

SWPBA

Southeastern Water Pollution Biologist Association

Newsletter
Volume 22, Number II
June 1998

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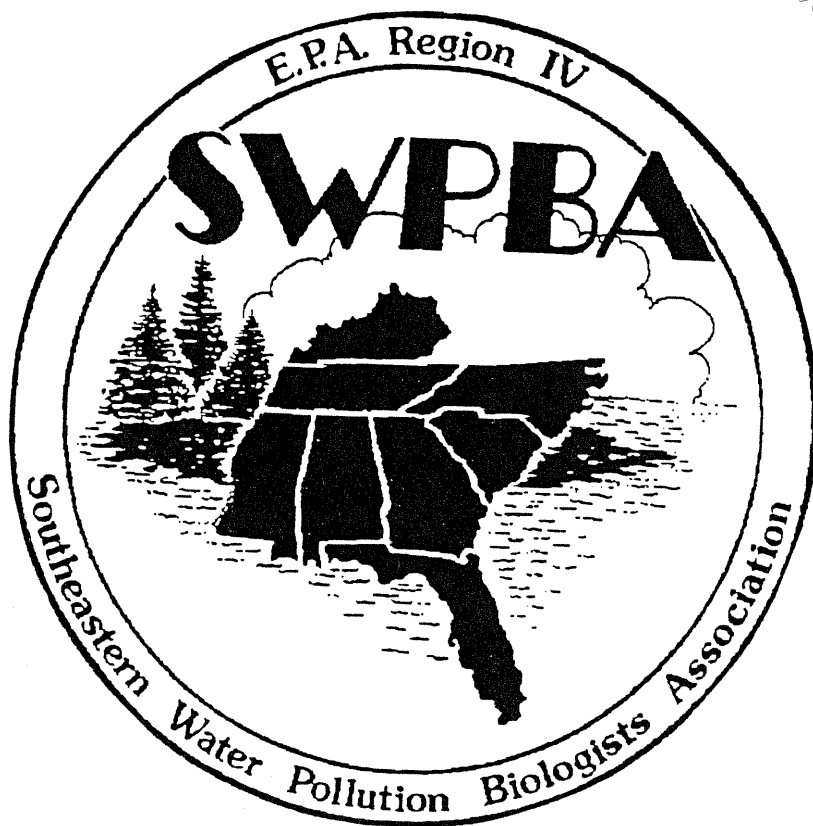


TABLE OF CONTENTS

President's Letter	1
1998 Meeting Plans	3
From the Secretary's Desk	5
Draft Agenda for 1998 Meeting	7
Pre-Registration Form for 1998 Meeting	8
Room Reservation Form for 1998 Meeting	10
We Need Some Feedback!!	12
Introducing the Sponsors of 1998 Meeting	16
SWPBA Database Record	17
SWPBA Contact List from 1997 Meeting	18
EPA Region IV	20
Alabama	23
Florida	26
Georgia	30
Kentucky	35
Mississippi	37
North Carolina	39
South Carolina	42
Tennessee	45

Letter From the President:

Doesn't time fly by when you're havin' a good time? As I sit here writing this letter for inclusion in the May Newsletter, I'm forced to contemplate that the year is half over. What happened to Winter and Spring? Where has all the time gone? This year's conference is only 5 months away!!

Which brings me to this year's conference. Planning is going well and everything is falling into place as expected. This issue of your Newsletter will contain complete registration information, including forms, prices, local area attractions, maps, contact phone numbers, schedules and agenda outline. You will also find enclosed a formatted disk to put your state's abstracts on. Please plan to return this to Trish ASAP. Consider this a second call for papers, so please get your information to us. Also, keep in mind that the state overviews will be presented in written format this year. Each state should provide their overview in text format, no more than 10 pages in length. These should be to Trish with the September newsletter submissions, as a separate piece. We will assemble and bind the overviews into a booklet that will be handed out at the start of the meeting with the conference program. This will act as a permanent record and allow additional time for paper presentation.

Conference registration will be \$30 this year. Banquet participation Wednesday night is included in registration. There will be a \$15/day charge for those wishing to attend on a daily basis. Daily attendees can purchase a ticket for the banquet for \$20. Early registration is recommended. It helps us by indicating how many people to expect, and there are only 60 rooms reserved, through September 31. On-site registration will begin at 5:00 Monday evening at the conference room, lower level, main lodge building, and continue each morning at the same location. Building D has been reserved wholly for SWPBA participants and our courtesy room will be in the common area of the lower floor of this building.

As Trish will tell you in greater detail, Monday November 2nd will be a workshop day for those that wish to attend. There are 10 rooms reserved for Sunday night if anyone wishes to arrive early. Plan accordingly. Wednesday afternoon, after lunch, we will offer a number of different workshops in the field. Please indicate on your conference registration form where your interests lie. We will also offer some extra curricular activity after the conference on Thursday afternoon if there is enough interest. Who's interested in hanging around a while and learning to rock climb at Mount Yonah or White Water Kayak on the park lake? Indicate your preference on the registration form.

We have a great group of vendors sponsoring us this year. Hydrolab and YSI continue to support SWPBA as they have for many years. Hydrolab is graciously providing for our courtesy room and meeting snacks. YSI is providing the beverage bar at the conference room. Lisec Industries will be back for their second year. On a local level, we have Kemp Instruments, Inc, RoLanka, Georgia Mountain Water and Ben Meadows Company. The gracious sponsorship of these companies allows SWPBA to conduct a yearly conference at a minimal cost to attendees. Look for the vendor displays at the conference to say "Thanks!"

To help celebrate our 25th anniversary we will have SWPBA T-shirts and 16 ounce insulated mugs for sale. T-shirts will be \$10 each and are 100% cotton. The design will hopefully be included with this newsletter. The mugs will sell for \$5 each and are guaranteed to fit any cup holder. We only plan to print up the number the T-shirts that are pre-ordered. These may become a real collectors item for our 25th anniversary! Mugs will be on the preregistration order form along with the shirts, and will also be available for purchase at the conference. We have also had some items donated to us for raffle prizes. White water raft trips, t-shirts, coffee mugs, books, and the like. We've asked our vendors to contribute if they can, and we don't have a complete list of donations at present. More information to follow in the next newsletter.

What have I forgot? I don't remember yet. But, I'm sure I'll have it available for the next newsletter. Please feel free to contact Trish or I with your comments and input. We hope to design the program around the wants of the membership. I look forward to hearing from you in the near future.

Chip

A handwritten signature in cursive script that reads "Chip". The signature is written in black ink and is positioned below the printed name "Chip".

SWPBA
1998 Annual Meeting
Unicoi State Park and Conference Center
Helen, Georgia
November 2-5

That's right. Georgia! In case you haven't heard, Georgia will be hosting the 1998 annual SWPBA meeting. Many of the details are underway, and we thought it would be useful to provide the SWPBA membership some early information at the end of this years Biloxi meeting.

The 1998 meeting will be held at Unicoi State Park Lodge and Conference Center, in the north Georgia mountains near the Alpine Village of Helen, Georgia. We thought it would be a nice change to move away from the beach and into the hills for the Fall '98 meeting. The Park and Lodge are located 2.5 miles north of Helen, which is 75 miles north of Atlanta. This section of the northeast Georgia mountains is known for its spectacular Fall colors and mountain atmosphere. The village of Helen is a popular place for Oktoberfest, which will just be ending.

Dates: November 2-5, 1998
Place: Unicoi State Park
Cost: Room rate single/dbl occupancy: \$59 (plus taxes, if not exempt)
Registration: \$30 for 3 day attendance (includes banquet), or...
\$15/daily attendance plus \$20 banquet fee

We have 60 rooms currently on hold for Monday night, November 2 through Wednesday night, November 5. Forty of these rooms are in Building "D", which will be the first spaces to book. Our courtesy room and common area will be in this building. Registration will be on a first come, first served basis. The 60 rooms will be held until September 30, 1998. Reservations require a minimum 1 night deposit. Any reservations can be canceled 72 hours or more ahead and a full refund will be issued. Check in is at 4:00 p.m., check out is at 11:00 a.m. Reservations can only be made using a specific registration form (included in this packet of information). These can be mailed or faxed, per instructions. There will be a Monday workshop to start off the conference for those that wish to attend (details to be worked out). We have a handful of rooms available for the Friday, Saturday and Sunday nights *before* the meeting to allow early arrival. Anyone who wants to make it in for the weekend should have a place to stay. More in-depth information will be provided at a later date.

Suggest you preregister for the conference by mail. Rates may be slightly higher at the door. On site registration will begin with the opening of the courtesy room at 5:00 p.m. on Monday, November 2. The banquet will be catered at the lodge on Wednesday night. Meeting times will be approximately 8:30-5:00 daily. We're planning a number of outside field exercises Wednesday afternoon as part of the conference. There will be some scheduled after-hours activities also. Maybe Tuesday night in Helen and a Wednesday night hike to Anna Ruby Falls? Additional details will follow in the upcoming newsletters. We expect a big turnout, especially from the Georgia folks. Trish Foster and I will be coordinating the effort. Call us at 404-656-4905 for additional info. We hope to see you there!!

E-mail: chip_cutcliff@mail.dnr.state.ga.us Fax 404-657-7031 W 404-656-4905

(updated 6/15/98) swpba98b.inf

From the Secretary's Desk...

Like Chip mentioned in his letter, we have been working diligently to prepare for the 1998 SWPBA annual meeting in Helen, Georgia. Every week the plans for the meeting look better and better. As you will see in this newsletter, we are petitioning the membership for some feedback on the annual meeting's activities. Please take a few minutes to fill out our questionnaire. Your comments help us design a conference that you will enjoy. If you have any questions, Trish can be contacted by email at ncsu89@aol.com or phone (770)-932-1171.

1998 MEETING AGENDA AND POSTER SESSION - CALL FOR PAPERS!!!

It is time for you to begin organizing a presentation for this year's meeting. Call Trish Foster or Chip Cutcliff with your ideas and we will find a spot for you on the agenda. Included in this newsletter is a draft agenda with proposed session topics. Nothing is set in stone at this moment so if you have any suggestions or comments about the agenda, call us now.

Don't forget that we need an abstract for your presentation. Your state newsletter contact has a formatted disk containing a copy of the abstract form. We must have your abstract by October 16, 1998. Remember, when preparing your presentation, you get 15 minutes!!!

TAXONOMIC WORKSHOP

A taxonomic workshop will take place on Monday afternoon, November 2, 1998 before the 1998 SWPBA annual meeting gets underway. After talking with state representatives, there is a lot of interest in baetid mayflies. Since the modification of the Baetidae key, there's a lot of inconsistency with the identifications among states. I have tried to contact Dr. John Morse at Clemson University to see if he would be interested in teaching the class. Unfortunately he is out of the country until August. Communication via email is underway, though. The beauty of Internet!

