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Understanding conservationists' perspectives on the new conservation debate

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1 Understanding conservationists' perspectives on the New

2 Conservation debate

3

4 **Abstract**

5 Recently, there has been a vibrant debate about the future direction of biodiversity
6 conservation, particularly centred on the merits of a so-called "New Conservation".
7 Proponents of the New Conservation advocate a series of positions on key
8 conservation ideas, such as the importance of human-dominated landscapes and
9 conservation's engagement with capitalism. These have been fiercely contested in a
10 debate dominated by a few high profile individuals, and so far there has been no
11 empirical exploration of what perspectives exist on these issues amongst a wider
12 community of conservationists. In this paper, we use Q methodology to provide an
13 empirical examination of perspectives held by attendees at the 2015 International
14 Congress for Conservation Biology (ICCB). Although our findings identify consensus
15 on several key issues, three distinct positions emerged. Factor 1 is in favour of
16 conservation to benefit people but opposes links with capitalism and corporations,
17 Factor 2 favours biocentric approaches but with less emphasis on protecting
18 wilderness than prominent opponents of New Conservation, and Factor 3 has strong
19 links to the published New Conservation perspective but places less emphasis on
20 increasing human wellbeing as a goal of conservation. Our results reveal important
21 differences between the New Conservation debate in the literature and views held
22 within a wider, but still limited, conservation community, and demonstrate the
23 existence of at least one viewpoint (Factor 1) that is almost absent from the
24 published debate. We hope that the fuller understanding this paper presents of the

25 variety of views that exist, but have not yet been heard, will improve the quality and
26 tone of debates on the New Conservation.

27

28

29

30 **Introduction**

31

32 The publication of Kareiva et al.'s (2012) essay "Conservation in the Anthropocene"
33 triggered a vibrant, and often contentious, debate about the future of biodiversity
34 conservation. This debate, over what has become known as the New Conservation,
35 has been conducted through a series of positioning and opinion pieces which are
36 mostly either in favour of the New Conservation view (Kareiva et al, 2012; Kareiva &
37 Marvier 2012), or against it, for a variety of reasons (Greenwald et al. 2013; Soulé
38 2013; Noss et al. 2013; Doak et al. 2014; Miller et al. 2014). More recently, several
39 pieces have analysed the nature and tone of the debate (Hunter et al. 2014; Tallis
40 and Lubchenco 2014). Although the debate has extended into the broader
41 conservation community, its public manifestations have been "dominated by only a
42 few voices, nearly all of them men's" (Tallis & Lubchenco 2014; 27), and no attempt
43 has been made to describe views from a wider community of conservationists. This
44 has led hundreds of signatories to back Tallis and Lubchenco's (2014) call for a new
45 chapter in the debate, based on a wider range of views.

46

47 Originally proposed in an essay for The Breakthrough Institute (Kareiva et al. 2012),
48 and further developed in later articles (Kareiva & Marvier, 2012), the New
49 Conservation is based on a series of core principles and values (described by its

50 authors as functional and normative postulates, respectively) for conservation in the
51 21st century (Table 1). The New Conservation postulates are an attempt to update
52 Soulé's (1985) foundational functional postulates for conservation. They draw on
53 developments in the conservation sciences, and react to what Kareiva and Marvier
54 (2012) see as Soulé's damaging inattention to human wellbeing.

55 [[[Table 1 here]]]

56

57 In response, authors who might be called 'traditional' conservationists have provided
58 various counter-arguments and refutations of the New Conservation position,
59 including, *inter alia*, that New Conservation exaggerates nature's resilience, that its
60 embrace of economic growth ignores fundamental planetary limits, and that there are
61 many almost-intact wildernesses worth saving, which are neglected by a greater
62 focus on conserving human-dominated places (Soulé 2013; Jacquet 2013; Noss et
63 al. 2013; Doak et al. 2014; Miller et al. 2014; Wilson 2016). Traditional
64 conservationists have also argued that the majority of conservation action already
65 takes place in human-dominated places. In addition, and in contrast to Kareiva and
66 Marvier's (2012) assertion, Greenwald et al. (2013) argue that conservation has long
67 held concerns for human wellbeing, and this was mentioned in Soulé's (1985)
68 original article.

69

70

71 The antagonism is partly because the New Conservation debate is not just about
72 *how* conservation should be done, but also about different ethical values that
73 underpin *why* conservation should be done, and for whom (Hunter et al. 2014). The
74 New Conservation is more anthropocentric, emphasising the benefits of nature to

75 humans, and prioritising the emergent properties of ecosystems which provide these,
76 such as stability and productivity. Traditional conservation is more biocentric,
77 emphasising the intrinsic value of nature, and prioritising issues of species diversity
78 and extinction. These values are often implicit rather than explicit within key
79 positioning papers (Hunter et al. 2014).

