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The Gendered Nature of Serious Birdwatching

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This article provides insight into how gender is related to indicators of recreation specialization and serious leisure among birdwatchers. Males were more likely than females to take birdwatching trips, report that they could identify more birds by sight and sound, and said that they possessed more birding-related equipment. Males and females, however, did not differ in their level of commitment and indicators used for measuring serious leisure. Both men and women were equally likely to report that birdwatching provided them durable benefits over time. Males were more likely to report that birdwatching allowed them to display their skills, whereas females ascribed greater importance to birdwatching as a form of personal enrichment, enjoyment, satisfaction, and recreation. Results led to the conclusion that male and female birdwatchers are equally serious about birdwatching, but display different styles of birdwatching. These different styles of involvement suggest that participation in birdwatching is gendered.

Keywords birdwatching, recreation specialization, serious leisure, gender

Introduction

Two concepts—recreation specialization and serious leisure—dominate how researchers study people's participation in complex forms of leisure and outdoor recreation. Both perspectives assume that participants can be arranged along a continuum of participation from casual to serious, and some participants identify strongly with their respective avocations. Recreation specialization has been used extensively to understand diversity among birdwatchers and confirmed that participants vary in their frequency of participation, commitment, skills, motivations, and conservation activities (McFarlane, 1994; McFarlane & Boxall, 1996; Moore, Scott, & Moore, 2008; Scott, Ditton, Stoll, & Eubanks, 2005). Serious leisure has been used sparingly to study birdwatchers. In one study of note, however, Tsaur and Liang (2008) reported that dimensions of serious birdwatching were correlated with dimensions of recreation specialization.

At first blush, birdwatching is an activity that appears to be gender neutral. Unlike fishing and hunting, there are roughly equal numbers of men and women who observe birds as a primary form of recreation (U.S. Department of the Interior, 2012).[1] Nevertheless, a handful of studies show that men are more likely than women to display a specialized style of participation (McFarlane & Boxall, 1996; Moore et al., 2008). In contrast, Scott, Cavin,

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and Lee (2005) reported that females were just as committed to birdwatching as males, but were less driven to accumulate life lists and travel long distances to see birds. To date, no published studies have used the serious leisure concept to study differences in birdwatching between men and women.

There are good reasons to incorporate indicators of both recreation specialization and serious leisure in an examination of gender differences in birdwatching. Although the two concepts share similarities (Lee & Scott, 2013; Scott, 2012), they evolved separately and researchers have used different dimensions to categorize participants along continuums of involvement. Researchers thus remain unclear about whether or not specialization and serious leisure are conceptually similar or different. The inclusion of both constructs may clarify how gender is related to birdwatching participation. This article is the first of its kind to compare how males and females differ across different indicators and dimensions of specialization *and* seriousness. Results provide researchers and natural resource managers with a better understanding of how gender is related to birdwatching participation.

It is important to note that this article focuses on gender differences, not sex differences. Sex is generally considered a biological reality while gender is a *social construction*. Gender is a more complex term than sex and emphasizes that male and female differences stem from social and cultural contexts that are deeply embedded in society. This means that observed differences between males and females in leisure participation are not biological facts but a product of "the social expectations and cultural definitions associated with one's biological sex" (Jackson & Henderson, 1995, p. 33).

Literature Review

Recreation Specialization

For decades, researchers have used the concept of recreation specialization to explain intra-activity differences among outdoor recreation participants. The perspective maintains that within any given outdoor recreation activity, participants can be arranged along a continuum from casual to committed, and along the continuum there are characteristic styles of participation (Bryan, 1977, 1979). Researchers regard specialization as multidimensional and define the construct in terms of affective attachment and commitment, frequency of participation, level of skill, and equipment preferences and expenditures (Kuentzel & Heberlein, 2008; Oh, Sutton, & Sorice, 2013; Schroeder, Fulton, Lawrence, & Cordts, 2013; Scott & Shafer, 2001; Waight & Bath, 2014).

In most studies, specialization has been treated as an independent variable to predict other facets of outdoor recreation participation, including motivations (Lee, Graefe, & Li, 2007), substitution decisions (Needham & Vaske, 2013; Oh et al., 2013), place attachment and dependence (Bricker & Kerstetter, 2000), setting and resource preferences (Beardmore, Haider, Hunt, & Arlinghaus, 2013), information sources used when planning trips (Cole & Scott, 1999), participation in conservation activities (McFarlane, 1996), and management preferences (Salz & Loomis, 2005; Waight & Bath, 2014). Although level of specialization is related to these and other aspects of participation, it is important to note that dimensions of specialization co-vary. Kuentzel and McDonald (1992), for example, observed that level of experience, commitment, and lifestyle choices do not increase in a linear fashion. This means that dimensions of specialization tend to be more or less related to other variables of interest. Kuentzel and McDonald (1992) advised against creating a composite index of specialization by summing scores across different measures of the construct. Instead, they

favored the examination of how different dimensions of specialization were independently related to other variables of interest.

