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Interactive comment on "Collection of large benthic invertebrates in sediment traps in the Amundsen Sea, Antarctica" *by* Minkyoung Kim et al.

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We appreciate the kind and constructive review. We will incorporate all specific comments raised by reviewer in the revision.

1. Short introduction about anchor ice

R) We will add more details about the anchor ice in the revision.

2. Transport by current?

R) We will add some more discussion about this point in the revision. It is possible that some organisms are transported by current passively and/or they may use current

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actively for transportation/dispersal. Worms were collected from April to September and the strong current was mainly observed from July to September. Even though timings for benthos collection and strong current do not match perfectly, we agree with the reviewer that current can be potentially important.

3. Bathymetry, distance?

R) We will add information about bathymetry and distance from coastline in more detail. Sediment traps at Stations K3 and K4 were ∼2 km and ∼1.3 km away from the nearest peninsula. In the case of Station K1, it is 200∼500 km away from the coastline. So in this case, transport by current from the coastline does not seem feasible.

4. Sediment trap tilting

R) The traps were not equipped with tilt sensors. However, the pressure registered by a MicroCAT (Sea-Bird Electronics, SBE37SM-RS232) provides indirect information on the vertical position of the traps. For example, at station K3 the pressure fluctuated daily with an amplitude of <1.6 dbar (MicroCAT moored at 490 m) because of the tide and did not show any out-of-phase signal caused by tilting of the mooring line. Considerable titling of the whole mooring line would be necessary to position the traps near the seafloor for allowing benthos to reach. That kind of change in sediment trap position was not observed in the pressure monitoring.

5. Sea ice concentration.

R) It will be corrected correspondingly.

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