80

81 Conservation has a history of plural views driving different framings of what
82 conservation is, and what it is for (Mace 2014), and these longer-running debates
83 are reflected in the current New/traditional conservation debate (Holmes 2015).
84 There has been a long debate about whether poverty alleviation in conservation is a
85 damaging distraction, an ethically justifiable addition to the mission of
86 conservationists, or a vital tool to make conservation more effective (Roe 2008).
87 Similarly, in recent decades there have been disputes over whether true wilderness
88 exists, and whether it is a useful or harmful concept for conservation (Callicot &
89 Nelson 1998). There is a long history of conservationists variously advocating for,
90 and critiquing, working with corporations and capitalism (Brockington and Duffy
91 2010). What is new in the New Conservation debate is the way these and other
92 issues have been packaged together into just two opposing positions on why, how
93 and what to conserve (Holmes 2015). Meanwhile, other relevant debates in
94 conservation social science, such as those on biocultural diversity, remain absent.

95

96 One substantial body of social science literature emerging in recent years, which is
97 particularly relevant to many key themes in the New Conservation, is that on
98 neoliberal conservation. This explores the increasing integration between
99 conservation and capitalism, considering the mechanisms by which such integration

100 has taken place, such as payments for ecosystem services, biodiversity offsetting
101 and ecotourism, the claims of synergies between conservation and capitalism which
102 underpin these mechanisms, and the role of major conservation NGOs in promoting
103 such mechanisms (Igoe and Brockington 2007; Brockington and Duffy 2010). These
104 claimed synergies are part of the New Conservation discourse, which warns against
105 “scolding capitalism” (Kareiva et al. 2012) and advocates working with corporations
106 not as a “necessary evil”, but because they “can be a positive force for conservation”
107 (Kareiva & Marvier 2012 p967). The critical literature on neoliberal conservation
108 originates from diverse authors, including political ecologists (Igoe and Brockington
109 20078), conservation biologists (McCauley 2015) and mixtures of the two (Redford
110 and Adams, 2009). It has direct relevance to the New Conservation debate, but
111 explicit cross-referencing between the two is very rare (for an exception, see Spash
112 2015).

113

114 The purpose of this paper is to expand the debate about the New Conservation
115 beyond the voices of a few prominent individuals by empirically examining the range
116 of positions that exist amongst a wider group of conservationists, sampled from an
117 international conservation conference. Accordingly, we aim to evaluate the extent to
118 which a particular group of conservationists share the views espoused in the public
119 debate, or adopt more nuanced or contrasting positions.

120

121 **Methods**

122 **What is Q and what does it do?**

123 We used Q methodology to undertake a systematic analysis of the perspectives of

124 conservation professionals attending the International Congress on Conservation
125 Biology (ICCB) conference, 2015. Q methodology is growing in popularity as a
126 method for exploring structure and form within subjective opinions and discourses
127 and it has been increasingly applied to conservation research in recent years (e.g.
128 Sandbrook et al. 2010; Chamberlain et al. 2012; Cairns et al. 2014; Fisher & Brown
129 2014). Q combines the qualitative study of perceptions with the statistical rigour of
130 quantitative techniques (McKeown & Thomas 1998; Watts & Stenner 2012). Q
131 methodology requires respondents to arrange statements drawn from the public
132 discourse on a topic onto a grid to reflect their views. The method is used to identify
133 particular subjective positions, identified as factors, and how these are shared by
134 people. It also enables the detailed analysis and comparison of the composition of
135 these positions. Q methodological studies are not concerned with the prevalence of
136 positions in a population, which is the domain of conventional surveys. Accordingly,
137 Q is designed for small numbers of participants and does not require a random
138 sample (McKeown & Thomas 1998). Watts and Stenner (2012) provides a
139 comprehensive source on Q methodology.

140 **The Q sample (statements)**

141 A Q study starts by defining statements; we identified potential statements from the
142 peer reviewed literature that introduces, critiques and defends ideas associated with
143 the New Conservation (see Appendix S1 for a full list of reviewed literature). To
144 identify material to review, we started with the key articles that launched the New
145 Conservation debate (e.g. Kareiva et al. 2012; Kareiva & Marvier, 2012), and then
146 used Google Scholar to identify all articles citing this work, discarding those that
147 were clearly not relevant. We selected candidate Q statements from the articles
148 covering the major themes of the New Conservation literature. Q statements must

149 span the range of existing positions and be concise and clear, such that respondents
150 can place them instinctively. We chose 38 statements from an initial list of 108,
151 reducing the number by eliminating redundant statements, the meaning of which was
152 more effectively conveyed elsewhere. Some statements were rephrased for clarity or
153 to reverse their meaning, to give a balanced set of statements (called a Q set). This
154 was then piloted with 3 respondents (two academics working on conservation issues,
155 and a representative from an international conservation NGO). Minor alterations for
156 clarity were undertaken following the pilot phase.

