



Do microbes influence host responses to extreme climatic events?

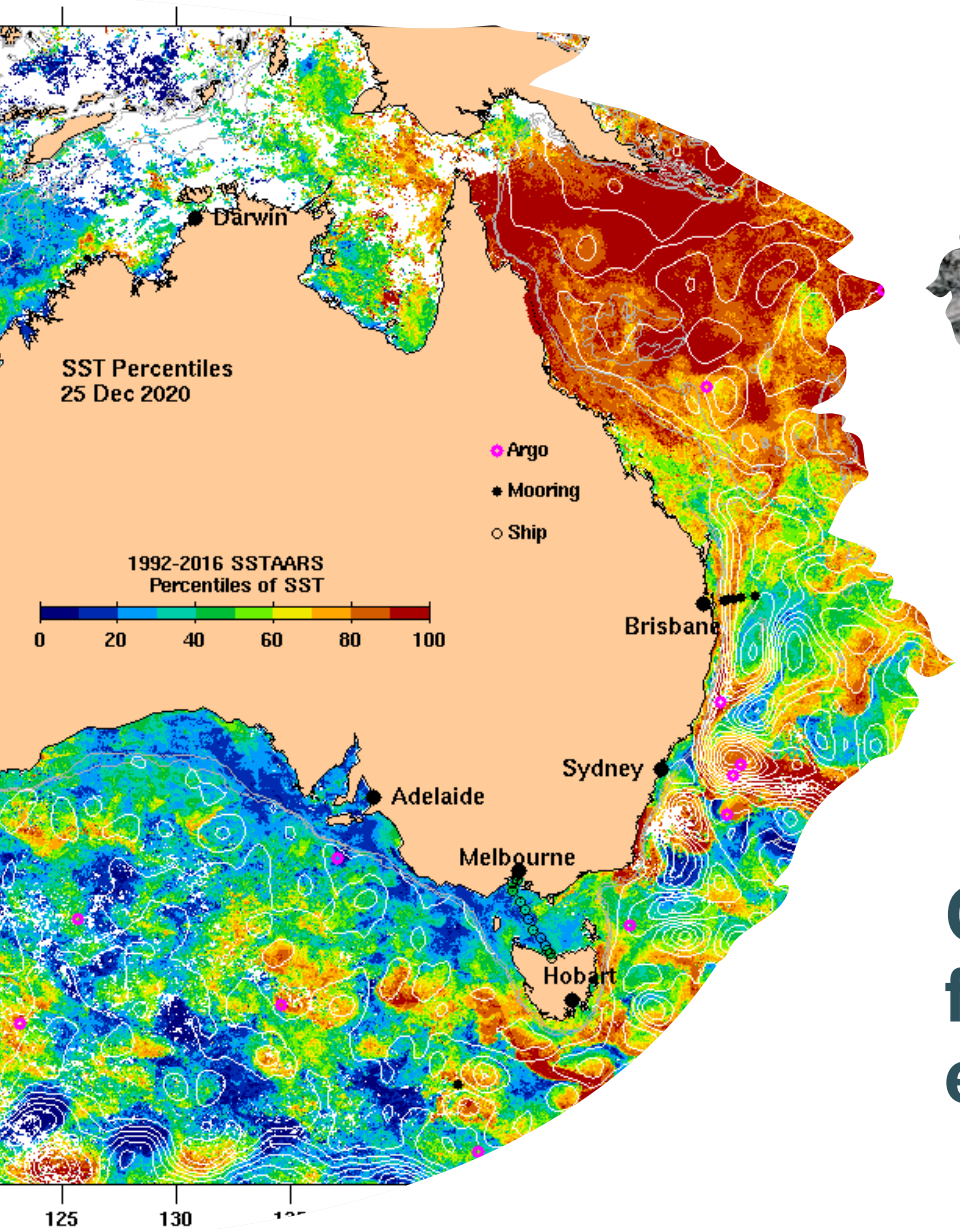
Alexander H. McGrath

The University of Sydney, School of Life and Environmental Science

@A_H_McGrath



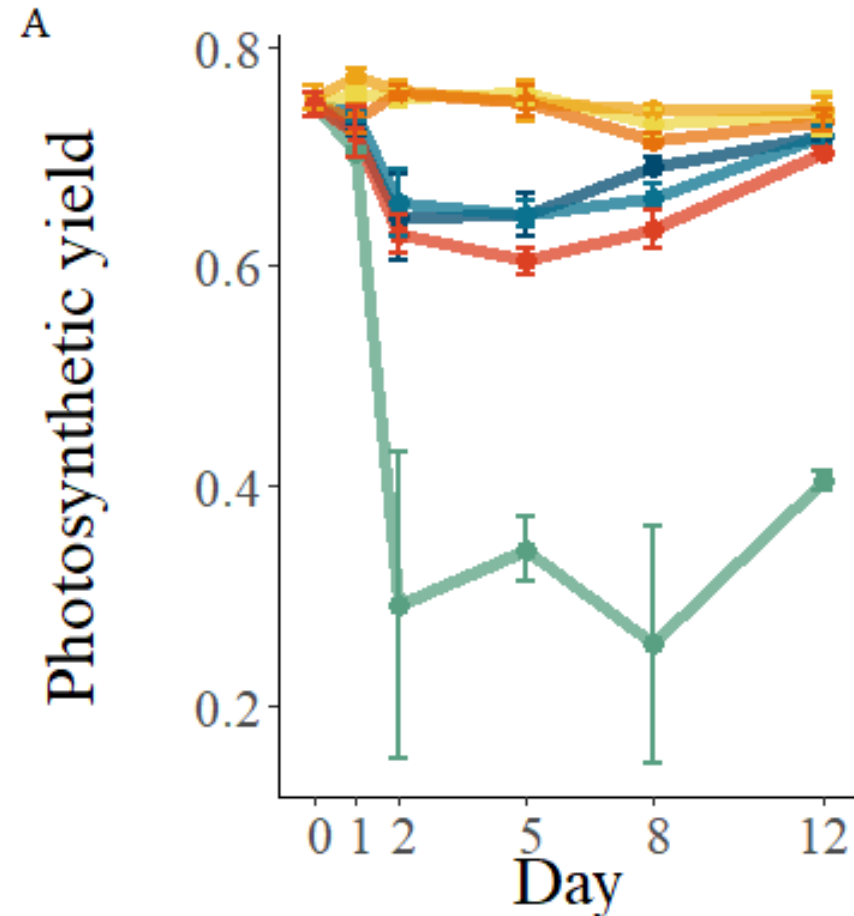
I begin today by acknowledging the Muwinina and Gadigal people, Traditional Custodians of the land on which we are gathered today and where this work was carried out. I pay my respects to their Elders past and present. I extend that respect to Aboriginal and Torres Strait Islander peoples here today.



Climate change is increasing the frequency of extreme weather events



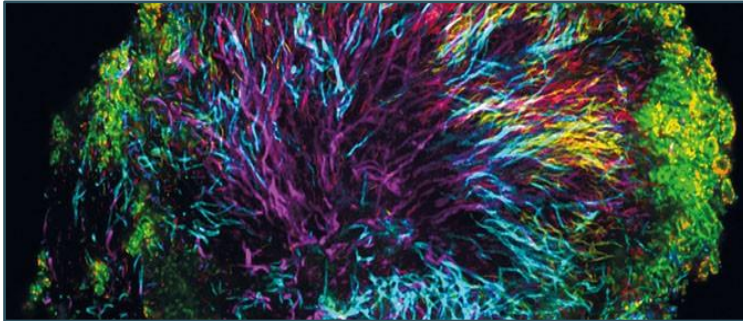
Host-associated microbes are fundamentally important for host function



McGrath et al (In Prep)



