

1 **Exploring the views on hunting of Spanish hunters: effect of age and public vs.**  
2 **anonymous opinions**

3

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23 **Abstract**

24 We explored the views held by Spanish hunters on hunting, and assessed how these  
25 views varied according to participant characteristics and whether or not the responses  
26 were made public via a hunter's magazine. Hunters expressed many positive values in  
27 relation to hunting, but were critical of their own community as well as other  
28 stakeholders. Spanish hunters felt misunderstood and even attacked by society at large.  
29 There was also a widespread negative perception of the future of hunting. The  
30 frequency of references to different opinions varied between anonymous and public  
31 respondents and in relation to age group. Participants who expressed their opinions  
32 publicly mentioned the ecological values of hunting more frequently, were more critical  
33 towards their own community and viewed the future of hunting more positively than  
34 anonymous participants. This may indicate an intended projected positive image,  
35 namely, Spanish hunters may publicly emphasize those views that improve their  
36 position in society.

37

38 **Keywords:** Conflict; Hunters; NVivo software; Opinion; Public image; The spiral of  
39 silence.

40

41

Comentario [BAL1]: Esto es importante dejarlo

42 **Introduction**

43 Hunting is a socially, culturally and economically important activity undertaken by  
44 millions of people worldwide (Willebrand 2009; Fischer et al. 2013a). It is an important  
45 source of social identity and is also considered an educational tool (Arnett and  
46 Southwick 2015). Hunting provides employments and economic growth (Fischer et al.  
47 2013a). Additionally, while hunting is essential to regulating overabundant populations  
48 (Jenkins et al. 2014), it is also responsible for the considerable decline in population  
49 sizes of many species and biodiversity loss (Benítez-López et al. 2017). This duality is a  
50 source of profound disagreement over hunting practices between various sectors of  
51 society (Fischer et al. 2103b) and within the hunting community itself (Delibes-Mateos  
52 et al. 2015),.This, in turn, results in frequent social conflicts over hunting practices (von  
53 Essen et al. 2015).

54

55 Numerous studies have noted that social factors should be incorporated in research on  
56 natural resource management (e.g., Schüttler et al. 2011; Seige et al. 2011).  
57 Understanding social factors is essential to reducing social conflicts (White et al. 2005;  
58 Redpath et al. 2013), and may be even more important than ecological and economic  
59 factors (White et al. 2009; Dickman 2010). In this regard, assessing perceptions,  
60 attitudes and individual or collective norms associated with activities influencing the  
61 natural environment is an increasingly key component of translating ecology into  
62 management (White et al. 2005; Pérez et al. 2011 and references therein).

63

64 Societal views about hunting have been studied in many countries. For instance, hunting  
65 is generally well accepted in Sweden (Ljung et al. 2012), and even illegal hunting is  
66 tolerated in some rural areas of Scandinavia (Gangaas et al. 2013). In contrast, studies in

67 other regions have shown that some aspects of hunting are considered illegitimate by  
68 non-hunting groups (Fischer et al. 2013b) or that this activity is seen as obsolete or  
69 unethical (Dunk 2002). Concomitantly, the radicalization of hunting movements  
70 opposed to nature conservation has risen in recent years in Nordic countries (von Essen  
71 et al. 2015). Studies on these aspects in southern Europe, where hunting also has a long  
72 tradition, have received comparatively less attention in the literature (but see Delibes-  
73 Mateos et al. 2013; 2015).

