

Interactive comment on “Seafloor observations at Campeche Knolls, southern Gulf of Mexico: coexistence of asphalt deposits, oil seepage, and gas venting” by Heiko Sahling et al.

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Point-by-point reply to Referee #3

Referee #3: I have the following minor comments that would marginally improve the manuscript: 4.2.4 – ‘pogonophoran’ has fallen out of favor and I am unfamiliar with Anobturata and it is not in WORMs. Can the authors either provide a reference for Anobturata or use frenulate or monolifera (depending on which it may be – with frenulate the more likely of the two and currently more ‘correct’ (i.e. monophyletic) compared to pogonophoran.)

Reply: We agree and changed it to frenulate.

C1

Referee #3: P13 – “we sketched” suggest “we illustrate”

Reply: Done.

Referee #3: P14 - “As well as oil derived from higher hydrocarbons”– I would suggest changing this to “and likely augmented by degeneration of organic carbon that may include higher hydrocarbons”. As Joye et al. found a mismatch between SRR and AOM. They did not completely contribute the sulfide present to longer chain hydrocarbons.

Reply: Done.

Referee #3: P14 “With estimated life spans” – additional age info is found in Cordes et al. 2007 Marine Ecology 28:160-168 that puts smaller individuals (1.1m) at age estimates of 300 years. This provides further evidence for the long term seepage estimates provided by the authors.

Reply: We thank Referee #3 for the comment and included the reference by Cordes et al. (2007). Contrary to Referee #3, Reviewer #1 and #2 suggested to be more cautious in the age estimates based on vestimentiferan tube length. As we cannot contribute to the controversial opinions of using the tube length as chronometers, we follow the suggestion by Referee #1 and #2 and rephrased the paragraph accordingly.

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C2