Limnology News
Center for Limnology
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COLLEGE OF LETTERS & SCIENCE

Steve Carpenter Awarded the Stockholm Water Prize

by Adam Hinterthuer

On Thursday, August 25th, in Stockholm, Sweden, His Majesty King Carl XVI Gustaf handed an ornate crystal sculpture, along with a $150,000 prize, to the Center for Limnology director, Steve Carpenter. The award, called the Stockholm Water Prize, is often called the "Nobel Prize of water" and is given to individuals or organizations whose work "contributes broadly to the conservation and protection of water resources and to improved health of the planet's inhabitants and ecosystems."

Steve Carpenter receives the 2011 Water Prize from His Majesty King Carl XVI Gustaf of Sweden.

In a career spanning three decades, Carpenter has published 5 books and more than 300 journal articles that, the awards committee noted, "formed the basis for concrete solutions on how to manage lakes."

The award was presented at the 2011 World Water Week conference hosted by the Stockholm International Water Institute.

Carpenter says he sees the honor not as a capstone to a long career but as a challenge to push forward with his work on "emerging issues" in fresh water, including climate change and water and food security both in the Midwest and around the globe.

He is currently working with several departments at UW-Madison to develop socio-economic scenarios of future water quality in the Yahara Lakes in hopes of helping prepare resource managers, scientists and citizens to deal with changes in the lakes in the decades to come.

In This Issue

Carpenter is also serving as chair of the Program on Ecosystem Change and Society for the International Council of Science. This new program will provide an umbrella for integrative research on society and ecosystems.

Carpenter's participation at World Water Week also involved a couple of lectures. A video of his laureate lecture, entitled, "Algae blooms, trophic cascades and ongoing challenges of nutrient management," can be found on the new Center for Limnology blog at www.limnology.wisc.edu/blog

Water Prize Sculpture

Photos by the Stockholm International Water Institute

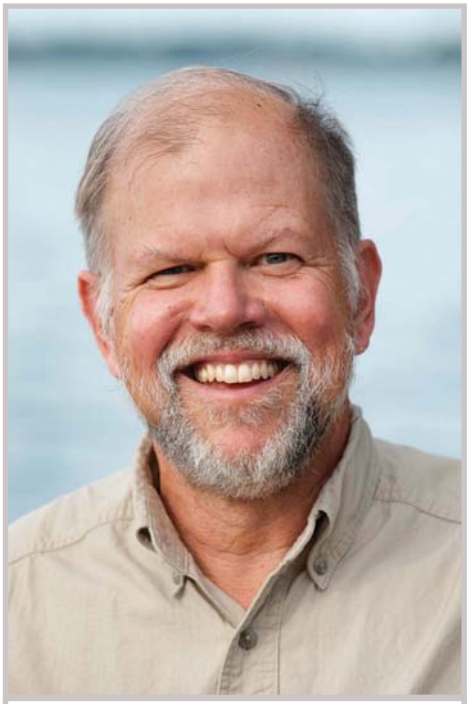
Notes from the Director

by Stephen Carpenter

The past year brought many new people to the Center for Limnology. We welcomed 15 new graduate students, postdocs and staff, while only 6 graduate students and staff moved on to new positions. The Hasler Lab is bulging at the seams. It is exciting to be in such a busy and active laboratory.

2011 will be remembered as the "year of awards." Distinguished performances of CFL staff were recognized with many important awards. Paul Hanson received the Chancellor's Award for Excellence in Research for academic staff. Dave Harring was recognized with the L&S Classified Staff Excellence Award. Jim Kitchell was presented with the Jack Christie / Ken Loftus Award from the Great Lakes Fisheries Commission. Pete McIntyre received a prestigious Packard Fellowship in a national competition that spanned all fields of engineering and science. Jake Vander Zanden became a Leopold Leadership Fellow, recognizing his past and potential future contributions to leadership and communications. I received the Stockholm Water Prize. All of us know that the CFL has a terrific staff, and it is wonderful to see so many people recognized for their great work.

