


Haldun Müderrisoğlu,* Elif Lütfiye Kutay, Sevil Örnekcı Eşen	<p align="center"><u>"Determining Leisure Time, Recreational Participation and Requirements of University Students in Düzce Campus"</u></p> <p align="center">The International Journal of Urban Labour and Leisure, 7(1) &lt;<a href="http://www.ijull.org.uk/vol7/1/Muderrisoglu.pdf">http://www.ijull.org.uk/vol7/1/ Muderrisoglu.pdf</a>&gt;</p>	
---	--	---

## Abstract.

The aim of the study is to determine and explain the amount of leisure time of university students in the city of Düzce, the recreational activities they participate in and the recreational sites they find inadequate. This study examines leisure activities after the restructuring the city of Düzce which was seriously damaged in the 1999 Marmara earthquake. An auxiliary study examines the results so far achieved. With this purpose, a questionnaire has been applied to 274 students in Abant İzzet Baysal University on Düzce campus. In the explanation of recreational participation and requirements, factor analysis has been used. In order to determine the effects of user characteristics on leisure time, recreational participation and requirements, correlation analysis has been used. According to the results obtained, the socio-economic and demographic characteristics of university students in Düzce campus are important for the amounts of leisure time, recreational participation and requirements in Düzce. University students in Düzce cannot meet their daily recreational needs. Participation in recreational activities for cultural purposes indoors is low and students need provision of these kinds of recreational sites.

**Key words:** Düzce, leisure time, recreation, requirement.

## Introduction.

Over the last 30 years, many studies have tried to measure recreational experiences and measure how these experiences change. Iso-Ahola (1979) and Kleiber and Crandall (1981) stated that leisure time differs according to gender; Kelly (1980) also stated participation of men and women in recreational activities differs, while Dwyer (1983) stated the age of participants and the characteristics of their residences effect participation.

In the early studies for determining the characteristics of recreational usage, groups were formed according to recreational activities (Vaste *et al.* 1982). However, the effects of users' demographic characteristics and experiences on recreational activities could not be explained. But in later studies, analysis sought to determine the reason behind recreational activities and what their meanings were (Vaste *et al.* 1982; Manning 1985; Kelly 1987).

In determining recreational activities and their use, cultural and ethnic diversity are important. In order to define the different groups that form the society a number of

factors are important such as, socio-economic situations, ethnical identities, experiences and behaviours (Carr and Williams 1999; Floyd *et al.* 1993).

Gold (1980) says that the duties of recreation planners are establishing the relationship between leisure time, activity and city. Therefore, in the present study sets out to examine and explain the amount of leisure time university students in Düzce have; the recreational activities they participate in and recreational sites they find inadequate. So we have set out to examine the restructuring the city of Düzce - seriously damaged in 1999 Marmara earthquake - and the implications this has for a large group of leisure users of the 'new' city.

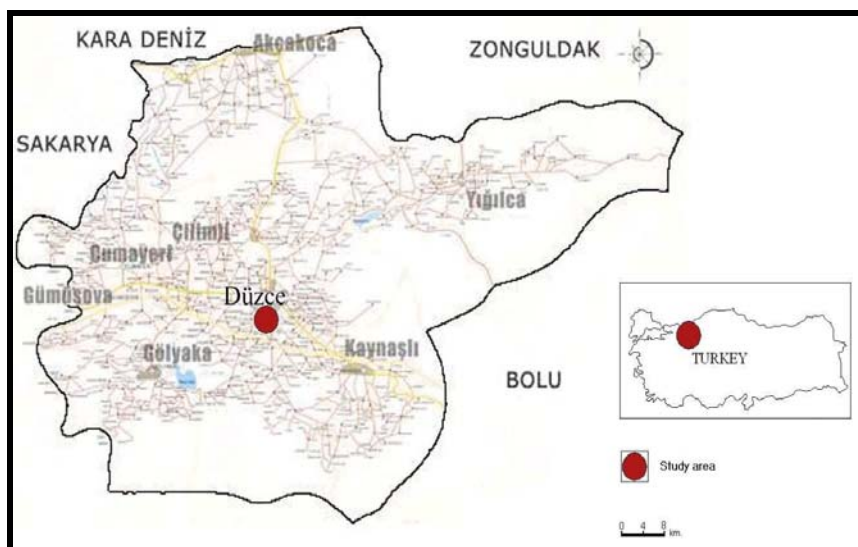
## Material and Method

In order to determine the demographic characteristics, recreational experiences and needs of the participants in this study, a questionnaire was used. In forming the questionnaire the studies of Gold (1980), Atavri *et al.* (2000), Oğuz (2000) and Rovers (2002), in which urban and rural recreational activities have been examined, have been used.