157 **Recruiting Q participants**

158 Our Q study was conducted with respondents drawn from delegates at the ICCB,
159 held in Montpellier, France, 2nd - 6th August, 2015. This congress is the main
160 international event run by the Society for Conservation Biology
161 (<http://www.conbio.org/AboutUs/>). This event was chosen because we intended to
162 capture views on the New Conservation debate from a wider group of respondents
163 than those who had made previous public contributions to the debate, but where
164 respondents were likely to have read or heard such contributions because they form
165 part of the conservation 'mainstream', including academics and practitioners from
166 major NGOs. The ICCB is the largest academic conservation conference in the world
167 attracting roughly two thousand delegates from around 100 countries, making it an
168 ideal venue for our study. The programme also contained a plenary debate between
169 Peter Kareiva and ecological economist Clive Spash on the New Conservation that
170 would likely prompt delegates to think about these issues. The attendees at the
171 ICCB, and correspondingly the data gathered by our research, do not span the entire
172 breadth that may exist within conservation on these issues, and many key voices,
173 such as indigenous groups and rural residents of the global South, are significantly

174 under-represented at such events. Nevertheless, sampling the conference delegates
175 allowed us to meet our objective of surveying views from a wider group of
176 conservationists than those who have dominated the public debate on the New
177 Conservation to date.

178 Our research team at the Congress comprised all authors and two data collection
179 assistants. We carried out face-to-face interviews with respondents, during which the
180 Q survey provided the main stimulus. Respondents were selected purposively, rather
181 than following conventional inferential statistical sampling aims, in order to capture
182 the widest possible range of views (Watts and Stenner, 2012). Four aspects drove
183 our recruitment: a range of seniority that included some thought-leaders and some
184 more junior respondents; the targeting of people with a known and distinct position
185 on the debates (e.g. those who presented a relevant conference paper, or made a
186 discussion point referencing the debate); an initial conversation through which we
187 established whether previously unknown respondents had a position on the debates;
188 and, the representation of people from a range of genders, geographical origins and
189 sectors (e.g. academic and practitioner). The research team met daily through the
190 congress to discuss progress and develop strategies to target under-represented
191 groups or perspectives, until we judged that a sufficiently wide range of viewpoints
192 had been captured. This was judged to be sufficient when responses represented
193 both the existing published positions on the New Conservation debates, but also a
194 range of other perspectives. We also ensured that our fourfold recruitment aims
195 (detailed above) were achieved in this sample. 30 Q sorts were completed in total
196 (see Table 2). Respondents were informed that their responses would be
197 anonymised and were asked to represent their own views rather than those of their
198 organisation. Permission to conduct the survey was obtained in advance from the

199 organisers of the ICCB. This research was subject to the ethical clearance procedure
200 for research with human subjects at the University of Leeds.

201

202 [[[table 2 about here]]]

203 **The interviews**

204 All interviews were conducted in a quiet place away from other people. After an initial
205 explanation of the project and the method, respondents completed the Q survey,
206 sorting the statements onto the grid we used (Figure 1). We emphasised that the
207 method measures the extent to which respondents agree with each statement
208 relative to all the other statements, rather than gauging an absolute level of
209 agreement. The grid and our instructions covered the range: ‘most like I think’, to
210 ‘least like I think’, and we encouraged respondents first to gather statements into
211 three piles. Two of these represented statements at the ends of the salience
212 continuum, whereas the third was for statements of lower or intermediate salience.
213 Respondents were then asked to distribute statements onto the grid from these piles.
214 During the interview, respondents were encouraged to explain the rationale behind
215 their sorting and this yielded complementary qualitative data, recorded in writing by
216 the researchers. Where respondents had questions about statements, the
217 researcher gave limited help to explain the meaning of the statement whilst aiming
218 not to bias the respondent.

219 [[[Figure 1 about here]]]

220 Theory suggests that Q methodology grids should follow a normal distribution (Watts
221 & Stenner 2012). Respondents were not constrained to follow the normal distribution

222 shown on the grid, but were encouraged to follow it as closely as possible. Rather
223 than being a requirement of statistical analysis, this encourages respondents to
224 prioritise statements, thereby revealing what is really salient to them (McKeown &
225 Thomas 1998; Watts & Stenner 2012). Fifteen of the 30 respondents did not
226 constrain their responses exactly to the normal distribution.

227 **Q analysis**

228 Q sorts were analysed using PQMethod software. Q analysis involves three
229 statistical procedures used in sequence: correlation, factor analysis (we used
230 centroid analysis), and computation of factor scores (see Watts and Stenner 2012).
231 We chose to rotate three factors following criteria in Watts and Stenner (2012; 92-
232 110). This was based on a holistic judgement of the quantitative results of the
233 analysis and our qualitative interpretation based on our understanding of the
234 respondents and their viewpoints. We used a varimax analysis, with automatic
235 flagging of respondent Q sorts to factors using PQMethod's statistical threshold. Five
236 respondents were not flagged for any one factor. Following the quantitative stages,
237 the analysis becomes more interpretive of the factors, understood through
238 representative Q sorts generated for each factor during the analysis (which represent
239 the common ordering of statements for Q sorts associated with this factor - see
240 Table 3).

241 **Results**

242 In this section, we outline the three factors identified, presented in Table 3. We
243 encourage readers to consult Table 3 to interpret differences between the factors,
244 recognising that interpretation in Q is somewhat subjective (Eden et al. 2005). In
245 what follows, we interpret the factors themselves and the consensus statements,

246 which do not distinguish between any pair of factors. Throughout, we refer to Q
247 statement numbers in parentheses, and mark distinguishing statements (ranked in a
248 significantly different way in one or both other factors; Watts & Stenner 2012), with
249 an asterisk. Where we refer to qualitative interview data in the results section, it
250 derives from a respondent belonging to the factor being described.

