

Notes on the Margara dataset from Dec 2013:
Keep the camera pointed down as much as possible!

The Margara 2013 dataset generally worked out well. There were some artifacts, however, that could be prevented in the future with a small change to acquisition technique. The problem is most visible in the lower part of the image (Figure 1, inset A and Figure 2).

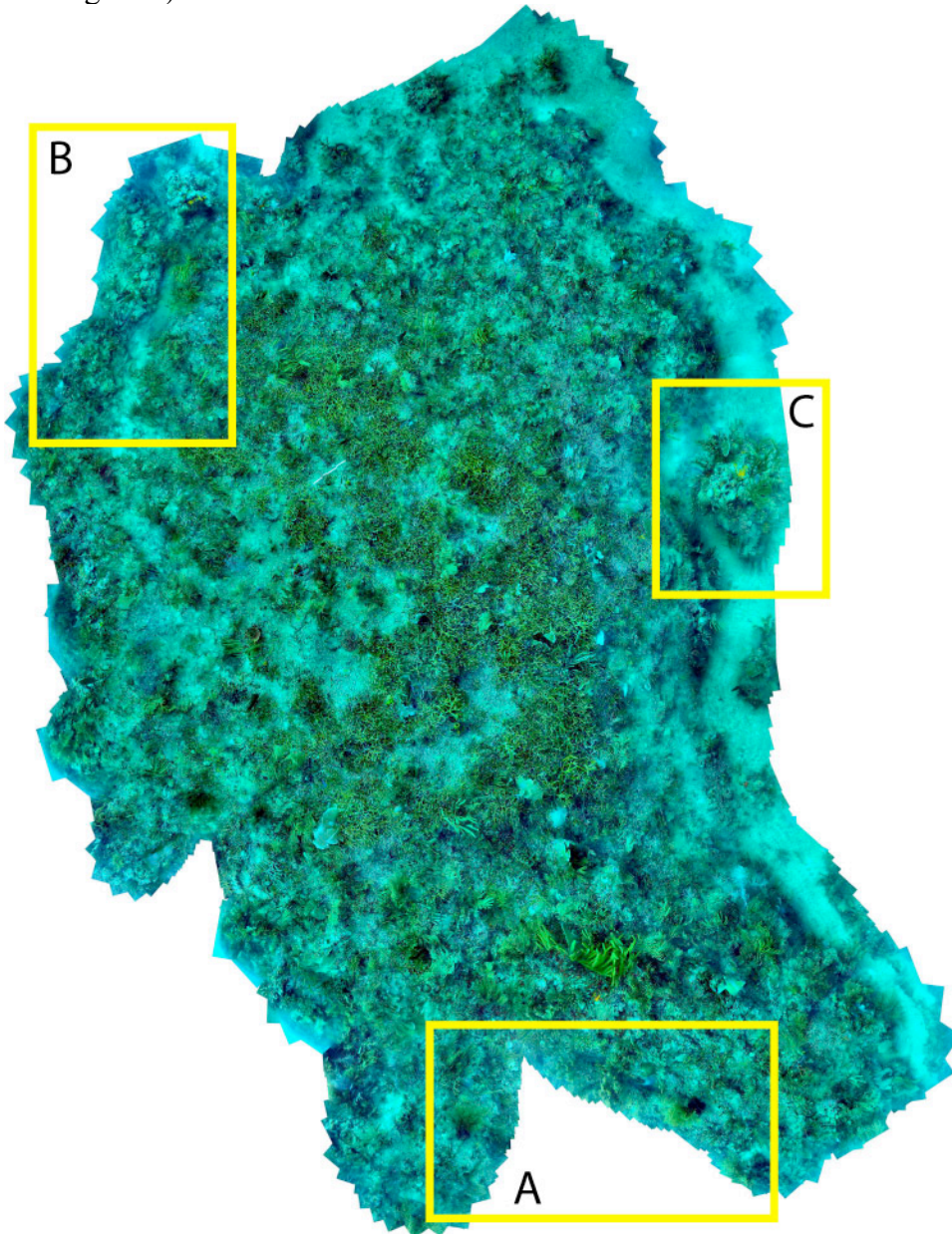


Figure 1: The Margara 2013 mosaic with insets A, B, C, shown in Figures 2, 3, 4, respectively.