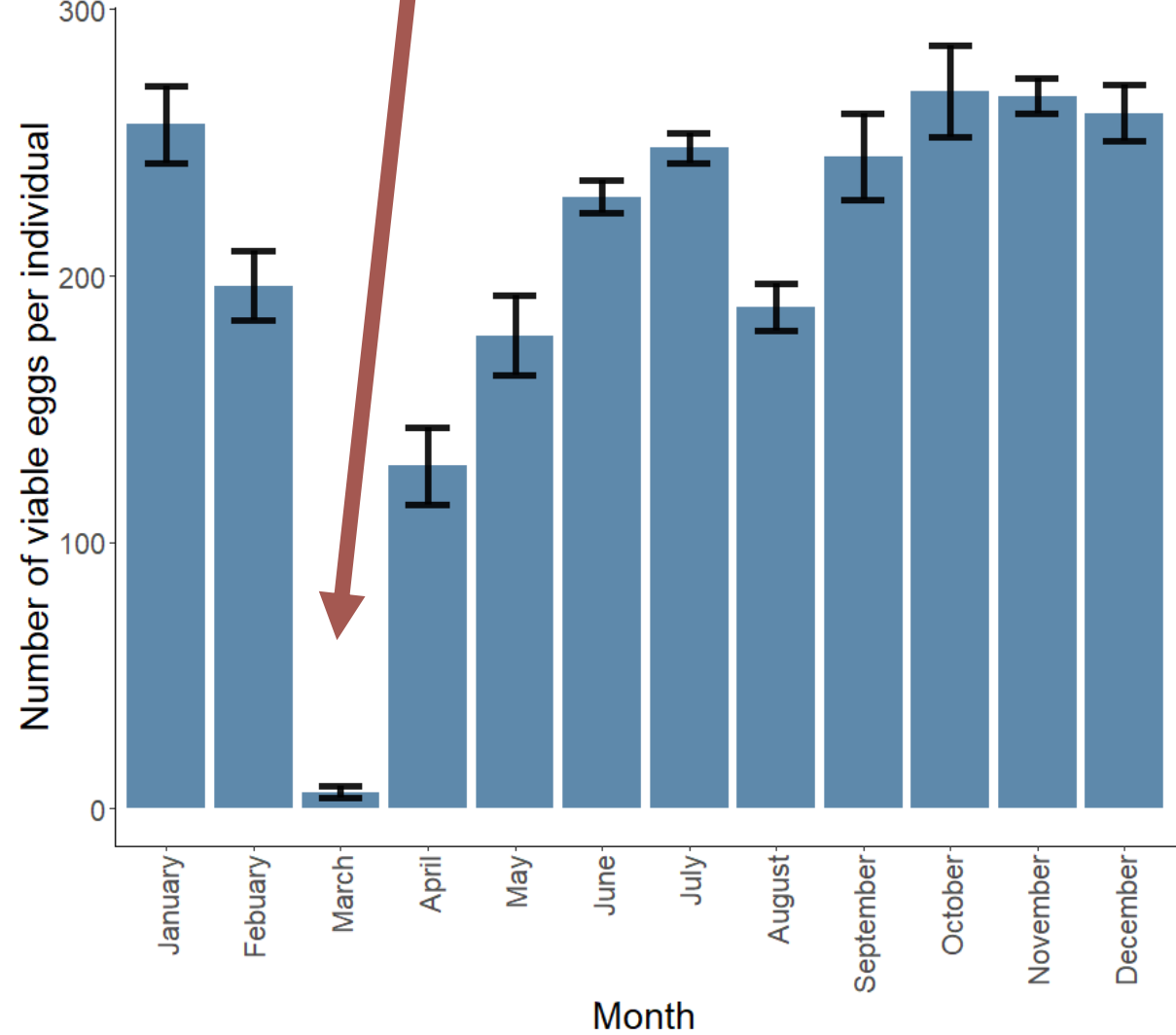
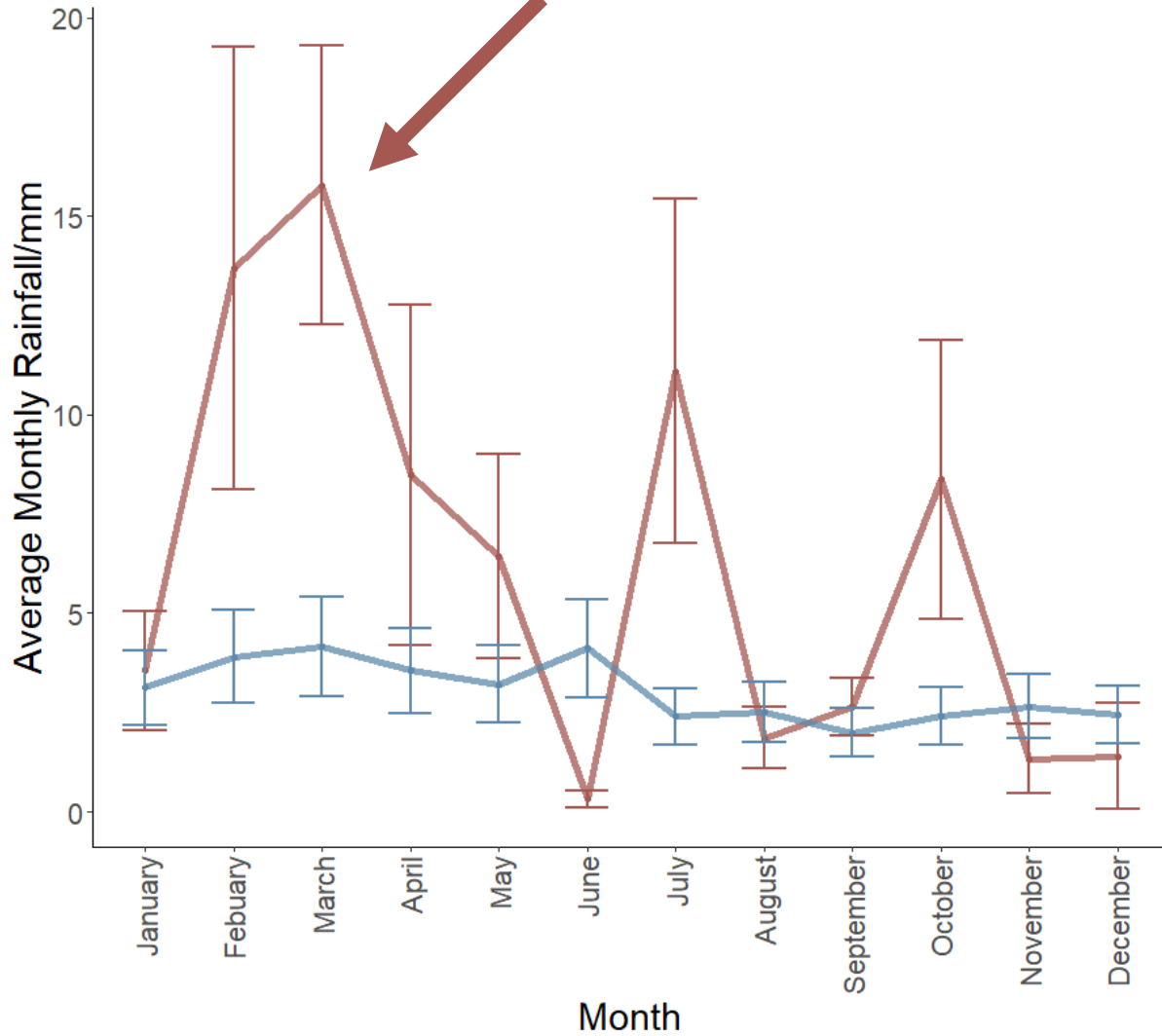
1. Is there a significant relationship between extreme rainfall and *Hormosira*'s reproductive output?



