

in the drift

The SFS Newsletter



Looking to Louisville

Horseracing, riverboat rides, batting practice... The Louisville meeting is shaping up to be fabulous, thanks to all the work of the Local Arrangements Committee. Mid-America at its best! And as we look forward to the fun and the forging of new scientific discoveries and collaborations at this year's meeting, we'll also be bidding farewell to two special NABSters/SFS-ers that have left us too early (see photos, right). Pat Mulholland was last year's awardee of Excellence (his talk here: <http://bit.ly/JCsvLx>), and the work of Richard Norris will be the subject of a special session organized by Sue Nichols (who also took the photo far right; link under photo).

The recording of Pat's Award of Excellence talk last year has started a tradition, and we will also be recording (live!) the talk of this year's recipient, Art Benke.

SFS is still working on the 5-year Strategic Plan, which was drafted in 2008-

2009 by the Long Range Planning Committee and set into motion at the 2009 NABS meeting. In this issue we report on creative initiatives to address the Plan. The article spotlight and Pam's journal notes also reflect the international scope of SFS.

As purveyors of SFS news, we and the rest of the PIP committee continue to require the help of *all members*. Please contact us at news@freshwater-science.org with any freshwater news tips. And see you in L'ville!

- Julie Zimmerman, Teresa Tibbets & Deb Finn



SFS is mourning the loss of two loved and esteemed members: Left then right: Pat Mulholland (more: <http://bit.ly/KOUjKi>) and Richard Norris (more: <http://bit.ly/K2BgeM>)

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Did you know... ? (if you didn't, check the Spring Bulletin!)

- President Joe Holomuzki attended the meeting of the Council of Scientific Society Presidents, which inspired him to further promote the sub-theme of this year's meeting: "Aquatic scientists and a diversity of stakeholders sharing perspectives to better manage and sustain healthy freshwater ecosystems" - i.e., let's get seriously multidisciplinary, folks!
- Given that we are 3 years into our 5-year strategic plan, Joe also outlines a proposal for how we should go about formulating our next big Plan (see his "President's Environment")
- The new Publications Committee is chaired by Jack Feminella. The 'PubComm' provides long-range planning and oversight of all pubs published under the SFS name.
- There are many student presentation awards up for grabs in Louisville!
- Randy Fuller is our new president-elect (and Dave Penrose will become our president at this year's meeting).
- The annual volleyball tournament is back, this time on the sand courts of "Baxter Jack's" in Louisville!
- There are still a few instances of accidental use of the name "NABS" - can you find them?

Last-minute meeting links!

The entire meeting program pdf (sans abstracts): <http://bit.ly/J5nZIf>

A downloadable Excel file with all abstracts for browsing on the plane: <http://bit.ly/KmTjAN>

Thanks to Tina Mendez for these.

freshwater-science.org

Freshwater Science article spotlight: A new species of caddisfly from the high Andes of Ecuador.

Holzenthal and Ríos-Touma *Freshwater Science* 31(2): 442-450.

It all started at a table at the taxonomy fair at the joint NABS/ASLO meeting in 2010...

Blanca Ríos-Touma studies the ecology of Andean streams and at the time had found that there was a lack of knowledge about the taxonomy and life history of aquatic insects of Neotropical areas, which also made it very difficult to identify samples. When she brought caddisflies from Ecuador to the taxonomy fair, "Ralph [Holzenthal] saw the material and almost immediately suspected that it was a new species," says Ríos-Touma.



Holzenthal and Ríos-Touma described the taxonomy and life history of a new species of caddisfly, *Contulma paluguillensis*, one of many new species found in high altitude streams of the Andes.

After confirmation by Holzenthal that they did indeed have a new species, the co-authors set out to combine their expertise. "It was a very fruitful and mutual collaboration... the two areas of research, taxonomy and ecology, meshed together perfectly, which is the way it should work,"

Photos above and right: Collecting larval and adult caddis at field sites in Ecuador. When prompted for stories about their field work, Holzenthal responded, "trying to catch caddisflies at 4000 m in the thin air and cold. That was a challenge! And Blanca pouncing on a mated pair of *Nectopsyche* after they fell to the ground after mating. And practically in the dark. Cat like reflexes! And it turned out to be a new species!"

"We discovered a new awesome caddisfly, that lives at 3800 m, with a larva that lives all year long at 6 °C. The same stream had 5 new species of caddisflies. If this is expanded to every mountaintop on the Andes imagine how many species we still do not know, how many [have] already disappeared." - Ríos-Touma

says Holzenthal. Ríos-Touma adds, "we wanted not just a species description but a more complete picture of the ecology and life history of it."

