

in the drift

The SFS Newsletter

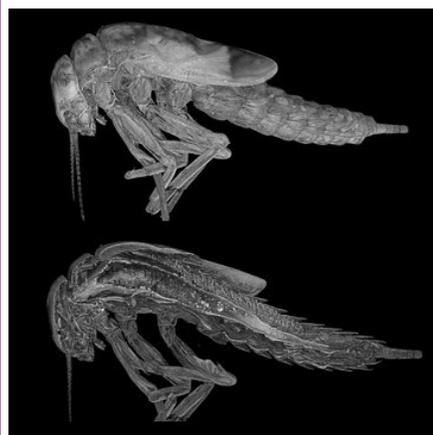


See ya Sunday!

Howdy all. We'll keep this part short—lots to do to get ready for Jacksonville this week! Even though you're in a rush, we hope you'll download this issue of *in the drift*. We've finally compiled the results from last Fall's publications survey. You'll find this and an idea of how we're using those results on page 3. Pam also brings some important info about the electronic transition of our journal from Allen Press to U Chicago Press. And more fun stuff includes the latest article spotlight (page 2) and what we found out from our own Judy Li about what it's like to write a kids' book about ecology (page 4).

The PIP committee keeps rolling along, and this year we are super proud of Tim Cline and Eric Moody for getting the "Making Waves" podcasts going. Three informative podcasts and counting (<http://bit.ly/11N8uwL>), all from a grassroots effort!

There's an awesome lineup for the meeting, so we will see you in Florida in a few days...



Javier Alba-Tercedor of the University of Granada (Spain) applies microtomography (ie: CT scanning at the micro scale) to visualize the "insides" of Baetis alpinus (here) and other small arthropods. For more (including 3-D movies!), check out Javier's youtube channel: <http://bit.ly/126g97U>.

issue 16:
Spring 2013

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Heads-up for Jacksonville!

- **If you only read one bullet, make it this one:** Visit the SFS website (link below) for ALL of the most up-to-date meeting info, including a downloadable full program, searchable abstracts, downloadable abstracts (excel format), and details on sessions, workshops, banquet, and nearly everything else you want to know to prepare for this week's trip to "Jax".
- The **Instars** (undergrads from under-represented groups) will emerge again this year. Keep your eye out, drop a few lines of advice, and help welcome them!
- A special **memorial jam session** and tribute to our SFS colleagues who passed away in 2012 will start at 10pm on Tuesday in the Hyatt. Who knows when it will let up!? More info here: <http://bit.ly/ZXon2E>
- The **photo contest** is back (8th annual!). Earn bragging rights and your opportunity to be published in the SFS calendar and *in the drift*: <http://bit.ly/14dZBuD>

- The GRC is still taking donations for live and silent auctions to help out the Endowment. Got something good? Here's what to do: <http://bit.ly/ZXoQ4K>
- Students: earn cash for helping out at the meeting. More info: <http://bit.ly/19d56uA>



*A.J. Reisinger invites you to the first ever **Benthic Home Brew Tasting Event!** There appears to be a number of benthic brewers among us, and now is the time to demonstrate your talent (including brew-naming). This will happen at Fionn MacCool's (near the Hyatt) at 9:30pm Monday. Interested? Have questions? Contact A.J. at: areisin1@nd.edu.*



A.J. and his unnamed IPA

freshwater-science.org

Freshwater Science article spotlight: Long-distance mussel reproduction and dispersal.

Ferguson, Blum, Raymer, Eackles, Krane. *Freshwater Science* 32(1): 267-282.

Many SFS-ers are acutely aware of the imperilment of native freshwater mussels (Unionidae). Around 70% of a once massively diverse and productive North American fauna are endangered, threatened, vulnerable, or already extinct due to a slew of anthropogenic impacts on our rivers (habitat fragmentation, degradation, and loss; introduction of invasive species—to name a few). Perhaps not as many of us appreciate the diversity of interesting life history strategies and the stark beauty and diversity of mussel shells. This issue's spotlighted author Chad Ferguson was in the middle of writing a PhD proposal on wetland biogeochemistry when he happened to at-

in the sediments a full 16.2 km *upstream* – a situation implicating the key role that downstream-drifting spermatozoa could play in connecting mussel populations.