2. Does the microbiome influence the response of the *Hormosira* to extreme rainfall?

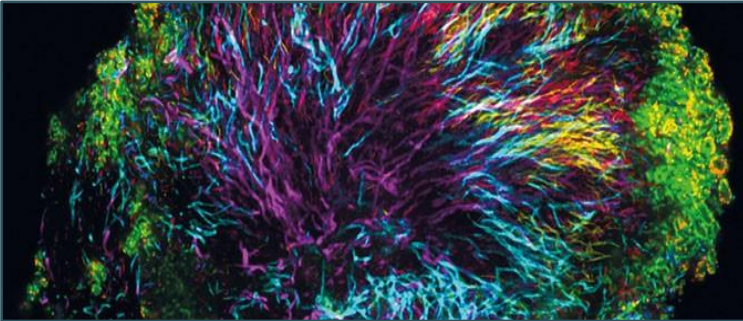


1. Does extreme rainfall will significantly affect *Hormosira's* reproductive output?

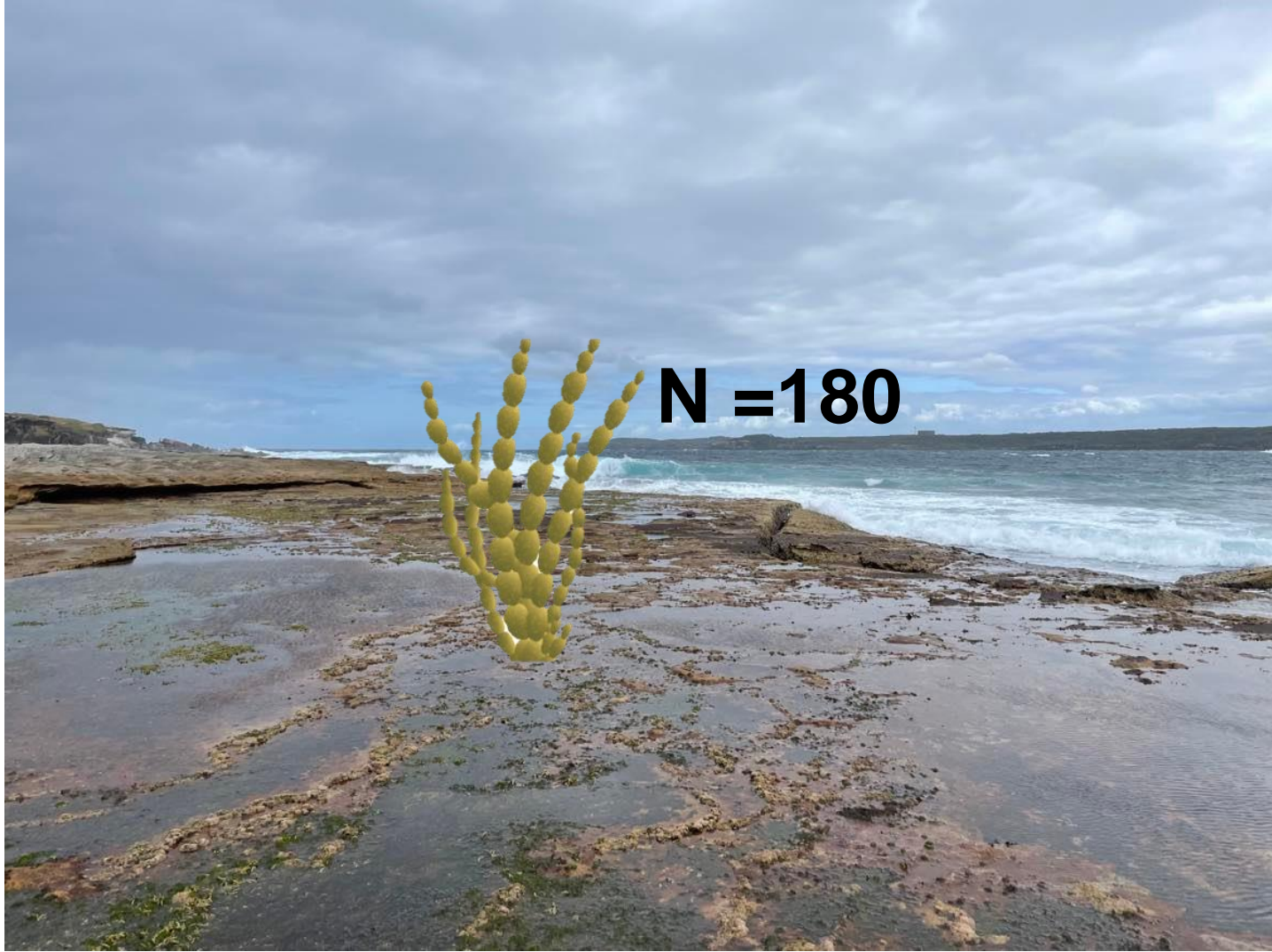




1. Is there a significant relationship between extreme rainfall and *Hormosira*'s reproductive output?



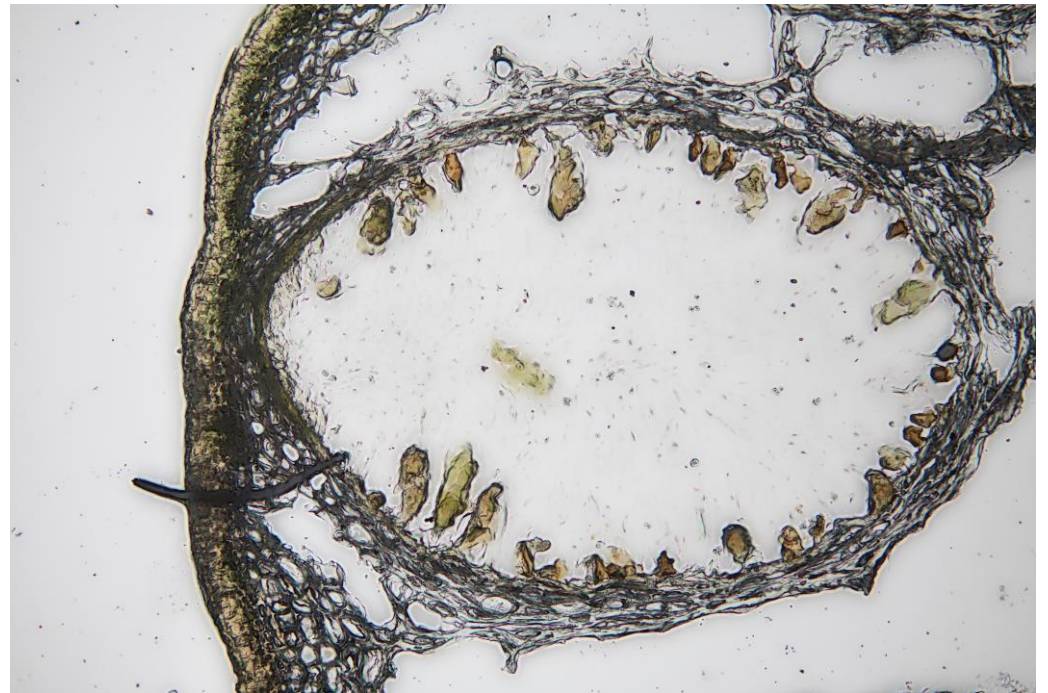
2. Does the microbiome influence the response of the *Hormosira* to extreme rainfall?



