Original Article

Analysis of the characteristics of Federated Carpfishing Anglers in Spain

JAVIER CACHÓN [1] , PEDRO VALDIVIA-MORAL [2] , ANA ORTIZ ORTIZ [1], CLEMENTE POZUELO [1], FÁTIMA CHACÓN-BORREGO [3]

[1] *Faculty of Humanities and Education Sciences, University of Jaen, Spain*

[2] *Faculty of Education, University of Granada, Spain*

[3] *Faculty of Education, University of Sevilla, Spain*

ABSTRACT

Chacon, J., Valdivia-Moral, P., Ortíz, A., Pozuelo, C., & Chacón-Borrego, F. (2015). Analysis of the characteristics of Federated Carpfishing Anglers in Spain. *J. Hum. Sport Exerc., 10*(1), pp.52-64. The objective of this work is to know the characteristics of the federated sport anglers who practice the method of fishing known as Carpfishing. The sample is composed of 47 anglers, (n=47) of different fishing clubs that practice the method of Carpfishing in Spain. The investigation was carried out with a quantitative design that was both transversal and descriptive. A descriptive analysis was done in which values of frequency and percentage were found. In the second place, the ANOVA test was performed to compare the differences between groups. The results demonstrate that significant differences were found in distinct items in accordance to the grouping variables analyzed. Among the conclusions, it is pointed out that in relation to the psychophysical characteristics related to the sport that the anglers try to spend as little time as possible without sleeping during a competition. **Key words**: COMPETITION, FISHING, PSYCHOLOGY.

Corresponding author. Faculty of Education, University of Granada, 18071 Granada, Spain
E-mail: pvaldivia@ugr.es
Submitted for publication September 2015
Accepted for publication October 2015
JOURNAL OF HUMAN SPORT & EXERCISEISSN 1988-5202

doi:10.14198/jhse.2015.101.06

INTRODUCTION

Carpfishing is a relatively new type of sport, which currently is on the rise in Spain. Because of this, the characteristics of the athletes that practice it have not been clearly defined despite the fact that in the year 2010 this sport was defined as a sport specialty in Spain (Andalusian Federation of Sport Fishing [FAPD], 2011). As a result, the innovation of this work is that there have not been previous investigations in this field because it is such a new specialty. In relation, there have been published many opinion articles in this specialty that are focused on the genetics and biology of the fish species which tend to have the objective of the development of baits. On the other hand, the authors identify an athlete of high caliber in fishing, as recognized in the official Gazette of the Government of Andalusia (BOJA nº 66 of the 8th of April of 2013), which demonstrates the depth of analysis of the sport.

The eco-friendly aspect of this sport is also highlighted because of the care for the environment that is involved in this physical activity of great beauty, which requires mental and physical preparation along with an interaction with nature that is not common in other physical trials. Accordingly, this is a sport that is closely related to ecotourism (González Rodríguez, 2004; Love et al., 2013) and scientific tourism, as well as adventure tourism, cultural tourism, ecotourism, research, and educational innovations, because, as a result of where the competitions of Carpfishing are held, one can approach them from any of these perspectives. This makes it a multidisciplinary activity worthy of being considered in the context in which the event takes place (Beica & Gonçalves-de-Freitas, 2014).

The development of scientific tourism is supported, like the tourism niches of sports and culture, in the revival of the interest of the general population (Bourlon & Mao, 2011). Distinct authors speak to this effect, (Baillet & Berge, 2009; Blangy & Laurent, 2007; Breton, 2004; Corneloup, 2009; Corneloup & Pascal, 2010; Hall & Jarkko, 2010; Lamic, 2008; Li, 2015; Novelli, 2004, Origet du Cluzeau, 2005), and their work related to Carpfishing establishes the basis of this investigation and those of future works.

The character of the angler in Carpfishing is totally different from others due to the demands of the sport (McGregor, 2007). It is important to differentiate between those that practice it for pleasure from those competitive participants who comply with the rules and adapt to the regulations. In this way, the preparation of the angler is very important and the variables of this study that are of great import are: a) psychophysical characteristics related with the competition, b) characteristics of the sport; c) motivational and competitive characteristics; d) psychophysical characteristics related to the sport.

In respect to the psychophysical characteristics of the participant in Carpfishing related to the competition, one thing that catches the attention is that none of the publications found, neither in paper nor online, make reference to the physical and psychological preparation of these athletes that require special characteristics, given that the competition takes place at night and the considerable weight of the fishing apparatuses.

