

RESEARCH / INVESTIGACIÓN

Sighting of southern elephant seals in Peninsula Valdes, Argentina: Importance and satisfaction from the tour guide and tourist perspective

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Abstract: Nature-based tourism is increasing in recent decades. In Peninsula Valdes, Patagonia Argentina, Natural World Heritage area, the tourism is one of the main economic activities of the region, based on watching marine wildlife. The southern elephant seal (*Mirounga leonina*) colony in Peninsula Valdes is the only continental in the southern hemisphere. The objectives of this study were to evaluate two bout groups of social actors linked to tourism (tourists and tour guides) the interest and their perception a watching elephant seals. Structured interviews to tour guides and tourists were used and developed a workshop for tour guides. Both groups agreed that watching wildlife is the main goal for the visit, and the southern right whale is the species that generates more interest, whereas the elephant seal is secondary. The experience

of watching seals in their habitat was satisfactory in the different observation areas, being observation distance and number of animals, decisive factors in tourist satisfaction. Due to size, sexual dimorphism and behavior that characterizes to elephant seal it generates feelings of wonder and curiosity to the visitors and is an important resource during the guided tour. However, it is not sufficiently exploited as an opportunity to communicate conservation problems of the species or the marine habitat. The results are key tool to designing future management and planning strategies of tourism in Peninsula Valdes and adjacent areas.

Keywords: Nature-based tourism, tourist satisfaction, tourism perception, southern elephant seals, Peninsula Valdes

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INTRODUCTION

In recent decades, there has been a demand and increasing interest on the part of the society in participating of experiences related to the observation of animals that are in their natural habitat, within natural protected areas (Ceballos-Lascurain, 1996; Gauthier, 1993; Granquist & Nilsson, 2016). Consequently, this demand has allowed that in many countries, tourism based on nature and wildlife sighting to represent a significant proportion of the general tourism, providing significant economic benefits to the local population (Ballantyne, Packer, & Hughes, 2009; Higginbottom, 2004; Wilson & Tisdell, 2003). The economic contribution of this industry demands the creation of new protected areas or to maintain and improve existing ones (Higginbottom, 2004; Johannesen & Skonhoft, 2005; Reynolds & Braithwaite, 2001). Likewise, some authors suggest that if this type of tourism is carefully designed and managed, and at the same time has a strong focus aimed to environmental education and the development of interpretative programs, it will have the potential to become a useful tool for the conservation of species and their environment. What the tourist watched and observed during a visit will then promote pro-environmental behaviors, greater environmental awareness and support for the protection of species and their habitat (Ballantyne & Packer, 2005; Ballantyne, Packer, & Bond, 2007; Finkler & Higham, 2004; Lück, 2003; Wilson & Tisdell, 2003). To reach that goal, the educational and interpretative activities should cover biology, ecology and behavior of the species involved, as well as recommendations of best practices and inform about existing threats to wildlife (Zeppel & Muloin, 2008).

In the case of Peninsula Valdes, in the Province of Chubut, Argentina, tourism during the 60s was related to nautical and aquatic activities (diving and underwater hunting). Subsequently and until today, wildlife sighting, especially marine, became the most prominent attraction both nationally and internationally (Kuper, 2009) with a strong focus on conservation.

During this time, the Province has generated different tools for the care of its natural resources: between 1967 and 2001 laws have passed on the creation of provincial wildlife reserves (1967) and particularly in coastal areas

of the Peninsula Valdes, and in 1974 the creation of the Golfo San Jose Provincial Marine Park, where the artisanal seafood restaurant was regulated. Then, with a more integrative concept that pretends to reconcile the ecological security with economical development, an Integral Management Plan for Peninsula Valdes and adjacent areas is put into effect and registered with UNESCO as Natural World Heritage Plan (1999). In 2001, new boundaries of Peninsula Valdes natural areas were defined by incorporating a buffer area, accompanying the creation of protected areas. Thus, the tourist use of these has had a sustained growth. As a consequence, in Peninsula Valdes it was recorded a total of 316,350 tourists in 2018 (data provided by the Administration of the Peninsula Valdes Protected Natural Area).

Peninsula Valdes is a tourist destination that offers a unique experience, since it is developed in a natural environment with distinctive qualities; it constitutes a marine and terrestrial ecosystem, including breeding colonies of sea lions and elephant seals, penguins, cormorants; and charismatic species such as southern right whales, killer whales and dolphins. This biodiversity has allowed developing a tourism based on nature observation, resulting on a memorable experience that generates in tourists various emotions and that represents one of the main economic activities of the region (Curtin, 2010; Higginbottom, 2004; Lian Chan & Baum, 2007; Reynolds & Braithwaite, 2001).

The quality of the tourist experience depends on many factors, such as authenticity, intensity, duration, number of people present, design, comfort, and maintenance of the facilities, information obtained and treatment received, among others (Braithwaite, Reynolds, & Pongracz, 1996; Lian Chan & Baum, 2007). Each of these characteristics will be perceived, interpreted and valued by each visitor in a certain way (Bennett, 2016). The perception is a bio-cultural process, since on the one hand it depends on physical stimuli and sensations received, and on the other hand, the meaning that those stimuli will have will depend on the cultural and ideological referents of each person (Tapella, 2012).

The guide plays a key role in this experience, since is the

person responsible of transmitting information about the sector to the tourists in an interesting and entertaining way and, at the same time, promotes environmentally favorable attitudes related to the conservation of the environment (Ap & Wong, 2001; Huang, Hsu, & Chan, 2010; Hughes & Ballantyne, 2001; Randall & Rollins, 2009). In addition, during the excursions the guide resolves difficulties, seeking the security and satisfaction of the tourists (Gronroos, 1978). In the process of perception of the tourists come into play and combine other factors such as: past experiences that each person had, their preferences, gender, age, educational level, motivations, prior knowledge and beliefs. Contextual factors such as the political and socioeconomic situation will also have an influence on the interpretations each person makes of the experience and meaning that it will be assigned to it (Melgarejo, 1994; Monn & Blackman, 2014; Tapella, 2012). The degree of tourist satisfaction is relevant to carry out an increasingly efficient design of tourism, since on the one hand it represents a measure of quality and the performance of the activity; and on the other hand, it allows knowing which are the most influential variables during the visits, the needs and demands of the visitor (Devesa, Laguna, & Palacios, 2010; García & Picos, 2009; Reynolds & Braithwaite, 2001; Torres-Sovero, González, Martín-López, & Kirkby, 2012; Ziegler, Dearden, & Rollins, 2012).