74

75 In Spain, where hunting is socially and economically important, there have been  
76 marked changes in recent decades, including a shift toward the economic profitability of  
77 hunting, a marked decline of certain game species (mainly gamebirds) and an increase  
78 in some ungulate species (Madroño et al. 2004; Apollino et al. 2010). Moreover, the  
79 roles of hunting as a tool to regulate overabundant populations (Acevedo et al. 2011;  
80 Giménez-Anaya et al. 2016; Quirós-Fernández et al. 2017) and as a contributing factor  
81 to the decline of small game populations (Madroño et al. 2004; Oliveros and  
82 Hernández-Soria 2017) are increasingly controversial. Thus, societal views on hunting  
83 in recent years are frequently not positive, at least in certain sectors (Oliveros and  
84 Hernández-Soria 2017), with tensions between the hunting sector and other groups  
85 frequently portrayed in Spanish media. In this context, it is relevant to assess the views  
86 of Spanish hunters regarding the positive and negative aspects associated with this  
87 activity, as well as their perceived relationship with society at large.

88

89 Perceptions or views are largely based on personal beliefs and may depend on a  
90 multitude of factors, such as age, gender, education, socioeconomic status, personality  
91 and past experience (Heberlein 2012). Additionally, people can adapt their opinions

92 (voiced views or attitudes) if they feel that their views may be in opposition to  
93 predominant views on a particular subject and are afraid of isolation (Noelle-Neumann  
94 1974). For example, anonymity has been shown to decrease normative displays (Barreto  
95 and Ellemers 2002 and references therein: Pin and Hsieh 2014).

96

97 In this study, we assess the views of Spanish hunters on hunting, based on both  
98 anonymous questionnaire responses and statements published in a specialized hunting  
99 magazine. The latter is directed at the hunting sector but also constitutes a ‘window’  
100 through which hunters publicly express their opinions to society. We explore whether  
101 hunters’ expressed views varied according to the anonymity of answers, as well as to  
102 age or hunting preferences (big vs small game). We hypothesized that non-anonymous  
103 opinions would emphasize those aspects of hunting more likely to be accepted by wider  
104 society (Fisher et al. 2013a), and that older hunters would be more negative toward  
105 recent changes within the hunting sector. Additionally, we hypothesized that big game  
106 hunters would be more outspoken about the ecological benefits of hunting (e.g., as a  
107 population regulation tool), whereas small game hunters would feel more attacked by  
108 society if seen as contributors to game population declines.

109

## 110 **Materials and methods**

111

### 112 *Study system*

113 In Spain, there are around one million hunters. It has been estimated that this activity  
114 involves the exchange of more than 3600 million euros per year (Garrido 2012).

115 Hunting in Spain has experienced significant changes in recent years in relation to laws,  
116 game management, the number of hunters and the dynamics of game species

117 populations (Blanco-Aguilar et al. 2004; Martínez-Abraín et al. 2013; Caro et al. 2014).  
118 There are more than 30000 hunting estates, which cover more than 85% of the national  
119 surface area (MAGRAMA 2015). Practically all of these estates (90%) are managed  
120 privately (Delibes-Mateos et al. 2013).

121

122 This activity is socially widespread in Spain, being popular even in younger  
123 generations, although a shift appears to be underway, with hunting license sales  
124 decreasing (Herruzo and Martinez-Jauregui 2013; Macaulay et al. 2013). Spain harbors  
125 an important level of game species diversity, including small game (with red-legged  
126 partridges *Alectoris rufa*, European wild rabbits *Oryctolagus cuniculus* and hares *Lepus*  
127 *spp*, pigeons *Columba spp* and thrushes *Turdus spp* being the most common) and big  
128 game (with red deer *Cervus elaphus*, wild boar *Sus scrofa*, roe deer *Capreolus*  
129 *capreolus* and Iberian ibex *Capra pyrenaica* being the most important). Around a half  
130 million ungulates, over 14 million birds and nearly 7.5 million small mammals are  
131 harvested annually in Spain (MAGRAMA 2015).