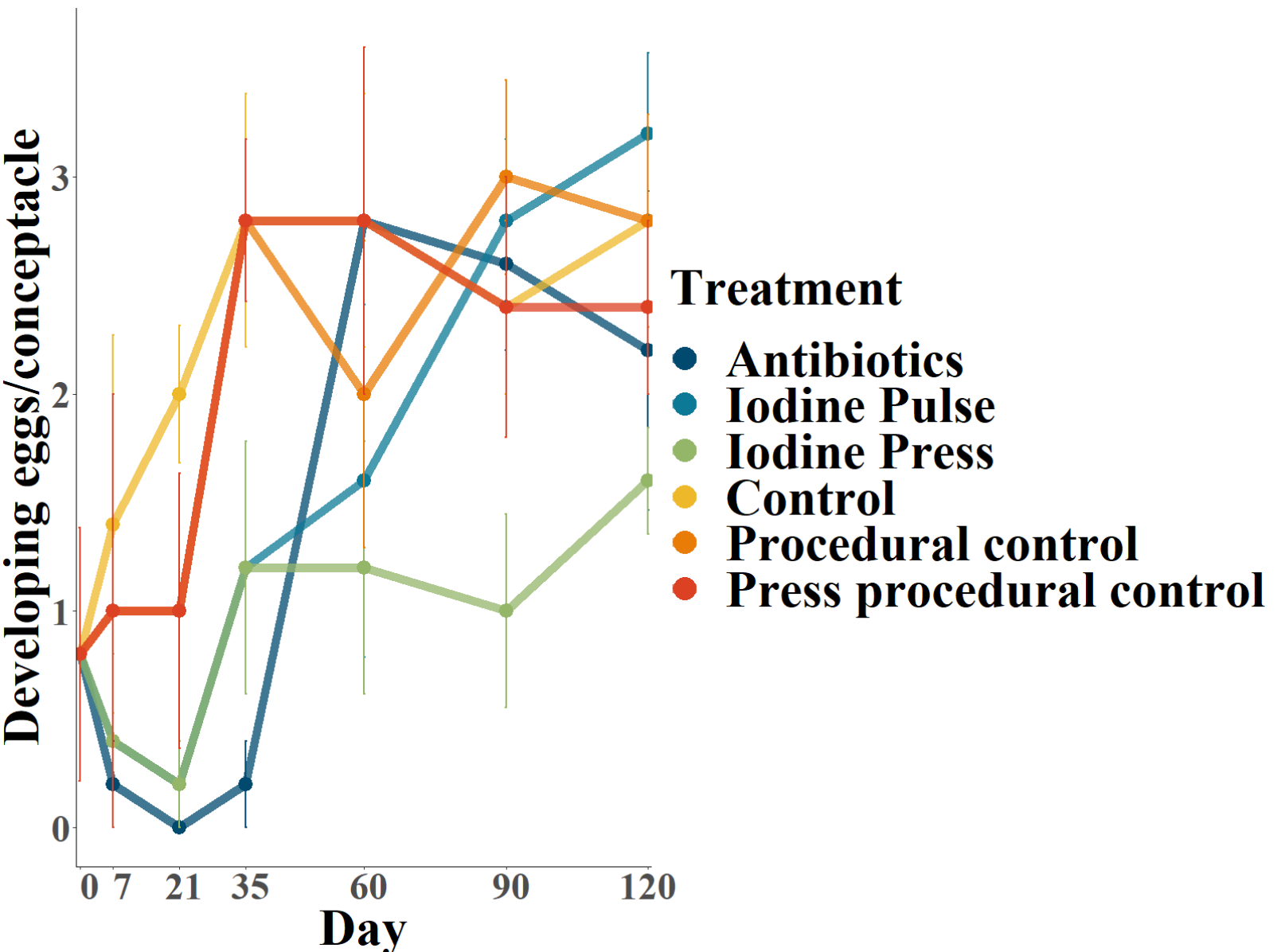
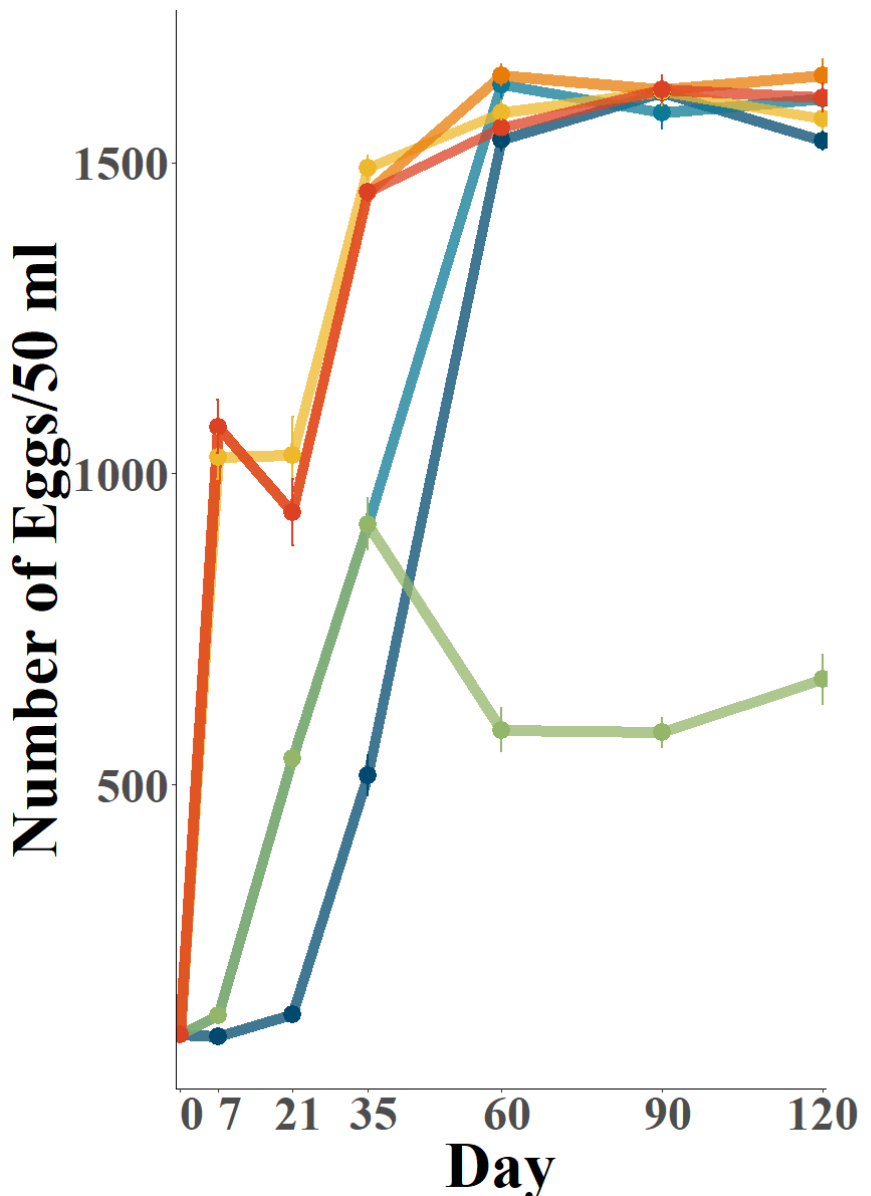
N = 180