Based on the importance that the tourist activity in Peninsula Valdes represents for the provincial economy, the present work is aimed to evaluate the interests of two groups of social actors linked to the tourist activity (tourists and tour guides) and their perception about the visit, taking as a model the sighting of a particular marine mammal species. The southern elephant seal *Mirounga leonina* was selected because in its annual cycle there is a marked seasonality in the coast that allows predicting the time and place to develop sightings. This is due to the fact that the species is distributed along the entire coast, with a dispersion dynamic that evidenced changes in the area and because its reproductive cycle coincides with the reproductive cycle and care of an emblematic species, the southern right whale (species protected and declared National Natural Monument in 1984).

Southern elephant seals have a life cycle characterized by two fasting terrestrial stages (one for reproduction and one for molting) and two pelagic stages of sea feeding (Le

Boeuf & Laws, 1994; Lewis, 1996). In Peninsula Valdes, the reproductive season begins from the third week of August and ends Between November and December (Campagna, Lewis, & Baldi, 1993). This Patagonian population represents the only continental colony of the species that has increased (Lewis, 1996; Lewis, Campagna, Quintana, & Falabella, 1998). Such population growth has had evident changes in the density pattern within the colony, with relative expansion of the distribution area (Ferrari, Lewis, Pascual, & Campagna, 2009).

Southern elephant seal is one of the species that frequently can be on an excursion to Peninsula Valdes, regardless of the modality of the visit. Tourists can travel in their own vehicles, can take a private excursion (exclusive for a passenger or a group previously conformed) or hire a regular excursion (where different passengers and nationalities coincide). The hiring is performed in both cases through a tourism and travel agency, and it is characterized by having departures at specific days and times, as well as pre-established stops. The excursion is led by a qualified tour guide who accompanies a 360 km tour during which, information about the environment and its historical and cultural attractions is provided. During the journey, observation of wildlife is performed in enabled viewpoints and on-board sighting. Time is also set aside for lunch in places where gastronomic and sanitary services are available (Pirámides Port, North Point, Punta Delgada and Caleta Valdes).

There are three main areas enabled for the sighting of marine wildlife in the continental front of Peninsula Valdes Punta Norte, Caleta Valdes and Punta Delgada and Punta Delgada (Figure 1). The sites present differences among themselves in terms of number of elephant seals, services and observation modality. For instance, in Caleta Valdes the animals are observed in public viewpoints and from the cliffs. In Punta Delgada where a hotel operates, different services are offered and the people in charge manage/regulate the visits that are carried out. There is the possibility of descending to the beach where the animals are, but the access is only allowed in the company of a tour guide. On the other hand, outside the peninsula, Ninfas Point, Lion Point and Isla Escondida are places that represent another alternative for the observation of elephant seals, being places with free access to the coast, without regulation regarding the modality of wildlife sighting.

The specific objectives of this work are to know: 1) how the wildlife sighting activity is organized in Peninsula Valdes and outside the peninsula in Ninfas Point; 2) the expectations of tourists to observe southern elephant seals; 3) the degree of satisfaction of the tourist during the sighting of elephant seals in sites with different observation modalities; and 4) the importance that tour guides given to the southern elephant seal during regular excursions.

METHODOLOGY

The study was carried out in Peninsula Valdes, located northeast of the Province of Chubut (Argentina), surrounded to the north by San Jose and San Matias gulfs and to the south by New Gulf, and extended over the coastline up to 100 km south of the aforementioned peninsula (Figure 1). This work was developed between September and December, period where the greatest influx of tourists, high coastal biodiversity and the breeding season of the southern elephant seal coincide.

Data collection

Interviews with tourists

Structured interviews were conducted and distributed to the tourists in three study periods: October and November 2014, between August and December 2015 and October 2016. The 2014 interview was a pilot test from which modifications were made for those conducted in 2015 and 2016. The interviews were distributed during regular excursions organized by tourism agencies, where previously trained tour guides gave the questionnaire to each tourist at the end of the tour. Those corresponding to 2016 were conducted exclusively in the routes that guides make in Punta Delgada. The questions were responded by people over 18 years of age. In total, 202 interviews were conducted in 2014, 245 in 2015 and 38 in 2016.

Interview questions were open and close, and were related to: a) reasons to visit Peninsula Valdes, b) expectations for observing wildlife, c) rating of the sighting, d) observation distance, duration of the sighting, and the number of people in the site (only in 2014), e) degree of satisfaction during the activity in relation to the observation distance, number of elephant seals observed and information re-

ceived, f) the level of agreement with certain statements about feelings generated during the sighting (in 2015-2016), and g) suggestions to improve the experience.

To know the reasons of the visit and the expectations for observing different species, a range of options was offered that the visitors selected in order of importance. The rating of the sighting was evaluate on a 1 to 10 scale (10 being the highest score), and with the option to explain the reasons of the score awarded. The degree of satisfaction was evaluated for two observation sites: Caleta Valdes and Punta Delgada on a three-level scale (satisfactory, regular and unsatisfactory). In the interviews of 2015-2016 in order to deepen the understanding of the degree of satisfaction of the tourists, a 5-scale valuation scale was used (Very satisfactory, satisfactory, indifferent, unsatisfactory and very unsatisfactory).

Workshop with tour guides

In June 2015 a workshop was held involving 29 tour guides. During the activity, each guide responded a structured interview in two parts: one consisted of questions related to their perception about the interest and perception of the tourist, and the other was related to their own perception about the sighting of elephant seals. Two of them were related to their beliefs about reasons and expectations of the tourists who visit Peninsula Valdes and the species they would like to observe. Two other questions with options were related to what the guides believe about the tourist satisfaction and what the sighting of elephant seals generates. An open-ended question was also included to justify their responses, add other comments and improvements suggested by the visitors to the activity. Questions regarding the opinion of the guides themselves about the resource were also related to the priority given to each species during the tour, what represents the elephant seal in their work, as well as the experience in the different sites where the observation is performed.