“I hadn’t realized how diverse and beautiful freshwater mussels really were. I was instantly taken with them.”



One of many awesome mussel species found in midwestern U.S. rivers: *Lampsilis cardium*, “big as a saucer!”

tend a presentation on a mussel survey of southwestern Ohio. He was so taken with the beauty he saw in these mollusks that he threw out his original proposal and started over from scratch to propose a project on mussel conservation. His *Freshwater Science* paper reveals one of the major discoveries stemming from his now-complete PhD work.

The general feel among mussel biologists has been that population recovery could be hampered by dwindling densities of reproducers, their sedentary nature, and the need for specific host fish to accomplish larval dispersal. However: very little empirical work has been done to understand the actual nature of mussel demography. Chad and co-authors' objective in the spotlighted article was to use microsatellite markers sampled from both adults and larvae (“glochidia”) to get an idea of how readily mussels (specifically *L. cardium*; in photo above) can disperse within and among major river networks from one generation to the next. And their results optimistically suggest that the prospects for mussel recovery might be substantially better than originally thought. The broods of many females showed evidence of multiple paternity, and Chad et al. identified several pairs of full- and half-siblings at locations multiple kilometers distant. In one instance, parentage analysis identified the likely father of three glochidia from a single female's brood as a male hanging out

Chad and co-authors figure that the evidence for long-distance intergenerational connectivity within river networks allows cautious optimism for future recovery efforts not only for their focal species *L. cardium*, but also for a number of other imperiled mussel species. Reproductive strategies are generally similar among most unionids. If long-distance fertilization can be achieved by the mobile spermatozoa of *L. cardium*, then it is quite possible this feat regularly occurs in other mussels as well.

Clearly psyched about his results, Chad has nothing but praise for the highly collaborative nature of the work that led to this particular outcome. The project had extremely limited funding (a common theme it seems!), but partnerships especially with Michael Blum's group at Tulane University and Tim King's lab at the USGS Leetown Science Center, illustrate what a combination of passion, collaboration, and resourcefulness can accomplish. Chad makes it sound easy, even after the hours upon hours he spent wetsuit-snorkeling Ohio rivers to accumulate a reasonable sample size. Just “find the angle!”, he says. We interpret this to mean: Figure out the question you're passionate about answering; amass the best group of folks and tools to answer it; and then work your ass off at it.



Lead author Chad Ferguson in Twin Creek, southwestern Ohio. Wetsuit-clad snorkelers are rare in Ohio (oddly enough!), and Chad says he got some pretty strange looks especially while disrobing by the side of the road.

Pam's journal notes



In this issue, Pam provides some informational bullet-points on the ongoing transition from Allen Press to University of Chicago Press ("UCP" below). Take note, especially if you are a reviewer or an author with papers in- or soon-to-be-in review!

- **To access journal content**, please use the links on the SFS web page until the transition is complete and our content is being published at UCP (January 1, 2014). After that date, journal content will be hosted on the UCP web site.

New journal page at UCP: <http://bit.ly/YLAs1x>

- The new manuscript submission and tracking system (**Editorial Manager [EM]**) is operational. If you have been a referee or an author in *FWS* or *J-NABS*, you should have received an e-mail notifying you of your user name and password in EM. It's pretty slick, so take a minute to have a peek: <http://www.editorialmanager.com/fws/>
- All new manuscripts must be submitted to *FWS* via EM. If you are an author or a referee for a manuscript submitted **after April 8, 2013** please go to EM to submit reviews, revisions, or corrections, or to check the status of your

manuscript. You will have received your manuscript acknowledgement or reviewing invitation via EM and should have the appropriate links for that system.

- If you are an author or a referee for an article **prior to April 8, 2013**, please go to AllenTrack (<http://bit.ly/10BvOh6>) to submit reviews, revisions (*but see next bullet*), or corrections or to check the status of your manuscript. The links in your manuscript acknowledgement or reviewing invitation via AllenTrack should be correct.
- **Beginning June 1, 2013, all revisions must be submitted via EM as new submissions.** This might seem a bit inconvenient, but it is necessary because we cannot move manuscripts from one system to the other. When you submit your revision, please include the original AllenTrack manuscript number in your cover letter and we will make sure it is assigned to the appropriate Associate Editor.
- Any revisions submitted via AllenTrack **before June 1, 2013** will be processed to completion in AllenTrack for publication in *FWS* volume 32 (September or December 2013), or Pam will move it manually to the UCP production system for publication in volume 33 (2014).



