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**Reply to «Swim Encounters with Killer Whales (*Orcinus orca*) off Northern Norway:
Interactive Behaviours directed towards Human Divers and Snorkellers obtained from
Opportunistic Underwater Video Recordings»**

Giovanna Bertella^{a*} and Mario Acquarone^b

^a *School of Business and Economics, UiT The Arctic University of Norway, Tromsø, Norway;*

^b *The Norwegian College of Fishery Science, UiT The Arctic University of Norway, Tromsø,
Norway*

* Corresponding author: giovanna.bertella@uit.no

Reply to «Swim Encounters with Killer Whales (*Orcinus orca*) off Northern Norway: Interactive Behaviours directed towards Human Divers and Snorkellers obtained from Opportunistic Underwater Video Recordings»

Abstract

This is a reply to the research note “Swim Encounters with Killer Whales (*Orcinus orca*) off Northern Norway: Interactive Behaviours directed towards Human Divers and Snorkellers obtained from Opportunistic Underwater Video Recordings” by Pagel, C., Scheer, M. & Lück, M. published on the *Journal of Ecotourism* in the December 2016 issue. This research note gives us the opportunity to reflect on the following aspects: 1) the concepts of sustainability and ecotourism, 2) the researchers’ position in terms of animal ethics, 3) the relevance of the empirical context where the fieldwork occurs and the related research ethics aspect, 4) the difficulty of evaluating risk of injury. We comment on each of these aspects and discuss them in the attempt to clarify research challenges, propose some reflection points and possible alternative approaches for improving research quality in wildlife tourism.

Keywords: research ethics; wildlife tourism; animal ethics; environmental ethics; ecotourism.

Introduction

This note is a reply to the research note “Swim Encounters with Killer Whales (*Orcinus orca*) off Northern Norway: Interactive Behaviours directed towards Human Divers and Snorkellers obtained from Opportunistic Underwater Video Recordings” by Pagel, C., Scheer, M. & Lück, M. published on the *Journal of Ecotourism* in the December 2016 issue.

The note by Pagel, Scheer and Lück has caught our attention and given us the opportunity to reflect on some aspects that we consider particularly relevant to wildlife tourism research. Our reaction can be explained by our interest in wildlife and wildlife tourism and our knowledge of the specific area where the data of the mentioned research note were collected. We are quite familiar with this area and have a collaborative relation with the local DMO in relation to the management of commercial whale watching and, more specifically, the development of local guidelines.

The aspects we are going to discuss are:

- (1) The concepts of sustainability and ecotourism.
- (2) The researchers' position in terms of animal ethics.
- (3) The relevance of the empirical context where the fieldwork occurs and the related research ethics aspect.
- (4) The difficulty of evaluating risk of injury.

We comment on each of these aspects and discuss them in the attempt to clarify research challenges, propose some reflection points and possible alternative approaches for improving research quality in wildlife tourism.

1. The concepts of sustainability and ecotourism

Pagel et al. (2016) qualify swim-with-whale/dolphin-programmes (SWPs) as potentially «sustainable and environmentally friendly» (p. 2). This expression is quite unclear as it suggests that the environmental aspect is not viewed as an integrated part of the concept of sustainability. Usually, sustainability is described as referring to the economic, social and environmental pillar (WCED, 1987). It can be said that this description stands for the shared understanding of the sustainability concept among scholars and practitioners from different fields. The expression used by the Authors of the research note suggest that the third pillar – the environmental one - is kept separated from the others. As a result, the term “sustainable” seems to be understood exclusively in terms of economic and social aspects. Some parts of the note suggest that there is a particular focus on the economic aspect. An example are the comments about the importance of the tourism ventures to remain sustainable in the introduction (p. 2) and the economic attractiveness of the tourism operators in the conclusion (p. 8).

Still with regard to the understanding of the sustainability concept, the socio-economic aspects seem to be viewed in a narrow way when contextualized in the specific setting. As it will be presented in section 3, the presence of whales in the empirical context chosen by the Authors is a temporary phenomenon. This aspect is essential to the socio-economic sustainability of SWPs but is only mentioned in the conclusion (p. 8).

Based on the choice of the dissemination channel by the Authors, it can be assumed that SWPs are viewed as a form of ecotourism or, at least, a potential form of ecotourism.