In a group, maps were generated that describe how the wildlife sighting activity is organized within Peninsula Valdes, or the most usual route(s) that are carried out in a regular excursion, and the time they remain in each site. On the other hand, cards were written with advantages and disadvantages presented by elephant seal as a tourist resource. These were grouped into thematic categories arising from the same workshop.

Data analysis

Regarding the interviews with tourists, given that the modality of the visit, number of elephant seals, precedence and ages of the tourists were similar during the three years of the study, responses to the questions that not experienced modifications between the years were analyzed as a single dataset. The analysis was carried out through descriptive statistics and the comparisons between Caleta Valdes and Punta Delgada were performed through the Mann-Whitney U test and Chi-square test (significant differences: $p < 0.05$). Responses to the open-end questions were grouped in ad hoc categories and their frequency was calculated. Regarding the analysis of the interviews with tour guides, this was carried out through descriptive statistics. The number of responses obtained for each question may differ in relation to the number of tourists and guides interviewed since some of them left without answering questions.

RESULTS

Tourist circuit in Peninsula Valdes and adjacent areas (Punta Ninfa and Escondida Island)

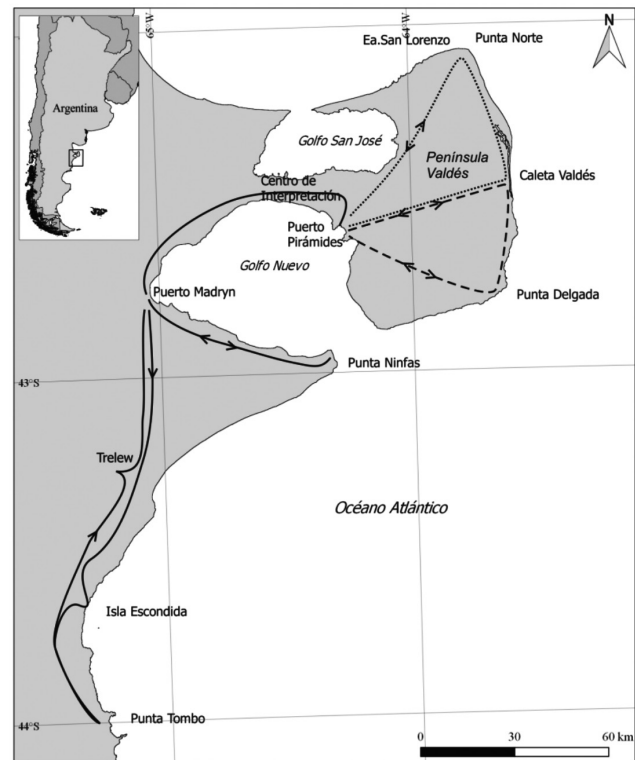
During the regular excursions, different routes were identified in and out of Peninsula Valdes, depending on factors such as schedules for on-board whale sighting (priority activity, whose schedule is defined by the operator of the boat and informed to the tourism agency previously), the site selected for food services (previously determined by the agency and decided by the guide during the tour), the condition of the tide and the wildlife present according to the time of the year.

Regular excursions depart from the city of Puerto Madryn between 7:30 and 8:00 in the morning and from there, they go to the interpretation center located on the Carlos Ameghino Isthmus, approximately between 9:00 and 9:30 hours (Figure 1). Then, the circuit continues in general to Piramidees Port, where the whale sighting is carried out, activity that usually lasts about two hours. From Puerto Piramides is where different alternatives for the tour in Peninsula Valdes arise: a) north circuit that includes Caleta Valdes (observation of elephant seals and penguins) and North Point (observation of sea lions, killer whales and penguins), where the stay is usually 45 minutes; and b)

south circuit, which includes Punta Delgada (observation of elephant seals) and Caleta Valdes. This place is visited for the presence of services and the permanence time may vary between 15 and 30 minutes, depending on the other places that are part of the route. In Punta Delgada lunch is usually organized, and the stay there is two hours. In all cases, the permanence time is extended if whale sighting is not performed. The circuit ends by returning to Madryn Port, approximately at 18:00 or 18:30 hours.

The guides expressed that outside Peninsula Valdes, tourism agencies started to offer Punta Ninfa and Isla Escondida (south of Madryn Point) as other alternatives to observe elephant seals. The tour consists of departing from Madryn Port and heading toward: a) Punta Ninfa and return to Madryn Port, or b) Escondida Island, continue towards Tombo Point to observe penguins and then visit the Egidio Feruglio paleontological museum in the city of Trelew and the valley area, finishing in Madryn Point (Figure 1).

Figure 1: Main sites included in the tourist circuits to perform wildlife sighting in and out of Peninsula Valdes.



Reasons and expectations to visit Peninsula Valdes

The average age of the tourists who visited Peninsula Valdes was 44 years (DE=15.5, N=457). 58% of the people interviewed belonged to the age stripe of 18 to 30 and 61 to 92 (24% and 18% respectively). Regarding the origin, 33% of the interviewed were national tourists, whose place of origin was a province different from Chubut, 44% of them were foreigners and 1% were residents of Chubut (N=427).

The main reason for tourists to visit Peninsula Valdes was the wildlife sighting (79%, N = 349). In second and third order of importance, knowing the landscape (59%, N=288) and knowing the protected area (42%, N=288) were mentioned. This result coincided with the opinion of tour guide: most of them (88%, N=25) mentioned that wildlife sighting was the main reason why tourists visited Peninsula Valdes, whereas the second and third reasons were related to the landscape (56%, N=25) and know a protected area (39%, N=23), respectively.

Tourists selected the southern right whale as the main species they wished to observe (79%, N=387), whereas the penguin and elephant seal took second and third place in their expectations (44%, N=387 and 32%, N=353 respectively). The guides agreed that tourists expected to observe first the southern right whale (96%, N=24) and penguin in second (67%). However, in third place they prioritized the killer whale (63%) above the elephant seal (38%). Depending on the importance that tour guides gave to the different species in Peninsula Valdes as resource during the excursions, the southern right whale was the most relevant species (90%, N=21), elephant seal was in second place (52%, N=21) and penguin in third place (52%, N=21).