251

252 [[[Table 3 about here]]]

253

254 Factor 1

255 Factor 1 is associated with nine respondents, and is primarily distinguished by
256 scepticism about markets, corporations and capitalism; strong relative disagreement
257 is displayed that conservation should work with capitalism (17*, -3). There is concern
258 that economic rationales displace other motivations for conservation and lead to
259 unintended consequences (28*, 2; 25*, 1). More generally, plural rationales are
260 thought to strengthen conservation (26, -4). Corporations are not considered a
261 positive force for conservation (18*, -1), nor is their support essential (35*, -3). As
262 one respondent noted, corporations are “unlikely to fully support conservation
263 objectives” [Interview 9]. There is relative disagreement that economic growth is the
264 best way to promote human wellbeing (38, -2), and reform of global trade is
265 considered necessary (31*, 2).

266 This factor conveys strong concern with the environmental impact of the world’s rich
267 (6*, 4), and less concern with overall population growth compared to the other two
268 factors (19, 0). Associated respondents believe that conservation should do no harm
269 to poor people (36, 2) and should seek to improve the wellbeing of all humans (21*,

270 1). These goals were higher priorities than conserving nature for nature's sake (4*,
271 0), but slightly lower than conserving ecosystem processes (24, 3) and biodiversity
272 (34, 2). This factor conveys ambivalence about whether conservation can only be
273 successful by benefiting the poor (3*, 0). This factor consistently did not favour
274 traditional wilderness-focused conservation, conveying the sense that pristine nature
275 does not exist (9, 3) and that humans are not separate from nature (1, -4).

276 This factor promotes the idea that ethical values (23*, 4) are more important than
277 science (13*, 0) in setting goals, with several respondents opining that the goals
278 themselves are ethical statements. One noted that "science should inform how you
279 do things in conservation, but not necessarily the goals" [interview 18]. Biological
280 evidence is not considered to be the most important source of evidence (7, -1).

281 Unlike other factors, Factor 1 was characterised by the idea that conservation should
282 reduce human's emotional separation with nature (22*, 3). One respondent voiced
283 strong opinions that separations of rational and emotional aspects of thought were
284 unhelpful [interview 8], and two further respondents felt that the promotion of
285 emotional connections with nature was an essential aspect currently missing in
286 debates about conservation's future [interviews 1, 19].

287

288

289 Factor 2

290 Factor 2 is associated with nine respondents. The most salient statements of Factor
291 2 relate to the importance of conserving biodiversity (34*, 4) and ecosystem
292 processes (24, 4) as goals of conservation. The factor is distinctly biocentric,
293 prioritising nature for nature's sake (4*, 3), and rejecting the idea that 'protecting
294 nature for its own sake does not work' (14, -3). Human wellbeing as a conservation

295 goal is not a strong priority (21, 1), but this factor regards 'win-win' outcomes as
296 often possible (2*, -4); together these and the placement of statement 3* (1),
297 regarding an instrumental rationale for conservation providing benefits to local
298 people, characterise human wellbeing as an important secondary objective of
299 conservation. Factor 2 presents itself as pragmatic in relation to an interest in plural
300 rationales (26*, -1), and public support for conservation is regarded as a priority (16,
301 3). The use of doom and gloom messages is strongly rejected (29, -3).

302

303 The placement of statements 15 and 32 show that value in nature is considered to
304 be everywhere, with an interest in conservation in all landscapes, e.g. "agricultural
305 landscapes can have a very high conservation value" [interview 6]. However, some
306 areas are considered pristine (9*, -2), a view that distinguishes this factor. Some
307 interest in 'strict' protected areas (PAs) is in evidence (10*, 2). This factor is strongly
308 science-oriented in terms of goal setting (13*, 3) and favours evidence from
309 biological sciences (7*, 1).

310

311 Factor 2 conveys a perceived need for reductions in population growth to achieve
312 conservation goals (19, 2), for instance: "I know it's controversial, but people are
313 causing the problems and there are too many of them" [Interview 5], as well as some
314 concern about the environmental impacts of the rich (6, 2). In terms of how
315 associated respondents consider local people and poverty, there is lower concern
316 about doing no harm (36*, 0) and displacement of people by conservation action
317 than in other factors (8*, 0), although in the qualitative data respondents highlighted
318 the need for appropriate consultation and consent from local communities [Interview

319 15], and that “we should try to avoid [displacement], but there may be cases where it
320 could lead to an improvement in people’s well-being” [Interview 6].

321

322 Perspectives on economic arguments (25, 0; 28, 0), corporations (18*, 1), trade (31*,
323 -1) and capitalism (17*, -1), are not priorities within this factor. This was coupled with
324 the qualitative sense from one respondent that they did not have enough
325 understanding of these issues to have strong views [Interview 5]. There was also
326 some pragmatism that conservation needed to work with capitalism, but as one
327 respondent stated: “that doesn’t mean [capitalism] doesn’t need to be changed”
328 [Interview 5].

