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NATUSERS' MOTIVATIONS AND ATTITUDES IN URBAN GREEN CORRIDORS: CHALLENGES AND OPPORTUNITIES. CASE STUDY OF THE *PARC FLUVIAL DEL TÚRIA* (SPAIN)

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ABSTRACT

With the population growth in cities, urban green corridors are positioned to be one of the most in-demand green spaces, acting as recreation areas and as alternative paths for bicycle-commuters or walkers and posing new management challenges for the development of an adequate public use of these sites. However, most studies of outdoor recreation have been pursued in natural protected areas where visitors mainly develop educational/interpretative activities. In addition, little is known regarding why people use suburban green corridors and their motivations and attitudes. The initial outcomes of this research indicate that visitors of these areas primarily engage in leisure/entertainment activities and sport activities, with their primary motivations being the practice of outdoor activities and relaxation and contact with nature: they visit these places searching for an outdoor setting to pursue different activities. Therefore, these visitors could be named 'users of nature' (*natusers*) more than 'visitors of nature', whose traditional primary motivation was 'to know the site'.

Key words: Peri-urban green corridors, Nature users (*Natusers*) behaviours, Mediterranean protected areas

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RESUMEN

Debido al incremento continuado de los habitantes en las grades ciudades, los corredores verdes urbanos se sitúan como una de las zonas verdes más demandadas que existen, bien como zonas de recreo para los urbanitas o como vías alternativas para ciclistas y pedestres, planteando así un nuevo reto en cuanto al desarrollo de un adecuado uso público de estos lugares. Sin embargo, la mayoría de los estudios que existen relacionados con el uso público de espacios naturales han sido realizados en áreas protegidas, donde los visitantes principalmente realizan actividades educativas e interpretativas. Además, se sabe muy poco sobre por qué la gente usa los corredores verdes urbanos, sobre sus motivaciones y actitudes. Los resultados iniciales del presente estudio nos indican que los usuarios corredores verdes urbanos principalmente los usan como escenario donde practicar diferentes actividades al aire libre, relajarse o simplemente estar en contacto con la naturaleza. De hecho, estos visitantes podrían llamarse *natusers* (usuarios de la naturaleza), cuya principal motivación es usar la naturaleza, más que *visitantes de naturaleza*, cuya principal motivación es conocer el sitio.

Palabras clave: Corredores verdes periurbanos, Comportamientos de los usuarios de la nauraleza (*natusers*), Espacios Protegidos mediterráneos.

I. INTRODUCTION

Throughout their short but intense history, urban green belts and corridors[1] (great suburban green spaces) have been associated with the improvement of urban environments and the naturalisation of the city to make urban environments 'greener' and more habitable.

In fact, much is known regarding the need for nature in cities: the World Health Organisation (WHO) proposes an optimum of 15 m^2 of green space in cities per inhabitant with a minimum of 10 m^2. There are also several studies, such as those performed by Hartig, Mang, and Evans (1991), Conway (2000), and Kappler and Miller (2009), which highlight the positive relationship between well-being and mental and physical health and green areas. Some authors like Louv (2008) argues that people who have lost the connection with nature can even suffer the "nature deficit disorder" syndrome that causes physical and mental diseases. Additionally, a recent evaluation of the Natural England's Walking Initiative found the cost-benefit ratio of the scheme to be 1:7.18, e.g., for every £1 spent on the initiative, there would be £7.18 worth of health benefit delivered (National Institute for Health and Clinical Excellence, 2006). The importance of wilderness is also well-supported by the landscape perception and assessment literature (Hull, Robertson, and Kendra, 2001). Increasing numbers of research studies confirm the importance of nature in physical and psychological health and wellbeing (Ulrich, 1984; Wells, 2000; Kaplan, 2001; Kuo, 2001).

1 This paper refers to urban green corridors as those open green spaces linking natural areas, cultural heritage, or historical places with other populated areas, usually through rivers, that offer recreational areas. These corridors can also be associated to green belts.

In fact, currently green areas in cities provide hedonic, aesthetic, urban, social, scientific and environmental functions. Following Chon's ideas (2004), urban green corridors cover several objectives that can be divided in two main groups: ecological objectives (landscape integrity, connectivity, water quality and biodiversity) and social objectives (recreation and tourism, physical exercise and alternative transport), both of which increase community or society sustainability.