In respect to these psychophysical characteristics, it is pointed out that nocturnal activity involves a specific psychological preparation that helps maintain vigilance and visual perception. Other works, such as that by Gil Child (2006), indicate the causes of muscular strain and pain in the lumbar region during participation in the sport and at the same time proposes some appropriate guidelines that can serve to guard off the typical injures in the sport of our study. To lift heavy fishing apparatuses, one must develop endurance, strength, and coordination, and so exercise is recommended with disciplined training to learn and apply the correct techniques in order to avoid injuries in the joints the knee, wrist and shoulder joints (López Miñarro, 2012).

The impact of fishing on lumbar pain is very important to the quality of life of the athlete, which is demonstrated in the study of Rodríguez-Romero et al. (2013).

The second aspect of the variables speaks to the characteristics of the sport. This type of fishing requires athletes to search for large fish that are much more complicated than small fish, similar to the species of Carp and Goatfish (Pozuelo, 2012). This aspect increases the duration of the competition, with the periods of fishing stretching from dawn until hours after sunset (González & Vincente, 2011). Furthermore, the anglers must comply with the rules and situate themselves in the place assigned by the draw, referred to as their "swim".

The motivational and competitive characteristics take into account that Carpfishing is an aquatic activity with a recreational profile with an air of innovation, diversion, distraction and a varied form of participation (Moreno & Medrado, 2001). Furthermore, it helps to develop patience and achieve tranquility and knowledge about the species. The essence of this sport is that the essence of the fishing competition is long periods of waiting, in that the events last as long as possible. As it is practiced with partners and has a long duration, it requires cooperation in which the team shares joys and frustrations, and proposes shared strategies, exchanging information and consulting with each other.

The last variable of this study deals with the psychophysical characteristics related to the sport. In order to complete what was laid out in the first variable, it have referred to the personal characteristics of the anglers that practice Carpfishing, such as patience, the love of nature, and friendships with those who share their fishing spot. All of which are based on a personal disposition to the activity. In respect to physical fitness, considering the hours of fishing that are done continuously, it seems also to be an implicit character in these subjects, since most do no type of practice and nor are very young.

In reviewing the bibliography it can be seen that some blogs compile much information about the athletic competitions. Undertaking more works in this line to illustrate the characteristics and its participants is considered important, and this work supposes a starting point in this field. Accordingly, the objective of the investigation, which is to learn the characteristics of the federated sport anglers of Carpfishing.

METHODS

Sample

The sample is made up of 47 anglers (n=47) of different fishing clubs that practice Carpfishing in the Autonomous Community of Andalucía. The grouping variables are; a) seasons federated as an athlete and; b) highest competition or rank in which they have participated. In the tables 1 and 2 the distribution of the sample can be seen in function of these variables.

Table 1. Description of the sample in function of the variable "Seasons federated as an athlete"

	Number of Seasons	n	%	% Accumulated
Seasons federated as an athlete	1	5	10.6	11.1
	2	11	23.4	35.6
	3	10	21.3	57.8
	4	2	4.3	62.2

5	4	8.5	71.1
6	6	12.8	84.4
7	4	8.5	93.3
8	3	6.4	100
Total	45	95.7*	

*2 lost cases

Table 2. Description of the sample in function of the variable "Highest competition or rank in which participated"

	Competition or Rank	n	%	% Accumulated
Highest competition or rank in which participated	Social Contest	22	46.8	46.8
	Provincial Championship	9	19.1	66
	Regional Championship	8	17	83
	National Championship	5	10.6	93.6
	World Championship	3	6.4	100
	Total	47	100	

In this study it was decided not to include the variable of gender within the grouping variables because the sample is made up of participants in competitions of absolute category, and in this category there are not distinctions made between sexes. Along the same lines, the age of the athletes is not considered for the same reasons as the previous case, as there is no distinction between categories of age as is the case in other types of fishing.

Design

In order to carry out a design of this type a quantitative design was utilized, this being cross-sectional. In such, this work is eminently descriptive (Pantoja, 2009), in that it describes to a certain extent the characteristics of the sport and its athletes.

