Space Details

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Home

This page last changed on Jun 02, 2014 by linda.

This is the home page for the Summer Interns space.

Schedule

Refer to the Summer Intern Calendar (Zimbra Public Folders)

Weekly Updates (Please Report by noon Thursday)

- 12-June-2014
- 19-June-2014
- 26-June-2014
- Wednesday 2-July-2014
- 10-July-2014
- 17-July-2014
- 24-July-2014
- 31-July-2014
- 07-August-2014

Comments

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Posted by jdurden at Jun 12, 2014.

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Posted by cordelia at Jun 16, 2014.

This week was hectic to say the least. In the beginning of the week I've been fine tuning my project, and yesterday I worked on designing the ENTIRE experimental procedure for the summer, and worked on planning out the rest of my time here at MBARI. Right now my work time is booked with sampling, growing cultures, determining growth rates, making artificial sea water and media, inoculating cells with media, and the list just goes on and on. My project this summer will primarily focus on what the range of nutrient stoichiometry of carbon, nitrogen, and phosphorus (C:N ratio) for two strains of *Micromonas* (PCC 299 and CCMP 1545). This will hopefully provide much needed empirical data that is currently lacking in the field.

This project is challenging, but I'm looking forward to learning new molecular techniques, as well as enhancing old ones. I'm also excited to do my own little project for once, and to be apart of the full process, including experimental design, data analysis, trouble shooting, and all the technical work in between.

Posted by amaitland at Jun 19, 2014.

I don't know if I've been adding my confluence comments in right since I can see the one from last time right above this one and no one else's. Anyways, last week I spent most of my time interpreting data from the previous week. The previous week I did a temperature experiment with CCMP 1545 to figure out which temperature (16 degrees Celsius or 21 degrees Celsius) it grew best at, but the experiment was a waste because I only managed to get three time points and the 16 degree incubator kept fluctuating it's temperature. We're getting a new 16 degree incubator, so I'm looking forward to repeating the experiment and seeing what happens. I also did a dilution experiment with RCC 299 to see what dilution

it was able to tolerate, from my data it looks like it can grow to at least a minimum of 60,000 cells/mL which is pretty impressive considering that that isn't very concentrated at all. I've also been keeping up with my 14 flasks for my preliminary experiment which will determine which Nitrogen and Phosphorus depleted media to use for my big experiment I'm planning on starting next week when my mentor comes back.

Posted by amaitland at Jul 08, 2014.

01-August-2013

This page last changed on Jun 01, 2014 by kgomes.

02-August-2012

This page last changed on Jun 01, 2014 by kgomes.

I'm starting my confluence post early because I will most definitely forget it this week...

It's very frustrating when biology does things you don't expect it to, or when you finally figure out that the method you've been planning on using isn't the best way to answer your question(s). I have been working with a new culture in which the females have all suddenly become gravid and the singles floating around are all males, which is a problem since so far, I have used a more-or-less consistent ratio of males:females without eggs for my work. It might not matter now since I'm also changing my approach to better address the question of how non-target genetic material changes what signal I am getting from my copepods in culture. I sort of wish I had talked to more people at the beginning of my project, but at least things are making a little more sense now.

Have to also figure out if something funny is happening with the prongs I am using in lab. Consistency has been decreasing, which is not good.

More later.

03-July-2013

This page last changed on Jun 01, 2014 by kgomes.

Although this has been a short week, I finally feel like things are coming together on my project. I was able to obtain the preliminary conversion rates for my holothuroids! This allows me to convert my length measurements into a mass which then can be used to estimate population biomass. I am meeting with Christine Huffard today to go into detail about extracting my data from VARS and using software to change the measurement point made in VARS to the actual sizes being seen (makes the measurements based on the known 29cm of the sizing lasers). With thousands of observations already, I have decided that I need to stop collecting data in the middle of next week. I think I am going to come in during the holiday to get a little extra data collected as well. Overall, I think my project is progressing well.

04-August-2011

This page last changed on Jun 01, 2014 by kgomes.

05-July-2012

This page last changed on Jun 01, 2014 by kgomes.

 It's Thursday.

07-August-2014

This page last changed on Jul 18, 2014 by mage.

scroll down and click on the add comment button to post your update

Comments

John Ryan and I confirmed my conclusion that LISST-HOLO images from SIMZ cruises last fall consistently underrepresent the plankton community. We are currently exploring ecological stories from Julio's Gulper molecular results and the AUV physical data. I hope to add this section of the project to my presentation. John and I also had the great pleasure of meeting with Mary Silver yesterday to discuss our progress. She is a shining star!

Posted by lziccarelli at Aug 07, 2014.

Semi-frustrating week, didn't get the results we were hoping for on Monday which means I won't have time to make E. coli grow. But I've been working on the paper and presentation, which is a pretty good way to see how much I've been able to get done this summer. I'll be doing lab work up until the presentation, and am crossing my fingers that a new round of sequencing finally gives me the sequence data I've been missing.

Posted by thersh at Aug 07, 2014.

As much as I don't want the internship to end, it feels good to wrap up my project and see it all come together in my paper and presentation. Rich shed some light on how to read a mask matrix into the C++ code, which was the final step in fixing the logic errors I discovered last Friday. This weekend will entail a lot of practicing!

Posted by cordelia at Aug 07, 2014.

Presentation done. Paper writing time...

Posted by byraanan at Aug 07, 2014.

I have produced haplotype networks for three genes that I will present as preliminary results. Tomorrow I will try to phase the nuclear genes and add some more information. My final sequencing plates will be ready on Saturday, but I am not sure whether I have enough time to run more sophisticated analyses before Wednesday.

Posted by cbreusing at Aug 07, 2014.

This has been the best week of the summer for me because I've been at sea and it's been amazing. We've been exploring with the ROV 12 hours each day, deploying respiration experiments and searching for deep sea cephalopods to collect. In the evenings we trawl and it's so much fun to see all the weird life that comes up in the nets. Mike Vecchione, a cephalopod expert from the Smithsonian, is on board and has been great to talk with. A representative from Tentacles is also on board collecting for the aquarium. I'm collecting Histioteuthis eye species that I can use for histology and microspectrophotometry after the internship. We've caught 7 so far so I'm very happy. The only downside to being at sea is that I've been busy and not had as much time to work on the paper and presentation as I would on land, but it will get there. Can't wait to hear about everyone's projects on wednesday!

Posted by kthomas at Aug 07, 2014.

So managed to get my presentation made ready to test out in the Forum after Jon's presentation (well done by the way). Had a run through of it with Esther Thursday afternoon which went down well, especially for pretty much the first run-through. A bit over time and some changes to make after the feedback but if all else fails I have a talk I can give. Having another run through on Monday with Esther. Made a good start on the report and have finished the methods and am most of the way through the results. I usually don't like doing it so the presentation is made first, as I never really have all of my arguments together until the report is finished but all the key figures I had already made so it wasn't too bad putting the presentation together first.

Also started discussing the plan for the October cruise and data that would be useful to collect to carry on with the project and back in Southampton - has meant that my 'future work' section may actually become a reality!

Posted by wsymons at Aug 07, 2014.

Posted by jsteck at Aug 07, 2014.

Posted by jsteck at Aug 07, 2014.

Had a hart time pulling myself away from the test tank and modeling - just so much more fun than writing and presentations. But alas I'm off and running on those fronts as well.

Where did the 10 weeks go?

Posted by lbarker at Aug 07, 2014.

Well done Jon.
Have had another eureka moment today, making two in total this week. So anyone that saw me walking the hall ways today with a (more than usual) puzzled look, might have been later rewarded with an orgasmic, "OH YES!" emerging from building A. Going back to basics and working things through step by step pays dividends. All will be revealed on wednesday..... Discussion on paper in full swing, first version almost complete, proper sciency sounding version ready in the wings.

That calls for a beer.

Posted by kwillis at Aug 07, 2014.

Today I did a practice run for my protein extraction and analyses for my cells. Tomorrow is the final sampling day, I will be sampling my replete cultures and collecting samples for DIN, POC/N, and POP

analysis. I presented in front of my lab on Tuesday... or maybe it was Monday.. I can't remember, I've practically lived here this week so the days just kind of blur together. Anyways, I'm happy to announce that I will NOT have to come in on the weekend for this first time in a long while! Yay  things are finally starting to come together.

Posted by amaitland at Aug 07, 2014.

Life at sea changes a man...
Just kidding. Things on the Western Flyer have been amazing. The Doc Rickkets ROV has been seeing some really cool stuff deep down. Lots of cool squid and jellies. Makes me regret that I have to work on my presentation/paper in the meantime.

I'm in the process of crunching figures for my final presentation. It's mostly done save for those parts. I have a feeling I won't have time to write the paper until after the presentation Sad face.

We'll see. Good luck everyone, and good job Jon!

Posted by wtruong at Aug 07, 2014.

Everything is going great. I have a lot to do this weekend though to be ready for next week. My cultures are acting up a little bit but they are almost done with their grow out. Meaning I will have a lot more time next week to write and get ready for the presentation! Looks like I will also get sunday off!!! First day off I think since the weekend of fourth of july!!! woop woop!

Posted by zjensvold at Aug 08, 2014.

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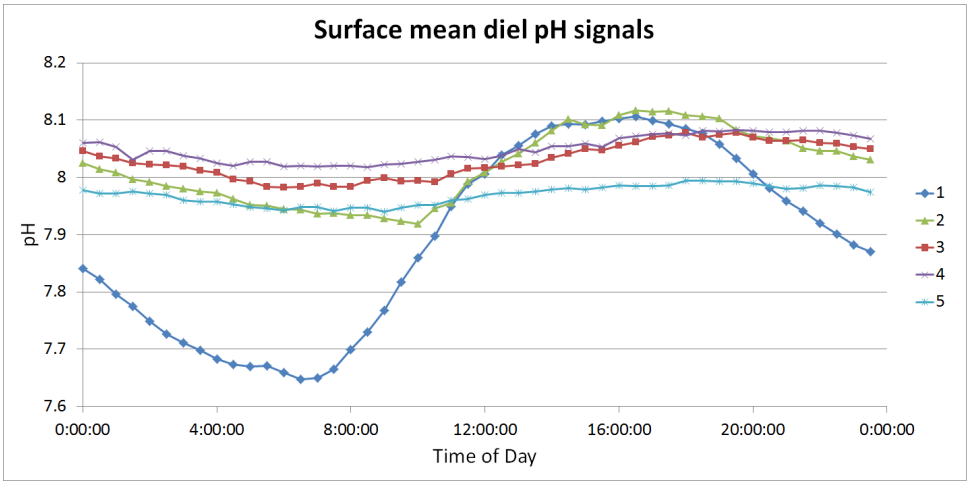
looooooonnnnnnnnnggggggg hours this week. working on data analysis and presentation. Haven't even started the paper yet. Cool things are coming out of my data! I converted voltages from 9 sensors into pH values, separated each time stamp into half hour segments in the day, and have made the following representation to show the means of these half hour segments over 14 days. 1-5 are mooring locations from intertidal to offshore



Posted by jlafian at Aug 09, 2014.

I'm a bit late posting this week. I've had a few minor problems in the last two weeks that have made me consider a pacemaker, but I have now managed to get all of my annotations out of VARS, converted to 'real' measurements accounting for the Canadian perspective grid (not a reference to my nationality), and am merrily plotting some statistics. I will soon join the other interns in writing and presentation mode.

This week I have also been trying to take a long-term view, beyond the intern paper and presentation, and try to finish other tasks that could be useful to long-term collaboration with MBARI and my PhD.
I had an excellent discussion with Linda this week going through the Station M Deep-Sea Guide with my Porcupine Abyssal Plain species guide. We have been looking at morphotypes in each that were unclassified, and have made some improvements to both guides (this is a reasonable comparison since both areas are abyssal).

Since others have been posting pictures, I thought I'd share a couple of fauna from Station M that have been on our radar this week. The first is a sea cucumber that has sparked some contention - it looks like

the genus Paroriza (as named at the PAP), but not like Paroriza (as named at Stn M), but may also be more similar to Psychronaetes hanseni.

The second photo is a Cnidarian without a name that burrows and creates tracks in the sediment (rather than attaching to hard substrate).

I think I may have singlehandedly destroyed Building B extension's tea allocation this weekend. Does the correlation between caffeine consumption and productivity imply causation? Discuss.

Posted by jdurden at Aug 10, 2014.

This week I edited all possible graphs, I did all the changes that were suggested for the presentation, and it is completed. I am also working on the writing report.

Posted by vanessa at Aug 10, 2014.

This week I finished up the last of my designs and am working on my presentation and paper. Everything looks good and now its time to just write write write. I can't believe we are headed into the final week already!

Posted by nreed at Aug 11, 2014.

07-July-2011

This page last changed on Jun 01, 2014 by kgomes.

Weekly updates for July 7th

08-August-2013

This page last changed on Jun 01, 2014 by kgomes.

08-July-2010

This page last changed on Jun 01, 2014 by kgomes.

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09-August-2012

This page last changed on Jun 01, 2014 by kgomes.

EYYY!!!

My last confluence and I am going to be the first one. When it started and George told us that the last couple os weeks were crazies weeks, I thought that it will not happen to me cause I will planning it very well. But I was wrong and George was right. 
My project is almost done, so now I am writing my final project. On friday, my mentor (Mike McCann) give the chance to share with him his project update, and I could present my project too. It was very nice, cause the ask me some question and now I am getting feedback for people who has started to use the tool that I have write. It's so exciting for me to know that some MBARI staff is using a code wrote for me. Another important date was yesterday, cause I present my PhD project in MBARI and we sent an abstract about my project to the American Geophysical Union's 45th annual Fall Meeting.
Now I am a little sad, cause I feel very good in here (MBARI, Monterey, California, USA) and my family too, and now I the program end. But it has been a really good experience that I have enjoyed a lot working and having a lot of fun at the same time.
Thanks to George and Linda for help us a lot, take care of us and offer us so many fun things to do, to all the intern, you all are very very nice and have been my little family during this time, to all the MBARI staff to be so friendly and help me in every little problem that I have had, specially Erich Rienecker, he is so friendly, thanks to him my family and me have had a very nice house, car, seat, and a very nice time on it. And the last thanks, but not less import, to my mentor Mike McCann to make all the thing very easy to me, be so nice, and help me so much to have a very good experience during my internship.