132

133 A number of controversies are currently at play between hunters and other stakeholders  
134 regarding hunting and its associated management in Spain. For example, in current  
135 society, some non-hunters consider the killing of animals for leisure unethical (Fischer  
136 et al. 2013b). On the other hand, some hunters feel that they are 'persecuted' by  
137 conservationists and that anti-hunting conservation objectives are unfairly imposed  
138 (Masa 2015). Conflicts have also recently arisen between hunters and farmers when  
139 game species cause damage to crops and/or when farmers apply agricultural practices  
140 that are detrimental to game without taking into account the views of hunters (Ríos-  
141 Saldaña et al. 2013; Delibes-Mateos et al. 2014a).

Comentario [SY2]: Is this okay?

142

143 *Data collection and analysis*

144 The data were derived from information published in an influential monthly hunting  
145 magazine, ‘Trofeo. Caza y conservación’ (<http://www.trofeocaza.com/>). Each month, an  
146 emblematic hunter (e.g., a well-known hunter, a representative of hunter societies, or a  
147 celebrity that is also a hunter) answered 30 fixed questions, most of them open, and  
148 their replies appeared in a section of the magazine known as ‘word of the hunter’  
149 (‘Palabra de cazador’ in Spanish). A full list of the questions is presented in Table S1  
150 in the electronic supplementary material. The questionnaire had three main sections: i)  
151 general characteristics of the respondents related to his/her background (age, region of  
152 residence, etc.); ii) general characteristics of the respondents as hunters (main hunting  
153 method practiced, preferred hunting areas, etc.); and iii) respondents’ views on hunting  
154 such as successes/failures of the hunting community, thoughts on the future of hunting,  
155 among others. We analyzed 106 questionnaires published in this magazine from 2003 to  
156 2012.

157

158 To explore whether hunters’ expressed opinions varied according to the anonymity of  
159 answers, we administered a very similar questionnaire to anonymous hunters in 2015  
160 (Table S1). This questionnaire excluded some of the questions used in the magazine  
161 interviews, which had proven to be less useful for the purpose of our study (e.g., they  
162 rendered no answers about values or opinions). In addition, other questions were  
163 reworded for clarity, based on the results of a pilot study. Questionnaires were either  
164 distributed in person by a fellow hunter (JRC) on hunting days, or sent to individual  
165 hunters by email. A snowball process was followed for anonymous hunter selection  
166 (i.e., selection of initial interviewees was through hunters who had previously

Comentario [SY3]: Is this okay?

Comentario [BAL4]: ok

167 collaborated with our institute, who then provided more contacts for other potential  
168 participants) (Lobley and Potter 2004; Delibes-Mateos et al. 2013). A total of 80 replies  
169 were gathered.

170

171 Our thematic approach for analysis consisted of reading the text material in the  
172 responses to the questionnaires (either public or anonymous) to identify main themes,  
173 ideas and topics. We read the responses multiple times and used open coding to group  
174 recurrent topics. We assigned a particular code to those sentences (or paragraphs) that  
175 dealt with the same topic (Altheide 1996). These codes were subsequently grouped into  
176 four overarching categories: i) *positive values or opinions of aspects associated with*  
177 *hunting*; ii) *negative judgments of issues related to hunting (including judgments about*  
178 *the relationship between hunters and different stakeholders)*; iii) *statements about the*  
179 *position of hunters within society*; and iv) *opinions about the future of hunting* (see  
180 Table S2 for a list of codes and categories). Coding was carried out with NVivo 10  
181 software (QSR International 2010). The data were coded by two of the authors (MCVG  
182 and JC), but additional verifications were carried by other authors (BA and MDM) to  
183 ensure comparability and consistency in the interpretation and application of coding  
184 categories across the two steps.

185

186 We assessed the potential variation of hunters' views in relation to three variables: i)  
187 whether the hunter had expressed his/her opinions publicly or anonymously; ii) the age  
188 of the respondent; and iii) hunting preferences of the respondent (i.e., big or small  
189 game). Table 1 presents the sample sizes (number of respondents) in each variable level.  
190 We used a semi-quantitative approach to present the results, calculating the number of  
191 references for each main category and subcategory (Anderson 2010). Presenting simple



192 counts of references among categories (or subcategories) can help readers gain a sense  
193 of how widespread a particular view is (Seale and Silverman 1997). However, these  
194 counts do not indicate anything about the importance of each category (or subcategory).  
195 We compared frequencies of references among the levels of the variables described  
196 above using Chi-square tests. We also illustrated our main findings with specific quotes  
197 noted during the analysis (Table S3–S6).