Elephant seal sighting activity within Peninsula Valdes

In Caleta Valdes, 54% of the tourists observed the elephant seals at more than 50 m (N=125), whereas in Punta Delgada did it between 10 m and 50 m (N=46) ($\chi^2_{0.05; 2} = 7.15, p=0.03$). The duration of the sighting was half an hour, regardless of the site visited ($\chi^2_{0.05; 2} = 4.15, p=0.12$, Caleta Valdes 74% N=119, and Punta Delgada 58% N=45). In Caleta Valdes, 39% of the tourists performed the sighting with less than 25 people (N=124), whereas in Punta Delgada, 56% did it with less than 25 people (N=46) ($\chi^2_{0.05; 2} = 5.26, p=0.07$).

The experience of observing elephant seals was better valued by tourists in Punta Delgada (median=10, N=178) than in Caleta Valdes (Median=8, N=220) Mann-Whitney U test: $W=42,361.5; p < 0.0001$). For Caleta Valdes, of a total of 150 responses by tourists explaining the reasons of the score awarded, 64% of these were negative and most were related to the fact of observing elephant seals from afar and observing few animals. On the other hand, a smaller percentage of responses were positive (36%, N=150), and highlighted the fact of observing animals without disturbing them, in their habitat, as well as the beauty of the place. For Punta Delgada, most responses were positive (84%, N=122) and were related to the proximity and the possibility of observing many elephant seals

The experience of the guides when showing elephant seals in Punta Delgada was valued differently respect to Caleta Valdes (Mann-Whitney U test: $W=415; p < 0.0001$), being the value of the median 9 (range=6-10, N=26) for Punta Delgada and 6 (range=1-10, N=26) for Caleta Valdes. For the latter, when evaluating the reasons for the ratings given by the guides, all responses were negative (N=25) and were due to distance to show the animals (68%) and the low number of them (24%). On the contrary, the responses obtained for Punta Delgada were all positive (N=28) and were related to the fact of being able to observe many elephant seals and from a short distance.

The degree of satisfaction during the sighting in relation to the number of elephant seals observed and the distance was different between Caleta Valdes and Punta Delgada, both from the perception of tourists and guides (Table 1). In 2014, 66% of the tourists indicated that they were satisfied with the observation distance in Punta Delgada (N=44), whereas in Caleta Valdes it was less than half (45%, N=120). This difference was maintained in 2015-2016. The percentage of very satisfied tourists was higher in Punta Delgada (47%, N=134) than in Caleta Valdes (9%, N=100). On the other hand, 77% (N=26) of the tour guides mentioned that in Punta Delgada the tourist were satisfied with the observation distance, whereas only 14% (28%) thought that the visitors would be satisfied in Caleta Valdes.

In 2014, the percentage of tourists who were satisfied with the number of elephant seals observed was higher in

Punta Delgada than in Caleta Valdes (Punta Delgada=76%, N=38, Caleta Valdes=59%, N=111). In 2015-2016, in Punta Delgada 64% of the tourists were very satisfied (N=120), whereas in Caleta Valdes it was only 22% (N=86). A similar proportion was presented by the guides. 88% (N=25) thought that the tourists would be satisfied with the number of elephant seals that can be observed in Punta Delgada, whereas only 31% (N=26) expressed that this situation would be satisfactory in Caleta Valdes (Table 1).

In 2014, regarding the number of people that shared the sighting, most tourists, both in Caleta Valdes (73%, N=113) and Punta Delgada (80%, N=40) indicated that they were satisfied (Table 1). In 2015-2016, the percentage of very satisfied tourists was equal to 33% (N=85) y 46% (N=122) in Caleta Valdes and Punta Delgada, respectively. A total

of 60% (N=27) of the guides thought that tourists would be satisfied in Punta Delgada according to the number of people, whereas only 25% (N=28) thought that this experience was satisfactory in Caleta Valdes (Table 1).

Regarding satisfaction, in 2014 the information received by the guide in Caleta Valdes y Punta Delgada was similar ($\chi^2_{0.05; 2} = 1.01, p=0.6$); 84% and 88% of the tourists mentioned being satisfied in Caleta Valdes (N=117) and Punta Delgada (N=43), respectively. In 2015-2016, in both sites the tourists reported being very satisfied with the information received through the tour guide ($\chi^2_{0.05; 4} = 1.91, p=0.75$) (Table 1).

Both guides and tourists mentioned that the level of satisfaction was similar between sites in relation to the time spent (Table 1).

Table 1: Comparison of the degree of satisfaction between Caleta Valdes y Punta Delgada in relation to different aspects of the sighting. The responses for the categories satisfactory (2014) and very satisfactory (2015-2016) are described from the perspective of the tourists and guides.

	Caleta Valdés % of responses (N)	Punta Delgada % of responses (N)	χ^2 (degrees of freedom)*	p
Observation distance				
Tourists 2014	44 (120)	66 (44)	6,14(2)	0,046
Tourists 2015-2016	9 (100)	47 (134)	60,4(4)	<0,0001
Guides	14 (28)	77 (26)	**	
Number of elephant seals observed				
Tourists 2014	59 (111)	76 (38)	**	
Tourists 2015-2016	22 (86)	64 (120)	46 (4)	<0,0001
Guides	31 (26)	88 (25)	**	
Number of people who shared the experience				
Tourists 2014	73 (113)	80 (40)	7,71 (2)	0,02***
Tourists 2015-2016	33 (85)	46 (122)	4,48 (4)	0,34
Guides	25 (28)	60 (27)	**	
Information received from the guide				
Tourists 2014	84 (117)	88 (43)	1,01(2)	0,6
Tourists 2015-2016	63 (99)	70 (131)	1,91(4)	0,75
Time in the place of observation				
Tourists 2014	74 (114)	85 (41)	2,62 (2)	0,27
Tourists 2015-2016	42 (86)	47 (122)	12,47 (4)	0,01****
Guides	54 (26)	70 (23)	**	

*Value of χ^2 according to the degrees of freedom of the study (indicated in parenthesis).