Have I said that I have enjoyed it a lot?????

10-July-2014

This page last changed on Jul 10, 2014 by thersh.

This week, I ran multiple rounds of PCR on tissues from three different squid species and a nudibranch species. 2/4 rounds of PCR were successful (i.e. my primers amplified something). I ran the PCR products on a gel and cut out the most promising bands. I was able to get DNA from the bands, which was then sequenced. Good news: I have viable sequence for Pterygioteuthis! Basically, the photoprotein sequence that was found in a different species of squid appears to have similar genetic structure to the photoprotein sequence in Pterygioteuthis. Now I'll actually have something interesting to talk about during my presentation, even if nothing else happens during my project!

Comments

Another week gone, hard to imagine we're half way through.

It's been a fairly productive week for me, despite my PC deciding to sulk on me at various points. My seafloor spreading data is all coming together. Having established lack of variation in extension due to faulting and fissure formation across the Alarcon Rise, I have shown notable variation in fault scarp orientation. I am now fine tuning the collected data, and gearing myself up for surveying one or possibly two more areas on the Alarcon Rise. Two would be wonderful, but I know time limits will come into play.

I nearly missed Dilly's cookie break, but made it in time for the crumbs. In order to provide some variation from generating and recording data I have been working my way through all the Pink Floyd albums, so if anyone has walked by and heard me howling, "welcome to the machine," then I apologise for the noise disturbance, but ear plugs can be made available on request.

Posted by kwillis at Jul 10, 2014.

To get a better idea of how well the LISST-HOLO is able to characterize the plankton community structure, we will compare images to whole water samples collected at the same time. I am now going back to my roots and counting the plankton in those whole water samples at the scope.

Posted by lziccarelli at Jul 10, 2014.

This week has taught me to loath 3rd party freeware. Dependencies are the devil. But besides that I got an embedded system running ubuntu. I also successfully installed opencv (the freeware) on my linux box. I am currently developing code on it to mirror what I developed in matlab. However, this time I am programming with runtime in mind, trying various techniques to hopefully allow it to run in real time. I am having trouble with morphological operators in the less friendly c++ world. Next week I will continue my c++ code and maybe even successfully install opencv on the target.

Posted by jsteck at Jul 10, 2014.

My mentor was on vacation this week, but I still had so much fun learning from other MBARI staff members! Larry Bird taught me the basics of the lathe and mill. On Wednesday, we focused on welding, and I even got a little practice. I hope to find the time to get back there and refine my skills (welding is hard!!). Today, Mike was nice enough to walk me and Nate through some of the other machines. Always inspiring to talk to passionate people. I'm looking forward to going out next Monday on the Rachel Carson to get the benthic rover. I'll be working hard on decorating styrofoam cups over the weekend. 

Posted by cordelia at Jul 10, 2014.

This week I have been working on several different parts for the AMP exhibit in the Aquarium. The earlier components that I designed are about to start being made, which will be really cool to see. I am currently working on a way to secure the motor and gearbox to the assembly by creating a mounting structure than can withstand the torsional forces that will be applied to it. Also Mike spent some time with Dilly and I in the machine shop and I think we both of us learned a lot!

Posted by nreed at Jul 10, 2014.

This week I was on the ship a lot, which is always fun, and on wednesday we cruised with the seminar speaker and she was wonderful to talk with. I just finished analyzing my last HD video tape for squid orientation and behavior; now I'm moving into the older tapes and I'll see how much info I can get out of them. I'll be over in Building G all by myself with just the smell of seagull poop to keep me company for the next bit of analysis.

Posted by kthomas at Jul 10, 2014.

Float is in the tank this week, and I'm off and running (profiling?). Ran into a small hiccup that gave a strong asymmetry in the actuator, but that was solved with a better suited check-valve. First steps at this point are to achieve a working velocity controller (descend @ 0.1m/s, achieve 0 velocity, ascend 0.05 m/s, etc.). From there go to depth control (go to 5m, 2m, 7m, etc.)

Spent some time earlier in the week thinking about controller strategy/form, and have some ideas to model/play with.

Also excited to get out on the Carson on Monday!

Posted by lbarker at Jul 10, 2014.

Things are looking up this week. I feel like I have a clear goal ahead of me now. Gonna be doing tons of VARS searching and spreadsheets. This entails looking for repeatable patterns in monthly abundances of rare species found in Monterey Bay's mid-water, classifying them, and argue their importantance lolz

Posted by wtruong at Jul 10, 2014.

This week my project took an interesting turn. My mentor and I have decided that a cool way to tease out LRAUV malfunctions could be the difference between observed LRAUV behavior and simulated behavior based on LRAUV theoretical equations of motion. And so this week I ended up bashing my head against the books and writing code for such a model. The 6 DOF model is pretty much written and next I'll be feeding it with historical data and comparing outputs with what the LRAUV actually ended up doing in past deployments. Can't wait to see what comes out the other end! Oh, I also added beaker as my profile picture to Jons request!

Posted by byraanan at Jul 10, 2014.

It was great this week to get out to sea and spend some time getting to know Kelly, our guest speaker. She was full of great advice and was certainly a fun person to talk to. Aside from that, the data collection and entry continues! I am very excited to start crunching the numbers soon to see what we will come up with!

Posted by bburford at Jul 11, 2014.

This week I spent most of my time doing transfers for my cultures. I still have the 14 flasks of RCC299 that I'm using for my preliminary nutrient depletion experiment, and yesterday I diluted them for the last time down to 150,000 cells/mL (very low!!). I diluted them to a very low concentration because this way there will be more generations, and a better more defined growth curve (more checkpoints before they level off into stationary phase).

Posted by amaitland at Jul 11, 2014.

Ah the half way point. I have just finished the data collection and done preliminary data workup towards answering my first question: at what rate(s) are traces in the seabed created and degraded at Station M? (and are there differences in these rates between traces?) To answer this, I have looked through >12000 photos spanning 18 months from the time lapse camera, and measured the size and area that each trace covers, noting the creation start and end times, and the last visible time. I am comparing this to environmental data. The preliminary work up suggests that the creation rates of seastar feeding impression spike about 5 months after the deposition of detritus - this means that sea stars like their food to be 'old', not fresh. Patterns in the creation rates of echinoid traces are not as easily teased out.

Next week I will decide whether to look at another year's worth of time lapse images, or whether to move on to looking at differences in density and diversity of traces using images from the rover. Oh, and I'll try not to get seasick on the Carson on Monday!

Posted by jdurden at Jul 13, 2014.

This week was mostly spent up in Santa Cruz getting to prepare and run my full suite of samples for grain size analysis. I should now have data needed at least be able to write something for the project! Not much else to report other than getting through the logging - 2 transects done, 1 to go. I should be able to get the last one complete this week along with having a look at the grain size data.

Posted by wsymons at Jul 13, 2014.

I am afraid I have made less progress than I wished this week due to limited throughput of the sequencer. However, I have started to write my report for the internship and could analyze at least some more genes. At the moment a greater challenge consists in going through all the data other people produced, extracting the relevant information and understanding how they came to their results.

Posted by cbreusing at Jul 13, 2014.

Can't believe we are already half way through!

This week went very well. I have started my main experiment so hopefully by wednesday of next week I will be able to tell which phosphorus concentration is considered a deplete condition for the phytoplankton.
This week I have also finished my application for the SACNAS conference!

Posted by zjensvold at Jul 13, 2014.

Apologies for being so late on this one. Last week was hectic but productive! I went out on the water by Hopkins TWICE: once with Chris, Jeff, and Jules to deploy the pH sensors, and once with Kerry Nickols to learn CTD and bottle sampling techniques. We saw some cute seals. It was great. Looking forward to collecting more samples throughout my project. I'll be filling 36 bottles tomorrow (nutes, chl, DIC, and salts).

Posted by jlafian at Jul 14, 2014.

11-August-2011

This page last changed on Jun 01, 2014 by kgomes.

woohoo - heading down the homestretch now! last week!! last confluence update. Titles due Friday - and I'll see you Monday morning in the Harbor View Conference room at 9 am.

11-July-2013

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12-July-2012

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Halfway point!

12-June-2014

This page last changed on Jun 12, 2014 by mage.

just scroll down to the bottom where it says add comment - and add your update

Comments

Other than the usual intern orientation I was able to get going with my project straight away. In April, Charlie Paull and Esther Sumner (mentors) were on a cruise (I was supposed to be on it but I a fresh pin in my wrist and was in cast!) that collected 35 vibracores in three transects across the canyon from thalweg to flanks at ~600 m, 1000 m, and 1200 m water depth. My task is now to graphically log all of them to understand the deposits. That's probably 35-40 m worth of logging to get done. I've done three of them so far...

The USGS up at Santa Cruz published a paper this year on grain sizes above the centre of the canyon from sediment traps to understand turbidity current thickness and behaviour. The second part of the project will be to sample cores at the same level as the sediment traps from the flanks of the canyon and compare with the USGS paper grain sizes to gain information on turbidity current thickness. That means I will be going up to Santa Cruz later on the project for a week or so to use the same machine for consistency.

I feel quite lucky that I have been able to get in the lab almost straight away once let lose on Monday. Hopefully that wasn't too boring for you non-geo's! The facilities here are great! It's a much nicer room than I have at Southampton (although I have a bit of a walk to get the cores here)- I get it to myself!

Posted by wsymons at Jun 11, 2014.

I am excited to be getting started with my project this week. Linda has been generously spent several hours with me showing me how to use VARS. I met with Kathy, Ken and Chrissy to discuss the project focus; it will be something related to looking at megafaunal assemblages at Station M and their activity, likely using lebensspuren. We need to be strategic about the dives we use, and the imaging selected, so I have been reviewing images from the time-lapse camera, the rover and some from the ROV.

Posted by jdurden at Jun 12, 2014.

The first week of interning at MBARI was fantastic. Getting orientated and starting my project took up the entire short week. I decided to basically start a new project; I will summarize as "Visual Tracking of Jellyfish." My first week uncovered more problems than answers on the difficulties of computer vision and characterizing jellies. I started out my code developing in matlab. I am still in the incipient stages. Deciding what specific toolboxes I will need is an effort when considering if I buy them they are about 2 grand a pop. This decision making process is complicated more because I am not sure if matlab is the best way to start answering this problem. I have also uncovered some previous work on visual tracking of jellyfish and will explore this before moving on with the matlab code. Overall I have found a couple of ways that computer vision will not work at identifying and tracking jellies -insert quote from Thomas Edison and light bulbs- so at least it's a start.

Posted by jsteck at Jun 12, 2014.

First week - check. LRAUV group was very welcoming. With the support of my mentor Jim Bellingham and other members of the group I was able to set a few well-defined goals for my project and launch off with some first steps. My project will revolve around cataloging LRAUV malfunctions associated with vertical control, performing statistical time-series analysis of preexisting data (6,000 hours of LRAUV operations!), and finally, developing a classifier for vertical control malfunctions which will be integrated into the vehicle's autonomy software.

First on the agenda - learn LRAUVish! This week I learned how the LRAUV communicates with its operators and developed a Linux based set of commands to extract communication strings containing critical malfunction messages from the LRAUV historical database. By the end of this week I'm hoping to finish writing a MATLAB script that will use the time stamps of malfunction communication strings to pull relevant data of the server for analysis.

Right now we're getting ready to go out to sea to retrieve one of the vehicles - more next week!

Ben

Posted by byraanan at Jun 12, 2014.

This has been a significant week of "firsts" for me. From being the first time moving out to California, to meeting everyone at MBARI, it has been a very exciting time.

Starting off the week, the Bruce Robison lab was able to go board the Carlson for 2 back-to-back day-long research cruises. Using the massive ROV, the Ventana, we able to complete multiple respirometry experiments, run multiple video transects, as well as capture several juvenile octopuss'.

Interestingly enough, our mentor (Dr. Bruce Robison) was kind enough to allow us to select our own research project, giving us time to explore our options until now. So today, I hope we can solidify our ideas and have a productive summer!

Posted by wtruong at Jun 12, 2014.

I'm working in the same lab as William T. so I've had just about the same week. This (thursday) is actually our first morning working in the Robison lab, because we went straight to sea for 2 days after orientation. The first day we deployed the midwater respiration system (MRS), which can capture midwater organisms (in this case, sergestid shrimp) and measure their oxygen consumption while left at a mooring. The next day we picked up the MRS and also did some video transects with the ROV at various depths in the midwater, 50m down to 1000m. We say some neat organisms and are now in the process of planning out our summer projects. I am interested in the behavior and distribution of deepwater bioluminescent cephalopods.

Posted by kthomas at Jun 12, 2014.

The first week has been great so far! I have started working on the MBA/MBARI AMP Exhibit, in which a model ROV, with a projector attached to it, will be suspended from the ceiling of the exhibit. It will then rotate/tilt to project and interactive video of marine life on a wall of the exhibit. I have started working on the design of the suspension system to allow the model ROV to safely hang from the ceiling while still being able to perform the necessary rotation/tilt movements. So far I have made a few digital models/ drawings using solidworks for some of the basic components of the system.

On Wednesday, Laughlin and I went through the orientation to use the model shop and we got to have some fun with the machines in the shop, using the mill, lathe, and band saw. I also went up to Santa Clara University with my mentor and met with associate professor of mechanical and electrical engineering Dr. Christopher Kitts and got to see some of the cool robotics and ROV projects that he has been working on.

I have really enjoyed my fist week here at MBARI and am looking forward to the next 9 weeks!

Nate

Posted by nreed at Jun 12, 2014.