329

330 Factor 3:

331 Factor 3 is associated with seven respondents and primarily distinguished by its
332 relative optimism about corporations (18*, 3) and capitalism (17*, 1). Those aligned
333 with this factor express relative disagreement that there is a risk of economic
334 rationales displacing other motivations (28, -1), and neutrality about whether using
335 economic arguments could lead to unintended consequences (25, 0). In the words of
336 one respondent aligned with this factor, “Capitalism is not such a bad thing”
337 [Interview 29]. Those aligned with this factor believe that reforming global trade is
338 necessary (31*, 1) and that human population growth should be reduced (19, 1), but
339 their views on these issues lie between the other factors’ positions. In the view of
340 associated respondents, impact on nature does not grow in line with income (33*, -
341 2).

342

343 Those aligned with this factor hold strong views about the impact of conservation on
344 people, believing it should do no harm to the poor (36, 4) and should not displace
345 people to make way for PAs (8*, -3). The factor displays more optimism than others
346 about the contribution of economic growth to wellbeing (38*, -1), and considers more
347 strongly than others that conservation will only succeed if it benefits people (3*, 2).
348 As one respondent said when considering the wellbeing statement (21), “No. The
349 goal should be conservation” [Interview 21]. This factor displayed less optimism than
350 others about the possibility of win-wins for people and nature (2*, 0). One respondent
351 said “I don’t believe in this win-win-win, everyone wins. No. Some people will lose”
352 [Interview 29].

353

354 Those aligned with this factor believe that pristine nature untouched by people does
355 not exist (9, 3). Perhaps as a consequence, they express strong relative
356 disagreement that strict PAs are required to achieve conservation goals (10*, -4).
357 Biodiversity is slightly less of a priority for this factor than factor 2 (34, 3), and unlike
358 the other factors, associated respondents do not see conserving nature for its own
359 sake as a goal of conservation (4*, -1), nor do they think this strategy works (14*, 1).
360 The factor is positive about the role of science in goal setting (13*, 2) and sees the
361 need for more than just biological science evidence in conservation (7, -1). Unlike
362 Factor 1, here ethical values are not seen as important for goal setting (23*, -1). As
363 one respondent aligned with this factor said: “maybe conservation has too many
364 goals now” [Interview 21].

365

366 Those aligned with this factor believe that successful conservation requires broad
367 public support (16, 2). They were fairly neutral on the need to reduce the emotional

368 separation of people and nature (22*, 0). They also believed strongly that plural
369 rationales do not weaken conservation (26, -3). One respondent said that “the
370 inability to see others’ views, to see plurality of opinions and values is detrimental”
371 [Interview 23].

372

373 Consensus statements

374

375 There is relative consensus that significant value exists in highly modified
376 landscapes (15), while non-native species are generally thought to offer some
377 conservation value (32). There is consensus in weak relative disagreement with the
378 idea that highlighting human domination of the planet may be used to justify further
379 environmental damage (11). Consensus surrounds the idea that giving a voice to
380 those affected by conservation actions improves conservation outcomes (30), as well
381 as being an ethical imperative (37). There was consensus around a low salience
382 ranking (+1 or 0) regarding whether conservation must benefit poor people as an
383 ethical imperative (5), and relative disagreement with the proposition that human
384 affection for nature grows in line with income (20). Relative consensus exists on the
385 notion that conservation messages promoting anthropocentric rationales can be as
386 effective as those emphasising biocentric rationales (27). Finally, there was general
387 agreement that maintaining biodiversity (34) and ecosystem processes (24) should
388 be goals of conservation, but these did not meet the statistical criteria to be
389 considered consensus statements.

390

391 **Discussion**

392 This paper provides the first published evidence of what a wider group of
393 conservationists who have not actively participated in the public debate about the
394 New Conservation think about the issues raised and positions put forward within that
395 debate. The results suggest the existence of at least three distinct ways of thinking
396 about these issues present within our sample. Two of these positions are
397 recognisably related to the ‘traditional’ and New Conservation positions described in
398 the literature (Factor 2 and Factor 3 respectively), albeit with important distinctions.
399 The third (Factor 1) is strongly divergent from either of the positions described in the
400 New Conservation literature, and includes elements more closely resembling the
401 positions on market-based conservation found in the literature on ‘neoliberal
402 conservation’. The following paragraphs analyse the similarities and differences
403 between the three factors we found and those described in the New Conservation
404 and other literatures. In doing so we offer descriptive labels for each factor. These
405 are simplifications of the nuanced content of each Factor, but offer them as useful
406 shorthand to identify positions and facilitate further debate. Finally, we consider the
407 implications of these findings before discussing this study’s limitations and possible
408 avenues for future research.