Beyond satisfying the recreational expectations of surrounding neighbourhood visitors, it is important to consider that gathering visitors in suburban green corridors promotes a better preservation of other natural areas with higher biodiversity and environmental values. It could be said that suburban green corridors work as a green-buffer of the citizens' environmental impacts associated to their leisure outdoor activities.

Knowing the capacities of urban green corridors, in the last years, an increasing number of cities have adopted these green structures not only in their urban-rural fringe but also as green belts to stop urban growth (Monclús, 2006), for example, the green belts in Sao Paulo (Brazil) or in Austin (Texas, USA) and the green structures in Vitoria-Gasteiz, Girona and Zaragoza (all them in Spain) or the Botanic Spine in Dublin (Ireland). Following this approach, many cities and administrations intend to revitalise their urban areas by promoting new green corridors that connect cities with rural areas, improving at the same time the recreation options and facilities of alternative transport for dwellers and visitors (Moore and Shafer, 2001). In this line, the London Plan (2009) is highlighted as one of the keys to maximise economic growth, to create easy, safe and convenient access routes between home, work, leisure and support services, with green corridors being a good option, particularly for their associated multi-purpose trails, suitable for both, commuting and leisure.

Regarding the ecological aspects of green corridors, they are also becoming more prominent due to their double function: on the one hand, they work as 'nature bites' for dwellers, and on the other hand, urban green corridors link urban green areas between them and/or with rural habitats, maintaining and enhancing urban biodiversity (Flink and Searns, 1993). In this sense, it is widely acknowledged that the connection between natural areas with green corridors increases their ecological value compared with the value of those same areas as isolated green areas.

Urban growth must take into consideration the creation of large recreational zones that often, upon the request of citizens, must remain as natural as possible (Savard, Clergeau, and Mennechez, 2000) to enhance nature and biodiversity, knowing that riparian areas along streams provide important corridors for wildlife in urban areas.

In the Mediterranean countries, the need for green spaces in urban environments is even more marked due to the climate, which is characterised by high temperatures during the summer and severe drought periods. Urban green corridors are similar to forests, working as temperature regulators by mitigating the urban heat island effect, reducing the increase of temperature in the city during the summer period because of the water evaporation due to the transpiration of leaves (Unidad de Ecología Global, 2011); this feature is highly necessary in the Mediterranean climate area of influence, where temperatures between 30 ºC and 35 ºC can be easily reached during the summer.

In addition to the above mentioned factors and situations, with the population growth in urban areas, urban and suburban green corridors have been considered as among the most in-demand green spaces, functioning as recreation areas where visitors practice outdoor activities and enjoy nature and as alternative and safe paths for bicycle-commuters and walkers. Following this approach, in June 2008, Bristol was named the UK,s first Cycling City, based on a campaign implemented by the local government with both, national and local funds, to stimulate significant increases in cycling levels. This campaign has promoted the use of bicycles, and some parts of the city now have one in every five people regularly cycle to work[2].

All these factors provide a context where urban green corridors are natural areas with a huge number of visitors, even more than some protected areas, such as National Parks, Natural Parks or National Nature Reserves, which are usually far from populated areas. Nevertheless, although urban green corridors serve an increasing number of visitors, most of these green structures are not considered protected areas (they would be observed as mere urban green areas or urban gardens), so the majority of them do not have Conservation Management Plans, Outdoor Recreation Plans, or other visitors management tools to develop and manage an adequate public use of the site.

In fact, to date, there are few data (e.g., profile, perceptions, and attitudes) regarding visitors of urban green corridors; most studies of outdoor recreation have been pursued in dispersed or wildland areas (Jin-Hyung, Scott, and Moore, 2002), despite conducting studies regarding the opinions, perceptions and observations of visitors that are an important source of information to guide planners and managers of natural areas. This information can relate to a range of issues that might affect the quality of the visitors' experience. The information can also be used to assess the views and support of visitors regarding a range of wider conservation and associated economic issues (Boshoff, Kerley, Landman, and Bradfield, 2006). However, as mentioned above, urban green corridors usually do not have any legal protection and their management only addresses gardening and facilities maintenance and/or waste management, without considering the conservation of their ecological values and functions as well as the public use of the site; this is without taking into account all the resources that should be invested to avoid conflicts among users, to promote public involvement processes and other actions performed to 'manage the users' beyond the 'pure' management of the site.