Implicit in the specialization concept is the idea people progress to higher stages the longer they participate in an activity. Bryan (1979) regarded specialization as a developmental process whereby participants devote themselves increasingly to a particular activity and, over time, it becomes a central life activity. Progression, however, may be the exception rather than the rule (Backlund & Kuentzel, 2013; Oh, Sorice, & Ditton, 2011; Scott & Lee, 2010). Various life course changes, contingencies, and competing interests conspire to keep most people from progressing to higher stages of participation (Kuentzel & Heberlein, 2008; Scott & Shafer, 2001). Nevertheless, progression does characterize some people's involvement in outdoor recreation and participants can be observed honing their skills over time and becoming increasingly committed to a favored activity.

Serious Leisure

The serious leisure concept, developed by Stebbins (1982, 1992a, 2007), provides in-depth descriptions of people engaged in complex leisure activities. Stebbins (1982) defined serious leisure as "the systematic pursuit of an amateur, hobbyist, or voluntary activity that participants find so substantial and interesting . . . that they launch themselves on a career centered on acquiring and expressing its special skills, knowledge, and experience" (p. 3). Stebbins put forth six distinguishing characteristics of serious leisure: perseverance, career progress, display of personal effort based on advanced knowledge and training, acquisition of enduring benefits, a strongly held identity, and participation within unique social worlds. Serious leisure has been applied to a myriad of indoor and outdoor activities, including contract bridge (Scott & Godbey, 1992), dancing (Brown, 2007), quilting (Stalp, 2006), surfing (Cheng & Tsaur, 2012), birdwatching (Tsaur & Liang, 2008), and outdoor adventure pastimes (Stebbins, 2005a).

Stebbins (1997, 2007) originally defined serious leisure in opposition to casual leisure. The latter includes activities, such as napping and watching television, that require limited skills and are pursued for temporary pleasure. Other researchers, however, have argued that serious leisure and casual leisure exist along a continuum of involvement (Barbieri & Sotomayor, 2013; Shen & Yarnal, 2010). Consistent with recreation specialization, these researchers contend that there are gradations of seriousness within any given leisure activities and participants are likely to manifest varying degrees of perseverance, identity, effort, and social world participation. This realization came to light only when researchers sought to quantify and measure serious leisure. Until recently, almost all studies on serious leisure have been qualitative or ethnographic where standard indicators of seriousness were not employed (Scott, 2012). The Serious Leisure Inventory and Measure (SLIM), developed by Gould, Moore, McGuire, and Stebbins (2008), however, was an early effort to quantify the six dimensions of serious leisure. Another early effort to measure serious leisure was pursued by Tsaur and Liang (2008).

Recreation specialization and serious leisure evolved separately and only recently have scholars begun examining empirical linkages between the two concepts. Stebbins (2005b, 2007) opined that specialization and commitment are outcomes of serious leisure. In a study of birdwatchers, Tsaur and Liang (2008) found that six dimensions of serious leisure (perseverance, personal effort, career, unique ethos [i.e., social world participation], identity, durable benefits) were moderately predictive of three indicators of specialization (past experience, centrality, economic commitment). More recently, in a study of members of the American Birding Association, Lee and Scott (2013) found that four dimensions of

serious leisure (perseverance, personal effort, career, identity) were closely related to two dimensions of specialization (personal commitment, behavioral commitment). Lee and Scott (2013) concluded that "qualities of serious leisure and recreational specialization may be measuring the same thing" (p. 460). It is important to note that Lee and Scott (2013) focused on how affective components of specialization (i.e., personal and behavioral commitment) were correlated with dimensions of serious leisure; they did not focus on whether or not behavioral and skill measures of specialization were related to dimensions of serious leisure, including enduring benefits. Thus, scholars are far from settled as to whether recreation specialization and serious leisure are similar and/or different.

This study examined the extent that male and female birdwatchers differ across different dimensions or indicators of specialization *and* serious leisure. Although major differences between recreation specialization and serious leisure are glossed over, findings may clarify differences and/or similarities between the two constructs. Importantly, our study seeks to provide insight into the gendered nature of birdwatching.

Gender and Specialization/Serious Leisure

Scholars have long recognized that females encounter far more constraints to leisure than do males (Shaw & Henderson, 2005). For example, leisure among women is made problematic by an ethic of care (Henderson & Allen, 1991) and a lack of entitlement (Deem, 1986). These constraints result in many married women putting other people's need ahead of their own, and not devoting time to develop their own leisure skills. Simultaneously, many outdoor environments and public spaces have been historically defined as male spaces (Bialeschki, 2005). This has led to some women fearing sexual assault and feeling vulnerable when venturing out into public (Whyte & Shaw, 1994). Relatedly, some females are constrained by a negative body image, which limits their involvement in some activities (James, 2000).

