

Interactive comment on “Impact of tidal dynamics on diel vertical migration of zooplankton in Hudson Bay” by Vladislav Y. Petrushevich et al.

Anonymous Referee #2

Received and published: 16 November 2019

The paper is very well written and with a clear and concise message. I have a few comments / questions:

- 1) line 55, objective 3: Why is not solar light mentioned here?
- 2) How do you separate actively migrating from passively sinking (dead) organisms?
- 3) Line 125. Ice thickness measured by ADCP - does there exist any groundtruthing data for this method? There are no references provided, except one that does not seem to be relevant? This needs to be updated / clarified
- 4) There is a basic understanding or basis for a DVM pattern regulated by light that is not really presented, but which is essential to the entire manuscript. I would strongly suggest that the authors first describe this general and consistent DVM, and then focus

C1

on how this is disrupted. One way of doing this would be to compare noon with midnight mean position in the water column throughout the entire data series.

When these issues are sorted, I recommend that the manuscript is accepted for publication

Interactive comment on Ocean Sci. Discuss., <https://doi.org/10.5194/os-2019-107>, 2019.

C2