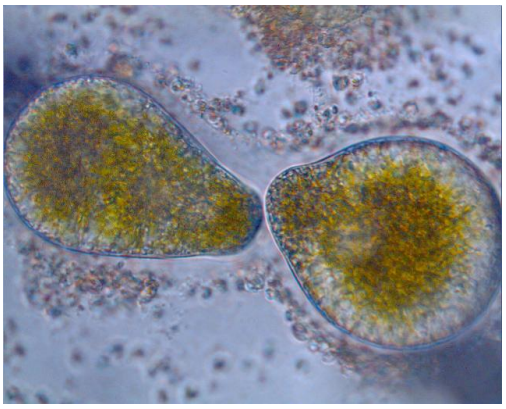
2009 Interns working with C3 team (Undergraduate Research Project 60701)

- **Jennifer Clark**, 3rd Year Bachelor of Science in Marine Biology, Supervisors Assoc Prof Peter Ralph and Dr Martina Doblin.

"My project investigates the heat tolerance in *Hormosira banksii*, seaweed endemic to Australia. I want to know if the seaweed can tolerate changes in sea temperature as part of a broader understanding of the potential effects of climate change. I'm using techniques such as PAM fluorometry to measure physiological parameters, such as photosynthetic ability and growth rates, and will also be observing and measuring any changes to the physical properties of the seaweed gametes. The undergraduate research project is a great introduction to Honours and further research. It's your own project which you get to control and you get the opportunity to learn new research techniques."



Images of *Hormosira banksii* zygotes

Jennifer in the field

- **Malik Cottrell-Dormer**, 3rd Year Bachelor of Science in Marine Biology , Supervisors Assoc Prof Peter Ralph and Dr Ross Hill

"Phytoplankton are really important since they represent 1-2% of the earth's biomass. The distribution of plankton is highly variable. Algal blooms are an issue because once they degrade you are left with a dead zone with no oxygen left in the water to support marine life. I'm working on the development of more accurate measurement techniques. If we can predict where blooms might occur then we will have better management and prevention tools which will, hopefully, result in improved outcomes for fisheries management. I'm really enjoying the whole internship experience. You get guidance but your hands aren't being held like in the other undergraduate lab projects. It's up to you to use your UG knowledge to guide your own experiment."

- **Gabriel Shaw**, 3rd Year Bachelor of Science in Marine Biology, Supervisors Dr Martina Doblin, Peter Davies and Tim Ingleton (DECCW)

"I'm working on a project with the NSW Department of Environment, Climate Change and Water (DECCW) to compare data collected in situ with remote sensing data collected via MODIS and SeaWiFS satellites. The ultimate aim is to develop a more accurate fluorescence vs. Chlorophyll concentration algorithm which could lead to a better understanding of the effects of climate change on the NSW coast. Satellites only give around 50 – 200 good images in a year due to cloud cover thus in situ monitoring is still important, although time consuming. I get to go out on a boat with DECCW to monitor sites off Port Hacking where we measure photosynthetic activity and other parameters. It is a great opportunity – I'm working, and being mentored by, highly experienced scientists and I get to use the first class facilities at UTS and the DECCW laboratories at Lidcombe."