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This issue of our undergraduate newsletter reaches your mailboxes in the midst of many changes at the University. At the time of this writing, the School of Oceanography has just made a transition to the UW’s new College of the Environment, joining with Aquatic and Fishery Sciences, Atmospheric Sciences, Earth and Space Sciences, Forest Resources, Marine Affairs, and the Program on the Environment along with several centers and institutes in the new unit, called “CoEnv” for short.

The goal of the reorganization is to better facilitate and support collaboration among academic and research units to advance our understanding of the scientific and societal dimensions of important environmental challenges. The move to CoEnv allows us to build on the core strengths of the School to expand opportunities for undergraduate and graduate students in Oceanography.

A hallmark of our undergraduate program is the chance for students to gain hands-on experience in the context of a strong base of research, links to international programs, access to world-class research vessels, and close proximity to coastal waters and access to the open ocean.

The articles in Depth highlight the experiential flavor of our program. A wonderful narrative by undergraduate Florence van Tulder, for example, gives us a glimpse of a “day in the life” working at Friday Harbor Labs. Other accounts describe cruises and exchange programs, illustrating just some of the possibilities open to our students, thanks to the efforts of a talented and dedicated faculty and staff. Two of them—Professor Paul Quay and Student Advisor Michelle Townsend—are featured in these pages.

The School continues to expand its portfolio of research and educational programs and is poised for further collaborations as a part of the CoEnv. One notable example is the Ocean Observatories Initiative. The University of Washington is slated to receive approximately $126 million during 5½ years to construct the Regional Scale Nodes component of NSF’s Ocean Observatories Initiative. This is the largest award of federal funds the UW has ever had over a 5½-year period.

With the increasing complexity of the enterprise comes the need to find new ways to expand faculty participation in the leadership of the School to help manage its research and educational programs. In addition, this year the School is preparing for a 10-year review process, expected to begin in fall 2010.

These goals, along with the State budget pressures, combine to make this a time of reflection on how to respond to new constraints while reaffirming the core values that have been the foundation of our success. We are committed to continuing the tradition of excellence in research and education as we forge a future course.

Russell E. McDuff
Director
A new day dawns, and the foghorn mating calls of island ferries jolt us awake for class. Our professors, Dr. Gustav Paulay (University of Florida) and Dr. Rick Hochberg (UMass Lowell) are renowned experts in their fields who always have interesting personal experiences to supplement textbook learning. Although morning lecture lasts two hours before we can get our hands wet in lab, there is never a dull moment. Dropping phrases such as “we expect it to be wonky – we’re in cephalopod land” and “these guys don’t have anuses – so now you know what to get them for Christmas,” the professors keep our attention easily and make sure we enjoy learning all they have to share with us.

This was a day in the life of the Marine Invertebrate Zoology class of Friday Harbor Labs (FHL) summer session 2009. In five short weeks, we thoroughly covered 34 invertebrate phyla, first in lecture, then in lab. Textbooks around the nation use examples of research done at FHL; it is a premier research and teaching station. Nowhere else on Earth could you find a better place to study the marine environment.

We were able to find examples of most of the phyla covered in the course in the areas around San Juan Island. Certain animals were easy to find: all we had to do was wander down to the dock and pick ctenophores (comb jellies) out of the water and ascidians (tunicates) off the tires on the dock.

fun at friday harbor

An Undergraduate Perspective on Summer Courses at Friday Harbor Labs

TO BRING:

- BOOTS
- WARM, WATERPROOF CLOTHES
- RAIN GEAR
- DISSECTING TOOLS
  - NO. 5 WATCHMAKER’S FORCES
  - SCALPEL
  - FINE SCISSORS
  - MAGNIFYING GLASS
  - PAPER
  - FOLDER
  - NOTE TAKING SUPPLIES

A new day dawns, and the foghorn mating calls of island ferries jolt us awake for class. Our professors, Dr. Gustav Paulay (University of Florida) and Dr. Rick Hochberg (UMass Lowell) are renowned experts in their fields who always have interesting personal experiences to supplement textbook learning. Although morning lecture lasts two hours before we can get our hands wet in lab, there is never a dull moment. Dropping phrases such as “we expect it to be wonky – we’re in cephalopod land” and “these guys don’t have anuses – so now you know what to get them for Christmas,” the professors keep our attention easily and make sure we enjoy learning all they have to share with us.