198

#### 199 *Methodological limitations*

200 One of the limitations of the study is that respondents were not chosen randomly. In  
201 addition, the wording of the original questions was not chosen by the researchers, and  
202 some may have included leading comments. However, these biases occurred in both  
203 public and anonymous responses, and overall both groups included a wide and thorough  
204 representation of all different types of hunters (big game, small game, different areas  
205 and preferences, age groups, etc.). Thus, we believe that our results are representative of  
206 differences among groups, and we do not necessarily expect biases in our sample. Our  
207 results represent the first exploration of the topic, and further studies will be useful for a  
208 more thorough examination.

209

## 210 **Results**

### 211 *Positive values of hunting*

212 Respondents expressed multiple positive aspects associated with hunting (Table S3).  
213 Most of the references (n = 291) were associated with ‘human values’. Additionally,  
214 respondents frequently mentioned the ‘ecological values’ of hunting (178 references),

215 including population control of overabundant populations (Table S3). Replies related to  
216 human and ecological values were sometimes combined (68 references). Other positive  
217 aspects were mentioned less frequently, such as the socio-economic values of hunting  
218 (Table S3).

219

220 The frequency of references to different positive values of hunting varied between  
221 anonymous and public respondents ( $\chi^2_3 = 25.50$ ,  $P < 0.01$ ) and in relation to age group  
222 ( $\chi^2_{15} = 28.02$ ,  $P = 0.02$ ). Older hunters and those who responded publicly referred more  
223 frequently to the ecological values of hunting, whilst anonymous and younger hunters  
224 mentioned human and socio-economic values more frequently (Fig. 1A and Fig. 2A).  
225 No significant differences in the frequency of references to different positive values of  
226 hunting were found in relation to preferred game ( $\chi^2_3 = 5.691$ ,  $P = 0.13$ ).

227

#### 228 *Negative assessments associated with hunting*

229 The negative judgments **in relation** to hunting activities were directed at three different  
230 communities: the hunting sector, the anti-hunting community, and the government and  
231 administration (Table S4). Among these, the most frequent critiques were those directed  
232 towards their own community ( $n = 370$  references). These criticisms were mainly  
233 related to the inappropriate behavior of some hunters or to certain types of hunting, such  
234 as hunting released animals, contemptuously referred to as ‘artificial hunting’ (Table  
235 S4). Negative comments on anti-hunting individuals were also frequent ( $n = 209$   
236 references); hunters referred to their lack of knowledge about hunting and the  
237 environment at large, or to their intransigence and radicalism (Table S4). Finally, there  
238 were negative judgments directed towards the administration and governmental

**Comentario [BAL5]:** creo que es mejor como estaba (algunas no son críticas a la caza, sino a la administración en relación a la caza)

239 agencies (175 references). These included the feeling that people working for such  
240 institutions were unfamiliar with hunting, thus leading to inefficient legislation, and  
241 resentment about how little trust the administration places on the management capacity  
242 of hunters (Table S4; 175 references).

243

244 References critical of the hunting community were significantly more frequent among  
245 older hunters ( $\chi^2_{10} = 28.02$ ,  $P = 0.02$ , Fig. 2B). These criticisms were also more frequent  
246 in public questionnaires, which also showed fewer negative judgments towards anti-  
247 hunters (Fig. 2A), although differences were not statistically significant ( $\chi^2_2 = 4.56$ ,  $P =$   
248  $0.10$ ). No significant differences were found between big game and small game hunters  
249 ( $\chi^2_2 = 2.71$ ,  $P = 0.26$ ).