Zooming to the lower part of the mosaic, we can see there is a seam, where features that should overlap do not (Figure 2). The reason for this is an extreme oblique view for some

of the images in this area. The same oblique view is also visible along most of the left side of the mosaic (Figure 3) but not on the right side of the mosaic (Figure 4). Despite the seam in the lower part of this mosaic, the central part appears intact. It is rotated about 90 degrees clockwise relative to the mosaic of this area that was acquired in Aug 2013 (Figure 5).

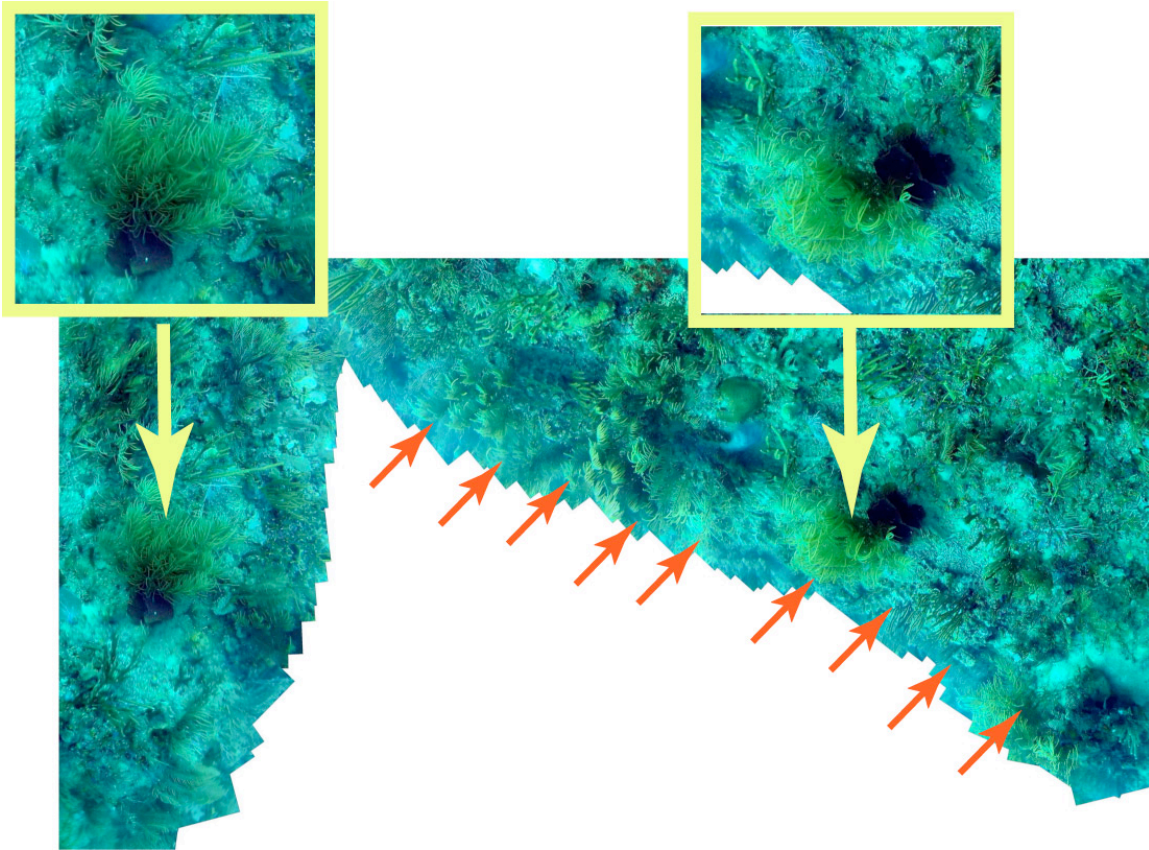


Figure 2: Inset A from Figure 1. Note that the gorgonian referenced by the yellow arrows and shown in both insets is the same, and should therefore be overlapping. The reason for the seam is the different views in each case. On the left the view is nearly nadir whereas on the right the view is highly oblique. In fact on the right the view is nearly horizontal. The entire area marked by the red arrows has this same oblique view, which is caused by not holding the camera pointed straight down at the bottom during acquisition.