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The gurgle of water draining from holding tanks, the scritch-scratch of pencils sketching animals and the quiet excitement of new knowledge permeate the afternoon air. The sun shines on our “office,” a slab of bedrock that juts out from the grass along the path where students, who have for too long strained their eyes through microscopes, take a quick break before returning to lab benches. Six o’clock rolls around and we put away our notebooks and tools, specimens and ID charts and head up for another delicious meal prepared by the excellent cooks of the Friday Harbor Labs. A quiet community on San Juan Island, we are lucky to call it home for five amazing weeks.

The work day has ended. Some classmates head to the volley-ball pitch to burn some energy, some head back to the lab to satisfy curiosity or finish sketches while others grab a rowboat and go to town for an evening out. Still others hop in a car and drive out to Lime Kiln to watch the glorious sunset over the straits. We return home exhausted but proud of all that we have learned and accomplished.

We went on field expeditions to Cattle Point, a rocky intertidal beach, and to the False Bay mud flats to gather examples of nudibranchs (sea slugs), annelids (segmented worms) and sipunculans (peanut worms), just to name a few. But best of all were the days we spent aboard the R/V Centennial, taking plankton tows and dredging the deep for echinoderms like sea stars and sea cucumbers, mollusks like snails and squids, and all the other interesting deep water phyla.


florence
van tulder

majoring in biological oceanography and expecting to graduate in 2011.
In the Student Oceanographic Society (SOS) lounge, on the second floor of the Ocean Teaching Building, there sits a worn brown file cabinet. Most of the drawers are empty, but a few folders with old SOS meeting notes and fliers sit lonely and yellowing in their corners. Like shaking open a puzzle box, you can pull open the brown metal drawers and sift through the papers from 1967, 1976, 2004. There are more pieces missing from this puzzle than can be found.

In 1967, SOS minutes announced not only club activities, but classes and career opportunities as well. The club was a strong voice for students in the oceanography department and helped encourage changes in classes and the curriculum.

In 1968, the scuba club had just formed as a subset of SOS, the SOS lounge had a fish tank, and fieldtrips were regularly scheduled to coastal areas of Washington for fun and research.

The puzzle pieces are scattered for the next few years: an undergraduate student guide from 1971, a handbook for a student–faculty conference in 1973, planning notes and a budget from a similar conference in 1976, and results of a questionnaire at the conference in 1978. This conference, seemingly an annual occurrence, held discussions between faculty and students about career opportunities as well as the oceanography curriculum. Planned by SOS, these discussions helped shape the oceanography program into what we experience today.

A large chunk of the puzzle is missing next—spanning the entire 1980s and the start of the 1990s. Some flyers, announcing an SOS barbeque and a move into a new lounge—in the Old Ocean Building—are without dates, but might have been printed in the late ‘90s.
The only records from the early 2000s are forms from a t-shirt sale and this lounge of ours—on the second floor of the Ocean Teaching Building—painted light blue with colorful fish dangling from the ceiling.

Finally, we come to a part of the puzzle that is still being cut, colored, and put together piece by piece: SOS of 2010. As the new president of SOS, I am helping to build this club into something that will again have a presence in the School of Oceanography, to build a group for ocean students to socialize and network.

Our maiden voyage consisted of volunteering at ORCA Bowl, the high school ocean trivia contest held at UW. Planned by Washington Sea Grant and open to all Washington high schoolers, the contest consisted of 15 teams competing for the championship and right to fly off to the nationals, held this year in Florida. Such an endeavor needs plenty of volunteers and SOS, as a college ocean club, was in a perfect position to help out.

Along with handing out t-shirts, score keeping during competitions, and running questions to the grading room, SOS set up a table highlighting oceanography at the UW. In giving out flyers and copies of Depth to the students, we hoped to convince these future oceanographers that UW is the best school for them.