409 The position described by Factor 2 resembles the ‘traditional’ conservation view
410 most closely associated in this debate with the writing of Michael Soulé (2013; also
411 Miller et al. 2014), although with some important differences. As a result, we label it
412 “Traditional Conservation 2.0”. Areas of overlap include a primarily biocentric
413 motivation for conservation, a focus on conserving biodiversity and ecosystem
414 processes, a belief in the existence of pristine areas and in the value of biocentric
415 arguments when communicating conservation. This factor places a low level of
416 priority on market based mechanisms and economic arguments for conservation,

417 resembling arguments put forward in recent published contributions opposing the
418 New Conservation (e.g. McCauley 2015). However, the position described by Factor
419 2 does diverge from the standard ‘traditional’ conservation position described in the
420 literature. In particular (and in line with Factors 1 and 3), it promotes the conservation
421 of biodiversity wherever it is found, including non-native species and in highly
422 modified landscapes as well as in strict PAs, in contrast to the traditional
423 conservation position which focuses strongly on pristine nature in strict PAs. This
424 raises the question of whether the traditionalist position of authors such as Soulé
425 (2013) and Wilson (2016) has relevance for many contemporary conservationists, or
426 represents an ultra-orthodox view held only by a small minority.

427 The position described by Factor 3 in our study resembles the New Conservation
428 position most closely associated with the writing of Peter Kareiva and Michelle
429 Marvier (Kareiva et al. 2012; Kareiva & Marvier 2012), although again there are
430 important differences. As such, we label it “Nearly New Conservation”. Areas of
431 overlap include a generally optimistic view of market-based instruments in
432 conservation, an interest in novel ecosystems and modified landscapes as well as
433 more pristine areas, and a belief that science should play a strong role in
434 conservation. Two areas of apparent distinction emerge between Factor 3 and
435 standard New Conservation positions. First, the New Conservation literature tends to
436 adopt a primarily anthropocentric rationale for conservation in which benefiting
437 people is an important goal in itself, whereas Factor 3 is more concerned about
438 avoiding harm to people than actually *increasing* their wellbeing. This suggests
439 Factor 3 represents a more instrumental view of the importance of benefiting people
440 as a means to an end rather than an end in itself. Second, Factor 3 is fairly neutral
441 on the importance of addressing a separation of people from nature, whereas

442 Kareiva, a key architect of the New Conservation earlier argues that this separation
443 “may well be the world's greatest environmental threat” (2008; 2758).

444 Whilst Factors 2 and 3 in our study map fairly neatly onto positions described in the
445 existing New Conservation literature, Factor 1 does not. It shares aspects of the
446 Factor 3 position, being concerned for biodiversity in modified as well as pristine
447 landscapes, and convinced of the need to avoid harm to people. However, it strongly
448 diverges from Factor 3 in its views on the role of corporations and market based
449 instruments in conservation, being critical of them both. As such, we label it “Market
450 Scepticism”. The position described by this factor is perhaps most closely aligned
451 with those contained within critical social science scholarship on so-called ‘neoliberal
452 conservation’ (e.g. Igoe & Brockington 2007; Brockington & Duffy 2010). There is
453 also strong overlap with the position of Spash (2015) put forward in a recent article
454 and presentation to the ICCB, and with the ‘social instrumentalism’ position
455 described by Matulis & Moyer (2016). These critical arguments are almost absent
456 from the literature that explicitly refers to the New Conservation debate, despite
457 appearing in mainstream conservation publications (e.g. Redford and Adams 2009)
458 and being commonplace in the literature and conferences of the conservation social
459 science community which faces academic audiences in geography, anthropology,
460 political science, and other disciplines.

461 The results of this paper have two important implications for the New Conservation
462 debate and broader thinking on future directions for conservation. Firstly, it is clear
463 that there are more than two perspectives on what conservation is, why it matters
464 and how to do it. Others have pointed out that the New Conservation literature
465 creates a false dichotomy (Tallis & Lubchenco 2014), and our results support this.
466 Critics have argued that the debate has been dominated by established and

467 influential figures from a narrow demographic, rather than representing the broader
468 demographic of conservation researchers and practitioners (Tallis & Lubchenco
469 2014), and has been conducted in an overly adversarial manner (Marris 2014). Our
470 qualitative data support this claim, and the dissatisfaction with the tone and nature of
471 the debate amongst practising conservationists. One respondent working for an
472 international NGO stated that “the modus operandi of the loudest voices [in the New
473 Conservation debate] is to provoke... It is a distraction from the real challenges the
474 sector faces” [Interview 23]. Indeed, given that not all voices in conservation are
475 present at the ICCB, particularly those of groups which have been historically
476 marginalised in conservation debates, the range of opinions is undoubtedly even
477 broader than that captured by this study.

478 Secondly, it is striking that we identified a position (Factor 1), which is almost
479 completely absent from the New Conservation literature. Nine of our respondents
480 were associated with this perspective and a similar position, argued by Clive Spash
481 in a plenary debate at the ICCB conference, received a standing ovation from large
482 sections of the audience. This finding begs the question of whether there is a latent
483 critical viewpoint on neoliberal conservation that is held by a large number of
484 conservationists but not represented by the actions of most conservation
485 organisations or the writing of scholars like Soulé, Kareiva and Marvier. Previous
486 research using Q method has found similar resistance among some conservationists
487 to market-based conservation (Sandbrook et al. 2013a; Blanchard et al 2016).
488 Articles in mainstream conservation journals have critiqued the underlying premises
489 of market based conservation (Redford and Adams, 2009, Spash 2015), often
490 authored by critical conservation social scientists. If such views are widespread then
491 there may be a ready audience for critical conservation social science scholarship

492 among the conservation community, adding further weight to previous calls to
493 improve the communication of ideas between these groups (Sandbrook et al.
494 2013b). To discover the prevalence of the viewpoints we identified, further research
495 could build on this study by using survey methodologies designed to produce
496 inferential results, focusing in particular on the conservation practitioner and non-
497 Anglophone communities that are less well represented at the ICCB.

