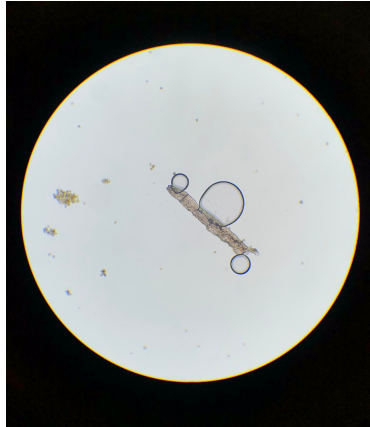
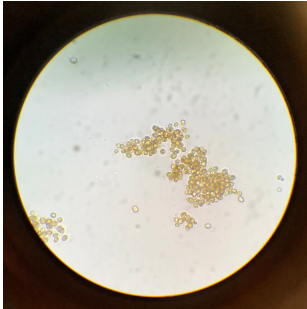


Name: Kennex Lam, Sijia Qin, Jiazi Tian

Date: 7/18/19

S. Microadriaticum

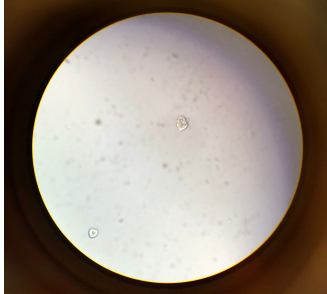
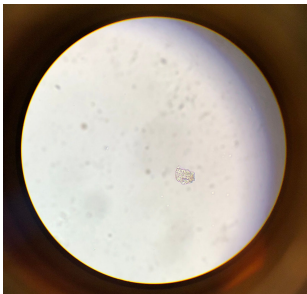
Stock



Most are non-moving. Some of the clumps look greener than others, so the browner looking ones may be less “alive” than others.

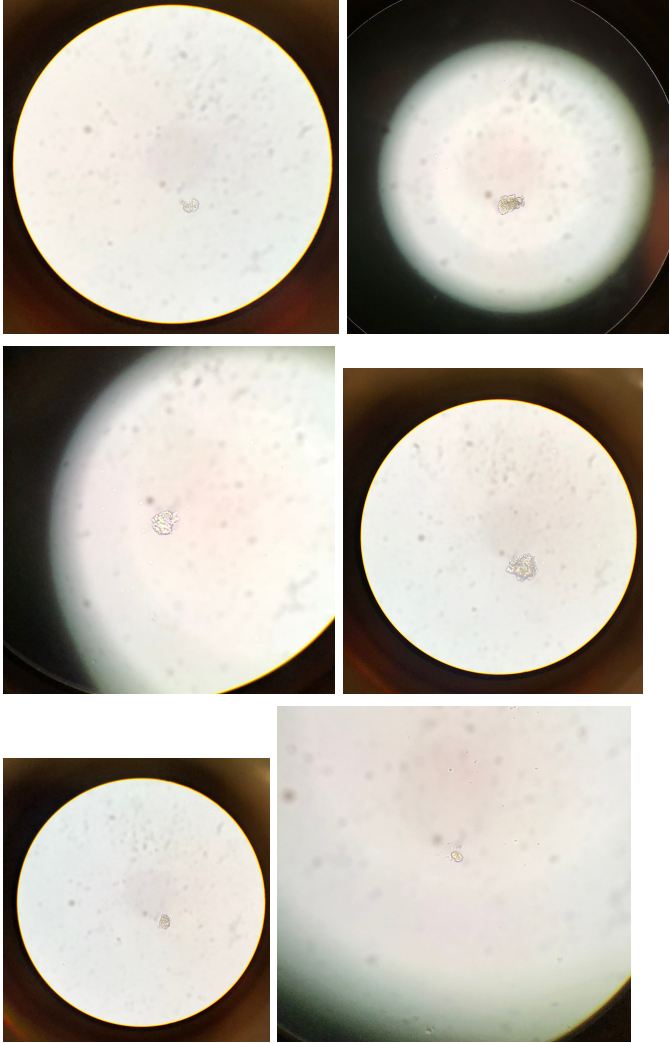
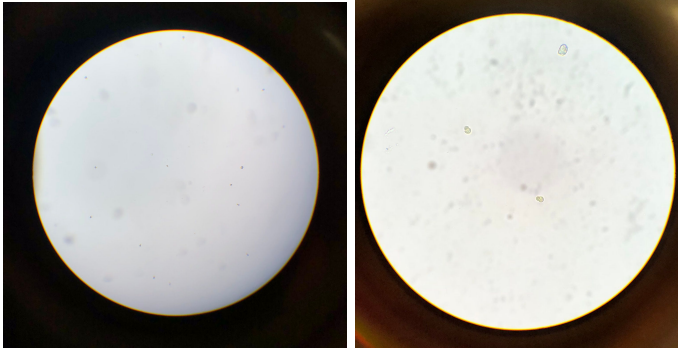
The brown photo is the scum picked off the bottom, so it may be the accumulated dead organelles of the *S. microadriaticum*.