SOS is growing, once again becoming part of the oceanography community, and with activities such as ice-skating and a t-shirt sale, we hope to continue growing for a long while yet.

rachel faye

a junior majoring in physical oceanography.

lipsy
One of the department's most memorable professors has to be Paul Quay. In the classroom, he's known for difficult problem sets in Ocean 210, which all ocean majors take. However, Paul stands out most as a fun professor who teaches us everything we need to understand the fundamentals of oceanography. I had the good fortune to interview Paul for this publication. Below is a selection of his responses:

**When did you begin to teach undergraduates?**

Let me just give you some background. I came here in 1985 and was on the research faculty, so all I did was pure research, no teaching at all—and that was fine, I really enjoyed it. When I started having a family, I thought maybe I should look for something that has a little bit more permanency job-wise and was put on teaching staff.

The first thing they had me teach was a graduate course that I’m still teaching, Isotope Biogeochemistry, which is kind of my local or specific area of research. I enjoyed it, but after maybe a year or so they said, “Paul we want you to teach this ocean circulation class.”

To be quite honest I was really nervous about teaching undergraduates specifically, I kind of thought I would be putting a lot of time into it without much reward. However, I soon realized that I kind of like teaching undergraduates. It’s interesting to teach them because they’re soaking up what you’re telling them on a different level than graduates, who are more serious, whereas the undergraduate classroom is an enjoyable environment to stimulate people to at least look at the ocean to figure out how it works.
Can you give us an idea of what you research?

Yes, let me give you a little bit of background here too. I got my undergraduate degree in chemistry, during which time I realized I wanted to study environmental chemistry. I happened to meet a professor who had majored in oceanography at Columbia University. He inspired me to go there for a graduate degree in oceanography as well.

From that point, one of the themes of my research has been, in the general or the large-scale sense, the carbon cycle on Earth. So, I've been trying to pick apart the processes that affect moving carbon between or within the ocean, atmosphere and terrestrial environment using stable isotopes. What I've been involved in for the last two decades is going out across the whole ocean, or as many places as we can get samples, and measuring the change in the isotopic composition of carbon dioxide in the ocean. The rate at which it's changing tells us how much of that anthropogenic CO$_2$ is being absorbed by the ocean.

Over the last decade, I've also used stable isotopes to indirectly measure biological productivity in the world's oceans. I currently have a research proposal to work with Ginger Armbrust, a biological oceanographer in the department, to measure productivity and the population compositions of phytoplankton. Anyway, I have this tool—stable isotopes—and I try to use it for as many applications as I can, and they tend to be focused on this big question of the Earth’s carbon cycle.

What do you teach?

Right now, I teach two undergraduate classes—Ocean 210 in the fall and Ocean 450 in the winter, and I teach my grad class every other year. Ocean 210 is the ocean circulation class that gives a lot of the background for understanding the 400 level ocean courses. Ocean 450 is fun because it’s on paleoclimate, a prominent issue today.

Personally, having gone through 210, and a couple 400 levels after that, it was the fundamental “this is where you learn to be an oceanography major.” It’s a hard class, but it’s the one where you learn the most.

Yeah, I have students who find it hard, but they’ll come back and say in hindsight, “I learned a lot in that class.” That’s what you hope.

Interview by Sarah Wiesner in her third year studying Oceanography at UW and has taken both Ocean 210 and Ocean 450.
The Depth Editorial Team wanted to learn if ideas about oceanography differed among the subdisciplines (biological, chemical, geological, and physical), and if ideas of oceanography changed as freshmen turned into seniors, graduated to grad school, and became professors. The responses were remarkably alike and point to common ground in such a diverse community. Some of the answers are presented here, organized according to a corollary of Murphy’s Law poking a little fun at the subdivisions. Several responses served as inspiration for cartoons by Oceanography freshman Michaela Delavan.

Diane Perry (freshman)
What is your favorite part of oceanography?
“Boats.” “The big picture of the ocean.”

Dane Logen (senior)
“If there wasn’t an ocean there wouldn’t be an atmosphere and you wouldn’t be breathing right now.”

Vaughan Iverson (4th yr Grad)
Explain to someone at a party what you do for your job.
“I sequence the sea.”