2011 also saw an increase in our public outreach activities. This year we held an extremely popular and well-attended Open House at Trout Lake Station. We plan to make this an annual event. In 2012 we plan to add a similar event for the Madison Lakes research at the Hasler Lab. We have added an outreach specialist, Adam Hinterthuer, to the staff.



Stephen Carpenter, Director, UW-Madison Center for Limnology.

Adam brings extensive experience in environmental communications, and we are grateful for his leadership of our growing outreach activities.

CFL researchers published a lot of exciting papers this year, and many were led by graduate students and postdocs. Emily Kara led a group of students in a reanalysis of the watershed phosphorus budget for Lake Mendota, revealing some improvements since the previous analysis led by Elena Bennett during her student days. Noah Lottig and colleagues compared the biogeochemistry of lakes and streams and showed that these differences were related to groundwater chemistry and adjacent wetlands. Jereme Gaeta led a group that showed how fallen trees improve the growth of largemouth bass. Chris Solomon's team developed a sophisticated probabilistic approach to analyze organic matter sources for aquatic consumers, and thereby documented the importance of terrestrial sources to lake food webs. These and many other papers by CFL students and postdocs are available through the CFL library website: http://cfllibrary.uwcfl.org/biblio.

Finally, we need your help to keep CFL great. While we compete quite successfully for research grants, state resources are in decline. Our endowment is increasingly important for support of students, training, and public education activities. Please consider a gift to the CFL General Endowment fund, which is easily accessed on our Friends and Support web page or with the form on the back-page of this newsletter. It's through the support of our friends and alumni that the CFL continues to be a world-class research center doing world-class work.

Photo by UW Communications

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Please let us know about address updates, job changes, and other noteworthy events!

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608-262-3014

Trout Lake Station Open House Draws Crowds of Interested Visitors

by Adam Hinterthuer

By the time the pontoon boats embarked on a second round of trips, so many visitors had crowded onto the Trout Lake Station dock, that joking began about how much more it could take before everyone ended up in the knee-deep water.

Luckily the dock held and all visitors eventually boarded a boat for a hands-on experience throwing plankton nets, dropping Secchi disks and using other instruments of the limnological trade.

The boat tours were only part of the first public open house held at Trout Lake Station in a long time. While the CFL's research station served as a home to more than 40 freshwater scientists and students from across the country this summer, on the afternoon of Friday, August 5th, 120 visitors joined them.

In addition to the boat rides, activities included guided walking tours of the station, hands-on displays of aquatic organisms like freshwater sponges and bryzoans

Students Lindsey Bruckerhoff (right) and Amanda Brown (with crayfish) teach visitors how to identify the invasive rusty crayfish.

John Havel speaks to visitors dock-side as passengers board boats for lake research tours.

and the screening of a new documentary on the Crystal Lake Mixing Project.

"It was really exciting to see how interested all the visitors were in our work," said Susan Knight, interim director of Trout Lake Station. "It was also great for the undergrads to show off what they knew and how much they had learned this summer."

Nancy Masterson, who has long lived on the shores of Trout Lake, brought her grandchildren to the event. Masterson thought the open house was a "wonderful idea" and repeated a phrase heard often throughout the day – "I've always wondered what you were up to over here."

At the end of the day, a few dozen visitors remained to watch research technicians Zach Lawson and Eric Brown and PhD candidate Jordan Read haul a fyke net in from off shore. They weren't disappointed, as a load of smallmouth bass, bluegill and even a bullhead were pulled from the water. Children crowded the dock again to take turns touching each fish and watch as Brown demonstrated how they are weighed and measured before being released.

And it wasn't just the kids crowding in for a better look at the fish. "Everyone seems to love seeing fish," Lawson said, "there's just something so intriguing about animals that live in a different medium than us."

"It was great to spend time with a group of people that were so interested in hearing about what we do," adds Read. He was especially impressed by the "enthusiasm and interest" of all age groups, "from 3 to 90."