Although still debated, the term ecotourism, per definition, indicates the centrality of the environmental aspect (Orams, 1995; Wearing et al., 2015). Nonetheless, environmental considerations seem not only not to be integrated into the concept of sustainability, as commented above, it seems also that they are understood in a limited way. This limitation concerns the educational aspect of tourism. Several definitions of ecotourism tend to emphasize its educational aspect (Fennell, 2001). There is quite a broad agreement among tourism scholars about the importance recognized to wildlife tourism management in order to educate the tourists and inspire them towards greener attitudes and behaviours (Ham and Weiler, 2002; Higham et al., 2014).

There is a lack of reflection by the research note Authors about this aspect of SWPs. This is highly debated in the literature, with a general agreement on the necessity to adopt a precautionary principle (Birtles et al., 2002; Valentine et al., 2004; Walker and Weiler, 2016). The Authors of the note have missed the opportunity to reflect on and clarify their position in this regard. We feel that it would have been interesting to discuss or, at least, specify this aspect, in general and in relation to the animal ethics dimension of SWPs (see sections 2).

The overall impression is that Pagel et al. (2016) use the concepts of sustainability and ecotourism in quite a superficial way. These concepts seem to be adopted partially and not to be contextualized and problematized in relation to the specific form of tourism and the empirical part of the study. Although we understand the limit of a research note in comparison with a full research paper, we mean that there is a risk that the terms sustainability and ecotourism become buzzwords. We do not feel that this can contribute to the progress of the wildlife tourism debate in a constructive and responsible direction. From our perspective, wildlife tourism scholars should strive to frame their research within already affirmed paradigms fully understood and adopted and, eventually, challenge them problematizing relevant theoretical and practical aspects. An example in this sense could be a discussion concerning the opportunity to adopt an anthropocentric approach as the one of sustainability to cases concerning animals and nature.

2. The researchers' position in terms of animal ethics

After 4 years from the publication of *Tourism and Animal Ethics* by Fennel (2012) and with an increasing attention by several tourism scholars towards animal ethics, it is quite disappointing that the Authors do not comment on this aspect at all. Both in relation to the

specific form of tourism investigated and the data collection method used, explicit considerations in terms of animal ethics would have been opportune.

Animal ethics considerations are important in relation to the potential educational aspect of SWPs (see section 1). We feel that the Authors could have commented on the specific wild animals-humans interactions that they investigate. For example: Which conceptualization of orcas is supported by SWPs? How can the promotion of close contact with wild animals and its presentation as a form of friendship (swim with whales) be justified? Is there any risk of anthropomorphism? If so, what can be the consequences? Is the close contact with wild animals sending out the right message concerning what «wild» is? What is the implicit environmental message? As such questions are not raised, the reader is left to wonder how the Authors understand the potential of SWPs in terms of animal ethics education, as well as environmental ethics education (see section 1).

Animal ethics considerations are important also due to the close contact with the whales during the data collection. It could have been interesting to read how the Authors justify their actions in terms of research ethics. Considerations in terms of procedural ethics are presented (p. 3) but it seems that their inclusion is only partial. The Authors mention that some data consist in additional material from non-scientists and they do not specify the procedures used for their collection.

As a consequence of the lack of reflection concerning the Authors' animal ethics position, the research note lacks also important considerations in terms of relational research ethics (Ellis, 2007). Here, it could have been interesting to learn about the Authors' approach to animals as objects of research and, at the same time, as subjects with whom people can have friendly encounters.

To conclude our reflections on this aspect, we argue that, also within the limitation of a research note, animal ethical considerations need to be included explicitly in studies concerning animal-based tourism, especially when the data collection is based on close contact with the animals and such contact is highly debated. As suggested by COE (1986), all researchers conducting scientific research with animals should consider the ethical aspects of their research. We understand that not all researchers, including those conducting research with animals, might have their focus on animal ethics. On the other hand, we can raise the question whether this is acceptable, or a more critical attitude would be desirable. In the case of the specific research note that, as also stated by the Authors, is limited in terms of empirical

results, ethics considerations might have had the important role to introduce and discuss relevant ideas and lead to some interesting theoretical contributions that do not necessarily need a vast empirical evidence (Caton, 2012).

3. The relevance of the empirical context where the fieldwork occurs and the related research ethics aspects

The location of the empirical fieldwork, Senja in the northern Norwegian County of Troms, is described in the research note. As mentioned above, we are quite familiar with the specific context. We consider that the provided description and probably understanding of the fieldwork context by Pagel et al. (2016) is partial.