The pervasiveness of these and other constraints have led scholars to conclude that leisure participation is *gendered*. That is, socially constructed gender roles influence leisure opportunities, experiences, and meanings (Jackson & Henderson, 1995). Americans and Canadians, for example, continue to ascribe feminine and masculine characteristics to different sports (Wiley, Shaw, & Havitz, 2000). Similarly, many Civil War reenactors oppose the inclusion of women because doing so would undermine the authenticity of battle and encampments (Hunt, 2004). Fishing and hunting have been described as male-dominated spaces where ideas about masculinity are learned and inculcated (Espiner, Gidlow, & Cushman, 2011).

Gender clearly impacts participants' ability to specialize and/or become serious. For example, women receive less support than men to develop skills and participate in leisure activities on a regular basis (Scott & Shafer, 2001). Researchers have reported that married women who participate in activities at an advanced level go to great lengths to ensure time spent in the activity does not interfere with family obligations (Stalp, 2006; Stebbins, 1992b). Some female rock climbers have reported they have shied away from climbing situations when they feel they are objects of sexual display for men (Kurten, 2009). In sum, males have greater freedom to pursue leisure activities and become specialized and/or serious over time.

Gender also influences the meanings that males and females assign to leisure activities. In a study of the social world of contract bridge, Scott and Godbey (1992) reported performance standards interacted with gender to create two different subworlds. One subworld was made up of social bridge groups where sociability and strengthening of

interpersonal ties were given salience. The other subworld was composed of serious bridge clubs where playing good bridge and testing one's skills against like-minded players were paramount. According to Scott and Godbey (1992), activity within social bridge clubs reflected female experiences, whereas activity within serious bridge clubs reflected masculine values. Importantly, all bridge players in the study regarded the game as one of their favorite pastimes. In a similar vein, Ewert, Gilbertson, and Luo (2012) reported in a study of adventure recreation participants that males tended to emphasize sensation seeking, whereas women were more interested in a social atmosphere. Ewert et al. (2012) cautioned that these differences were not explained by participants' skill or commitment levels.

Although roughly equal numbers of men and women participate in birdwatching (U.S. Department of the Interior, 2012), a handful of studies have shown that men are more likely than women to display a specialized style of participation. In a study of birdwatchers in Alberta, McFarlane and Boxall (1996) found that females comprised 60% of casual birdwatchers, but only 37% of advanced (or specialized) participants. Scott, Baker, and Kim (1999) observed that 85% of participants in a competitive birdwatching event were male. Moore et al. (2008) found that male members of the Carolina Birding Club reported they were more skilled, had invested more money in birdwatching equipment, and had gotten involved in the activity at an earlier age than female members. Males also reported slightly higher levels of commitment than females.

However, a different picture is evident in findings summarized by Scott et al. (2005), who studied specialization among members of the American Birding Association (ABA). On one hand, they found that male members participated more frequently, traveled longer distances, and owned more birding guides than their female counterparts. Males also reported being more skilled and were much more likely to keep lists of birds they had seen or heard. However, there was virtually no difference between men and women in their level of commitment to birdwatching. Simultaneously, female members were significantly more likely than male members to be motivated by a desire to conserve wildlife and interact with other birdwatchers. Scott et al. (2005) concluded that male and female ABA members appear to be equally committed to birdwatching, but variability in interests and motivations suggests divergent styles of participation.

This article clarified differences in styles of birdwatching participation between men and women. Two research questions guided this study: First, do males and females differ across indicators of recreation specialization? Second, do males and females differ across indicators of serious leisure? As noted, studies to date have relied exclusively on the recreational specialization framework to examine gender differences among birdwatchers. By focusing on how gender is related to both specialization and serious leisure, we gain insight into divisions among birdwatchers and broaden our understanding of the gendered nature of birdwatching.

Methods

Data Collection

Data were collected from members of the ABA, which is North America's largest membership organization dedicated to birdwatching. The organization was founded in 1968, and at the time of the study (2009) had 15,000 members. It is important to note that ABA members are relatively specialized and/or serious about birdwatching. Compared to birdwatchers in general, ABA members tend to maintain life lists of all birds they have seen and/or heard.

For example, 74% of the ABA members sampled said they maintained a world life list, 87% said they kept a life list of North American birds they had seen or heard, and 59% maintained a list of birds seen or heard in their home state. Although the characteristics, attitudes, and behaviors of ABA members are not representative of all birdwatchers, there is diversity among members in interests and skills, which provides a useful basis for answering the research questions.

