

## ***Interactive comment on “Comparative study of vent and seep macrofaunal communities in the Guaymas Basin” by M. Portail et al.***

**Anonymous Referee #2**

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### **General comments**

The Guaymas basin has very unique geological setting for deep-sea chemosynthetic ecosystem study. It means vent and seep communities exist in very close in this basin. Focusing on this advantage, the authors describe chemosynthetic communities features in comparison with both vent and seep. This manuscript is well written based on polite analysis. However, there is a tendency lengthy (too much sentences) report. The authors should pay attention to write more concise sentences. This is the original article, is not a text book and a PhD thesis. The present study analyzed and discussed community structure and composition by the family taxon level. However, it seems that those analysis is not for suitable. Especially, connectivity have to be find based on species level with genetic data. Why present study analyzed dissolved met-

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als (Fe, Mn and Cu)? If these are important chemical tolerance for organisms, there are more important chemicals such as cadmium, arsenic etc. Overall, it seems too much references papers. The authors should select suitable papers.

### **Specific comments**

1. Introduction Overall, authors should write focusing sentences for this study. It seems that there are some not so important sentences. For example,

P2 L1 – L8: Unnecessary sentences, “Therefore, seeps - in both ecosystems.”

P2 L16 – L20: Unnecessary sentences, “These species, - Govenar, 2010.”

P4 L14 – L15: “in the Japan Sea” → “around Japan”

### **2 Materials and methods**

P6 L7 – L12: Unnecessary words and sentences, “(Lonsdale et al., 1980; - Calvert, 1966).”

P7 L30: A. gigas → spell out genus name.

P10 L2: ROV arm→ HOV arm.

P11 L9: Table 5. → If you want to put Table “5” in here, change table No. from 5 to 2.

### **3 Results**

P12 L27-28: Delete “Thus, - vents.” P 13 L1-30, P15 L2-12, P15 L18-25: These sentences are merely described the Tables. To be shown in more concise.

P17 L25: “Polychaeta” is invalid taxon. Annelida is better.

P17 L25-P18 L27: These sentences are merely described the Fig. To be shown in more concise.

P20 L28-P21 L4: It seems that comparison by the Family level is not significant.

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#### 4 Discussion

P21 L17-20: Unnecessary sentences, "Guaymas seeps - environmental conditions."

P21 L28-P22 9: Unnecessary sentences, "Substratum - (Jørgensen et al., 1990)."

P23 L13-22: See general comments.

P30 L12-P31 L23: See general comments.

Table 4 Why need "Length (L), Diameter (D) (mm)"?

Table 5 Why need "Total density"?

Table 6 Please confirm *Phreagena soyaoae* "X" of "HV".

"Sirsoe grasslei", change to italic.

"aff. " of "Amphisamytha aff. fauchaldi" and "(spinny)" of "Provanna sp.(spinny)" change to not italic.

Fig. 1. "O" of longitude→ "W"

Fig. 2. According to text, change the order photos "G" and "H".

In caption, "kilmeri" → "soyaoae".

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Interactive comment on Biogeosciences Discuss., 12, 8497, 2015.

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