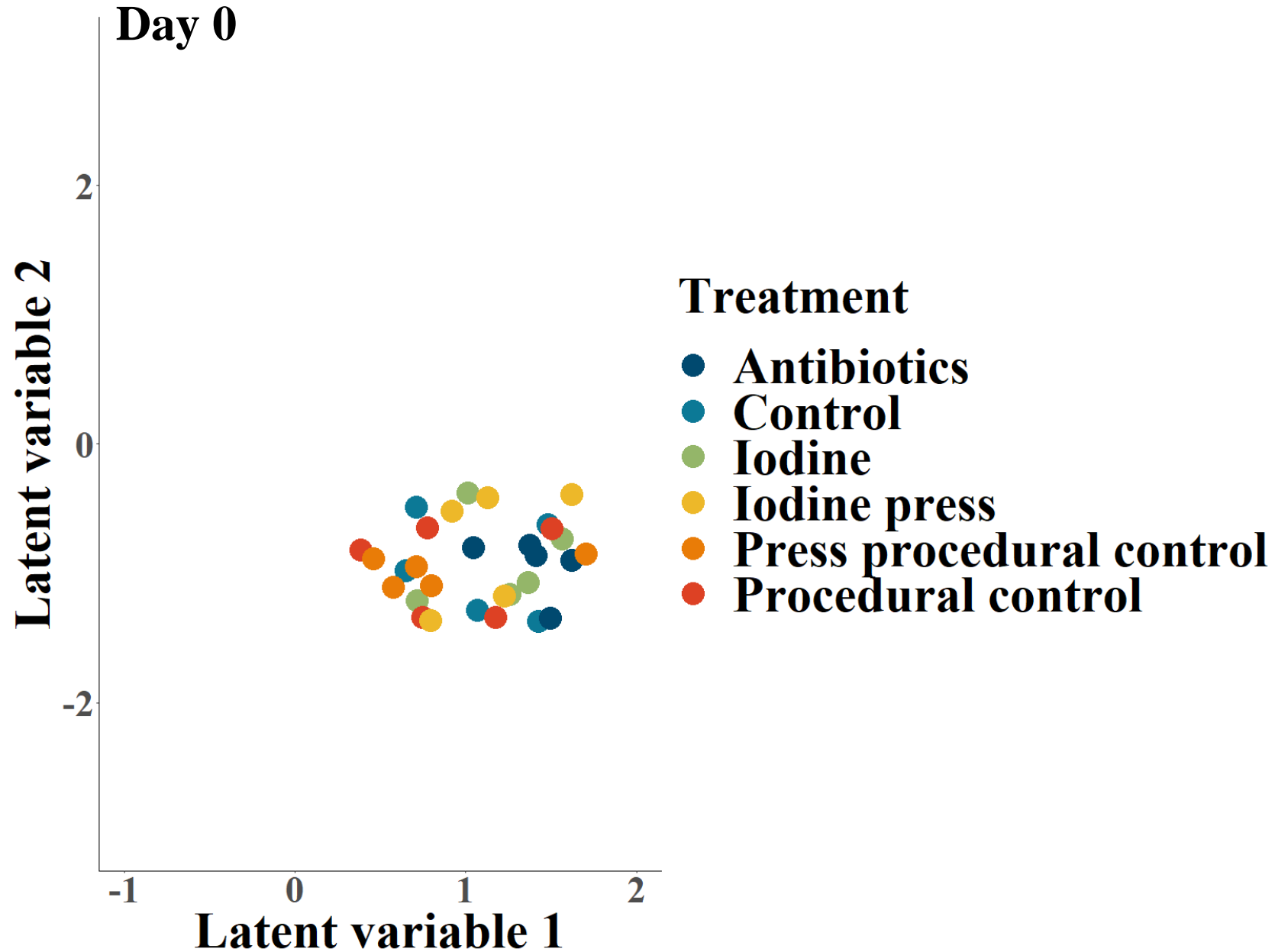
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