Another taxa group of interest is Gastropoda (Mollusca). Two suggestions of potential instructors include Malcomb Pierson with Alabama Power and Steve Allstead with TVA. I plan to contact these gentlemen to see if they have any interest in conducting a workshop. If you know of any one else proficient enough in gastropod identification who would be willing to teach a mini course, please email me.

It is my intention to have microscopes available for workshop participants to use. The number of scopes we will have set up is undetermined at this time. The workshop will run from 1:00pm to 5:00pm on Monday, November 2. It will consist of several mini-courses focusing on specific taxa groups. Besides baetid mayflies and gastropods, there is an interest in non-chironomid Diptera and larval dragonflies. Further details will be given to you when workshop plans are finalized. If you have any comments about this workshop, please contact me ASAP.

NEWSLETTERS

Submission date for the next newsletter is September 14. Please mark this date on your calendar. All submissions can be sent electronically to Trish Foster at ncsu89@aol.com. Please send all files in WordPerfect for Windows format (no later than v6.0). Also, make sure files have .wpd extension.

Your colleagues in the southeast are interested in what you are doing so please take the time to contact your state's contact person with updates. This is your newsletter so lets make it as informative as possible.

MEMBERSHIP LISTING

Included in this edition of the newsletter you will find a blank application for the SWPBA Database Record. If you have any changes in regards to membership status, new memberships, phone numbers, email addresses, etc., please take a minute to make the appropriate changes. This will allow our SWPBA membership database to remain current and up to date. Changes to current status or new membership information should be sent to your state's contact person and he/she will mail it in with the state updates.

ANNUAL MEETING T-SHIRT DESIGN

The T-shirt design will be posted in your office in July. We know you will be pleased with the artwork. Please note that T-shirt orders must be placed by October 5. Very few shirts if any will be available after October 5. So send in your order or call us when you make your decision.

PRE-REGISTER FOR THE ANNUAL MEETING

Go ahead and send in your pre-registration form for the 1998 annual meeting in Helen, Georgia. Receipts will be provided at the meeting. If something happens and you can't come, we will refund your money.

SWPBA 1998 Annual Meeting Draft Agenda

Mon., Nov. 2	Tues., Nov. 3	Wed., Nov. 4	Thurs., Nov 5
Taxonomic Workshop (1:00 - 5:00pm)	Late Registration (8:00-10:00am)	Announcements (8:30 - 8:45am)	Announcements (8:30 - 8:45am)
Registration / Poster Setup (5:30- 9:00pm)	Welcome Remarks, Sponsor Introductions, and Announcements (8:30am)	PLENARY SESSION: (8:45 - 10:00am) <u>Ecoregions and their</u> <u>Reference Sites</u> & <u>Methods Development</u>	CONCURRENT SESSIONS (8:45 -10:00am) : * <u>Fish Tissue/Toxicity</u> <u>Testing</u> * <u>Volunteer Monitoring</u>
Executive Committee Meeting (7:30pm)	Keynote Speaker: TBA (9:15 am)		
	COFFEE BREAK in Exhibit Hall (10:00-10:30am)	COFFEE BREAK in Exhibit Hall (10:00-10:30am)	COFFEE BREAK in Exhibit Hall (10:00-10:45am)
	PLENARY SESSION (10:30am - 12:00) <u>Ecological</u> <u>Assessments</u>	PANEL DISCUSSION <u>Reference Site</u> <u>Monitoring</u> (10:30-11:30am)	BUSINESS MEETING/ 1999 Meeting Preview (11:00 am - 12:00)
	LUNCH - on your own (12:00 - 1:30pm)	LUNCH (11:30 - 1:00pm)	Meeting Adjourned 12:00
	PLENARY SESSION (1:30 - 2:45pm) <u>TMDLs and Watershed</u> <u>Monitoring</u>	CONCURRENT WORKSHOPS (1:00 - 4:00pm) *Meet your group at the designated area before departure.	Interstate Communication and Teambuilding Exercise (1:30 - 5:00pm)
	COFFEE BREAK in Exhibit Hall (2:45 - 3:15pm)		
	PLENARY SESSION (3:15 - 4:15pm) Topic Open		
	POSTER SESSION and EXHIBITS (4:15 - 5:30pm)		
	Beach Volleyball Tournament: TBA	Beach Volleyball Tournament: TBA	
		EVENING BANQUET in Masters Hall (6:30 - 8:30pm)	
		ANNA RUBY FALLS Night Hike Led by Bill Burgess (8:30pm) * Bring flash lights and warm clothes	

UNICOI STATE PARK & LODGE

Lodge rooms contain two double beds (max occupancy 4), some rooms also have a carpeted sleeping loft with two twin mattresses (reached by climbing a ladder, the room with loft accommodates 6).

LODGE ROOMS

Dbl. Occupancy 59.00
Each Add. Adult 8.00

LODGE RATES ARE BASED ON DOUBLE OCCUPANCY. THERE IS NO SINGLE RATE. CHILDREN 12 AND UNDER FREE WHEN IN ROOM WITH PARENT.

RATES SUBJECT TO CHANGE. 8% GA SALES TAX AND 5% HOTEL/MOTEL TAX APPLIED TO ALL ACCOMMODATIONS.

PETS ARE NOT PERMITTED.

CHECK-IN TIME 4:00 PM CHECK-OUT TIME 11:00 AM

Return completed reservation form with a credit card number or a deposit of the first night's stay. Make checks payable to UNICOI STATE PARK & LODGE.

Mailing address: Unicoi State Park & Lodge
P O Box 849
Helen, GA 30545

FAX INFORMATION: Only reservations with a credit card number will be accepted by fax at: 706/878-1897.

Accommodation requests are honored where possible, but are not guaranteed.

(While at Unicoi, you may be reached at 706/878-2201.)

Cancellation Policy

If group cancels you will be charged:

31-60 day prior to arrival date: \$10.00

15-31 days prior to arrival date: 1/2 deposit

Within 14 days of arrival date: entire deposit

Individuals may cancel up to 72 hours in advance. Deposit will be refunded and/or credit card will not be charged.

GA SALES TAX EXEMPTION

PAYMENT MUST BE MADE BY AGENCY CHECK AND A COPY OF THE EXEMPTION CERTIFICATE OR NUMBER MUST BE PRESENTED AT TIME OF CHECK-IN.

HOTEL/MOTEL TAX EXEMPTION

EXEMPTION FORM MUST BE FILLED OUT AT TIME OF CHECK-IN.

GEORGIA PARKPASS

A \$2.00 PARKPASS IS REQUIRED FOR ALL OVERNIGHT VEHICLES. * Waived for 3 day conference attendees.

RESERVATIONS ACCEPTED BY FORM ONLY.
ACCOMMODATIONS WILL BE HELD BASED ON
INFORMATION SUBMITTED ON THIS FORM.

SOUTHEASTERN WATER POLLUTION BIOLOGIST ASSOCIATION

NOVEMBER 2-5, 1998 ANNUAL CONFERENCE

NAME _____

ADDRESS: _____

CITY _____ STATE _____ ZIP _____

BUSINESS PHONE _____

HOME PHONE _____

ADULTS _____ # CHILDREN _____

ARRIVAL DATE _____

DEPARTURE DATE _____

ROOMS REQUESTED _____ # NIGHTS _____

SPECIAL REQUESTS SHOULD BE MADE IN ADVANCE. EVERY EFFORT
WILL BE MADE TO HONOR OR MATCH YOUR REQUEST(S). ALL
ROOMMATES MUST REGISTER AT THE FRONT DESK.
ROOMMATE NAME(S) _____

SMOKING _____ NON-SMOKING _____
HANDICAPPED _____ EASY ACCESS _____
HOTEL/MOTEL TAX EXEMPT _____
GA SALES TAX EXEMPT _____

**RESERVATIONS MUST BE MADE BY SEPT. 30, 1998
UNSOLD ROOMS WILL BE RELEASED ON THIS DATE.**

PAYMENT METHOD _____
AMOUNT ENCLOSED \$ _____

CREDIT CARD # _____ Exp Date _____
PRINT NAME AS SHOWN ON CREDIT CARD: _____

CUSTOMER SIGNATURE _____

CONFIRMATION WILL BE SENT UPON RECEIPT OF DEPOSIT

SWPBA98/11

ATTENTION!! ATTENTION!! WE NEED SOME FEEDBACK!!

We have spent a lot of time mulling over the events for this year's annual meeting. Based on our observations over the past few years and some comments made by various SWPBA members, the annual meeting might need a bit of a "facelift". We want to bring the proposed changes to your attention and hope folks will give us some feedback (positive or negative). It is our goal to design the annual meeting in such a way that meets the membership's needs.

On the following page you will find a questionnaire concerning the proposed changes to the annual meeting. Please take a few moments to fill it out. Remove the questionnaire from the newsletter and return it to Trish Foster by July 31, 1998.

As many of you know already, the state overviews will be presented in written form this year. Each state should provide their state overview in text format by September 30, 1998. The overviews will be incorporated into the conference notebook each participant receives at the meeting.

Another change to the usual format we are introducing is the Wednesday afternoon workshops. Most of the workshops will take place in the field. There is so much to take advantage of in the great outdoors around Helen, Georgia. We are asking each participant to reserve a space in the workshop he/she would like to attend. The workshops are free but space will be limited so pre-register as soon as possible. The workshops will be excellent training opportunities for participants.

The workshops will run concurrently so you must choose one. We will also ask you to select a second option in case the first workshop you chose is full. Listed below are the workshops we plan to offer. If you have another suggestion/idea of a workshop that has not been listed, please mention it on the questionnaire. The proposed classes are:

- Guided tour of the Georgia Department of Natural Resources Lake Burton Fish Hatchery led by fisheries biologist Lee Keefer.
- * Tour through a multi-agency 319 nonpoint source demonstration project on a portion of the Dukes Creek watershed. Dukes Creek, classified as a primary trout stream, has been affected by massive sediment runoff from Forest Service Road 244 over the years. Due to the recreational interests in this watershed, approximately 500,000 visitors use FS road 244 on a yearly basis. Less than a mile downstream of the restoration site is the Dukes Creek Conservation area, a highly visible educational center and conservation area serving 13 counties. The goal of the project is to restore 1.8 miles of this road which will have direct positive benefits from less sediment runoff. There will be indirect positive benefits to the remaining 6 miles of Duke's Creek before it enters the Chattahoochee River. Lead organizations are the Georgia Forestry Commission and US Forest Service.

- Explore the relationship of chemical, physical, and biological components of a stream to sediment. This applied workshop is comprised of two sections: Hydrology / Geomorphology Issues; and Biological /Chemical Issues. Bruce Pruitt and other USEPA Region IV biologists will lead this workshop. Much of the workshop will focus on techniques to measure sediment impacts used by USEPA Region IV in the Upper Chattahoochee River Reference Site and the Chattooga River TMDL studies.
- Meet EDAMS! A hands-on computer workshop using the database system called Ecological Data Applications and Management System. This is the new Access database system developed for state ecological data and is set up to run multimetric analyses.
- Can the states adopt a standard method for evaluating regional reference sites? Get into the stream and demonstrate your state's method for sampling macroinvertebrates. A representative from each state should participate in this workshop. Please bring waders and sampling net(s).
- Tour of Brasstown Bald area led by a US Forest Service Representative. This unique area of Georgia is the highest point in the state. Visit the Agriculture Museum and learn about the history and its fauna/flora. We will try to arrange a macroinvertebrate sampling exercise in the area.