Procedure

This work was structured in the following stages. In the end of the year 2013 and until March of 2014, a bibliographical revision was carried out which did not provide satisfactory results and gave rise to the decision to realize an investigation to fill the void of knowledge in this area. After reviewing the documents that primarily focus on Carpfishing, the study variables were delimited, establishing both sociodemographic dimensions and the indicators under study. Then, once in possession of the questionnaire to be used in the study, the presidents of sports clubs were contacted via email to circulate it among their members so that they would answer them in an anonymous and voluntary way. It should be also noted that all the participants were adults and therefore it was not necessary to obtain authorizations from parents or

guardians, and furthermore that in the questionnaire filled out informed the participants of the characteristics of the study and of the voluntary nature of participation in it. Finally, the questionnaires were received and the results analyzed, the discussion prepared and the conclusions established.

This work did not require a certificate from the ethical commission of the university, as it did not involve the use of personal data or interaction with it, nor animal experimentation. It only involves the application of a questionnaire to adults who freely participated in an activity outside of a medical environment.

Instrument

The instrument utilized in this study is the Questionnaire about the Characteristics of the Federated Sport Anglers in the Method of Carpfishing of Pozuelo (2012). This questionnaire is made up of 29 items that are responded to according to a Likert type scale with values from 1 (No/Never) to 5 (Yes/Always). Said questionnaire has been submitted to the statistic tests that Valdivia-Moral et al. (2015) describe to obtain validity and reliability. As to the reliability of the study, the questionnaire obtained Cronbach´s alpha values of .780, therefore complying with the recommendations of Nunally (1978). In respect to validity different tests were done, highlighting the values obtained in the KMO test (.637), which are considered as acceptable according to Visauta (2002).

Statistical Analysis

For the statistical analysis the program SPSS IN., version 20.0 was used. In order to complete the research objectives, first a descriptive analysis was done using contingency tables from which the frequency values and percentage were extracted. Secondly, the ANOVA test was done to compare the differences between groups. To determine if there existed significant differences, a level of confidence was established at 95%.

RESULTS

With the objective of highlighting the notable results and show the results more clearly, it was decided to add the questionnaire used (Pozuelo, 2012) in Annex 1, so that all of the items may be consulted. Firstly, all the results that correspond to the psychophysical characteristics related with the competition of the anglers are shown. In Table 3 the frequency and percentage obtained in each item is displayed.

Table 3. Descriptive results of the psychophysical characteristics related with the competition

	No/Never		Almost Never		Sometimes		Almost Always		Yes/Always		Total	
Ítem	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
2	9	17	7	13.2	14	26.4	6	11.3	17	32.1	53	100
3	10	18.9	7	13.2	9	17	5	9.4	22	41.5	53	100
8	4	7.5	3	5.7	7	13.2	9	17	30	56.6	53	100
9	6	11.3	6	11.3	30	56.6	5	9.4	6	11.3	53	100
10	11	20.8	2	3.8	11	20.8	4	7.5	25	47.2	53	100
11	10	18.9	3	5.7	9	17	9	17	22	41.5	53	100
13	24	45.3	7	13.2	9	17	3	5.7	10	18.9	53	100
16	28	52.8	14	26.4	8	15.1	2	3.8	1	1.9	53	100
21	1	1.9	1	1.9	8	15.1	11	20.8	32	60.4	53	100
27	1	1.9	2	3.8	14	26.4	13	24.5	23	43.4	53	100

Furthermore, the 2nd dimension, "characteristics of the sport" show the following values in respect to the frequency and percentage obtained (Table 4).

Table 4. Descriptive results of the characteristics of the sport

	No/Never		Almost Never		Sometimes		Almost Always		Yes/Always		Total	
Ítem	Frec.	%	Frec.	%	Frec.	%	Frec.	%	Frec.	%	Frec.	%
1	5	9.4	3	5.7	4	7.5	4	7.5	37	69.8	53	100
5	17	32.1	6	11.3	6	11.3	8	15.1	16	30.2	53	100
14	4	7.5	4	7.5	2	3.8	2	3.8	41	77.4	53	100
17	26	49.1	5	9.4	8	15.1	6	11.3	8	15.1	53	100
19	24	45.3	8	15.1	14	26.4	2	3.8	5	9.4	53	100
29	44	83	4	7.5	3	5.7	1	1.9	1	1.9	53	100

The third dimension, which analyses the motivational and competitive characteristics, demonstrates the following results (Table 5).