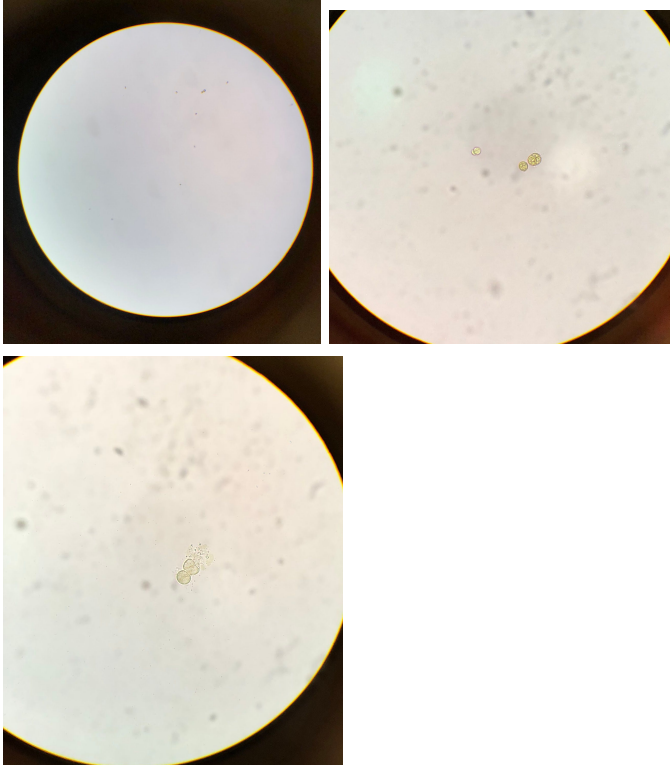
F2 10 mL

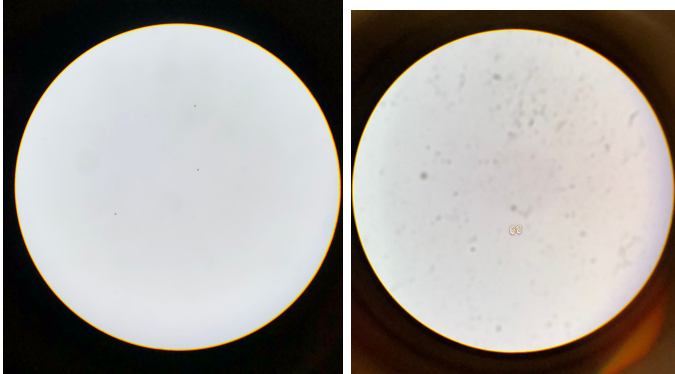
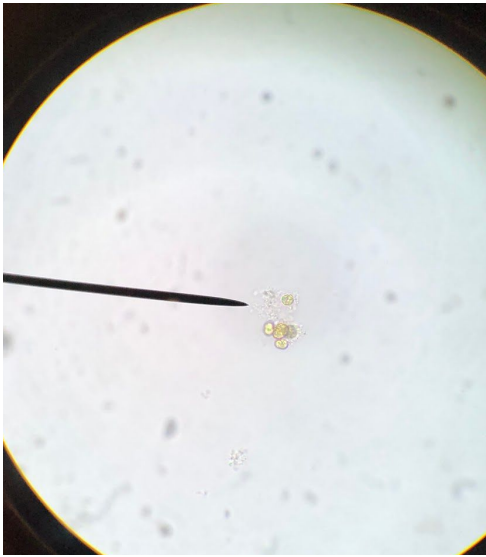


