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UPCOMING EVENTS

Fall Meeting

October 2004

Come join us in planning our annual fall dinner meeting. Meet friends, network, and eat lots of great food

More info to come shortly!!!!!!!
CPRC held its annual spring meeting on April 22\textsuperscript{nd} - Earth Day – at the Fish and Wildlife Service’s National Conservation Training Center (NCTC) in Shepherdstown, West Virginia. NCTC Director \textbf{Rick Lemon} opened the meeting with a welcome address and an introduction to the Center and its beautiful campus. NCTC opened its doors in 1997 and was designed to serve as a training and meeting center for not only the US Fish and Wildlife Service but for all natural resource and conservation groups. The center, surrounded by miles of hiking and jogging trails in the rural hills of West Virginia, turned out to be a wonderful venue to host the CPRC annual meeting, particularly on Earth Day.

Two invited speakers presented talks on their respective work. \textbf{Mike Barbour} from Tetra Tech (above) discussed his career work on the importance of merging environmental science with informed and integrated risk assessment to produce sound and valued decision making.

\textbf{Dr. Elizabeth Blood} of the National Science Foundation (right) discussed a new project designed by NSF called the National Ecological Observatory Network, or NEON. NEON will be a long-term research project funded by the NSF to apply emerging technologies to investigate the structural dynamics and evolution of ecosystems on a regional and continental scale to hopefully one day forecast ecological changes. More information on NEON can be found at the NSF web site (\url{www.nsf.gov/bio/neon/start.htm}).

Other speakers included \textbf{Warren Boothman} of EPA, who attended as a representative of the SETAC North America Board. Warren provided the CPRC attendees with an update on SETAC NA activities.
And, of course, we can’t forget the stellar list of speakers who presented papers on their current research. **Heather Stapleton** talked about Brominated Flame Retardants, their environmental fate and levels in household dust. **Judy Buchino** talked about the impact of land use on fecal coliform levels in surface waters of Fairfax County, VA. **Luke Iwanowicz** and **Vicki Blazer** talked about possible endocrine disruption in smallmouth bass in the Potomac River. **Christy Foran** also spoke on endocrine disruption, comparing critical periods of hormone sensitivity. And **Jennifer Ripley** looked at reproductive physiology of the placenta-like brood pouch in pipefish (for more on Jennifer, see the student pages).

And then there were the posters. **Moira McKernan** (below) and co-workers presented their poster on a new website-based tool for educators to counter contamination. **Harriette Phelps** (left) represented her colleagues with a poster highlighting pollutant biomonitoring programs in the Anacostia watershed.

The poster parade continued with a series of **Christy Foran**’s students from, appropriately enough, West Virginia University. **Todd Stueckle** (below) led us off with his poster documenting the acute toxicity of sediment borne permethrin on the mud fiddler crab, *Uca pugnax*. 
**Spring Meeting Report (cont)**

Jennifer Flippin’s poster (left) detailed the reproductive consequences of chronic exposure to ibuprofen in Japanese medaka, *Oryzias latipes.*

Jon Bearr et al. (right) covered the effects of suspended solids and embedded sediment on copper toxicity in waters with low hardness and alkalinity.

Finally, Rebecca Merritt (below) documented lipophilic contaminant impact on brain tumor proliferation and cytotoxicity (for more on Rebecca Merritt, see the Student Pages in this newsletter).

*[All picture credits for this story and the Student pages from Anne Sergeant and Christina Dryden. Thanks!]*
LOCAL NEWS

A Cicada Spring

Heard the buzz? No, I mean...have you heard the loud buzzing/whirring sound that has permeated the area for the last several weeks? That’s the cicada among us.

Can you say billions...with a B...billions of these little buggers known alternatively as “heat bugs” and “the loudest of all insects.” Since mid May we have been blessed, or cursed, with a once-in-17-year emergence of cicadas. According to the National Wildlife Federation (www.nwf.org), the group that is emerging this year, Brood X, is thought to be the largest of all the 17-year broods. Periodic cicadas are able to achieve population densities of 1.5 million per acre because of their ability to avoid predators during their long stay underground. This is known as “predator satiation” (also known as – you need a lot of predators to eat that many cicadas in the short time they are above ground).