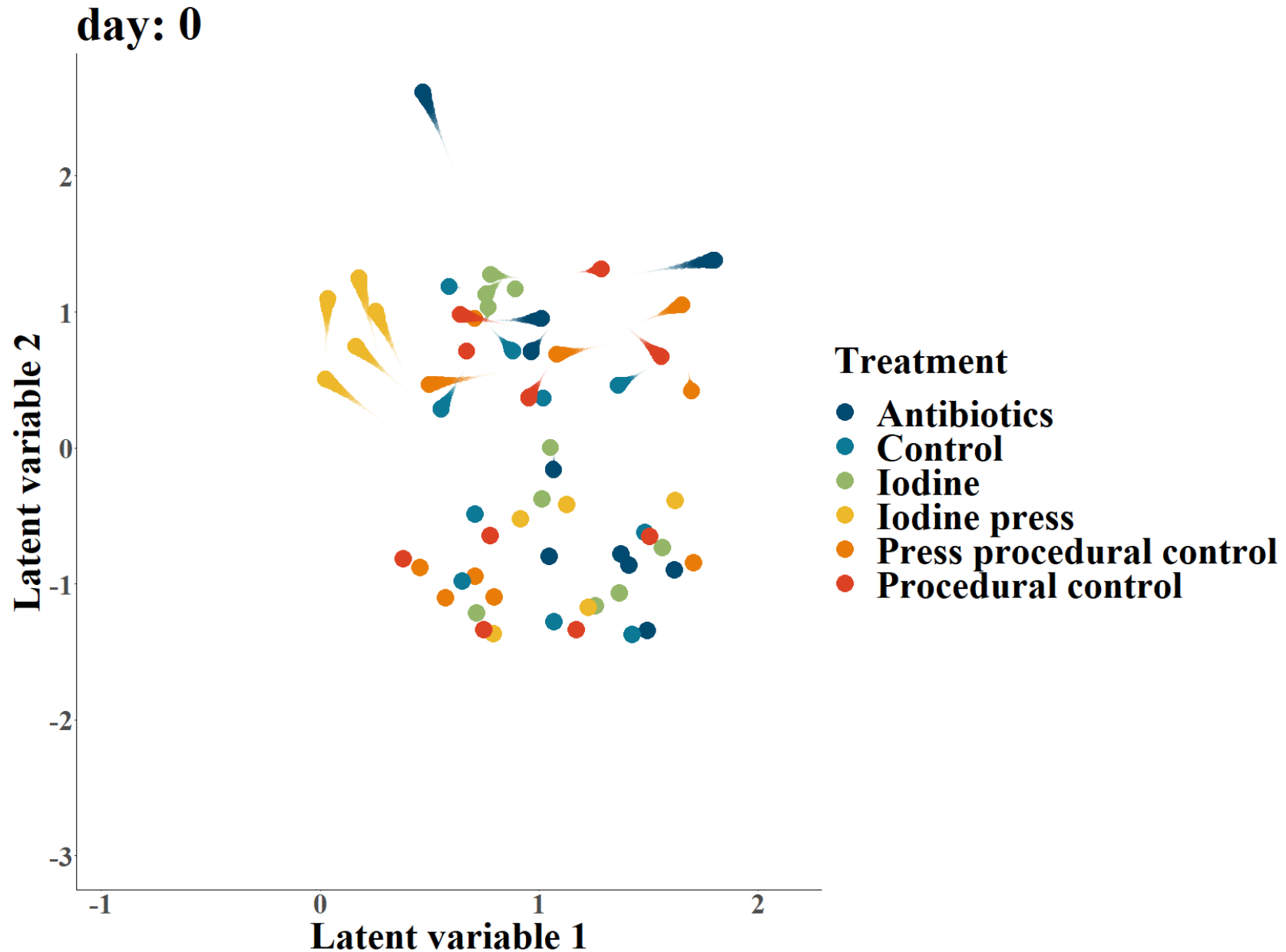
Responses of *Hormosira* to extreme rainfall