Table 5. Descriptive results of the items related to the motivational and competitive characteristics

	No/Never		Almost Never		Sometimes		Almost Always		Yes/Always		Total	
Ítem	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
4	15	28.3	10	18.9	19	35.8	5	9.4	4	7.5	53	100
6	39	73.6	7	13.2	2	3.8	1	1.9	4	7.5	53	100
7	10	18.9	6	11.3	7	13.2	10	18.9	20	37.7	53	100
12	23	43.4	7	13.2	18	34	4	7.5	1	1.9	53	100
20	25	47.2	9	17	9	17	3	5.7	7	13.2	53	100
24	44	83	4	7.5	2	3.8	2	3.8	1	1.9	53	100
26	1	1.9	0	0	1	1.9	6	11.3	45	84.9	53	100

Lastly, the analysis of the frequency and the percentage of dimension 4 "psychophysical characteristics related to the sport", shows the results that are displayed in Table 6.

Table 6. Descriptive results of the psychophysical characteristics related with the sport

	No/Never		Almost Never		Sometimes		Almost Always		Yes/Always		Total	
Ítem	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
15	7	13.2	2	3.8	13	24.5	10	18.9	21	39.6	53	100
18	16	30.2	3	5.7	16	30.2	7	13.2	11	20.8	53	100
22	9	17	5	9.4	11	20.8	8	15.1	20	37.7	53	100
23	10	18.9	8	15.1	16	30.2	4	7.5	15	28.3	53	100
25	19	35.8	8	15.1	9	17	4	7.5	13	24.5	53	100
28	42	79.2	0	0	3	5.7	3	5.7	5	9.4	53	100

Afterward, an analysis ANOVA was done, and in dimension 1 significant differences were found between groups in function of the variables "seasons as a federated athlete". When the anglers were asked about if without knowing the setting or practicing before a competition they felt they had chances of winning, the results showed significant differences F8 $F(7,43)=3.862$; $p=.002$. Furthermore, on the item 27 (I am up to date on the new technologies and tendencies in this sport), significant differences were also found $F(7,43)=2.892$; $p=.014$. There were no significant differences found when an analysis was made of the variable "highest competition or rank in which participated".

In respect to dimensions 2 and 3, no substantial differences were found in any of the items after the ANOVAS test was done on both grouping variables.

In dimension 4, the following differences were observed in respect to the variable "seasons as a federated athlete". When consulted whether the draw for location, or "swim", influenced their performance (item 15), differences were found with the following values $F(7,43)=2.898$; $p=.014$. On the other hand, when the item 18 was consulted, "the draw for swims influence my motivation", the differences found were (7,43)=2.264; $p=.047$. Furthermore, this dimension is the only that presents differences worth considering in the item 23 (physical preparation is important in this sport), and when the ANOVA test was done with the grouping variable "highest competition or rank in which participated" the results were $F(4,48)=2.837$; $p=.034$.

DISCUSSION

The results of this study demonstrate that the majority of athletes dedicate themselves exclusively to competition in the sport of Carpfishing, which can be a consequence of the excessive dedication that there is in respect to this sport. The study examines the characteristics of the anglers in the four variables put forth. For this, the present work sheds light on the sport of Carpfishing, about which there have been very few investigative studies. Furthermore, these results are as much related to the sport as to the environment, as this is a type of sport that is done in natural spaces, closely related to ecotourism (Beica & Gonçalves-de-Freitas, 2014; González Rodríguez, 2004; Love et al., 2013). For this, it can be pointed our that these athletes greatly respect the environment, as it is where they practice and compete, and in conserving the environment as best as possible they maintain their practice, and that complicity between man and nature are exalted in this sport.

The results related to the psychophysical characteristics of the anglers related with the competition highlight that many of the athletes feel they have the possibility to win without knowing well the setting of the event. These results could be due to the fact that more than half of the competitors in Carpfishing think that luck is the most important factor in this sport, as is indicated in item 9. On the other, the majority of the anglers compete to win, stating that victory is their objective, as is indicated in the items 10 and 11. Additionally, the practice of directed physical activity improves athletic performance and decreases injuries (Gil Child, 2006, López Miñarro, 2002; Rodríguez-Romero, 2013). On the other hand, it is necessary to point out that in this dimension significant differences were found between those questioned in function of the seasons as federated athletes when they were asked about whether they were up to date on new technologies that can be applied to Carpfishing. These results follow the line of Hamzah et al. (2014), in a study of a Malaysian sample, that now anglers use apparatuses such as GPS, Sonar, ect.