What a week! I finished up my exams, moved out of my dorm, and had my first day at MBARI all on the same day. I'm loving the experience so far. The community and the building themselves are so stimulating: the Wednesday seminar was fascinating, and I keep on getting distracted by the posters on the walls. My mentor, Rich Henthorn, has so much to teach me about software engineering, approaching and designing projects, and testing out the ROVs themselves. I'm excited to help him out with the rovers next week. We decided on a project from which to start: improving the image analysis of the Sedimentation Event Sensor. I love that I'll be able to make something that MBARi can use.

Posted by cordelia at Jun 12, 2014.

This is really Lisa Ziccarelli's comment

Danelle, John and I have been discussing possible project ideas. We will be using LISST-HOLO data to explore associations between the zooplankton and the environment.

Posted by mage at Jun 12, 2014.

Like Will T I have been given the pleasure of planning my own research project. Due to various members of the team being busy elsewhere I have until Monday to bring something together. I have been studying the data of the Alarcon Rise and become very excited about various fissures, pillow lavas and sheet flows. (Mostly the fissures, I like faulted and fissured rocks.) The deep water biologists would be delighted with the wildlife around the vents, but it's the geology around this wildlife sits on which has my interest. I have been reading papers to establish what work has been done here and elsewhere on the East Pacific Rise. I have also been looking at the seafloor maps and getting used to the wonders of 1 metre resolution.

Posted by kwillis at Jun 12, 2014.

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Posted by kwillis at Jun 12, 2014.

While slightly hectic, this week has been great. I have thoroughly enjoyed meeting you all and am looking forward to a great summer! What a great bunch of people... the cream of the crop!

It was great to get out to sea on the Carson this week and round up some Sergestids for the MRS deployment. While out at the shallow MRS mooring, we couldn't help but notice the abundance of *Octopus rubescens* and collected a few (some accidentally). They are now in a tank in the seawater lab if anyone is interested in seeing them! They are small, active, and hungry and have prompted me to explore the possibility of an alternate project as opposed to the one I had already planned. However, I think I will likely stick to my original idea of *Dosidicus* interspecific communication and foraging behavior at depth.

Who is excited for the BBQ next week? How about a trip to Big Sur? The possibilities are endless here.

Posted by bburford at Jun 12, 2014.

I had a great first week at MBARI. After having discussed the goals for the internship project with my mentor (essentially clarifying relationships between vent mussel populations in the indo-Pacific and developing molecular markers), I have started some PCRs in the lab to identify which genes might be useful diagnostic tools. I am excited about seeing how it goes on!

Posted by cbreusing at Jun 12, 2014.

My first week at MBARI was amazing! Finally after 4 days I can navigate around the building without looking completely lost. This week, I worked alot with the post-doc in my lab, Amy Zimmerman, learning how to make media and work the flow cytometer. The information I have learned has been extremely overwhelming, but in a very exciting way. After a long meeting today with the two post-docs in my lab I have a better understanding of what I will be doing for my project. Next week I will begin to test which media the picoeukaryotic phytoplankton, Ostereococcus, prefers. After this I will begin to test what the ranges of nutrient depletion of picoeukaryotes are.

I can't wait for the weeks to come. I am loving it here and it has been fun meeting all of you.

Posted by zjensvold at Jun 12, 2014.

My first week at MBARI has been both exciting and eventful. This week was basically an introduction to the lab, learning how to do certain laboratory techniques as well as doing some background reading on my project topic. Today I spent most of the morning with an REU intern who I will be working closely with as well as with two post-docs that will be mentors for my project. My project will focus on nutrient stoichiometry and how it affects the growth conditions of different strains of phytoplankton. We are going to start culturing strains next week and will collect data to determine what the growth curve looks like for the cells. This will be a good starting point for our project.

Posted by amaitland at Jun 12, 2014.

I've had a great first few days at MBARI. With the help of Jules (in Francisco Chavez's lab) and of course Dr. Chavez's guidance, I've been learning about how to calibrate temperature readings from a logger board. I've also made a good deal of progress figuring out the question I will ask. It was a busy week, but definitely productive. I really like the environment at MBARI. Whenever I need a short break, the pacific room is often open, so I can attempt to see whales feeding and/or breaching. It's been about 50/50 so far...good odds!

Posted by jlafian at Jun 12, 2014.

Sorry for the delay in posting! My first week was really interesting. After a lot of background reading and discussions with Dr. Haddock, I've decided to spend the summer comparing the luciferases in five different species of squid. It looks like I'll be doing a lot of work with the many different transcriptomes Dr. Haddock has access to. I'll also potentially get to do in-lab experiments if we manage to catch some of the species I'm looking at. On Thursday, we went out on the Rachel Carson and collected quite a few different ctenophores and siphonophores. All in all it was an exciting first week!

Posted by thersh at Jun 15, 2014.

A good first week - lots of meeting new folks, getting settled into my workspace/computer setup.

Immediate goals for this week (and next) are to get the test tank prototype profiling float up and running. To do so I need(ed) to make a couple of hardware modifications, some of which I knocked out Wednesday/Thursday. Have some stainless Swagelock to bend/modify, and then a PCB to remount. Should be able to close up the float (hopefully) at that point.

Have to learn C#, which is on the list of things to tackle this coming week, along with the above mentioned hardware mods. I should also be getting to the more exciting modeling/dynamics/differential-equations stuffs that is in my opinion, the exciting part!

Looking forward to next week!

Posted by lbarker at Jun 15, 2014.

13-June-2013

This page last changed on Jun 01, 2014 by kgomes.

14-July-2011

This page last changed on Jun 01, 2014 by kgomes.

This has been a week of good progress asI finished and tested a prototype version of my key for deep cydippid ctenophores. Over the past few days I have expanded upon this base by adding images in both the stomadael and tentacular place, to provide a visual method to verify the classification.

I have also merged my key with a table of characters that Steve created for the described species. My aim for the rest of the time here is to gather the same level of morphological detail for the described species so that they can be fully integrated into the key. Hopefully I will have time to perform a similar process for the undescribed deep lobate ctenophores also, rounding out the key and bringing it closer to completion.

14-June-2012

This page last changed on Jun 01, 2014 by kgomes.

I am testing this

15-July-2010

This page last changed on Jun 01, 2014 by kgomes.

16-June-2011

This page last changed on Jun 01, 2014 by kgomes.

Please leave your notes here (what did you do this week and what will you do next week)?

17-July-2014

This page last changed on Jul 16, 2014 by cordelia.

I was glad to not have gotten seasick on the Rachel Carson this Monday -- staring at the horizon really does help. The highlight of the day was seeing both Pacific whitesided dolphins and right whale dolphins swimming in front of the boat!

Back on shore, I'm excited that my code generates data. It'll be exciting to run lots of data through it to see longterm trends in ocean activity.

Comments

Monday saw my PC sulking on me, alternating between crashing ArcGIS and Excel.* Then tuesday the driver for the mouse just decided to randomly cut in and out. Despite all this I have finishing compiling my primary data set. As ever there is always the desire to collect more data, but I can work with what I have and if time permits I can collect more.

So my time is now spent sifting through that data and checking out erroneous measurements and seeing if there is a reason for any data outliers. After that I can move onto analysis, and the bit where I apply my brain to work out WHY things are behaving the way they are (that's the engineer in me coming out). The more I think about, the more fascinated I am by the high resolution of this data. Previous papers on tectonic extension have had to use proxies and take well-educated guesses into the amount of tectonic extension over spreading ridges. This data set is as good as looking at large scale land based fault systems. Wonderful stuff!

I know Ben is doing well from the graph he excitedly waved at me yesterday. Which looked good. I also know a lot more about Laughlin's project than anyone else's work. Fascinating stuff and well explained. (Though I think the hamster powering the pump might be limiting!)

Then yesterday I received the news that a berth had become available for me on the rv Western Flyer for the Clague cruise in late August to beginning of September. I would love to go, it would be a truly wonderful opportunity to see how the data is collected. BUT, the visa and immigration issues. I'm currently being shunted from the US to the UK sponsor rep to discuss if it's possible to process the extension in time. So either a late night for me, or an early morning tomorrow, in order to catch the UK during business hours. If this doesn't work out there is a chance (if someone drops out) that I can attend the April 2015 cruise which is going over the area I am currently studying. Big push to the universe that things work out.

Still working my way through the Pink Floyd albums, but they are now interspersed with Philip Glass, Steve Reich, Mozart, JJ Cale, and assorted blues artists. Aikido continues to be wonderful, but I have no skin left on my elbows today and had to wash the blood out my gi last night.

*Latest update. Zorba has weaved some for of computer magic and so far my computer is behaving.

- ◦ Latest latest update. My PC has entirely crashed and Zorba is pulling his hair out over it. I might not be in the best of moods later. And Arc doesn't really like working on the mac, so my day is grinding to a halt.
- You guessed it... another update. My PC is now in the PC hospital and I am working on a tiny screened macbook. I can't even read what I'm typing!

Posted by kwillis at Jul 17, 2014.

We just completed direct comparison of zooplankton characterization from microscopy on Gulper samples with that from LISST-HOLO. For the two AUV surveys (2013.226.01 and 2013.226.03), the results are consistent: HOLO was not seeing the zooplankton community. This disparity is likely due, at least in part, to the plumbing system.

Also, I completed my 100th dive today!

Posted by lziccarelli at Jul 17, 2014.

Data collection and entry might be mostly finished, but I still have to fill in the gaps. Even just the slightest change to my methods along the way now requires a complete overhaul through the plethora of videos I examined. I am just a lowly excel slave at the moment, but I will be a slave to VARS soon (an

upgrade, no?) The whales are very distracting, but not as distracting as good surf, so I am thankful for the flatness (not really, but sort of).

Posted by bburford at Jul 17, 2014.

I have a working C++ code for tracking jellies. I also made a stripped down version to attempt to run on the target. Unfortunately I have not been able to successfully install opencv on the embedded system. There seems to be an unstable answer...but it's not stable yet. I may have to switch to a different program to get computer vision code running on the target.

Posted by jsteck at Jul 17, 2014.

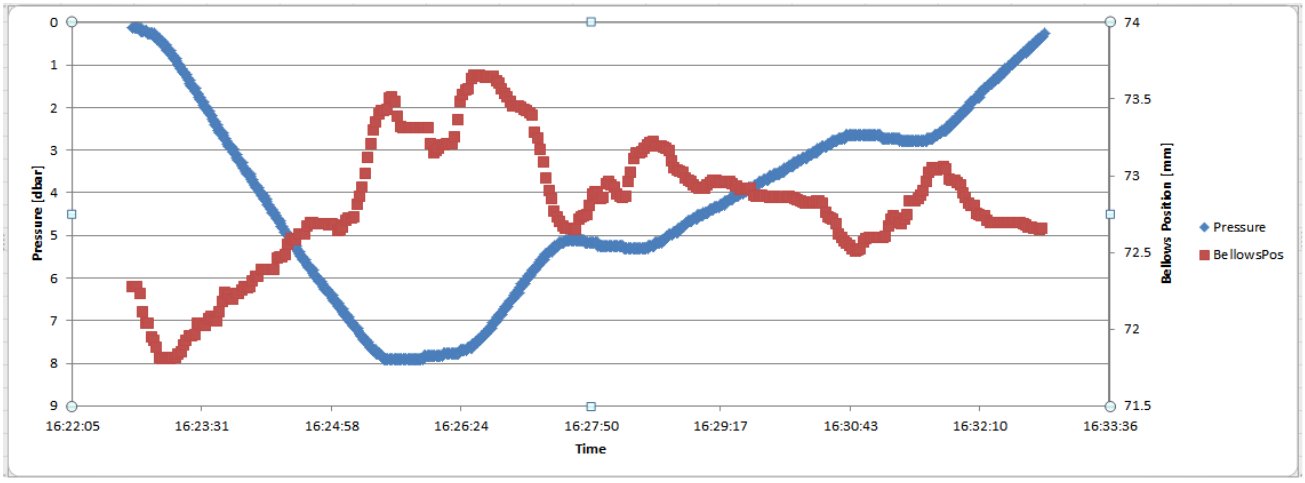
What do they say..."Graphs say a thousand words?..." sure, why not...

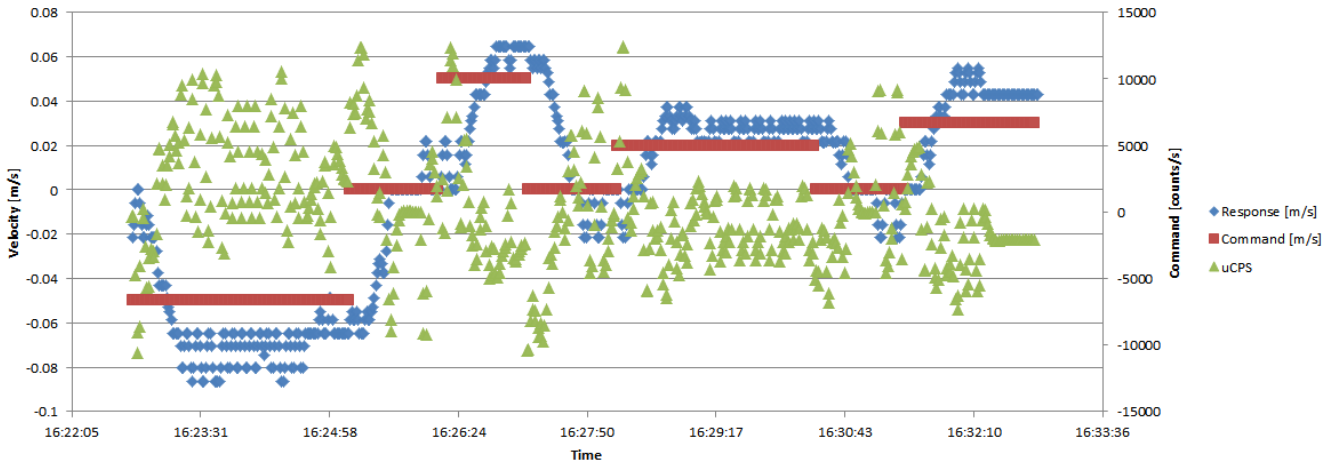
Got rough speed and depth control of the prototype float working on an existing control algorithm (after eating Corinna's delicious cake).