What about the microbes?!?



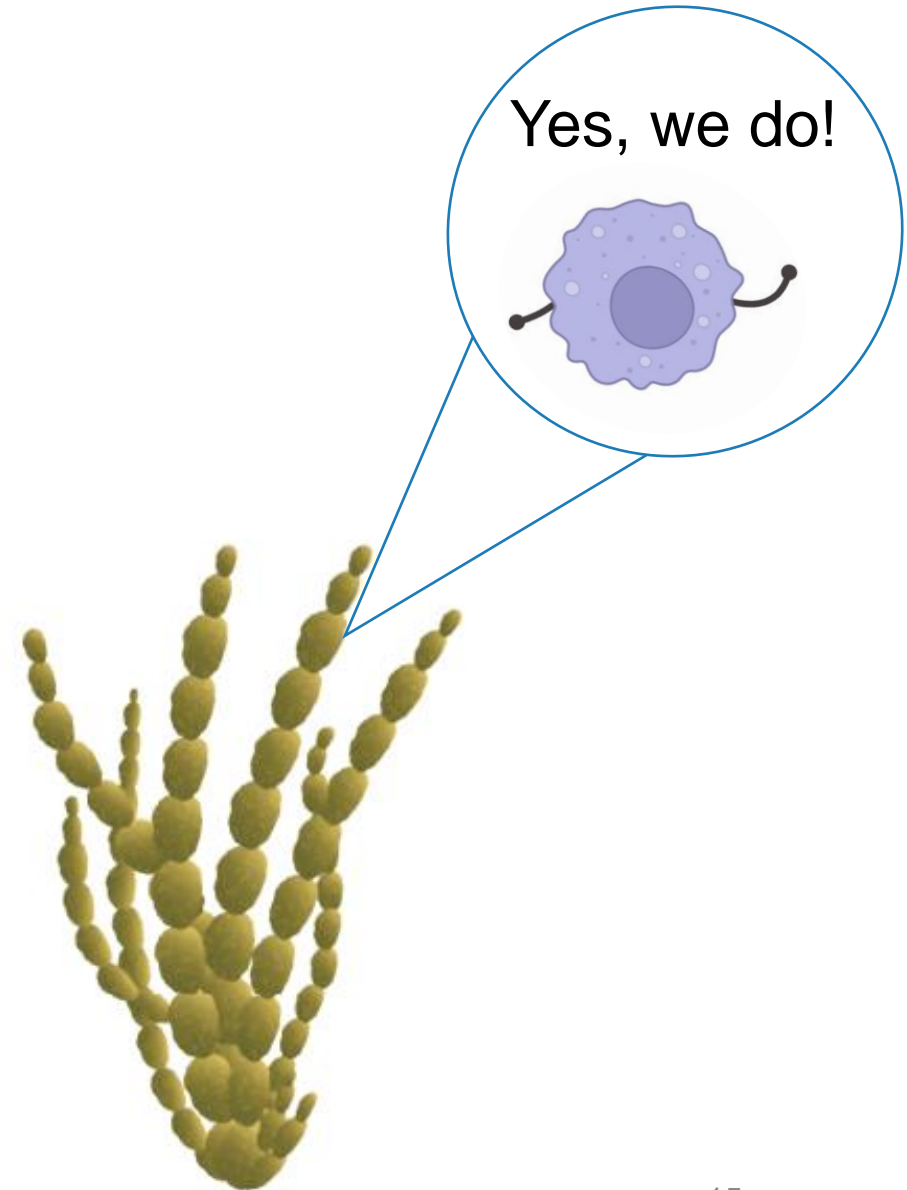
What about the microbes?!?



Extreme rainfall is related to lower reproductive output

Host-associated microbes influence recovery of host reproduction

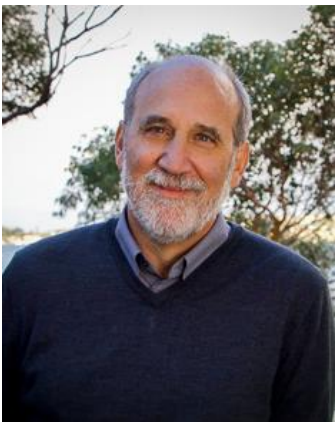
Which microbial functions matter?



Thanks to



Ziggy Marzinelli



Peter Steinberg



Suhelen Egan



Sebastian Gonzalez



Staffan Kjelleberg



THE UNIVERSITY OF
SYDNEY



Australian Government
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