Interactive comment on "A new satellite-derived dataset for marine aquaculture areas in the China's coastal region" *by* Yongyong Fu et al.

Anonymous Referee #2

Received and published: 26 January 2021

Review of ESSD-2020-122 This manuscript presents a study where a deep convolutional neural network was designed and built to purposefully map marine agriculture at 16 meter resolution. The manuscript is well written and presents clear objective. My comments are:

First, the authors should sharpen the subject of this study. Currently the focus of this study is on comparison of the new algorithm and other methods, while the feature or content of GF-1 data, as a new data source, is better to provide more info. Another question is about the fine-tuning of various methods in the comparison. To make a fair comparison, are all the methods fine-tuned to their optimal status for the classification. Currently, this is not very clear. Also, the advantage of the proposed algorithm over the U-Net and HCNet is not very clear (also see minor comment # 5). This point de-

serves more clarification and discussion. Minor comments: 1. In the caption of Figure 7, the MPC area should be described as purple, instead of red. 2. Line 94: 'environment' should be plural, i.e. 'environments'. 3. Line 194: 'To perform the accuracy assessment' is a very general purpose. If not mistaken, the stratified sampling is done to ensure representativeness of each class in the whole sample population. I recommend state it more specifically. 4. Line 235: should be 'performed for 1000 iterations'. 5. Line 248: 'HCHNet identified more MPC and MAC areas than U-Net and HCNet, (Fig. 7a,d,e).' This statement is not visually obvious, especially in the d and e cases between UNet and HCNet. I suggest the authors rephrase or be more specific when making this comparison. 6. Line 276: should be '... more difficult to be implemented ...'

Interactive comment on Earth Syst. Sci. Data Discuss., https://doi.org/10.5194/essd-2020-122, 2020.