Zach Lawson, Eric Brown, and Jordan Read (left to right) pull in a fyke net full of smallmouth bass and bluegill.

Plans are already underway to turn the open house into an annual event at Trout Lake, as well as open the doors of Hasler Lab to the Madison-area public sometime in the near future.

Photos by Adam Hinterthuer

NTL-LTER Passes Five-Year Review With Fying Colors

by Adam Hinterthuer

2011 marks the 30th year of research on Wisconsin lakes by the North Temperate Lakes site of the National Science Foundation's Long Term Ecological Research program. Every sixth year of that history, the NSF has evaluated the NTL-LTER program through a site visit.

In early September of this year, six distinguished scientists from universities and research organizations across the country came to Madison tasked with attending a 48-hour whirlwind tour of the CFL's North Temperate Lakes program. After hearing all about the last three years of research conducted on lakes in both the Madison and Trout Lake areas, the reviewers would then issue a report to the NSF and make a recommendation about future directions of the program.

This year, the arduous task of preparing for such an important visit fell onto the shoulders of professor and principal investigator of the NTL-LTER project, Emily Stanley. Thankfully, after a year of intense preparation, she can now rest easier.

"It went as well as I could've hoped," Stanley says. "We did everything we wanted to do and were really successful at showing the great science and activities that everyone [at NTL-LTER] is involved in."

Logistically, putting on the site review is quite a feat, with more programming packed into two days than seems possible. Reviewers first assembled in a classroom atop the Sewell Social Sciences Building for an excellent view of Lake Mendota and a "cram session" in limnology. The 4-hour-long morning session featured presentations by LTER faculty, staff and graduate students on topics like management of Dane County lakes, invasive species and biotic interactions, and managing the mountains of data generated by long term ecological research.

After lunch, the review team headed to Hasler Lab for a few dock-side presentations.

Site reviewers gathered on the Hasler Lab dock to hear about LTER Schoolyard programs in the Madison-area schools.

They then climbed into a fleet of UW vans for the trek north to Trout Lake Station. At TLS, the review team first congregated on the Station dock to socialize and snack on fried invasive rainbow smelt. Reviewers then mingled with LTER grad students over dinner and the evening poster presentations. The next morning, everyone was up early again for presentations and tours of nearby field sites where LTER faculty and students are studying things like thermally mixing Crystal Lake to eradicate invasive species and the flow of nutrients through Northwoods wetlands.

"When these reviews happen you only have a day and a half and are trying to give the complete picture, which is impossible," says Stanley. "So what you end up doing is showing them a series of snapshots. And we try to give them snapshots of field [research] to give them a taste of where the data comes from."

It appears the NTL-LTER made quite an impression with this approach. The review team glowingly appraised the kind of science going on both in the Madison area and up North. They also offered a list of new ventures for the NTL-LTER program, like exploring differences and similarities across LTER ecosystems and expanding our research on social and ecological interactions.

Thanks to their feedback, the NTL-LTER faculty hope to soon offer a seminar on using long-term ecological data to ask scientific questions across ecosystems. Stanley hopes it will help graduate students better appreciate the wealth of information the LTER program offers and design hypotheses that the LTER data can help answer.

"We have a green light to go on," says Stanley, "and a very enthusiastic, positive report [full of] a great deal of praise for the 'Wisconsin way' of doing science."

Photo by Adam Hinterthuer

Experiment Finds First Signals that Predict Radical Ecosystem Change

by Adam Hinterthuer

In April of this year, CFL scientists published a paper in Science magazine that offered the first experimental evidence that radical ecosystem changes can be detected in advance. It's hoped that the article, entitled "Early Warnings of Regime Shifts: A Whole-Ecosystem Experiment" can, in time, lead to management policies that allow us to predict and prevent ecological catastrophe.

"For a long time, ecologists thought these changes couldn't be predicted," says Steve Carpenter, lead author of the paper and director of the University of Wisconsin's Center for Limnology. "But we've now shown that they can be foreseen. The early warning is clear. It is a strong signal."