Focusing on the characteristics of the sport, the results show that the majority of the anglers that dedicate themselves to complete exclusively to category of Carpfishing, which can be a consequence of the excessive dedications that this sport requires. Additionally, 75% of those questioned consider Carpfishing

to be a sport. In relation to this, it is surprising that almost 15% do not consider this activity to be a sport, due to the fact that they practice it as a hobby and are not conscious that it is a sport that they are practicing. In respect to the classification system in this activity (item 17), more than 25% of those questioned did not agree with the classifications system and prefer to be judged for the quantity of catches and not for the quality. Lastly, item 29 shows some results that might be unacceptable in other sports. They show that more than 80% of those questioned do no type of warming up or stretching in the competition. This could be due to the fact that the existence of physical activity is centered in very abbreviated moments, and the majority of time there is complete rest, which makes it comparable to an aquatic activity with a more recreative profile (Moreno & Medrado, 2001).

The results from dimension three that analyzes the motivational and competitive characteristics emphasize that a good part of the participants practice with other athletes that have previously been their rivals, and furthermore this companionship is highlighted in that 73% of those asked indicated that they never try to trick or confuse their competitors. Additionally, when the classification is decided, the majority of the competitors almost never feel frustrated or disappointed at not having achieved a good placing (item 12). In respect to the studies related to this dimension, one must point out that no works have been found that analyze the motivation of the anglers in Carpfishing. Among other studies that focus on anglers, an article was found by Franceskou et al. (2012), who found impact of fishing on stress and anxiety problems among Greek anglers, and their results were similar to those of Danish, Polish, and Turkish samples. Other studies like that of Olafsdottir (2004) and Garza-Gil et al. (2015), also show the impact of fishing on stress.

Lastly, the results in the demension that analyzes the psychophysical characteristics related with the sport highlight the predisposition that the anglers have towards the competition once the draw for swims has been done. The results found did not demonstrate that there is one clear tendency among the anglers, as there are some anglers that whose implication in the competition is affected in function of the placement that they recieve in the drawing, and others that others participate in the same way regardless of their placement. In continuation, the long hours of this type of competition are the cause of the results that indicate that always, or almost always, more than 50% of those questioned try to spend the as much time as possible without sleeping. In relation, it is important to point out the study of Olafsdottir (2004), that indicates that fishing has a direct impact on sleep habits. The relation between physical fitness and the pyschophysical charactieristics are shown in the study of Rodríguez-Romero et al. (2013), who conclude in their study that the inclusion of regular physical activity helps anglers have better mental health. The conlusions of a study by Lawrie et al. (2004) follows similar lines, and futhermore include benefits in relation to alcohol and tobaco use.

The number of questioned participants in this study is one of its strengths, because in contrary to what it might apear, a sample of 47 subjects is very wide. This is due to the fact that, in contrast to other sports in which the athletes train and compete in determined instalations, in Carpfishing the practicants can train in different natural settngs separated by hundreds of kilometers. Furthermore, this investigation has a limitiation in that there don't exist other scientific studies centered around Carpfishing, and as result, this study attempts to commence a line of investigation in this type of sport. In connection with the desplayed results, future lines of investigation can be established that analyze the physical condition of the anglers or that work with differenct techniques which can improve the results in competitions, as well as the psychological charactersitics of the practicants as a possible indicator of improvement in self-esteem.

CONCLUSIONS

In relation to the objectives set forth that center on the characteristics of the anglers and after completinng the investigations, it can conclue that the angler of Carpfishing exclusively dedecates themeself to this category and not to other types of fishng. Futhermore, they feel they have possibilities to win even though they do not know the setting where the competition will take place.

In relationship to the philosophy of the sport in respect to the environment and their fellow anglers, it is concluded that Carpfishing angelers do not try to trick or confuse their rivals before an event. It is also noted that the athletes beleive that their performance is influenced by the draw for fishing locations, or "swims". Lastly, it should be highlited that in relation to the psychophysical characteristics related to the sport that the anglers try to spend as much time as possible without sleeping during the competition considering the importance of physical fitness in this sport.