FWS cover changing soon! Drop by the journal table in Jacksonville to see what Irwin Polls and UCP are planning.

Pubs survey: results summary and plans for the future

The Bulletin. A key SFS publication, the Bulletin has been the go-to source for presidential communications, announcements, annual meeting information, and the goings-on of our diverse committees. In the "good old days" (up 'til 2007!), the Bulletin was bound and distributed via snail-mail to all Society members. You might recall carrying the yellow Spring version, complete with all meeting abstracts, on the plane with you en route to annual meetings. Ron French edited this pub for its last 11 years and oversaw its move from bound hard copies to electronic-only (downloadable pdfs on the SFS website). In the wake of Ron's "retirement" in 2012, the Pub Comm was faced with the question of what to do next, and they turned to the Pubs Survey for ideas.

Of 290 survey respondents, 80% reported that they read the Bulletin **at least sometimes**, and it is clear that content must continue to be made available. In response to the question "If the Bulletin content moves to the website, how would you like its content presented?", 56% of those with an opinion on the matter suggested that content could be moved into the structure of the SFS website, with an elimination of the downloadable pdf format. This is the direction we're headed, starting now. All Bulletin content will be placed in the "Society Business" section of the website, and email announcements of new content will be sent quarterly.

Note that our web editor Patina Mendez is now looking for an assistant (paid!) to help manage the Bulletin content. If you are interested and have a basic www skill set, drop

her an email: webeditor@freshwater-science.org.

Bibliography. The Bibliography has been a valued Society publication since 1959. Its purpose is to accumulate important literature in the benthic and freshwater sciences annually and make compilations available to Society members. The SFS Literature Review Committee (currently chaired by Mark Wetzel) directs the effort. At the moment, the Committee is working to update the searchable 1959-92 bibliographic database (accessible here: <http://bit.ly/Yofii4>), and to add downloadable documents for the years 1992-2002.

The Pubs Survey revealed that 53% of respondents **never** use the Bibliography – but that those that have used this resource find it to be at least reasonably valuable (see Table). It is likely that the current low usage of the Bibliography is driven by both: 1) the recent development and wide availability of databases like Web of Science and Google Scholar, and 2) the likelihood that many newer Society members do not know about this resource. In the next *in the drift* issue, Mark Wetzel will provide more information about the Bibliography.

(continued on next page, top right)

	THE BULLETIN	Bibliography	<i>in the drift</i>
content	2.5	2.6	2.4
value/interest	2.7	2.8	2.4
"N/A" rate	21%	38%	16%

First two rows: mean scores for content and value/interest of each of SFS's three non-journal publications, for those that did not answer "N/A". Scale was 1 (highest) to 5 (lowest). Bottom row: "N/A" rate (interpreted as: "I have never read this publication").

2013 Award of Excellence



This year's top SFS award will be presented Sunday night to Professor Richard Norris of the University of Canberra. This will be the first posthumous Award of Excellence given, and its presentation will take on a special format, beginning with a video presentation

on Richard's career and personal life (produced by Tanya Olson), and followed by a presentation of his career highlights by Sam Lake, Richard's mentor and major professor.

Richard was Professor of Freshwater Ecology and Director of the Institute for Applied Ecology at Canberra. He had 30 years experience in freshwater ecology and river assessment with an emphasis on water quality. He mentored a great number of students (undergrad and grad) and authored >100 peer-reviewed papers and reports that significantly advanced applied ecological science (13 of which in *J-NABS!*). Richard's impact in Australia and internationally was quite notable, and he received several high-level awards and honors.

Pubs Survey (continued from p. 3)

Newsletter. *In the drift* began in 2007 to help address NABS's new strategic plan. Essentially, it had a dual mission: 1) a casual, colorful, concise news source to help unite Society members during the "other 360" (days of year not at an annual meeting); 2) to facilitate the shift of the Bulletin to electronic-only format. Regarding #2, the idea was to highlight key elements and remind readers to visit the website to download each new Bulletin. We have considered these first six years a "trial" period, and now we assess the newsletter's perceived value to the Society.