The strong signal was coming from Peter Lake, a name familiar to anyone who's been at the CFL in the last 60 years. In 1951, a research team working under Art Hasler separated an hourglass-shaped lake near Trout Lake Station and dubbed the resulting water bodies "Peter" and "Paul" lakes. That first experiment focused on lime concentrations and fish production and, since then, the two lakes have served as experiment and control for several CFL studies including work on trophic cascades and the importance of terrestrial organic matter to lake food webs.

For 60 years now, Peter and Paul lakes have let CFL researchers conduct whole lake experiments like the recent early warning study.

In the early warning study, Carpenter and his colleagues began introducing loads of largemouth bass to Peter Lake, an ecosystem dominated by smaller, zooplankton-eating fish. Eventually, the researchers hypothesized, the bass would "tip the scales" in the lake and send the now unbalanced food web careening toward a new regime.

As the researchers were loading Peter Lake up with voracious bass, a buoy was busy collecting chemical and physical data in 5-minute snapshots. And, buried in that data, says Carpenter, were signals that forecast the major ecological changes to come.

These changes in chemical and metabolic variables "were way too subtle to see by eye," says Carpenter. But by knowing what to look for, scientists can start monitoring variables in at-risk ecosystems and hopefully be able to sound the alarm when a habitat starts heading down the path toward radical change.

"With more work, this could revolutionize ecosystem management," Carpenter avers. "The concept has now been validated in a field experiment and the fact that it worked in this lake opens the door to testing it in rangelands, forests and marine ecosystems."

Using buoys like this to constantly monitor variables like biological productivity and water chemistry, scientists can now detect early warning signs of an ecosystem collapse.

"Limnology led the way in opening up this research field," says Carpenter. While CFL researchers have now set their sights on early warning indicators of harmful algae blooms, their research has already led to a surge in experimental work on a wider range of ecosystem types across the globe.

Contributor: Terry Devitt, UW Communications

Buoy photo by Bill Feeny; Peter and Paul photo by Steve Carpenter

Stay in touch through our new web blog at

www.limnology.wisc.edu/blog

Harriet Bell Merrill: Researcher, Teacher, Trailblazer

by Marilyn Larsen and Adam Hinterthuer

In 1902, a mid-career researcher and relatively new UW faculty member dismissed the warnings of colleagues and turned social mores on their head by embarking on a solo research trip to South America. Her name was Hattie Bell Merrill and, only two years earlier, she had become both Edward A. Birge's research assistant and the first female faculty member in the UW Department of Zoology.

But Hattie Bell didn't just break down gender barriers. Her 1902 trip places her among the first limnological explorers to set foot in South America. Her species identifications provided a comprehensive assessment of cladoceran fauna and she collected more than 700 samples of various genera, resulting in the discovery of a species from Brazil, *Diaptomus merrilli*, named after her.

Merrill dubbed her trip the "Roll to Rio" and wrote a series of articles for the Milwaukee Sentinel chronicling the trip:

> *There are only three women on board and I am the unmarried one, and the one wearing what they call a hunting outfit and carrying "fishing tackle!" My man's shoes, which are better constructed for combating unpredictable terrain, are reliable on an unsteady deck. We are really rolling and I am surprised that I have not been seasick.*

In 1997, Merrillyn Hartridge, a well-known Madisonian who was very active in the community and a friend of the Center, completed a book on her great aunt's life. Called *The Anandrous Journey: Revealing Letters to a Mentor*, the book combines photographs, newspaper articles and a trove of letters Hattie Bell sent back to her mentor, E.A. Birge, to tell the story of a remarkable journey.

Earlier this year, Merrillyn passed away. Her daughter, Lynnan Casper, graciously donated copies of the book to the CFL, in part to be used as gifts to recognize and honor the work and accomplishments of students, faculty and visiting lecturers, especially women. Copies are also available in the Limnology Library.