On the first graph, the Blue line shows depth of the float in the tank. Notice the smooth descent velocity, dP/dt, and rough ability to hold position (the flat areas at 8, 5, and 3m). Red line is bellows position, and is more diagnostic information than anything. It tells me: "there is air trapped in your system, and I'm going to behave non-linearly as a result."

Second graph is more diagnostic information. Red color shows the commanded speed, with blue showing actual platform speed (if you integrated those blue dots, you'd get a profile approximately like that of the blue line in graph 1). Green shows pump speed, and as you can see the pump is constantly running and making corrections (wasting valuable energy for something that's supposed to last months in the ocean!).

After modifying and further tuning the control algorithm, I will drop in some logic that will sleep the system for long periods of time, and only make a correction if some criteria (e.g.if error_position>5 m, or error_velocity>0.05 m/s) is met. Then I will test, plot, modify, repeat!





Posted by lbarker at Jul 17, 2014.

Data crunching has been coming along nicely. The amount of data I've working with frequently causes Microsoft Excel to crash, so I've learned to save very often. I am currently in the process of working out with my mentor(s) what to do with all this data, and hopefully something coherent will come of it.

Happy end of week 6 everybody!

Posted by wtruong at Jul 17, 2014.

I have moved to the imaging lab to begin collecting information on the assemblage of traces at Stn M (diversity, density, etc.). It will be a busy few days of solid image annotation: 115 photos down, ~1300 to go! I am hoping to have it all done by the end of next week.

Posted by jdurden at Jul 17, 2014.

I have spent the majority of this week working with Frank in the machine shop. My design for the frame of the suspension system for the MBA exhibit is done and I am now getting to fabricate the design myself. I have been using the mill to slot and drill different components and using the band saw to create parts with a combination of different angled cuts, and working with various other machines as well. It has been really satisfying to be a part of the engineering process from end-to-end and actually see my design become a physical product!

Posted by nreed at Jul 17, 2014.

I have spent most of the week digging in the freezers to find missing samples (the database entry '??' to indicate freezer number and location was quite helpful) and extracting DNA from those (I have come to the conclusion that I don't like adductor muscles). Fortunately, however, most of the isolations worked in the end. After making the final decision about which genes we want to include in the analysis, I will be busy in the lab sequencing all remaining individuals. I hope that I can finish everything until the end of the internship.

Posted by cbreusing at Jul 17, 2014.

Jon, check out the opencv install tutorial at http://elinux.org/Jetson_TK1, this may help get you through the maze.

Posted by tm at Jul 18, 2014.

This week has seemed to be quite slow on progress but at the same time some real questions have come to light and the report may contain more than originally thought. Last week I wanted to be finishing up more core logging but that is going to be a 'copy and paste' to this weeks update. I have only managed to log two this week - 10 to go (easily manageable by the end of next week if nothing else crops up, even with a short week). The reason for the slow progress is the arrival of my grain size data that I spent the week before collecting in Santa Cruz. When plotted it shows some pretty interesting (to me and maybe Katy W anyway - the non-bio people) results in that grain sizes from 70 MAB within the canyon are not found at the same height on the sides of the canyon in shallower waters but are in deeper waters. taking a simplistic view, this is the wrong way round. Same long discussion with various people and I feel I am at a place to start answering some of the questions this creates (I won't bore everyone with the details but if you're interested i'm happy to talk about it!). What has been really helpful is getting raw data from someone at the USGS from a paper he wrote this year that I am directly comparing to.

Thursday was a long day. I headed up to Menlo park, next to Stanford, to another USGS facility. Early on in the internship my mentors were on a cruise around the San Diego area where a bunch of cores were collected. Yesterday was the day they split them so asked if I could go for another pair of hands. So typically, cores are collected in plastic tubes and then to split them, they are rested on a rack and two small circular saws are run up either side and then thin wire run down the middle of the core so you end up with two halves. Cores from MBARI however are different in that metal core tubes are used. This means that a handheld electric shear needs to be run up one side and then the other, effectively doubling the amount of time you take to process a single core. It also means that two people are needed for the cutting process, one to cut and one to hold. Once cut, they are cleaned up by removing the top layer of sediment and then sent for photographing. I think there were maybe 50-60 cores to complete and it was a nice 13 hour day! If nothing else, it helps explain why some features in the cores I am studying cannot

be explained geologically and can be by seeing the force that the shears and whoever operating them applies up and down each side!

So I hope to be at a stage next week where my grain size data has been interpreted and all cores are logged so from then on the report can be filled in!

Posted by wsymons at Jul 18, 2014.

This week I've been doing the following:
-Run PCR
-Put products on gel
-Image gel
-Cut promising bands from gel
-Sequence promising bands

Results so far: sequencing for Pterygioteuthis looks good, sequencing for Vampy looks okay, sequencing for Dosidicus will be done in 10 min!

Posted by thersh at Jul 18, 2014.

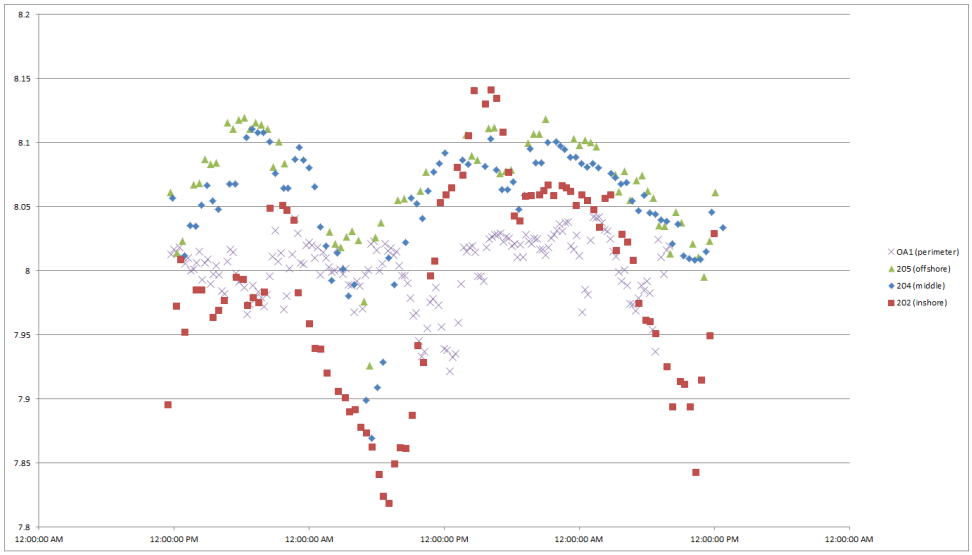
This week has been crazy busy. So after talking with my mentor, I decided to challenge myself and add more to the project. For the past 3 weeks or so I've been working with the Micromonas strain RCC299, but my mentor and I agreed that it would be good to do the same experimentation with another strain of micromonas which is CCMP1545, and compare the results. So, I've spent the past couple days transferring and trying to revive those cultures since they've been sitting in the incubator for a while, while continuing to do the experiments with RCC299. We also decided to add intracellular allocation to my project.

Posted by amaitland at Jul 18, 2014.

This week was insanely busy! I have been having to take care of 40 cultures every day, which has been a huge time suck. Hopefully next week I will be able to start writing as I should have enough time. crossing my fingers.

Posted by zjensvold at Jul 18, 2014.

This week I went out with Kerry Nickols of Hopkins Marine Station fame to collect water samples at my 9 pH sensor locations offshore of Hopkins. I collected DIC, chl, nutrient, and salt samples. Margueritte taught me how to run chl samples in the lab, but the others are apparently too complex for my intern brain to handle. I've also been emailing people about how to get data from the remote sensors that they run (PAR and ADCP). I've started processing data from my drifter sensors (which send a voltage via cell phone every half hour that I then convert to a real pH value using mathematics) and MBARIs OA1 mooring, which will act as my perimeter sensor. The graph below shows 2 days of data from the 4 sensors I have data from (7/14 - 7/16; y axis = ph, x axis = thyme)



Posted by jlafian at Jul 19, 2014.

This week I continued analyzing squid videos and also started dissecting preserved squid. I'm finding some differences between small individuals and large ones (the larger ones develop a yellow pigment in their lens and have a different posture) and I'm trying to determine whether the large squid are older/ mature individuals or whether there is possibly a sexual dimorphism.

Posted by kthomas at Jul 19, 2014.

This week I continued to work on the LRAUV simulation. I re-wrote code to calculate elevator and rudder lift and drag terms in higher detail and continued to tweak and fit the model to provide a somewhat realistic representation of the vehicle's behavior. Unfortunately, I'll probably have to put a little more work in to the model next week. Once I'm done fitting the model I'll derive residuals (between modeled vehicle behavior to observed) and proceed in building the second piece of my classifier. Hoping to start my write up towards the end of next week.

Posted by byraanan at Jul 19, 2014.

This week I continue analyzing fish larvae abundance data regarding latitude and distacia the coast.
I made graphics for fish larvae vs adult from 1950-2002 and finally I worked interpreted the double integration equation.

Posted by vanessa at Jul 20, 2014.

17-June-2010

This page last changed on Jun 01, 2014 by kgomes.

To add your update, add a comment. Things to put in your update: What you did this week, what you think you are going to do next week, what is going well or isn't going well and, for this first update, what you would like to get from your 10 weeks here at MBARI.

24-June-2010

This page last changed on Jun 01, 2014 by kgomes.

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01-July-2010

This page last changed on Jun 01, 2014 by kgomes.

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18-July-2013

This page last changed on Jun 01, 2014 by kgomes.

19-July-2012

This page last changed on Jun 01, 2014 by kgomes.

19-June-2014

This page last changed on Jun 16, 2014 by cordelia.

Comments

A productive start and middle to the week. I have been carrying on with my core logging - 8 have now been logged, only 27 to go! I gathered some push core samples as well based on various needs for the project to take up to the USGS at Santa Cruz next week. I'll be there from Tuesday to Thursday getting training on the grain size analysis machine. I'll be heading back up there later on it the project to run my full set of samples based on the work I am doing now. Both of my mentors are now on a cruise for the rest of the week and the following week so i'm glad I have enough to be getting on with!

Looking forward to getting out again this weekend and watching the US follow the English football team and win their second match (wishful thinking for the English I think!).

Posted by wsymons at Jun 19, 2014.

It's been a good week so far. Our lab met together to figure out the final details of our projects. I'm going to be studying the behavior of Histioteuthis, a midwater squid with a crazy eye dimorphism. It has one huge eye that could be optimal for staring up toward the surface where downwelling light is coming from and looking for silhouettes of animals above, and it has a smaller eye that could be for detecting point-source bioluminescence off to the sides and below it. It's thought to position itself in the water column with the eyes facing these directions, but no one has ever looked at their behavior on the ROV footage to see what they are doing with their eyes. I will be looking at their behavior in the video database, as well as collecting eye samples to take back to Duke with me so I can look at the spectral sensitivity and optics of each of their eyes. This week I've started looking through all the Histioteuthis annotations in VARS and started learning how to use the video lab and and VARS.

Posted by kthomas at Jun 19, 2014.

This week I have been getting into the preliminary project work. I am working on a guide for lebensspuren (life traces, such as footprints) at Station M, using photos from the time-lapse cameras and the rover. I hope to add images from the ROV, too. From looking through the images I will get an idea of which lebensspuren are more visible in images captured with which techniques. I am going to use the guide to assess the lebensspuren at Station M (diversity, densities and seabed coverage) to get an idea of the activity of the benthic animals down there. Many animals are deposit feeders, so studying their traces may give us an idea of what they are eating and when.

Posted by jdurden at Jun 19, 2014.

This week I have continued work on the MBA exhibit. I have designed more structural components for the suspension system, as well as modeled other components such as the motor. I also learned the procedure for submitting projects to the machine shop and have placed orders for the first set of structural components to be built. After submitting the project online, I took my component drawings down the the machine shop and discussed the design with the machinists.

I also was a part of the biggest Costco purchase I have ever seen shopping for the BBQ on Monday, and had a lot of fun grilling burgers and sausages out in the sunshine on Wednesday. I heard a lot of people saying they liked our BBQ also so I think we all did well! Congrats everybody!

Posted by nreed at Jun 19, 2014.

Haven't had much time at my desk this week, but, when I do, I am watching holo videos and reviewing larval development. At this point, we are just trying to get an idea of the community structure and determine the best way to view the images.

Posted by lziccarelli at Jun 19, 2014.

It's been a busy week on the social front at MBARI. Despite that our team managed to squeeze in a conference call with a collegue in Mexico to finalise the details of my project on the faults along Alarcon

Rise. We discussed some common ideas, data limitations and work to progress. In theory I could study the entire ridge but time constraints mean I am splitting it into sections, pulling data from each section in turn, and if I complete one section I'll progress to the next.

So my week has involved a lot of staring at computers, which I have enjoyed.

Out of MBARI hours I've now arranged a lift for downtown after work, so I'm a happy bunny because I'm traning in Aikido once more.

Posted by kwillis at Jun 19, 2014.

This week has gone by so fast! I was able to sit down with the post-doc that I am working with in my lab and plan out a detailed schedule of my project. My project that I began with soon turned out much more complicated and time consuming than I had realized. Before I begin the actual experiment, testing the phosphorus depletion levels of the phytoplankton Ostreococcus, I will have to figure out which media they prefer (what I am currently doing) and what the optimal cell density is of each culture. After the meeting and planning out everything that needs to be done I feel alot better about what I have to complete in 10 weeks. And now two weeks in to the ten week summer I feel comfortable working with everything in the lab.

The BBQ was amazing and was a great great break from lab work.

Posted by zjensvold at Jun 19, 2014.