** Amount of insufficient responses to perform the Chi square test.

*** Significant differences could be given by the percentage of tourists with regular or unsatisfactory satisfaction.

**** Significant differences could be given by the percentage of indifferent or unsatisfactory tourists

Other particularities that according to the guides made that the guide have had a satisfactory experience were: here accompaniment during the excursion, being able to observe different behaviors of the elephant seals, the landscape itself, and the possibility of sharing the same space with the elephant seals in a respectful manner and at an adequate distance. This was exemplified by the following textual responses provided by the guides: "many times, the particular aspect of the experience is highlighted when the tourist is accompanied by the guide to the site, in terms of the interesting interpretation of their behavior"; "verify what is explained by the guide on the beach (well explained)". Likewise, some guides mentioned that the fact of observing an animal like the elephant seal is already something satisfactory for the tourist, both for its size and for the different behaviors that can be observed (intercourse, birth and fights between males among others, as well as the presence of other species such as killer whales and seabirds).

Sighting activity outside Peninsula Valdes

Punta Ninfas and Isla Escondida represented alternative sites to perform alternative circuits in order to observe elephant seals, though unlike Peninsula Valdes, these are unprotected natural areas. The amount of information obtained for both sites in regular excursions was much less than that referred to Peninsula Valdes: in 2014 and 2015 only 7 tourists visited Punta Ninfas, whereas a group of 23 tourists performed a guided excursion in Isla Escondida in 2015. However, although the proportion was lower, the information allowed having some approximation about the experience in these sites and how was their degree of satisfaction.

The experience of observing elephant seals in Punta Ninfas and Isla Escondida was rated by tourists with a value of 10 (scale from 1 to 10). In general terms, in both sites the tourists were satisfied with the distance between them and the elephant seals with the information received from the guide, the number of tourists present simultaneously, the number of elephant seals observed, and the observation time. The landscape was another attribute that favorably influenced the experience of the tourists.

Feelings generated by the sighting of elephant seals

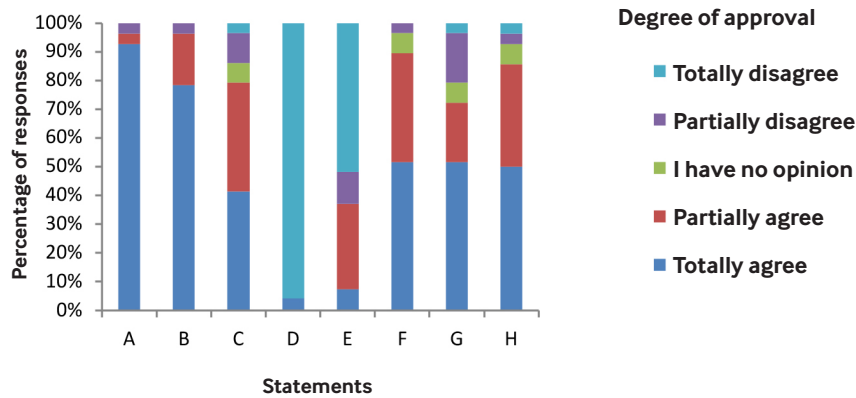
A total of 50% of the tourists that they fully agree with the idea that the sighting of elephant seals generated interest in knowing more about the biology and behavior of this species (N=276). 53% of the interviewees totally agree with the fact that when observing elephant seals they felt astonished and attraction to them (N=277). In relation to the statement that considered that observing elephant seals generates concern for their conservation, 40% of the tourists totally agreed and 33% partially agreed (N=272). Finally, half of the interviewed totally agreed on the fact that elephant seals generated an interest in them for environmental conservation (N=272).

From the perspective of the tour guides, 56% of them totally agreed with the fact that elephant seals cause interest in them for knowing more about their biology and behavior (N=27). 76% indicated they totally agreed with the fact that elephant seals cause attraction in the visitor (N=26) and 55% totally disagreed with the idea that tourists are indifferent to elephant seals generate little interest in visitors (N=22).

More than half of the guides (63%, N=27) responded partially agree that when observing elephant seals, tourists feel concern for their conservation (56%, N=27) believe that they are interested in sea conservation problems.

Regarding what elephant seals represent for the guides as a resource for their work, 93% (N=28) expressed their total agreement that this species from which they can provide information about biology and behavior of pinnipeds during the excursion. 79% of the guides (N=28) agreed with the idea that elephant seal is a species that attracts tourists, 41% (N=29) said it is a resource that allows visitors to approach environmental problems to visitors, and 50% totally agreed that the species allows treating marine conservation problems. A majority of the guides (96%, N=24) totally disagreed with the idea that elephant seal is an uninteresting species and 52% (N=27) strongly disagreed with the idea that it is difficult to access updated information about this species. On the other hand, 52% (N=19) totally agreed that the elephant seal represents an opportunity for the tourist to know the conservation status of the species. Finally, 52% (N=29) of the guides mentioned fully agreed with the need for informational signage.

Figure 2: Degree of approval according to what represent the elephant seal for the work of the guides in relation to the following statements: A.- A species that allows talking about biology and behavior of the pinnipeds, B.- An attractive species for visitors, C.- A resource to bring environmental problems to visitors, D.- An uninteresting species, E.- A species on which it is difficult for me to obtain updated information, F.- An opportunity for tourists to know the conservation status of the species, G.- A species on which it would be useful for me to interpretative signage in observation points, H.- A species that allows me to deal with problems of marine conservation.



Although in the surveys the guides reflected that the elephant seal is a resource to address conservation issues, of the 28 advantages identified at the workshop, 14 were referred to aspects of the biology of this species (its attractive size and morphology, reproductive and diving behavior). However, there were no advantages related to the use of this species as a resource to discuss about conservation issues or problems of the sea and the environment in general. With regard to showing elephant seals in Punta Ninfas and Isla Escondida, one of the main advantages (and mentioned most frequently) was the possibility of being very close to the animals, sharing their space. Faced with this possibility, the guides raised the need to visit Punta Ninfas and Isla Escondida, with a tour guide, since both sites lack park guards. Likewise, the guides highlighted as other favorable qualities of these places, how pristine they are, their beauty, the absence of other people and, in the case of Punta Ninfas, the presence of other species.

Of the 24 disadvantages identified, the main ones were related to the lack of promotion of this species in the face of whale or penguin sighting, and with the structure of Peninsula Valdes to perform the observation (scarce observation centers, viewpoints far from the animals, restricted accesses). In Punta Ninfas, the accessibility to the beaches was mentioned as a disadvantage, though this is different in Isla Escondida, where the beach reaches to the beach itself. However, for this latter site, the guides mentioned the presence of too much garbage.