IF it’s **green**, it’s **biology**
Erica Bergman (senior)
Explain in one sentence what oceanography is.
"How the ocean created everything that is."

When you were little, what did you want to be when you grew up?
"A lobster."

Cory Bantam (senior)
Explain in one sentence what oceanography is.
"The study of the world."

"If I’m talking to older people, I just say Cousteau."

Miles Logsdon (professor)
"Oceanography is the study of how rapidly changes in the world’s oceans are affecting the balance of earth. I study the largest ecosystem on the planet."

Sam Monk (senior)
"We don’t all go around hugging dolphins and kissing whales – we do stuff that matters like climate change."

Tyler Hennon (1st year grad)
Explain to someone at a party what you do for your job.
"I go raid the kitchen for a cup, fill it with water and cooking oil, make some disturbance so they can see the disturbance and say that I work with internal waves – it’s the same in the ocean and we can measure that in our crafty science ways."

Mitsuhiko Kawase (professor)
"I study the motion of water in the ocean, how water moves and how it moves things along with it."

Rip Hale (2nd year grad)
Explain to someone at a party what you do for your job.
"I study mud."

What is your favorite part of oceanography?
"It’s a great group of really smart people. We get to do cool research in cool places."

Dax Soule (2nd year grad)
"Oceanography is like having your own starship enterprise; point towards the horizon and steam towards the sun."

Paul Johnson (professor)
"If you were to view the earth as an objective entity you would say the earth is mostly ocean...we just happen to live on these bits of continent."

Erica Bergman (senior)
Explain in one sentence what oceanography is.
"How the ocean created everything that is."

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Mitsuhiro Kawase (professor)
"I study the motion of water in the ocean, how water moves and how it moves things along with it."

IF it doesn’t work, it’s physics

IF it ROCKS, it’s geology

IF it STINKS, it’s chemistry
Take a potty break
Before Bamfield Road.
You'll regret your mistake,
if you don't go.

No goats on the roof
but indeed green grass grows.
They're rather aloof
that herd of no-shows.

The Rix is a clam shell
a warm glass oasis,
the fish tanks are eerie,
in near homeostasis.

Katherine and I float
In our near-sinking boat
To the channel's other side
Across the divide.

Sam broke a drifter
trying to be swifter,
Now they're zip-tied together,
and hopefully hold better.

We found a neat log
on the beach in the fog,
and a masterful plotter
made a sweet teeter-totter.

The Barkley Star is super fast
I'm happier with each wave's crashing blast
It speeds along like a shooting comet,
and some are more inclined to vom...

This is no vacation,
continue sonication
Filter water through the night,
hope to find raphidophyte.
I woke up slightly confused and unnaturally insecure of the time. Risking my ankles, I jumped from the top bunk to the cold ground below, the metallic walls reverberating the shock throughout the room. It was hard to tell if the boat was rocking or if it was just my own disorientation. I threw on my shoes, regretting leaving my boots on land, and threw on my sweatshirt, regretting leaving my rain jacket on land. With a deep breath, I mentally prepared myself for the next four days aboard the ship, bracing myself for turbulent waters and stormy Northwest weather. Navigating through the maze that is the R/V Thompson’s hallways, I took my first steps through the imposing metal door. With an unexpected flash of sunshine, the Puget Sound appeared in front of me. Black waters shimmered below the cloudless sky as scientists and volunteers extracted data from its depths. Sigh of relief.

Cautiously, so not to disturb the hard working scientists, I ducked through the lab expecting to be glared at for my intrusion. Instead I was met with smiles and friendly greetings amidst the chaotic order of the ship’s laboratory equipment. There was a general sense of enthusiasm throughout the room and, despite being focused on the science, everyone seemed to be surprisingly relaxed.

Participating on a PRISM cruise is an experience that few undergrads are able to take part in. I had been given the rare opportunity of boarding the Thompson once before as part of a field trip, where we underwent a much less extensive trip on the Puget Sound. I was eager to take part on the PRISM cruise and once again explore both the ship and the sound. Unlike typical field trips where scientific processes are demonstrated to students, the cruise gives firsthand experience, putting volunteers into the field of oceanographic studies. Jobs ranged from helping with CTD casting to analyzing samples for chlorophyll levels.