## Study Area

The study was conducted at Abant İzzet Baysal University, Düzce Campus. It has an area of 200 hectares. There are 4 faculties and a high school - 1100 people attend there in total. The campus, located in the Northwest of Turkey, was opened in 2001. The total amount of park sites within the borders of Düzce, which became a province in 1999, is 0.6 hectares. It is a province that has limited facilities as an indoor recreational site for the public (a cinema, a gym and a theatre) but it is quite rich in terms of rural recreational sites (2 recreational sites in forest, 125 hectares, 4 nature monument 13 hectares - see Figure 1).

**Figure 1. Research Area**



## Determination of user characteristics and experiences

This survey carried out in the A.I.B.Ü Düzce campus between the dates of December 2002 to December 2003, includes 274 people. Dwyer (1994) stated that as the ages of users increases their participation in recreational activities decreases and that the highest recreational participants are young people between the ages of 18-24. This age group defines the users in the university in Turkey. Therefore, in this study, recreational experiences and demographic characteristics of university students have been examined.

In the questionnaire, their gender, income, academic departments, the places they live within the city, the time they have been in Düzce, and the population characteristics of the city they come from are studied. From these demographic characteristics the schools they attended are aligned from less to more according to the amounts of students' leisure time. Their residences in the city have also been aligned according to their distances to 'downtown' (the recreational centre). Recreational activities, which the researchers participated in, and the recreational sites, which they find inadequate, are aligned from negative to positive value (Table 1).

**Table 1. Recreational Participation and Characteristics of the Participants**

	Evaluation Code					
	1	2	3	4	5	6
Gender	Male	Female				
Income	Low	Medium	High			
Education	Medical sciences	Vocational sciences	Natural sciences			
Residence distance to the downtown	5km +	5km	Downtown			
Population of the place they come from	Less than 50,000	50,000	500,000 and more			
How long they have lived in the city (year)	0-1	2	3	4	5+	
Amount of leisure time (hour/day)	1	2	3	4	6	12
Ratio of participation in recreational activities	None	Medium	Often			
Actual situation of recreation sites	None	Insufficient	Sufficient			

## Evaluation of Data

In the first stage of the study the statistical means of the amounts of users' leisure time, both weekdays and weekends, was determined. Correlation analysis was used in order to determine the relationship between the user characteristics and the established amount of leisure time. In order to explain participation in recreational

activities insufficiency in recreation sites, factor analysis was used with a varimax rotation method. In order to determine the reliability of the factors, Cronbach's alpha reliability analysis has been used. Finally, correlation analysis was used in order to explain the relationship between user characteristics and the factors determined.

## Findings

Demographic characteristics of the participants as a result of the questionnaire conducted in A.İ.B.Ü Düzce Campus can be grouped as follows. 68% of the participants were male, 32% were female. When incomes of the participants were taken into consideration, 17% of those were in low, 79% medium and 4% were in high income groups. Further, 9% of the participants were studying medical sciences, 41% vocational sciences and 50% natural sciences. With regard to distance to the downtown recreational area, 68% of the participants lived further than 5 km from downtown, 6% lived 5 km away and 26% lived in the downtown area. Of these 15% had lived in the city for one year, 19% for two years, 29% for three years, 25% for four years and 12% for five years or more. Seven per cent of the participants came to Düzce from areas which have a population of less than 50,000, 12% of those from areas which have a population of 50,000 and 81% of those from the areas which have a population of more than 50,000.

### Amounts of Leisure Time of the Participants.

As seen in Table 2, those who participated in the questionnaire have a leisure time of 4.1 hours on average on weekdays and 9.5 hours on average at weekends. Leisure time of the participants on weekdays (LTWD) is directly proportional to income from demographic characteristics. The amounts of LTWD increase when the participants' income levels increase. The places students come from are influential in determining amounts of LTWD. Compared to those coming from the countryside, those coming from the city report they have more LTWD. The amount of LTWD is also affected by the duration the participants spend living in the city. As the duration they live in the city gets longer, the amount of LTWD of the participants also increases. The amount of leisure time of the participants at weekends (LTWE) is directly proportional to incomes from demographic characteristics. The amounts of LTWE of the participants increase when their income levels increase. Gender, education area, the place they live in doesn't affect the amounts of LTWD or LTWE. As seen above LTWD is more affected by the participants' characteristics than is LTWE.

