Bull Shoals Field Station (BSFS)

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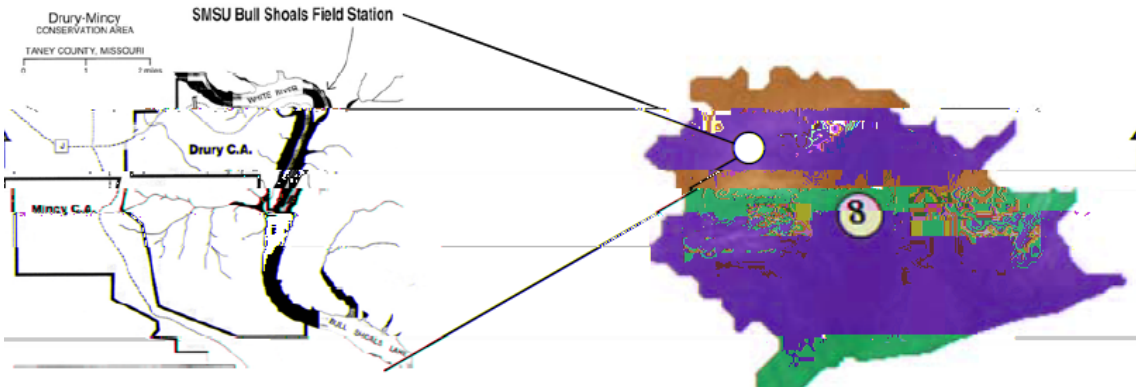
Web Page: http://www.bullshoals.missouristate.edu/

Location within Domain: 36.5718 N, -93.0572 W



History: The Bull Shoals Field Station (BSFS) began operations in spring 1999, and exists under a cooperative agreement between Missouri State University, the Missouri Department of Conservation (MDC), who manages the Drury Conservation Area, and the U.S. Army Corps of Engineers (COE), who owns the land adjacent to Bull Shoals Lake where the portions of the station are located. Long term monitoring on amphibians, reptiles, birds, mammals, plants, water quality, and weather was established in 1999.

Key Characteristics: Bull Shoals Lake is a large reservoir, encompassing 18,210 ha (used for flood control and power generation) on the border of Missouri and Arkansas. The area's climate is continental, with long hot summers and short cold winters. This area receives the least rainfall among the recommended domain sites (109 cm). The landscape is typical of the White River Glade Region of the Ozark Mountains, with steep hills of oak-hickory and post-oak savanna.. The karst topography has many caves, sinks, and springs with extensive bluestem balds (dolomite glades). This represents geology markedly different from other domain locations. Fire suppression in the late 19th century has led to the invasion of a variety of firesensitive woody species, resulting in a closed canopy and invasion by red cedar. The adjacent Drury-Mincy Conservation Area also includes two permanent streams and 20 permanent ponds. Ecological research themes related to fire, drought, warming, and invasive species are relevant here. To best serve the ecological research themes, the relocatable unit for this site should include at a minimum advanced met instruments, radiometric measurements, soil sensors, flux instrumentation, unless already on-site

Existing Infrastructure: Member of Organization of Biological Field Stations (OBFS) and the Terrestrial Ecosystem Monitoring Sites. There is an established K-12 science education partnership, with workshops for students and for teachers offered regularly. A permanent weather station is located on site and weekly monitoring of water quality on the lake (reservoir) and real-time monitoring in some ponds.

Facilities: Two on-site structures provide housing and field laboratories. One runs on solar power with generator back-up. The other is on the electrical grid. Satellite internet access is available on-site. An additional classroom building has recently been added. Several boats and vehicles are maintained by the Field Station. Modern laboratories are within 88 km at Missouri State University; year round road access throughout the 2266 ha; approximately half of the area is secured with limited public access.