For the majority of the cruise the waters were calm, making casting the CTD easy and extracting samples a simple task. However, upon entering the Strait of Juan De Fuca, the once placid waters of the Main Basin suddenly turned on us and grew closer to open water conditions. Being new to the ship, I was intimidated by the strength of the waters, but the crew simply shrugged it off, saying “what waves?” and sending us out to the deck to collect the samples. My shift was 3:00 a.m. to 11:00 a.m. Although it required a drastic change to my sleep schedule, the shift was possibly the most rewarding time to work: every day we would watch the sun rise above the inlets, transforming the dark graveyard shift into a shining morning on the Sound. Twenty-four hour access to the galley’s coffee supplies was also a bonus. During the hours that we weren’t on shift we had free reign over out time, where we could sleep, study, watch movies in the lounge, or eat as much of the galley’s (excellent) food that you could in 16 hours.

Overall the PRISM cruise was an excellent trip that felt much more like an action packed weekend than it did a scientific expedition (which is not to say that the science was an easy task). The kitchen staff kept us well fed, the scientists were knowledgeable, and all of the crew was friendly and helpful. For those interested in becoming more involved in ocean studies, I highly recommend volunteering for the next PRISM cruise, whether you want to gain experience, contacts, or simply spice up a slow weekend.  

Greg Ikeda  
a sophomore majoring in oceanography with an as yet undeclared specialization.
to the Marshall Islands

In the summer of 2009, I had the opportunity to travel to the Marshall Islands with Dr. Julian Sachs as part of his exploration seminar, which studied the effects of climate change on coral reef systems. Around 20 UW students from many educational disciplines participated.

To say the Marshall Islands are remote is an understatement. After two flights and 12+ hours in the air, we landed on Majuro, the capital island, which is a small stretch of land surrounded by water on both sides forming a U shape.

The Marshall Islands are a small coral atoll nation, which is facing dire complications due to climate change. Since their highest elevation is 3 meters above sea level, it is expected that the atolls will be unlivable in the next 100 years due to sea level rise. Our mission was to help educate the people of the Marshall Islands about climate change, and what that will mean to their island home. We also spent much time in the water around Majuro doing snorkeling surveys, which help create a dataset for the declining coral populations. Dr. Sachs specializes in climate change, and it was an amazing experience to be able to work so closely with an expert in the field.

I found my experience in the Marshall Islands to be very complimentary to my entire educational experience here at UW. I would recommend all students partake in some sort of study abroad program. Not only was I learning about climate change and coral in the classroom, but I was experiencing it first hand on the snorkel surveys and community service activities we did. I also learned about a culture that I would not normally have the opportunity to learn about. Overall I found my experience eye-opening and life-changing. It is nice to break away from your comfort zone and experience what life is like for others around the world.
The UW-Southampton Exchange Program is an opportunity for third-year students to switch universities for a year and experience other cultures. Here’s what two participants have to say about their experiences.

From UW to Southampton

Jennifer Mileli

The decision to apply for the Southampton exchange was a last minute one made with my husband. I had never spent time in Europe and this seemed like a great opportunity to take in as much culture as possible. Ever since I was a child, I told people I wanted to live in London for a year, so this fulfilled a childhood dream. Having the chance to live here for a year means meeting people from all over the world, experiencing diversity in food, languages, and simple everyday life. The diversity here has encouraged debates on topics ranging from education to politics, and of course, the environment. The most important thing I have learned is that there isn’t much of a difference between Americans and Europeans. The friendships I make here are ones I hope to hold on to for a long time.

Being at the University of Southampton has been a big adjustment in my personal study style. The university here is more geology focused, which broadens my knowledge on a topic I wouldn’t normally choose, but have enjoyed. The courses are different, a more formal and independent approach. Courses here are also very diverse when compared to what is offered at UW, incorporating subjects such as geology, chemistry, and biological oceanography into one class. I have learned how to read scientific journals more effectively, extracting information needed to complete class assessments. When I come back to UW, I am sure that my own study skills will have improved along with the motivation to take advantage of the resources that are available to me at the University of Washington.