$\frac{1}{3}$  of them were swimming in different patterns. I found some stationary cells that looked a little odd.

The last photo is one of a normal swimming symbiodinium.

	
F2 25 mL	Two were swimming. Two were non-moving, and two were spinning.
F2 75 mL	Half were spinning. Half were non-moving. About 4 were swimming.
ASP-8A 10 mL 	<p>Nearly all are circling (swimming in circles in place). Few were swimming in loops. Higher concentration than two weeks ago.</p>

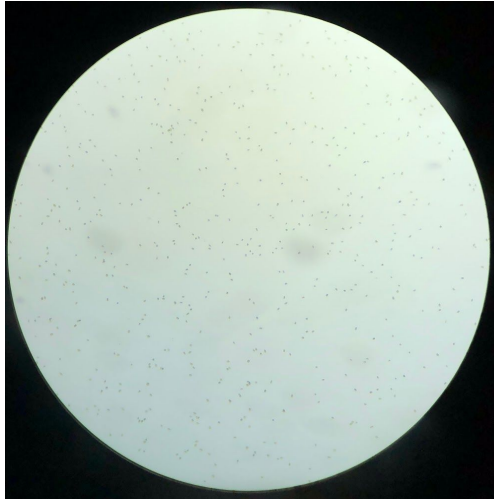
ASP-8A 25 mL	Nearly all are spinning. A handful were swimming normally or slowly.
ASP-8A 75 ml 	<p>A higher concentration than when first started. Majority of them are swimming in circles or swimming slowly. Some are non-moving, and the non-moving ones look larger and lost duplet shape, so they may be reproducing.</p> <p>In the third photo (which is the same symbiodinium in the second photo), I left them on the slide for 45 minutes and one bursted. However, you can clearly see they were in the middle separating.</p>
L1 10 mL	One was not moving.
L1 25 mL	One was swimming in zig-zags.
L1 75 mL	Three were spinning in circles.
L1 + F2 10 mL	One was loop swimming while the rest were stationary. Not a high concentration but a higher concentration than L1 10 mL.
L1 + F2 25 mL	A higher concentration compared to the L1 + F2 10 mL. Half were swimming while half were non-moving.

	
L1 + F2 75 mL	All were circling. Higher concentration compared to L1+F2 25ml.
ASP-8A with SW 10 mL	One was circling. One was nonmoving.
ASP-8A with SW 25 mL 	Their size were very small. Most were circling. Only a few were nonmoving. The clustered were bigger and dead.
ASP-8A with SW 75 ml	Their size looked bigger than ASP-8A SW 25mL. Babies and bigger one were circling and swimming. Some single was dead . And some were clustered and dead.

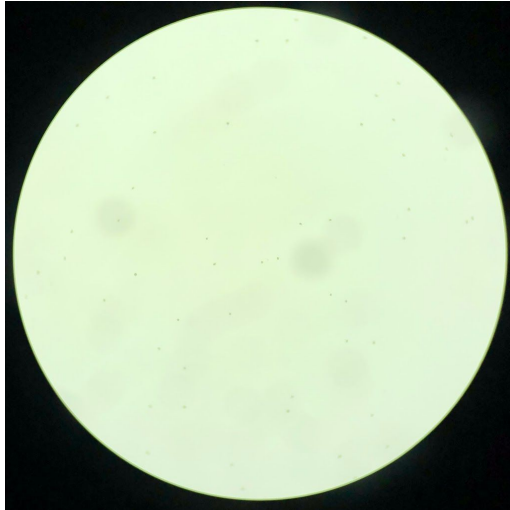
\* The clumps may contain the reproducing cells, dead cells, and vegetative cells.