The third idea we are proposing is a concurrent session on Thursday morning. At previous annual meetings, the Thursday morning moderated session has been reserved for presentations relating to toxicity testing. We feel that this topic is a very important one to cover. However, there are many members who would like to spend the Thursday morning session focusing on other topics of interest. To accommodate the membership's preferences we would like to try a concurrent session. At this time the other session will pertain to volunteer monitoring issues.

Overall, what do you think? Please send your comments in ASAP so we can work out the particulars.

**PRESENTING THE SPONSORS OF THE 1998 SWPBA
ANNUAL MEETING**

Hydrolab Corporation

YSI

Kemp Industries

Lisec Industries

Ben Meadows Company

RoLanka

Georgia Mountain Water

**Thank you for helping SWPBA celebrate its 25th year anniversary. We
could not do it without their support!!!**

Southeastern Water Pollution Biologists Association Annual Meeting
Proposed Changes to Agenda

Send comments by July 30, 1998 to: Trish Foster
4652 Shay Terrace
Buford, Georgia 30519

Name: _____
Address: _____

1. Do you have any objections to the state overviews being presented in written format?
_____ Yes/No If so, why?

2. Do you have any interest in attending the Wednesday afternoon workshops? _____ Yes/No

3. Do you have any objections to substituting applied workshops for paper presentations?
_____ Yes/No If so, why?

4. Based on the workshop topics previously listed, which workshop(s) interest you the most?

5. Do you have other workshop topics in mind? Please list your ideas.

6. As a workshop participant, would you like to drive your own vehicle or carpool in a van to the site where your workshop will be conducted?

7. Do you plan to attend the annual meeting on Thursday morning? _____ Yes/No

8. If you had to choose between the Toxicity Testing session or a session focusing on volunteer monitoring, which one would you attend? _____

9. Do you have any objections to attending a concurrent session on Thursday morning of the annual meeting?

10. Do you have any other ideas or changes you would like to see made to the annual meeting?

11. Comments

SWPBA Database Record

Contact: Yes / No

Newsletter: Yes / No

Member: Yes / No

Name: _____

Title: _____

Phone: _____ Fax: _____

Date Joined: ____/____/____

Agency: _____

Division/Section: _____

Group/Program: _____

Address: _____

City

State

Zip Code

Special Interests or Projects: _____

Codes: _____, _____, _____, _____, _____

Interest Codes (Please choose at least one or up to 5 Codes and enter above)

- | | |
|--|--|
| 01) Macroinvertebrates Taxonomy/ Rapid Bioassessment | 16) Standards, Water Quality Criteria |
| 02) Toxicity Testing | 17) 305b |
| 03) Laboratory Certification | 18) Aquatic Macrophytes |
| 04) Phytoplankton/ Periphyton, Zooplankton | 19) Ambient Trend Monitoring |
| 05) Lakes/Reservoir Monitoring | 20) Sediment Analysis/SOD |
| 06) Estuarine Ecology | 21) Culturing Organisms for Toxicity Testing |
| 07) Marine Ecology | 22) Computer Modeling/Applications |
| 08) Wetlands | 23) Coastal Program |
| 09) 401/404 Certification | 24) Microbiology |
| 10) Ecoregion Definitions | 25) Permit Compliance |
| 11) Estuarine/ Marine Macroinvertebrate Taxonomy | 26) Program Manager |
| 12) Stream Surveys | 27) Groundwater |
| 13) Fish Taxonomy/Assessment | 28) Algal Assay |
| 14) Cercia Superfund | 29) Chemical Analysis |
| 15) Nonpoint Sources | 30) Risk Assessment |

SWPBA Contact List

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Mike Pearson	SC	(803)522-9097	pearsodm@prtryl30.dhec.state.sc.us
Jake Bickley	SC	(803)734-5397	bicklejh@columb32.dhec.state.sc.us
Bill McDermott	SC	(803)734-5480	mcdermwt@columb32.dhec.state.sc.us
Peyton Sasnett	SC	(803)734-5139	sasnetpb@columb32.dhec.state.sc.us
David Chesnut	SC	(803)734-5393	chestnde@columb32.dhec.state.sc.us
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Jimmy Smith	TN	(615)650-7254	nashvfo2@mail.state.tn.us

US EPA REGION IV

Staff of SEDS and the Water Management Division have been conducting investigations into impacts of sediments on the streams within the Chattooga River Watershed in Northeast Georgia. Several techniques have been tried in an effort to evaluate their usefulness in relating sediment levels in streams to biological condition and designated use attainment. EPA has been assisted in this effort by Gary Kappesser and Bill Hansen with the U.S. Forest Service as well as staff from Georgia EPD. The techniques that have been evaluated include cobble embeddedness, V* Pool (a method to evaluate pool filling), Riffle Stability Index, and pebble counts. Permanent cross sections have been established on ten streams and stream typing following the Rosgen system has been completed. Additionally, under the guidance of Bruce Pruitt, storm event sampling was recently completed for Stekoa Creek, Warwoman Creek, Big Creek, and Addie Branch. The water analyses consisted of water column TSS and turbidity using both integrated samplers and single stage samplers. Bedload sampling was also conducted throughout the storm event.

DEVELOPMENT OF TMDL PROTOCOLS USING WATERSHEDS IN THE LOWER PIEDMONT ECOREGION OF GEORGIA

There are no established standard operating procedures for conducting TMDLs related to nonpoint source assessments. It is the intent of this project to develop an assessment process or standard operating procedure from the planning stage to the allocation stage that can be applied to other sites in the region. The following policy questions have been identified to guide the development of study efforts:

How does EPA Region 4 define an approvable TMDL that is technically and legally defensible?

How are TMDLs applied different situations and what are appropriate critical conditions?

How are TMDLs developed for nonpoint sources when some parameters do not have numeric criteria?

Goals are to:

Produce a standard protocol for assessing nonpoint TMDL for suspended and bedload solids, nutrients and pesticides.

Characterize the level of ecological integrity of the streams before TMDL implementation by evaluating the riparian zone, instream habitat, aquatic biota, land cover, geomorphology, soils, groundwater, and drinking water.

Analyze an efficient means of screening at various scales.

Determine which models are useful in the TMDL exercise.

Develop a means of identifying attainable nonpoint source criteria.

Savannah TMDL - Sediment Yield Module, Bruce A. Pruitt

The objective of the first phase of the sediment yield module is a comparative study of four methods of sampling suspended-sediment load: (1) single-point automatic sampler (ISCO); (2) single-staged suspended-sediment sampler (USGS U-59); (3) Reaeration Sampling Device-RDS (SESD design); and (4) depth-integrated suspended-sediment sampler (USGS DH-59). The DH-59 is being utilized as the standard for comparison. In addition to suspended-sediment load, bedload is being sampled using a USGS BL-84 for an estimation of total sediment load. Once the first phase is complete, sampling protocol will be developed using the most reliable/consistent method.

At present there are no approved methods for developing sediment TMDLs. However several procedures are being developed and tested. The Science and Ecosystem Support Division (EPA - Region 4) is conducting a long-term TMDL modeling effort on four piedmont watersheds with emphasis on sediment yield and sediment criteria development. In addition, through a grant from EPA, Dave Rosgen of Wildland Hydrology, Pagosa Springs Colorado, has a similar study in the Colorado Rockies underway. Rosgen's study will complement efforts in the southeast on development of attainable sediment criteria.

Setting numeric sediment criteria that allows for normal fluctuations in sediment yield during a storm hydrograph but at the same time is sensitive to anomalies has been problematic. One promising solution is to normalize the data. Normalization of hydrological and sediment data offers a means of discriminating between natural versus anthropogenic variability in sediment concentration along a storm hydrographic gradient. One method of normalization presently under investigation is to develop a dimensionless sediment rating curve. The ratio of total sediment load (S) to total sediment load at bankfull (S_{bkf}) is regressed against the ratio of discharge (Q) to discharge at bankfull (Q_{bkf}), thus the relationship is dimensionless (i.e., S:S_{bkf} vs. Q:Q_{bkf}). Attainable versus unattainable sediment criteria is depicted on a sliding scale created by the upper 95% confidence band of the regression. Unattainable (impaired) streams or stream-reaches are identified graphically above the 95 percent confidence bands.

ALABAMA

Fieldwork is now the focus of most of our time and effort. Our summer projects are all underway with reconnaissance work generally completed. And, as is usual for us, this newsletter will be significantly less verbose.

Stream Studies

We have several stream assessment projects this year. They include: State Parks Project, Tennessee Basin Project, several Water Quality Demonstration Projects, and the Paint Rock River Project.

The macroinvertebrate assessments and the first round of chemical sampling and habitat assessments for the State Parks Project will be completed in the next two weeks. This study includes 32 study sites and 10 ecoregional reference sites to document current water quality conditions in wadeable streams in and around selected Alabama State Parks. Fish bioassessments will be conducted in June/July.

For Part I of the *Tennessee Basin NPS Project*, we will be ranking subwatersheds based on impairment from Nonpoint Sources as indicated by: 1) historical TVA fish IBI data, 2) chemical and bacteriological sampling; and 3) habitat assessments. This ranking will be utilized by the Nonpoint Source Section to focus their efforts of encouraging the implementation of BMPs in these subwatersheds. Part II of the project included funds to collect additional data on selected 303(d) segments in the Tennessee Basin. Chemical sampling and habitat assessments are currently underway. This information will be used to assist in developing the TMDLs for these segments.

Several *Water Quality Demonstration Projects (WQDS)* are scheduled to be conducted by the Bioassay Unit this summer. WQDS projects are generally conducted as upstream/downstream studies when a facility is violating the toxicity portion of their NPDES permit or when undergoing an upgrade of their treatment processes with funding from the State Revolving loan fund. These projects include chemical, physical, habitat, toxicity testing, and macroinvertebrate biological assessments. Four studies have been scheduled for this year: Arab, Greenville, Saraland, and Birmingham Riverview wastewater treatment facilities.

Quarterly monitoring for water quality indicators is being conducted at 12 stations within the *Paint Rock River* watershed in North Alabama. The annual macroinvertebrate biological assessments were conducted the end of April. This effort will be continued for two years in association with the Paint Rock River Nonpoint Source Watershed Project.

Reservoir Water Quality Monitoring (RWQM) Program

Compilation and analysis of data collected April – October 1997, from reservoirs of the Coosa and Tallapoosa River Basins continued during the winter and spring of 1998. Water quality data collected from reservoirs of the Coosa basin during the 1997 survey were presented at the annual meeting of the Alabama Fisheries Association in February 1998 and at the Public Information and Technical Conference of Alabama Water Watch in April 1998. .

