada, 2007), both types of programmes are needed.

### ***Expenditures***

Financial questions were included in the questionnaire to find out the impact which the bird-watchers had on the surrounding area of the park, defined as being within 60 km of the park. This assessment included: (1) number of nights spent within 60 km of the park; (2) type of accommodation used in the area; and (3) an expenditure breakdown of several categories. All birders whose main residence was beyond 60 km from the park were considered to be non-local birders. Since the expenses of park visitors who were considered to be from the local area may not be entirely tourism-related, only non-local birdwatchers were considered within this analysis.

The majority of non-local, beginner birders reported staying within 60 km of the park for three nights or less. This birding group also reported spending, on average, the least on accommodations, park fees/passes, and total expenses. Intermediate birdwatchers stayed longer within the local area than the beginners, but remained for less than 1 week. Non-local, expert birdwatchers reported a wide variety of trip lengths spent 60 km from the park, but stayed the longest with one in five spending 1 week or more. This extended length of stay corresponds with their high levels of commitment, and the highest average expenditures on accommodations, park fees/passes, and total expenses. Three-quarters of the experts travelled to other natural areas during their trip. The literature suggests that longer distances travelled, a higher frequency of trips, and a higher desire for achievement are characteristics of the expert birdwatchers (Hvenegaard, 2002; Scott & Thigpen, 2003).

The longer stay length and the higher expenditure levels of the non-local expert birdwatchers make them a desirable tourist group. Long-stay, high-expenditure tourists are a coveted tourism market. Therefore, all those involved in delivering programmes to this group should work towards providing the services and programmes that they desire.

With carefully designed programmes involving the national park, other park management agencies, and the many private industry operators involved in accommodation, transportation, and food provision, the valuable expert birding tourism group can receive the targeted programming they require. In addition, it also may suggest that a birding trail through the Essex County involving all of the key birding locations could be a useful addition to the tourism programmes of the area. A well-designed trail can provide the information, programmes, accommodation, and other services that encourage long-term stay and movement to the birding sites throughout the Essex County. Significantly, operation of this trail would involve several park agencies and many private tourism businesses in a coordinated enterprise. A self-guided trail could utilise electronic maps, cell phone technology, and the Internet to provide an up-to-date, interactive information programme available to birders in the field. In 2009, one of the authors observed a few birders starting to use this technology to communicate sightings and locations to each other, in an ad hoc, experimental fashion.

### **Conclusions**

This study found that there were differences and similarities among the three groups of birders who provided important information to help the park management and tourism planners in the design of programmes for different levels of birding specialisation. Generally, the intermediate and expert birders were similar to each other, and were different from the beginners. This means that the beginners were a distinct group that required targeted programmes and services that were different than those needed by the more specialised birders.

These findings echo those of Burr and Scott (2004) who found regional birding festivals attracted visitors with a variety of specialisation levels, including the less specialised who combine birding with other leisure activities. This research finding is similar to that of Ditton et al. (1992) and Hvenegaard (2002) who concluded that more specialised participants were more likely to focus on a more in-depth experience when involved in an activity, opposed to less specialised individuals who were more satisfied with less in-depth elements and had a broader set of interests.

Beginner birdwatchers were most likely to report being a first-time visitor, to be within their first year of bird watching, and to stay for the least number of nights within the local area surrounding the park. They also had the lowest average expenditures of the three groups. Over one-quarter of the beginner birders reported having 10 or more years experience, showing that a portion of long-time birdwatchers do not move beyond the beginner level. This finding is similar to that of Scott and Shafer (2001) who found that some birders maintain a low level of specialisation, even as behavioural factors such as years of experience, number of sites visited, and types of equipment used, progress over time.

Beginner birdwatchers were interested in bird watching and going to natural areas, but were also interested in a wide variety of activities. Beginner birdwatchers reported higher participation rates in activities outside the park, and using more sources of information that prompted their visit. These findings suggest lower levels of commitment and reflect a lower amount of focus on bird watching. Since the beginner group placed much higher importance on a wide variety of park provided programmes, such as family education activities, bird watching programmes, programmes on topics other than bird watching and on non-birding tours outside the park, the park visitor education programmes should concentrate on these topics if the desire is to satisfy the beginning birder, and hopefully produce an individual who is more likely to return in the future.

The majority of intermediate birdwatchers reported 10 or more years of birding experience, and had visited the park before. The majority of non-local, intermediate birders stayed within 60 km of the park between two and six nights; with very few staying longer than 1 week. Although information that prompted intermediates to visit Point Pelee was mostly based on previous visits, they were also prompted by information found on the Internet. The expenditures reported by intermediates were situated between the other two groups, with spending trends similar to the expert birdwatchers. It appears that the park programmes are currently appropriate for this group.

Expert birdwatchers were most likely to travel the furthest distance, stay overnight the longest, and visit the park most frequently. They appear to be the most highly specialised, not only in their level of knowledge and years of experience bird watching, but also in the activities they choose to participate in during their trip. Due to this high level of specialisation and repeat visitation, they reported using few information sources for the trip. Staying the longest also translated into reporting the highest mean expenditures of the three groups. This is a very important group to the tourism industry in the local area because of their long-stay, high-expenditure levels, and high return rate.

The education programmes provided in the national park appear to be most appropriate for the less specialised birders, both beginners and intermediates. New programmes with more specialised content on bird biology, bird field identification, and bird watching techniques are desirable for the specialists. An electronic birding trail might be a valuable new programme. In addition, the expertise levels of the programmes should be clearly identified to the birders to enable self-selection.

This research supports McFarlane (1994) who stated that 'a bird watching program should emphasize a variety of potential experiences and these experiences should be tailored to meet the needs of specific groups of birders in order to maximize their satisfaction' (p. 368). The strength of this Pelee study is the segmentation of visitors in terms of the specialisation level, which is able to inform and assist park programme designers in developing and organising specific programmes and promotional materials that will be attractive and satisfying to people with varying amounts of interest.

This study did not ask the respondents the types of equipment owned or used. However, from the authors' personal knowledge, it is known that the national park, the provincial parks, and the conservation areas do not provide rental or sales of birding optical gear. However, a local entrepreneur provides an extensive range of such equipment for sale to birders.

In addition, the findings highlight that the entire tourism service industry, involving the national park, conservation authority, provincial park agency, regional tourism bureaus, restaurants, as well as information, transportation, and accommodation providers, should work together to assist the beginning birders by providing all the information, programmes and services necessary to encourage this novice group to undertake birding at Point Pelee and in the regional area. Accordingly, the expert birders could be assisted by carefully designed birding trails throughout the regional area. However, since the level of skill of birders is negatively correlated with satisfaction with programmes (Burr & Scott, 2004), the more specialised birders are harder to please and require very well-designed programmes. The very long visit period, over 1 week in length for many expert birders, requires a programme that provides a continually enriching experience as the visit experience deepens their knowledge. Probably the best tactic for the experts is an adaptive management approach, with programme operation followed by monitoring, and then programme modification based on the outcomes of the monitoring.

This research shows that the utilisation of a recreation specialisation approach is valuable in developing an understanding of birdwatchers' preferences and behaviours in

relation to park management issues and tourism management concerns. Also, this approach can provide information that can be used by the national park and the other tourism industry partners to better provide services and programmes to this important nature-based tourism activity.

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