Harriet Bell Merrill on her graduation from the University of Wisconsin, 1890
(Wisconsin Historical Society Image WHi-10804, used with permission)

Those familiar with the history of the Center may know the Merrill cabin at Trout Lake Station was named for Hattie Bell in 1990, and that her photo hangs on the cabin wall. But that's only part of her remarkable career.

Hattie Bell received her bachelor's degree (1890) and master's degree (1893) from the UW. She did graduate work at Cornell, the University of Chicago and the UW and later returned to these institutions as lecturer. Hattie Bell directed the physiology and biology departments at Milwaukee's East Side and South Side high schools, and headed Milwaukee-Downer College's science department, teaching a range of courses from biology, chemistry and zoology to anatomy, physiology and psychology. In 1896, she was elected to the council of the Wisconsin Academy of Sciences, Arts and Letters, becoming its first woman vice president in 1899. Many of the specimens collected on her trips to South America are permanently catalogued at the Milwaukee Public Museum.

The final years of Hattie Bell's life were spent pursuing a Ph.D. in Zoology through the University of Illinois. While her life was cut too short to realize her goal of heading a woman's college, more than a century later, Hattie Bell Merrill continues to serve as an inspiration to students and scientists.

Field Samples: Graduate Student Research at the CFL

by Adam Hinterthuer

Amanda Stone
(Hanson Lab)

While the second-year grad student closes in on her master's degree in Limnology and Marine Sciences, she also holds down a real-life day job as a consultant with the engineering firm Baird. Amanda is involved in water resource engineering projects like runoff control, harbor development and dam removal in the Great Lakes region and overseas. She came to the CFL to complement her engineering acumen with the science behind it. To this end, Amanda is studying harmful algal blooms in Lake Mendota. Specifically, she's using the data collected by Hanson lab tools like algal pigment sensors and the Mendota buoy to quantify variability in Lake Mendota's algal population and "attempt to predict what the drivers of blooms are and what their distribution is." Amanda's now putting the final touches on her thesis. Don't expect her to stick around for the long slog to a PhD, however, "Right now, I'm tired," she explains. "Plus, I've got a paying job where they want me back pretty bad."

Jereme Gaeta
(Carpenter Lab)

The 4th year PhD candidate from the Carpenter Lab says he began his CFL career "batting clean up," helping out on research projects like Sparkling Lake's rusty crayfish experiment and Crystal Lake's thermal mixing campaign. In fact, the Bakersfield, California native's first assignment upon arriving in Madison was to stuff a fyke net in the trunk of a purple Dodge Neon from the UW fleet and "drive North and catch smelt." These days, Jereme is studying how anthropogenic impacts like shoreline development and climate change impact Northern Wisconsin sport fish populations. Jereme came to the CFL after obtaining his B.A. from Cal State-Bakersfield and a three-month stint on a pod boat fishing for crab and halibut in the Bering Sea. While he wasn't sure about leaving sunny California, he's found a solid second home in Wisconsin. (If not an appetite for fried smelt.)

Gretchen Hansen
(Vander Zanden Lab)

When she's not busy documenting the language and fine-motor development of her 4-month-old daughter, Ada, Gretchen can be found at Hasler Lab wrestling with her dissertation. For the last three and a half years, Gretchen has worked with the Vander Zanden lab on an experimental manipulation of Sparkling Lake in an attempt to get rid of the invasive rusty crayfish through trapping, changing fishing regulations to increase predators and fairly frequent crayfish boils. She's now looking into what worked, why and how the decline in rusty crayfish affected the ecosystem. Before coming to the CFL, Gretchen got her master's degree from Michigan State University, where a project looking at the trade-offs in allocating resources to sea lamprey monitoring versus sea lamprey control led to a change in the way the Michigan DNR runs its efforts. Gretchen will be finishing up her dissertation in May regardless of colleagues' predictions that parenthood will impede the process. "In May," she says, "You can write that down."