So how do they know when to emerge? Basically, they emerge when the soil temperature exceeds 64 °F. So after 17 years underground, the nymphs construct exit tunnels through the soil and crawl up onto a tree or weed stem. The next step is transformation, as the cicada’s skin splits down the back and they shed their shells (that’s “exuviae” for you technical folk). And the “singing” begins.

Yes, that noise you hear is the male singing to attract females. He makes the sound by vibrating membranes on the side of his body, underneath his wings. Their song is so loud because they don’t have much time to find a mate – males live above ground for only about 2 weeks.

After mating the female cicada makes a series of slits on the underside of a twig and lays her eggs. One female may lay 400 to 600 eggs in as many as 40 to 50 nests before dying about 6 weeks after emergence.

After they hatch, the young nymphs drop to the ground where they burrow into the soil and feed on the sap of tree roots for another 17 years.

One last fun fact: the transparent wings of cicadas are said to block out UV rays!!

Though I doubt anyone will invent “cicada wing sun block” anytime soon.

Web Sites

www.factcheck.org: a non-biased web site that focuses on determining the factual accuracy of what the presidential candidates are saying (as opposed to what their TV ads say).

www.smithfellows.org: The David H. Smith Conservation Research Fellowship Program provides post-graduate funding for conservation and biodiversity projects.

www.tgnmusic.com: Board member Jennifer Gundersen’s band!

Having a rough day? Try out this site: www.cse.unsw.edu.au/7Egeoffo/humour/flattery.html

Make it stop: http://zongrilla.net/swirl.htm
THE STUDENT PAGES

These pages are designed specifically for the benefit of student members of the Chesapeake and Potomac Chapter. Let us know what is important to you and what we can do to make CPRC work for you. Please contact your student representative Christina Dryden (cdryden@odu.edu) or send info directly to the editor.

Spring Meeting Student Awards

Students who attended the annual CPRC spring meeting get many advantages over those who don’t. For starters, they find out about cutting edge research being carried out by the area’s best scientists. The networking opportunities are tremendous. In addition, students get a chance to present their current research – and often will stimulate extensive feedback (and sometimes funding).

And then there are the annual spring meeting student presentation awards. As is our tradition, CPRC experts judge all student platform and poster presentations and select the ones they feel provide the best overall quality, innovation, and presentation skills.

This year, cash awards of $100 each were given to the winning students.

The best student oral platform presentation award went to Jennifer Ripley from West Virginia University (below, being congratulated by past-president and award committee chair Fred Pinkney). Jennifer’s presentation was entitled “Comparison of Reproductive Physiology of the Placenta-Like Brood Pouch in Pipefish.”

The award for best student poster presentation went to Rebecca Merritt (below), also of West Virginia University for her work entitled “Assay for Lipophilic Contaminant Impact on Brain Tumor Proliferation and Cytotoxicity.”

Congratulations to both Jennifer and Rebecca. Special thanks also to Christy Foran, who brought these two, and several other, talented students to CPRC.

GRADUATE STUDENT AWARDS

Don’t forget that this summer CPRC will again be offering our Graduate Student Research Awards.

Thanks to continuing corporate support from ExxonMobil, BBL Sciences, and Compliance Services International, we will again offer two Graduate Student Research Awards of $500 each.

The money goes directly to the student winners to be used to support their research.

More information can be found at the end of this newsletter...

…Don’t Miss Out!!
CPRC Member News

Cliff Duke

CPRC President Cliff Duke has been a busy man lately (come to think of it, he’s always a busy man…but even more so lately). Besides leading our beloved chapter, Cliff has recently been appointed to EPA’s Board of Scientific Counselors, where he joins two other SETAC luminaries – Jim Clark and Elaine Dorward-King. Cliff also will be serving on the SETAC Program Committee for the 2005 meeting, joining David Kent, Bill Goodfellow, Lisa Baron and many other local members.

Ecological Science for a Crowded Planet

The Ecological Society of America unveils its action plan for the 21st century, with the statement that ecologists must take their science in bold new directions if humans and the natural systems on which they depend are to coexist in the future. Prepared by a 20-member ESA committee (including Cliff), the report calls for greater use of ecological science in decision-making, research targeted at sustainability of a human-dominated Earth, and cultural changes within ecology. In particular, the report includes the following recommendations:

- Integrate advances in ecological knowledge into policy and management
- Foster an ecologically knowledgeable public today and in future generations
- Build the intellectual and technical infrastructure for ecology
- Promote sharing and access to ecological data
- Forge international linkages and globalize access to ecological knowledge

According to Margaret Palmer of the University of Maryland and Chair of the committee, “Creating a public that understands humanity’s dependence on natural systems is critical. Without that, even the best science in the world will not take us far enough.”