The co-authors had a common goal in mind-to expand the knowledge of caddisflies. They had access to the collections and data from a larger research project funded by the Spanish International Cooperation Agency for Development called FUNCARA, which is the Spanish acronym for "Functionality and Ecological Quality of Andean Rivers". Ríos-Touma and Holzenthal were able to piece together national, international and various other funding sources and cooperative agreements through the University of Minnesota and the Universidad San Francisco de Quito to make the project happen.



Co-authors Ralph Holzenthal (left) and Blanca Ríos-Touma (right).

The biggest challenge for the authors was that they were making new discoveries with very little or no previous work to build upon on the aquatic invertebrates of the high Andes and the Neotropics in general. Holzenthal sums it up well when he says, "there is a lot to be done!". He adds, "if the ecological and life history data are available, it really adds to the species description, but like taxonomists, there are not that many ecologists studying Neotropical aquatic ecosystems and there is so much to do. I very much enjoyed my collaboration with Blanca and I learned a lot from her ecological knowledge and perspective."



Pam's journal notes



How can we increase the global scope of the journal by increasing the geographic diversity of published papers as well as first authors? This issue, journal editor Pam Silver provides a direct contribution tackling these questions.

The article by Holzenthal and Rios-Touma in *Freshwater Science* 31/2 is featured in this issue of *in the drift* (see p. 2). This paper is a landmark for the journal because it is about a caddisfly species from Ecuador and was written by an Ecuadorian. From my perspective, publishing this article was enormously satisfying for several reasons, but chief among them is that the article raises hope for in-

Calling all international authors! Submit to FWS to help better represent the global state of freshwater science

creased submissions of papers by authors from Central and South America. One of my key goals has been to diversify the geographical representation of articles in the journal.

The statistics are telling. *Freshwater Science* (FWS) receives submissions from authors from ~20 countries every year. The 7-y (2005–2011) mean percentages of submissions by first authors from North America, Central/South America, Europe, Australia/New Zealand, and Asia are: 65.5, 3.5, 15, 6.5, and 4%, respectively. The 7-y percentages of all papers published by first authors from North America, Central/South America, Europe, Australia/New Zealand, and Asia are: 72, 2, 16, 8, and 3.5%. The journal is and always has been an “international journal,” but the

data show a strong North American bias in submission and in publication rates. Where are the papers by authors from Africa, Asia, India, and South and Central America?

Another of my key goals was to diversify the Editorial Board to increase representation from outside North America and of women and underrepresented groups. I hoped that geographical diversification of the Editorial Board would send a clear signal that the journal welcomed submissions from authors from outside North America. The present geographical composition of the Editorial Board does better reflect currently published papers, but hasn't influenced submissions. Even with these changes, the composition of the Editorial Board is still strongly geographically biased.

One important justification for changing the journal's title was to reduce the perception of possible geographical bias and to attract more authors from outside North America. For years, I fielded the question, “Must we have a North American in the author list to submit to the journal?” I am grateful that these questions seem to have ceased, but it is much too early to tell whether the title change has altered perceptions of geographical bias. So far, the geographical composition of submissions in 2012 is very similar to the composition in the past.

Percentage data are tricky (read Song Qian's article in *FWS* 31/2). I am not calling for a reduction in the number of papers from North America in the journal. Rather, I am calling for a higher submission rate of high-quality papers by authors from outside of North America, so that the papers in our international journal better represent the global state of freshwater science. After all, the questions we ask and the problems we care about are global in scope.



Three big by-laws votes

As most SFS members are probably aware, any proposed changes to the Society by-laws must be approved by the membership. There are three such changes on deck for a membership vote at the business lunch in Louisville:

1. Adding a new standing committee to be called the “Sponsorship and Development Committee”. This body will be charged with soliciting and tracking all donor and sponsor funding to SFS.
2. Name-change of the International Profiles Committee. They are requesting a change to the more appropriate “International Coordination Committee.
3. A clarification and redefinition of what happens if an SFS president becomes incapacitated. Decision would be: the past-president or president-elect will assume duties of an incapacitated President. Which of these people assumes duties will depend largely on timing and a BOD decision.

Read more here: <http://bit.ly/Jsp0W3>

Instars growing

This year the Instars mentoring program for undergraduates from underrepresented groups nearly doubles its participation from 2011 (its inaugural year). There will be 11 fellows and 7 graduate mentors funded by the program (with a small grant from the SFS Strategic Plan funds) in Louisville. Activities include a half-day orientation on Sunday, followed by “regular” participation for the entirety of the meeting. Some instars are even giving presentations. Let's give them a warm welcome to SFS in L'ville!

ready to fly!