REFERENCES

1. Baillet, C., & Berge, O. (2009). Comprendre l'expérience de l'éco volontariat: une approche par la valeur de consommation, Actes du Deuxième Colloque International sur les Tendances du Tourisme. Sidi Dhrif: Tunisie.
2. Beica, E., & Gonçalves-de-Freitas, E. (2014). How does tourist monitoring alter fish behavior in underwater trails? *Tourist Management, 45*, pp.253-259.
3. Blangy, S. & Laurent, A. (2007). Le tourisme autochtone: un lieu d'expression privilégié pour des formes innovantes de solidarité. *Tourisme et solidarité*, *26*, pp.38-45.
4. BOJA ,2013. Resolución de 1 de marzo de 2013, de la Secretaría General para el Deporte, sobre la Relación de Deporte de Rendimiento de Andalucía, correspondiente al segundo listado de 2012. BOJA nº 66 de 8 de abril.
5. Bourlon, F., & Mao, P. (2011). Las formas del turismo científico en Aysén, Chile. *Gest. Tur., 15*, pp.74-98.
6. Breton, J.M. (2004). Paradigme d'écotourisme et sociétés traditionnelles en mutation: le cas de l'outre-mer français. *Téoros*, *23*, pp.54-60.
7. Corneloup, J. (2009). Comment est abordée la question de l'innovation dans les sciences sociales? *Revue de Géographie Alpine, 97*, pp.113-128.
8. Corneloup, J., & Pascal, M. (2010). *Créativité et innovation dans les loisirs sportifs de nature, un autre monde en émergence*. L'Argentière-la-Bessée: du Fournel.
9. Federación Andaluza de Pesca Deportiva (FAPD) (2011). Reglamento de Competiciones de Pesca Deportiva y Casting. Écija, Ediciones Sol.
10. Franceskou, E., Kastania, A., Riza, E., Jensen, O., & Linos, A. (2012). Risk factors for fishermen´s health and safety in Greece. *International Maritime Health, 63*, pp.155-161.
11. Garza-Gil, M.D., Amigo-Dobaño, L., Suris-Regueiro, J.C., & Valera-Lafuente, M. (2015). Perceptions on incentive for compliance with regulations. The case of Spanish Fisherment in the Atlantic. *Fisheries Management. 170*, pp.30-38
12. Gil Child, A. (2006). El dolor lumbar asociado a la práctica de la pesca submarina. I Congreso Internacional de las Ciencias Deportivas, Pontevedra.
13. González Rodríguez, J.G. (2004). *Ecoturismo y pesca deportiva: El Parque Nacional Natural El Tuparro.* Bogotá: Universidad Externado de Colombia.
14. González, S. & Vicente, G. (2011*). Carpfishing. Todo sobre la pesca moderna de la carpa*. Salles la source: Editions Eboo.

15. Hall, C.M., & Jarkko, S. (2010). Polar tourism: Definitions and dimensions. *Scandinavian Journal of Hospitality and Tourism. 10*, pp.448-467.
16. Hamzah, A, Krauss, S.E., Shaffril, H.A.M., Suandi, T., Ismail, I. A., & Abu Samah, B. (2014). Toward undestanding Malaysian fishermen´s decisión making on the use of fishing technology: A mental model approach. *International Journal of Psychology, 49*, pp.397-403.
17. Lamic, J.P. (2008*). Tourisme durable: utopie ou réalité?: comment identifier les voyageurs et voyagistes éco-responsables*. París: Coll. Tourismes et sociétés.
18. Lawrie, T., Matheson, C., Ritchie, L., Murphy, E., & Bond, C. (2004). The health and lifestyle of Scottish fishermen: a need for health promotion. *Health Education Research, 19*, pp.373-379.
19. Li, R. (2015). National and regional socio-economic dependence on the fishery sector in mainland China. *Fisheries Management and Ecology, 22*, pp.33-44.
20. López Miñarro, P.A. (2002). *Mitos y falsas creencias en la práctica deportiva*. Barcelona, INDE.
21. Love, D. C., Hawes, M., & Harding, J. (2013). State-Level recreational fishing regulations and Fish consumption. Advisories in the United States: Identifying opportunities for imporved interagency collaboration. *Journal of Public Health Management and Practice, 19,* pp.11-19.
22. McGregor, A. (2007). Carpdiem. Madrid, Rackham Press.
23. Moreno, J.A., & Medrado, M.A. (2001). *Actividades Acuáticas Recreativas*. Murcia: Universidad de Murcia.
24. Novelli, M. (2004). *Niche tourism: contemporary issues, trends and cases*. Oxford: Elsevier
25. Nunally, J.C. (1978). *Psychometric Theory.* New York: McGraw Hill.
26. Olafsdottir, L. (2004). The relationship between fishermen´s health and sleeping habits. *Work, 22*, pp.57-61.
27. Origet du Cluzeau, Cl. (2005). Tourisme scientifique et tourisme culturel destins communs et divergences. *La lettre de l'OCIM, 101*, pp.6-11.
28. Pozuelo, C. (2012). *Carpfishing: Características de la especialidad deportiva en Andalucía y de los deportistas federados a través de la Federación Andaluza de Pesca Deportiva*. Jaén: Universidad de Jaén.
29. Rodríguez-Romero, B., Pita-Fernández, S., & Carballo-Costa, L. (2013). Impact of physical and psicosocial factor son diability caused by lumbar pain amongst fishing sctor workers. *Rheumatology International, 33*, pp.1769-1778.
30. Stebbins, R.A., & Graham, M. (2004). *Volunteering as leisure/leisure as volunteering: an international assessment*. Wallingford: CABI Publishing Series.
31. Valdivia-Moral, P., Molero, D., Campoy, T., & Zagalaz, M. L. (2015). Coeducational ideas in Physical Education: Phycometric propierties of a scale. *International Journal of Medicine and Science of Physical Activity and Sport, 15*, pp.269-288.
32. Vicente, G. (2012). *Carpfishing webcarp.* Valencia: Carpamanía.
33. Visauta, B. (2002). *Análisis estadístico con SPSS 11 para Windows. Estadística Básica*. Madrid: McGraw Hill.