The Final Diagnostic / Feasibility Reports for the Weiss Reservoir and Neely Henry Reservoir Phase I Studies, as submitted to ADEM by Auburn University, were submitted to the EPA. Auburn University forwarded the final draft of the Feasibility portion of the Phase I study of Smith Lake to the Department for review and comment.

The Reservoir Water Quality Assessment of the Black Warrior River Basin was initiated in April 1998. Data collected during this project will be used in the estimation of current water quality and trophic state of impounded waters of the Black Warrior River Basin. A number of targeted tributary embayments are formed by the confluence of the Black Warrior River with tributaries listed as priority watersheds for agriculture-related pollutants by the Alabama Nonpoint Source Management Program Report (1989). The assessment will aid in the determination of the tributaries most affected by nonpoint source pollution in addition to determining the affect of these embayments on the water quality of the mainstem reservoir portion. Data collected by this project will build upon data collected by ADEM during 1997 through activities of the Water Quality Assessment of the Black Warrior River Basin in which identification of subwatersheds affected by NPS pollution, causes of the NPS pollution, and water quality of the flowing portions of tributaries in these subwatersheds were determined.

For further information on the RWQM Program contact Fred Leslie at (334) 260-2752 or fal@adem.state.al.us.

Alabama Monitoring and Assessment Program (ALAMAP)

Station locations have been finalized for the fifty (50) probabilistic ALAMAP sites scheduled for sampling in August 1998. This year staff from our field offices will conduct assessments at approximately one-half of the selected sites. A training / QA/QC workshop was conducted for all Mobile and Birmingham field office personnel planning to be involved in ALAMAP sampling.

New Personnel

Just in time for sampling season we have been blessed with two new biologist aides. Sandy Pursifull transferred to our section from the Mining section and Sandy Zappia is a new employee. Both will be rotating between field and bioassay work. We are very, very glad to add them to our section

FLORIDA NEWS

Florida Department of Environmental Protection

Biocriteria committee develops biological assessment tools for Florida's lakes, wetlands, and estuaries

On the heels of the completion of bioassessment protocols for wadeable streams, Florida Department of Environmental Protection biocriteria committee members are working hard to develop biological assessment tools for lakes, wetlands, and estuaries.

The development of the lake methodology should be complete by the end of the year. FDEP is being assisted in this effort by Dr. Jeroen Gerritsen of Tetra Tech, Inc. The current method involves taking petite ponars at two- to four-meter depths at twelve locations within approximately equal sections arranged radially from the center of the lake. (Some modification of this method is necessary when a lake is lobed or otherwise very irregularly shaped.) The ponars are composited, a minimum of a hundred-organism subsample is taken, and the macroinvertebrates are identified to the lowest possible taxon. The use of littoral zone sweeps as a rapid screening technique for lakes—similar to FDEP's BioRecon—is also being tested.

A wetlands assessment protocol for Florida is also in the works. Working with scientists from the University of Florida in Gainesville, FDEP is trying to determine the best suite of assessment parameters to use. Because some wetlands are virtually dry for some or even most of the year, aquatic macroinvertebrates may not be good indicators of system health. The use of other communities such as plants, birds, reptiles and amphibians is being explored. There will be more later on this complex new venture.

Similarly, biologists from FDEP district offices and the Florida Marine Research Institute in St. Petersburg are involved in the early development of procedures for bioassessment of estuarine and nearshore marine areas.

Biologists from FDEP's Central District office in Orlando and the Northeast District office in Jacksonville are involved in pre-permit water-quality monitoring for the possible removal of the Rodman Dam on the Ocklawaha River. In the early 1960s, the Army Corps of Engineers began building a Cross-Florida Barge Canal by linking parts of the Ocklawaha and Withlacoochee rivers, channeling various sections, and installing several dams and control structures. After years of public outcry about the project's environmental damage, the partially completed canal was deauthorized in the 1970s. For years, both public agencies and private groups have sought to restore the river by removing the dam that created Rodman Reservoir (also known as Lake Ocklawaha). In 1997, FDEP submitted a permit to the St. Johns Water Management District for a partial restoration by means of gradually drawing down the reservoir and eventually removing the dam. The state legislature, however, has not appropriated funds. The permit specifies that pre-permit monitoring be done, and water samples for chemical analysis are thus being taken biweekly for six months. Because the eventual drawdown will almost certainly have dramatic effects on the streams flowing into the lake, biological sampling in several tributaries is planned in the near future. When and if the drawdown takes place, this sampling will be repeated afterwards.

In late April, a substantial number of Mediterranean fruit flies (Medflies) were found in Umatilla, Florida, in Lake County. Aerial spraying will soon begin in the area. Biologists from the Orlando office have rushed to take biological samples from several of the area's many lakes to establish a background condition. District biologists in Tampa found that last summer's spraying in Tampa had devastating effects on nontargeted aquatic macroinvertebrates in streams.

Taxonomic keys will soon be available on our Web site

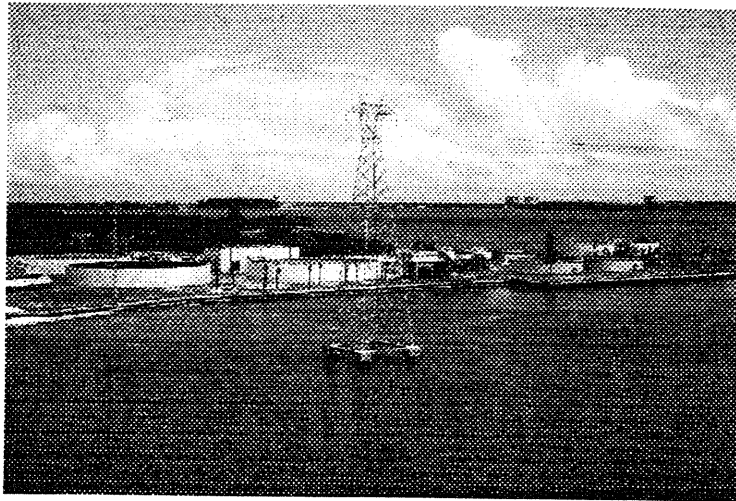
All of the Florida Department of Environmental Protection's taxonomic keys are being placed on FDEP's Web site within the next two months. They can be accessed at www.dep.state.fl.us/biology/library.html. No more hard copies will be printed.

Florida's Harmful Algal Bloom (HAB) Task Force gathers information

A task force was formed in 1997 to be better prepared for harmful algal blooms (HABs) when they occur. The task force meets every two months and thus far has compiled information on the forty-plus species of toxic algae occurring or most likely to occur in Florida. *Pfiesteria* has not yet occurred in Florida, except for an isolated case in an aquarium. Problems are occurring, however, with outbreaks of a new genus and species of a pfiesterialike toxic dinoflagellate, *cryptoperidiniopsis* sp. Diseased fish were reported from the St. Lucie estuary in March 1998, and *cryptoperidiniopsis* was collected. The organism is suspected to initiate lesions in fish that lead to secondary bacterial and fungal infections, which are responsible for the severity of the disease. *Cryptoperidiniopsis* has also been found in Florida's St. Johns River, Maryland's Chicamacomico and Pocomoke rivers, and North Carolina's Neuse and Pamlico rivers. Information can be found at www.fmri.usf.edu/ecohab.

What has happened since the implementation of the Indian River Lagoon Protection Act?

On July 2, 1990, the Florida Legislature enacted Chapter 90-262, Laws of Florida to assist in the restoration and protection of the water quality of the Indian River Lagoon system. The Indian River Lagoon Protection Act (Act) assigned various responsibilities to the Department of Environmental Regulation (now the Department of Environmental Protection), the St. Johns River and South Florida Water Management Districts, and local governments within the system.



Fort Pierce Utility Authority on the Indian River Lagoon

The act's objectives for domestic wastewater treatment facilities include

- Elimination of surface water discharges
- Investigation of the feasibility of reuse
- Centralization of sewage collection and treatment facilities

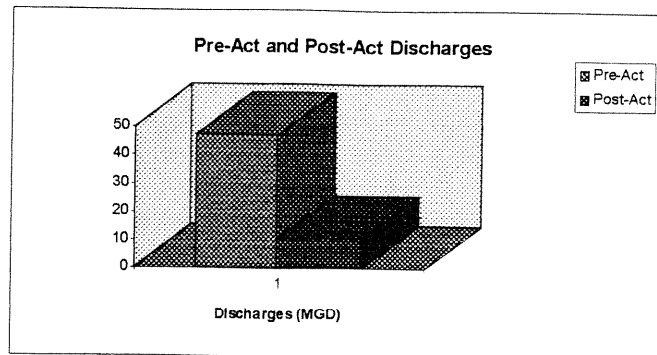
The act requires that no new discharges or increased loadings from domestic wastewater treatment facilities within the lagoon system be permitted. Additionally, all surface discharges from domestic wastewater treatment facilities were to be eliminated before July 1, 1995 (later extended to April 1, 1996).

There are several exceptions to these requirements, including discharges during extremely wet conditions. In 1995, the Florida legislature also passed A Prototype Realistically Innovative Community of Today (APRICOT) Act, which addressed those times when the demand for reuse water is not high enough to match the amount available from wastewater plants, allowing up to 30 percent of the annual flow to be discharged to surface waters if advanced wastewater treatment (AWT) is provided.

Levels of Treatment for Wastewater Discharges

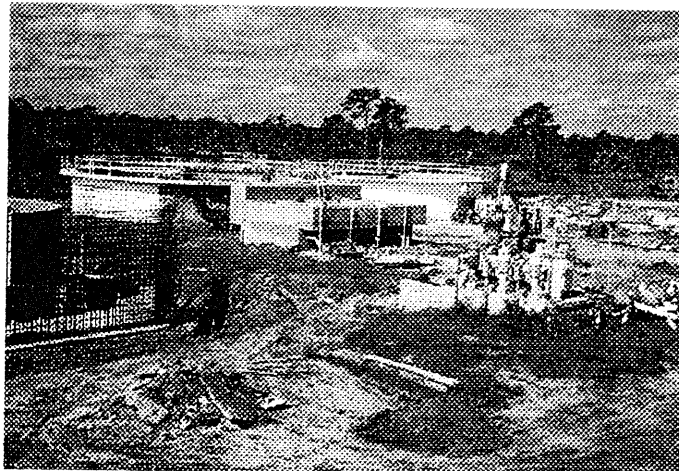
<i>Parameter</i>	<i>Secondary Treatment (normal requirement)</i>	<i>Advanced Wastewater Treatment (AWT)</i>
Carbonaceous Biochemical Oxygen Demand (CBOD)	20.0 mg/L	5.0 mg/L
Total Suspended Solids (TSS)	20.0 mg/L	5.0 mg/L
Nitrogen, total as N	No Standard	3.0 mg/L
Phosphorus, total for P	No Standard	1.0 mg/L

At the time the act was passed, there were 21 domestic wastewater treatment facilities permitted to discharge into the Indian River Lagoon system [about 47 million gallons per day (MGD)]. Currently, only 10.5 MGD (annual average) are permitted to be discharged in wet weather or emergency conditions.