The best part of the exchange program between Southampton and UW is the ease of choosing courses that will convert to courses needed for my own graduation. For anyone thinking of participating, I would strongly suggest making friends with previous exchange students – their advice and friendship has made adjustment to life here in England so much easier. If given the chance to choose again, I wouldn’t change my decision and would encourage anybody to take the opportunity to go on exchange. The most important thing I have learned during my experience here is finding my own inner strength and independence which I am sure I will draw on in the future.

DEPTH
I have always wanted to see as much of the world as possible, so the chance to spend a year studying in America seemed like too good an opportunity to miss. Once I had got in to Southampton, I worked to get accepted to the exchange program. I ended up at UW because this is the sister university of Southampton, and while I did not know much about the area before I came over, I would recommend it to anyone. Everything here is incredible: there are amazing oceanography facilities, including the 274 ft research vessel the R/V Thompson and the smaller R/V Barnes; an awesome ocean building (complete with a glass wave front); and the faculty, who are leading in their fields and happy to help.

The UW also has some brilliant other aspects I had no idea about, like the reading room in the Suzzallo Library, which blows me away every time I go in there; the fact that on clear days you can see Mount Rainier behind a fountain on campus, combined with the panoramic mountain views; the Husky Stadium is incredible (especially when/if we win); being able to head down to the lake and hire a kayak is also pretty sweet (and not something you can do so easily everywhere).

There have been loads of chances to get out on field trips. In my first quarter alone, I managed to get out on the R/V Thompson twice and had a weekend camping out at Mt. St. Helens. The second time I managed to get out on the Thompson was for a PRISM cruise, during the course of which I ended up taking water samples from the sound at 2 in the morning, as it was snowing, which was pretty special. What was especially cool was the fact that the evening before had been really clear, giving us an awesome sunset. I really enjoyed this trip and it was a brilliant way to see the Puget Sound.

This quarter I have another camping fieldtrip coming up, this time to the Washington Coast, and the highlight of the year will be the senior thesis course, in which all the seniors work together to plan and execute a research cruise. This means we have the chance to write up a scientific paper based on research we plan and data we collect ourselves.

After this year finishes I am planning to travel around the U.S. some more by going on an epic road trip down the West Coast to take in as much as possible, and hopefully visit some of the deserts down south. Then I'll have to head back to Southampton and reality to finish my degree, before either heading to grad school or trying to find a job that will let me travel as much as I have been.
My name is Michelle Townsend and I am the academic adviser for the School of Oceanography. Reflecting on my 10 years here, I couldn’t ask for a better career. I love what I do and am so grateful to work with such amazing faculty and students.

I earned my B.S. in geological sciences from the University of Washington in 1994. After I graduated, I realized what my academic adviser had done for me. She had enriched my college experience in so many ways. From getting connected to fellow students on this huge campus to pointing me toward tutoring resources when I was having trouble with physics, she was there for me. She also encouraged me to go on all the geology spring break field trips to the American Southwest and she recommended me for a Keck Foundation internship studying the bedrock beneath an estuary in Quebec.

It did not take long to consider advising as a career. I, too, wanted to guide students to a better college experience. I earned my Masters in Education from the UW in 1998 and started advising in the Biology Department. It was a great place to start, but I wanted to advise in a smaller department, one where I knew all the students. I got my opportunity in 2000, when Della Rogers, here for 16 years, retired. As soon as I started working for the School of Oceanography, I noticed how well they treat their students. I sometimes lose my voice telling prospective students how many on campus and off campus opportunities await them in this department.

In this job, I did not think I would get the opportunity to travel, as I did when I was an undergraduate, but I’ve had two amazing experiences. Both were on Exploration Seminars. Exploration Seminars are month long, 5 credit, summer study abroad programs with a UW professor and 15-20 students from all disciplines. Oceanography professors have been leading them for 6 years focusing on culture and climate change. Dr. Roy Carpenter took students to the Galapagos for two summers, Dr. Richard Gammon and Dr. Jeff Richey took students to Brazil for two years and most recently, Dr. Julian Sachs is taking students to the Equatorial Pacific.