#### D. Tertiolecta

Stock	Half were swimming, half were shaking.
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ASP-8A 75 ml



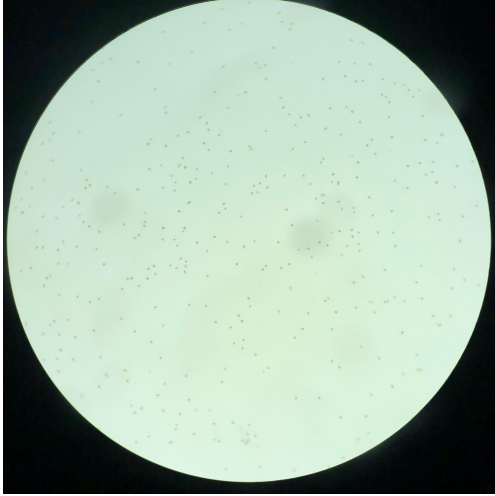
All were swimming.

ASP-8A with SW 10 mL


Most were swimming. Most were more active than ASP-8A 75ml. High concentration compared to ASP-8A 75mL. They were not spread evenly in the slide.

ASP-8A with SW 25 mL

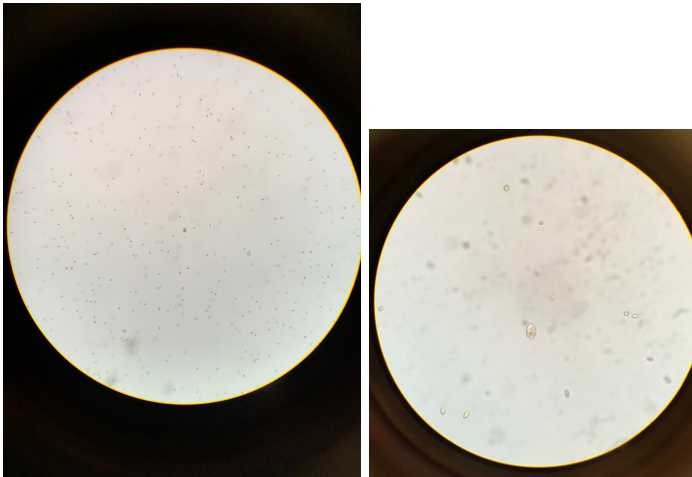
Half were swimming, half were shaking. Same concentration compared to the stock.

	
ASP-8A with SW 75 ml	All were swimming. Same concentration compared to the stock.

O. Marina

Stock	All babies and the large were swimming.
F2 10 mL	All babies and the large were swimming. Same concentration as the stock.
F2 25 mL	All babies and the large were swimming. Same concentration as the stock.
F2 75 mL	All babies and the large were swimming. Low concentration compared to the stock.
ASP-8A 10 mL	All were swimming. Same concentration as the stock.
ASP-8A 25 mL 	One was dead. All others were swimming.



<p>ASP-8A 75 ml</p> 	<p>Extremely overcrowded with <i>dunaliella tertiolecta</i> which have half of them shaking while the other half is swimming. <i>Oxyrrhis marina</i> are swimming fast.</p>
<p>ASP-8A with SW 10 mL</p>	<p>All were swimming actively.</p>
<p>ASP-8A with SW 25 mL</p>	<p>All were swimming actively. High concentration compared to ASP-8A SW 10mL.</p> <p>There was clustered D-tertiolecta death.</p>
<p>ASP-8A with SW 75 ml</p>	<p>All were swimming. Very low concentration compared to ASP-8A SW 25mL.</p>

\* Changed the ASP-8A 75 mL for the *O. marina* today by taking 1 mL of the original solution and placing that into 75 mL of new ASP-8A media. If there is an overgrowth of *D. tert* in this new one, we can just use the F2 media for *O. marina*.