As stated in the research note by Pagel et al. (2016), in the period of time when the fieldwork was conducted (January 2015), the amount of people snorkelling in the presence of whales was increasing and the Authors mention 11 commercial operators in 2016/2017 (p. 3). It is not specified properly whether such operators can be described as professional tourism operators and, more precisely, whether they have the experience and competence for offering such tours in a high quality and responsible way. This element is essential in wildlife tourism in relation to the experiential aspect of the tourism products, the safety of the tourists and the animals, and the possibility to foster a sense of care and stewardship among the tourists (Weiler and Moscardo, 2014). Based on our knowledge of the context and also on the basis of studies by other local researchers, a question about the professionalism of many of these operators can be raised (Kristoffersen et al., 2016; Bertella, 2017).

It seems that the Authors of the note are, at least partly, aware of this challenging situation, qualified as complex and escalating (p. 3). From the perspective of situational research ethics (Guillemin and Gillam, 2004), it could be asked how researchers exploring a highly debated form of tourism in such a context explain and justify their engagement in it. It can be asked why the Authors do not discuss this issue and leave the reader wondering whether this is not done because of superficiality or opportunism.

This aspect concerning the lack of contextualization of the fieldwork is worsened by the research note Authors' position in relation to the developmental process of local guidelines and the related dissemination process. At the time of the fieldwork (January 2015) one meeting among the local whale watching operators was organized by Visit Tromsø, the

DMO of the Troms County. Between the time of the fieldwork and the publication of the research note, two more meetings were arranged. These meetings were attended also by tourism operators in Senja, the place of data collection.

Already from the first meeting, it was evident that the operators were aware of the chaotic way the situation was evolving, with many people at sea and no governmental regulations. Due to this, Visit Tromsø took the initiative to prepare some guidelines that could assist the operators. As the speakers of the third seminar in November 2016, we accepted the invitation by Visit Tromsø to develop specific guidelines.

Visit Tromsø guidelines include top-side whale watching and swimming with whales activities and are presented in the DMO webpage in Norwegian and English (<https://www.visit tromsø.no/en/guidelines-whalewatching>). Swimming with whales activities are explicitly discouraged and such position is fully explained in a one page document (<https://www.visit tromsø.no/en/node/1227#overlay-context=no/node/1223>).

The submission of the note by Pagel et al. (2016) coincides approximately with the publication of the guidelines on the DMO webpage, their distribution among the whale watching operators and the press release. In May 2016 (the time of the research note submission), Visit Tromsø guidelines were finalized and, in July 2016, they were released. Visit Tromsø guidelines had some media coverage at the local, regional and national as well as international level (for example: <http://uk.whales.org/news/2016/06/wdc-endorses-new-whale-watch-guidelines-for-northern-norway>).

The research activity conducted by the research note Authors is in conflict with the local DMO efforts to regulate a chaotic situation in a responsible way. We can assume that the Authors were not aware of the guidelines situation. Alternatively, it can be assumed that they were aware of this but, nonetheless, decided not to interrupt the review process of their note.

Finally, it seems that there is a lack of reflection by Pagel et al. (2016) on the effect that the researchers' presence can have on the local operators. Researchers tend to be perceived as experts and the researchers' behaviour can be seen as a way to legitimize the specific activities. Moreover, researchers can be manipulated by the operators who can advertise their businesses as science-oriented. Considering that the Authors have used also data collected by others, a pessimistic scenario could be that local operators start viewing the collection and sale of data from underwater whale encounters as a new business opportunity. In the latter case, the risk that research procedures are not followed is high, and so is the

probability of disturbance and injury to the animals and accidents involving both animals and humans.

We would like to point out that the publication of a scientific research note where the fieldwork is conducted through activities that are explicitly discouraged by local guidelines, without a deep knowledge and understanding of the specific context and without previously contacting the local DMO and research milieu in order to clarify the researchers' purposes and be informed about possible relevant issues is very unfortunate.

Based on these considerations, we highlight the importance of being well informed about the contextual situation where research activities are conducted. It is also important to reflect on the impact of the planned research and the dissemination of its results.