In the summer of 2006, I observed an Exploration Seminar studying renewable energy in New Zealand. We traveled around the country investigating how New Zealand is lowering their dependency on foreign oil. This experience gave me the knowledge I needed to assist Dr. Julian Sachs on an Exploration Seminar studying coral, climate and culture in the Republic of the Marshall Islands in the summer of 2009. We saw first hand what would happen to an entire culture if the climate increases, acidification worsens and sea level rises. We spent our time surveying the state of the reef, attending cultural events, listening to guest lectures and completed the course with the students giving a public lecture on climate change. My favorite part about this experience was spending more quality time with students and watching them interact with the locals. Out of the 22 students who went, five were oceanography freshmen and five were oceanography seniors. I was really proud of how they conducted themselves.

I look forward to at least another 10 years here and anticipate loving my job even more than I already do.
School of Oceanography Joins the College of the Environment

As of March 2010, the College of the Environment (CoEnv) will include Oceanography, Aquatic and Fishery Sciences, Atmospheric Sciences, Earth and Space Sciences, Forest Resources, Marine Affairs, and the Program on the Environment.

Although most students have heard about the merge, many undergraduates are unaware of what it entails. Depth interviewed several key people in the Oceanography department to help understand what the new College will offer ocean majors.

The School of Oceanography’s inclusion in the CoEnv raises the visibility of our school and increases the chances of attracting more students. Say a student comes to UW wanting to work in the environment somehow but not knowing all the available options. Before the CoEnv, the School of Oceanography might have been overlooked. Now, there is a better chance that this student will be introduced to Oceanography through the CoEnv, notes faculty member LuAnne Thompson. As advisor Michelle Townsend says, “I’ve had students come see me their senior year. They didn’t know we were even here and they really wished they’d known. Hopefully with a bigger college, prospective students will more easily find us.”

Even students not opting for a degree in oceanography will benefit with new opportunities to study the ocean. Paul Quay predicts that classes joint-listed between departments will increase as faculty interact more with the new college. If non-majors can take even one course looking at the ocean, they are better equipped to consider the environment in their personal lives or careers as the leaders of tomorrow. Quay also hopes that “ocean and policy or ocean and human health interactions” will “expand the topics that an oceanography major can explore while they’re here.”

The Fish-Ocean Library Closure

The undergraduate Fish-Ocean Library was closed last June due to budget cuts. Housed in the Ocean Teaching Building, the library held a computer lab, some tables, and quiet study cubbies on the main floor and the stacks on the lower level. The space was used primarily by upper classmen who have most, if not all, of their classes in the south campus fish and ocean buildings; it was a quiet study space in a perfect location. But since the closing of the library, students have found other places to study: hanging out in the third and fourth floor lounges in the Ocean Science Building, the Student Oceanographic Lounge, and invading the Spatial Analysis Lab for computers to use.

The books, too, have found a new home in the Suzzallo–Allen stacks and many of the journals are available online as well as in hard copy because of evolving e-reserves. The three librarians working at the library at the time of the closure were Louise Richards, Lynn Cowan, and Wayne Gloege. While Lynn and Wayne have moved elsewhere, Louise can still be found on the first floor of Suzzallo.
Tribute to Celia Kelly

Always ready with a smile, Celia Kelly was a cheerful undergraduate student in the School of Oceanography from 2005 to 2009. While vacationing in New Zealand after the senior cruise in spring of 2009, she was tragically killed in a car accident. Her friend and classmate Britta Voss provides a tribute.

I first met Celia Kelly in Roy Carpenter’s Ocean 101 class in the spring of freshman year. She was an oceanography major from her first day at UW and already worked in Anitra Ingalls’ lab, which intimidated me as a recent convert from upper campus. Her passion for the ocean was first fostered at Garfield High School through a marine biology class that took her to Maui and inspired her to start volunteering at the Seattle Aquarium.

In sophomore year, Celia and I survived Paul Quay’s 210 class together, but really got to know each other during the 220 cruise. Although she already gravitated towards chemical oceanography, she chose to join the physical oceanography group and study Redfield ratios in Hood Canal. Around the same time she began expressing interest in reviving the Student Oceanographic Society (S.O.S.), but her year in England put that plan on hold.