498 Conservation is many things to many people, and it is not surprising that people do
499 not agree about everything. Whilst divisions over the New Conservation could be
500 treated as an “ecumenical” matter (Marvier 2014), with different approaches more
501 suitable in different contexts (Pearson, 2016), there will be places where they will
502 collide, and there will be important disagreements that are worth acknowledging and
503 discussing (Sandbrook 2015). Matulis & Moyer (2016) argue that such “agonistic
504 pluralism” is preferable to the “inclusive conservation” that others have called for
505 (e.g. Tallis & Lubchenco 2014), which can stifle minority viewpoints. That said, our
506 study did identify some important areas of consensus and shared ground between
507 our respondents, such as a recognition of the value of modified habitats, the
508 importance of conserving ecosystem processes, and the need to give a voice to local
509 people. In what has often been an adversarial public debate, the existence of these
510 points of agreement could provide platforms for constructive debate in the
511 conservation community about areas of disagreement. Our findings provide a fuller
512 and more nuanced understanding of the variety of views that exist. We hope that this
513 will improve the quality and tone of debates surrounding the future of conservation.

514

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| |
|---|
| Functional postulate |
| <p>“pristine nature,” untouched by human influences, does not exist.’</p> <p>‘the fate of nature and that of people are deeply intertwined.’</p> <p>‘nature can be surprisingly resilient.’</p> <p>‘human communities can avoid the tragedy of the commons.’</p> <p>‘local conservation efforts are deeply connected to global forces.’</p> |
| Normative postulate |
| <p>‘conservation must occur within human-altered landscapes.’</p> <p>‘conservation will be a durable success only if people support conservation goals.’</p> <p>‘conservationists must work with corporations.’</p> <p>‘conservation must not infringe on human rights and must embrace the principles of fairness and gender equity.’</p> |

595 Table 1

596

| | | | | | | |
|--------------------------|------------|--------------|------|-----------|---------|-----------|
| Gender | Female | Male | | | | |
| | 12 | 18 | | | | |
| Continent | Europe | Africa | Asia | N America | Oceania | S America |
| | 13 | 3 | 3 | 4 | 6 | 1 |
| Sector | NGO | Academia | | | | |
| | 13 | 17 | | | | |
| Self-identify as: | Researcher | Practitioner | Both | | | |
| | 18 | 5 | 7 | | | |

597 Table 2

598

| ID | Statement | Factor 1 | | Factor 2 | | Factor 3 | | Dist/ Cons |
|----|--|----------|-------|----------|-------|----------|-------|---------------|
| | | Norm. | Z | Norm. | Z | Norm | Z | |
| 1 | Humans are separate from nature not part of it | -4 | -1.88 | -4 | 1.49 | -4 | -2.23 | |
| 2 | Win-win outcomes for people and nature are rarely possible | -3 | -1.06 | -4 | -1.63 | 0 | 0.02 | F1, F2, F3 |
| 3 | Conservation will only succeed if it provides benefits for people | 0 | 0.05 | 1 | 0.61 | 2 | 1.11 | F2, F3 |
| 4 | Conserving nature for nature's sake should be a goal of conservation | 0 | 0.33 | 3 | 1.17 | -1 | -0.30 | F1, F2, F3 |
| 5 | Conservation must benefit poor people because to do so is an ethical imperative | 1 | 0.69 | 1 | 0.41 | 0 | 0.20 | Cons |
| 6 | To achieve conservation goals, the environmental impact of the world's rich must be reduced | 4 | 1.43 | 2 | 0.82 | 1 | 0.49 | F1 |
| 7 | Conservation actions should primarily be informed by evidence from biological science | -1 | 0.70 | 1 | 0.53 | -1 | -0.31 | F2 |
| 8 | It is acceptable for people to be displaced to make space for protected areas | -1 | -0.60 | 0 | -0.03 | -3 | -1.73 | F1, F2, F3 |
| 9 | Pristine nature, untouched by human influences, does not exist | 3 | 1.20 | -2 | -1.13 | 3 | 1.38 | F2 |
| 10 | Strict protected areas are required to achieve most conservation goals | -2 | -1.00 | 2 | 0.69 | -4 | -1.83 | F1, F2, F3 |
| 11 | There is a risk that highlighting human domination of the planet may be used to justify further environmental damage | 0 | -0.45 | -1 | -0.57 | -2 | -0.42 | Cons |
| 12 | Nature often rebounds from even severe perturbations | 0 | -0.13 | -1 | -0.30 | 1 | 0.48 | F3 |
| 13 | Conservation goals should be based on science | 0 | -0.38 | 3 | 1.83 | 2 | 0.82 | F1, F2, F3 |
| 14 | Protecting nature for its own sake does not work | -2 | -1.04 | -3 | -1.38 | 1 | 0.22 | |
| 15 | There is no significant conservation value in highly modified landscapes | -1 | -0.84 | -3 | -1.43 | -3 | -1.32 | Cons |
| 16 | Conservation will only be a durable success if it has broad public support | 1 | 0.72 | 3 | 1.39 | 2 | 1.07 | |
| 17 | Conservation should work with, not against, capitalism | -3 | -1.16 | -1 | -0.36 | 1 | 0.29 | F1, F2, F3 |
| 18 | Working with corporations is not just pragmatic; they can be a positive force for conservation | -1 | -0.55 | 1 | 0.31 | 3 | 1.18 | F1, F2, F3 |
| 19 | To achieve conservation goals, human population growth must be reduced | 0 | 0.10 | 2 | 0.79 | 1 | 0.51 | |
| 20 | Human affection for nature grows in line with income | -3 | -1.13 | -3 | -1.30 | -2 | -1.00 | Cons |
| 21 | Advancing the wellbeing of all people should be a goal of conservation | 1 | 0.94 | 1 | 0.37 | 0 | 0.05 | F1 |

