LDP_manuscript

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Microalgae form colonies in response to predator grazing, but they also form larger aggregates in response to prolonged or more severe environmental stressors (Lürling 2003). Roccuzzo et al. (2020) found that the aggregation behaviour of microalgae requires an investment in fatty acid metabolism.

My experiment, in which laboratory cultures of *Tetradesmus obliquus* were exposed to varying concentrations of microplastics, showed that the size of algal aggregates increases with microplastic concentration (Fig. 1), in addition to the increasing proportion of aggregates in the population.

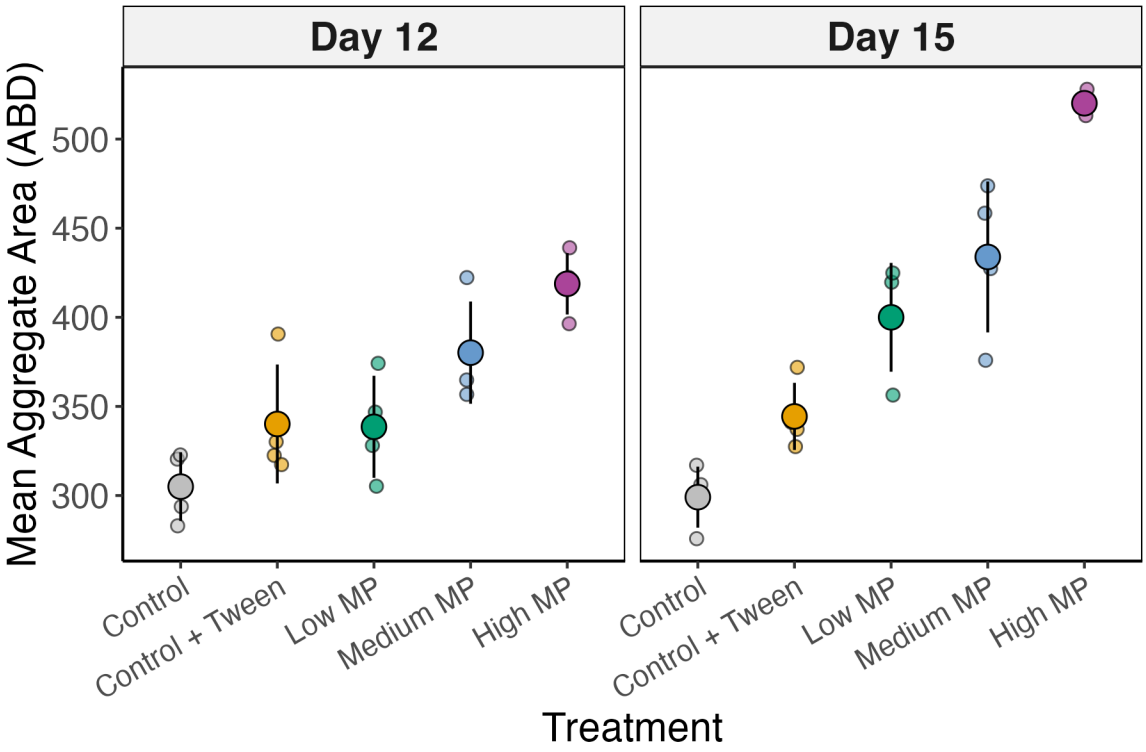

Figure 1. Size of microalgal aggregates across microplastic treatment groups.

```
grateful::cite_packages(output = "paragraph", out.dir = ".")
```

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## WARNING: One or more problems were discovered while enumerating dependencies.
##
## # /Users/katie/Documents/Living Data Project/LDP Data Reproducibility/04_report/manuscript.Rmd ------
## Error: <text>:21:2: unexpected '['
## 20:
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## 21: ![
##      ^
##
## Please see ‘?renv::dependencies‘ for more information.
```

We used R version 4.4.1 (**base?**) and the following R packages: here v. 1.0.1 (**here?**), knitr v. 1.47 (**knitr2014?**; **knitr2015?**; **knitr2024?**), renv v. 1.0.7 (**renv?**), rmarkdown v. 2.27 (**rmarkdown2018?**; **rmarkdown2020?**; **rmarkdown2024?**), tidyverse v. 2.0.0 (**tidyverse?**), trackdown v. 1.1.1 (**trackdown?**).

Lürling, M. 2003. "Phenotypic Plasticity in the Green Algae Desmodesmus and Scenedesmus with Special Reference to the Induction of Defensive Morphology." *Annales de Limnologie - International Journal of Limnology* 39 (2): 85–101. https://doi.org/10.1051/limn/2003014.

Roccuzzo, Sebastiana, Narciso Couto, Esther Karunakaran, Rahul Vijay Kapoore, Thomas O. Butler, Joy Mukherjee, Erika M. Hansson, Andrew P. Beckerman, and Jagroop Pandhal. 2020. "Metabolic Insights into Infochemicals Induced Colony Formation and Flocculation in Scenedesmus Subspicatus Unraveled by Quantitative Proteomics." *Frontiers in Microbiology* 11 (May). https://doi.org/10.3389/fmicb.2020.00792.