The survey described here was a follow-up study of ABA members; the third author had previously collected data from ABA members in 1997 and 2002. The goal was to survey about 1 in 10 members. In the 2009 study, a sample of 1,449 members was selected from the membership database currently living in the United States. About one-third of those sampled in 2009 were individuals who had participated in 1997 and/or 2002. In each wave of the survey, respondents were chosen using systematic random sampling.

A four-step mailing survey method was employed for the study (Dillman, 2000). A preliminary postcard was sent to the 1,449 selected ABA members to inform them of the purpose of the study and when they would receive a questionnaire. One week later, the questionnaire was mailed out along with a cover letter and a self-addressed and postage-paid return envelope. One week after this second mailing, a reminder postcard was mailed to the sample; it included a thank you to those individuals who had already returned a completed questionnaire. The final mailing took place two weeks later with a replacement questionnaire, a postage-paid return envelope, and a new cover letter encouraging them to complete the questionnaire. A total of 954 useable questionnaires were returned, representing a 67% response rate. Although a non-response bias check was not employed, the demographic characteristics of respondents were similar to those reported in other studies of ABA members (Cole & Scott, 1999; Whitter & Shaw, 1979).

Measurement

Recreation Specialization. Four dimensions of birdwatching specialization were included: (a) frequency of participation, (b) self-reported skill and knowledge, (c) possession of birding equipment and replacement value, and (d) commitment to birdwatching. These measures have been used and validated in other studies of birdwatchers (McFarlane, 1994; Scott et al., 2005) and other outdoor recreationists (e.g., Kuentzel & Heberlein, 2008). Two open-ended questions were used for assessing birding behavior during the past year: number of days spent on birding trips in the last 12 months and number of birdwatching trips in the last 12 months. Two open-ended measures of skill and knowledge were used. Here, respondents were asked to estimate how many birds they were able to identify by sight and by sound. Respondents were also asked to estimate how many binoculars, spotting scopes, and field guides they owned, and to estimate the replacement value of all their birdwatching related equipment. Response categories for the equipment and replacement value items all were open-ended and numerical. Two multi-item scales were used for measuring personal and behavioral commitments. Four items measured *personal commitment* (e.g., "I find that a lot of my life is organized around birding") and three items assessed *behavioral commitment* (e.g., "If I stopped birding, I would probably lose touch with a lot of my friends"). Items were measured on a 7-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*).

Serious Leisure. To discover different aspects of serious leisure participation, the Serious Leisure Inventory Measure (SLIM) developed by Gould et al. (2008) was adapted. SLIM

comprises several scale items designed to measure perseverance, career progress, significant effort, identity, social world involvement (or unique ethos), and enduring benefits. Three items each were employed to measure *perseverance* (e.g., "I overcome difficulties in birding by being persistent"), *personal effort* (e.g., "I work at improving my birding skills"), *career progress* (e.g., "I feel that I have progressed in birding over the years"), *identity* (e.g., "Others recognize that I identify with birding"), and two items measured *social world involvement* (e.g., "Other birding enthusiasts and I share many of the same ideals"). These items were measured using the identical 7-point scale used to measure personal and behavioral commitment.

Twelve multi-item scales from the SLIM were included. These assessed participants' enduring benefits. Three of these measured group or social outcomes of serious leisure participation: *group attraction, group accomplishment*, and *group maintenance*. Nine indices measured personal benefits: *personal enrichment, self-actualization, self-expression ability, self-expression individual, self-image, self-gratification-satisfaction, self-gratification-enjoyment, re-creation*, and *financial return*. All items were measured using the same 7-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*).

Data Analysis

Descriptive analysis was conducted to provide better understanding of the data structure and characteristics of the specialization and serious leisure variables. To ensure the internal consistency of the multi-item indices, Cronbach's alphas for the different dimensions of the specialization and serious leisure were calculated (see Table 1).

Independent *t*-tests were performed to determine whether there were significant differences between males and females across different dimensions of the two concepts. The specialization and serious leisure indicators were treated as dependent variables. Consistent with the work of Kuentzel and McDonald (1992), males and females were compared relative to individual dimensions of specialization and serious leisure. Cohen's *d* value was calculated to estimate effect size of independent *t*-tests (Cohen, 1988). For interpretation of the calculated effect size, we followed Cohen's convention for a small effect size ($d = .20$), medium effect size ($d = .50$), and a large effect ($d = .80$).

Results

The sample was composed of 65% males and 35% females. Respondent age ranged from 21 to 98 years ($M = 67.4$ years, $SD = 12.1$). With regard to marital status, 73% were married, 15% were single, 7% were divorced or separated, and 5% were a widow or widower. Respondents were highly educated; 21% were college graduates and 64% held advanced degrees. Respondents also had relatively high incomes with 47% reporting annual household incomes of $100,000 or more.