Suggestions of tourists and tour guides to improve the sighting of elephant seals

A total of 213 responses were registered by the tourists in relation to eventual improvements in the sighting of elephant seals. Of that total, 25% proposed that there is

better proximity to observe elephant seals (as long as this does not affect the animals of this species or their environment), 14% suggested not making changes, since they were satisfied with the way in which the sighting was performed, and 11% of the tourists suggested an improvement in the access to the observation sites (especially for minors and older people, or people with disabilities). Other registered suggestions, although less frequently were related to the need to provide information about elephant seals (new posters, videos and brochures); and about the proper behavior of the tourist in front of these animals, the duration of the sighting and the cost of the excursions. Regarding Isla Escondida and Punta Ninfas, suggestions proposed by the tourists covered aspects of infrastructure and accessibility, because they are sites that lack services. Regarding the sighting of elephant seals, the suggestions of the tourists were that it must be carried out in reduced groups, avoiding disturbing the elephant seals and having informational signage. With regard to conservation of the elephant seal and its habitat, one of the suggestions was to create a management plan for Isla Escondida.

The guides agreed with tourists that in order to improve the quality of sighting of elephant seals, there improvements in the infrastructure in the observation site should be made. For instance, 30% of the responses (N=37) were related to increasing the viewpoints. In addition, among others they suggested that the time in the site should be increased (88%), to perform visits in small groups of visitors (5%). They also expressed their interest in having the possibility of performing trainings with updated information about elephant seals, as well as referring to group management.

DISCUSSION

Results obtained in this study allowed understanding how the experience of sighting elephant seals in two sites within Peninsula Valdes (Caleta Valdes and Punta Delgada) is, from the perception of tourist and tour guides, knowing their general interests and the importance and meaning that the elephant seal has for each of these social actors.

In general terms, the view of tourists and guides coincide with the motivations to visit Peninsula Valdes. Both believe that wildlife sighting is the main reason of the visit, being

the whale the species that generates the most interest. This result is in accordance with the research carried out by Cibeyra (2016), who interviewed tourists who were performing the sighting of the southern right whale in the Province of Chubut (Argentina), specifically in the localities of Doradillo and Puerto Piramides. The interest and expectations of tourists are surprising, given the fact that it is the emblematic species of this place, with a great significance both for its biological characteristics and for its conservation status, to which tourist promotion strategy of Peninsula Valdes is added. This is presented as an ideal and unique place to observe whales together with their young in their natural habitat. Such characteristics make it the main attraction for tourists, even when the high season coincides with the reproductive season of elephant seals (Le Boeuf & Campagna, 2013), leaving them in second place within the expectations of the tourists. For the tour guides, elephant seals also have a secondary place as a resource during regular excursions in Peninsula Valdes, where the available time is determined by the duration of the whale sighting navigation in Puerto Piramides. On the other hand, elephant seal becomes protagonist when the guides perform excursions outside Peninsula Valdes, specifically in Punta Ninfas, two sites that offer the possibility of observing them in a different context from that of the Peninsula.

Although the sighting of elephant seals was not the main reason for the visit of tourists to Peninsula Valdes, the experience of observing these animals in their habitat was satisfactory and in this sense, both actors agree on the factors that influenced the satisfaction of that experience. Some were directly related to the species (number of elephant seals and observed behaviors), whereas others were linked to the development of the activity and the context in which it was carried out. Tourists expressed greater satisfaction with the number of elephant seals and the observation distance in Punta Delgada than in Caleta Valdes, argument that was repeated for Isla Escondida and Punta Ninfas. In addition, tour guides expressed that for the tourists is a more satisfactory experience to observe elephant seals in Punta Delgada than in Caleta Valdes. According to Curtin (2010), who investigated what are the aspects that make wildlife sighting a memorable experience, this author described the number of animals observed and the degree of proximity as the main attribu-

tes of the wildlife - human encounter. This author explains that observing the animals from a short distance provides the tourist the opportunity of having a more intimate encounter with the animals. Thus, a more detailed view of them is possible, resulting in a better interpretation of the experience.

The degree of satisfaction of tourists during wildlife sighting is influenced not only by aspects directly linked to the species itself, but by various factors that are part of the context of such experience. According to Mannell (1989), there is a diverse range of influences on human satisfaction, as well as the perception regarding the experienced lived (Bennett, 2016). Studies conducted on sighting activities of pinnipeds, cetaceans, and whale sharks indicate that some factors affect the degree of satisfaction of the experience are the degree of activity of the animals, observation distance, number of animals present, the possibility of observing them in their natural habitat, the duration of the activity, the number of people that conform the groups, knowing more about the species and the presence of facilities (for example, sanitary) (Barton, Booth, Ward, Simmons, & Fairweather, 1998; Davis, Banks, Birtles, Valentine, & Cuthill, 1997; O'Neill, Barnard, & Lee, 2004; Orams, 2000; Orsini & Newsome, 2005; Torres-Sovero et al., 2012; Ziegler et al., 2012).

Wildlife sighting is an interesting activity that generates different emotions, such as the feeling of calm, peace and freedom (Davis et al., 1997), inspiration, admiration, connection with nature (O'Neill et al., 2004). These feelings could increase the empathy towards animals, making visitors are more willing to support studies related to conservation of species in question or the ecosystem. Elephant seal is a species against which tourists are not indifferent, but generates astonishment and interest in them in order to know more about its biology and behavior. These feelings towards the species could be due, in part, to the fact that it is an unusual animal to be seen for its periantarctic distribution. In Argentina, this species can only be found on the coasts of Peninsula Valdes and adjacent areas.

The encounters of tourists with elephant seals for the first time become a novel experience (Curtin, 2010). This differs, for example, with the species of sea lions (*Arctocephalus australis* and *Otaria flavescens*) whose colonies

are distributed along the coasts of South America (Brazil, Uruguay, Peru and Argentina) (King, 1983; Riedman, 1990; Rosas, Pinedo, Marmontel, & Haimovici, 1994) and it is common to observe them in fishing piers. Likewise, the marked sexual dimorphism of the elephant seal (females measure 3 m and males, 5 m approximately) (Le Boeuf & Laws, 1994) could cause tourists to perceive it as attractive and interesting.