My project is finally starting to take shape! This week, I did research on a squid photoprotein known as Symplectin. I BLASTed the Symplectin sequence against the transcriptomes for 5 different squid species and one nudibranch species. The transcriptome for Dosidicus gigas returned a very promising result (suggesting a Symplectin homolog in the species). I'm going to rerun the majority of the other alignments because our transcriptomes are going to be updated over the weekend. For now, I'm moving forward with the Dosidicus hit and will attempt to design primers tomorrow.

Both my research mentor and post-doc are headed to Sweden for a Bioluminescence conference, so I'll be lonely next week and everyone should come visit me!

Posted by thersh at Jun 19, 2014.

A very busy week this has been with all the conferences and BBQs, but alas our work is always waiting for us.

As Katie T. mentioned, our lab has at last begun finalizing our projects, ironing out all the ideas and what not. I'm hoping to conduct a community analysis of the common and/or uncommon fauna found in Monterey's mid-water (~200-1000 meters down). MBARI's data compilation is so massive I struggle to keep my head on straight.

In other news, coming from Hawaii (-3 hour time difference) and being a naturally borne night-owl, I often find myself habitually staying up late (I also blame my friends back home). The coffee here has been a lifesaver, but I am resolving to sleep early from now on (on weekdays at least), especially now that my project has kick-started.

Posted by wtruong at Jun 19, 2014.

Pneumonia aside It's been a good week. I got all the cool matlab toolboxes I wanted but somehow my computer doesn't have enough memory to run any of the cool included functions. So I think I'm doing it all myself. I spent this week trying to tackle the first problem -- a very uneven background. My first solution took a test frame every *n* frames and subtracted it from the frames *n...2n*. This basically assumes the test frame is a good match for the background (i.e. no jellies). Unfortunately there are jellies in some of the test frames. My next solution builds on the first. It still takes a test frame every *n* frames but for the next *m* frames it averages the subsequent frames to to get a better measure for the background and uses that average to subtract from the frames (flattening the background). This reduces the negative effects of chosing a test frame with jellies in it. I am now performing grid searches to find the best values for *n* and *m*. The error function I am using is very simple. It averages the intensity of each frame and the higher the average the higher the error. This error function assumes there are no jellies in the frames so I am using a specific segment of video with no jellies to try to find the optimum

n and *m*. In the future I hope to optimize *n* and *m* and then use blob analysis to actually pick out the jellies in the foreground. I anticipate problems optimizing because my error function only attempts to flatten the background and not find jellies (ostensibly the best noise reduction would be $n = 1$ and $m = n$ but that would reduce my frames to nothing).

Posted by jsteck at Jun 19, 2014.

A suggested topic for discussion for Monday's meeting - how to delete edited confluence comments

Posted by byraanan at Jun 19, 2014.

Overall had a pretty productive week. The week's highlight was a presentation I gave during a meeting with the LRAUV group and collaborators for Oregon State University. I presented my recent progress in locating LRAUV malfunctions in historical data (~6000 hours) and talked about the mathematical theory behind the machine learning binary classification method I hope to apply for real-time fault detection. Surprisingly, it actually went ok and we were able to agree on a general plan of action. It was truly great to meet new collaborators which I'll be in touch with on a weekly basis from now to the end of the summer (and hopefully after that). This week I finished writing code for consolidating all the data I'll be using for my analysis - now that I have it I'm really looking forward to see what I can do with it!

Posted by byraanan at Jun 19, 2014.

This week was hectic to say the least. In the beginning of the week I was fine tuning my project, and yesterday I worked on designing the ENTIRE experimental procedure for the summer, and worked on planning out the rest of my time here at MBARI. Right now my work time is booked with sampling, growing cultures, determining growth rates, making artificial sea water and media, inoculating cells with media, and the list just goes on and on. My project this summer will primarily focus on what the range of nutrient stoichiometry of carbon, nitrogen, and phosphorus (C:N: P ratio) for two strains of *Micromonas* (PCC 299 and CCMP 1545). This will hopefully provide much needed empirical data that is currently lacking in the field.

This project is challenging, but I'm looking forward to learning new molecular techniques, as well as enhancing old ones. I'm also excited to do my own little project for once, and to be apart of the full process, including experimental design, data analysis, trouble shooting, and all the technical work in between.

Posted by amaitland at Jun 19, 2014.

Still busy hunting genes for population genetic analyses in my deep sea mussels. I have managed to run the first sequencing reactions and expect some preliminary results within the next week.

Posted by cbreusing at Jun 19, 2014.

I want to take this opportunity to thank everyone once again for their help with the BBQ! I apologize if I may have been cranky on the day of, but I am so glad that it went so well! That, coupled with the many other activities this week, has made my project productivity level dip, but, as of today, it has significantly rebounded.

I have ironed out the last details that have thus far prevented me from collecting data! Let the fun commence! While there are many caveats to using ROV footage to document behavior, I have a feeling that the results will be interesting nonetheless. Figuring out a way to quantify the interactions that I will be witnessing is my main challenge at the moment. I will tackle this challenge by moving back into the video lab for the summer!

Posted by bburford at Jun 19, 2014.

Another good week, and I'm only 18 hours late in posting this as, opposed to several days like last time. One of my dominant thoughts for the week has been, "With all these things going on, how does anybody get any work done!?" It's an interesting balance for myself as I recognize I should jump on the unique opportunities that aren't [strictly] internship-project-related (e.g. chatting it up with Board members),

and the place I hold as a results driven engineer. I knocked out a handful of small electrical/mechanical things earlier in the week that will allow me to get the float in the tank, nothing worth writing home about, but I did learn how to make nice bends on SS pipe for Swagelock systems. The highlight of the week was the meeting Gene and I had with Steve Rock yesterday, talking about model and system dynamics. We touched on overall approach, possible sources of marginal-stability we're observing in the model, and a host of other things.

I feel I've got a clear trajectory for the short and medium term, and some ideas about what I want the final product to be (which will also depend on some of the results that I generate in the short term, regarding the suitability of one or more control algorithms.

Time to get cracking!

Posted by lbarker at Jun 20, 2014.

I have finished calibrating the pH sensors for my project (after many hours on Excel) and submitted an informal "proposal" to those at Hopkins that are overseeing my project (it is happening on their shore). Those two hurdles have been jumped and are good markers of my progress. Wednesday's BBQ was a blast! Thanks to all who made it so delicious, especially Ben B. for leadership on both menu planning and event coordination. I learned that my lab will be hosting a BBQ a few weeks from now...at about 8 members (as opposed to about 20, George included) we'll see how that goes...it may get hectic but at least I have a precedent to follow. The lab meeting on Wednesday was great, because I finally met everyone working for my mentor (Dr. Chavez) and got to give an informal presentation on my project (practice helps!) and ask some questions about others' work. Finally, looking forward to the weekend, especially Sunday as it will be my only day to relax - hiking, "football", and world-cup-watching are all on the agenda.

Posted by jlafian at Jun 20, 2014.

20-June-2013

This page last changed on Jun 01, 2014 by kgomes.

21-July-2011

This page last changed on Jun 01, 2014 by kgomes.

21-June-2012

This page last changed on Jun 01, 2014 by kgomes.

How was your week?

22-July-2010

This page last changed on Jun 01, 2014 by kgomes.

23-June-2011

This page last changed on Jun 01, 2014 by kgomes.

24-July-2014

This page last changed on Jul 18, 2014 by mage.

scroll down and click on the add comment button to post your update

Comments

Still sorting data. The initial tidied results show good trends. Depending on time I'll do the transform faults. Though having processed the raw data it seems a shame not to use it.

Posted by kwillis at Jul 24, 2014.

This was an up and down week. Early in the week I recreated the output of my matlab code running in real time using opencv on my embedded system. I then tried to copy my other video files over to the target for testing. It didn't work. It also broke the graphical interface to the embedded system. I then spent the rest of my week trying to fix it. When that didn't work I refashed the firmware on the target, reloaded opencv and dependencies, and got back to where I was a couple of days ago.

Posted by jsteck at Jul 24, 2014.

I enjoyed Ben's tour of the Moss Landing Marine Laboratories on Monday. On the coding front, BENTHIA generates the two data values accurately, which is rewarding. I'm comparing my data to that of Paul McGill, who did similar image analysis on pulses 59 through 61. Excited to tour NASA's Ames Research Center on Friday!

Posted by cordelia at Jul 24, 2014.

This week, John and I have been working with the SIMZ data from last fall. We are delving into the molecular results provided by Julio and the physical parameters collected by the AUV. We have also been working with Hans to alter the plumbing for the HOLO with hope that these changes will provide us with images that are more representative of the zooplankton community. To test these changes, am I joining the Carson cruise up in Bodega Bay next week. When we return, I will count the whole water samples to compare with images collected by HOLO.

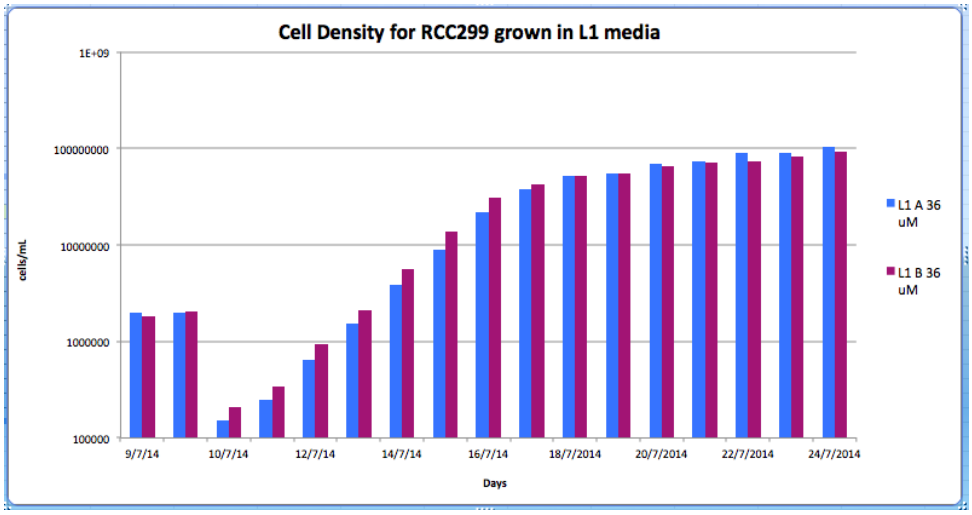
Posted by lziccarelli at Jul 24, 2014.

Long week but promising results. I was having trouble getting the 3' and 5' extreme ends of my sequence, so we decided to go ahead and clone (as opposed to continued primer design). I'm looking at my cloning sequencing results now and they look very promising! I won't have time to completely analyze everything today, but hopefully I have sequence that covers the ends. If that's the case, I can work on expressing my isolated protein in E. coli and get some glowing bacteria. Which would be dope.

Posted by thersh at Jul 24, 2014.

This week was slightly discouraging. I was planning on making 12 L of ASW and then 12 L of media on Monday... but we actually ran out of magnesium sulfate hepta-hydrate, so I had to delay my media making 2 days while I was waiting for the shipment to come in. Then, I had another disappointment. No matter what I did, I could not get CCMP1545 to grow. AT ALL. Each day it declined about a couple million cells/mL. CCMP1545 is known to be relatively healthy in natural sea water, but for my experiment, I want to use artificial sea water (ASW), and CCMP1545 is not tolerating it at all. I am SO frustrated because I wanted to use both RCC299 and CCMP1545 for my project and compare the results between the two strains since they're both micromonas.... but with VERY different genomes. So it would be interesting to compare the nutrient uptake results. But I can't use natural sea water for my experiment because I'm using ASW for RCC299... and it's best to stay consistent. So, after trying for the past couple weeks, I think I'm going to have to retire CCMP1545 and just focus on RCC299... but I'm not happy about it... so I'm going to keep trying to revive CCMP1545 in time for my major experiment... but the odds are against me. Attached is a logarithmic scale of one of my growth curves  This is the control (replete) culture that I've been using for my preliminary experiment. It's been growing-out since July 10th and it's STILL

growing. Today they reached 95 million cells/mL. P.S. it looks like it reached stationary phase on the logarithmic scale... but it hasn't yet.... not completely anyways.



Posted by amaitland at Jul 24, 2014.

My experiment is going great, the cultures are growing really well and my graphs look beautiful. On tuesday I am going to inoculate the main experiment and let it grow out. I am going to be taking samples at the lag, mid exponential,and stationary phases for cellular quotas of phosphorus, carbon and nitrogen, and dissolved nutrients which will eventually be shipped off to hawaii. Next week is going to be insanely busy but I am excited to finally start the main experiment.

Posted by zjensvold at Jul 24, 2014.

1004 PCRs and 2540 sequencing reactions left! Hopefully doable within the next week (at least partly). Aside from this I am editing and quality checking my data at the moment.

Posted by cbreusing at Jul 24, 2014.

Everything is starting to wrap up now. Trying to figure out how to organize all my data, or rather, which method would be most representative. Standardization? Transformation? All of this is made a little more complicated since none of the species I am looking are from separate phyla and inhabit different parts of the water column. I will be looking more into this statistical hoo-haw next week.

Posted by wtruong at Jul 25, 2014.

Been wrapping the control alg. into a state machine within the profiling float code. Just need to fix a bug that arises when the float is in ascent. From there will run through tests and collect data that will go in report and presentation.

Posted by lbarker at Jul 25, 2014.

Finishing up with videos, trying to get some diet information out of my dissected squid, and organizing my data. Also getting ready for the cruise in a week because I hope to get some nice fresh squid specimens.

Posted by kthomas at Jul 25, 2014.

This week I worked with the CalCOFI database, sorting data from 1951 to 2011. Made correlations between data corresponding larval Vs catching for USA for three species S. sagax, E. mordax and P. californicus. Also I worked ??in graphs sardine and anchovy catches corresponding to California, Japan and Humbolt from 1920-2013.

Posted by vanessa at Jul 26, 2014.

