

**MINUTES**  
**HARMFUL ALGAL BLOOM WORKGROUP**  
**July 12, 2007**  
**10:00 a.m. – 2:45 p.m.**

**Jack Williams Library**  
**Texas A&M University - Galveston**

Attending the meeting were Dave Sager, Meridith Byrd, David Lindsey, Winston Denton (TPWD), Lythia Metzmeier (TCEQ), Dewayne Hollin (Sea Grant), Darren Heinrichs (TAMU, student of Lisa Campbell), Richard Kiesling and Mike Turco (USGS.)

**Updates:**

Bloom Updates

No blooms have occurred recently. However, people who divert water from the Brazos River have called Winston concerned about *Prymnesium parvum* blooms. He usually refers callers to Liz Singhurst but does warn them of the regular blooms that occur during winter and spring.

Dewayne asked if anyone else thought that the rains might result in fish kills in dead-end canals. Winston and others agreed that fish kills might result from the high rains.

Suspected Case of Ciguatera Fish Poisoning

Late last month Meridith was contacted by Samantha River of the Escambia, FL County Health Department regarding some Texas residents who are suspected to have contracted Ciguatera Fish Poisoning from fish purchased and eaten in Pensacola. Tracy Villareal has contact information for the people and is following up with them.

ECOHAB Funding Announcement

The EPA is accepting proposals for its [ECOHAB program](#). Deadline is October 4.

Golden Alga Fact Card

Meridith and Liz have been working with TPWD's Creative Services Team to create a golden alga fact card in the same vein as the red tide card. The final draft was received Thursday, July 12 and the files were mailed to Chris Kolbe (TCEQ) so that TCEQ can have them printed.

Golden Alga State Wildlife Grant Pre-proposals

TPWD is now accepting pre-proposals for its SWG funding. Information can be found at the top of [TPWD's Golden Alga web page](#). An estimated \$250,000 to \$450,000 is available, depending on the amount of matching funds projects can acquire. Projects with matching funds are preferred. Two-year proposals can be submitted, however, the second year of a project's funding is dependent on the amount of money allotted by the state legislature. TPWD's Golden Alga Task Force has begun reviewing pre-proposals, so please submit yours soon.

### TPWD Golden Alga Workshop

TPWD hosted an international Golden Alga Researchers' Workshop in 2003 and plans are underway to host another one in the fall of 2008. Please e-mail [Dave Sager](#), [Liz Singhurst](#), or [Meridith Byrd](#) with your suggestions on any of the following topics:

- What should be included in the symposium?
- Should we only invite speakers or accept abstracts?
- We want to partner with a society in order to publish the proceedings. Suggestions?
- Also want to advertise in a scientific journal. Suggestions?
- Ideas for field trips, possibly to look at ongoing research.
- Possible use of some SWG money for funding. Maybe approach river authorities, others for additional funds?

### Coastal *P. parvum* Survey

Meridith secured some SWG money last year to survey Texas bays and estuaries for *P. parvum*, but the project was scaled down this year in favor of a full-scale survey next year. One problem is that TPWD's Analytical Services lab in San Marcos cannot perform real-time PCR for quantitative analysis at this time. They are working with researchers to improve the PCR technique. Right now only presence-absence results can be obtained. Another setback has been the regular rainfall. Meridith and Janet Nelson decided to do a one-time survey during the first week of April of the mouths of the Colorado and Brazos, since most of the problems occur along those rivers. Both rivers were flooded, so the water samples did not show much except some possible broken cells. The budget will be expanded for next year to allow an outside entity, such as Phycotech, to do the phytoplankton analysis. Hopefully by next year the rain will stop and all the bays can be surveyed. Lythia does quarterly *P. parvum* monitoring of the Brazos River at the Hwy 36 bridge and has offered to pick up extra samples if needed. Jack Davis and John Burch of the Brazos River Authority were also suggested as possible resources if we need assistance.

### Volunteer Red Tide Monitoring

Jeff Paternoster of NOAA's [Phytoplankton Monitoring Network](#) traveled to Texas on Friday, May 4 to hold 3 trainings in Lake Jackson, Rockport, and South Padre Island. Texas Master Naturalist chapters were approached for volunteers and asked to forward Meridith's introductory e-mail to anyone else who might be interested. 40 volunteers were trained over 2 days to identify about 2 dozen species of diatoms and dinoflagellates. Volunteers perform a 3-minute plankton tow, and then analyze a drop of water under a microscope. Suspicious or mysterious findings are photographed and sent to Dr. Steve Morton of PMN for quality control. If Dr. Morton suspects a bloom he asks volunteers to send him a water sample from the site. All expenses (shipping, equipment, etc) are picked up by NOAA. All sites are monitored at least bi-weekly.

