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Corrigendum: Top-down and bottom-up control in the Galápagos Upwelling System

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A corrigendum on Top-down and bottom-up control in the Galápagos Upwelling System

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In the original article, there was an error in [Figure 4](#) as published. We mistakenly based the relevant analysis on the wrong column data, i.e., on the post-burn sample mass instead of the Ash Free Dry Weight (AFDW) column data. The corrected [Figure 4](#) and its caption appear below.

As a result of the mistake stated above, the text also contained a few unprecise statements:

1) A correction has been made to the **Abstract**. The incorrect sentence previously stated:

“Furthermore, biomass reached 2X in herbivore exclusions with nutrient additions, which hints nutrient limitation only during warm, low-upwelling conditions.”

The corrected sentence appears below:

“Furthermore, biomass reached 11X in herbivore exclusions with nutrient additions, which hints nutrient limitation only during warm, low-upwelling conditions.”

2) A correction has been made to the **Results**, paragraph 2. This paragraph previously stated:

“In both the cool and warm season experiments, final algal biomass was very low (~1 g, on average) when all herbivores were allowed access to experimental substrates (gray bars in [Figure 4](#)). One exception to this was during the cool season experiment, when final algal biomass in the open pizzas with nutrient additions showed a non-

significant increase (~2 g), compared to open pizzas with ambient nutrients (Figure 4A). On the other hand, excluding all macro-herbivores (blue bars in Figure 4) during the cool season significantly increased final macroalgal biomass relative to the open pizzas, only with ambient nutrients (Figure 4A). This contrasted with the results of the warm season experiment: final macroalgal biomass significantly increased in herbivore exclusions compared to open pizzas with and without nutrient additions, and it reached, 2X biomass when nutrients were added (Figure 4B)."

The corrected paragraph appears below:

"In both the cool and warm season experiments and when all herbivores were allowed access to experimental substrates (open pizzas or gray bars in Figure 4), final algal biomass was relatively low, with mean values ranging from 0.93 to 7.62 g. On the other hand, excluding all macro-herbivores in general produced higher accumulation of final macroalgal biomass with mean values that ranged from 2.85 to 29.56 g (blue bars in Figure 4). The combined effects of nutrients and herbivore exclusions varied however in the cool and the warm season experiments. Excluding macro-herbivores (both fish and all herbivores) during the cool season significantly increased final macroalgal biomass relative to the open pizzas, only with ambient nutrients; there were not significant differences among open pizzas and herbivore exclusions when nutrients were added (Figure 4A). This contrasted with the results of the warm season experiment: final macroalgal biomass significantly increased in herbivore exclusions compared to open pizzas only with nutrient additions, and it reached, ~11X more biomass (Figure 4B). In other words, adding nutrients had contrasting effects in the two

experiments: during the cool season experiment the significant differences among herbivore treatments disappeared when nutrients were added (due to a higher macroalgal biomass in open pizzas), while the addition of nutrients during the warm season experiment promoted the significant differences among herbivore treatments (Figure 4)."

3) A correction has been made to the **Discussion**, paragraph 3. The incorrect sentences previously stated:

"Compared to open pizzas, excluding macro-herbivores had a significant effect on algal biomass both in the cool and in the warm season experiments with ambient nutrients. However, these differences were maximized (2X more biomass) with nutrient additions in the warm season experiment (Figure 4)."

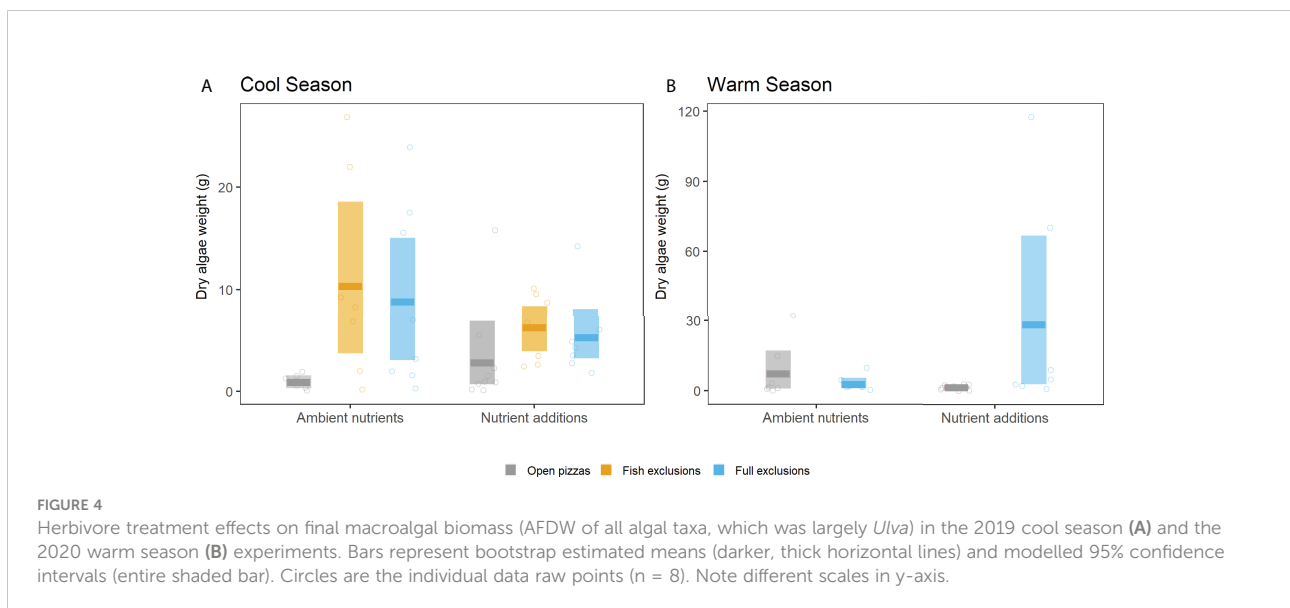
The corrected sentences appear below:

"Compared to open pizzas, excluding all macro-herbivores had a significant effect on algal biomass both in the cool and in the warm season experiments, but with different nutrient treatments: in the cool season experiment significant differences of final macroalgal biomass among herbivore treatments occurred with ambient nutrients (Figure 4A), while it did with nutrient additions in the warm season (Figure 4B). These differences were maximized in the warm season experiment (~20X versus ~10X more biomass comparing full exclusions and open pizzas among herbivore treatments with significant differences, Figure 4)."

4) A correction has been made to the **Discussion**, paragraph 4. The incorrect sentence previously stated:

"However, grazing intensity in open pizzas was very similar across seasons (Figure 4)."

The corrected sentence appears below:



“However, grazing intensity in open pizzas was not significantly different across seasons (Figure 4).”

In the published article, there was an error in **Supplementary Figure 2**. We mistakenly based the analysis on the wrong column data, i.e., on the post-burn sample mass instead of the Ash Free Dry Weight (AFDW) column data. The corrected **Supplementary Figure 2** has been updated in the **Supplementary Material File**

In the published article, there was an error in **Supplementary Figure 5**. We mistakenly based the analysis on the wrong column data, i.e., on the post-burn sample mass instead of the Ash Free Dry Weight (AFDW) column data. The corrected **Supplementary Figure 5** has been updated in the **Supplementary Material File**.

The authors apologize for these errors and state that they do not change the scientific conclusions of the article in any way. The original article has been updated.

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