When the legislature passed the IRLPA, not only were surface water discharges to the system identified, but also the “threat facilities.” These facilities in the Indian River Lagoon drainage basin posed a potential threat to the lagoon’s water quality, either because of potential treatment plant failure, seepage to the lagoon, or overflow during high rainfall. One hundred fifty-four threat facilities were identified. It is important to point out that these facilities were not direct dischargers but were found in close proximity to the lagoon, a tributary, or canal. Centralized sewage collection and treatment facilities could provide more consistent and higher levels of wastewater treatment. By eliminating the threatening facilities, the quality of the Indian River Lagoon system would greatly improve.

The act required counties and municipalities in which these package plants were located to provide centralized sewage collection systems to serve the area. Where a central sewage system was not currently available and would not be in the near future, the department required the facility to modify its land application system to reduce the potential threat to surface water quality. In most



Construction of a new centralized system to eliminate threat facilities.

cases, this involved increasing the setback distance to the nearby drainage system. Of the original 154 threat facilities, approximately 100 have been connected to a regional wastewater treatment facility.

For more information, please call

David Herbster, Ombudsman,
Central District Administration,
Florida Department of Environmental Protection
(407) 894-7555 Suncom 325-2354

Watershed Planning and Monitoring Program (WPMP)
Water Protection Branch
Environmental Protection Division
Georgia Department of Natural Resources

Time again to update the SWPBA membership as to ongoing activities here in Georgia. As always, our staff is staying very busy during the spring and summer months preparing and implementing field studies. This summer we are involved in Coastal Monitoring, Major Lakes Monitoring, Compliance Sampling and preparation of the 1996-1997 305b report, just to name a few ongoing activities. More on these to follow.

This newsletter also contains all of the information about the 1998 SWPBA conference here in Georgia. There are some really great plans, and we look forward to a good turnout. Your input and participation is vital to the success of the meeting. Read over the information presented at the beginning of this issue. Reservations must be made by September 30th if you want a room, using the mail-in reservation form provided. Register as early as you can to guarantee your accommodations! Get those papers and presentations ready!

Permitting Compliance & Enforcement Program (PCEP)

The City of Atlanta submitted a \$270,000 check as payment of the stipulated penalty of \$10,000/day owed under State Law for the city's failure to complete construction of the Utoy Creek CSO separation project. The payment was for the month of March, 1998. This is the final stipulated penalty that the City of Atlanta will be required to pay as the result of their failure to complete construction on the Utoy Creek CSO separation project. On March 27, 1998, EPD representatives documented that the City had completed the separation project. The City has paid (through March 27, 1998) a total of \$18,909,054 in stipulated penalties for their failure to either initiate or complete construction of the CSO projects.

In accordance with the "zero tolerance" policy adopted by the Board of Natural Resources, ten Expedited Enforcement Consent Orders were executed during the month of April. These Orders were issued to address permit violations and sanitary sewer overflows that occurred in the Coosa and Chattahoochee River basins, as well as 14 counties in the metro Atlanta area. A total of \$18,700 in monetary settlements was collected as a result of these ten orders.

Nonpoint Source Program

On April 7, 1998 the Environmental Protection Division reissued the General National Pollutant Discharge Elimination System (NPDES) Permit No. GAR 000000 for Storm Water Discharges from Industrial Activities. This General NPDES Permit will become effective on June 1, 1998 if an administrative appeal of its issuance is not filed. In conjunction with the issuance of this General NPDES Permit, EPD provided responses to those parties (approximately 60) making comments during the public comment period. The Nonpoint Source Program will begin notifying those industries (approximately 2900) of the need to resubmit Notice of Intent for coverage by May 31, 1998.

Letters were sent to 54 cities and 20 counties during the month of April informing the respective jurisdictions that they either had not responded to comments on their erosion control ordinance or had not sent in a revised ordinance. The cities and counties were given a deadline for submitting an ordinance which meets the minimum requirements of the law. If this deadline is not met, then EPD will take over the permitting and enforcement of Land Disturbing Activity Permits within these political jurisdictions.

The EPD Watershed Assessment Workgroup held its fifth meeting on April 28th. Workgroup members continued their discussion of watershed assessment guidelines and coordination efforts. A draft watershed guidance document developed by the NPSP was distributed to the members for review.

Georgia Adopt-A-Stream has been very active in developing partnerships with several groups and agencies around the state. On March 11 and 12, The Little River Rooty Creek Watershed Stewardship Seminar was conducted in partnership with the Georgia Cooperative Extension Service, the USDA Natural Resource Conservation Service, the Agricultural Pollution Prevention Program and the State Soil and Water Conservation Commission. Adopt-A-Stream and water quality monitoring was the focus of the second day of the seminar. Farmers, students, state and other agency staff attended the seminar and learned how the agricultural community can utilize Adopt-A-Stream protocols to monitor the streams on their land.

Another partnership has been formed with the Georgia Forestry Commission, US Forest Service, National Resource Conservation Service and the Upper Chattahoochee Riverkeeper to assist Adopt-A-Stream groups with stream bank stabilization and habitat restoration. The program is called PASS on Clean Water and is presently offering assistance to groups in the Soquee River Watershed.

The Adopt-A-Wetland program has begun, with two volunteer training sessions under our belt and a wetland conference to be held June 5 in Dahlonega.

Project WET coordinates *Georgia River of Words*

Teachers from schools throughout Georgia had an opportunity to study watersheds with their students using art and poetry. The "River of Words" is a National Art and Poetry Contest sponsored by The International Rivers' Network and the former US Poet Laureate, Robert Hass. In Georgia, the Environmental Protection Division Project WET program coordinates this program and provides copies of the Teacher's Guide to help teachers get students outdoors connecting to their own rivers, lakes, creeks, backyard and schoolyard ponds. The culmination of the studies results in a student submission of art or poetry to the national contest. Georgia has had two National Grand Prize winners which is exceptional when you consider that only 8 are chosen to represent 4 art and 4 poetry age categories yearly. In 1997 a kindergarten student, Emily Forbes, received a trip to Washington DC and was honored with her family at the Library of Congress. This year Rebecca Givens, an 11th grade student at Chamblee High school, received the National Grand Prize for her poem, "Letter to the Architect". 7 other students in Georgia received National recognition for their work and the *Georgia River of Words Project* was honored as an outstanding program and as a model for other states at the Awards program at

the Library of Congress. The Georgia "River of Words" Project selects state winners and their work along with the national recipients will travel statewide in a river display format so that others can have an opportunity to learn from these talented students and share their hopes and dreams for the precious waters of our planet. For more information on the Georgia River of Words Project, please contact Petey Giroux, Project WET - 404-651-9998)

Letter to the Architect

Not even you can keep me from
mentioning the fish, their beauty of
scaled brevity, their clipped-swishing
tails funneling in everything animal.
Wintertime when I saw them, their
pursed old ladies' mouths, gaping under
pooled clarity to share some gulled-up gossip.
Their bones, pure equilateral, poked stripes
at base and height, bereft of architects' errors
or human compensation. I remembered then
your last letter; you wrote you couldn't cut
another mitre, solder another joint, peel
another bit of glue from between your fingertips.
I'm going to crack soon, you said.
There must be some way to perfection
in this grasping for centimeters. The stick
will stay straight, the model be done,
done beautifully and done well someday.
I wrote back-I only know the cod with their
paling rib bones, their geometry unwarped by cold
I know their tunnels dug frost-time underwater,
their crossings of snowflake symmetry. When
the thaws come, their finned bodies filter
the halfway ice like clean spectra.
You must know-the sight is exquisite.
If only I could give the gift of fish-making
in as many words as this.
Rebecca Givens

Rebecca Givens was a national finalist in Georgia last year for her poem, "River Histories". Other national finalists in Georgia in the art category are: Laura Badovinac, grade 7 from Marietta, Georgia for her entry, "Water World", Amanda Cardell, grade 6 from Kennesaw, Georgia for her entry "Project River", Alicea Glover, grade 4 from Marietta, Georgia for her entry, "Peace", Breanna Mosley, grade 3 from Kennesaw, Georgia, Simon Li, grade 10 from Tiger, Georgia and Sabrina Smith, grade 8 from Hephzibah, Georgia. Then national poetry finalist for Georgia is Cody Lowe grade 1, from Lithonia, Georgia.

Watershed Planning and Monitoring Program (WPMP)

The Branch completed the compilation of the Section 303(d) Listing of Waterbodies Not Fully Supporting Uses, as required by the Clean Water Act, and submitted the list to the USEPA Region IV on April 1, 1998. The Section 303(d) List submitted was finalized upon completion

and incorporation of comments received during Public Notice period. We begin our re-evaluation of 120 303(d) listed sites at a rate of about 40 per year to determine if the sites have impaired biota. They were impaired a few years ago (as determined through a fish IBI study) and listed on 303(d). Now, due to the TMDL lawsuit in effect here in GA, we have to re-evaluate these sites (fish, invertebrates, habitat assessment, water samples, etc.) and determine for each one if a TMDL is needed.

Five of the approximately 120 sites placed on the 1996 and 1998 303(d) list due to impaired fish communities were given preliminary re-evaluation in April to determine if these fish communities are still impaired. This is the first step in the total daily maximum load (TMDL) process for these sites.

The task of processing phosphorus calibration results was completed for the Chattahoochee River Modeling Project. Work continues to calibrate dissolved oxygen and fecal coliform. Procedures were developed for defining tributary water quality inputs in the critical conditions model and development of specific critical water quality conditions for tributaries for both wet and dry weather was initiated.

WPMP associates provided a presentation on River Basin Management Planning for the Greater Okefenokee Landowners Association on April 21. The presentation was jointly done with a representative of the Suwannee River Water Management District. The presentation included a discussion of the Suwannee River Alliance, an informal group of State (Georgia and Florida) and Federal agencies who meet to discuss issues of importance to the Suwannee and work cooperatively to implement river basin planning.

Associates of the WPMP attended four scheduled Public Participation Meetings for the Lake Allatoona Clean Lakes Phase 1 Diagnostic Feasibility Study and Interim Draft Report. The meeting were being conducted by the A. L. Burruss Institute of Public Service of Kennesaw State University in their capacity as study contractor. Comments and input received from these meetings will be compiled and appended to the Final Draft Allatoona Report that will be submitted to the GAEPD and the USEPA for final approval. The meetings were held in Cartersville, Kennesaw, Canton and Cumming.

Associates of the WPMP met with TVA staff and Dr. James E. Kundell of the Carl Vinson Institute of Government of the University of Georgia on April 17 in Chattanooga Tennessee. The TVA was contracted by the GAEPD to produce a current Geographic Information System (GIS) land use ARC INFO database on the major portion of the Chattahoochee River mainstem watershed to Lake Lanier. Infra-Red aerial photography was conducted on the entire Lake Lanier Watershed and used by the TVA staff to update the existing USGS Ortho digital map files, some of which had not been updated for more than 20 years. The TVA submitted their Draft Report, maps and electronic files to EPD staff at the meeting and initial findings were discussed.