Jeff Paternoster sent an update to Meridith including the following as of June 20:

- 27 sampling sites registered (from Pine Gully Pier on Galveston Bay to Boca Chica Beach)
- 19 sites have submitted data

- 50 data collections from TX have been published and are available for viewing on the [PMN's ArcIMS website](#)
- 1 training session was held (with 3 more are planned or in the works) to train additional volunteers
- 1 bloom has been reported: Chaetoceros in Christmas Bay
- 2 near blooms have been reported: Ceratium furca in Bastrop Bay and Asterionella at the Boca Chica Beach Access
- 4 samples have been sent in to the Charleston NOAA lab to be looked at with the Scanning Electron Microscope

Armand Bayou was suggested as an additional sampling site. Galveston Bay Estuary Program was mentioned as a source for volunteers, as was the Beaumont-area Texas Master Naturalist group. Meridith will get in touch with all of these.

#### Red Tide Fact Card

Meridith has distributed copies to coastal TPWD offices, Sea Grant, universities, chambers of commerce and tourism bureaus as well as Padre Island National Seashore. Additional copies are being kept in her office for distribution during the next bloom. Coastal birding trails, preserves, and National Wildlife Refuges were suggested as distribution points.

#### 4<sup>th</sup> U.S. HAB Symposium

The [4<sup>th</sup> Symposium of Harmful Algae in the U.S.](#) will be held October 29 – November 1 in Woods Hole, MA. Registration deadline is September 1.

#### Other Updates

Lythia informed the group that EPA's National Lakes Survey is occurring now through the fall. 25 Texas lakes are being surveyed and algal toxins (Microcystin, possibly others) are being looked at. A report is scheduled to come out in 2008. Richard noted that if archived samples are collected then they can be revisited if the sample turns up positive for Microcystin.

#### **Guest Speaker**

Richard Kiesling gave a talk entitled "Distribution of Microcystin, Geosmin, and MIB in Texas Source Water Reservoirs." Preliminary observations include that ambient microcystin is detectable in 7 of 30 reservoirs, that concentrations are below the WHO action level of 1µg/L, and that geosmin and MIB are found both alone and in conjunction with microcystin.

#### **Report from Brevetoxin Workshop**

UTMSI hosted an NIEHS Red Tide workshop in conjunction with its annual Texas Bays and Estuaries Meeting. Researchers from Florida and other states were invited to give presentations of their work. Highlights include:

- β-Naphthoyl Brevetoxin, a lab-created antitoxin, is FDA-approved for marine mammal poisoning and is a potential therapeutic for cystic fibrosis, NSP, and Ciguatera fish poisoning
- Placental transport of brevetoxin to the fetus as well as to maternal milk has been confirmed in mice.

- Brevenal (brevetoxin antagonist) and  $\beta$ -Naphthoyl Brevetoxin reversed the effects of brevetoxin inhalation in sheep.

### **TexHAB Group Goals**

Meridith asked to further the discussion from the March meeting regarding the group's goals. Dewayne suggested someone from the group do a general HAB presentation at the Clean Marina Program's yearly marina conference (2008, since the 2007 conference is already planned) including health issues, how to recognize blooms, why some waterbodies have issues and others do not, etc. He also offered to distribute the red tide and golden alga cards at this year's meeting.

Richard suggested the group strive to get some funding opportunities for HAB research (especially *Karenia* and cyanobacteria), possibly putting something before the state legislature. He described how, in the case of *Prymnesium*, a 7-8 page document was written up by a group of researchers outlining the research needs. This was instrumental in getting the legislature to provide research funds.

Dewayne expressed an interest in applied research and in TPWD's [Guidelines for Golden Alga \*Prymnesium parvum\* Management Options for Ponds and Small Reservoirs \(Public Waters\) in Texas](#).

Winston asked for an update on HABSOS, so Meridith will provide one at the next meeting.

### **Action Items**

1. Meridith will contact Armand Bayou, Galveston Bay Estuary Program, and the Beaumont-area Texas Master Naturalists to solicit participation in the PMN.
2. Meridith will compile a contact list of coastal birding trails, preserves, and National Wildlife Refuges to serve as additional distribution outlets for the red tide cards in the event of a bloom.

### **Next Meeting**

The next TexHAB meeting will be held Thursday, September 13. Meeting location TBD and suggestions are encouraged.