250

#### 251 *Position of hunters in society*

252 Most respondents expressed that they felt uncomfortable, not accepted, misunderstood,  
253 or even attacked by society at large (Table S5, 128 references). Some interviewees  
254 expressed pride related to their status as hunters (50 references), or that their position in  
255 society was neither good nor bad (Table S5, 25 references).

256

257 Hunters who responded publicly and older hunters mentioned more frequently that they  
258 felt accepted by society, although differences were not statistically significant for the  
259 latter ( $\chi^2_2 = 33.60$ ,  $P = 0.02$ ,  $\chi^2_{10} = 11.24$ ,  $P = 0.34$ , respectively; Fig. 1C and Fig. 2C).

260 No differences were found in the frequency of references regarding the position of  
261 hunters in society in relation to hunting preferences ( $\chi^2_2 = 1.26$ ,  $P = 0.53$ ).

262

263 *The future of hunting*

264 There was a widespread negative perception about the future of hunting and that  
265 ‘natural’ hunting (as opposed to artificial hunting) would die out (110 references).  
266 However, some respondents were more optimistic (Table S6, 26 references). Several  
267 hunters indicated that, to a large extent, the future of hunting was in their hands, and  
268 that it was therefore important to improve their public image (Table S6, 33 references).  
269 This view was mainly expressed by public respondents.

270

271 Anonymous respondents expressed significantly more frequently a negative perception  
272 about the future of hunting ( $\chi^2_2 = 19.94$ ,  $P < 0.02$ ; Fig. 1D). It is also noteworthy that no  
273 young hunters expressed positive views on the future of hunting (Fig. 2D), although  
274 differences among age groups were not statistically significant ( $\chi^2_{10} = 11.24$ ,  $P = 0.34$ ).  
275 No differences were found in relation to preferred game ( $\chi^2_2 = 0.99$ ,  $P=0.61$ ).

276

277 **Discussion**

278 Our study indicates that Spanish hunters believe that hunting is vital to maintaining the  
279 balance of nature, a view shared with hunters of North America and other European  
280 countries (Treves and Martin 2011; Krange et al. 2012). Hunters often see themselves as  
281 stewards of nature (MacMillan and Leitch 2008; Fischer et al. 2013b). Hunting and its  
282 associated management can be an integral part of biodiversity management and may  
283 contribute to biodiversity conservation (Fischer et al. 2013a), as well as to mitigating  
284 conflicts that involve economic interests, such as agricultural damage by wildlife  
285 (Giménez-Anaya et al. 2016). In fact, different studies have indicated the benefits of  
286 game management for biodiversity in a number of countries (e.g., Duckworth et al.

287 2003; Oldfield et al. 2003), including Spain (Estrada et al. 2015). In this sense, it is  
288 recognized that the interests of hunters and conservationists are frequently shared  
289 (Knezevic 2009; Heffelfinger et al. 2013), even though the methods by which those  
290 objectives are achieved differ (e.g., White et al. 2009). The participants in our study also  
291 mentioned the socio-economic value of hunting, but seem to attribute less importance to  
292 this than other aspects of game activity. In Spain, as well as in other countries, hunting  
293 is an important productive sector in many rural areas (Caro et al. 2011; Arnett and  
294 Southwick 2015), and hunting tourism importantly peaked in the first decade of the 21st  
295 century (Garrido 2012). Overall, Spanish hunters recognize the ecological, social and  
296 economic values of hunting. This multifunctionality of hunting has also been shown in  
297 other regions of Europe and Africa (Fischer et al. 2013a; 2013b).