Thus, we are facing up a new scenario with an increasing number of visitors without specially designed tools for managing adequately the public use of the site.

To obtain deeper knowledge regarding visitors in suburban green corridors, a survey was conducted in the *Parc Fluvial del Túria*, a suburban fluvial green corridor located in Valencia, Spain. This suburban green corridor links the city of Valencia with eight up stream towns encompassing the last 40 km of the Turia River before the mouth of the river in the Mediterranean Sea, offering a green corridor to more than 1 million people living near the river. The green corridor has several facilities for users: a multi-shared use path, signage facilities (directional and informational post signs) and several amenity areas with picnic tables, playground and fitness equipment. The existence of amenity areas with tables and benches

2 www.bristol.gov.uk/ccm/content/Transport-Streets/Walking-Cycling/cycling-in-bristol/bristol-englands-first-cycling-city.en (accessed 14/07/2013).

is very common in the Mediterranean green corridors and natural areas, due to the existing link between the local culture and gastronomy as well as the tradition of families to reunite around the table. This corridor is integrated in a greater protected area, the *Parc Natural del Túria* (a regional Natural Park), which has a Management Plan of the Natural Resources (*Plan de Ordenación de los Recursos Naturales,* Decreto 42/2007, Consell Valencià); however, as previously stated, the corridor has no document or plan addressing the management of the recreational activities or public use of the site.

This paper analyses the results obtained from the survey. These data not only give significant information about visitors' attitudes and behaviours but also about their motivations and, as will be commented on later, the relation among these concepts, as well as their implications in the recreational management of the site.

II. MATERIALS AND METHODS

Based on several studies about visitors profile and motivations conducted in protected areas, such as those conducted by Andereck, Uysal, Hartmann, and Iyomasa (1988), Uysal, Mcdonald, and Martin (1994), Jin-Hyung et al. (2002), Awaritefe (2004), Boshoff et al. (2006), Van der Merwe and Saayman (2008), and Boothma (2009), among others, it is known that in these natural outdoor settings, visitors mainly develop educational and interpretative activities, following the activities' classification made by Viñals and Bernabé (1999), with the visitors' principal motivation to get themselves acquainted with the site and referring to motivation as those internal factors that arouse and give direction to human behaviour (Iso-Ahola, 1999). In contrast, little is known regarding why people use green corridors in suburban contexts and what are their motivations and attitudes.

II.1. Design of the research and survey campaign

Due to the ignorance about the real number of users of the green corridor (this is the population size of the study), it was decided to perform as many interviews as possible with a non-probability sampling and a random selection of respondents. The population or universe is comprised of those users of the green corridor that are performing leisure activities (they are in the green corridor for non-working reasons). Finally, the achieved sample size was n = 1,953. Thus, considering that 1 million people have access to the site (population size could be assimilated to infinite), it could be said that the study's confidence level is 97.06% (Miquel, Bigné, Levy, Cuenca, and Miquel, 1997). A confidence level above 95% is the most commonly used confidence level in this type of study.

The surveys campaign was conducted during two different periods: the first part was performed during March, April and May of 2009 divided into 21 days and it was developed before the official inauguration of the green corridor (in that time, most facilities were already installed in the green corridor, so many people used the green corridor before the official inauguration); the second part was in July of 2010, combining week and weekend days (Table 1). The aim of these campaigns was to monitor the visitors' attitudes and behaviours with the purpose of determining the visitors' profile and to unfold people's thoughts and perceptions in a qualitative way.

Table 1
TIME DISTRIBUTION OF THE SURVEY CAMPAIGN PERFORMED IN THE PARC FLUVIAL DEL TÚRIA

1st campaign (before the official inauguration)			**2nd campaign (after the official inauguration)**	
March 2009	April 2009	May 2009	July 2010	
Bank holidays and week days	Eastern holidays and weekends	Bank holidays and week days	Week days	Weekends
1845 surveys			108 surveys	

The surveys were face-to-face interviews held with green corridor visitors and performed by two pollsters. The survey included a total of 26 questions and did not exceed the maximum of 30 questions proposed for a survey that addresses the general public, as suggested by Cadoche, Stegmayer, Burioni, and Bernardez (1998).