As a tourist resource, elephant seals allow the guides to address, during excursions, several issues, among which aspects of the biology can be mentioned (large size of individuals, morphology of males, reproductive behavior and behavior in the sea). This fact, together with the landscape and the possibility of sharing the same space with the elephant seals in a respectful way and at an adequate distance, makes the tourist have different emotions and feelings that transform the visit into a memorable experience (Curtin, 2010; Higginbottom, 2004; Lian Chan & Baum, 2007; Reynolds & Braithwaite, 2001). However, this moment of awareness is not sufficiently exploited by the guides to discuss conservation issues, thus promoting environmentally favorable attitudes (Ap & Wong, 2001; Huang et al., 2010; Hughes & Ballantyne, 2001; Randall & Rollins, 2009).

Consequently, if tourism is considered a useful tool through which the tourist develops environmental awareness, this lack of information could affect this tourism potential (Ballantyne & Packer, 2005; Ballantyne et al., 2007; Finkler & Higham, 2004; Lück, 2003; Wilson & Tisdell, 2003; Ziegler et al., 2012). Thus, it could be relevant to reflect about what type of information is being provided to tourists, especially in the context of a protected natural area, and incorporate this theme or give greater emphasis to the current educational and interpretative programs. Moscardo & Saltzer (2005) and Lück (2003) among others, have shown that the tourist is receptive and shows great interest in receiving information, either about the species that are observing in their habitats and the protected natural area where they are performing their visit. Even, they identify the lack of protection/regulations in those areas with a lack of them, as demonstrated in the answers obtained in Isla Escondida.

The evaluation of the perception of tourists and tour

guides regarding the elephant seal and the experience of observe it in its natural habitat allowed understanding that this species is an important tourist resource inside and outside Peninsula Valdes. The perception of different social actors improves the understanding of the realities where multiple perspectives about certain issues coexist, and also represent a form of evidence or indispensable information, which deserves a central place when improving the management of recreational ecosystem services (Bennett, 2016; Daily et al., 2000; Tapella, 2012).

The present work, which studies the perceptions of tourists and tour guides, two different actors, but equally key, allowed reaching a better and more objective understanding, not only for the importance of elephant seal as a tourist resource, but also allowed: 1) to know who are the most influential aspects on the degree of satisfaction of the tourists and what are their expectations about the sighting of elephant seals; 2) understand how the sighting of elephant seals in relation to that of other species is organized; and 3) understand interests and expectations of the guides about the sighting of this species. It would be significant in the future to carry out studies that incorporate the view of other social actors of the tourism field and outsider the whale Season. This information would provide a solid basis on which future management and tourism planning strategies in Peninsula Valdes and adjacent areas could be based. These should be adequate to the sustainability and protection criteria, particularly for Isla Escondida and Punta Ninfas, where the development of activities opens new challenges for its conservation.

REFERENCES

- Ap, J. & Wong, K. K. (2001).** Case study on tour guiding: Professionalism, issues and problems. *Tourism Management*, 22(5), 551-563.
- Ballantyne, R. & Packer, J. (2005).** Promoting environmentally sustainable attitudes and behaviour through free-choice learning experiences: what is the state of the game? *Environmental Education Research*, 11(3), 281-295.
- Ballantyne, R., Packer, J. & Bond, N. (2007).** The impact of a wildlife tourism experience on visitors' conservation knowledge, attitudes and behaviour: Preliminary results from Mon Repos turtle rookery, Queensland. Paper presented at the Proceedings of the CAUTHE 2007 Conference: Tourism-past achievements, future challenges. Sydney: University of Technology.
- Ballantyne, R., Packer, J. & Hughes, K. (2009).** Tourists' support for conservation messages and sustainable management practices in wildlife tourism experiences. *Tourism Management*, 30(5), 658-664.
- Barton, K., Booth, K., Ward, J., Simmons, D. & Fairweather, J. (1998).** Visitor and New Zealand fur seal interactions along the Kaikoura Coast. *Tourism Research and Education Centre Report*, 9.
- Bennett, N. J. (2016).** Using perceptions as evidence to improve conservation and environmental management. *Conservation Biology*, 30(3), 582-592.
- Braithwaite, R. W., Reynolds, P. C. & Pongracz, G. B. (1996).** Wildlife tourism at yellow waters.
- Campagna, C., Lewis, M. & Baldi, R. (1993).** BREEDING BIOLOGY OF SOUTHERN ELEPHANT SEALS IN PATAGONIA. *Marine Mammal Science*, 9(1), 34-47. doi: doi:10.1111/j.1748-7692.1993.tb00424.x
- Ceballos-Lascurain, H. (1996).** Tourism, ecotourism, and protected areas: The state of nature-based tourism around the world and guidelines for its development: lucn.
- Cibeyra, I. A. (2016).** Construcción de la experiencia turística del avistaje de ballenas en Peninsula Valdes, Chubut, desde diferentes plataformas de observación. Facultad de Ciencias Económicas.
- Curtin, S. (2010).** What makes for memorable wildlife encounters? Revelations from 'serious' wildlife tourists. *Journal of Ecotourism*, 9(2), 149-168.
- Daily, G. C., Söderqvist, T., Aniyar, S., Arrow, K., Dasgupta, P., Ehrlich, P. R. & Kautsky, N. (2000).** The

value of nature and the nature of value. *science*, 289(5478), 395-396.