WPMP associates attended and participated in a meeting sponsored by EPA, Region IV in Athens for states to get together and discuss field monitoring issues and quality assurance/control issues.

Fish Tissue Data was released to the public in both the fishing regulations and the Guidelines for Eating Fish from Georgia Waters Booklet at the end of March. Both the Hercules and LCP Studies data was also released in the two publications. The UGA Lab is already done with this years fish samples and the State Lab should be done in mid-summer. We are 6 months ahead of schedule this year. The Fish Tissue Study Plan for collection this Fall 1998 is being put together now with input from Fisheries. This years study plan should be as big as last years because we still have the support of the State and UGA labs.

Dr. Randy Manning and Shannon Winsness will present a talk at the meeting this fall on the Georgia Fish Tissue Projects.

The Coastal Monitoring Project is well under way. The first run was completed the week of 3/23-27/97 and the second run is scheduled for the first week of June. Two additional runs are scheduled for August and October. Water and sediment samples are being collected from a number of preselected sites, with the assistance of the Coastal Resources Division.

The Ambient Monitoring Unit hosted a ecoregion delineation meeting with Jim Omernik (EPA) and Jim Griffith (NRCS) in February. The meeting was attended by representatives of several of the Region IV states, EPA and other Federal agencies. The Georgia Ecoregion map should be complete later this year with suggested reference sites provided. Then the hard work begins to select additional reference sites and sample them all in accordance with the efforts of the other Region IV states to make reference site selection and sampling consistent.

Kentucky News

Ecological Support Section

The good news/bad news: For those of you who haven't heard, Karen Smathers has left the Division of Water for a new job as Environmental Coordinator at the Dept. of Transportation (that's the bad news). Basically she is doing everything that has anything to do with DOT and the environment in her district. Now the good news: her new name is **Karen Mynhier**, and the reason she left Frankfort was to be with her new husband **Darwin**. She's happy to be "back home," but was sad to leave and we miss her!

We have a new employee, **Mike "Stretch" Compton**. He will be taking over some of the ichthyology duties that Karen left behind. Mike got his master's degree at Eastern Kentucky University and can do both fish and macroinvertebrate work, so he will fit right in.

We are going to start sampling for the Watershed Biological Monitoring of the Kentucky River Basin in June. We will be collecting fish, macroinvertebrates and algae at approximately 50 mostly 4th order stream sites in the watershed.

Morgan Jones just returned from giving his paper in Alaska, and Skip Call will be back soon from Alaska. He is there with Dave Penrose, Mike Barbour, et al, helping them with their macroinvertebrate sampling. Hopefully they will have pictures to show the rest of us who had to stay here in the lower 48!

Standards and Specifications Section:

The SSS is going to collect macroinvertebrate samples at 50 randomly selected "probabilistic" sites for the Watershed Monitoring. They have also committed to several new water quality sites in the basin that will be collected monthly. Two district offices will help in the collections. It took a lot of planning and coordination to accomplish this. GIS was a great tool for us in this effort. The sites were selected to target: agricultural, logging, urban, and mining impacts, and some "least impacted" sites were added for comparison. The water quality sampling began this month and the biological sampling will commence as soon as everyone comes back from NABS.

The 305(b) almost got done by the deadline!!!

Nonpoint Source Section

During April 1998 the Nonpoint Source Section hosted the **Applied Fluvial Geomorphology Short Course** taught by **Dave Rosgen**, Wildland Hydrology, at Cumberland Falls State Resort Park. This training included learning about geomorphology and the role of rivers, river behavior, prediction of hydrologic characteristics, sedimentation, and stream classification and restoration, as well as many other interesting topics. This short course was attended by personnel from the Division of Water, Kentucky Department of Fish and Wildlife

Resources, U.S. Office of Surface Mining, Kentucky State Nature Preserves Commission, U.S. E.P.A., N.R.C.S., U.S. C.O.E., Kentucky Division of Conservation, Kentucky Transportation Cabinet, Kentucky Division of Forestry, Georgia EPA, Eastern Kentucky University, and the University of Louisville. It is hoped that all of the participants will be able to use some of the techniques and ideas learned during this short course to protect water quality. For more information on feedback about this course, contact Margi Jones at 502/564-3410 or email jones_m@nrdep.nr.state.ky.us.

The **1998 Kentucky Nonpoint Source Conference** will be held September 29-October 1, 1998 at The Center for Rural Development in Somerset, Kentucky. Sponsored by the Kentucky Division of Water and the University of Kentucky Water Resources Research Institute, this year's conference will feature presentations, workshops, exhibits, and field trips focusing on nonpoint source pollution control to protect our streams and groundwater in Kentucky. For additional information contact Geaunita Caylor at 606/257-2820, or email gcaylor@engr.uky.edu.

Finally, we are targeting 319 assessment monitoring funds to supplement the state watershed/river basin approach to monitoring. In the future, as our watershed demonstration projects are closed out, we hope to transition our biologists into the watershed monitoring approach.

Toxicity Testing Section:

The Tox Trailer (and crew) just returned from Buckhorn Lake "the middle of nowhere" according to **Betty Beshoar**. They tested four permitted facilities and a few unpermitted ones in the Kentucky River Watershed. The rest of their testing will also be done in the watershed (we're all in it together) but since it is so close, they will be doing it from the lab here. That makes those 9 day sessions a little easier! **Charlie Roth** is busy preparing his presentation for the SETAC meeting.

Water Quality Certification Section:

The second set of biological data was collected in May for the 401 Program's 1997 FFY Wetland Grant project. The purpose of this study is to evaluate the impact of gravel dredging on biological communities, to examine stream geomorphology, and to measure changes in sediment transport as a result of dredging. The project area is Buck Creek in Pulaski / Lincoln Counties, Kentucky, and the project is being conducted in conjunction with the University of Louisville, Western Kentucky University, and the University of Kentucky Water Resources and Research Institute.

MISSISSIPPI HAPPENINGS

Summer is nearly upon us and that means biomonitoring. As we reported in the last newsletter, we have begun to sample our sites for this years whole basin studies. Three of our smaller basins, the Tennessee River and Northern Independent basins in the northern and northeastern portions of the state, and the Southern Coastal Streams Basin down south. If there are states (like Tennessee and/or Alabama) that plan to sample in these basins during the summer or have some reference sites in the ecoregions which compose them, we'd sure like to work with you. We are making our first sampling runs as you read this. CALL US!

Pascagoula River Basin Study

This was the first Whole Basin study done by our Agency, and benthics were collected from 80 sites. All identifications have been completed, and we are in the process of ranking the sites and making Use-support Designations. Fish were also collected from 30 sites, sediments from 10, and algal samples from 15 sites for chlorophyll analysis. All analyses are soon to be completed, and a report should follow after all data have been reviewed.

Fecal Coliform Monitoring in the St. Martin Bayou Area

South Regional Biologist Barb Viskup reports that the monitoring of the residential areas adjacent to St. Martin Bayou on the Gulf Coast continues on schedule. Numbers of fecal coliforms continue to be extremely high in some of the unsewered areas.

Mercury Study

All analyses have been completed and we are in the process of evaluating data. Additional advisories are anticipated.

Leaf and Escatawpa River Dioxin Study

Our monitoring of the fisheries on both the Leaf and Escatawpa rivers continues, but a much lesser level of effort. Fisheries Biologist Al Gibson reports that fish from the Escatawpa River remain to be sampled in order to complete this years commitment to the project.

ENVIRONMENTAL IMPACT STATEMENT ON PROPOSED LIGNITE MINE IN CHOCTAW COUNTY.

Matt Hicks and Mike Beiser have worked with TVA Biologists in the collecting of data for an EIS concerning a lignite mine and power plant in northeast Mississippi. The Draft EIS has been made available for comments, and the comment period has ended. We are awaiting the final EIS.

PCB Contamination on the Yockanookany River

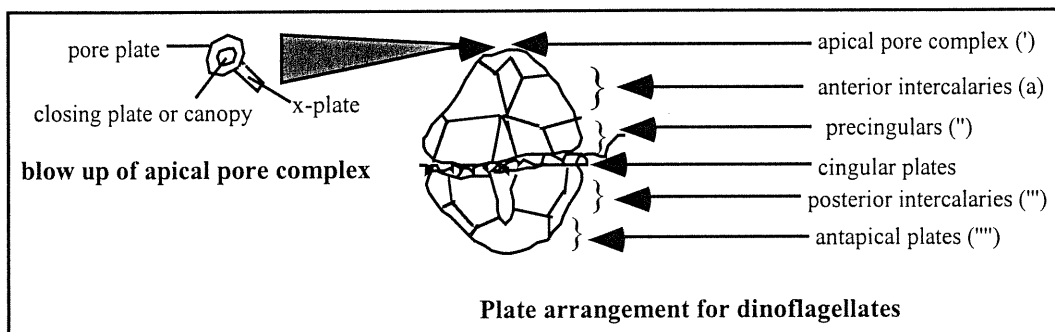
We are in the process of reevaluating the PCB advisory on this watercourse. Samples have been collected from two of four proposed sites within the advisory area. No other information is available.

NORTH CAROLINA

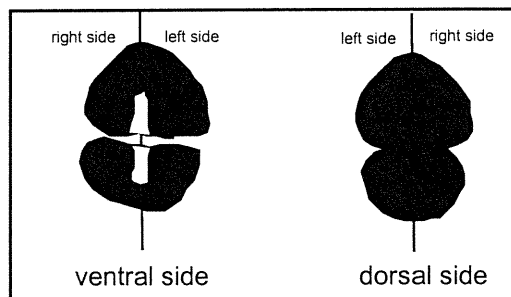
ECOSYSTEMS UNIT

The week of April 27 through May 1, Elizabeth Fensin and I (Karen Lynch) attended a *Pfiesteria* identification course, along with other biologists from the eastern U.S. The course was taught by Dr. Karen Steidinger, of the Department of Environmental Protection in St. Petersburg Florida and sponsored by the Center for Disease Control in Atlanta. This course was very beneficial and is highly recommended and will likely be offered again in July 1998. A summary of information derived from the course follows.

Dinoflagellates are classified as protists (somewhere between plants and animals). The most toxic forms of dinoflagellates are photosynthetic (autotrophic) although dinoflagellates can also be heterotrophic, preying on other food sources such as algae or bacteria. Dinoflagellates are either armored (containing plates) or unarmored but the distinction between these two is often hazy. Armored dinoflagellates are identified by the arrangement, position and shape of the thecal plates covering the cells. The sequence of plates is referred to as Kofoidian nomenclature. These plates are counted on a scanning electron microscope which is critical for precise identification of the small *Pfiesteria*-like dinoflagellates. The SEM procedure is expensive, time consuming and labor intensive. Outer membranes must first be stripped to reveal thecal plates and the cells need to be fixed with Osmium Tetroxide. The following diagram (below) illustrates the location of plates.



