

DISCUSSION / DISCUSSION

Comment on the second reply by Higdon to the comment by Romero and Kannada on “Genetic analysis of 16th-century whale bones prompts a revision of the impact of Basque whaling on right and bowhead whales in the western North Atlantic”¹

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Abstract: The second reply by J.W. Higdon (2008. *Can. J. Zool.* **86**: 76–79) criticizes a previously published comment by us of T. Rastogi et al.’s (2004. *Can. J. Zool.* **82**: 1647–1654) paper saying that we presented factual errors, misused key sources, and made a number of omissions. The main objective of our original comment was to show that there had been many other peoples and nations besides the Basques who were engaged in whaling in the North Atlantic for many centuries and, therefore, the Basques could not have been solely responsible for anthropogenic impacts on the populations of large whales in that part of the world. To that end we only sampled some sources to make our point. In this rebuttal, we show that Higdon mischaracterizes our comment as a historical review and that neither he nor B.A. McLeod et al. (2006. *Can. J. Zool.* **84**: 1066–1069) provide any evidence that challenges our fundamental conclusions.

Résumé : La deuxième réponse de J.W. Higdon (2008. *Can. J. Zool.* **86**: 76–79) critique un commentaire que nous avons publié antérieurement sur un article de T. Rastogi et al. (2004. *Can. J. Zool.* **82**: 1647–1654) lègue que nous avons présenté des erreurs de fait, utilisé des sources importantes à mauvais escient et fait plusieurs omissions. L’objectif principal de notre commentaire initial était de démontrer qu’en plus des basques, il y avait eu de nombreux peuples et pays impliqués dans la chasse à la baleine dans l’Atlantique Nord au cours de plusieurs siècles et qu’en conséquence les basques ne pouvaient pas être tenus les seuls responsables des impacts anthropiques sur les grandes baleines dans cette partie de la planète. À cette fin, nous n’avons échantillonné qu’une partie des sources pour appuyer notre argumentation. Dans notre réfutation des arguments de Higdon, nous montrons que celui-ci a mal caractérisé notre commentaire en y voyant une rétrospective historique et que ni lui ni B.A. McLeod et al. (2006. *Can. J. Zool.* **84**: 1066–1069) n’apportent de données qui mettent en question nos conclusions essentielles.

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Introduction

Rastogi et al. (2004) published a genetic analysis of 16th-century whale bones found in the archaeological site of the vessel *San Juan* in Red Bay, Labrador, Canada. Of the 21 bones examined, they found that 1 belonged to North Atlantic right whales (*Eubalaena glacialis* (Müller, 1776)) and 20 to bowhead whales (*Balaena mysticetus* L., 1758). They sug-

gested that the loss of genetic variability seen in North Atlantic right whales today took place prior to the onset of commercial whaling. They further suggested a reevaluation of the impact of Basque whaling on the population of these species.

We (Romero and Kannada 2006) published a comment criticizing Rastogi et al. (2004) for failing to take into account that the Basques were not the only ones who practiced commercial whaling in the North Atlantic. We mentioned that many other groups, including Native Americans, Dutch, German, Danish, Scottish, and American (“Yankee”) whalers, had participated in commercial whaling in that part of the world for several centuries and, therefore, the impact of whaling in the North Atlantic cannot be circumscribed to Basque whaling alone.

Higdon (2008: 77) criticizes our previous comment (Romero and Kannada 2006) by claiming that we present “a number of factual errors, misuse several key sources, and

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make significant omissions” in our paper. In this rebuttal, we show that Higdon (2008) mischaracterizes both the objective and content of our comment on Rastogi et al. (2004). We also show that neither he nor a reply by McLeod et al. (2006) provide any substantive evidence that contradicts our fundamental conclusions.

The objective of Romero and Kannada (2006)

The main objective of our original comment (Romero and Kannada 2006) on Rastogi et al.’s (2004) paper was to demonstrate that the Basques were not the only ones who whaled in the North Atlantic and, therefore, were not solely responsible for the anthropogenic impact on the populations of both right and bowhead whales in that part of the world. As we clearly stated in our paper (p. 1060), “the Basques were not the only ones engaged in the North Atlantic whale fishery.” Notice that Rastogi et al. (2004) only mention Basque whaling in their original paper and that in the reply to our comment (Romero and Kannada 2006), by three of the original eight authors (McLeod et al. 2006), the latter do not dispute that they failed to mention other sources of commercial whaling in the North Atlantic.

In our view, this is an extremely important point because failure to acknowledge anthropogenic impacts by cultures other than the Basques creates a major vacuum in the understanding of the anthropogenic impact on whale populations in the North Atlantic. This, which was the main objective of our original comment (Romero and Kannada 2006), is omitted by Higdon (2008). Instead, he claims that we intended to provide “a brief summary of North Atlantic whaling history”. This is a misrepresentation of the facts.

In our paper (Romero and Kannada 2006), we provide information showing that Basque whaling in the North Atlantic had been intense and the activity lasted for several centuries. We also pointed out that others (including aboriginal inhabitants of the coastal areas of North America, the Dutch, English, German, Danish, Scottish, and the Americans (“Yankees”)) had also been involved in whaling in that part of the world. In most cases, we only provided a single paragraph for each one of those nations with sample references to make the case. Therefore, Higdon’s (2008: 76) claim that we were trying to provide a “summary of North Atlantic whaling history” is inaccurate and unfair.

