

Interactive comment on “A comprehensive oceanographic dataset of a subpolar, mid-latitude broad fjord: Fortune Bay, Newfoundland, Canada” by Sebastien Donnet et al.

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Dear Editor-in-Chief,

many thanks to the reviewers for their constructive and positive reviews. Please see below our responses.

Anonymous Referee #1, Specific comments:

1. "Line 68: in the caption of Figure 2, legs are mentioned, which are defined later in the text but spread among many sentences. It would be better to define all leg periods in a single sentence in the text before referring to Figure 2."

answer: we agree. The definition of the observation periods (so called 'legs') was moved up into the third sentence of the first paragraph of the "Material & methods" section as "field operations occurred in May and November of each year for about 10-15 days each time; delimiting 4 observation periods defined herein as 'leg': May-November 2015 (leg 1), November 2015 – May 2016 (leg 2), May-November 2016 (leg 3) and November 2016 – May 2017 (leg 4)". We have also slightly edited the second sentence of this paragraph to better define our naming of 'year 1' and 'year 2'. The text following those 2 sentences was then edited to remove redundancies.

2. "Line 154: Since temperature is measured at the transducer head of the ADCP, its value does not need to be selected during instrument setup. The ES command is only used to select the salinity value."

answer: the sentence was rewritten to clarify this as "Transducer temperature measured at transducer head and salinity value selected during instrument setup (ES command; 32 in our deployments) were used to calculate the water absorption (a) along the range (from transducer) R; thereby implying homogeneous water conditions."

3. "The name of section 3.2 is confusing since this section describes the objectives of the program. Its content should therefore be moved either to the introduction or to the discussion sections, and this section removed."

answer: we agree and moved this paragraph into the Discussion section (becoming then its first paragraph). As a result, sub-section heading "3.1" was also removed, i.e. "Result" section does not contain any sub-section anymore.

Anonymous Referee #1, Technical corrections:

1. "Line 36: downwelling": addressed
2. "Line 157: PDBM rather than PDBW in the equation for Sv": addressed
3. "Line 187: instrument losses": addressed

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4. "Line 233: current speed accuracy": addressed

5. "Line 346, Figure 6 caption: replace DD by the day in November 2016 when the profile was taken": addressed

Vladislav Petrusovich (Referee):

"I agree with another anonymous referee, that section 3.2 should be moved either to the introduction or to the discussion sections."

answer: we moved this paragraph into the Discussion section (becoming then its first paragraph). As a result, sub-section heading "3.1" was also removed, i.e. "Result" section does not contain any sub-section anymore.

Additional comments:

while reviewing, we have taken the liberty to polish our Figure 2 with, hopefully clearer, graphics and reviewed our uncertainty of Sv from 5 dB to 3 dB based on our latest estimates of power uncertainty (from +3 dB to +1 dB). We have also added one reference in the conclusion upon discovering a recent paper relevant to this work (Hop et al., 2019) and slightly edited (corrected) another (Lazure et al. 2018).

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