When viewing a dinoflagellate, from the ventral side (as pictured below with the sulcus visible), the plates are numbered from left to right, and in a counter-clockwise direction when a dinoflagellate is viewed from above. The apical pore complex, located at the top of the dinoflagellate is a diagnostic feature and may be comprised of three parts, the pore plate, closing plate (canopy) and a canal plate, pictured above at left.



Dinoflagellates have greater variability in plates in the top half of the cell (epitheca), rather than in the lower half (hypotheca). The number and placement of the anterior intercalaries in the epitheca are important since they help to separate out dinoflagellate genera. Displacement of a dinoflagellate's girdle (cinched mid region) also helps to differentiate dinoflagellate species.

While conducting surveys for *Pfiesteria*, many new heterotrophic dinoflagellates have been discovered. These small dinoflagellates have likely been around for a long time but have gone unnoticed because of their small size and cryptic behavior. There are eleven species of *Pfiesteria*-like or morphologically similar species of *Pfiesteria* currently known. All of these except for *P. piscicida* and *Gyrodinium galatheanum* are newly discovered species. Many dinoflagellates are so new and little is known about them except that their plate structure is different. Many dinoflagellates have yet to be assigned to genera and they therefore have 'nicknames'. The following notes are listed for dinoflagellates that look like *Pfiesteria*.

***Cryptoperidiniopsis* sp.** - has been found in episodes of fish with lesions in the St. John's River in Florida, found in NC and in active fish kill areas of the Pocomoke River, MD; has a 'P' shaped apical pore. Girdle is displaced up to two widths. Name is not yet official but it is in the process of being formally named.

Gladys - has same Kofoidoin plate configuration as *P. piscicida*, therefore is a *Pfiesteria* sp. Appearance is similar to *Pfiesteria* but Gladys has a more pinched cingulum; the epitheca exceeds the hypotheca and the hypocone is bilobed. Trailing flagella is fused. Found in a lady's (lady was named Gladys!) tropical aquarium in Florida. This is a toxic species which kills fish. This is the only known occurrence of this specific organism.

Gyrodinium galatheanum - mildly toxic, takes many cells to cause fish mortality, mostly found in fish farms, implicated in a red drum kill in TX, also found in one fish kill in MD along with other dinoflagellates. This species contains chloroplasts, unlike *Pfiesteria*. Formerly identified in the Chesapeake as *Gyrodinium estuariale*.

Lucy - like *Pfiesteria*, but contains two diamond shaped anterior intercalaries (hence the name Lucy - in the sky w/ diamonds)

Pfiesteria piscicida - found in NC, MD, confirmed fish killer, toxic

Shepherd's Crook - found in active fish kill areas of the Pocomoke River, toxicity unconfirmed, apical pore complex looks like a shepherds staff. May be a new genus.

Saltan sea - this is a hyper saline *Pfiesteria*-like sp found in a hyper saline lake near San Diego CA.

Yashmak - very new discovery, found in the Yashmak River, Maryland.

BIOLOGICAL ASSESSMENT UNIT

Since December, the Biological Assessment Unit has been writing five basin assessment reports, planning the sampling of two basins this spring and summer and begun the fish community sampling. The Basin Assessment Reports for the Broad River basin, the Lumber River basin, and the Tar River basin have been completed. The Catawba River basin and the French Broad River basin reports should be completed within a few months. The Cape Fear and New River basins will be sampled this year. El Nino rains hit North Carolina this winter, as it did elsewhere, but the benthos group still managed to collect data from about 60 sites in the Cape Fear River basin, where slate belt and Triassic basin streams may stop flowing during drought periods. This was the second round of basin sampling for the Cape Fear basin, so these winter

samples will be compared to the winter samples taken five years ago. Regular benthos sampling for the basin will be done in July and August.

The benthos group also sampled more than 10 swamp reference streams as the start of an effort to evaluate year to year changes in swamp reference sites, and to evaluate whether the draft swamp criteria that we are now using, will indeed indicate high water quality for these reference sites.

A special study of urban streams in the Chapel Hill area was conducted to repeat a study done in 1993. The town has been working to improve water quality, but benthos results indicated little change in water quality since the first study.

The fish group has begun sampling the Cape Fear River basin, and has sampled about 40 IBI sites since the beginning of April. Changes in the IBI metrics are continuing as more data is gathered. Fish tissue sampling has also begun.

The issues surrounding the impaired streams list (303d) has engulfed us as well. We have begun plans to resample all 400+ streams on our list in conjunction with basin sampling. This will probably involve chemical sampling as well as biological sampling.

AQUATIC TOXICOLOGY UNIT

As of the first quarter of the 97-98 federal year, the Unit has performed 6 acute and 19 chronic effluent toxicity tests, 16 quality assurance tests, 6 contract laboratory related tests, and 2 ambient chronic tests. During the same period, the Unit reviewed 673 NPDES WET toxicity reports, generated 66 NOV's for WET noncompliance, 4 NOV's for failure to report or report late WET results, reviewed issuance or re-issuance of 30 permits with WET, reviewed and responded to 6 TIE/TRE plans and/or activity reports, reviewed 4 biocide use applications, and completed 1 biological laboratory inspection, among other activities.

The Unit has updated the Division of Water Quality's chronic *Ceriodaphnia* procedures and Biological Laboratory Certification Criteria/Procedures document. Some of the revisions reflect changes in the third edition of *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms*. The most important change is the adoption of the IC₂₅ as the endpoint for chronic reference toxicant tests. Anyone interested in receiving the final versions of the documents should contact Matt Matthews at (919) 733-2136 or email <matt_matthews@h2o.enr.state.nc.us>.

Six members of the Unit (Chuck Olson, John Giorgino, Melissa Rosebrock, Sandy Mort, Kevin Bowden, Kristie Robeson) attended the SETAC Whole Effluent Toxicity Training course presented April 16-17 in Raleigh. The course was presented by SETAC through the Carolinas SETAC Chapter. The course is an overview of all aspects of WET testing, including permitting, test methods, quality assurance, and TIE/TRE issues. The course instructors included Larry Ausley and Matt Matthews of NC DWQ. The course has since been given in May in Oxford, Mississippi. If you are interested in bringing the course to your state, call Barbara Albrecht in the SETAC office at (850) 469-1500.

SOUTH CAROLINA

South Carolina Department of Health and Environmental Control

Reorganization

The smallest organizational unit at SCDHEC is a section and all of us involved with chemical monitoring, biological monitoring, and toxicity testing belonged to the Water Quality Monitoring Section since the early 1970's. Because of the growing number of staff and increasing demands on the toxicity program the Water Quality Monitoring Section was recently divided into two sections. The staff primarily involved with toxicity testing and chemical monitoring retained the Water Quality Monitoring Section title while those primarily involved with biological monitoring are now in the Aquatic Biology Section. David Graves is the new section manager of the Water Quality Monitoring Section. David was involved in the toxicity program for several years before moving into enforcement and thus brings a wealth of experience to the section. Butch Younginer is now the section manager for the Aquatic Biology Section. While there are now two sections we are all still housed in the same building and will continue to interact and many projects will undoubtedly overlap.

In addition to David we have two new staff members to join our sections. Lisa Ruth is a part time employ charged with completing the final phase of the Lake Wateree Project. Lisa received her B.S. from Clemson University in Aquiculture, Fisheries, and Wildlife and is working on her Masters Degree from the University of South Carolina in Environmental Health Sciences. Barrett Stone became part of the Water Quality Monitoring Section and will split his time between toxicity and assisting in reporting activities. Barrett received his B.S from Clemson in Wildlife Biology and is working on a masters degree at the University of South Carolina in Environmental Health Sciences.

Macroinvertebrate Group

We have finished our 1997 macroinvertebrate data analysis for the Saluda-Edisto basin and are looking forward to beginning our summer sampling for the Catawba-Santee and Pee Dee basins. Unfortunately, because of the tremendous amount of rain this winter, we were unable to sample our swamp streams which in the past have been done in February. We may try to pick them up in January of next year. We have been involved in a large number of special studies of late which have kept us fairly busy this year.

On a personal note, I have become a proud father of a baby girl. Augusta "Gussie" Devaughn Glover was born on 14 May 1998 (just beat the SWPBA newsletter deadline) at 9:30AM. She was 6 lbs. 7 oz. and was 18 inches long. Mother and baby are at home and doing great.

Jim Glover

Nonpoint Source

In addition to the ongoing projects in the Coneross Creek and Stevens Creek watersheds, monitoring has begun on a series of stream stabilization best management practices on Durbin Creek and Rocky Creek, Simpsonville, SC. Practices including, grading and reshaping of banks, riparian replanting, and the installation of geotextile, rip rap and a rock vortex wier have already been implemented among four sites. Because the projects are centrally located in an urban area, ease of accessibility by the public should make this project particularly valuable for demonstration purposes.

Also, in what seems to be a developing trend, two additional landfills were added to the roster of biological assessments performed this year. One-time sampling was conducted on Speeds Creek, in Seneca, and Big Creek, near Williamston, SC, for these projects.

Joe Napolitano

Fisheries

The Fisheries group has been collecting fish from the Pee Dee, Catawba-Wateree, and Santee basins for the past few months. SCDNR Marine Resources staff have been collecting Red Drum, Spotted Sea Trout, Southern Flounder, Mullet, and Spot from various sites along the coast and providing us with tissue samples each month. We will be processing these samples and including them in our monthly fish tissue quota. We will be collecting and tagging Mullet from our sample stations in Cooperation with SCDNR MRD in hopes of understanding the odd migration patterns of this species.

Chad Altman

Phycology Program

We have been quite busy formulating a response plan for possible toxic algae-related events in South Carolina coastal waters. The phenomenon of *Pfiesteria piscicida* and related species, of course, has especially prompted our planning process. Other toxic marine algae, such as "Red Tide," could potentially affect South Carolina waters in the future. A Task Group on Toxic Algae was formed in S. C. in 1997. Representatives from SCDHEC, S.C. Department of Natural Resources, S. C. Sea Grant Consortium, NOAA-Charleston Lab, USGS, Medical University of S. C., Clemson University, the University of S.C., and others have taken part in the planning process. An updated *Pfiesteria* Fact Sheet has also been released to the public. On May 5 a training session was conducted on *Pfiesteria* issues for DHEC and DNR personnel who will carry out the monitoring and response plan.

As an result of planning for monitoring and response to toxic algae, it was decided that the Fish Kill Investigation Program needed revising. Several members of the Aquatic Biology Section have been closely involved with this project. The goal is to get a more consistent set of procedures in use to investigate fish kills, be they in freshwater or salt. SCDHEC and SCDNR personnel will be working together more closely to carry out this program.

Other than the above projects, we have begun receiving our usual assortment of samples for phytoplankton and chlorophyll analyses. Here's hoping this is a quiet season for fish kills.