The survey was divided into three main sections. (1) Personal information (gender, age, place of residence, level of studies and working sector). These questions included closed-answers and were part of the introduction. (2) The second section involved the activities developed in the green corridor. This section was very important, as it held the bundle of important information related to the activities in the green corridor; thus it was placed in the middle of the survey, following once more the recommendations of Cadoche et al. (1998). The answers were closed-answers as well (closed answers with multiple responses). The options given to the respondents regarding the activities that they usually develop in the green corridor were 18 plus the 'others' option: walking, walking the dog, bicycling, reading, picnic, quads or motorcycling, sunbathing, swimming, gathering of fruit, horse riding, mountain biking, running, fishing, taking pictures, sightseeing, drawing and commuting. (3) The third section of the survey examined the feelings and opinions of the visitors regarding the *Parc Fluvial del Túria*. This section included both open and closed answers, and at the end of the survey, people could make any observation or comment they wanted.

III. RESULTS: THE NEW 'USERS OF NATURE', OR *NATUSERS*

The results of the survey (especially those related to the 2nd and 3rd part of the questionnaire) can be summarised as follows (note that respondents could provide more than one answer by marking all the activities used to develop in the green corridor). Pedestrian activities are the most popular ones (82.7%), including walking (51.6% of total), trekking (5.3%), walking the dog (13.7%) and running (12.1%). In second place, are cycling activities with a 62.4% of practitioners, including in this group mountain bicyclers (35.9% of total) and bicyclists (26.5%), although it seems that recently the bicyclists collective is rapidly increasing (especially those people practicing mountain biking) according to on-site observations. Other activities developed in the green corridor are picnicking (11.5%), gathering of fruit (6.4%), fishing (6.6%), horse riding (3.1%), observing nature (2.8%), photography (2.3%), swimming (1.6%) and others (1.6%). In summary, the most popular activities in the green

corridor are recreational and sport activities *vs*. educational or interpretative ones. A specific consideration must be given to the popularity of mountain biking and running. These special sport practitioners could be considered to belong to the 'more-more' profile, described by Corbett (2006) as people who work for long hours during the day and who also tend to be more active in their leisure time. This concept is similar to vigorexy, defined as the addiction to exercise (Pope, Phillips, and Olivardia, 2001). We can find interaction terms between this variable and gender because this profile is also endorsed by the majority of male visitors (62.6%), who normally are much more likely to exhibit vigorexy than women.

The frequency of visits is almost equal between those who first come to the site and those who come once per month, corresponding to 17.2% and 17.7%, respectively, while visiting the site two to four times per week has the highest score of 51.8%. Other results are: daily (7.6%) and punctual periods (4.8%). These last results reflect how people use the site regularly, placing the green corridor in a 'category' that is closer to the urban green spaces than to the natural protected areas that are usually quite far from large cities, thus making accessing them more difficult. In this sense, the distance between the city and the green space is usually a determinant factor in the frequency of visits (Lindhagen, 1996; Schipperijn *et al*., 2010; Tapsuwana, MacDonald, King and Poudyal, 2012), e.g., the lower the distance, the higher the frequency of visits. A study addressed by Roggeman (1982) proposed limits to the distances covered by visitors in relation to their vehicle or mode of transport: between 0 and 3 km for pedestrians; between 0 and 10 km for cyclists and less than 25 km for motor vehicles; however, if the site is well known and has good access routes, visitors tend to underestimate the distance (Scott, Evenson, Cohen, and Cox, 2007). The above discussion indicates that the majority of users are the neighbours of the suburban green corridor, which could be an advantage when implementing public involvement policies, due to the close relationship between the visitors and the green corridor. In fact, there are several examples of public involvement initiatives in green corridors connecting urban areas with successful results: the River User Groups or the Action Groups in the Thames River (England) and the volunteer work developed within the Thames Landscape Strategy Management Plan (2007). Volunteers develop a range of tasks, including, comprehensive litter picks, foreshore clearance, coppicing, hedge laying, structure repair and removal of invasive species. In 2008, a staggering 16,500 volunteer hours were worked on Thames Landscape Strategy projects in Molesey, Kingston, Teddington, Ham, Twickenham, Richmond, Kew and Brentford. The volunteers ranged from local people and families to riverside businesses or large corporations[3].