The descriptive statistics for all items—the means and standard deviations of the measured variables—are reported in Table 1. Except for the measure of equipment use and expenditures, all measured variables indicated a high degree of internal reliability as Cronbach's alphas ranged from .74 to .91. The Cronbach's alpha for equipment use and expenditures variable was .45 and deletion of items did not improve internal reliability. Multi-item indices of the specialization (frequency of participation, self-reported skill and knowledge, and personal and behavioral commitments), serious leisure indicators (perseverance, effort, career progress, identity, and unique ethos), and 12 benefits indicators

Table 1
Descriptive statistics of the measured variables and internal consistency of constructs

Construct and measured variable		Mean (*SD*)	Cronbach's α	Cronbach's α if item deleted
Recreation specialization	*Frequency of participation*[a]		.807	
	Number of days spent on birding trips	49.77 (57.21)		—
	Number of birdwatching trips	35.87 (52.48)		—
	Skill and knowledge[a]		.775	
	Number of birds able to identify by sight	545.92 (586.29)		—
	Number of birds able to identify by sound	178.16 (353.02)		—
	Equipment[a]		.454	
	Number of binoculars	3.52 (10.46)		.466
	Number of spotting scopes	1.37 (0.82)		.313
	Number of guide books	23.84 (32.84)		.402
	Replacement value of birding-related equipment ($)	5269.87 (6030.35)		.293
	Personal commitment[b]		.827	
	I find that a lot of my life is organized around birding	4.78 (1.61)		.698
	Others would probably say that I spend too much time birding	3.72 (1.80)		.791
	Birding is very important to me	5.80 (1.18)		.746
	I would rather go birding than do most anything else	4.43 (1.77)		.712
	Behavioral commitment[b]		.809	
	Because of birding, I don't have time to spend participating in other leisure activities	3.28 (1.65)		.782
	If I stopped birding, I would probably lose touch with a lot of my friends	3.54 (1.84)		.653
	Most of my friends are in some way connected with birding	3.34 (1.72)		.618

Serious Leisure[b]	*Perseverance*		.802	
	I overcome difficulties in birding by being persistent	5.33 (1.24)		.703
	By persevering, I have overcome adversity in birding	4.21 (1.57)		.801
	If I encounter obstacles in birding, I persist until I overcome them	5.08 (1.30)		.684
	Personal effort		.858	
	I try to become more competent at birding.	6.08 (0.95)		.812
	I work at improving my birding skills	5.73 (1.19)		.740
	I am willing to exert considerable effort to be more skilled at birding	4.96 (1.44)		.857
	Career progress		.849	
	I feel that I have progressed in birding over the years	6.19 (0.93)		.842
	I have improved at birding since I began participating	6.33 (0.95)		.780
	Since I began birding, I have improved my skills	6.39 (0.83)		.745
	Identity		.852	
	I am often recognized as one devoted to birding	5.17 (1.54)		.821
	Others recognize that I identify with birding	5.57 (1.31)		.771
	Others who know me understand that birding is a part of who I am	5.58 (1.39)		.790
	Social world involvement (unique ethos)		.790	
	Other birding enthusiasts and I share many of the same ideals	5.54 (1.19)		—
	I share many of the sentiments of my companions when birding	5.31 (1.26)		—
	Enduring benefits—Group attraction		.778	
	I enjoy interacting with other birding enthusiasts	5.83 (1.15)		.680
	I value interacting with other birders	5.56 (1.29)		.573
	I prefer associating with others who are devoting to birding	4.63 (1.48)		.790

(*Continued*)

Table 1
(Continued)

Construct and measured variable	Mean (*SD*)	Cronbach's α	Cronbach's α if item deleted
Enduring benefits—Group accomplishment		.872	
I feel important as a result of my birding group's accomplishments	3.97 (1.59)		.824
A sense of group accomplishment is important to me	4.44 (1.66)		.847
Having helped my birding group or club accomplish something makes me feel important	4.12 (1.67)		.787
Enduring benefits—Group maintenance		.878	
I contribute to unity within my birding group	4.64 (1.53)		.859
The development of my bird group or club is important to me	4.49 (1.69)		.817
It is important that I perform duties which unify my birding group	4.11 (1.64)		.801
Enduring benefits—Personal enrichment		.826	
I have been enriched by birding	6.46 (0.76)		.798
Birding has added richness to my life	6.33 (0.83)		.705
My birding experiences add richness to my life	6.27 (0.96)		.770
Enduring benefits—Self-actualization		.813	
I reach my potential in birding	4.33 (1.45)		.733
I make full use of my talent when I go birding	5.06 (1.31)		.785
Birding has enabled me to realize my potential	4.11 (1.47)		.703
Enduring benefits—Self-expression-ability		.850	
Birding is a way to display my skills and abilities	4.76 (1.47)		.784
I demonstrate my skills and abilities when birding	4.94 (1.36)		.670