Jake Bickley

****Note-** All of our E-mail addresses have changed. The portion which was columb35 is now columb32. Contact- gloverjb@columb32.dhec.state.sc.us.

TENNESSEE

Departments of Agriculture, Environment and Conservation, and Health *News from the BEST**

** Biologist and Environmental Specialist Teams*

Environmental Assistance Centers (EAC)

All our EACs (formally known as Field Offices) are up and running. Tennessee citizens and citizens from neighboring states can make environmental inquires and complaints through Tennessee's Department of Environment and Conservation's toll free **1-888-891-TDEC** or 1-888-891-8332. And you get a real person on the phone! The support staff have been intensely trained so callers don't get bounced around from voice mail to voice mail. While it is anticipated that this system will improve our Customer Service, we hope it will also bean count all the work and effort performed by staff, that in the past was not counted. Each of you know how much time can be eaten up in phone calls.

Permit Reengineering - Standard Operating Procedures

Division staff and the Permit Reengineering Team members have nearly completed SOPs for six regulatory Divisions in TDEC. To date, 37 individual SOPs have been drafted and 16 have been reviewed and approved. This seems like an overwhelming task, but some of the formatting is repetitive. These will come in handy for training new employees. Once finalized, it is the Team's recommendation to make these available on the Web. Divisions, and examples of their SOPs are noted below:

1. Solid and Hazardous Waste - Modifications; Combustion; Treatment; Storage; Disposal permits
2. Radiological Health - X-ray and Certified Registration; Materials Licenses; Delivery permits
3. Water Supply - Safe Dams; Water Well Driller Licenses; Wellhead Protection Plans
4. Groundwater Protection - Septic Tank Pumping; Disposal Site; System Repair; Installer permits
5. Water Pollution Control - Storm Water; Mining; NPDES; Aquatic Resource Alteration permits
6. Air Pollution Control - Construction; PSD; Gasoline Dispensing; Source Operation permits.

Meetings, Meetings, Meetings - Watershed

During the Month of May, TDEC's Watershed Management Section met with stakeholders from the first group of watersheds (initiated in 1996) to discuss data findings. Next year, permits will be generated and synchronized within each Group 1, 8 digit HUC. Group 1 watersheds shared by neighboring states include Nonconnah (08010211), Ocoee (06020003), and the Watauga (06010103). The first public meetings for Group 3 watersheds will be initiated this Fall. This is the first introductory meeting just to let those stakeholders know we're coming. Shared watersheds with other states include the Wolf (08010210), TN Western Valley/Kentucky Lake (06040005), TN Western Valley/Beech (06040001), Little Tennessee (06010204) and the North Fork of the Holston(06010102).

Knoxville and Johnson City Environmental Assistance Centers

Johnathon Burr (Knoxville) and Tina Robinson (Johnson City) have been in contact with Virginia's Department of Environmental Quality in their search for additional reference sites in Ecoregion 67f. Southern Limestone/Dolomite Valleys and Low Rolling Hills. Ed Cumbow is the District Biologist for the Southwest area of VA.. VA has a lot of benthic data that was collected using RBP II and the associated metrics out of the 1989 manual. We hope to do some joint sampling on some shared streams. We would use TN's RBP III methodology and chemical scan and give the data to Ed.

David Hale (Johnson City) will be attending the Dr. Morse's Summer EPT course at the Highlands Biological Station in NC. He has been warned that this is not a crib course. After lecture and field work all day, he'll be ID-ing all night; as many of you have done.

Ecoregion Project

Thank You Florida! You provided a nice template for development of Tennessee's stream index, classification, and bioassessment. We are reviewing our report now even as I type. Be forewarned that Dr. Michael Barbour and Jeffrey White had only one year of data (Spring and Fall) to work with. Miracle workers that they are, they were able to give us some direction as to planning our future collections and filling in data gaps. Like Florida, we plan to collect 3 years of data, both Spring and Fall, for final analysis. Based on this plan, our last collection would occur Spring of 1999. We know we needed additional reference sites. Rather than do a statewide scatter gun approach again to find good stations, we plan to incorporate our search into the Watershed Approach. Many EAC's will be using BioRecon (as per the 1997 Revision to RBPs) to quickly assess streams in a watershed. Biologically impacted sites will be chemically sampled. Sites that appear to be equal or better than our current reference streams can be tagged for future RBP III sampling. By concentrating our efforts within a watershed, we can ground truth more area. It will take us 5 years to cover the whole state, but it will be a thorough search. The proposed 7 core metrics are: **# Total Taxa; # EPT Taxa; % EPT; % Chironomids; % tolerant organisms; NCBI; and % Clingers**. Remember! Proposed means subject to change! These metrics seem to work well with our current Single Habitat Approach. However, this Fall we are proposing to change to the Multihabitat Approach (as per the 1997 Revision to RBP's). This method would allow us to utilize all our habitats and minimize training since basically it is a more intense BioRecon. We anticipate higher numbers in Total Taxa and EPT at our sites over the Single Habitat Approach. For consistency and high quality assurance, the TDH, Environmental Laboratories, Aquatic Biology Section will continue to process all Ecoregion Reference sites statewide. Lab's dedication to time consuming Sample Processing and Identification is very much appreciated. Their efforts allow EAC's biologists to handle other job responsibilities. The combined efforts of the Aquatic Biology Section and the EAC staff made the Ecoregion Project possible!!!!

The Nonpoint Source Program

According to Greg Upham, Manager, it is very important for the NPS Program to join as many watershed initiative technical committees as possible. With many of the water quality agencies being reduced in staffing, it is imperative that all agencies depend on partnering with one another to create a far better chance of being successful in water quality endeavors. Even though several of the present watershed initiatives are outside of the Program's 13 priority watersheds, Greg and his staff want to responsibly provide the best assistance they can towards these efforts. Currently the Program manages about 58 active projects. Forty seven projects have been completely resulting in a total of 105 projects since 1988. The Program funds a variety of projects such as instream education, storm sewer stenciling, urban runoff workshops, demonstration projects, and erosion control practices. The Program offers a free manual titled Reducing Nonpoint Source Water Pollution By Preventing Soil Erosion and Controlling Sediment on Construction Sites. For a copy, contact the Program at (615) 837-5490.

That's All Folks!

ATTENTION!! ATTENTION!! WE NEED SOME FEEDBACK!!

We have spent a lot of time mulling over the events for this year's annual meeting. Based on our observations over the past few years and some comments made by various SWPBA members, the annual meeting might need a bit of a "facelift". We want to bring the proposed changes to your attention and hope folks will give us some feedback (positive or negative). It is our goal to design the annual meeting in such a way that meets the membership's needs.

On the following page you will find a questionnaire concerning the proposed changes to the annual meeting. Please take a few moments to fill it out. Remove the questionnaire from the newsletter and return it to Trish Foster by July 31, 1998.

As many of you know already, the state overviews will be presented in written form this year. Each state should provide their state overview in text format by September 30, 1998. The overviews will be incorporated into the conference notebook each participant receives at the meeting.

Another change to the usual format we are introducing is the Wednesday afternoon workshops. Most of the workshops will take place in the field. There is so much to take advantage of in the great outdoors around Helen, Georgia. We are asking each participant to reserve a space in the workshop he/she would like to attend. The workshops are free but space will be limited so pre-register as soon as possible. The workshops will be excellent training opportunities for participants.

The workshops will run concurrently so you must choose one. We will also ask you to select a second option in case the first workshop you chose is full. Listed below are the workshops we plan to offer. If you have another suggestion/idea of a workshop that has not been listed, please mention it on the questionnaire. The proposed classes are:

- Guided tour of the Georgia Department of Natural Resources Lake Burton Fish Hatchery led by fisheries biologist Lee Keefer.
- * Tour through a multi-agency 319 nonpoint source demonstration project on a portion of the Dukes Creek watershed. Dukes Creek, classified as a primary trout stream, has been affected by massive sediment runoff from Forest Service Road 244 over the years. Due to the recreational interests in this watershed, approximately 500,000 visitors use FS road 244 on a yearly basis. Less than a mile downstream of the restoration site is the Dukes Creek Conservation area, a highly visible educational center and conservation area serving 13 counties. The goal of the project is to restore 1.8 miles of this road which will have direct positive benefits from less sediment runoff. There will be indirect positive benefits to the remaining 6 miles of Duke's Creek before it enters the Chattahoochee River. Lead organizations are the Georgia Forestry Commission and US Forest Service.

- Explore the relationship of chemical, physical, and biological components of a stream to sediment. This applied workshop is comprised of two sections: Hydrology / Geomorphology Issues; and Biological /Chemical Issues. Bruce Pruitt and other USEPA Region IV biologists will lead this workshop. Much of the workshop will focus on techniques to measure sediment impacts used by USEPA Region IV in the Upper Chattahoochee River Reference Site and the Chattooga River TMDL studies.
- Meet EDAMS! A hands-on computer workshop using the database system called Ecological Data Applications and Management System. This is the new Access database system developed for state ecological data and is set up to run multimetric analyses.
- Can the states adopt a standard method for evaluating regional reference sites? Get into the stream and demonstrate your state's method for sampling macroinvertebrates. A representative from each state should participate in this workshop. Please bring waders and sampling net(s).
- Tour of Brasstown Bald area led by a US Forest Service Representative. This unique area of Georgia is the highest point in the state. Visit the Agriculture Museum and learn about the history and its fauna/flora. We will try to arrange a macroinvertebrate sampling exercise in the area.

The third idea we are proposing is a concurrent session on Thursday morning. At previous annual meetings, the Thursday morning moderated session has been reserved for presentations relating to toxicity testing. We feel that this topic is a very important one to cover. However, there are many members who would like to spend the Thursday morning session focusing on other topics of interest. To accommodate the membership's preferences we would like to try a concurrent session. At this time the other session will pertain to volunteer monitoring issues.

Overall, what do you think? Please send your comments in ASAP so we can work out the particulars.

Southeastern Water Pollution Biologists Association Annual Meeting
Proposed Changes to Agenda

Send comments by July 30, 1998 to: Trish Foster
4652 Shay Terrace
Buford, Georgia 30519

Name: _____

Address: _____

1. Do you have any objections to the state overviews being presented in written format?
_____ Yes/No If so, why?

2. Do you have any interest in attending the Wednesday afternoon workshops? _____ Yes/No

3. Do you have any objections to substituting applied workshops for paper presentations?
_____ Yes/No If so, why?

4. Based on the workshop topics previously listed, which workshop(s) interest you the most?

5. Do you have other workshop topics in mind? Please list your ideas.

6. As a workshop participant, would you like to drive your own vehicle or carpool in a van to the site where your workshop will be conducted?

7. Do you plan to attend the annual meeting on Thursday morning? _____ Yes/No

8. If you had to choose between the Toxicity Testing session or a session focusing on volunteer monitoring, which one would you attend? _____

9. Do you have any objections to attending a concurrent session on Thursday morning of the annual meeting?

10. Do you have any other ideas or changes you would like to see made to the annual meeting?

11. Comments