E. David Le Cren, Researcher, Role Model, and Leader

by John Magnuson

I was hoping to write this article, not only to tell our colleagues and friends at the Center for Limnology about a great person who was influenced by his year with us in 1947, but also to let David know that we appreciated our relationships with him over the years. Sadly, this message arrives too late. David passed away peacefully, surrounded by his family in New Zealand, on September 9, 2011.

David Le Cren, born in 1922, spent his early years on a farm on Lake Tekapo, half way down the South Island of New Zealand's mountainous interior. David believed that this brief exposure influenced his love of lakes and career choice; whenever he returned, he felt a special emotional sensation at his first sight of the lake. It is, perhaps, not coincidental he ended his professional career on another subalpine glacial lake - Lake Windermere in the English Lake District, where he retired from his post as director of the UK's Freshwater Biological Association (FBA) in 1983.

David's interest in perch population biology lured him to Wisconsin after Art Hasler met the aspiring scholar at Windermere and invited him to study at Wisconsin. Art found the money for David's post-graduate scholarship, and E. A. Birge offered funds for his passage. In 1947, David was one of the first three students to receive their graduate degrees under Art's mentoring.

The facilities here were, well, lacking at the time; David fondly recalls a trip to Trout Lake where they slept in army surplus hammocks strung between trees at the old station site. The rope on David's hammock broke in the middle of the night and he found himself on the ground with a thud. In Madison he lived most of the year with John Neess who was doing his Ph.D. with Art Hasler.

E. David Le Cren and his wife Kate, during a 1987 visit to Madison.

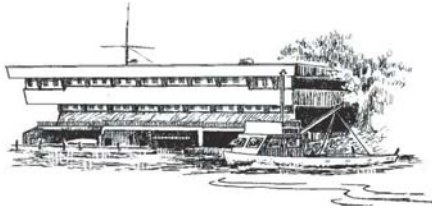
David was an advocate of long-term research and under his leadership style the FBA's laboratory on Lake Windermere flourished and became the premier long-term aquatic research station well before the formal LTER program at NSF. The long-term studies at Windermere evolved out of individual research initiatives on a host of topics, from algae, to physics and water chemistry, to Arctic char, and of course, David's work on perch. One of these researchers, Clifford Mortimer, a physical limnologist, spent a year in our lab in Madison in the 1960s, where he was mentored to initiate the Great Lakes Program at our sister institution, the University of Wisconsin-Milwaukee.

I have barely scratched the surface on David's life of scholarship and leadership in freshwater science. A rich description of his life, his papers, awards, and other achievements is available in the Library at the Hasler Limnological Laboratory (E. David Le Cren, 2010, Memories of a Career with the UK's Freshwater Biological Association). In the last chapter, David provides a list of reasons why he thought the FBA was successful during his years as director. They include advice like:

- create the steady and gradual increase in funding
- develop policies for scientific staff to follow their own ideas
- site labs near the waters being studied
- conduct experiments on a wide range of waters
- have a good library
- stay relatively small
- form small, often interdisciplinary, teams and encourage visitors to do research and interact with staff.

I'm reminded by his list that David was a science leader I could believe in, one whose advice would describe a road to success for any interdisciplinary freshwater institute or center.

Photo by J.J. Magnuson



Catching Up With Alumni

Elena Bennett (Ph.D. 2001, Carpenter)
Elena Bennett and colleagues at McGill and the University of Montréal recently received 3 grants to work on modeling multiple ecosystem services in the Montérégie -- the agricultural area just outside Montréal well-known for its vineyards, orchards, and spectacular panoramas of the Monteregian Hills. They are developing a modeling framework that quantitatively links landscape connectivity, biodiversity, and ecosystem services and hope to use this framework to build practical decision-support tools for communities grappling with the challenges of environmental management in the face of local, regional, and global change. Elena writes that it is a fun and exciting challenge to build models that are both ecologically meaningful and useful to local communities. She's struck by the the high level of support in the local community and in the Quebec ecosystem management agencies. Elena was also recently selected to be a 2011 Leopold Leadership Program Fellow.