My knowledge of birds is evident when I go birding	5.48 (1.12)		.823
Enduring benefits—Self-expression-individual		.904	
Birding for me is an expression of who I am	4.97 (1.60)		.857
Birding allows me to express who I am	4.69 (1.55)		.829
My individuality is expressed in birding	4.43 (1.57)		.899
Enduring benefits—Self-image		.911	
Birding has enhanced my self-image	4.76 (1.58)		.917
My image of self has improved since I began birding	4.25 (1.55)		.846
Birding has improved the way I think about myself	4.19 (1.53)		.853
Enduring benefits—Self-gratification-satisfaction		.884	
My birding experiences are deeply gratifying	5.86 (1.12)		.828
Birding is intensely gratifying to me	5.68 (1.29)		.836
Birding provides me with a profound sense of satisfaction	5.49 (1.36)		.842
Enduring benefits—Self-gratification-enjoyment		.742	
Birding is enjoyable to me	6.64 (0.61)		—
Birding is fun to me	6.49 (0.82)		—
Enduring benefits—Re-creation		.909	
I feel renewed after birding	5.60 (1.64)		—
I feel revitalized after birding	5.59 (1.73)		—
Enduring benefits—Financial return		.890	
Financially, I have benefited from birding	2.37 (1.73)		.872
I have received financial payment from birding	2.11 (1.91)		.766
I have received monetary compensation for my birding expertise	2.14 (2.02)		.764

[a]Frequency of participation, skill and knowledge, and equipment indicators were open-ended and numerical.

[b]The personal and behavioral commitment, and serious leisure items were measured with a 7-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*).

were created by summing responses to individual scale items. Individual items measuring frequency of participation and self-reported skill and knowledge were first standardized because responses were highly skewed. Because of low internal reliability among the equipment items, no effort was made to create a multi-item scale.

Gender Difference in Specialization

Table 2 summarizes results of gender differences across indicators of recreation specialization. Males reported significantly higher frequency of participation than females ($M = .03$ to $-.09$, $p = .015$), and the effect size for this relationship was large ($d = 1.45$). Males also reported significantly higher levels of skill at identifying birds by sight and sound than females ($M = .09$ to $-.19$, $p < .001$). The effect size for this difference was also large ($d = 1.20$).

There were significant differences between males and females in three of the four equipment variables. Males reported they owned more spotting scopes ($M = 1.5$ to 1.2, $p < .001$) and field guides ($M = 25.5$ to 20.4, $p < .001$) than females. Men also reported a significantly higher replacement value for the birdwatching equipment they owned ($M =$ \$5,932 to \$ 3,899, $p < .001$). The effect sizes for these relationships were small ($d = .16$ to .36). Males and females did not differ significantly in terms of binoculars owned. They also did not differ significantly in terms of reported personal and behavioral commitment.

Table 2
Mean differences in indicators of specialization by gender

	Gender						
	Males		Females				
Specialization	*M*	*SD*	*M*	*SD*	*t*	*p*	Cohen's *d*
Frequency of participation[a]	0.03	0.72	−0.09	0.66	2.484	.015	1.45
Skill and knowledge[a]	0.09	0.83	−0.19	1.10	4.201	.000	1.20
Equipment[b]							
Binoculars owned	3.8	12.9	3.0	1.8	1.482	.282	.09
Spotting scopes owned	1.5	0.9	1.2	0.7	4.388	.000	.34
Field guide owned	25.5	34.5	20.4	29.6	3.918	.000	.16
Value of birding related equipment (\$)	\$5,932	\$6,836	\$3,899	\$3,731	4.647	.000	.36
Behavioral commitment[a]	3.5	1.4	3.3	1.5	0.843	.119	.10
Personal commitment[a]	4.7	1.3	4.6	1.3	0.110	.170	.11

[a]Multi-item indices of frequency of participation, skill and knowledge, personal commitment, and behavioral commitment were created by summing responses to individual items. *Z*-scores were calculated for individual responses to measures of frequency of participation and skill and knowledge.

[b]Multi-item scales for the equipment indicators were not created because of low internal consistency.

Gender Differences in Serious Leisure

No statistically significant differences between males and females were found across the following qualities of serious leisure: perseverance, significant effort, career progress, identity, and social world involvement (Table 3). Also, no significant differences were observed between males and females in regard to the three measures of social benefits (group attraction, accomplishment, maintenance).

