



Watershed Dynamics

Saturday, September 15

9 a.m. – 3 p.m.

Louisiana Tech, Ruston, La. & Redwine Creek, Grambling, La.

9:00 a.m.: 219 Reese Hall, 1201 Reese Dr., Ruston, La. (just south of W. California Ave [US80] on the LaTech South Campus)

1. Discussion of the hydrologic cycle: Precipitation, evapotranspiration, infiltration (and runoff), percolation, groundwater, and streamflow. Stormflow over time, and land use factors affecting it. About 1 hour.

2. Brief description of methods to measure streamflow and water quality, and why discharge (flow) dissolved oxygen, turbidity, temperature, phosphate, nitrate and nitrite, and ammonia are important. About 1 hour.

11:30 a.m.: Travel and Lunch

Dr. Patterson is going to try to arrange a couple of Tech vans to take us to the stream; however, it is likely some will need to drive.

12:15 p.m.: Redwine Creek, Grambling, La.

Measure discharge (streamflow), temperature, turbidity, dissolved oxygen, phosphate, nitrate + nitrite, and ammonia. Sample fish using castnet, dipnet, and seine. Identify fish and discuss their tolerance to pollution. Assess water quality results and relate to standards and land use and natural processes. About 2 to 3 hours.

3 p.m.: Conclusion w announcements (if any).

Special notes:

1. Dr. Bill Patterson, Associate Professor of Forest Soils and Watershed Management, is our workshop leader.

2. Bring chest waders or rubber boots if you have them. However, not everyone needs to get into the stream. Those who prefer can use dip nets and/or observe the plant and animal life along the stream banks.

3. Right now, Saturday the 15th is predicted to be partly cloudy with a high of 89 degrees and no rain. As usual, please plan for your own lunch needs and bring plenty of water.

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