4. The difficulty of evaluating risk of injury

The Authors mention that the possibility of injury to animals needs to be minimised (page 2) and that this is a key problem for SWPs (page 8). They list a range of effects SWPs may have on the animals (p. 2), both direct (e.g. physical trauma) and indirect (e.g. altered acoustic communication), but they do not return to the subject in the discussion. Any interaction with animals that disrupts or modifies natural behaviour, especially in a foraging situation like the one mentioned in the note, may reduce fitness and present consequences at the individual and population level. Quantification of medium and long term disturbance effects in cetaceans is notoriously difficult, but one of the ways of approaching the matter is to perform sequential abundance estimates aimed at detecting changes in population abundance.

In the context of the study in question an evaluation of effects is not possible due to the lack of appropriate baseline information on abundance or monitoring programmes for the future. We would like to point out some challenges related to this approach and the information presented in the note. Firstly, the population size for the Northern Norwegian population of killer whales mentioned (p. 2) refers to a working paper presented to the International Whaling Commission in 2007 (Kuningas et al., 2007) which the Hammond, one of the authors, indicated as “preliminary” and not taking into account “a variety of recently developed methodological advances” (Donovan, 2008: 305). The Authors do not mention a more recent peer-reviewed paper by the same authors (Kuningas et al., 2014) which improves the analysis from previous efforts and extends the estimation to the period 1986-2003. On the

same line there are no mentions either of other abundance estimates for Norwegian killer whales (e.g. Øien, 1993) or of their population structure (e.g. Foote et al., 2011).

Secondly, the estimates of abundance have to be reported together with the associated uncertainty of the measure in order to assess the precision of the figure. Kuningas et al. (2014) report an estimate of 700 individuals for 2003 (SE = 139, 95% CI = 505–1059). The wide confidence interval poses an additional challenge for detection of change in reasonably short time intervals.

Thirdly, and lastly, the authors assume that the population to which Kuningas et al. (2007) refer to coincides with the population present in the Troms County area in recent years based on a few photo-ID matches while it is likely that both studies sampled a small fraction of one or more of the North-East Atlantic killer whale populations according to Foote et al. (2011). Even if one were to adopt the abundance estimates from Kuningas et al. (2007; 2014) the overwintering grounds for Norwegian spring spawning herring have changed from the area of Tysfjord (Nordland County) and since 2011 occupy the fjords outside Tromsø and Senja (Troms County). To our knowledge there are no dedicated abundance estimates of killer whales in Norther Norwegian waters since 2011.

Therefore, it is apparent in our view that, at the moment, there are no technical means of determining population abundance variations either at the basin or local scale which could help in identifying and quantifying the effects of human activities such as SWPs on this species in the area in question.

Conclusion

Our conclusion is that those who intend to follow the suggestion by Pagel et al. (2016) about intensifying SWPs studies should eventually reflect on the points that we have raised. We feel that if we are interested in progressing as wildlife and tourism scholars, we should strive to adopt higher research standards than those that seem to have been applied in the commented research note. The limitedness of a research project cannot compromise its quality, especially when this concerns ethics. Also, a limited research project presented as a note or commentary can contain interesting insights and provoking ideas.

Finally, as the research note Authors themselves have pointed out, gathering baseline data is crucial for assessment of impact and should be gathered before commercial operations

will be established. We do not feel that the work by Pagel and colleagues, though praiseworthy, is sufficient for satisfying this requirement and we encourage efforts in establishing the state of the system before exacerbating human interference.

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Biographies

Giovanna Bertella is Associate Professor at the School of Business and Economics, UiT The Arctic University of Norway. She earned a Ph.D. from the Department of sociology, Political Science and Community Planning at UiT. Her PhD dissertation concerns learning and networking in tourism. Her research interests are: small-scale tourism, food tourism, rural tourism, nature-based tourism, animal-based tourism, entrepreneurship, knowledge and networks, experience design, event management, animal ethics.

Mario Acquarone is Associate Professor at The Norwegian College of Fishery Science, UiT The Arctic University of Norway. He earned a PhD from The Royal Veterinary and Agricultural University, Denmark. His research interests include: ecology of marine mammals, physiology and animal nutrition. He has served 6 years as Scientific Secretary of the North Atlantic Marine Mammal Commission (NAMMVO), and has participated to several research studies involving Shipboard Surveys, Photo Identification and Biopsy Sampling of species as Striped Dolphins and Fin Whales.