Thanks to Checo Colon-Gaud.

GRC pre-meeting heads-up

All students (grads and undergrads) are invited to the GRC (Graduate Resources Committee) business lunch at noon on Monday in the Marriott Skybox (sounds posh!). Also don't forget about the student/mentor mixer at 5:30 Monday in Marriott Salon 5. All SFS members: Help raise money for the endowment by bidding on items at the silent book auction (Mon-Wed) and the live auction (during Mon night mixer)!

Thanks to Lauren Kinsman for the info.

Vaughn's mussels strong on NSF's



On a temporary hiatus from an overly busy schedule last October, SFS-ter Caryn Vaughn was enjoying a pleasant drive through southern Oklahoma en route to a regional meeting at the OU Biological Station. Having neglected to switch off her



Vaughn demonstrates the bank climber mussel, *Plectomerus dombeyanus*, on Science Nation

cell phone, however, she was compelled to take an urgent call from her secretary back on campus (after pulling over to the side of the road, of course). "Caryn, please read your email and call back the lady from NSF asap!" Previously neglected emails read and "NSF lady" called back –

all from the side of the road – Vaughn had suddenly crossed the threshold into the world of research PR in the form of *Science Nation*, a web-based initiative to report NSF-funded research to the general public.

Immediately, demands were coming in left and right from the video production crew eager to capture the essence of Vaughn's research on freshwater mussels and ecosystem functioning. Field sites were too distant, so they needed footage from mesocosm studies. And, Vaughn says, "they really wanted some 'nice video of mussels' in natural habitat". These things had to appear magically within the week. No mesocosms were running, so Vaughn and her students went to the distant field sites to retrieve mussels, and they had to convince all other users of the OU Aquatic Research Facility (where the mesocosms are) to clean and prepare. Vaughn then frantically called her colleague Chris Barnhart from Mis-

souri State University (<http://bit.ly/J1wll0>), who came through in a pinch with some fantastic underwater video footage.

After a week of prep, the big day arrived, along with the cameraman. They spent several hours filming Vaughn and her four grad students at the mesocosms, then they went back to the office, set up spotlights, and asked a bunch of questions. All in the life of a *Science Nation* moviestar. The final product, after a solid week of prep and an 8-hour shoot, is a 3-min video (here: <http://1.usa.gov/AaAAa2>). Although the experience had its stressful moments and clearly intensified a crazy mid-semester schedule, Vaughn enjoyed working with the NSF crew, and she is happy with the attention given to mussel conservation. But she is adamant that the final line of the video about helping "these mussels stay strong" was falsely attributed. Too bad; that line is obviously classic!



In a still from the video, Caryn Vaughn and students "try to look like they know what they are doing".

Latest initiatives supporting the SFS 5-year Strategic Plan

Regional chapters proposed. Michael Barbour is leading this volunteer-based initiative to establish SFS chapters in both North American and international regions to help interested groups increase regional and local networking and emphasize common research/applied issues. Ideally, this initiative will increase SFS membership, but the intent is not to compete with existing societies; rather it is to enhance the global voice of SFS in water resources concerns at multiple levels from local to international. Barbour will lead a "Town Hall" meeting in Louisville to discuss how chapters could be formed. SFS is looking for members interested in taking on leadership roles in their parts of the world, so please attend if you are interested! More: <http://bit.ly/JKdEh7>

Freshwater podcasts on the way. Eric Moody and Tim Cline are taking big strides towards making monthly SFS podcasts a reality. These two savvy PhD students plan to interview SFS members about their high-profile research and career achievements, weaving in both personal background sto-



ries and the broader applied context. Look for a poster in Louisville with more info, and click here for more:

<http://bit.ly/L1pyBK>

New SFS informational brochures and posters in multiple languages. Seven, to be exact, as of May 2012. Share these with your international colleagues to promote the mission of SFS. Find them all here:

<http://bit.ly/ISewnm>



Do you know the language?

Educational materials for sharing. The Education & Diversity Committee is putting together an online resource for freshwater ecology teaching materials. They are asking SFS members to donate materials (at present: slides and/or lab materials) that have worked well in the past for any level of teaching, from K-12 to undergrad/grad to the general public. Collectively, SFS should be able to put together a great online resource. Please share what you've got here: <http://bit.ly/JjZl7d>