298

299 Our results reveal that hunters are highly critical of their own sector, often disapproving  
300 of some hunting practices, like poaching, artificial hunting or overhunting, which are  
301 often considered as morally illegitimate (see also Fischer et al. 2013b). In agreement  
302 with our findings, many Spanish game managers disapprove of the use of some game  
303 management practices, such as the release of farm-reared game animals, mainly owing  
304 to its detrimental effect on wild populations and because it contributes to hunting  
305 denaturalization (Delibes-Mateos et al. 2015). Some of these self-criticisms raised in  
306 our questionnaires resemble those of local hunters in Sweden regarding hunting tourism  
307 (Willebrand 2009). Hunters were also critical of environmentally-oriented communities  
308 that are opposed to hunting, whose members were depicted as intolerant, urbanite and  
309 dissociated from nature. In addition, they viewed governmental agencies as inefficient  
310 and acting against hunters' interests. In accordance with these views, it has been shown  
311 that Spanish game managers believe that currently legal methods to control carnivores

Comentario [BAL6]: yo creo que es importante dejarlo (si no, queda muy "tajante")

312 are inefficient (Delibes-Mateos et al. 2013). Additionally, some traditional hunting  
313 methods are currently illegal according to the European Commission (Vargas et al.  
314 2012), and consequently it is likely that regional governments will also forbid their use  
315 (or will at least establish new policies and regulations). Spanish hunters view these new  
316 regulations as inadequate and an attack on their community. Hunting policies and  
317 regulations may be perceived as illegitimate changes to the rules governing game  
318 activity and a potential threat to hunters' local traditions (O'Brien 2005).

319

320 According to our findings, Spanish hunters generally feel unaccepted or uncomfortable  
321 in society at large. This seems to be a reflection of tensions between hunters and other  
322 communities, such as environmentalists and policy makers (Vargas et al. 2012; von  
323 Essen et al. 2015). This was reflected by the strong negative opinions about these  
324 groups. In fact, hunting is considered as an illegitimate activity by some sectors of  
325 society in various countries, including Spain, with the recreational killing of animals  
326 viewed as ethically unacceptable (Dickson 2009; Fischer et al. 2013b). In addition, the  
327 use of certain game management tools, such as predator control, leads to negative views  
328 about hunting by environmentalists and other communities, thus generating clashes with  
329 hunters (e.g., Thirgood et al. 2000).

330

331 Respondents predominantly predicted a bleak future for hunting, including the  
332 extinction of natural and traditional hunting practices, and an increase in commercial  
333 hunting. Hunting has acquired great importance as a sport and recreational activity in  
334 several regions (Good 1997) and economic interest in this activity has increased (Martin  
335 2011). This has promoted a change in management, leading to more artificial game  
336 exploitation (Macaulay et al. 2013; Caro et al. 2014). This, together with the decline in

337 the number of hunters observed in some regions of Spain (Martínez-Abraín et al. 2013)  
338 and the marked decline of some wild game species (Blanco-Aguilar et al. 2004), likely  
339 contribute to the belief by some hunters that traditional and natural hunting will  
340 disappear (as expressed by some respondents in our study). Several Spanish hunting  
341 organizations have launched new education programs with the aim of informing hunters  
342 and other communities about the values associated with hunting, and the usefulness of  
343 preserving traditional hunting as a way of achieving successful biodiversity  
344 conservation (Fungesma 2001; Garrido 2009).

345

346 Interestingly, our findings also demonstrate that respondents' anonymity influenced  
347 their expressed opinion on the topic. Participants who expressed their opinions publicly  
348 in the magazine more frequently cited the ecological values of hunting, that their  
349 position in the society was positive or neutral, were more critical towards their own  
350 community and viewed the future of hunting more positively. These findings could be  
351 framed in the spiral of silence theory, which says that people feel greater pressure to  
352 conceal their views when they think they are in the minority (Noell-Neumann 1974).  
353 Knowing that their opinion was going to be public may have forced individuals to  
354 refrain from voicing their genuine thoughts and feelings. Alternatively, public  
355 respondents may not necessarily conceal their true opinions, but choose to emphasize  
356 certain aspects of their thoughts with the (conscious or unconscious) aim of promoting a  
357 certain image. It is relevant that public respondents stated on various occasions that the  
358 future of hunting would rely on the hunters themselves, and how they present  
359 themselves to society. The differences found may suggest that respondents expressing  
360 their statements publicly preferred to emphasize opinions more likely to be in agreement  
361 with that of their opponents, to improve their social image and seek points of consensus.