Complementing the ESA’s action plan is an article, “Ecology for a Crowded Planet”, which appears in the May 28, 2004 issue of Science. The article lays out the intellectual framework for the ESA action plan, calling for a research agenda focused on ecosystem services and the science of ecological restoration and design.

For more information, check out the ESA web site at www.esa.org.

New CPRC Officers/Board Members Needed…

Each fall we elect new members to the CPRC Board. We encourage all CPRC members to play an active role in guiding the future of our chapter.

Please contact Cliff Duke at csduke@esa.org to indicate your interest. Elections will be held in late summer.
Chesapeake and Potomac Regional Chapter
Society of Environmental Toxicology and Chemistry

APPLICATION FOR MEMBERSHIP – 2004

Online application: http://chapters.setac.org/cprc/index.htm

SETAC: the Society of Environmental Toxicology and Chemistry is an independent, nonprofit professional society that provides a forum for individuals and institutions engaged in the study of environmental issues, management and conservation of natural resources, environmental education, and environmental research and development.

CPRC: the Chesapeake and Potomac Regional Chapter of SETAC is a non-profit organization started in the year 1983. CPRC’s mission is to promote the exchange of information among environmental scientists in the Mid-Atlantic States.

Note: you do not have to be a SETAC member to be a member of CPRC.

Name:  _____________________________________________________

Employed by:  _____________________________________________________

Mailing Address: _____________________________________________________

Phone Number:  __________________  Fax Number: _____________________

Email:   _____________________________________________________

Please Check the Appropriate Membership Class:  Regular ___ ($15)  Student ___ ($5)

Employment Class:  Academic ___  Government ___  Business ___  Consulting ___

Education:  ____________________________________________________________
(highest degree, discipline, year)

Please enclose a check made out to CPRC. This form and check should be sent to:
David J. Kent - c/o Compliance Services International
The Chesapeake and Potomac Regional Chapter of SETAC is pleased to announce the continuing availability of a competitive graduate student research award. Two $500.00 grants will be awarded for the 2004-2005 academic year to individuals pursuing graduate study in the fields of environmental toxicology or contaminant-oriented environmental chemistry and currently attending a College or University in the Chesapeake and Potomac Region. Supported by funding from Compliance Services International, ExxonMobil, and BBL Sciences, these grants are intended to support the recipients' research.

Applicants should prepare a proposal, no longer than two pages in length, which is to include a brief introduction, a statement of the hypotheses being tested, a description of methods, and the statistical design. In addition, a one-page curriculum vitae (name, address, telephone number, academic background, honors, professional experience, presentations, publications and career goals) and the names and addresses of two Graduate Faculty references are to be included with the submission. A three-member award committee will judge the proposals received based on originality, potential significance of the contribution, feasibility and qualifications of the applicant.

Applications (two page proposal and one page vitae) are to be submitted no later than September 15, 2004, and awards will be announced at our fall chapter meeting. Inquiries and submissions should be made to:

Fred Pinkney, Ph.D.
U.S. Fish and Wildlife Service
Chesapeake Bay Field Office
177 Admiral Cochrane Drive
Annapolis, MD 21401
Tel. 410-573-4519
FAX: 410-573-4519
E-mail: Fred_Pinkney@fws.gov
Closing Thoughts

The editor, on behalf of all of CPRC, would like to thank President Cliff Duke for all of his leadership for the last two+ years. Cliff has served as President for two straight years (normally its a 1-year term) and continues to carry the lion’s share of the workload…oh, and also excel in his role as Director of Science Programs at ESA.

A reminder that David Kent, Bill Goodfellow, and Lisa Baron will be co-chairing the SETAC 2005 meeting to be held in Baltimore. Since we had a meeting at the same location not too many years ago it will be important for us to come up with some new ideas for both the scientific and social programs. Please contact any of us if you want to volunteer to be on the committee (for those who have already volunteered, thank you in advance). We are currently in the planning stages so all ideas (and volunteers) are welcome. We still need a theme and logo, so let’s get those artistic genes into play.

As usual, articles and especially photographs are welcome.

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Questions/Comments/Ideas for Articles - Please send an email to the editor at DKent@ComplianceServices.com.