Coming back to the survey analysis, most respondents visit the suburban green corridor of *Parc Fluvial del Túria* with friends (33.5%) followed by those who visit with the family (27.2%). Couples represent 20.2% of the respondents, and people visiting alone comprise 18.0% (this group, 'alone visitors' are most likely dog-walkers, runners and those developing sport activities).

To the question 'what is your favourite aspect of the site', note that, due to a problem during the surveys campaign, only 1,026 people provided an answer. Among these respondents, 53.4% indicated 'nature/landscape/scenery', 12.8% indicated 'calmness', 9.3% indicated 'adequacy and length of the trail' and finally an 8.4% indicated 'the river' (the other answers

3 www.thames-landscape-strategy.org.uk/projects (accessed 15/09/2013)

did not have a relevant representation). These results first reaffirm the 'need for nature' of inhabitants of urban areas commented above. Having 9.3% of respondents indicating the adequacy and length of the trail could be due to the high number of cyclists using the site, where they find a vehicular traffic free greenway immersed in a natural setting.

In summary, these results could support a hypothesis based on the visitors' activities, behaviours and attitudes: visitors of suburban green corridors come to the green area several times per month (even per week) seeking an outdoor natural setting where they can participate in their favourite activities and spend their free time alone or with family and friends. This means that their main motivation when visiting the site would not be to get themselves acquainted with nature (e.g., see and learn things about its fauna and flora or take pictures). Visitors' main motivation would be to 'use' the site as natural setting where they can perform different outdoor activities.

These results are also most likely related to the type/characteristics of the site (as mentioned it is a suburban green corridor is a natural area near the city connecting urban spaces). The typology of this green space determines that, as the survey reflects, most people visit the site to 'use' it as natural setting for practicing or developing different outdoor activities (walking, cycling, etc.), which is reinforced by the users' frequency of visit and that 90.6% of the respondents come from the nearby towns. In fact, this result goes on the same line as the results of a survey carried out in a suburban trail in the North Chagrin Reservation (Cleveland, USA) by Jin-Hyung *et al*. (2002), where visitors' principal motivations were exercise and skills development, enjoyment (perform an activity they really enjoy), relaxation and appreciation of nature. All the above discussion supports the concept of visitors as users of the site for their personnel satisfaction, e.g., visitors as 'users of nature'. This 'new' category of visitors could be called *natusers*: those people using suburban natural areas as natural settings where develop outdoor recreational activities. Although the concept of natusers seems to be negative regarding conservationism and awareness (natusers' main motivation would not be to protect de site but to use it), this category of users could present an opportunity, considering that most of them come from the nearby towns (90.6%), for successful reinforcement of public involvement initiatives, associations and activities related to the green corridor. If managers of the site can convince local people to view the site as a personnel issue, they will most likely take care of it and become involved in the management. The short distance between the green corridor and several populated areas makes it easier to develop awareness campaigns and activities at local schools, e.g., bringing school children to the site to help them to increase their 'sense of place' towards the green corridor. In this sense, it is now widely accepted that members of the public should be involved in environmental decision-making (Webler, Tuler, and Krueger, 2001), even more if those people live next to the site, as in this case study. As Derr (2002) recalled, environmental education programs have often included 'sense of place' in their curricula, assuming that if children care about one place in particular, they will eventually care about the environment in general (Pyle, 1992, 1993; Orr 1993; Sobel, 1993, 1997, 1998; Traina and Darley-Hill 1995; Turner, 1997; Leslie, Tallmadge, Wessels, and Zwinger, 1999), being also acknowledged that memorable childhood play experiences in wild environments help to shape later adult interest in environmental activism (Bixler, Floyd, and Hammitt, 2002). However, the high frequency level and most people coming from nearby towns make it easier to have spectators and participants in the programmed activities, due to the closeness and the easy access to the site.