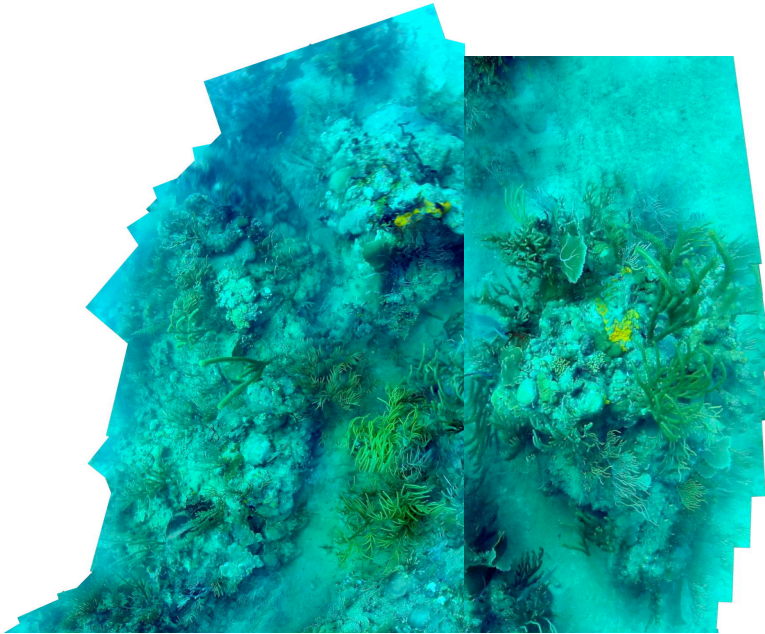


Figure 3 (left) and **Figure 4** (right): Insets B and C from Figure 1. Note that the left side of Figure 3 is full of oblique-view images. In contrast, the right side of Figure 4 has nadir-view images all the way to the edge of the mosaic.