| | | | | | | | | |
|----|---|----|-------|----|-------|----|-------|------------|
| 22 | Conservation should seek to reduce the emotional separation of people from nature | 3 | 1.14 | -1 | -0.54 | 0 | 0.12 | F1, F2, F3 |
| 23 | Conservation goals should be based on ethical values | 4 | 1.33 | 1 | 0.40 | -1 | -0.26 | F1, F2, F3 |
| 24 | Maintaining ecosystem processes should be a goal of conservation | 3 | 1.19 | 4 | 1.84 | 4 | 1.61 | |
| 25 | Economic arguments for conservation are risky because they can lead to unintended negative conservation outcomes | 1 | 0.74 | 0 | 0.12 | 0 | 0.08 | F1 |
| 26 | Plural rationales for conservation weaken the conservation movement | -4 | -1.65 | -1 | -0.77 | -3 | -1.59 | F2 |
| 27 | Conservation messages promoting the benefits of nature to humans are less effective than those that emphasise the value of nature for nature's sake | -1 | -0.67 | -2 | -0.92 | -2 | -0.78 | Cons |
| 28 | There is a risk that economic rationales for conservation will displace other motivations for conservation | 2 | 0.98 | 0 | 0.14 | -1 | -0.17 | F1 |
| 29 | Conservation communications are more effective when they use doom and gloom rather than positive messages | -2 | -0.96 | -3 | -1.31 | -3 | -1.67 | |
| 30 | Giving a voice to those affected by conservation actions improves conservation outcomes | 1 | 0.81 | 2 | 0.92 | 3 | 1.25 | Cons |
| 31 | To achieve its goals, conservation should seek to reform global trade | 2 | 1.10 | -1 | -0.37 | 1 | 0.36 | F1, F2, F3 |
| 32 | Non-native species offer little conservation value | -1 | -0.71 | -2 | -0.95 | -1 | -0.35 | Cons |
| 33 | Human impact on nature grows in line with incomes | 1 | 0.89 | 0 | 0.15 | -2 | -0.48 | F1, F2 |
| 34 | Maintaining biological diversity should be a goal of conservation | 2 | 1.09 | 4 | 2.01 | 3 | 1.23 | F2, F3 |
| 35 | Conservation will only be a durable success if it has the support of corporations | -3 | -1.29 | 0 | -0.28 | 0 | -0.13 | F1 |
| 36 | Conservation should seek to do no harm to poor people | 2 | 1.13 | 0 | 0.27 | 4 | 1.57 | F2 |
| 37 | Giving a voice to those affected by conservation action is an ethical imperative | 3 | 1.28 | 3 | 1.01 | 2 | 0.77 | Cons |
| 38 | The best way for conservation to contribute to human wellbeing is by promoting economic growth | -2 | -0.96 | -2 | 1.01 | -1 | -0.26 | F3 |

| -4 least like I think | -3 | -2 | -1 | 0 | +1 | +2 | +3 | +4 Most like I think |
|--------------------------------|----|----|----|---|----|----|----|-------------------------------|
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600

601 Figure 1

602

603 **Table 1.** Functional and normative postulates for the New Conservation, as proposed in Kareiva and
604 Marvier (2012; 965-967)

605

606 **Table 2:** Composition of sample of interviewees

607

608 **Table 3:** Numerical representations of factors, showing z scores and normalised Q-scores
609 (corresponding with the grid in Figure 1) for each statement. . The final column indicates which
610 statements were distinguishing statements at $p < 0.05$ and for which factor, and which statements
611 were consensus statements, with blank cells for statements that were neither consensus statements
612 or statistically significant in distinguishing between factors.

613 **Figure 1:** The Q methodology grid used for this study. Respondents were asked to allocate
614 statements to cells reflecting their relative agreement with each statement

615

616