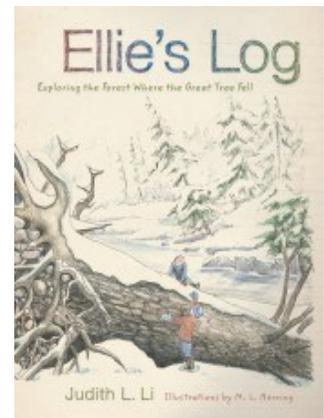
The survey suggested that the trial period is over. 87% of 290 survey respondents reported that they read **at least some** sections regularly, and most find it at least reasonably valuable (see Table). Furthermore, total downloads per issue continues to increase (thanks to Patina Mendez for the data). The most common suggestion was to wrap essential Bulletin content directly into the newsletter (resulting in a single "thing" to read each pub date). The most common critique was that the format could be updated from the current 4-page downloadable pdf. Hence, a major impending change will be a move this year to an email-embedded format, including links to key articles and Bulletin content on the SFS website.

Judy Li ventures into the forest and into children's literature with *Ellie's Log*

Many of us at SFS know Judy Li for her enthusiasm not only for stream ecology but also for education and bringing diverse folks together in appreciation of the natural world. (Judy got the Distinguished Service Award in '09 and recently has played a key role in getting the INSTARS program going.) Her latest project, in close collaboration with illustrator M.L. "Peg" Herring, is a children's book intended to help kids "get outside and discover things for themselves" (in Judy's words). The title, *Ellie's Log*, takes on a dual meaning, referring both to an old Douglas fir tree that fell during a winter storm and to a field journal that 11-year-old Ellie keeps. The book's seven chapters record seasonal changes and various organisms that she spots with school friend Ricky as they "poke around" in the forest, based on the H. J. Andrews Forest, and Lookout Creek (well known in the stream ecology literature). Both "logs" have starring roles in the book, and excerpts from Ellie's field notebook (complete with drawings, notes, maps, and even a few mistakes – crossed out and corrected, of course) highlight the end of each chapter.

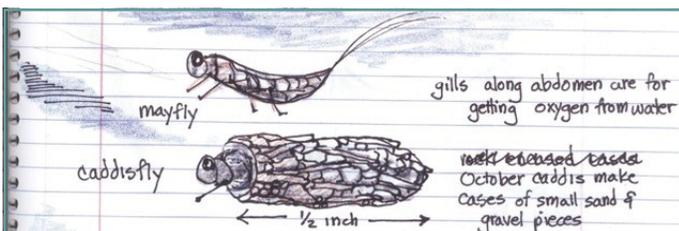
Ellie's Log is the latest addition to the LTER Schoolyard book series (<http://bit.ly/h43vb5>) and is the first in the

series to take the format of a fictional, chapter narrative to communicate ecological concepts (e.g. decomposition, seasonal change, and diversity). Judy says this was the intended format from the get-go, with the major goal to provide a context that kids can identify with directly. But she also admits that that character development and portraying colloquial conversation between fictional 11-year-olds does not exactly come naturally to those of us trained as scientists; collaboration with artist and scientific writer Peg Herring was critical. The two have provided an effective character combination between Ellie (who lives in a cabin at the Andrews with her ecologist parents - modeled after Judy's experience with her own kids) and Ricky, who just moved to the forest from arid eastern Oregon and goes to visit his grandmother in Mexico every summer ("Humans migrate too!" notes Judy).



April 2013, 112 pages, OSU Press, ISBN 978-0-87071-696-6; teachers' guide also available! See: <http://bit.ly/ZqsRet>

Where is the aquatic ecology, you ask? Like the stream is intertwined with the forest, it weaves its way through the full narrative. Judy says a frequent comment she's gotten at this early stage is "There sure are a lot of insects in this book!" – and many of them are aquatic. The first chapter ends with a winter stonefly, and Chapter 5 has Ricky and Ellie sampling riffles and pools in Lookout Creek and even mapping different aquatic habitat types. As you might have suspected: part of that big tree did indeed fall into the stream.



A small excerpt from *Ellie's* field journal on the day they went to check out the stream (illustrations: M.L. Herring)