**Table 2. Distribution of the Participants' Leisure Time**

	Mean (Hour/day)	Gender	Income	Education	Residence	The place they come from	How long they have lived in the city
Weekdays	4,1	,02	,16*	,12	-,07	,13*	,14*
Weekends	9,5	,02	,13*	-,01	-,02	,08	-,02

\*<,05

## Participation in recreational activities.

In this study 15 recreational activities have been taken considered. The most preferred of these activities are; spending time in the canteen/cafe, going to the cinema/park, and picnicking, respectively. As seen in Table 3, five factors have been found that explain recreational participation with 62% variance. Factor I is explained with 16% variance and Cronbach's alpha is 0.77. Computed alpha value shows that this factor is quite reliable (Özdamar, 1999). Factor I includes four recreational activities. Common characteristics of these activities are as follows; they are done in the countryside, they need experience and equipment and they are carried out by small groups. Factor II is explained with 14% variance and Cronbach's alpha is 0.75. According to this, Factor II is also quite reliable. Factor III is explained with 13% variance and Cronbach's alpha is 0.71. According to this, Factor III is also quite reliable. Factor III includes three recreational activities. Common characteristics of these activities are that they are both indoor and outdoor sports activities. Factor IV is explained with 11% variance and Cronbach's alpha is 0.61. According to this, Factor IV is also quite reliable. Factor IV includes three recreational activities. Common characteristics of these activities are that they are done indoors and cultural. Factor V is explained with 8% variance and Cronbach's alpha is 0.50. According to this, Factor V has low reliability. Factor V includes two recreational activities. Common characteristics of these activities are that they are done indoors, social activities and should be repeated frequently. Mostly preferred recreational activity group by the students is Factor V. It is followed by Factor III.

**Table 3. The Factor Analysis of Recreational Activities.**

	Mean of participation	Factor I	Factor II	Factor III	Factor IV	Factor V
Mountaineering	1,2	,81				
Fishing	1,3	,74				
Horse-riding	1,2	,73				
Camping	1,2	,72				
Walk in the countryside	1,8		,84			
Picnicking	1,9		,83			
Going to the Park	2,0		,61			
Football	1,7			,79		
Basketball	1,5			,77		
Volleyball	1,5			,75		
Pub (night club)	1,4				,74	
Theatre	1,6				,68	
Cinema	2,1				,61	
Canteen	2,3					,86
Cafe	2,1					,69
Variance %		16	14	13	11	8
Mean		1,2	1,9	1,6	1,7	2,2
Alpha		,77	,75	,71	,61	,50

## The relationship between participation in recreational activities and socio-economic and demographic characteristics.

In Table 4, the effects of socio-economic and demographic characteristics of the students in AİBÜ Düzce campus on the preferences of recreational activities are observed. According to this, Factor I is preferred by male students who live away from the downtown and who come to Düzce from scarcely populated residential areas. The determining characteristic of Factor II is observed as the study area of the students. The students having education on engineering participate in activities in factor II group more than other students. Recreational activities in Factor III are preferred more by male students with low income level, studying engineering and coming from scarcely populated residential areas. The students having engineering education participate in recreational activities in Factor IV more than the other students. Recreational activities included in Factor V are preferred by female students with high income level who have recently come to Düzce.

**Table 4. The Relationship Between the Preferred Recreational Activities and User Characteristics.**

	Gender	Income	Education	Residence	The place they come from	How long they have lived in the city
<b>Factor I</b>	-,16*	-,09	,03	-,15*	-,17*	,10
Mountaineering	-,09	,01	,10	-,14*	-,11	,14*
Fishing	-,26***	-,13*	-,03	-,11	-,13*	,06
Horse-riding	-,11	-,15*	-,03	-,08	-,23***	,05
Camping	-,09	-,13*	-,01	-,13*	,02	,13*
<b>Factor II</b>	,07	-,06	,19**	-,05	-,08	,02
Walk in the countryside	,09	-,06	,13*	,09	-,08	,02
Picnicking	-,00	-,11	,14*	-,10	-,10	,06
Going to the Park	,05	-,13*	,11	,06	-,02	,00
<b>Factor III</b>	-,39***	-,15*	,21**	,02	-,14*	-,03
Football	-,55***	-,18**	,07	-,12	-,13*	,08
Basketball	-,37***	-,17*	,16**	,02	-,03	-,01
Volleyball	-,09	-,09	,20**	,20**	-,09	-,05
<b>Factor IV</b>	,05	-,01	,20**	-,05	,06	,02
Pub (night club)	-,02	-,02	,06	-,04	,08	,05
Theatre	,14*	-,08	,19**	,05	,07	,06
Cinema	-,02	,08	,18**	-,11	,02	,01
<b>Factor V</b>	,17**	,13*	,04	,07	,11	-,20**
Canteen	,08	,19**	-,02	,06	,08	-,14*
Café	,19**	,02	,08	,04	,11	-,16*