John Lyons (Ph.D. 1984, Magnuson)
John Lyons continues as a fisheries research scientist for the Wisconsin Department of Natural Resources and as adjunct Curator of Fishes for the University of Wisconsin Zoological Museum, positions he has held in one form or another since early 1985. As a fisheries research scientist he is involved in projects to conserve the aquatic habitat and fishes of Wisconsin, with emphasis on stream and river fisheries, management of game, nongame, and exotic fishes, fish identification and distribution, fish-based biomonitoring, and effects of land use and climate change on stream fish communities. As adjunct Curator of Fishes, he studies the freshwater fishes of Mexico. In 2010 he was named Fisheries Biologist of the Year by the Midwest Association of Fish and Wildlife Agencies and an Honorary Member of the Mexican Ichthyological Society.

Greg Sass (Ph.D. 2004, Kitchell)
Following his post-doc at the Center for Limnology in 2006, Greg Sass has served as director of the Illinois River Biological Station with the Illinois Natural History Survey and an adjunct professor at the University of Illinois at Urbana-Champaign and Eastern and Western Illinois Universities. Greg has advised two M.S. students and currently advises five other graduate students among the universities. Greg recently accepted a new position as a research scientist with the Wisconsin Department of Natural Resources to direct the Escanaba Lake Research Station beginning this fall. Greg and his wife Laura recently welcomed their first child, Sean Eugene Sass, born on 7/27/11.

Chris Solomon (Ph.D. 2008, Vander Zanden)
Chris Solomon is settling in north of the border as an assistant professor at McGill University in Montreal. He and Julia welcomed a new baby, Sam, into the family this spring, and took daughter Ellie fishing for the first time (she caught three "rock pass"). Their transition to life in Quebec has been made smoother with help from fellow CFL alums Elena Bennett, Jeff Cardille, and Bea Beisner.

Craig Stow (Post Doc 1992-1996, Carpenter)
Craig Stow took a position at the NOAA Great Lakes Environmental Research Laboratory in Ann Arbor, MI in 2006, where his research has focused on Great Lakes water level modeling and eutrophication issues in Saginaw Bay. His oldest daughter, Brenna, who was born in Madison while Craig was a post doc, is an incoming freshman at UW Madison this fall.

Daniel Schindler (Ph.D. 1995, Kitchell)
Daniel Schindler, Professor in the School of Aquatic and Fishery Sciences at the University of Washington, continues to work on the salmon producing watersheds of western Alaska where he has been spending summer field seasons avoiding the crush of the big city and the distractions of campus. "It is hard to believe that 2011 was my 15th summer up there - just seems like yesterday I was chasing bass around the northwoods with the Cascade team." His work in Alaska explores the interactions between people and the natural components of these ecosystems, in a region that is experiencing exceptionally abrupt climate warming. His research group recently received a grant from the NSF Coupled Human Natural Systems Program. This fall, Daniel had the pleasant surprise of being named the inaugural recipient of the University of Washington's Harriet Bullitt Endowed Chair in Conservation.

New Faces at the CFL

We welcome the following new staff to the CFL, as well as new appointments for continuing staff:

Helen Baulch, post doc (Stanley)
Ben Beardmore, research intern (Stanley)
Tim Cline, research specialist (Kitchell)
Ellen Hamann, research specialist (McIntyre)
John Havel, summer interim director of TLS
Adam Hinterthuer, university relations specialist
Derek Hogan, post doc (McIntyre)
Stephanie Januchowski-Hartley, post doc (McIntyre)
Elizabeth Katt-Reinders, research specialist (Carpenter)
Aaron Koning, graduate student (McIntyre)
Elizabeth Krznarich, project assistant librarian
Alison Mikulyuk, graduate student (Vander Zanden)
Brenda Pracheil, post doc (McIntyre)
Valerie Seidel, payroll & benefits specialist
Lori Steckervetz, librarian assistant

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Recent Degrees and Transitions

Helen Baulch (post doc, Stanley) is now an assistant professor at the University of Saskatchewan in the School of Environment and Sustainability. Her work focuses on understanding the effects of climate change and eutrophication on streams, rivers and lakes, and assessing the effectiveness of agricultural beneficial management practices in cold climates.