My week was fun! I went out on Weds and Thurs mornings to collect water samples from Hopkins. Next week, I'll be getting my final round on Monday. Other than that, I've been working on my powerpoint presentation. I had to build, calibrate, and deploy a new pH sensor also, because we were not getting data from one of the drifters.

Posted by jlafian at Jul 27, 2014.

Had a good week. LRAUV model I've been working on for the past couple of weeks is finally tuned and running. Malfunction classifier based on empirical data is complete. Next week I'll be producing figures and working on my presentation and paper. Two months flew by - wow.

Posted by byraanan at Jul 27, 2014.

Everything is moving along quite nicely. The main frame to suspend the model ROV from the ceiling has been welded together and is now a finished product. I have moved on to designing the components of the main drive shaft to allow the model ROV to rotate in the exhibit. I have been doing more 3D modeling, and computer aided as well as "old fashioned" by hand stress and deflection calculations for my component designs.

Posted by nreed at Jul 28, 2014.

Sorry for the delay in posting! Got too distracted by the whales yesterday to remember to post!

So, finally I have finished logging (fanfare noises, cheering, etc etc...) and now have to spend time digitising them ready for the report. Luckily, for the grain sizing I ran every other core so need only to digitise those. I'm spending at least the first part of this week generating images for the report and presentation as from experience, those take an absolute age. I'll draft up a plan for the report this week and also spend time going through data so I have a clear idea about discussions and further work I will try to complete once back in Southampton and for when I'm back out in October/November.

There are more cores that i could log however... They are not part of my collection but I looked through the database and found an old transect further up the canyon. Luckily they are stored here at MBARI and I think would be nice to complete the study. That said, we are running short of time so may be something for future work. I also tried to get more time up in Santa Cruz but they were pretty booked up so that will have to wait.

Posted by wsymons at Jul 29, 2014.

25-July-2013

This page last changed on Jun 01, 2014 by kgomes.

26-July-2012

This page last changed on Jun 01, 2014 by kgomes.

I've spent most of this week out of the office. Since the aluminum plate arrived from Lusk on Tuesday, I've spent most of my time in the machine shop, laying out hole locations, drilling holes, and deburring edges. The 12 fill in plates are done, and now I'm working on the submerged plate itself. That is proving to be much tougher than I originally anticipated. I'm planning on spending the rest of today using a portable electromagnetic drill press to get through the A36 steel that a standard hand drill just can't handle. If all goes according to plan, the plate will be ready for testing in the test tank by the end of next week. Remaining tasks to complete before testing include: creating a new bridal for the plate (since our last one snapped), moving all the testing equipment (HPU, accumulator, manifold, valve, and hydraulic ram) to the test tank room, making a new mounting bracket for the string pot so we can measure the linear position of the hydraulic ram, and creating some bumpers for the corners of the submerged plate to protect the inner wall of the test tank.

26-June-2014

This page last changed on Jun 25, 2014 by cordelia.

Last week's update, which I somehow deleted:

At work on Monday, I realized I wasn't getting lost in the building as frequently, and that I'd identified some favorite tea selections: sure signs of feeling more at home here! I'm excited to get going this week. My mentor and I refined my personal project (standardizing image analysis algorithms for the Sedimentation Event Sensor), and I learned some C over the weekend, so I can't wait to start coding. I'm looking forward to helping Rich work on the rovers later, which have to be ready for their deployment next week!

This week's update:

Yesterday, Jen, Jon, Ben, and I accompanied the benthic rover team on the Rachel Carson. I had only ever been seasick once before; I lasted four hours until I had to lie down and sleep through the rest of the trip. I did get to see a some whales and Risso's dolphins (Jon was jumping up and down with excitement). Fortunately, I lasted just long enough to see the rover sink underneath the surface, followed by the ROV. All in all, a very exciting day and every bit worth the queasiness that accompanied it.

Comments

My return to the sea on wednesday(albeit on a tiny tiny boat) was a welcome break. (I now think it was blue whales we saw, not fin whales.) I had run into a quagmire of data processing on tuesday and needed the time out to consolidate my thoughts. Liaising with other team members and building on their thoughts I now have worked out a system that is both:
a) systematic and.
b) liable to minimise any inherrent errors.
So today I was so happily lost in the data the next thing I knew it was half ten and I hadn't even finished my cup of tea.

I now walk around the building in my socks, switch commons for lunch every day to confuse anyone who is following me, worked out which are the best biscuits in the vending machine, and discovered that ten minutes on a bike has made my botty so sore that I'd rather have a black belt in jiu jitsu beat me up again than sit on the bike for the next week. Regarding the last point, it meant I wussed out of the Bike to Work Day.

Posted by kwillis at Jun 26, 2014.

I finally have gotten somewhere with my jelly tracking software. After optimizing my background flattener my thresholding function is working well. I added bounding boxes and completely cut out the computer vision toolbox from my code. I also employed a "border filter" that really cut out the noise and false positives allowing me to lower my threshold and identify more jellies. I plan on making some kind of predictive algorithm to allow the computer to identify the same jellyfish from frame to frame. I may also be able to optimize my code further once I have finalized the general philosophy of the code. In the distant future, I also plan on maybe making a new "edge detect" function which would allow me to tackle the problem in two parallel ways.

As Dilly mentioned I went out on the Rachel Carson and it was awesome.

Posted by jsteck at Jun 26, 2014.

I am going to be a good example this week and actually get this posted on time! This week has been hectic like always. I have determined my questions, how I will answer them, what data I will be looking at, collected my sources, started my paper, and I am about to finish setting up how I will organize and analyze my data. I anticipate spending a lot of time in the video lab next week as my data collection commences.

We are also in the process of planning an epic future weekend in July... more to come on that. Sounds like there are great plans for July 4th floating around as well. The interns are taking the ball and running (or dribbling [go USA]) with it! Trying not to think about how these weeks are flying by. Have to enjoy the MBARI experience it while it lasts!

Posted by bburford at Jun 26, 2014.

This week I figured out exactly how I'm going to analyze ROV footage of the squid I'm looking at and what parameters I'm going to measure. I've started watching the hundreds of videos of the squid and that's pretty much where I'll be for the rest of the summer.

I am super jealous that y'all saw blue whales!

Posted by kthomas at Jun 26, 2014.

This week I got a lot done. I have made the media that I will be inoculating on monday, which will be the beginning to the first part of my main experiment. Everything is going very well, and the Rachel Carson trip on wednesday was a blast. We had perfect weather and saw too many whales to count!

Posted by zjensvold at Jun 26, 2014.

Crossed some big ones off the list this week. No doubt my most notable achievement was barfing in the Rachel Carson's head! After years at sea I finally got schooled - guess it was bound to happen at some point. Also, got to go out on the Paragon and deploy a Wave-Glider (super cool and highly recommended)! Made some real progress with my project this week as well. I've been looking at lots of LRAUV data and so far have managed to find a couple of good predictors to plug into my failure classification model.

Looking forward to tomorrow's dive!

Posted by byraanan at Jun 26, 2014.

I went on a boat this week! (The rachel carson). It was CRAZY seeing the ROV launch. I didn't realize how huge it is (about the size of a medium-sized bathroom.) Marvelous. I also finished calibrating my pH sensors and drafting up an abstract for my project. Today I'm at CSUMB learning some GIS skills. Ideally I will be able to use GIS for my paper...so long

Posted by jlafian at Jun 27, 2014.

A ver... Things I accomplished this week: Troubleshooted (w/Gene) the Test Tank Prototype (TTP) and it's sensors. Got everything tested and communicating via VisualStudio. Encountered some odd behavior from a position sensor that sits on an SPI bus, but everything else more or less played along nicely. The TTP is filled with oil, and I will run one more test on Monday to make sure I don't explode an oil reservoir when the bellows retracts fully.

I'm familiarizing myself with the code in C#, and having to add/modify some things to get the TTP running. I took the opportunity to further establish my understanding of Git, and wrote a guide on using Git in a shared network repository environment which I'll be sharing with Gene and the larger engineering community at MBARI.

Next week I would really like to concentrate on finishing the code modifications, as the C# work is "perspiration" (Gene's words, which I agree with) and not of significant intellectual interest. I want to get the dang thing moving in the tank... and then dive deeply into controls!

I have the hypothesis that a pure PID depth controller is not stable for our non-linear plant (drag is proportional to velocity squared). Marginal stability is observed in our Simulink models (plant oscillates around set-point), so I have some significant exploration to undertake in the modeling/theory realm, and then hopefully apply to the control algorithm which actually controls the float.

Posted by lbarker at Jun 27, 2014.

This week, I continued going through the LISST-HOLO images to identify the zooplankton. I have been concerned about the limitations of the images and my ability to draw any concrete conclusions about the community structure using these images. I briefly spoke with JR during the big intern BBQ about these concerns and we will meet next week to further address them. We simply might alter the direction of our project. On wednesday, I had the opportunity to dive with George for inspection and maintenance of the swFOCE instrumentation at Hopkins. On thursday, I also enjoyed participating in the WATCH land use panel.

Posted by lziccarelli at Jun 28, 2014.

I finished the third week with an overwhelming appreciation for all the kind people at MBARI that seem to have endless time to help me out. It was great to get out on the Carson and see the ROV and rover in action (but being the third intern to go down wasn't great - glad it amused some!). Being in the control room on board was fantastic, as was the little Q&A session I had with Paul and Rich on the deck the day before.

I finished the draft of the lebensspuren guide for Station M this week, and am working with Linda to get it added to the Deep-Sea guide. Our lab group seemed pretty receptive to it, and gave me some ideas on how to improve it and apply it. Brian was also extremely helpful in sorting out some of my questions with VARS. So, next week will be all about implementing the lebensspuren guide and getting some data out of VARS.

Finally, it was great to meet some of the interns at other institutions around Monterey Bay - I had no idea that there were so many different marine-related organisations that had interns.

Posted by jdurden at Jun 28, 2014.

My week was ok. I have accomplished lots of work in the lab and have now a bunch of sequences to analyse. Let's hope that the genes are polymorphic!

Posted by cbreusing at Jun 28, 2014.

Whoops, a little late on my confluence update. Right now my cultures are running me into the ground a little bit, I bit off more than I could chew with having a total of 26 cultures. 18 are for my Phosphorus/ Nitrogen concentration experiment for RCC 299, 4 are for my temperature experiment for CCMP 1545, and 8 were for my dilution experiment for RCC 299. I know that's incredibly vague and you probably have no idea what I'm talking about, but I'll shed some light on these experiments next week and explain in a little bit more detail... depending on how the data turns out... Anyways, so far the experiments have been going well. Now I just have to manage to keep up with all the cultures I have going.. which includes me coming in on the weekends and on my off days ¯_ But I'm excited to start interpreting the data and seeing how everything works out. My mentor left for Germany on Tuesday, so it's been a little bit of "sink or swim" on my end of things, but so far I've been managing everything well. One of the highlights of my week was going out to sea and seeing the Ventana in action. I got some great pictures :^)

Posted by amaitland at Jun 28, 2014.

Sorry for the late post. Lots of stuff going on this week. Finally cracking into MABARI's database (not literally) and pulling data for my project. I'm gonna be analyzing 10 uncommon or "rare" species found in the bay and attempt to determine their distributional patterns based on MBARI's massive time-series.

During my data excavations, I found a few errors/inconsistencies in the VARS database. These errors include triplicated data points and misread oxygen CTD readings. I informed my mentor, so hopefully they can be sorted out.

Thus ends week 3!

Posted by wtruong at Jun 29, 2014.

A productive week, finally! I have managed to log about half of my cores and things seem to be falling into place based on my interpretations from them. The biggest thing this week was heading up to Santa Cruz from Tuesday to Thursday. Driving in the US went fairly well apart from a slight mix up on the way back from Trader Joe's one evening...Anyway, the set up they have at the USGS is so good. Nice big labs, new equipment and the technician that was showing me the ropes was extremely helpful! The grain size data that I got out of my time up at the USGS means I can now start some proper investigation. I'll have to head back up there later in the project to run my full set of samples but I now have an idea of how long it will take to run samples.

This (short) week will be spent logging and looking over the data from last week with Charlie and Esther now that they are back from the cruise they were on.

Posted by wsymons at Jun 29, 2014.

Super productive week! I designed a ton of primers for a bunch of different squid species and we were able to run PCR using Dosidicus DNA and my primers. The exciting news was that we got bands! But we also got a lot of nonspecific junk, so on Thursday I reran PCR using a range of annealing temperatures. Today, I'm going to run another gel and hope that at least one of the temperatures had better results.

Posted by thersh at Jun 30, 2014.

A little late on this post but it was a very good week! The aquarium project is coming along very nicely. I submitted more drawings to the machine shop for fabrication an am continuing on to more components of the design. Last I heard the material for the first set of components has arrived so i should get to see my designs built very soon!

I also got to go out to sea on the Rachel Carsen on Wednesday. It was really exciting to see the ROV being operated first hand. Also we saw more whales that day than I ever have at one time before. I definitely came back a little sunburned, but it was a great day!

Posted by nreed at Jul 01, 2014.

27-June-2013

This page last changed on Jun 01, 2014 by kgomes.

28-July-2011

This page last changed on Jun 01, 2014 by kgomes.

Wow.. Week 7 is upon us! Linda and George are taking off, but please do post your update as we hope to be able to check in from afar. There will not be an intern meeting on Monday Aug 1. George will be back on Weds sometime - not sure when I'll get into work. Have a good week.

28-June-2012

This page last changed on Jun 01, 2014 by kgomes.

test

29-July-2010

-

05-August-2010

This page last changed on Jun 01, 2014 by kgomes.

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12-August-2010

This page last changed on Jun 01, 2014 by kgomes.

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30-June-2011

This page last changed on Jun 01, 2014 by kgomes.

The last week has been really interesting, and as usual very fast paced!
This Week:

- Read about Ocean Acidification
- Plotted pH and O2 mooring data and looked for a correlation with physical parameters
- Researched aquaculture companies in the CenCOOS region, and data platforms near the farms.
- Designed a survey for shellfish growers at next weeks workshop.