ANNEX

Questionnare about the charactarisitics of federated sports anglers in the method of Carpfishing. Read carefully the following affirmations and answer with a number from 1 to 5 according to whether the affirmation is correct or not in your case in particular. Answers of 1 mean NO, while answers of 5 mean YES.

Choose a value of the following affirmations in according to the degree in which you agree. 1 = No/Never; 2 = Almost never; 3 = Sometimes; 4 = Almost Always; 5 = Yes/Always.	
Club: _____ Seasons Federated in Carpfishing: _____ Official competition with of the highest rank in which I have competed: +Social Contest +Provincial Contst +Regional Championship + National Championship + World Championship	
1. Even without knowing the setting or practicing beforehand, I feel I have possiblities of winning.	1 2 3 4 5
2. I give importance to training in conditions similar to the contest.	1 2 3 4 5

3. I analyze the results obtained in practices to make my own conclusions.	1 2 3 4 5
4. I beleive that luck is the most important factor in this sport.	1 2 3 4 5
5. I compete to win.	1 2 3 4 5
6. My objective in the competition is victory.	1 2 3 4 5
7. I compete without intentions of winning.	1 2 3 4 5
8. I always mantain the same strategy during the entire competition, regardless of the circumstances at hand.	1 2 3 4 5
9. I try as hard as I can in every event regardless of the results that I am getting.	1 2 3 4 5
10. I am up to date on the new technologies and tendencies in this sport.	1 2 3 4 5
11. My dedication to competetive fishing is exclusive to carpfishing.	1 2 3 4 5
12. I practice with fellow athletes that once were my rivals.	1 2 3 4 5
13. I practice carpfishing considering that I am practicing a sport.	1 2 3 4 5
14. I prefer that the classification system of the competitions would make me look for quality.	1 2 3 4 5
15. When I practice on my own I strive for quantity of catch.	1 2 3 4 5
16. I prepare myself physically (warm-ups, stretches, etc.) before and after every competition.	1 2 3 4 5

17. I always practice before the competitions.	1 2 3 4 5
18. I try to trick or confuse my rivals before a competition.	1 2 3 4 5
19. I set goals during the competions and practices.	1 2 3 4 5
20. I get frustrated or discouraged if I don't acheive a good placing.	1 2 3 4 5
21. It bothers me that other competitors or rivals directly observe the bait that I use.	1 2 3 4 5
22. I don't enjoy that the competition lasts so many continous hours.	1 2 3 4 5
23. I learn from my errors and I correct them for successive competitions.	1 2 3 4 5
24. The draw for swims influenced my performance in my last competition.	1 2 3 4 5
25. The draw for swims influences my motivation.	1 2 3 4 5
26. During the competition I try to last as long as possible without sleeping.	1 2 3 4 5
27. Physical preparation is important in this tupe of sport.	1 2 3 4 5
28. I use my endurance to be more time than my rivals "on my guard", avoiding sleeping excessivly.	1 2 3 4 5
29. I practice other sports as a federated member.	1 2 3 4 5

Check that you have answered all the questions

Thank you very much for your collaboration.