The revision by Carrillo–Briceño et al. of "Neogene Caribbean elasmobranchs: Diversity, paleoecology and paleoenvironmental significance of the Cocinetas Basin assemblage (Guajira Peninsula, Colombia)" is improved with more careful handling of data interpretations. However, I have concerns with how the term "diversity" is used and what is meant when it (the term "diversity") is used during various passages throughout the text. Furthermore, the authors discuss many significant and important topics (i.e., body size, salinity gradients), but do not go into enough detail with background or context for the reader unfamiliar with these topics to evaluate this assemblage and dataset. This study is quite interdisciplinary and it is likely that others will read this paper who may not have a full understanding of all the concepts, how they fit together, and their implications. Therefore, I think it is important for the authors to treat the data and interpretations carefully and give enough context for the less interdisciplinary reader who may get new ideas or find use from one morsel within this study.

P2 L 14: Please use "taxonomic list" rather than "taxonomic revision" given your response to the earlier comment in my review (where you offer 3 alternatives for describing fossil assemblages in Comment #2).

P8 L4 What is meant by "most diverse feeding group"? (similarly for "shows a diversity" in L8)Does this mean there is the largest range of dietary preferences or there is the greatest number of taxa within this group? This paragraph is confusing in its reference to diverse vs. abundant. Are these two terms interchangeable (i.e., is richness considered as a factor of diversity?) or are they distinct? If diversity is going to be referenced, a paragraph in the introduction laying the framework and significance of diversity, abundance, richness, etc., especially with respect to fossil shark teeth where migration and deposition are important factors is needed. In addition, some clarity in the methods would also be helpful; how is "diversity" treated/measured when some taxa are identified to species while others are only to the genus level?

P8 L11 I think this is a misuse of the term, "niche." "Eurytrophic/sarcophagous" and "filter feeding" refer to feeding styles or mechanisms whereas ecological "niche" refers to a multidimensional space of environmental factors for a species or population. If the authors want to use "niche" then "feeding niche" would be more appropriate.

P10 L 24 Assertions about small size of teeth related to juvenile individuals and nurseries need to be substantiated. First, the tooth position and size should be reported in the main document rather than the supplementary material for this detail to remain. In addition, the estimated size for the individual can be made based on regressions by Kenshu Shimada with modern species or a white shark/megalodon allometry study in Gottfried et al. 1996 *Great White Sharks* or a Pimiento et al. 2010 in *PLOS One* on white shark nurseries. Finally, the authors should provide some support of size from other sites and discuss the possibility of smaller body size in this taxa/population.

P12 L9-14 (section 5.3) I find this opening paragraph too abrupt to open this section. Perhaps start with a sentence detailing the range of modern oceans, talk about meteoric water having lower values due to Rayleigh distillation, and hence brackish waters have a

gradient that co-varies with salinity. The first sentence has no context for interpretation for the reader without a stable isotope background.

I would also like to see some justification for why the $\delta^{18}O$ value for water was estimated to be 0‰. If these areas are estuarine with freshwater inputs, it is more likely that the environmental water $\delta^{18}O$ value was less than 0‰ and therefore the temperatures indicated in Fig. 11 are inaccurate. Many readers of this paper will not be familiar with these finer details of oxygen isotope composition interpretations so to put temperature estimates where $\delta^{18}O$ values of environmental water are not well justified will be a disservice to future studies looking for temperature in this time and region.

P13 L6-7 "While the overall shark isotope data represent marine conditions during the deposition of the Castilletes Formation…" I think the authors need to be careful in discussing the stable isotope data because they represent the environmental conditions when the enameloid formed, not necessarily when the shark was in the locality (i.e., it takes some time for the tooth to migrate from where it is mineralized in the back of the jaw to its position in the first series and then lost) or the depositional environment since taphonomy needs to be considered (i.e., shark teeth may be re-deposited from other sediments).