Returning to the survey results, to the question 'did you have any conflict with other users', 11.5% of respondents indicated 'yes', which is a considerable number of people. These conflicts are most likely due to the shared-use trail, where walkers, dog-walkers, runners and cyclists meet. Authors such as Church (2011) have reported this phenomenon, confirming that in many successful restoration projects, conflicts between walkers and cyclists increase. Knowing this propensity for conflict, the British Waterways London carried out in 2007 the 'Two Tings' campaign to '*... encourage users to think of each other as they traverse the towpath and remind cyclists and pedestrians about the towpath code of conduct…*', with the objective of solving problems arising from sharing recreational paths. These conflicts are related to the public use of the site and the lack of an adequate outdoor recreation plan. Also related to this class of conflicts, the US National Park Service proposed a code of etiquette where pedestrians have priority over cyclists, and horse riders have priority over both pedestrians and cyclists. Following this code, different signals (Viñals, Alonso-Monasterio, and Halasa, 2011) were installed in the green corridor to dismiss conflicts among users; however, according to the responses, more work should be done to address this problem.

Other aspects that visitors dislike are the 'presence of litter' (20.3%) and the 'presence of flies' (22.6%). The presence of litter appears to have three main causes: the high public affluence, the lack of people's awareness and environmental education and the lack of an adequate waste management. The presence of flies is largely due to the season (the majority of the survey was done in spring). These aspects indicate the need for a coordinated management of the site involving a collaboration of all the public institutions and administrations that meet in the area: the green corridors usually take up several territories and administrations, causing their management to be more complex than in other outdoor recreation sites or natural areas due to the requirement of the collaboration among different administrations. In addition, a campaign to raise public awareness should be addressed.

IV. DISCUSSION

There is abundant literature regarding the need for management in natural areas. Natural protected areas receive thousands of people, and it is important that visitors of these areas behave correctly in an autonomous way, respecting the environment and the other visitors, due to the impossibility of having rangers or watchmen in every part of such large areas. Knowing this, significant part of the management strategy of a natural area is focused on interpretation, education and strategic communication, with the aim to modify visitors' attitudes and behaviours towards the site to guarantee its conservation (Gruber and Benayas, 2002). Along these lines, authors such as Donat (2002) proposed a general strategy of outdoor recreation plans focusing interest on the profile of the visitors (what determinates their attitudes and behaviours). This is most likely a key element because significant part of the strategy is based on the 'availability' of visitors to receive the information and data about the site, usually provided by means of interpretation panels, signs, brochures and guided visits among other resources. Visitors are supposed to behave correctly, according to the information and advice given from the managers of the site.

Nevertheless, after the analysis of the main data obtained in the present study, it could be stated that visitors in protected areas are more 'permeable' to advice, information and messages provided by the site's managers, than visitors of suburban green corridors who with have their attention focused on their activity, instead of the site in which they are visiting. Thus, visitors of suburban green corridors would be less 'permeable' to the brochures, signals and panels installed in the site (we name them 'message-proof' visitors), although they most likely want the site to be well-conserved and clean. Within this context, the communication between the site's managers and users should adopt formats or media different and wider than static traditional signs, brochures and panels because once the users arrive at the site, they seem to focus their attention on skills development, relaxation and other recreational activities, making it more difficult to attract their attention. In this respect, the 'traditional' on-site tools for visitors' management involving interpretation or environmental education and awareness, usually implemented to address the recreational management of natural areas, could not work adequately in the new scenario in suburban green corridors. Furthermore, the fact that most visitors came to the site frequently causes the panels, signs and brochures of the site to become out-dated rapidly (visitors would be 'tired' of reading the same text again and again).

Nevertheless, the high frequency level of visits could be an advantage regarding information and advises uploading and public involvement processes, due to the current easy access to new technologies. Currently, public involvement processes or campaigns require the use of new technologies, which enrich the process by enhancing effective participation and communication among experts and non-experts via an easy-to-use and interaction exchange platform, thereby exploiting the local knowledge and user-generated content (Bugs, Granell, Fonts, Huerta, and Painho, 2010). According to O'Reilly (2005), Web 2.0 turns traditional web pages into participatory platforms, in which people not only consume content (via downloading) but also contribute and produce new content (via uploading). In fact, an increasing amount of the information we now consume digitally is user created, as evidenced by sites such as Youtube, Flickr or Wikiloc among others; users incorporate new techniques (tagging, social networks, blogs, wikis, or mashups) to break the barriers between users and data-providers by creating new and useful links among them (Hudson-Smith and Crooks, 2008). Many users of the *Parc Fluvial del Túria* are already creating contents about the site by proposing self-tracked GPS trails as a means of reporting problems in the green corridor. Creating a platform where all the information collected under the coordination of the site's managers could assist in the conservation of the site. All the data obtained could provide many benefits, such as: to avoid over-crowded areas in the park by promoting via the internet the use of alternative areas or zones; to provide daily updated information about the site (weather, most recommended visits or zones, etc.); to collect data and pictures from visitors ('have your say' campaigns); to organise and announce punctual actions and campaigns, etc. The goal would be that visitors use the webpage or the apps of the site before visiting it, and upload any comment or information they want to after.