There were significant differences between males and females in the importance they assigned to achieving several personal benefits through birdwatching (Table 3). Males were significantly more likely to state birdwatching had provided them opportunities to demonstrate their abilities ($M = 5.2$ to 4.8, $p < .001$), and financial benefits ($M = 2.4$ to 1.8, $p < .001$). The effect sizes for these relationships were small ($d = .27$ to .36).

In contrast, females reported significantly higher scores for personal enrichment than males ($M = 6.5$ to 6.3, $p < .001$). The effect size for this difference was large ($d = 1.11$).

Table 3
Mean differences in indicators of serious leisure by gender

	Gender						
	Males		Females				
	M	*SD*	*M*	*SD*	*t*	*p*	Cohen's *d*
Seriousness							
Perseverance	4.9	1.1	4.8	1.3	1.564	.201	.09
Effort	5.6	1.0	5.6	1.1	0.765	.492	.05
Career progress	6.3	0.7	6.3	0.9	1.268	.239	.07
Identity	5.5	1.2	5.4	1.3	0.123	.627	.04
Social world involvement (Unique ethos)	5.4	1.1	5.5	1.2	1.454	.077	.12
Social Benefits							
Group attraction	5.3	1.1	5.4	1.2	0.423	.569	.04
Group accomplishment	4.2	1.4	4.2	1.5	0.179	.797	.02
Group maintenance	4.8	1.2	4.8	1.3	0.483	.558	.03
Personal benefits							
Personal enrichment	6.3	0.8	6.5	0.7	3.653	.000	1.11
Self-actualization	4.5	1.9	4.5	1.2	0.619	.528	.05
Self-expression-ability	5.2	1.1	4.8	1.2	4.254	.000	.27
Self-expression individual	4.6	1.4	4.8	1.5	1.168	.225	.08
Self-image	4.4	1.4	4.4	1.5	0.251	.945	.01
Self-gratification-satisfaction	5.6	1.2	5.9	1.1	4.384	.000	.31
Self-gratification-enjoyment	6.5	0.6	6.7	0.6	2.181	.037	.14
Re-creation	5.4	1.3	5.9	1.2	5.234	.000	.36
Financial return	2.4	1.8	1.8	1.4	5.009	.000	.36

Multi-item indices of serious leisure and enduring benefits were created by summing responses to individual scale items.

Females also reported they were more likely to experience satisfaction ($M = 5.9$ to 5.6, $p < .001$), enjoyment ($M = 6.7$ to 6.5, $p = .037$), and re-creation ($M = 5.9$ to 5.4, $p < .001$) through birdwatching compared to males. The effect sizes for these three relationships were small. Males and females did not differ significantly in terms of reported self-actualization, individual self-expression, and self-image.

Discussion

This article examined whether or not male and female birdwatchers differed across indicators of specialization and serious leisure. On the one hand, males reported taking more birdwatching trips, being able to identify more birds by sight and sound, and owning more birdwatching-related equipment. These findings, which are consistent with other studies (McFarlane & Boxall, 1996; Moore et al., 2008), might lead to a conclusion that men are more specialized (and perhaps serious) birdwatchers than women. Such a conclusion, however, ignores the fact that men and women did not differ in their reported commitment (personal and behavioral), and seriousness, as measured by perseverance, significant effort, career progress, identity, and social world involvement. It also ignores the fact that men and women were equally likely to report that birdwatching had provided them a myriad of durable benefits over time. Thus, it seems more accurate to conclude that male and female birdwatchers display equivalent levels of seriousness, but different styles of birdwatching.

Findings from this study support and extend Scott et al.'s (2005) assertion that listing is more central to males' participation in birdwatching than it is for females. Indeed, ancillary analysis revealed that males in our sample were significantly more likely than females to maintain four types of lists.[2] An interest in listing explains why males were more likely than females to take trips, own and purchase specialized equipment, and hone their identification skills. It also explains why males were significantly more likely than females to report that they had benefited from displaying their birdwatching skills and knowledge. Males were also more likely than females to report they had benefited financially through birdwatching. In general, it appears that male birdwatchers benefit from a sense of accomplishment, mastery, and meeting challenges. It could be that males' self-worth may stem from how effectively they are able to exhibit their skill in birdwatching over time (Faiola, 2013).

In contrast, females appear to be more emotionally attached to birding as an end in itself. Compared to males, they ascribed greater importance to birdwatching as a form of personal enrichment, enjoyment, satisfaction, and recreation. All of these benefits are appreciative in nature. Although females reported taking fewer trips, less skill at identifying birds, and owning less equipment, they regarded birdwatching with equal levels of commitment and seriousness as their male counterparts. In sum, female birdwatchers in this study benefited equally, if not more, than males, but they appear to place less emphasis on developing skills and traveling to see new birds. As implied earlier, these behaviors are requisite to adding birds to a life list.