362

363 Finally, our results show that views of hunting varied with hunters' age, but not with  
364 preferences for big or small game. The latter suggests that the use of hunting for  
365 controlling overabundant ungulate populations or the differences in population trends  
366 between big and small game species do not influence views. In relation to age, older  
367 hunters more frequently mentioned their concerns about certain attitudes of the hunting  
368 community, and were thus more self-critical. They also highlighted ecological values of  
369 hunting more frequently than younger hunters. Therefore, our results suggest that older  
370 hunters are more inclined toward traditional and natural hunting than younger hunters.  
371 Similarly, Delibes-Mateos et al. (2014b) showed that older Spanish hunters view the  
372 release of farm-reared animals for shooting more negatively, and suggested that  
373 attitudes are changing, with older hunters having a greater appreciation for biodiversity  
374 conservation due to their experience with nature. Our results do not allow us to discern  
375 whether there is a change in attitudes among generations of hunters or if values and  
376 opinions change throughout a hunter's life (or both). Further research is needed to  
377 clarify this point. This disagreement between older and younger hunters has also been  
378 reported by Willebrand (2009), who observed that older Swedish hunters were more  
379 likely to maintain traditional and local hunting practices than younger hunters.

380

### 381 *Conclusions*

382 To the best of our knowledge, this is the first assessment of the complex relationships  
383 between hunters' opinions and values about hunting in Spain, where this is a significant  
384 and widespread socioeconomic activity (Herruzo and Martinez-Jauregui 2013). The  
385 information obtained in this study indicates that some of the main concerns of Spanish  
386 hunters are similar to those of environmentalists, highlighting common interests and



387 values between groups, which could be used as a starting point to mitigate the tensions  
388 that currently exist between the two communities. The fact that public opinions of  
389 hunters more frequently reflected those points of consensus suggests that they are also  
390 aware of this and may indicate an attempt to seek solutions acceptable for both parties.  
391 Therefore, our study shows that comparing public with anonymous views can provide  
392 additional information about the relationships between groups and intended projected  
393 images.

394

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566 Table 1. Number of questionnaire respondents by age, game preference, and type of  
567 questionnaire (Pu: public or An: anonymous) (see text for more details). Eight and 35