\*<,05; \*\*<,005; \*\*\*<,001

## The requirements for recreation sites.

In this study 13 indoor and outdoor recreation sites have been taken into evaluation. The most required ones from these sites are museums, cycling track, running (jogging) track, pub, theatre, and cinema, respectively. As seen in Table 5, four factors have been found that explain the requirements for recreation sites with 62% variance. Factor I is explained with 18% variance and Cronbach's alpha is 0.63. Computed alpha value shows that this factor is quite reliable. Factor I includes four recreation sites. Common characteristics of these sites are that they are indoors and they make cultural and social recreation possible. Factor II is explained with 18% variance and Cronbach's alpha is 0.81. According to this, Factor II is highly reliable. Factor II includes three recreation sites. Common characteristics of these sites are that they are both indoors and outdoors and they make sportive recreational activities possible. Factor III is explained with 15% variance and Cronbach's alpha is 0.67. According to this, Factor III is also quite reliable. Factor III includes four recreation sites. Common characteristics of these sites are that they are outdoors and they make recreational activities that do not need much equipment and experience possible. Factor IV is explained with 11% variance and Cronbach's alpha is 0.56. According to this, Factor IV has low reliability. Common characteristics of the recreational sites included in Factor V are that they are indoors and they make frequently repeated recreational activities possible. I factor defines the most required recreation sites by the students. This is followed by III and II factors, respectively.

**Table 5. Factor analysis of recreation sites found inadequate**

	Mean of participation	Factor I	Factor II	Factor III	Factor IV
Theatre	1,5	,73			
Museum	1,2	,71			
Cinema	1,6	,67			
Pub	1,4	,50			
Football court	1,8		,90		
Basketball court	1,7		,87		
Volleyball court	2,3		,62		
Park	2,0			,73	
Cycling track	1,3			,67	
Jogging track	1,3			,65	
Nature park	1,8			,63	
Internet cafe	2,6				,84
Cafe	2,2				,60
Variance %		18	18	15	11
Mean		1,4	1,9	1,5	2,4
Alpha		,63	,81	,67	,56

## The Relationship between the Needs of Recreation Sites and Socio-Economic and Demographical Characteristics.

In Table 6, the effects of socio-economic and demographic characteristics of the students in AİBÜ Düzce campus on the requirements for recreation sites are observed. According to this, Factor I is required by the students with low income level and living for shorter time in Düzce than the other students. The students with low income level, and living far from the city centre required the sites defined in Factor II. The students with low income level, and coming to Düzce from scarcely populated residential areas requires the sites in Factor III more than the others. The student characteristics determining the need for Factor IV is observed as the education he/she gets. According to Table 6, the students having education on medical sciences require the sites included in all four Factors the most.

**Table 6. The relationship between the recreation sites found inadequate and user characteristics**

	Gender	Income	Education	Residence	The place they come from	How long they have lived in the city
Factor I	,01	,14*	,42***	,06	,02	,14*
Theatre	,05	,09	,35***	,06	,10	,16*
Museum	,06	,07	,25***	,12	,03	,09
Cinema	,13*	,19**	,52***	,14*	-,02	-,00
Pub	-,07	,03	,08	,05	-,04	,12
Factor II	,10	,21**	,51***	,14*	,00	-,05
Football court	,05	,18**	,53***	,14*	-,03	-,10
Basketball court	,14*	,16*	,59***	,23***	,04	-,08
Volleyball court	,04	,15*	,18**	-,00	-,05	-,00
Factor III	-,01	,13*	,27***	-,07	,15*	,00
Park	,04	,05	,15*	-,06	,10	-,03
Cycling track	-,08	,16*	,29***	,02	,07	,07
Jogging track	-,03	,16*	,34***	-,04	,08	-,01
Nature park	,06	,00	,08	-,07	,04	,02
Factor IV	,04	-,03	,27***	,04	-,08	,00
Internet cafe	,16*	-,04	,05	,02	-,03	-,07
Cafe	-,10	,00	,35***	,05	-,09	,06