Results suggest that participation in birdwatching is gendered. Males and females appear to be equally serious toward birdwatching, but how they participate reflects entrenched gender roles and dispositions (Stalp, 2006; Wiley et al., 2000). These results are consistent with past research showing that males and females relate to wildlife and the natural world through different value systems. Kellert (1995) observed that women embrace stronger moralistic values toward nature, whereas men tend to hold stronger utilitarian values. Simultaneously, these results are consistent with studies indicating that males and females assign varying importance to achievement and skill development in leisure

activities (Scott & Godbey, 1992). Males' enjoyment in birdwatching and other activities hinges, in part, on developing skills and meeting challenges. Females, in contrast, appear to derive durable benefits from birdwatching without a concomitant display of mastery.

Findings lead to a questioning of what it means to be a specialized or serious participant in birdwatching, and how researchers go about classifying recreation participants along a continuum of involvement. The behavioral and skill indicators used in this study may have given primacy to listing as a style of participation. These same measures would probably not be particularly useful in depicting birdwatchers' attachment to other forms of birdwatching, such as backyard birding, bluebird restoration and protection, hummingbird appreciation, and raptor monitoring. In contrast, the commitment and serious leisure indicators may be useful for measuring level of seriousness in birdwatching in general (Lee & Scott, 2013). These attitudinal measures of intensity of participation may fall short, however, of depicting what facets of birdwatching are more or less interesting to people. It is likely that specialization and seriousness indicators complement one another in providing clues about participants' involvement in birdwatching and what kinds of birdwatching activities are most relevant to them.

It is important to note that our sample (ABA) comprised a highly skilled and elite group of birdwatchers. Compared to birdwatchers in general, ABA members tend to be oriented to listing. Reported differences in skill and behavior may not be generalizable to all birdwatchers, particularly individuals who have little inclination to list birds. This cautionary note holds true for how specialization and seriousness are examined in other outdoor recreation activities as well. Researchers who study specialization and serious leisure tend to assume that "individuals naturally acquire knowledge and skills the longer they participate in a leisure activity" (Scott & Shafer, 2001, p. 327). The specialization and serious leisure constructs privilege progression, skill development, mastery, and overcoming challenges. The reality is that many outdoor participants are serious and committed to their respective pastimes, but may show little interest in skill development (Scott, 2012). An important area of future research on specialization and serious leisure is to examine the extent that participants are motivated to develop their skills and aspire to performance standards set by elite participants. Even in endurance sports, such as triathlons, performance standards have varying importance to participants (Lamont & Kennelly, 2012). A related area of inquiry is to determine the extent that males and females experience durable benefits, but eschew performance standards. Answering these questions will provide a more complete understanding of the gendered nature of outdoor recreation, important motives spurring participation, and the range of career trajectories attending serious leisure involvement.

It is also important to note that our sample was relatively old (the mean age was 67 years of age). Observed gender differences may reflect value and behavioral dispositions of an "older" generation of birdwatchers. Because gender roles have become more egalitarian over the last few decades (Thornton & Young-DeMarco, 2001), research on gender and both specialization and serious leisure should control for generational differences among participants. Future studies may well reveal that observed gender differences in specialization and serious leisure are greater for older participants than they are for younger ones.

Understanding how males and females differ in level of specialization and serious leisure is important because of the varying meanings assigned by participants. Moore et al. (2008) explained how socialization processes affect gender difference in their pursuit of birdwatching. They described listing as a competitive and masculine endeavor and likened listing as a "form of hunting where the game is 'bagged' in non-lethal ways" (p. 97).

In contrast, they noted that an ethic of care might both constrain and shape women's involvement in birdwatching. On the positive side, they noted this ethic of care might inspire women to protect birds and lend support to conservation efforts. Although this study accentuated how males and females differ in their pursuit of birdwatching, it is important to note that there is variability within each gender in their respective styles of participation (Bialeschki & Henderson, 2000). Many women, for example, are dedicated, and spend lavishly, in their pursuit of adding birds to their life lists (Gentile, 2009). At the same time, many men eschew listing and are devoted conservationists (Kaufman, 1997). Future studies should be mindful that there exists intragroup diversity among both men and women. Ignoring such diversity potentially reinforces stereotypes about how men and women engage in wildlife-related recreation activities.

Notes

1. Birds are the most commonly reported wildlife observed in the *2001 National Survey of Fishing, Hunting and Wildlife-Associated Recreation*.
2. Males were significantly more likely to maintain lists of North American birds, state birds, county birds, and birds seen/heard annually. Males and females did not differ significantly in terms of world listing and yard listing.

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