Regarding the behaviours, attitudes and motivations of visitors in the *Parc Fluvial del Túria,* Table 2 presents the most significant results that correlate the visitors' profile of suburban green corridors with the challenges and opportunities involved.

Table 2
MAIN FEATURES OF SUBURBAN GREEN CORRIDORS' USERS (NATUSERS) AND THE CHALLENGES AND OPPORTUNITIES CREATED

	Urban green corridors (PFT)	**Challenges and Opportunities**
How users visit the site	Friends, family, or alone	Spontaneous/unplanned visits could imply localised overcrowding.
Fidelity/frequency of visits	They visit the site several times (daily, every weeks and monthly)	Signals, panels and brochures are out-dated. Public involvement. Feed-back among users and managers. Increase of 'sense of place'. Lack of participants in programmed activities.
Activities developed in the green corridor	Mainly sports and recreational activities: go for a walk, walk the dog and bicycling	Conflicts among users. Attention focused on the activity (advice and information imperviousness, 'message-proof' users).
Access and proximity	On foot, by bicycle, nearby towns	Difficulty in forecasting visitors' affluence. Success of participants in programmed and voluntary on-site activities. Environmental education activities at local schools. Easy to create a 'sense of place'.
Motivations and behaviours	Practice outdoor activities, contact with nature, relaxation	Conflicts among users. Concept of urban park more than natural park. Littering problems.

Source: adapted from Alonso-Monasterio, 2010.

V. CONCLUSIONS

The results of the study indicated that the *Parc Fluvial del Túria* acts such a neighbourhood park, and a clear relation between proximity and recreation use exists.

Regarding to site use visitors motivations and behaviours, it can be noted that they are different from those of regular visitors in natural protected areas. The primary differences are based on three key issues: 1) visitors of green corridors look in these sites for an outdoor setting to develop hedonic, recreational or sport activities. Therefore, they could be named *natusers* or 'users of nature' rather than 'visitors of nature', whose traditional main motivation is knowledge (education and interpretation); 2) they visit the site daily or weekly (high frequency); and 3) most visitors come from the nearby towns. According to the data obtained, this 'new' class of users could be divided into two main groups: hedonic and recreational natusers, and sport natusers, with their principal features being described below.

The hedonistic and recreational natusers group includes walkers, dog-walkers, bicyclists, and collectors (fruit gatherers, etc.) who want to spend a pleasant time out practicing some recreational activity while satisfying their 'nature needs'. The nature needs of this group are easily achievable (they do not need to visit remote destinations to satisfy their expectations).

They are same-day visitors or excursionists, without overnighting when visiting the site. This group of users love nature but their attitudes and behaviours could not be appropriated due to a 'lack of environmental knowledge'. They usually are more tolerant regarding congestion or overcrowded areas.

The sport natusers group includes those users practicing sports (runners, mountain bicyclers, hikers, etc.) seeking skills development and/or to remain fit. They are regular and frequent visitors and their main motivation is to exceed or overcome their personal sportive limits or marks, which creates conflicts with other visitors or users who complicate or impede their activities (dog-walkers or kids sharing or crossing the trail they are using, etc.), being less tolerant to the other groups of users. They associate visiting the site with health and fitness, so they want the site to be clean and well conserved and take care of it.

Overall, outdoor recreation managers are facing a new scenario in which natusers view nature areas as good settings to develop different activities, posing new challenges and opportunities regarding visitor' management. In this sense, deeper research should be addressed to provide a tailored visitors management strategy by redesigning the traditional tools and defining new ones.

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