\*<,05; \*\*<,005; \*\*\*<,001

## Discussion and Result.

Gold (1980) stated that adults have 5-hour of leisure time daily on average. Robinson (1990) stated that the amounts of Americans' leisure time in 1985 were 40.5 hours a week. In a study carried out in Israel, it was calculated that the amount of leisure time in 2025 will be 7 hours (Interdisciplinary Centre for Technological Analysis and Forecasting, 1998). According to the present study carried out in AİBÜ Düzce campus, it was observed that the students have 39.5 hours leisure time a



week on average. When compared with the amounts of leisure time of the adults in other countries, we see that the students in Düzce have less leisure time. The amounts of leisure time around the world increase but the increase ratio in Turkey is low. In this study some demographic characteristics which may have an effect on this low increase have been examined. Demographic characteristics that increase the students' leisure time are: increases in their income level, coming to the site from a crowded city and the time they spend on the site. Shaws (1995) observed that there were differences between the leisure time of men and women. However, in this study with the students, it does not find any support.

According to this study carried out with the students studying in Düzce, demographic characteristics in participation in recreational activities and requirements for recreation sites show various effects. In their studies Hendee *et al* (1990) and Young (1983) observed that male university students were inclined to recreational activities in natural sites. Burch (1965) also stated that women are inclined to participate in recreational activities in groups and that men prefer individual recreational activities. In the present study carried out in Düzce, a similar situation can be observed in fishing which is an individual recreational activity in the countryside. Men prefer fishing more than women. In addition, some differences are observed between men and women in terms of recreational activities that require physical performance (cf. Dwyer 1994). Since countryside recreations are done individually or in relatively small groups, it is getting more difficult for women to participate in these activities. In order to increase women's participation in these kinds of countryside activities, establishing clubs and organizations by will be the solution.

Oğuz (2000) argued that income level is important in preferences for recreation sites and Gold (1980) stated that increases in income level increases the demand for recreation. The present study confirmed these results, in that, while students with high income levels prefer indoor recreational activities for social-purposes; those with low income levels prefer urban outdoor activities more. When observed in terms of the requirements for recreation sites, it was observed that the students with high income levels have fewer requirements for recreation sites than the others. This is because people with high income levels have mobility, therefore they can benefit from recreational sites over long distances. For this reason, when making recreational planning in Düzce, the requirements for students with low income level should be primarily evaluated.

In most studies, it has been observed that distance to the recreational activity and its sighting is an effective determinant of preferences (Roover *et al.*, 2002; Wiberg and Bulmer, 1995). In the present study differences are observed because of the distance of the students' residents from the recreation sites. The students living far from downtown participate in rural recreational activities more than others. In terms of the requirement for recreation sites, those living far from downtown need to purposefully go to the recreation site sports and the cinema. This shows that while Düzce is being reconstructed after the earthquake there is a need to build recreation sites far from the downtown close to the newly built residential area.

It was also observed that participation in recreational activities and their requirements for recreation sites are related to the education the university students in Düzce have. The students having engineering education participate in recreational

activities more than others. The students who have medical sciences education have the least leisure time and require more recreational sites while their participation in recreational activities are low. This shows that existing recreation sites are not preferred. Students studying medical sciences have less leisure time than the students from other departments because of their intensive class time, and have very few recreation areas in their neighbourhoods that they can benefit from. For this reason measures should be taken to increase the quality of recreational experiences.

As a result the most effective participants' characteristics in terms of amount of leisure time are income, time they have been in the city, and the place they have come from. In terms of students' participation in recreational activities, the most effective participants' characteristics are gender, education, and income. In terms of the need for recreational activities education and income are the most effective participants' characteristics.

The participation ratios of the university students in Düzce in daily recreational activities are low. As for the required recreation sites, the students find the sites suitable for daily recreational activities are inadequate, therefore university students in Düzce cannot meet their daily recreational needs. Again, participation in cultural-purpose recreational activities indoors is low and students need these kinds of recreation sites. These recreation sites should be in adequate amount and quality to meet the requirements.