Next Week:

Attend a workshop on ocean acidification and shellfish growing. Ask lots of questions, and meet lots of people. Take careful and complete notes!

31-July-2014

This page last changed on Jul 18, 2014 by mage.

scroll down and click on the add comment button to post your update

Comments

This Saturday I finally inoculated my flasks for my big experiment. Saturday was a long day, but I was excited to finally start. Today I spent the entire day sampling my flasks and sampling my cultures. I'm getting my samples prepped and ready to send them off to U of Hawaii where a lab there will give me the elemental ratio of what's in my cells. I've also been taking samples for some intracellular allocation (RNA, DNA, and protein). I'm presenting the first draft of my presentation tomorrow in front of the post-docs in my lab who have been mentoring me throughout the internship. Things are finally starting to come full circle.

Posted by amaitland at Jul 30, 2014.

I've spent this week finishing up the things I need to physically do at MBARI since I will be away next week on the ship. I cleaned up all my data and double checked some things against the video archives, made some photos and clips for my presentation, planned out what I'll do with any squid I catch on the cruise, and started analyzing my data. I'm going to do the bulk of my data analysis and writing on the ship so it's going to be a busy week next week. Can't wait to be at sea!

Posted by kthomas at Jul 31, 2014.

Mixed week in terms of progress. I decided to do some error analysis for my program at the end of last week. Most of Tuesday comprised editing test images and adding masks on MATLAB, a program in which I have little experience using. I realized, Wednesday, that the files I edited were tiff files and not b16 ones (the necessary format to run them through the program I've developed). Paul and I are working on a way to create the same masks on a b16 format file. Despite everything, I had so much fun messing around with MATLAB that I'm signing up for a MATLAB-based class this fall (registration opens tomorrow at 5!).

Posted by cordelia at Jul 31, 2014.

This week has been pretty eventful! I've finally decided which squid species to focus on. The winner is... Pterygioteuthis! The sequencing results I got after cloning were quite good, but I'm STILL having trouble getting the extreme 5' and 3' ends. We've decided to do RACE (rapid amplification of cDNA ends) to get those last bits of sequence. The reason I need the whole chunk of gene is because if I want to express the gene in E. coli and get some things to glow, I need to have the correct start and stop codons. We've found several viable candidates, but there is a definite chance that the real start and stop are in regions of sequence we don't have yet. The good news is that I was able to design new primers using a very promising hit. Today we're going to make cDNA and tomorrow we're going to do RACE. Fingers crossed!

Posted by thersh at Jul 31, 2014.

I started my write up. I also reminded myself how much I prefer research to the write up stage. I've been writing and making sweet graphs all week. As a side note, I also found housing in Berkeley so I am no longer homeless, seemingly unlike most of my neighbors.

Posted by jsteck at Jul 31, 2014.

How to quantify bits of information has been the question on my mind this week. For exisitng numerical information I am growling at Excel, because the graphs it produces are horrible and next to useless. I guess this means taking it all to R and tackling the matter there. I'm missing my Grapher software!

In terms of progress, I'm chasing up odds and ends. Interaction between different faults and what this tells me about the relative timing of lava emplacment. Why are there so few hydrothermal vents on Alarcon Rise? Why do faults and fissures act in the way they do as they approach transform faults?

Draft title of presentation (but will be amended because it's terribly dull). The significance of faults and fissures of Alarcon Rise.

Posted by kwillis at Jul 31, 2014.

Progress this week has certainly been slowed by the ear infections. I am glad to be guzzling antibiotics, and even more glad that my sea legs might actually be sturdier than demonstrated...

I am just finishing the last image annotations for my spatial analysis of traces on the seabed at Station M. I have processed most of the time-lapse data and am ready to match it to the spatial data once I get it done. I am going to try binning my spatial data (density, diversity and seabed coverage of traces) by 10-day interval to match my environmental data, but I will have to see if that gives enough measured seabed area in each bin.

I discussed the outline of the write up/paper and my presentation with my mentors yesterday, and will go over the figures on Monday. I also have a list of non-project-related tasks to take care of before leaving MBARI, which I am whittling down.

Posted by jdurden at Jul 31, 2014.

This week I outlined what I wanted to get out of the remainder of my time here. What I decided was to drill down into the nitty-gritty of the math and theory behind all the control, filtering, and dynamics of this system.

Its nothing short of luxurious to be curious about something and be able to pursue some idea/thought either to a compact fundamental relationship, or some arbitrary point at which I say, "that's an acceptable solution."

As a concrete example of this, I've been investigating and studying signal filters. Our float has a pressure sensor that gives us depth of the float. If/when the float is coming to the surface, the pressure sensor will most likely have some sinusoidal signal due to wave action. It would be energetically wasteful to try and correct for this, so one way to mitigate this is to filter the pressure sensor signal. Creating a low-pass filter capable of of filtering out a 0.1Hz wave signal is easy, but it comes at a cost: real (non-noise/disturbance) signals are delayed. In the case of of a second order filter with the design constraints I've chosen, a 0.1Hz LPF will have a delay of approximately 10s. That's significant, and potentially problematic if I want to the float to ascend at, say, 20 cm/s and hit a target depth of 50m, with 5% overshoot. With a 10 s delay, the float is at 48 m by the time the control algorithm gets a signal saying it's at 50m.

So I asked myself the question, "At what point does the vertical motion of a particle due to wave action in the ocean (effectively) stop?" So I spent the morning learning about waves, how their actions differ in shallow vs. deep water etc. Those who've taken Phys. Oc. probably learned this stuff on Day 1, but I find it fascinating! The short of it, is that I'm pretty confidant I can create an adaptive filter that knocks out big wave signal disturbances near the surface, but then is de-tuned in an informed way, so signal delay is minimized at depth.

Kind of a nifty idea, but unlikely to be a new one. Many people smarter than myself have been playing in the ocean for a long time.

Posted by lbarker at Jul 31, 2014.

Spent this week tying up loose ends here on shore before I head out to sea and pump out the bulk of my paper and presentation. I have all the necessary materials now and progress is occurring at the expected rate I think. It has been nice to finally start analyzing the data I have been working so hard to collect and organize. I am a very visual person so it is good to look at the trends and compare them to my hypotheses. I am very excited to go out to sea. Ill have to ask the 8 ball if we will see any *Dosidicus*, but I am optimistic. See ye landlubbers the week of the presentation! (Unless I have to do confluence while I'm out to sea... my guess is yes?)

Posted by bburford at Jul 31, 2014.

I am still busy in the lab and analyzing sequence data, though I plan to finish these steps at the beginning of next week. I will then apply specific programs for population genetic and phylogenetic analyses on the data to define the level of gene flow and the taxonomic status of my mussel populations. The title of my talk will be: "Population structure and connectivity in Indo-Pacific deep-sea mussels of the *Bathymodiolus brevior* complex".

Posted by cbreusing at Jul 31, 2014.

This week I finally started my main experiment, which is really exciting! I have been taking samples daily and flash freezing them in liquid nitrogen wahaha (evil scientist laughter)!! Starting tomorrow I am also going to have to take my exponential growth phase samples which includes filtering and sending off samples to Hawaii for particulate organic phosphorus, carbon and nitrogen.

I have been recently working on my presentation and paper which have also been coming along nicely. Hopefully next week wont be so busy that I won't have time to finish it.

Posted by zjensvold at Jul 31, 2014.

This week's been kind of a drag. I got sick on Tuesday, the day after our amazing whale kayaking tour (I have a theory that I caught it from inhaling "whale breath"). It doesn't seem like it was a bug that was going around since I'm the only intern who seemed to have caught it. As a result, this has been a relatively slow week for me. I'm trying to rest up so that I will be 100% for the Flyer cruise on Saturday.

Cross your fingers!

Posted by wtruong at Aug 01, 2014.

So all of the logging I have been doing for the last eight weeks now needs to be digitised. It's just a case of tracing the scanned images in Illustrator but it does take an absolute age. Luckily though, for the purposes of this report and presentation only every other one needs to be digitised. As of now (Friday lunchtime) I have one transect (6 logs) left to digitise. I'm hoping to get it done before next week. I have also made another five figures for the report, but will need to be amended for the presentation. The main figure is an overview of the canyon and transect locations. The bathymetry was easily accessible in Arc but the cross sections had to be done manually which was a pain. The other figures are the result of my grain size analysis, each transect plotted in a separate figure. Next week will be mainly writing a think but I may get a few more cores out to inspect, just to add something else to the report as I think it will strengthen my discussion.

Posted by wsymons at Aug 01, 2014.

Just got back from a SIMZ cruise. We had a really good run this week. I mostly assisted Julio in water processing, but also got some practice operating the CTD. Next week, I plan to start working through wednesday's AUV gulps for direct comparison with the LISST-HOLO. Hans made some adjustments to the intake of LISST-HOLO prior to this cruise and we look forward to seeing the results.

Posted by lziccarelli at Aug 01, 2014.

This week I have continued designing and modeling components for the exhibit. The designs for the drive shaft and other load bearing components connected to the drive shaft have been completed and the shop has started machining them. Recently I have been doing many iterations of force and stress calculations to design plastic pieces that will snap on and hold tight without breaking. These should hopefully be in the machine shop by the end of the day. By early next week the entire assembly for the exhibit should be designed and finalized. The tentative name for my paper is "Engineering Mechanics and Design of the Monterey Bay Aquarium AMP Exhibit". I smell a Nobel Prize...

Posted by nreed at Aug 01, 2014.

Done with my analysis! Finally have 2 working classifiers that are trained, tested and compared. Had an interesting conference call meeting with my collaborators from Oregon State University and got to present some results over the phone. Past couple of days were all about producing figures and animations for my presentation. Next week writing.

Posted by byraanan at Aug 01, 2014.

After depurating the databases, analyzed the trends, integrated the climatic indices and performed basic statistical analysis. This week I had classified the information, so that I began to edit the graphics and also to select the most relevant information so I was able to work on 50% of my presentation.

Posted by vanessa at Aug 02, 2014.

I'm late again with this one - I tried! Last week was a mix of productive and frustrating as I had to sandwich writing a cover letter for a lab assistant position at University of Georgia in between the beginning of my data analysis. I've been making large spreadsheets with many pages each in order to convert raw voltages from my pH sensors into actual pH values. It's coming along nicely and I'm almost finished. The next step will be to average each half-hour segment in the 24-hour day together for the 14 day period. I can't wait to see the data represented on a graph!

Posted by jlafian at Aug 04, 2014.

Activities

This page last changed on Jun 01, 2014 by kgomes.

Use this page to post information about after-hours activities

• June -August - Films in the Forest (http://www.foresttheaterguild.org/index.cfm/films.htm)
• June 17th - Center for Ocean Solutions seminar down in Monterey - "Suing the Service: litigation strategy to end the No Otter Zone"
• June 21st - kayaking with Monterey Bay Aquarium and students from Pajaro Valley High School - part of the Watsonville Area Teens Conserving Habitats (WATCH). 930-1130 followed by a short presentation by you at MBARI. Need four - so far: Rebecca, Hana
• June 25th - Tim Thomas - "The Last Whale Hunt and Other Fishy Storees"; Pacific Grove
• July 18th - Moss Landing Antique Street Fair (http://www.monterey- bay.net/ml/special_events/street_fair.html)
• July 23rd - 31st - Pacific Grove's Feast of Lanterns (http://www.feast-of-lanterns.org)
• August 5-8th - Steinbeck Festival (www.steinbeck.org)

Films in the Forest

This page last changed on Jun 01, 2014 by kgomes.

Films begin at dusk, and no film is longer than 2 hours. The theater opens at 6:30pm if you care to picnic. Admission is $6.00 for adults and children under 10 are free. Movies are subject to change without notice. Come early; a pillow is recommended for the hard bench, and dress warmly. The concession stand is open through intermission serving popcorn, desserts and beverages hot and cold. All profits benefit the Forest Theater Guild and The Michel Willey Youth Scholarship Fund. The Forest Theater is a non smoking facility, absolutely.

The 2010 Films in The Forest Program is a labor of love of Susan Willey & Megan Terry. The Guild wishes to acknowledge both Susan & Megan for their leadership, support and commitment to the success of the Forest Theater Guild. A portion of the proceeds of this program shall contribute to the Michel Willey Youth Scholarships.

Please visit the Films in the Forest website at www.filmsintheforest-carmel.org.

Tuesday, June 15
THE JAZZ SINGER sponsored by Visions Graphic Design & The Doggie Gazette

Wednesday, June 16
SLEEPER sponsored by The Beach Crowd

Thursday, June 17
CASINO ROYALE sponsored by Forest Theater Guild

Tuesday, June 22
VICKY CHRISTINA BARCELONA sponsored by Inns-by-the-Sea

Wednesday, June 23
CITY SLICKERS sponsored by Blue Adobe Mortgage

Thursday, June 24
LA CAGE AUX FOLLES sponsored by Wells Fargo Home Mortgage

Tuesday, June 29
REVENGE OF THE PINK PANTHER sponsored by Carmel Kiwanis

Wednesday, June 30
MOONSTRUCK sponsored by Kelly Productions

Tuesday, July 6
GOLDFINGER sponsored by Pine Inn

Wednesday, July 7
OCEAN'S 11 sponsored by Friends-of-Film

Thursday, July 8
MEN IN BLACK sponsored by Bank of America Home Loans

Tuesday, July 13
THE PRESENT surf documentary sponsored by Liquid Surf Shop

Wednesday, July 14
BEETLEJUICE sponsored by The Beach Crowd

Thursday, July 15
SHAPED local premiere of a documentary by Walter Georis sponsored by Carmel Valley Art Center

Tuesday, July 20
HAROLD AND MAUDE sponsored by Holly's Noir Night

Wednesday, July 21
MAMMA MIA sponsored by Keller-Williams Realty

Thursday, July 22
SHREK sponsored by Pebble Beach Company

Tuesday, July 27
HOTEL FOR DOGS sponsored by Diggidy Dog and Carmel Drug Store

Wednesday, July 28
MICHAEL JACKSON'S "THIS IS IT" sponsored by Carmel Stamp & Coin Shop

Thursday, July 29
ARTHUR sponsored by J. Lohr Winery

BBQ

This page last changed on Jun 01, 2014 by kgomes.