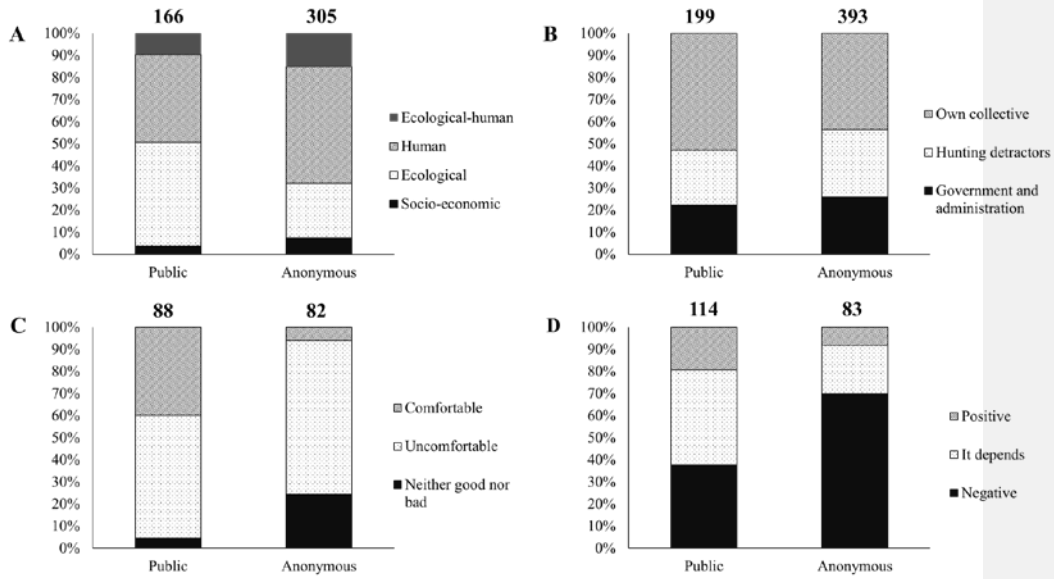


568 anonymous and public respondents, respectively, did not provide information about  
569 their age and/or hunting preferences.

<b>Hunting preferences</b>	<b>Age</b>						<b>Total</b>
	<b>&lt; 30</b>	<b>31-40</b>	<b>41-50</b>	<b>51-60</b>	<b>61-70</b>	<b>71+</b>	
Big game	0/9	5/19	11/14	7/4	13/1	4/1	40/46
Small game	1/5	4/5	6/11	9/3	8/2	3/1	31/26

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571 Figure 1. Percentage of references to positive values of hunting (A); criticisms of  
 572 hunters towards their own community and others (B); position of hunters in society (C);  
 573 the future of hunting (D) by type of questionnaire (public or anonymous). Sample sizes  
 574 (number of references) are presented above the bars.



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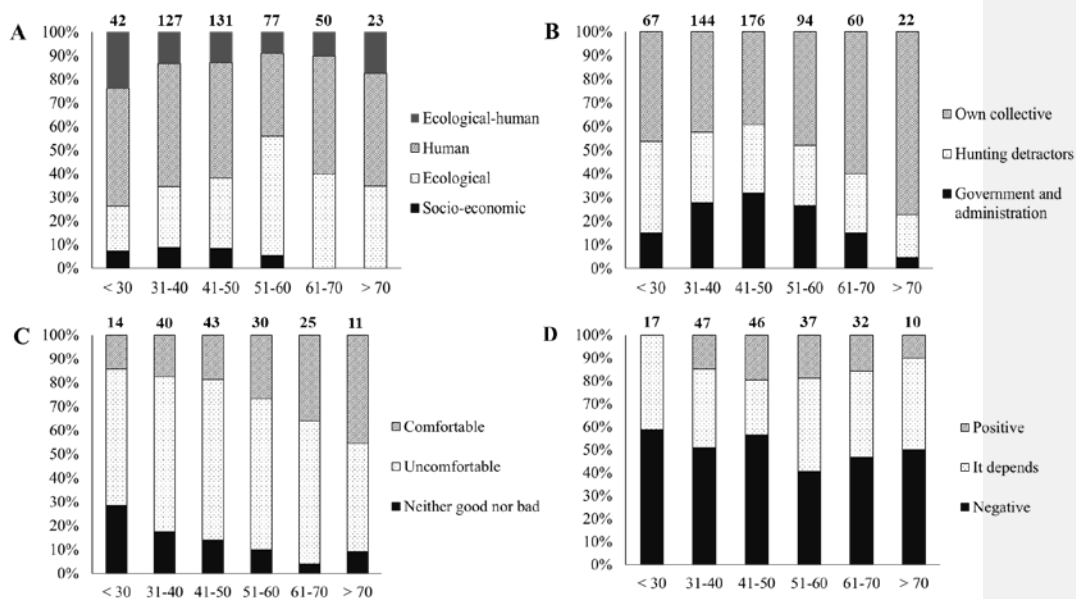
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583 Figure 2. Percentage of references to positive values of hunting (A); criticisms of  
 584 hunters towards their own community and others (B); position of hunters in society (C);  
 585 the future of hunting (D) by age of respondent. Sample sizes (number of references) are  
 586 presented above the bars.



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