Eric Booth (PhD, Loheide), thesis "Monitoring and modeling hydroecological changes at a restored floodplain, east branch Pecatonica River, Wisconsin," is a post doc on the Water, Sustainability and Climate project, Chris Kucharik, lead PI.

Matt Kornis (PhD, Vander Zanden), thesis "Distribution, Impact, and Life Histories of Round Gobies in the Laurentian Great Lakes and their Tributaries: Lessons for Invasion Biology." Matt is currently a postdoctoral fellow at the Smithsonian Environmental Research Center, Edgewater, Maryland, where he is examining how watershed land use and shoreline modification influence near-shore fish communities.

Mona Papes (post doc, Vander Zanden) is an assistant professor in the Department of Zoology at Oklahoma State University.

Sapna Sharma (post doc, Vander Zanden, Magnuson) is an assistant professor at Loyola University Chicago in the Department of Biology. Her area of research is aquatic community ecology.

Jessi Van Der Volgen (MLIS) is currently an associate fellow at the US National Library of Medicine in Bethesda, Maryland.

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Awards

Paul Hanson has been awarded the **2011 Chancellor's Award for Excellence in Research: Independent Investigator.** The UW-Madison award recognizes outstanding achievement and performance, personal interaction, and initiative and creativity.

Dave Harring received an **L&S Classified Staff Excellence Award** for recognition of outstanding performance, service and contributions.

Steve Carpenter received the 2**011 Water Prize from the Stockhold International Water Instititue** in recognition of an extraordinary body of accomplishments with great potential or proven impact.

Jim Kitchell received the **Great Lakes Fishery Commission 2011 Jack Christie/Ken Loftus Award** for distinguished scientific contributions toward understanding healthy Great Lakes Ecosystems.

Pete McIntyre has been awarded a **Packard Fellowship in Science and Engineering** from the David and Lucile Packard Foundation. He is one of 16 recipients across the country of this prestigious award.

Jake Vander Zanden was awarded a **Leopold Leadership Fellowship**, a prestigious environmental leadership and communications training program.

Anna Grant Birge Awards were given to Limnology and Marine Science students **Bryan Althouse, John Crawford, Jereme Gaeta, and Alex Latzka**; Environmental Engineering student **Emily Kara**; and to Civil & Environmental Engineering students **Anastasia Gunawan, Madeline Magee, and Nathan Wells**.

Kenneth W. Malueg Awards were given to Limnology and Marine Science students **Jereme Gaeta and Matt Kornis**.

Chase Noland Awards were given to undergraduate students **Jason Kurtzweil and Ryan Toman.**

Jean B. and E. T. Juday Awards were given to UW-Madison undergraduate students **Ellen Heyn and Sarah Jones-Witthun**, and Michigan State University student **Jonathan Celmer**.

Civil & Environmental Engineering student **Jordan Read** was awarded a summer scholarship from the **Dorothy Powers Grant & Eugene Lodewick Memorial Fund**.

The **Jack and Pat Lane summer research scholarship** was awarded to **Tracy Stacy**.

Carol Schraufnagel Announces Her Retirement

After 35 years of continuous service to UW-Madison, Carol Schraufnagel is retiring. Her last day in the office is December 30, 2011. Carol began her university career in 1976 at University Health Services. She joined the Center for Limnology in 2000 as a Financial Specialist.

Carol has been a tremendous asset to the Center, providing excellent support to the Center's research and teaching activities. Her extensive knowledge of purchasing and travel, combined with her patience, cheerfulness and professionalism, prompted one colleague to describe Carol as "one of the greatest jewels at CFL", a description with which we would all agree. Denise Karns states "Carol's ability to navigate the mazes of purchasing and reimbursement has made the lives of CFL'ers easier in so many ways."

We wish her all the best in her retirement.

Photo by Denise Karns

Carol Schraufnagel, summer 2011.

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