

A. Center/Institute/Program

Hancock Biological Station and Watershed Studies Institute/Murray State University

Website: <http://www.murraystate.edu/hbs>

Hancock Biological Station
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Murray, KY 42701

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Director/Chairperson: Dr. David White
Representative to AERC: Dr. David White
Alternate: Dr. Susan Hendricks

B. Major objectives of the Center/Institute/Program

1. To improve the understanding of reservoir and aquatic ecosystems through inter- and multi-disciplinary and applied research, both long- and short-term.
2. To provide data base support, technical services and facilities to faculty, researchers and students interested in watershed and aquatic ecosystem science.
3. To promote and provide for the inter-disciplinary training of undergraduate and graduate students in reservoir and aquatic ecosystem science.

C. Major ecosystem research emphases

1. Reservoir ecosystems.
2. Agricultural and forested stream ecosystems.
3. Land Between the Lakes Ecosystem.
4. Wetlands

D. Staff

Permanent scientific staff: PhD: 19, MS: 5

Scientific support staff: Postdocs: 3, Technicians: 5

Other support staff: Clerical: 2, Administrative: 2, Editorial: 1, Database: 2

Graduate students: PhD: 1, MS: 7

Undergraduate researchers (grant supported): 10

Summer undergraduates: 35

E. Approximate annual funding (recent year)

Core funding: \$670,000/yr, Source: Commonwealth of Kentucky

Grants: \$1,500,000/yr, Major sources: EPA, NSF, NASA, DOE, Commonwealth of Kentucky

F. Areas and facilities for ecosystem research studies

Hancock Biological Station, Mid-America Remote Sensing Center, Chemical Services Laboratory, Kentucky Lake and Western Kentucky.

G. Research staff directly involved in ecosystem research (names and specialty areas)

Benson, James - database management
Cobb, Steve - physics
Flinn, Michael – aquatic invertebrates
Fox, Jimmy - hydrology
Fryar, Alan - hydrology
Fuller, Claire - host-parasite relationships
Hendricks, Susan - stream and wetland ecology, hyporheic processes
Johnston, Karla - laboratory operations, database development
Johnston, Tim - microbiology, microbial ecology
Kipphut, George - aquatic geochemistry, physical limnology
Levine, Todd – aquatic invertebrates
Loganathan, Bommanna - organic chemistry, toxicology
Ratliff, Judy - metals chemistry
Rice, Gary - field operations
Sluss, Tamara – zooplankton
Timmons, Tom - fisheries biology
White, David - stream ecology, limnology
Whiteman, Howard - ecology, amphibians
Williamson, Matt - database management

H. Long-term data sets (code name, number of years of data, computer accessibility)

1. Kentucky Lake, long-term monitoring program, 16-day interval (water chemistry, biota) since 1988, Oracle database.
2. Kentucky Lake, Geographic Information System, layers include topography, geology, soils, land use, hydrology, water chemistry, Landsat, since 1988, Oracle database.
3. Plant distributions, Purchase Area Herbarium and HBS Herbarium since 1954, Oracle database.
4. Four Rivers database (water chemistry, biota) since 1998, Oracle database.
5. Kentucky Lake real time lake and weather databases, 15-minute interval since 2005, downloadable at <http://www.murraystate.edu/qacd/cos/hbs/hbs.htm>