Test

News

This page last changed on Jun 01, 2014 by kgomes.

This page can be used to post information that might be of interest to all interns.
Please begin each entry with the posting date.

-

Opportunities to Go to Sea

This page last changed on Jun 01, 2014 by kgomes.

If you are interested in getting out on one of the ships, you may be able to go on one of the following dates. More dates will be added, so keep an eye on this page! Let George or Linda know if you are interested (as far ahead as possible).

• June 17th - Melissa, Spencer, and Hank - need to be at dock by 0630
• June 18th - Point Lobos - Chaffey; Roman and Katie
• June 22nd - Point Lobos - Rebecca
• June 24th - Point Lobos trip: Aaron and John
• July 1st - Benthic ROV Cruise (six spots available); contact Linda or George if you are interested. Hana, Bartolome, Daniel, Sara, Katherine, Matthew

- July 1st - Zephyr - Sandeep

still need to get on the boat:

Isobel, Sandeep, Christopher

Before going out to sea (ask Linda if you have questions; there is some on her desk near the phone):
Dimenhydrinate (50 mg) - same thing as Triptone or Dramamine: 0.5 to 1 tablet before you go to bed

In the morning:
Another 0.5 to 1 tablet as soon as you get up (this needs time to work - if you wait until you are on the boat, it is way too late) along with 1 caffeine tablet.
Eat something bland like bananas , graham crackers, saltines, Ensure
NO coffee or juice (too much acid)

Four hours later (depending on how you feel - if it is very calm out there, you might be able to skip this)
Another 0.5 to 1 tablet, and 1 caffeine tablet
Eat something bland like bananas , graham crackers, saltines, Ensure
NO coffee or juice (too much acid)

Schedule

This page last changed on Jun 01, 2014 by kgomes.

• MBARI closed: June 18; July 2, 5, 6, 16, 30; Aug. 13.
• June 14th - MBARI interns arrive and start their program
• June 14th - Summer Intern Cookie Break
• June 15th - MBARI Blood Drive
• June 16th - Glenn Chen Seminar
• June 17th - Center for Ocean Solutions Policy Seminar
• June 21st - Kayaking with MBA. 9-1130
• June 21st - Intern Meeting 0830-1030 in Tank View Conference Room
• June 21st - Project update. Josi Taylor
• June 28th - Proposal Workshop 11-12 in Pacific Forum, Linda in San Francisco
• June 29-30 - Day of Science, Engineering, and Technology/ MBARI Board meeting
• July 5th and 6th - MBARI holidays
• July 7th - Ari Shapiro Seminar
• July 11-16 - George out of the office
• July 12th - Project Update. David Clague. Submarine Volcanism
• July 19th - Project Update. Gene Massion. McSTAR, Linda in Washington DC (19-21st) for Deep-sea coral workshop
• July 21st - Interns host BBQ, Mark Abbott Seminar
• July 28th - Dijanna Smotherman Seminar
• July 31st - MBARI Picnic
• August 1st - MBARI Golf Tournament
• August 2nd - Project Update. Andreas Hofmann. Anthropogenic Ocean Acidification
• August 4th - Amber Mace Seminar
• August 14th - MBARI OPEN HOUSE
• August 18th - MBARI Intern Symposium at MBARI

DOEST Agenda

looks better in the attached pdf

AGENDA
Day of Engineering, Science
and Technology
Tuesday, June 29, 2010
8:45 a.m. - 4:00 p.m.
Pacific Forum (except as noted)

Theme: Looking to the Future
Time Title Presenter(s)
8:15 - 8:45 Breakfast
8:45 - 9:00 Introduction Chris Scholin
President and CEO
MBARI Pushing the Envelope
9:00 - 9:30 Controlled, Agile and Novel Observing
Network (CANON) Francisco
Chavez
Senior Scientist
9:30 - 10:00 Vision for the technologies
of the future
Jim Bellingham
Chief Technologist
10:00 -10:30 Data from the depths around the clock
(MARS)
Craig Dawe
Technical Support Manager/
MARS Manager
10:30 - 11:00 BREAK
11:00 -11:30 The ocean in a high CO2 world,
from deep to shallow
Peter Brewer
Senior Scientist
11:30 - 12:00 How do we observe biogeochemical
cycles at the global scale in a
changing world?
Ken Johnson
Senior Scientist
12:00 - 1:00 LUNCH - Pacific Forum
Persistent Presence
1:00 - 1:30 Group 1 (Test Tank)
Long Range AUV
CANON Field tools
Moored ESP
Group 2 (Building D High Bay)
Benthic Imaging AUV
MBARI new vessel designs
Brian Kieft
Software
Engineer
Thomas
Hoover
Instrumentation
Engineer
ESP Team
Brett
Hobson
Mechanical
Engineer
Keith
Raybould

Chief Operations
Officer
1:30 - 2:00 Group1 and 2 switch
2:00 - 2:30 BREAK - Walk back to the Pacific Forum
A Look Forward
2:30 - 3:00 Extending an autonomous presence
(wave-powered buoys
and AUV docking)
Andy Hamilton
Systems Engineer
3:00 - 3:30 Ocean visualization
Dave Caress
Software Engineer
Brian Schlining
Software Engineer
Brett Hobson
Mechanical Engineer
3:30 - 4:00 Exploration and discovery: careful
plans and serendipity
Bob Vrijenhoek
Senior Scientist
4:00 - 6:00 Allhands reception in Atrium
Posters in the Pacific Forum
? Sediment traps and ROV operations under
icebergs
? High-Resolution AUV Mapping Reveals
Structural Details of Submarine Inflated Lava
Flows
? Topography within the axial channels of
Monterey and Soquel Canyons
? Development of a High-Resolution Shallow
Seismic Refraction Tomography System at
the Monterey Bay Aquarium Research
Institute
? Distinctive Fine-Scale Morphology of Hydrate
Ridge
? Fine-Scale Morphology of Gas-Rich Sites on
the Cascadia Margin Near Bullseye Vent
? Fine-Scale Morphology of West Mata Volcano
and the Northeast Lau Spreading Center, Lau
Basin from AUV Multibeam Surveys
? Connecting an Ocean-Bottom Seismometer
to a Seafloor Cabled Observatory: A
Prototype System in Monterey Bay
? Development of in situ Respirometers for
Ocean Acidification Studies
? Time series analysis of six whale-fall
communities in Monterey Canyon
? Cataloguing biodiversity in the deep-sea:
tools, techniques, and challenges
? Remote Detection of Marine Microbes and
Functional Genes Using the ESP
? Brett Hobson
? Dave Clague
? Eve Lundsten
? Rich Henthorn
? Charlie Paull
? Hans Thomas
? Dave Caress
? Paul McGill
? Michael Risi, Craig Okuda,
Bob Herlien
? Kyra Schlining
? Nancy Jacobsen Stout

? ESP Team member

This Week

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WEEK TEN
9 am Test Tank

I. Review, preview, and updates

- Presentations: easiest to use Tempest/PacificForum for your presentations - check to make sure that they work.
- Future: Addresses and updates
- Presentations: easiest to use Tempest/PacificForum for your presentations - check to make sure that they work.
- Pronounciations?

II. Individual updates

- ? Check confluence for updates MISSING: ROMAN, JOHN, IZZY, AARON

III. Past events

- A. August 10th - Katie Lodes (10 am)
- B. AUGUST 14TH - MBARI OPEN HOUSE

IV. Upcoming events (see MBARI calendars and/or intern calender)

- A. Moving out
- B. Inventory
- C. Departing - rides?
    - Sandeep
- D. Intern T-shirts
- E. 2 hard copies, 1 electronic copy (my tempbox), id card, key card, evaluation....
- F. INTERN SYMPOSIUM

V. Seminars coming up

- B. August 17th - John Horne (1 pm)
-     - George will be leaving early most of this week (rehearsals)

Wednesday 2-July-2014

This page last changed on Jul 02, 2014 by thersh.

Finally on time with this! Although this week has been short, it has also been very productive. Yesterday I ran PCR using tissue from a second species of squid (Pterygioteuthis), and today I'll move on to the third species (Phylliroebucephalum, not a squid but most likely has photoproteins). I also cut and processed some promising bands out of my Dosidicus gel, which will be sequenced sometime next week. Overall, my lab days have a pretty good rhythm now: plan out PCR, run PCR, pour gel, image gel, troubleshoot. Excited for the long weekend!

Comments

I developed my code further this week. Late last week/early this week I added a proximity sensor that is able to identify the same jelly from frame to frame. I then added a jelly counter. I also added metrics that when calibrated will give the distance of the jelly from the AUV, length of the jelly, and swimming direction of said jelly. I also added a locking function that really cut down on the false positives. I now have a working jelly counting algorithm.

Posted by jsteck at Jul 02, 2014.

Wednesday already? Time really does fly at MBARI.

Turns out distributional analysis is still very hard, even with the 20+ year time series available to us. I've begun looking into Monterey Bay's oceanographic features (ie Seasonal patterns, upwelling, etc) to find clues as to what really influences species abundance. However, it appears I'll have to look even deeper since the species I am looking at are considered uncommon or "rare."

Looks like my future is laced with a stack of unread scientific papers.

Posted by wtruong at Jul 02, 2014.

Data collection is now in full swing... tedious and time-consuming, but could lead to interesting results. Just watching videos all day! Fun times. Tempus fugit! Squid are awesome.

Posted by bburford at Jul 02, 2014.

I have finally managed to align my sequences and found some promising variations in at least a few genes. I will amplify more gene regions in the next week and check for further polymorphisms to complement the data set.

Posted by cbreusing at Jul 02, 2014.

I am currently away from my desk in Vegas. I will reply to your updates next week.

Ok. In more detail. I have been processing a lot of data this week. It's all starting to look good but I plan on surveying two more areas to eliminate some potential influences.

With Corinna and Jen we organised a cookie break. Judging from the empty plates at the end it went well.

Posted by kwillis at Jul 04, 2014.

Short week and shorter vacation... Development of LRAUV fault classifier now at full steam ahead. I've developed a method to capture deviation from normal LRAUV behavior - next I'll be generating code to look at large quantities of data to find when classification fails (and hopefully debug).

Posted by byraanan at Jul 06, 2014.

Last week was short, but I spent it in the video lab as usual quantifying squid behavior and orientation in the water column. I will be continuing with that until I've been through all the sightings of Histioteuthis.

This week I also want to take out some preserved specimens of the squid so I can get a better feel for their weirdly arranged bodies and take some measurements of the angles of their eyes relative to their bodies, and the arrangement of their photophores.

Posted by kthomas at Jul 06, 2014.

A short but productive week last week. With my mentors, I looked at the data I collected from the week before and some interesting results fell out, giving me enough to work on to come up with a sampling strategy for my next samples ready for heading up to Santa Cruz again this week. I have sampled every other core resulting in about 40 samples which I see taking about eight days to to process and run but then I'll have my full set of data, for this 10 week project at least.

As usual, also continued with my core logging. only 12 to go!

Posted by wsymons at Jul 07, 2014.

Pretty productive week considering its length. The tank prototype float is a few SS socket screws away from being buttoned up and thrown in the tank. Came in Saturday and finished up the code modifications necessary to interface with the two different pieces of hardware. Said integration was easy...after I realized I'd been working with a deprecated version of the Go To Sea code.....frustrating that I spend too many hours fussing with something needlessly, but exciting when I realiezed how easy the integration would be.

Also finished up my cleaned up my Simulink models of the float. I have a version that models the float in a linear, and quadratic drag regime. Each of these flow regimes holds truth at different flow regimes in the water, and I want to review some papers that go in depth about which model is appropriate at which times.

Barring large and unforeseen bugs in the tank prototype code, I should be alternating between modeling and testing controllers starting this week! Finally.

Posted by lbarker at Jul 07, 2014.

What a short week! The behind-the-scenes tour of the aquarium on Monday was really cool. It was great to have someone to answer all of the questions I had from walking around it, and really neat to see the set ups they have for the kelp bed tank and jelly rearing. Thank you George for organizing it!

As for my project, I finally got some rate data on lebensspuren creation and degradation rates. I will try to have the rate measurements/calculations done by Wednesday for my lab meeting. Next will be the spatial analysis of lebensspuren in the rover images.

Katie, Corinna and I made a European-themed cookie break that seemed to be well received. Tuesday was Canada Day, so we had a quiz at the dorms last night. I will pretend not to be offended that the best score was 14.5/31!

Posted by jdurden at Jul 07, 2014.

For me, the week was a little longer than for the rest of you. Thursday, I scrambled to finish my project proposal/powerpoint presentation and present at CSUMB that afternoon. So glad to have it behind me, and glad to have a big chunk of work taken out of the final paper. Had a long and fun weekend exploring santa cruz and oakland. Back to work...

Posted by jlafian at Jul 07, 2014.

Last week was short but was able to get further along on the suspension framework for the aquarium exhibit. I finished modeling more of the components, including stress and displacement calculations by hand and FEA stress and displacement simulations on the computer. I have started on a design to mount the motor as well as other components in the assembly.

Posted by nreed at Jul 07, 2014.

I was working with climatic indices PDO, NPI, NPGO, MEI and Upwelling Index. I want to try the hypothesis of double integration considering the abundance of 7 species of fish larvae. I did this using

different scales, ranging from 1 year to 25 years. I downloaded from the NODC data for temperature, salinity and dissolved oxygen from 1951 to 2002 for the study area.

Posted by vanessa at Jul 07, 2014.

4th August 2011

This page last changed on Jun 01, 2014 by kgomes.