Celia spent her junior year at the University of Southampton through the UW’s exchange program. During her year abroad she experienced a new academic setting while making friends among her British classmates and exploring the UK and many other parts of Europe. She took many of her core oceanography classes at Southampton, and returned to Seattle full of knowledge and with enough stories to last a lifetime.

While abroad, Celia heard about the opportunity for UW oceanography students to join Steve Emerson and Paul Quay’s research cruise on the R/V Thompson from Seattle to Hawaii. She decided to use the cruise to pursue a project about correlations between nutrient distributions and biological productivity in the North Pacific Subtropical Gyre.

Participating in this cruise introduced me to both the dedicated scientist and the fun-loving, kind-hearted sides of Celia. She had the night shift operating the instrument for nutrient measurements. Every few hours, she would join the other unfortunate souls on deck to collect her samples from the CTD in the dark. All night, she toiled with the finicky AutoAnalyzer, mixed up standard solutions, recorded peaks, and waited anxiously for Aaron Morello to relieve her at lunchtime.
Despite her own exhausting work schedule, she often offered her assistance to other students collecting samples or preparing equipment. She always accompanied me to the side of the ship to watch my funny-looking homemade instruments creep below the waves while everyone else huddled around the CTD. But my most memorable moments of the cruise come from the nights when we would meet in the nutrient lab—Celia on shift, the rest of us just hanging around—to perform musical numbers for whoever had the good sense to pass by our door. Many nighttime hours when we should have been sleeping or working were dedicated to recreating entire Disney soundtracks, one-hit-wonder dances, and greatest hits of the ‘90s. Not satisfied to only enjoy herself, Celia also celebrated the mid-cruise birthdays of Tricia Beba and Carly Moreno by filling their berths with balloons and convincing the ship’s steward to bake a cake.

One sunny afternoon after we had passed far enough south that people started spending leisure time out on deck, Celia and I were lounging on the fan tail and chatting about the cruise. I told her my apprehensions about being so far from civilization and she commented that, despite the challenges of working at sea, she was finally realizing how pleased she was with her chosen career path. I asked her if she saw herself doing ocean field research in 5, 10, 30 years and she replied, “Absolutely.”

After the cruise, Celia and I embarked on the toughest, most enjoyable time of our lives. We were seniors. I was finishing my thesis and she was preparing for hers. We were also roommates in a wonderful house north of Green Lake. Celia was poised to re-establish S.O.S. Over the course of fall and winter quarters, she hosted movie nights and spruced up the student lounge while constructing a vision for her senior thesis, which would be based on the student cruise to the Kermadec Arc near New Zealand. She chose to focus her project on iron cycling in hydrothermal vents. Under the guidance of Joseph Resing at the NOAA Pacific Marine Environmental Lab, she prepared her sampling scheme and learned the analytical procedures required for measuring extremely low concentrations of trace metals in seawater. As the time before the cruise in March drew closer, and I tried to hide my envy over the amazing cruise she and the other seniors were about to embark upon, I could see both her excitement and stress level mount.

Following the cruise blog, it was clear that, despite foul weather, this cruise was a wonderful, unforgettable experience. In addition to the pirate costumes and countless other shenanigans that always attend a student cruise, these students were getting a once-in-a-lifetime opportunity to perform their own field research and interact with top scientists from around the world. Celia kept friends and family up to date on their adventures through the blog and declared her enthusiasm by signing off one email with, “We are now performing a dredge. I hope we find some poor little creatures to uproot and kill in the name of science.”

Everyone who knew Celia was shocked and heartbroken to learn that she would not be coming home from the trip to New Zealand. In the School of Oceanography, something will always be missing in the place Celia held in our lives. We simply go on, doing the work that she loved.
Cutting Cores

I hold the sample steady while the mud is sliced apart
It gets on my clothes
  in my hair
  on the deck
  outside the bag
  and if we're lucky, in the bag so we can study it
Then another centimeter is revealed
cut
  and another piece of history
Splattered on my head.