To say that we were trying to write the history of whaling for the North Atlantic (even a summary of it) in a commentary paper is a complete misrepresentation of our objectives. Had we intended to do what Higdon (2008) claims that we tried to do, then we would have written an entire book on the subject just like Proulx (1986). Therefore, the suggestion that we obviate some literature out of ignorance is simply not true. There are dozens if not hundreds of documentary sources for whaling in the North Atlantic for each of the countries mentioned in our paper. Would it have been justified to mention each one of them in single paragraphs to highlight that other nations had participated in whaling ventures in the North Atlantic? Certainly not; yet, by mischaracterizing the objective of our paper (Romero and Kannada 2006), Higdon (2008) misrepresents the intent of our original comment.

Comments of some specific criticisms

Higdon (2008: 77) writes that “[t]he whaling literature often fails to distinguish between “Greenland” (i.e., east Greenland, Svalbard, and Spitsbergen areas) and “Davis Strait” fisheries (i.e., west of Greenland [...]), and Romero and Kannada (2006) have unfortunately continued this tradition.’ Despite having said earlier that the basic objective of our paper was to point out the existence of historical whaling other than Basque in the North Atlantic, a word count of our paper (Romero and Kannada 2006) shows that we mention Svalbard 3 times, Spitsbergen 10 times, and Davis Strait 3 times. That is a far cry from Higdon’s (2008) assertion that we were ignoring the existence of different whaling grounds in the North Atlantic.

Higdon (2008) argues that we did not provide a source for the figure of more than 200 Basque vessels heading for the Newfoundland grounds. This is not true. The source is Ciriquiaian-Gaiztarro (1961), which we cite in our paper. Part of the problem in accounting for the exact figure of Basque whaling is that some sources fail to distinguish between French and Spanish Basque efforts by either ignoring either one or lumping both without making specific distinctions. As we explained in our paper (Romero and Kannada 2006: 1060), Basque whaling was carried out by both French and Spanish Basques. Higdon (2008) makes no distinction of the sources for each one of them.

Higdon (2008) says that he is surprised by us using Gulløv (1985) as a source for information on Dutch whaling in Greenland. However, anyone who reads the above-referenced paper can see that Gulløv (1985) does provide information on the topic (pp. 74–77). We did make a mistake by attributing the estimation of 32 907 whales killed by the Dutch from 1675 to 1721 to Gulløv (1985). The source for that information was MacPherson and Anderson (1805, Vol. 3, p. 198). We regret that error.

Higdon’s (2008) general assertion that we were not using all the sources on whaling in the North Atlantic has already been challenged above, but let us provide a specific example. He writes that we failed to use all the sources on English whaling. Yes, there are many other sources that neither us nor he cite (e.g., MacPherson and Anderson (1805) to cite one rich in information but practically unknown among scholars in this area) but, again, we were not trying to review all of the literature on the topic of English whaling but simply trying to provide evidence that the English had engaged in whaling in the North Atlantic for a long time. In fact, Higdon (2008: 77) himself recognizes that ‘the authors [Romero and Kannada 2006] are correct in stating (p. 1062) that “[t]here are no estimates of the total number of whales landed by the British in the North Atlantic”, but this is also quite misleading because there are some data, of suitable quality, available.’ Of course there are some data, but we are lacking the critical ones. As pointed out in our paper (Romero and Kannada 2006: 1062), the 1666 fire of London destroyed all the records that up to that point existed for the Muscovy Company operations, the only comprehensive primary literature on whaling in the North Atlantic by the English until that date.

Neither McLeod et al. (2006) nor Higdon (2008) discuss our contention that molecular data must be used with great

care when the data are largely inconsistent with historical records (see Conclusions in Romero and Kannada 2006), which was another major objective of our comment. They also do not consider our hypothesis that climate change during the “Little Ice Age” may have impacted the status of the populations of at least one species of great whale in the North Atlantic, that of the gray whale (*Eschrichtius robustus* (Lilljeborg, 1861)); it would have provided McLeod et al. (2006) with some ammunition to support their idea that whale populations in the North Atlantic were affected by factors other than whaling during recent times.

Conclusions

We could go on, but we are sure that most readers are not interested in a duel of words. In fact, on this subject, Higdon (2008: 78) is the first to admit that the literature is “confusing and incomplete”. Therefore, when you merely sample a limited number of citations to make a point or a more diverse set dealing with whaling effort in a region of the world (while at the same time not trying to write a literature review paper), it is too easy to come up with other sources that seem to contradict what you have presented. The point we stress is that history is not an exact science, but rather an exercise of interpreting the record. Obviously, Higdon’s (2008) interpretation differs from ours partly because of reading our paper as a literature review and then critiquing it along those lines. Controversies regarding the interpretation of historical data on whaling are not new. The issue of uncertainty is a constant ghost when dealing with estimation of whale populations and the impact of anthropogenic factors on them even in modern times (e.g., Heazle 2006). This problem is amplified when dealing with scenarios that occurred centuries ago. Even when molecular techniques have been used to come up with such estimations, the results have been rather controversial (see for example Lubick 2003; Roman and Palumbi 2003; Holt 2004; Mitchell 2004; Palumbi and Roman 2004).

Let us, then, return to what we actually wrote (Romero and Kannada 2006). The conclusions of our comment (Romero and Kannada 2006: 1063), which we repeat verbatim, were that “(i) the Basques were not the only ones whaling in the North Atlantic; (ii) the Basques killed more bowheads than right whales; (iii) other European nations (particularly the Dutch) killed more whales than the Basques; and (iv) pre-whaling populations of both right whales and bowheads must have been much larger than has always been assumed and, therefore, we can safely conclude that whaling, not other unspecified factors, was responsible for the decline [in their populations].”

Neither McLeod et al. (2006) nor Higdon (2008) provide any arguments or data to challenge the general conclusions of our original comment (Romero and Kannada 2006).

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