- Davis, D., Banks, S., Birtles, A., Valentine, P. & Cuthill, M. (1997).** Whale sharks in Ningaloo Marine Park: managing tourism in an Australian marine protected area. *Tourism Management*, 18(5), 259-271.
- Devesa, M., Laguna, M. & Palacios, A. (2010).** The role of motivation in visitor satisfaction: Empirical evidence in rural tourism. *Tourism Management*, 31(4), 547-552.
- Ferrari, M. A., Lewis, M. N., Pascual, M. A. & Campagna, C. (2009).** Interdependence of social structure and demography in the southern elephant seal colony of Peninsula Valdes, Argentina. *Marine Mammal Science*, 25(3), 681-692.
- Finkler, W. & Higham, J. (2004).** The human dimensions of whale watching: An analysis based on viewing platforms. *Human Dimensions of Wildlife*, 9(2), 103-117.
- García, M. L. & Picos, A. P. (2009).** La calidad percibida como determinante de tipologías de clientes y su relación con la satisfacción: Aplicación a los servicios hoteleros. *Revista europea de dirección y economía de la empresa*, 18(3), 189-210.
- Gauthier, D. A. (1993).** Sustainable development, tourism and wildlife. *Tourism and sustainable development: Monitoring, planning, managing*, 97.
- Granquist, S. M. & Nilsson, P.-Å. (2016).** Who's watching whom?—an interdisciplinary approach to the study of seal-watching tourism in Iceland. *Journal of Cleaner Production*, 111, 471-478.
- Gronroos, C. (1978).** A service-orientated approach to marketing of services. *European Journal of marketing*, 12(8), 588-601.
- Higginbottom, K. (2004).** *Wildlife tourism: impacts, management and planning*/Karen Higginbottom. Australia: Common Ground Publishing Pty Ltd, 277.
- Huang, S., Hsu, C. H. & Chan, A. (2010).** Tour guide performance and tourist satisfaction: A study of the package tours in Shanghai. *Journal of Hospitality & Tourism Research*, 34(1), 3-33.
- Hughes, K. & Ballantyne, R. (2001).** Interpretation in ecotourism settings: investigating tour guides' perceptions of their role, responsibilities and training needs. *Journal of Tourism Studies*, 12(2), 2.
- Johannesen, A. B. & Skonhøft, A. (2005).** Tourism, poaching and wildlife conservation: what can integrated conservation and development projects accomplish? *Resource and Energy Economics*, 27(3), 208-226.
- King, J. (1983).** *Seals of the world*. Santa Lucia, Australia: University of Queensland Press.
- Kuper, D. (2009).** Turismo y preservación ambiental: el desarrollo turístico de Peninsula Valdes, Provincia del Chubut. *PASOS. Revista de Turismo y Patrimonio Cultural*, 7(1).
- Le Boeuf, B. J. & Campagna, C. (2013).** Wildlife viewing spectacles: Best practices from Elephant seal (*Mirounga sp.*) colonies. *Aquatic Mammals*, 39(2), 132.
- Le Boeuf, B. J. & Laws, R. M. (1994).** *Elephant seals: an introduction to the genus*: University of California Press: Berkeley/Los Angeles, CA.
- Lewis, M. (1996).** El elefante marino del sur: biología de la especie, descripción general de la agrupación de la Península Valdés y protocolos de trabajo: Fundación Patagonia Natural, Chubut (Argentina) Plan de Manejo Integrado de la Zona Costera Patagónica.

- Lewis, M., Campagna, C., Quintana, F. & Falabella, V. (1998).** Estado actual y distribución de la población del elefante marino del sur en la Península Valdes, Argentina. *Mastozoología Neotropical*, 5(1), 29-40.
- Lian Chan, J. K. & Baum, T. (2007).** Ecotourists' perception of ecotourism experience in lower Kinabatangan, Sabah, Malaysia. *Journal of Sustainable Tourism*, 15(5), 574-590.
- Lück, M. (2003).** Education on marine mammal tours as agent for conservation-but do tourists want to be educated? *Ocean & Coastal Management*, 46(9-10), 943-956.
- Mannell, R. C. (1989).** Leisure satisfaction. Understanding leisure and recreation: Mapping the past, charting the future, 281-301.
- Melgarejo, L. M. V. (1994).** Sobre el concepto de percepción. *ALTERIDADES*, 4(8), 47-53.
- Monn, K. & Blackman, D. (2014).** A Guide to Understanding Social Science Research for Natural Scientists. *Conservation Biology*, 28(5), 1167-1177. doi:10.1111/cobi.12326
- Moscardo, G. & Saltzer, R. (2005).** Understanding tourism wildlife interactions. *Sustainable Tourism Cooperative Research*, 36.
- O'Neill, F., Barnard, S. & Lee, D. (2004).** Best practice and interpretation in tourist/wildlife encounters: A wild dolphin swim tour example.
- Orams, M. B. (2000).** Tourists getting close to whales, is it what whale-watching is all about? *Tourism Management*, 21(6), 561-569.
- Orsini, J.P. & Newsome, D. (2005).** Human perceptions of hauled out Australian sea lions (*Neophoca cinerea*) and implications for management: a case study from Carnac Island, Western Australia. *Tourism in Marine Environments*, 2(1), 129-132.
- Randall, C. & Rollins, R. B. (2009).** Visitor perceptions of the role of tour guides in natural areas. *Journal of Sustainable Tourism*, 17(3), 357-374.
- Reynolds, P. C. & Braithwaite, D. (2001).** Towards a conceptual framework for wildlife tourism. *Tourism Management*, 22(1), 31-42.
- Riedman, M. (1990).** The pinnipeds: seals, sea lions, and walruses (Vol. 12): Univ of California Press.
- Rosas, F. C., Pinedo, M. C., Marmontel, M. & Haimovici, M. (1994).** Seasonal movements of the South American sea lion (*Otaria flavescens*, Shaw) off the Rio Grande do Sul coast, Brazil. *Mammalia*, 58(1), 51-60.
- Tapella, E. (2012).** Heterogeneidad social y valoración diferencial de servicios ecosistémicos: un abordaje multi-actoral en el oeste de Córdoba (Argentina).
- Torres-Sovero, C., González, J. A., Martín-López, B. & Kirkby, C. A. (2012).** Social-ecological factors influencing tourist satisfaction in three ecotourism lodges in the southeastern Peruvian Amazon. *Tourism Management*, 33(3), 545-552.
- Wilson, C. & Tisdell, C. (2003).** Conservation and economic benefits of wildlife-based marine tourism: sea turtles and whales as case studies. *Human Dimensions of Wildlife*, 8(1), 49-58.
- Zeppel, H. & Muloin, S. (2008).** Conservation benefits of interpretation on marine wildlife tours. *Human Dimensions of Wildlife*, 13(4), 280-294.
- Ziegler, J., Dearden, P. & Rollins, R. (2012).** But are tourists satisfied? Importance-performance analysis of the whale shark tourism industry on Isla Holbox, Mexico. *Tourism Management*, 33(3), 692-701.