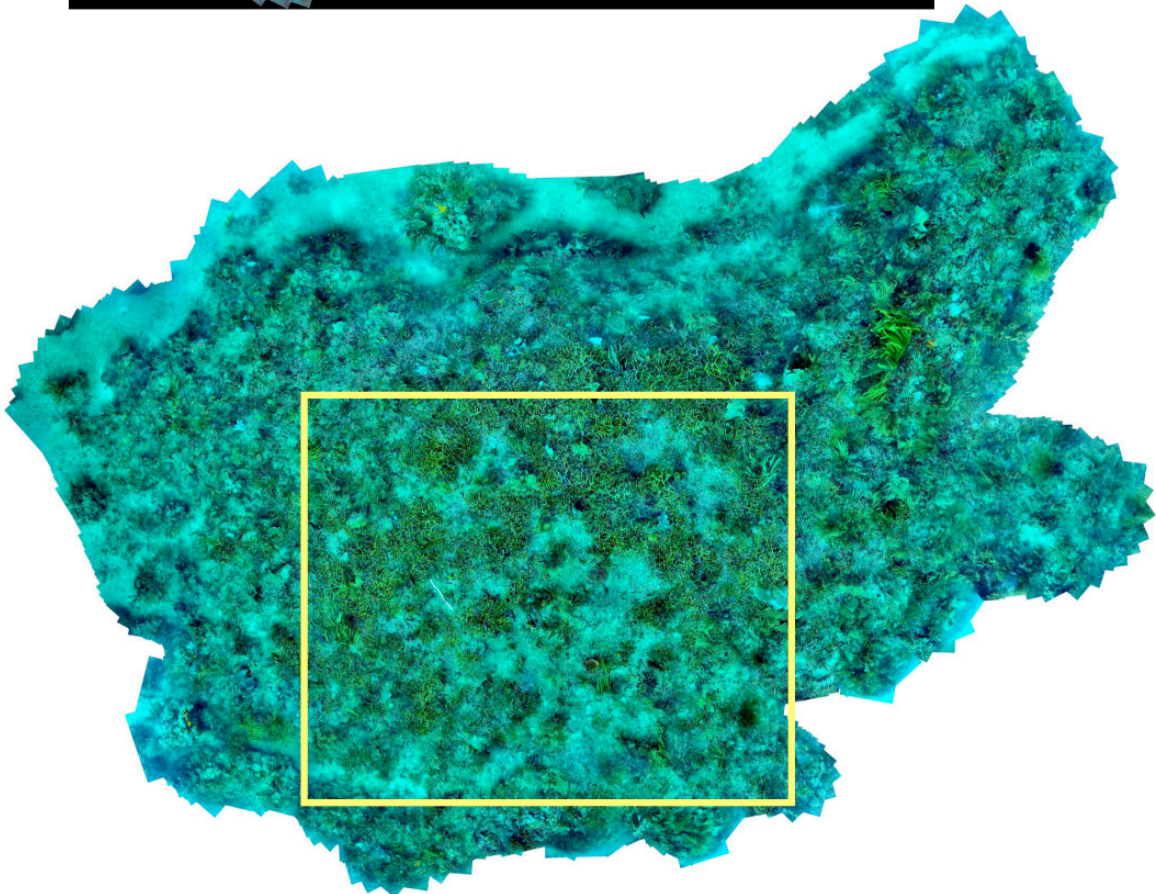
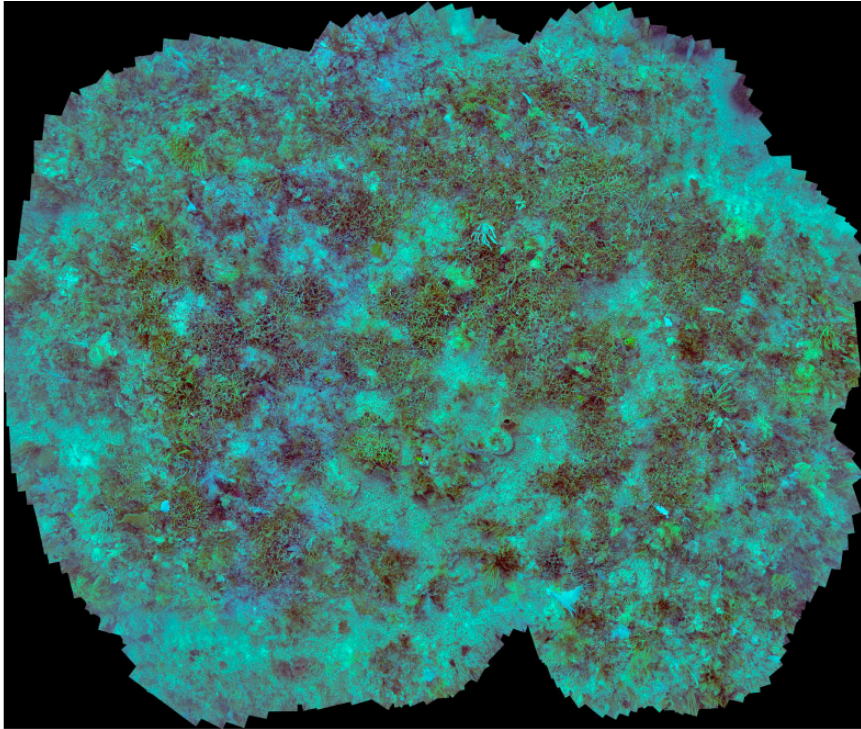


Figure 5: Margarita mosaics from Aug 2013 (top) and Dec 2013 (bottom). Note the Dec mosaic has been rotated 90 degrees counterclockwise in this figure relative to Figs. 1-4. The yellow box in the Dec mosaic shows the approximate area of the Aug mosaic.