## References.

- Atauri, J. A., Bravo, M.A., Ruiz, A. (2000) 'Visitors' Landscape Preferences as a Tool for Management of Recreational Use in Natural Areas: A Case Study in Sierra de Guadarrama (Madrid, Spain)'. *Landscape Research*, 25 (1), 49-62
- Burch, W. R., Jr. (1965) 'The play world of camping: Research into the social meaning of outdoor recreation'. *American journal of sociology*, 70, 604-612
- Carr, D., Williams, D. R. (1993) 'Understanding the Role of Ethnicity in Outdoor Recreation Experiences'. *Journal of Leisure Research*, 25, 22-38.
- Dwyer, J. F. (1993) 'Customer Diversity and the Future Demand For Outdoor Recreation'. *Proceeding of The 1993 Northeastern Recreation Research Symposium*. Northeastern Forest Experiment Station, GTR/NE-185, 59-63
- Dwyer, J. F. (1994) 'Customer Diversity and The Future Demand For Outdoor Recreation'. *Rocky Mountain Forest and Range Experiment Station*, GTR/RM-252.
- Floyd, M. N., Gramann, J. H., Saennz, R. (1993) 'Ethnic Factors and the Use of Public Outdoor Recreation Areas: The Case of Mexican Americans'. *Leisure Science* 15, 83-98.
- Gold, S. M. (1980) *Recreation Planning and Design*. McGraw-Hill, Inc. NY,
- Hendee, J. C., Stankey, G. H., Lucas, R. C. (1990) *Wilderness management*. Golden CO: North American Press.
- Interdisciplinary Center for Technological Analysis and Forecasting (1998) *Leisure in Israel: Trends for next millenium*. Tel Aviv: Interdisciplinary center for technological analysis and forecasting at Tel Aviv University (Hebrew)
- IsoAhola, S. (1979) 'Basic Dimensions of Definitions of Leisure'. *Journal of Leisure Research*, 11:28-39

- Kelly, J. R. (1980) 'Outdoor Recreation Participation: A Comparative Analysis'. *Leisure Science*, 3, 129-154.
- Kelly, J. R. (1987) People and Parks: What Do We Know? In: Herrman, Raymond; Bostedt-Craig, Terri, (eds.); Proceedings of the Conference on Science in the National Parks, Volume I, The Plenary Sessions. The Fourth Triennial Conference on Research in The National Parks and Equivalent Reserves, July 13-18, 1986, Co-Sponsored by the U.S. National Park Service and The George Wright Society at Colorado State University, Fort Collins, Colorado, 103-121
- Kleiber, D. A., Carandall, R. (1981) 'Leisure and Work Ethics and Locus of Control'. *Leisure Sciences*, 4:447-485.
- Manning, R. E. (1985) 'Crowding Norms in Backcountry Settings: A Revive and Synthesis'. *Journal of Leisure Research*, 17(2):75-89.
- Oğuz, D. (2000) 'User Surveys of Ankara's Urban Parks'. *Landscape and Urban Planning*, 52:165-171
- Özdamar, K. (1999) Paket Programlar ile İstatistiksel Veri Analizi. Cilt 1. Kaan Kitapevi, Eskişehir.
- Robinson, J.P. (1990) The leisure pie (use of leisure time). *American Demographics*, 12:39
- Roovers, P., M., Hermy, H., Gulinck. (2002) 'Visitor Profile, Perceptions and Expectation in Forests From A Gradient of Increasing Urbanization in Central Belgium'. *Landscape and Urban Planning*, 59:129-145
- Shaws, S. (1985) 'Gender and leisure: Inequality in the distribution of leisure time'. *Journal of leisure research*, 7:266-282
- Vaske, J. J., A. R., Graefe, A., Dempster. (1982) 'Social and Environmental Influences on Perceived Crowding'. In Proceeding of the Wilderness Psychology Group Conference. West Virginia Uni. Morgantown, 211-227.
- Wiberg, K., Bulmer, S. (1995) 'The 1994 Lake Groton Recreationist Survey: Policy options for resolving lake user conflicts'. Proceeding of the 1995 Northeastern Recreation Symposium. Northeastern Forest Experiment Station, GTR/NE-218:99-102
- Young, R. (1983) 'Towards an understanding of wilderness participation'. *Leisure sciences*, 5:339-357

### **Authors:**

Haldun MÜDERRİSOĞLU\*  
Elif Lütüye KUTAY  
Sevil Örnekci EŞEN

Department of Landscape Architecture, Faculty of Forestry, Abant İzzet Baysal University, 81000, Düzce, Turkey

\*Corresponding author. Tel: +90 3805413723 Fax: +90 3805413778  
E-mail: muderrisoglu\_h@ibu.edu.tr